Appendix A
PDI Chemistry Data

PDI Evaluation Report

Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling

Portland Harbor Superfund Site
Portland, Oregon

AECOM Project Number: 60566335
Geosyntec Project Number: PNG0767A

June 17, 2019

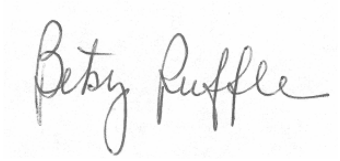
Prepared by:

AECOM

Geosyntec consultants

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



June 17, 2019

Betsy Ruffle
PDI Project Coordinator
AECOM Technical Services

Date

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LIST OF EXHIBITS

ACRONYMS AND ABBREVIATIONS

AECOM	AECOM Technical Services
ALS	ALS Environmental
ARI	Analytical Resources Inc.
CR	Change Request
DVA	Data Validation Assistant
DVR	data validation report
D/U Reach	Downtown/Upriver Reach
EDD	electronic data deliverables
EPA	Environmental Protection Agency
GIS	Geographic information system
MS	Microsoft
Pre-RD AOC Group	Pre-Remedial Design Agreement and Order on Consent Group
PCB	polychlorinated biphenyl
PDF	portable document format
PDI	Pre-Remedial Design Investigation
QAPP	Quality Assurance Project Plan
RM	river mile
ROD	Record of Decision
SDG	Sample Delivery Group
Site	Portland Harbor Superfund Site
UJ	not detected qualifier

1. INTRODUCTION

The Pre-Remedial Design Agreement and Order on Consent Group (Pre-RD AOC Group) for the Portland Harbor Superfund Site (Site) in Portland, Oregon, has developed and implemented a Pre-Remedial Design Investigation (PDI) for the Site. The Site Record of Decision (ROD) (United States Environmental Protection Agency [EPA] 2017) described a post-ROD sampling effort for the Site to delineate and better refine the sediment management area footprints, refine the Conceptual Site Model, determine baseline conditions, and support remedial design. The PDI studies were conducted by the Pre-RD AOC Group pursuant to a PDI Work Plan (Geosyntec Consultants, Inc. [Geosyntec] 2017) as a foundational step to update current conditions since collection of data during the remedial investigation/feasibility study.

The Site is located on a 10-mile stretch of the lower Willamette River from river mile (RM) 1.9 upstream to RM 11.8. The Site covers approximately 2,200 acres[1] of an active industrial, commercial, and urbanized harbor and is located immediately downstream of the urban downtown. There are two reaches located immediately upstream of the Site. The Downtown Reach, which includes the urbanized area of downtown Portland, is defined by EPA as extending from RM 11.8 to RM 16.6. EPA defines the Upriver Reach as extending from RM 16.6 to RM 28.4. Collectively, RM 11.8 to RM 28.4 is referred to as the Downtown/Upriver Reach (D/U Reach).

1.1 Chemistry Analysis Overview

Chemical analyses and physical testing for surface sediments, sediment cores, sediment traps, surface water, fish tissue, and porewater were performed as described in the programmatic Quality Assurance Project Plan (QAPP) (AECOM Technical Services [AECOM] and Geosyntec 2018a). Laboratory services were provided by TestAmerica Laboratories, Inc., located in Tacoma, Washington; Knoxville, Tennessee; Sacramento, California; and Burlington, Vermont; ALS Environmental (ALS) located in Kelso, Washington, and Burlington, Ontario, Canada; Analytical Resources Inc. (ARI) located in Tukwila, Washington; and SGS AXYS located in Sidney, British Columbia, Canada. The laboratories, assigned analyses, and sample counts for each media sampled are summarized in Table 1.

The laboratories provided summary reports (Level 2), data packages (Level 4), and EQuIS electronic deliverables to AECOM, as described in the QAPP (AECOM and Geosyntec 2018a) and the Data Quality Management Plan (AECOM and Geosyntec 2018b) for each sample group submitted to each laboratory. All chemical and physical data collected in 2018 and 2019 for the PDI are presented in this appendix.

[1] The ROD states the Site is approximately 2,190 acres and extends from RM 1.9 to RM 11.8. However, when mapped in GIS, the 2,190 acres only covers the area from RM 1.9 to 11.6 (at the end of the authorized navigation channel). The acreage from RM 1.9 up to RM 11.8 is more accurately 2,203 acres.

The PDI data were validated by AECOM and Geosyntec chemists using the references and procedures described in Section 6 of the QAPP (AECOM and Geosyntec 2018a). A data validation report (DVR) was prepared for each laboratory report documenting the review, issues identified, and assignment of data qualifiers, if any. An EPA Stage 2A/3 review was conducted on all data, and an EPA Stage 4 review was conducted on 10% of the data. Summary data tables, laboratory group identification lists, DVRs, and summary laboratory reports (Level 2) for each sample media and associated quality assurance samples (rinsate blanks and reference materials) are provided on DVD.

1.2 Summary of Data Quality

Data quality and usability were evaluated based on the results of the data validation and the data quality objectives established for the PDI (AECOM and Geosyntec 2018a).

The performance criteria in the QAPP include goals for precision, accuracy, representativeness, completeness, and comparability. Completeness was calculated by dividing the total number of acceptable data (non-rejected data) by the total number of data points generated. For each media, completeness was greater than 99%, which exceeds the QAPP completeness objective of 95%. Only 32 sample results from 4 samples collected during the PDI were rejected (R qualified), as noted below.

- Surface Sediment – The result for dieldrin in sample PDI-SG-B154-BL1 (RM 5.6E) was rejected based on a matrix spike recovery.
- Fish Tissue – The results for several polychlorinated biphenyl (PCB) congeners in fish tissue sample PDI-TF-SMB075 were rejected. Recoveries for labeled standards for congeners PCB-1, PCB-3, PCB-4, PCB-15, and PCB-19 were below levels required for accurate quantitation of associated PCB congeners. Therefore, the sample results for congeners PCB-1, - 2, -3, -4, -5, -6, -7, -8, -9, -10, -11, -12/13 (coeluters), -14, -15, and -19 were rejected.
- Surface Water – The results for several PCB congeners in rinsate blanks associated with the first and second sampling events were rejected because they were not quantifiable due to an interference that originated during sample extraction. PCB congeners -1, -2, and -3 were rejected in rinsate blank PDI-RB-XF-180820 from the first sampling event. PCB congeners -1, -2, -3, -5, -6, -7, -8, -9 -10, -11, -12/13 (coeluters), -14, and -15 were rejected in rinsate blank PDI-RB-XF-181129 from the second sampling event. These rejections did not adversely affect evaluation of the associated surface water sample data.

All other sample results were deemed usable. Some results were qualified based on findings during data validation. Results were qualified as estimated (“J” qualifier) or tentatively identified (“JN” qualifier) based on one of the following: (i) laboratory quality control/method criteria, including holding time, instrument calibration, method blank contamination, surrogate recovery, labeled compound recovery, internal standards; (ii) laboratory control samples/duplicates, matrix

spike/matrix spike duplicates, serial dilutions, field duplicates, rinsate blanks; or (iii) quantitation and identification requirements, as described in the DVRs.

In some cases, sample results were qualified due to method blank contamination as not detected ("U" or "UJ" qualifier) at the detection or reporting limits provided by the laboratory. The reporting limits and/or method detection limits (MDLs) and/or estimated detection limits (EDLs) generally met the ROD-specified cleanup levels, except as noted in the QAPP (AECOM and Geosyntec 2018a). Exceptions were dieldrin in most of the sediment samples, bis-(2-ethylhexyl)phthalate (14 D/U Reach sediment samples), chrysene (three D/U Reach sediment samples), dibenzo(a,h)anthracene (one D/U Reach sediment sample), and bis-(2-ethylhexyl)phthalate in all of the fish tissue samples. These exceptions are discussed in the associated DVRs. The elevated detection limits were generally due to dilutions or the adjusted sample volume necessary to address matrix interferences and/or elevated concentrations of other compounds in a sample.

Data qualified as undetected are usable. Data qualified as estimated or tentatively identified are usable with the knowledge that these data may be less precise or less accurate than unqualified data. Rejected data are not usable. Rejected data in the database are identified with an "R" qualifier, and the numerical result, if provided by the laboratory, has been removed.

The 2018/2019 PDI sample data, excluding the rejected results described above, are usable. Overall, the data quality was acceptable and meets program objectives and goals for the PDI.

1.3 Laboratory Deviations from the QAPP

Laboratory deviations from the QAPP were limited and were approved by EPA via Change Requests (CRs) 6, 7, 9, and 16 or email notification. Tables 2a through 2e of the QAPP (AECOM and Geosyntec 2018a) included the analytical requirements for each sample media and the associated laboratory assignments. Changes to the content of these tables were made to correct and/or clarify information for the laboratories and data validators to minimize data quality issues and confusion with laboratory reporting (CR 6). Changes were also made to laboratory assignments to redistribute the analytical work to alleviate schedule conflicts that became apparent during the program (CRs 7 and 9). A change to the analytical method for pentachlorophenol in surface water was necessary to achieve a detection limit below the ROD cleanup level. This change also resulted in a laboratory reassignment (CR 16). The changes did not adversely affect data quality.

1.4 Data Management

All laboratory data submittals and data validation processes for the project were managed through a combination of e-mail transmissions, Microsoft (MS) SharePoint, and an enterprise implementation of EQuIS V6.6.0 tabular relational database. Lab interactions were tracked individually in a custom SharePoint List designed to record milestones in the lab data management process from submittal of samples to the laboratory, through receipt of Sample

Delivery Group (SDG) package transmittals, completion of the data validation process, and DVR generation.

Laboratory electronic data deliverables (EDDs) were transmitted to project chemists via email in the AECOM v2.5.3 format, a four-file deliverable consisting of sample, test results, and lab batch information zipped into an SDG package, as specified in the Data Quality Management Plan (AECOM and Geosyntec 2018b). EDDs were loaded to EQuIS after first seeding appropriate project, location, and sample detailed information. Lab data were subsequently exported to an Excel format using the EQuIS Data Validation Assistant (DVA) utility. These workbooks were provided to project chemists for assignment of validation flags in a single, editable column of the workbook based on a review of the lab Level 2 and Level 4 reports. Once the validation review was completed, the DVA workbooks were synchronized with EQuIS to update and save changes within the project database.

In some cases, EDDs were resubmitted by the labs due to re-sampling or other lab reporting adjustments. These EDDs were reloaded to the project database and the DVA workbooks and validation process was repeated. Also, as a result of normal project database and lab data quality assurance/quality control procedures, some datasets uploaded to the project database may have required minor adjustments that did not warrant a reissue or another iteration of the EDD from the laboratory. These types of changes were typically applied directly in the project database through a semi-manual process.

Data were exported as needed in the standard ARII, text file format export from EQuIS for sharing with project team members and EPA and for data analysis purposes. The data were provided to EPA in several formats, including an Excel flat file format, a text-based lab EDD source file format, and a portable document format (PDF) associated with the lab Level 2 and Level 4 reports. This combination of electronic transmittals provided EPA with validated data in an easy to review format (MS Excel) and laboratory results in a source file format, as requested. Validated results, laboratory reports, and data validation reports were posted for EPA review beginning in November 2018. Sample coordinate data for all sampling locations were also provided to EPA in an Excel format, including appropriate geodetic specifications for use in geographic information systems (GIS). Sediment sampling location elevation data and GIS files were also provided to EPA upon request.

2. REFERENCES

AECOM and Geosyntec. 2018a. Quality Assurance Project Plan. Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling. Portland Harbor Superfund Site. 19 October. Approved 19 December.

AECOM and Geosyntec. 2018b. Data Quality Management Plan. Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling. Portland Harbor Superfund Site. 20 February Approved 22 February.

EPA. 2017. Record of Decision Portland Harbor Superfund Site, Portland Oregon. United States Environmental Protection Agency Region 10, Seattle, Washington. January.

Geosyntec. 2017. Pre-Remedial Design Investigation Work Plan. Portland Harbor Superfund Site. Prepared for the Portland Harbor Pre-Remedial Design Group. 19 December.

TABLES

Table 1. Analytical Laboratory Assignment and Project Sample Count

Study	Laboratory	Analytical Methods	Parent Samples	Field Duplicates	Rinsate Blanks	Trip Blanks	MS/MSD
Surface Sediment	TA Knoxville	PCB Congeners	714	39	38	0	30
	TA Sacramento	Dioxins/Furans					0
	TA Seattle	TPH Diesel					24
		Metals					47 (Sediment Samples) 9 (Rinsate Blanks)
		Mercury					46 (Sediment Samples) 8 (Rinsate Blanks)
		PAHs					11
		BEHP					12
		Tributyltin					6
		Grain size					0
		Total organic carbon					57 (Sediment Samples) 6 (Rinsate Blanks)
		Total solids					0
	TA Burlington	Atterberg Limits	15	0	0		0
	ALS Kelso	Chlorinated Pesticides	714	39	37		60
		Total solids					0
		PAHs					46
		BEHP					36
		Tributyltin					36
Subsurface Sediment (90 core locations)	TA Sacramento	Dioxins/Furans	423	22	25	0	0
	TA Seattle	Grain size					0
		PCB Aroclors					29
		PAHs					31
		Total organic carbon					29 (sediment samples) 1 (Rinsate Blank)
		Total solids					0
	TA Burlington	Atterberg Limits	19	0	0		0
	ALS Burlington	Chlorinated Pesticides	423	22	25		2
		Total solids					0
Surface Water	TA Seattle	Ethylbenzene	63	4	2	18	2
		MCPP	21	3	3	0	3
		Total Metals					4
		Total Suspended Solids					0
		Total Dissolved Solids					
		Dissolved Metals + Hardness as CaCO3 (Method SW6010C)					6 (SW Samples) 1 (Rinsate Blank)
		Dissolved Metals (Method SW6020B)					
		Total Organic Carbon	11	2	2		1
		Dissolved Organic Carbon					2
	SGS AXYS	PCB Congeners	21	0	5		0
		Dioxin/Furans					
		PAHs					
		Chlorinated Pesticides + HCB					
	ALS Kelso	BEHP	21	3	3		4
		Tributyltin					
		Pentachlorophenol	14	2	2		3
	ARI	Pentachlorophenol	21	3	3		5
		Total Organic Carbon	10	1	1		3
		Dissolved Organic Carbon					

Table 1. Analytical Laboratory Assignment and Project Sample Count

Study	Laboratory	Analytical Methods	Parent Samples	Field Duplicates	Rinsate Blanks	Trip Blanks	MS/MSD
Sediment Trap	TA Knoxville	PCB Congeners	12	0	3	0	0
	TA Sacramento	Dioxins/Furans					
	TA Seattle	TPH Diesel					
		Metals					3
		Mercury					
		Grain size					
		Total organic carbon					
		Total solids					
	ALS Kelso	Chlorinated Pesticides					
		PAHs					
		BEHP					
		Tributyltin					
		Total solids					
Fish Tissue	ALS Kelso	Arsenic	135	0	0	0	7
		Mercury					
		BEHP					
		Pentachlorophenol					
	SGS AXYS	Chlorinated Pesticides + HCB					0
		Dioxins/Furans					
		Lipids					
		PBDE					
		PCB Congeners					
Porewater	TA Seattle	Bromide	9	1	0	0	1
		Metals (Arsenic, Manganese)					0

Acronyms:
ALS = ALS Environmental
ARI = Analytical Resources Incorporated
BEHP = bis(2-ethylhexyl) phthalate
CaCO2 = calcium carbonate
HCB = hexachlorobenzene
MCPP = methylchlorophenoxypropionic acid
MS = Matrix Spike
MSD = Matrix Spike Duplicate
PAH = polycyclic aromatic hydrocarbon
PBDE = polybrominated diphenyl ether
PCB = polychlorinated biphenyl
SW = surface water
TA = TestAmerica
TPH = total petroleum hydrocarbon

EXHIBIT A

Data Summary Tables, Laboratory Reports and Data Validation Reports PDI Data
(Provided on DVD)

A.1 Surface Sediment
- A.1a Chemistry Data Tables
- A.1b Stratified Random – DVRs/Lab Reports/COCs (on DVD)
- A.1c Sediment Management Areas – DVRs/Lab Reports/COCs (on DVD)
- A.1d Downtown/Upriver – DVRs/Lab Reports/COCs (on DVD)

A.2 Sediment Core
- A.2a Chemistry Data Tables
- A.2b Laboratory Group ID Table (on DVD)
- A.2c ALS Burlington – DVRs/Lab Reports/COCs (on DVD)
- A.2d TestAmerica – DVRs/Lab Reports/COCs (on DVD)

A.3 Sediment Trap
- A.3a Chemistry Data Tables
- A.3b Laboratory Group ID Table (on DVD)
- A.3c ALS Kelso – DVRs/Lab Reports/COCs (on DVD)
- A.3d TestAmerica – DVRs/Lab Reports/COCs (on DVD)

A.4 Surface Water
- A.4a Chemistry Data Tables
- A.4b Laboratory Group ID Table (on DVD)
- A.4c ALS Kelso – DVRs/Lab Reports/COCs (on DVD)
- A.4d Analytical Resources Inc.– DVRs/Lab Reports/COCs (on DVD)
- A.4e SGS AXYS – DVRs/Lab Reports/COCs (on DVD)
- A.4f TestAmerica – DVRs/Lab Reports/COCs (on DVD)

A.5 Fish Tissue

A.5a Chemistry Data Tables

A.5b Laboratory Group ID Table (on DVD)

A.5c ALS Kelso – DVRs/Lab Reports/COCs (on DVD)

A.5d SGS AXYS – DVRs/Lab Reports/COCs (on DVD)

A.6 Background Porewater

A.6a Chemistry Data Tables

A.6b Laboratory Group ID Table (on DVD)

A.6c TestAmerica – DVRs/Lab Reports/COCs (on DVD)

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B001	B002	B003	B004	B005	B006	B007	B008	B009	B010
		Sample ID	PDI-SG-B001-BL1	PDI-SG-B002-BL1	PDI-SG-B003-BL1	PDI-SG-B004-BL1	PDI-SG-B005-BL1	PDI-SG-B006-BL1	PDI-SG-B007-BL1	PDI-SG-B008-BL1	PDI-SG-B009-BL1	PDI-SG-B010-BL1
		Sample Date	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-14 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0026 J	0.015 J	0.051	0.059 J	0.045 J	0.030 J	0.054 J	0.036 J	0.049 J	0.043 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.00049 JN	0.0031 JN	0.014 JN	0.010 JN	0.011 JN	0.0054 JN	0.0091 JN	0.0066 JN	0.010 JN	0.0081 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00040 J+	0.00056 J+	< 0.00056 U	0.0013 JN	0.0014 J	0.00080 J+	0.0012 J+	0.00084 J+	0.00099 JN	0.0012 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00019 J+	0.00030 JN	0.0015 J	0.00086 J	0.00037 J+	0.00050 J+	0.00088 J	0.00048 JN	0.00067 J+	0.00062 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00018 JN	0.00039 JN	0.0018 JN	0.0014 JN	0.0027 JN	0.0013 J	0.0014 J	0.00089 JN	0.0024 J	0.0017 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00015 J	0.00076 J	0.0020 JN	0.0021 J	0.0022 J	0.0013 J	0.0022 J	0.0014 J	0.0020 J	0.0018 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.000097 U	0.00028 J	< 0.0038 U	0.00066 J	0.00072 J	0.00045 J	0.00069 J	0.00041 J	0.00081 J	0.00068 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00014 J	0.00051 J	0.0019	0.0017 J	0.0010 JN	0.0010 J	0.0014 J	0.00089 J	0.0016 J	0.0013 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00040 J+	0.00037 J+	< 0.00024 U	0.00056 J+	0.00037 JN	0.00032 JN	0.00048 JN	0.00037 J+	0.00060 J+	0.00044 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.000068 U	0.00022 J	0.00043 JN	0.00040 J	0.00036 J	0.00029 J	0.00046 J	0.00029 J	< 0.00016 U	0.00046 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00020 JN	0.00040 J+	< 0.00050 U	0.00058 J+	0.00052 J+	0.00083 J+	0.00067 J+	0.00041 J+	0.00075 J+	0.00070 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.000058 U	0.00013 JN	< 0.00024 U	0.00037 J	0.00045 J	0.00011 J	0.00041 J	0.00026 J	0.00065 JN	0.00034 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.000052 U	0.00021 J	< 0.00040 U	0.00038 J	0.00054 J	0.00039 JN	0.00039 J	0.00017 JN	0.00042 JN	0.00042 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000057 U	0.000099 JN	< 0.00019 U	0.00018 JN	0.00015 JN	0.00019 JN	0.00031 JN	0.000090 JN	0.00023 JN	0.00012 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000086 JN	0.00053 J	0.00073	0.00076 J	0.00064 J	0.00092 J	0.00080 J	0.00054 J	0.00089 J	0.00079 J
OCDD	3268-87-9	µg/kg	0.024	0.13	0.41	0.49	0.36	0.26	0.47	0.32	0.41	0.38
OCDF	39001-02-0	µg/kg	0.0023 J	0.013	0.070	0.043	0.030	0.022	0.040	0.031	0.034	0.034
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0002	0.00095	0.0022	0.0024	0.0022	0.0017	0.0025	0.0015	0.0022	0.0021
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00016	0.00079	0.0014	0.0022	0.0018	0.0014	0.0023	0.0013	0.0018	0.0021
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00013	0.00074	0.0012	0.0021	0.0017	0.0013	0.0022	0.0012	0.0016	0.002
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.0011 U	0.0052 JN	0.010 J	0.0021 JN	0.0029 JN	0.0017 JN	0.0020 JN	0.0017 JN	0.0024 JN	0.0028 JN
PCB-10	33146-45-1	ng/g	< 0.0012 U	< 0.0012 U	< 0.0010 U	< 0.0012 U	< 0.0016 U	0.0025 JN	< 0.0018 U	< 0.0011 U	< 0.0011 U	< 0.0020 U
PCB-103	60145-21-3	ng/g	< 0.00028 U	0.0026 JN	0.0088 J	< 0.0010 U	0.0015 JN	< 0.0014 U	< 0.0014 U	0.0073 JN	0.0046 J	0.0071 JN
PCB-104	56558-16-8	ng/g	< 0.00021 U	< 0.0010 U	< 0.0022 U	< 0.00080 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0014 U	< 0.0011 U
PCB-105	32598-14-4	ng/g	0.0062 J	0.047	0.067	0.066	0.066	0.057 JN	0.059	0.060	0.066	0.11
PCB-106	70424-69-0	ng/g	< 0.00070 U	< 0.0018 U	< 0.0021 U	< 0.0022 U	< 0.0025 U	< 0.0022 U	< 0.0026 U	< 0.0024 U	< 0.0026 U	< 0.0041 U
PCB-107	70424-68-9	ng/g	0.00097 JN	0.0095 J	0.012 JN	0.014	0.015	0.013 JN	0.012 JN	0.017	0.012 JN	0.024
PCB-108/124	70362-41-3	ng/g	< 0.00071 U	0.0052 J	0.0067 JN	0.0049 JN	0.0061 JN	0.0041 JN	< 0.0026 U	0.0057 JN	0.0058 JN	0.013 JN
PCB-11	2050-67-1	ng/g	0.020	0.064	0.052	0.066	0.071	0.062	0.070	0.081	0.067	0.13
PCB-110/115	38380-03-9	ng/g	0.018 J	0.14	0.19	0.19	0.20	0.19	0.17	0.18	0.21	0.36
PCB-111	39635-32-0	ng/g	< 0.00019 U	< 0.00091 U	< 0.0020 U	< 0.00071 U	< 0.00099 U	< 0.00095 U	< 0.00098 U	< 0.00095 U	< 0.0012 U	< 0.00098 U
PCB-112	74472-36-9	ng/g	< 0.00021 U	< 0.0010 U	< 0.0021 U	< 0.00078 U	< 0.0011 U	< 0.0010 U	< 0.0011 U	< 0.0010 U	< 0.0014 U	< 0.0011 U
PCB-114	74472-37-0	ng/g	< 0.00063 U	< 0.0016 U	< 0.0020 U	< 0.0020 U	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.0023 U	0.0044 JN	< 0.0037 U
PCB-118	31508-00-6	ng/g	0.010 JN	0.12	0.16	0.16	0.18	0.15	0.14	0.15	0.15	0.29
PCB-12/13	2974-92-7	ng/g	< 0.0010 U	< 0.00099 U	0.0017 JN	< 0.0010 U	0.0029 JN	0.0023 JN	0.041 JN	0.0028 JN	0.0025 JN	0.0065 JN
PCB-120	68194-12-7	ng/g	< 0.00019 U	< 0.00090 U	< 0.0019 U	< 0.00070 U	< 0.00098 U	0.0010 JN	< 0.00096 U	< 0.00094 U	< 0.0012 U	0.0022 JN
PCB-121	56558-18-0	ng/g	< 0.00020 U	< 0.00097 U	< 0.0021 U	< 0.00076 U	< 0.0011 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0013 U	< 0.0011 U
PCB-122	76842-07-4	ng/g	< 0.00078 U	< 0.0019 U	0.0024 JN	< 0.0025 U	< 0.0028 U	< 0.0024 U	0.0038 JN	< 0.0027 U	< 0.0029 U	< 0.0046 U
PCB-123	65510-44-3	ng/g	< 0.00062 U	0.0020 JN	0.0032 JN	0.0049 J	0.0044 J	< 0.0019 U	< 0.0022 U	< 0.0022 U	< 0.0025 U	0.0074 JN
PCB-126	57465-28-8	ng/g	< 0.00068 U	< 0.0017 U	< 0.0019 U	< 0.0023 U	< 0.0024 U	< 0.0021 U	< 0.0025 U	< 0.0022 U	< 0.0025 U	< 0.0041 U
PCB-127	39635-33-1	ng/g	< 0.00067 U	< 0.0017 U	< 0.0020 U	< 0.0021 U	< 0.0024 U	< 0.0021 U	< 0.0024 U	< 0.0023 U	< 0.0025 U	< 0.0039 U
PCB-128/166	38380-07-3	ng/g	0.0044 J	0.033	0.047	0.040	0.038 JN	0.041	0.042	0.037	0.042	0.072
PCB-129/138/160/163	55215-18-4	ng/g	0.029 JN	0.21	0.31	0.27	0.28	0.22	0.26	0.23	0.30	0.50
PCB-130	52663-66-8	ng/g	0.00074 JN	0.012 JN	0.021	0.015 JN	0.012 JN	0.015 JN	0.011 JN	0.015	0.016 JN	0.032 JN
PCB-131	61798-70-7	ng/g	< 0.000034 U	< 0.0018 U	< 0.0011 U	< 0.0024 U	< 0.0038 U	< 0.0022 U	< 0.00094 U	< 0.0044 U	0.0029 JN	< 0.0064 U
PCB-132	38380-05-1	ng/g	0.0055 JN	0.059	0.084	0.075	0.080	0.069	0.077	0.058	0.080	0.15
PCB-133	35694-04-3	ng/g	< 0.000031 U	0.0044 JN	0.0073 J	0.0031 JN	< 0.0035 U	0.0033 JN	0.0054 JN	0.0064 JN	< 0.0022 U	0.0082 JN
PCB-134/143	52704-70-8	ng/g	0.00032 JN	0.0098 JN	0.015 J	0.011 JN	0.014 JN	0.010 JN	0.011 J	0.0094 JN	0.012 JN	0.021 JN
PCB-135/151	52744-13-5	ng/g	0.0070 JN	0.079	0.091	0.085	0.092	0.092	0.095	0.025 JN	0.10	0.19
PCB-136	38411-22-2	ng/g	0.0023 JN	0.026	0.034	0.025 JN	0.035	0.028 JN	0.027	0.015 JN	0.031	0.055 JN
PCB-137	35694-06-5	ng/g	0.00032 JN	0.0056 JN	0.0088 JN	0.0096 JN	0.0082 JN	0.0060 JN	0.0042 JN	0.0095 J	0.010 J	0.016 JN
PCB-139/140	56030-56-9	ng/g	< 0.000028 U	0.0030 JN	0.0049 J	0.0029 JN	< 0.0031 U	0.0042 J	< 0.00078 U	< 0.0036 U	< 0.0019 U	0.0082 JN
PCB-14	34883-41-5	ng/g	< 0.00094 U	< 0.00091 U	< 0.00079 U	< 0.00092 U	< 0.0012 U	< 0.00072 U	< 0.0014 U	< 0.00089 U	< 0.00085 U	< 0.0015 U
PCB-141	52712-04-6	ng/g	0.0036 JN	0.031 JN	0.049	0.047	0.043	0.043	0.043	0.032 JN	0.045	0.084 JN
PCB-142	41411-61-4	ng/g	< 0.000032 U	< 0.0017 U	< 0.0010 U	< 0.0023 U	< 0.0036 U	< 0.0020 U	< 0.00088 U	< 0.0041 U	< 0.0022 U	< 0.0060 U
PCB-144	68194-14-9	ng/g	< 0.00015 U	0.0084 JN	0.0031 JN	0.010 JN	0.011 J	0.012	0.0012 JN	0.0078 JN	0.011 J	0.024
PCB-145	74472-40-5	ng/g	< 0.00012 U	< 0.00015 U	< 0.00017 U	< 0.00014 U	< 0.00015 U	< 0.00020 U	< 0.00018 U	< 0.00032 U	< 0.00015 U	< 0.00028 U
PCB-146	51908-16-8	ng/g	0.0042 J	0.037	0.046	0.050	0.040 JN	0.037 JN	0.040	0.045 JN	0.049	0.086
PCB-147/149	68194-13-8	ng/g	0.020	0.16	0.24	0.20	0.19	0.18	0.19	0.19	0.20	0.39
PCB-148	74472-41-6	ng/g	< 0.00016 U	< 0.00020 U	< 0.00023 U	< 0.00019 U	< 0.00020 U	< 0.00026 U	< 0.00024 U	< 0.00043 U	< 0.00019 U	< 0.00038 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B001	B002	B003	B004	B005	B006	B007	B008	B009	B010
		Sample ID	PDI-SG-B001-BL1	PDI-SG-B002-BL1	PDI-SG-B003-BL1	PDI-SG-B004-BL1	PDI-SG-B005-BL1	PDI-SG-B006-BL1	PDI-SG-B007-BL1	PDI-SG-B008-BL1	PDI-SG-B009-BL1	PDI-SG-B010-BL1
		Sample Date	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-14 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0056 JN	0.012 JN	0.017	0.017	0.013 JN	0.012 JN	0.059 JN	0.017	0.015 JN	0.038
PCB-150	68194-08-1	ng/g	< 0.00011 U	< 0.00014 U	< 0.00016 U	0.00087 JN	0.00039 JN	< 0.00018 U	< 0.00016 U	0.0023 JN	< 0.00013 U	< 0.00025 U
PCB-152	68194-09-2	ng/g	< 0.00011 U	< 0.00015 U	< 0.00017 U	< 0.00013 U	< 0.00015 U	< 0.00019 U	< 0.00017 U	0.00056 JN	< 0.00014 U	< 0.00027 U
PCB-153/168	35065-27-1	ng/g	0.028	0.17	0.25	0.23	0.22	0.19	0.20	0.19	0.23	0.42
PCB-154	60145-22-4	ng/g	< 0.00014 U	0.0036 JN	0.0056 JN	< 0.00016 U	0.0055 JN	0.0047 JN	0.0072 J	0.0092 JN	0.0032 JN	0.0094 JN
PCB-155	33979-03-2	ng/g	< 0.00011 U	< 0.00014 U	< 0.00016 U	0.00083 JN	< 0.00014 U	< 0.00018 U	< 0.00016 U	< 0.00029 U	< 0.00013 U	< 0.00026 U
PCB-156/157	38380-08-4	ng/g	0.0043 J	0.019 J	0.024 JN	0.026	0.026	0.020 JN	0.024 J	0.027	0.030	0.049
PCB-158	74472-42-7	ng/g	0.0027 JN	0.016 JN	0.028	0.020 JN	0.024	0.017 JN	0.021	0.021	0.027	0.044
PCB-159	39635-35-3	ng/g	0.00030 JN	0.0022 JN	0.0019 JN	0.0019 JN	< 0.0022 U	0.0024 JN	0.0033 JN	< 0.0026 U	0.0044 J	< 0.0038 U
PCB-16	38444-78-9	ng/g	0.0075 J	0.0056 JN	0.0056 JN	0.0080 JN	0.0040 JN	0.0041 JN	0.0085 JN	0.013	0.0074 JN	0.021 JN
PCB-161	74472-43-8	ng/g	< 0.000021 U	< 0.0011 U	< 0.00066 U	< 0.0015 U	< 0.0023 U	< 0.0013 U	< 0.00058 U	< 0.0027 U	< 0.0014 U	< 0.0039 U
PCB-162	39635-34-2	ng/g	< 0.000020 U	< 0.0010 U	< 0.00062 U	< 0.0014 U	< 0.0022 U	< 0.0013 U	< 0.00055 U	< 0.0026 U	< 0.0014 U	< 0.0037 U
PCB-164	74472-45-0	ng/g	0.0019 JN	0.014	0.018 JN	0.022	0.016 JN	0.015 JN	0.015 JN	0.017	0.015 JN	0.035
PCB-165	74472-46-1	ng/g	< 0.000024 U	< 0.0012 U	< 0.00075 U	< 0.0017 U	< 0.0027 U	< 0.0015 U	< 0.00066 U	< 0.0031 U	< 0.0016 U	< 0.0045 U
PCB-167	52663-72-6	ng/g	0.00030 JN	0.0059 JN	0.0080 JN	0.0077 JN	0.0097 JN	0.0067 JN	0.0064 JN	0.0070 JN	0.0096 J	0.015 JN
PCB-169	32774-16-6	ng/g	< 0.000017 U	< 0.00078 U	< 0.00050 U	< 0.0011 U	< 0.0018 U	< 0.00099 U	< 0.00042 U	< 0.0019 U	< 0.0010 U	< 0.0028 U
PCB-17	37680-66-3	ng/g	0.0039 JN	0.013	0.015 JN	0.015 JN	0.014 JN	0.010 JN	0.024	0.0074 JN	0.017	0.025 JN
PCB-170	35065-30-6	ng/g	0.024 JN	0.058	0.082	0.076	0.060 JN	0.065 JN	0.077 JN	0.052 JN	0.092	0.16
PCB-171/173	52663-71-5	ng/g	0.0072 JN	0.022	0.024 J	0.020 J	0.017 JN	0.023 J	0.013 JN	0.018 J	0.027 JN	0.048
PCB-172	52663-74-8	ng/g	0.0044 JN	0.0082 JN	0.015	0.012 J	0.013 JN	0.013 JN	0.011 J	0.0074 JN	0.014	0.022 JN
PCB-174	38411-25-5	ng/g	0.022	0.062	0.10	0.070 JN	0.078	0.089	0.086	0.082 JN	0.086 JN	0.16
PCB-175	40186-70-7	ng/g	< 0.000061 U	0.0018 JN	0.0015 JN	0.0016 JN	< 0.00010 U	0.0018 J	0.0039 JN	< 0.00014 U	0.0034 JN	< 0.00013 U
PCB-176	52663-65-7	ng/g	0.0023 JN	0.0048 JN	0.0091 JN	0.0088 J	0.0050 JN	0.0071 JN	0.0074 JN	0.0064 JN	0.010 J	0.012
PCB-177	52663-70-4	ng/g	0.013 JN	0.036 JN	0.065	0.044	0.050	0.051 JN	0.060	0.040 JN	0.061	0.094 JN
PCB-178	52663-67-9	ng/g	0.0039 JN	0.014 JN	0.026	0.017 JN	0.016 JN	0.016	0.017	0.013 JN	0.021 JN	0.027
PCB-179	52663-64-6	ng/g	0.0064 JN	0.028 JN	0.039	0.035	0.028	0.034	0.036 JN	0.036	0.038	0.072
PCB-18/30	37680-65-2	ng/g	0.0096 JN	0.021 JN	0.026	0.024 JN	0.016 JN	0.017 JN	0.021 J	0.027 JN	0.022 J	0.052
PCB-180/193	35065-29-3	ng/g	0.065	0.12	0.19	0.18	0.16	0.17	0.16	0.18	0.22	0.33
PCB-181	74472-47-2	ng/g	< 0.000058 U	< 0.000051 U	< 0.000099 U	< 0.000093 U	< 0.000095 U	< 0.000080 U	< 0.00048 U	< 0.00013 U	< 0.00044 U	< 0.00012 U
PCB-182	60145-23-5	ng/g	< 0.000055 U	< 0.000048 U	0.0014 J	< 0.000088 U	< 0.000090 U	< 0.000076 U	< 0.00046 U	< 0.00013 U	< 0.00042 U	< 0.00011 U
PCB-183/185	52663-69-1	ng/g	0.016 J	0.035	0.062	0.049	0.043 JN	0.045 JN	0.044	0.032 JN	0.057	0.094
PCB-184	74472-48-3	ng/g	< 0.000048 U	< 0.000042 U	< 0.000080 U	< 0.000075 U	< 0.000078 U	< 0.000065 U	< 0.00039 U	< 0.00011 U	< 0.00036 U	< 0.000098 U
PCB-186	74472-49-4	ng/g	< 0.000046 U	< 0.000040 U	< 0.000077 U	< 0.000072 U	< 0.000074 U	< 0.000063 U	< 0.00037 U	< 0.00010 U	< 0.00035 U	< 0.000094 U
PCB-187	52663-68-0	ng/g	0.026	0.080	0.13	0.11	0.10	0.12	0.095 JN	0.11	0.14	0.20
PCB-188	74487-85-7	ng/g	< 0.000044 U	< 0.000038 U	< 0.000073 U	< 0.000067 U	< 0.000071 U	< 0.000060 U	< 0.00035 U	< 0.000099 U	< 0.00032 U	< 0.000089 U
PCB-189	39635-31-9	ng/g	< 0.00041 U	0.0025 J	0.0031 JN	0.0032 JN	0.0030 JN	< 0.0010 U	0.0026 J	0.0010 JN	0.0050 J	0.0057 JN
PCB-19	38444-73-4	ng/g	< 0.00030 U	0.010 J	0.021 JN	0.011 JN	0.0033 JN	0.0034 JN	0.0088 JN	0.011 JN	0.012 J	0.018 JN
PCB-190	41411-64-7	ng/g	0.0067 J	0.016	0.016 JN	0.013 JN	0.019 JN	0.017	0.014	0.014 JN	0.022	0.027 JN
PCB-191	74472-50-7	ng/g	0.0018 J	0.0016 JN	< 0.000074 U	0.0038 JN	< 0.000072 U	0.0018 JN	0.0038 JN	0.0021 JN	0.0040 JN	0.0053 JN
PCB-192	74472-51-8	ng/g	< 0.000047 U	< 0.000041 U	< 0.000079 U	< 0.000074 U	0.00095 JN	< 0.000064 U	< 0.00038 U	< 0.00011 U	< 0.00035 U	< 0.000096 U
PCB-194	35694-08-7	ng/g	0.018	0.028 JN	0.044	0.046	0.043	0.046	0.042	0.031 JN	0.074	0.091
PCB-195	52663-78-2	ng/g	0.0073 JN	0.012	0.017 JN	0.017 JN	0.016 JN	0.019 JN	0.012 JN	0.015 JN	0.029	0.038 JN
PCB-196	42740-50-1	ng/g	0.0085 J	0.018 JN	0.020 JN	0.023	0.012 JN	0.016 JN	0.017 JN	0.020	0.032	0.041 JN
PCB-197	33091-17-7	ng/g	< 0.00014 U	0.00023 JN	0.00034 JN	< 0.00023 U	0.0011 J	< 0.00027 U	< 0.00026 U	0.0015 JN	0.0025 JN	0.0017 JN
PCB-198/199	68194-17-2	ng/g	0.017 JN	0.050	0.064	0.067	0.066	0.055	0.061	0.052 JN	0.093	0.14
PCB-2	2051-61-8	ng/g	0.0016 JN	0.012 JN	0.0055 JN	0.0080 J	0.0044 JN	0.014	0.0075 J	0.016	0.0075 J	0.037
PCB-20/28	38444-84-7	ng/g	0.016 J	0.060	0.072	0.075	0.070	0.065	0.061	0.064	0.070	0.14
PCB-200	52663-73-7	ng/g	0.0010 JN	0.0046 J	0.0047 JN	0.0033 JN	0.0057 J	0.0025 JN	0.0036 JN	0.0034 JN	0.0067 JN	0.012 JN
PCB-201	40186-71-8	ng/g	0.00077 JN	0.0034 J	0.0086 J	0.0057 JN	0.0034 JN	0.0034 JN	0.0036 JN	0.0037 JN	0.0072 JN	0.010 JN
PCB-202	2136-99-4	ng/g	0.0035 JN	0.0087 J	0.0081 JN	0.016	0.011 J	0.011 J	0.0081 J	0.0066 JN	0.017	0.025
PCB-203	52663-76-0	ng/g	0.015	0.029	0.036 JN	0.032	0.032 JN	0.029 JN	0.030	0.040	0.055	0.074
PCB-204	74472-52-9	ng/g	< 0.00015 U	< 0.00017 U	< 0.00033 U	< 0.00025 U	< 0.00020 U	< 0.00029 U	< 0.00028 U	< 0.00020 U	< 0.00030 U	< 0.00041 U
PCB-205	74472-53-0	ng/g	0.00083 J	0.0012 JN	0.0029 JN	0.0021 JN	< 0.00025 U	0.0026 JN	0.0013 JN	0.00032 JN	0.0057 J	0.0053 JN
PCB-206	40186-72-9	ng/g	0.0055 JN	0.033 JN	0.054	0.060 JN	0.048	0.049 JN	0.050 JN	0.051	0.054 JN	0.11
PCB-207	52663-79-3	ng/g	< 0.0014 U	< 0.0017 U	0.0036 J	< 0.0030 U	< 0.0024 U	0.0042 JN	< 0.0023 U	< 0.0028 U	< 0.0036 U	0.0088 J
PCB-208	52663-77-1	ng/g	< 0.0016 U	0.012	0.014	0.010 JN	0.017	0.015	0.012 JN	0.0097 JN	0.016	0.026
PCB-209	2051-24-3	ng/g	0.0023 JN	0.042	0.060	0.049	0.044	0.047	0.055 JN	0.032	0.049	0.088
PCB-21/33	55702-46-0	ng/g	0.010 J	0.021	0.019 J	0.026	0.023 J	0.020 J	0.020 J	0.023 JN	0.022 J	0.051
PCB-22	38444-85-8	ng/g	0.0059 JN	0.015	0.016	0.019	0.018 JN	0.019	0.019	0.018 JN	0.015 JN	0.040
PCB-23	55720-44-0	ng/g	< 0.00047 U	< 0.0010 U	< 0.00089 U	< 0.0010 U	< 0.0014 U	< 0.0012 U	< 0.0013 U	< 0.0016 U	< 0.0020 U	< 0.0020 U
PCB-24	55702-45-9	ng/g	< 0.00018 U	< 0.00018 U	< 0.00023 U	< 0.00027 U	< 0.00022 U	0.00065 JN	< 0.00031 U	< 0.00020 U	0.0011 J	< 0.00021 U
PCB-25	55712-37-3	ng/g	0.0013 JN	0.0055 J	0.0069 J	0.0056 JN	0.0061 J	0.0073 J	0.0087 JN	0.0058 JN	< 0.0019 U	0.011 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B001	B002	B003	B004	B005	B006	B007	B008	B009	B010
		Sample ID	PDI-SG-B001-BL1	PDI-SG-B002-BL1	PDI-SG-B003-BL1	PDI-SG-B004-BL1	PDI-SG-B005-BL1	PDI-SG-B006-BL1	PDI-SG-B007-BL1	PDI-SG-B008-BL1	PDI-SG-B009-BL1	PDI-SG-B010-BL1
		Sample Date	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-14 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0017 JN	0.0091 J	0.013 J	0.011 JN	0.014 J	0.010 J	0.022 J	0.0094 JN	0.011 J	0.026
PCB-27	38444-76-7	ng/g	< 0.00018 U	0.0027 JN	0.0040 JN	0.00037 JN	0.0014 JN	0.0017 JN	0.0024 J	< 0.00020 U	0.0018 JN	0.0028 JN
PCB-3	2051-62-9	ng/g	< 0.0011 U	0.0038 JN	0.0066 JN	0.0045 JN	0.0034 JN	0.0014 JN	0.0055 JN	< 0.00053 U	0.0029 J	0.0090 JN
PCB-31	16606-02-3	ng/g	0.010 JN	0.037	0.048	0.051	0.047	0.050	0.052	0.051	0.046	0.10
PCB-32	38444-77-8	ng/g	0.0043 J	0.0056 JN	0.0080 JN	0.010 J	0.0066 JN	0.0040 JN	0.013 JN	0.0088 J	0.0075 JN	0.018 JN
PCB-34	37680-68-5	ng/g	< 0.00048 U	< 0.0010 U	< 0.00092 U	< 0.0011 U	< 0.0014 U	< 0.0012 U	< 0.0013 U	< 0.0017 U	< 0.0021 U	< 0.0020 U
PCB-35	37680-69-6	ng/g	< 0.00046 U	< 0.00099 U	0.0014 JN	< 0.0010 U	< 0.0014 U	< 0.0011 U	< 0.0013 U	< 0.0016 U	< 0.0020 U	0.0037 JN
PCB-36	38444-87-0	ng/g	< 0.00042 U	< 0.00090 U	< 0.00080 U	< 0.00091 U	< 0.0013 U	< 0.0010 U	< 0.0012 U	< 0.0015 U	< 0.0018 U	< 0.0018 U
PCB-37	38444-90-5	ng/g	0.0052 J	0.020	0.020	0.021	0.021	0.017 JN	0.016 JN	0.017 JN	0.020	0.046 JN
PCB-38	53555-66-1	ng/g	< 0.00045 U	< 0.00098 U	< 0.00087 U	< 0.00099 U	< 0.0014 U	< 0.0011 U	< 0.0013 U	< 0.0016 U	< 0.0020 U	< 0.0019 U
PCB-39	38444-88-1	ng/g	< 0.00041 U	< 0.00089 U	< 0.00079 U	< 0.00090 U	< 0.0012 U	< 0.0010 U	< 0.0012 U	< 0.0015 U	< 0.0018 U	< 0.0017 U
PCB-4	13029-08-8	ng/g	< 0.0023 U	0.0060 JN	0.012 J	0.0098 JN	0.014 J	0.0095 JN	0.021 J	0.012 JN	0.0081 JN	0.019 J
PCB-40/41/71	38444-93-8	ng/g	0.0046 JN	0.020 JN	0.037 J	0.028 J	0.032 J	0.037	0.037 J	0.050	0.034 J	0.062
PCB-42	36559-22-5	ng/g	0.0013 JN	0.014	0.015 JN	0.019	0.019 JN	0.018	0.014 JN	0.014 JN	0.017	0.040
PCB-43/73	70362-46-8	ng/g	< 0.00057 U	< 0.0011 U	0.0025 JN	< 0.0016 U	0.0019 JN	< 0.0015 U	< 0.0019 U	< 0.0018 U	< 0.0022 U	< 0.0023 U
PCB-44/47/65	41464-39-5	ng/g	0.0090 JN	0.063	0.12	0.095	0.098	0.069 JN	0.076 JN	0.20	0.083	0.13
PCB-45/51	70362-45-7	ng/g	< 0.00067 U	0.0054 JN	0.018 J	0.016 J	< 0.0019 U	0.018 J	< 0.0022 U	0.038	< 0.0026 U	0.026
PCB-46	41464-47-5	ng/g	< 0.00078 U	0.0029 J	0.0041 JN	0.0041 JN	< 0.0023 U	0.0031 JN	0.0058 JN	< 0.0024 U	< 0.0030 U	< 0.0032 U
PCB-48	70362-47-9	ng/g	0.0024 JN	0.0090 J	0.012 J	0.0097 JN	0.0067 JN	0.0085 JN	0.012 J	0.010 JN	0.011 J	0.016 JN
PCB-49/69	41464-40-8	ng/g	0.0056 JN	0.042 JN	0.082	0.050 JN	0.060	0.061	0.066	0.084	0.056	0.094
PCB-5	16605-91-7	ng/g	< 0.0011 U	< 0.0011 U	< 0.00094 U	< 0.0011 U	< 0.0015 U	< 0.00086 U	< 0.0016 U	< 0.0011 U	< 0.0010 U	< 0.0018 U
PCB-50/53	62796-65-0	ng/g	< 0.00063 U	0.0075 JN	0.017 J	0.015 J	0.015 J	0.012 JN	0.012 JN	0.023 JN	0.011 JN	0.015 JN
PCB-52	35693-99-3	ng/g	0.010 JN	0.082	0.13	0.11	0.12	0.11	0.11	0.097	0.093 JN	0.17
PCB-54	15968-05-5	ng/g	< 0.00022 U	0.00043 JN	< 0.00020 U	0.0024 J	0.0028 J	0.00062 JN	0.0029 JN	0.0020 JN	< 0.00024 U	0.0037 JN
PCB-55	74338-24-2	ng/g	< 0.00043 U	0.0011 JN	< 0.00078 U	< 0.0012 U	< 0.0013 U	0.0012 JN	0.0041 JN	< 0.0013 U	< 0.0017 U	0.0041 JN
PCB-56	41464-43-1	ng/g	0.0019 JN	0.027	0.036	0.034	0.026 JN	0.035	0.032	0.027	0.028	0.057
PCB-57	70424-67-8	ng/g	< 0.00044 U	< 0.00088 U	< 0.00080 U	< 0.0013 U	< 0.0013 U	< 0.0011 U	< 0.0015 U	< 0.0014 U	< 0.0017 U	< 0.0018 U
PCB-58	41464-49-7	ng/g	< 0.00042 U	< 0.00085 U	< 0.00077 U	< 0.0012 U	< 0.0012 U	< 0.0011 U	< 0.0014 U	< 0.0013 U	< 0.0016 U	< 0.0017 U
PCB-59/62/75	74472-33-6	ng/g	0.00080 J	0.0049 JN	0.0068 J	0.0060 JN	0.0093 J	0.0041 JN	0.0045 JN	0.0058 JN	0.0064 JN	0.011 J
PCB-6	25569-80-6	ng/g	< 0.0011 U	0.0033 JN	0.0067 JN	0.0083 J	0.0037 JN	0.0039 J	0.0084 J	0.0042 JN	0.0034 J	0.011 JN
PCB-60	33025-41-1	ng/g	0.00078 JN	0.012	0.015	0.012 J	0.014	0.015	0.015 JN	0.010 JN	0.012 J	0.016 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.011 J	0.099	0.15	0.13	0.14	0.13	0.13	0.11	0.12	0.21 JN
PCB-63	74472-34-7	ng/g	< 0.00038 U	0.0015 JN	0.0048 J	0.0019 J	< 0.0011 U	< 0.00098 U	0.0024 JN	0.0029 J	< 0.0015 U	0.0043 JN
PCB-64	52663-58-8	ng/g	0.0040 J	0.021 JN	0.031	0.027	0.028 JN	0.028	0.026	0.024 JN	0.027	0.051
PCB-66	32598-10-0	ng/g	0.0073 JN	0.068	0.098	0.083	0.088	0.078	0.087 JN	0.071	0.084	0.14
PCB-67	73575-53-8	ng/g	< 0.00041 U	0.00093 JN	0.0030 J	< 0.0012 U	< 0.0012 U	0.0018 JN	< 0.0014 U	0.0027 JN	< 0.0016 U	0.0021 JN
PCB-68	73575-52-7	ng/g	0.00060 JN	< 0.00077 U	0.0048 J	< 0.0011 U	< 0.0011 U	0.0018 JN	< 0.0013 U	0.0043 J	< 0.0015 U	0.0019 JN
PCB-7	33284-50-3	ng/g	< 0.0011 U	< 0.0010 U	0.0028 J	< 0.0010 U	< 0.0014 U	< 0.00082 U	< 0.0016 U	< 0.0010 U	< 0.00096 U	< 0.0017 U
PCB-72	41464-42-0	ng/g	< 0.00043 U	< 0.00086 U	0.0026 JN	< 0.0012 U	< 0.0013 U	< 0.0011 U	0.0017 JN	< 0.0013 U	< 0.0017 U	0.0020 JN
PCB-77	32598-13-3	ng/g	0.00046 JN	0.0093 J	0.013	0.0087 J	0.0085 JN	0.0076 JN	0.0073 JN	0.0073 JN	0.0084 JN	0.021
PCB-78	70362-49-1	ng/g	< 0.00043 U	< 0.00085 U	< 0.00077 U	< 0.0012 U	< 0.0012 U	< 0.0011 U	< 0.0014 U	< 0.0013 U	< 0.0016 U	< 0.0017 U
PCB-79	41464-48-6	ng/g	< 0.00036 U	< 0.00073 U	< 0.00066 U	0.0016 JN	< 0.0011 U	< 0.00094 U	0.0022 JN	< 0.0011 U	0.0022 JN	0.0019 JN
PCB-8	34883-43-7	ng/g	0.011 J	0.010 J	0.016 J	0.016 J	0.011 JN	0.013 JN	0.013 JN	0.016 JN	0.012 JN	0.037
PCB-80	33284-52-5	ng/g	< 0.00038 U	< 0.00075 U	< 0.00068 U	< 0.0011 U	< 0.0011 U	< 0.00097 U	< 0.0013 U	< 0.0012 U	< 0.0015 U	< 0.0015 U
PCB-81	70362-50-4	ng/g	< 0.00039 U	< 0.00084 U	< 0.00073 U	< 0.0011 U	< 0.0012 U	< 0.0011 U	< 0.0014 U	< 0.0013 U	< 0.0016 U	< 0.0017 U
PCB-82	52663-62-4	ng/g	< 0.00032 U	0.010 JN	0.019 JN	0.019	0.022	0.022	0.019	0.0092 JN	0.019	0.037
PCB-83/99	60145-20-2	ng/g	0.0085 J	0.087	0.11	0.11	0.12	0.089 JN	0.091 JN	0.12	0.12	0.21
PCB-84	52663-60-2	ng/g	0.0046 J	0.027	0.033 JN	0.032	0.035 JN	0.040	0.029 JN	0.013 JN	0.033 JN	0.044 JN
PCB-85/116/117	65510-45-4	ng/g	0.0021 J	0.024 J	0.034 J	0.033 J	0.033 J	0.032 J	0.026 JN	0.023 JN	0.042	0.064
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.0073 J	0.074	0.11	0.097	0.11	0.099	0.088	0.050 J	0.11 JN	0.19
PCB-88/91	55215-17-3	ng/g	0.0014 JN	0.018 J	0.031	0.025 JN	0.022 JN	0.023 JN	0.024 JN	0.017 JN	0.028 JN	0.048
PCB-89	73575-57-2	ng/g	< 0.00032 U	< 0.0015 U	< 0.0032 U	< 0.0012 U	< 0.0016 U	< 0.0016 U	< 0.0016 U	0.0024 JN	< 0.0021 U	< 0.0016 U
PCB-9	34883-39-1	ng/g	< 0.0012 U	< 0.0012 U	< 0.0010 U	< 0.0012 U	< 0.0016 U	< 0.00095 U	< 0.0018 U	< 0.0012 U	< 0.0011 U	< 0.0020 U
PCB-90/101/113	68194-07-0	ng/g	0.016 J	0.13	0.16	0.16	0.17	0.16	0.13 JN	0.17	0.19	0.29
PCB-92	52663-61-3	ng/g	0.00045 JN	0.030	0.030 JN	0.029	0.032	0.037	0.029 JN	0.047	0.037	0.050
PCB-93/100	73575-56-1	ng/g	< 0.00030 U	0.0062 J	0.012 JN	< 0.0011 U	0.0053 JN	< 0.0015 U	0.0069 J	0.0093 JN	0.0063 JN	0.010 JN
PCB-94	73575-55-0	ng/g	< 0.00032 U	< 0.0015 U	< 0.0033 U	< 0.0012 U	< 0.0017 U	< 0.0016 U	< 0.0016 U	0.0035 JN	< 0.0021 U	< 0.0016 U
PCB-95	38379-99-6	ng/g	0.010 JN	0.090	0.12	0.12	0.12	0.12	0.10 JN	0.13	0.14	0.18 JN
PCB-96	73575-54-9	ng/g	< 0.00024 U	< 0.0011 U	< 0.0024 U	< 0.00089 U	0.0014 JN	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0016 U	< 0.0012 U
PCB-98/102	60233-25-2	ng/g	< 0.00030 U	0.0028 JN	0.0066 JN	0.0090 J	0.0079 J	< 0.0015 U	0.0060 JN	0.023	0.0082 JN	0.0063 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	0.65	3.3	4.7	4.3	4.2	4.0	4.1	4.0	4.6	8.0

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B001	B002	B003	B004	B005	B006	B007	B008	B009	B010
		Sample ID	PDI-SG-B001-BL1	PDI-SG-B002-BL1	PDI-SG-B003-BL1	PDI-SG-B004-BL1	PDI-SG-B005-BL1	PDI-SG-B006-BL1	PDI-SG-B007-BL1	PDI-SG-B008-BL1	PDI-SG-B009-BL1	PDI-SG-B010-BL1
		Sample Date	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-14 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.39 U	< 0.54 U	< 0.68 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.66 U	< 0.52 U	< 0.66 U	< 0.57 U
2,4-DDE	3424-82-6	µg/kg	< 0.40 U	< 0.54 U	1.6 J	< 0.65 U	< 0.64 U	1.4	< 0.66 U	< 0.52 U	< 0.66 U	< 0.57 U
2,4-DDT	789-02-6	µg/kg	< 0.47 UJ	< 0.54 UJ	< 0.68 UJ	< 0.65 UJ	< 0.64 UJ	< 0.59 UJ	< 0.66 UJ	< 0.52 UJ	0.66 J	< 0.57 UJ
4,4'-DDD	72-54-8	µg/kg	< 0.39 U	0.90	0.77	0.87	0.66	0.89	0.98	0.66	0.80	0.88
4,4'-DDE	72-55-9	µg/kg	< 0.39 U	1.4	1.8	2.0	1.5	1.7	2.2	1.1	1.9	1.5
4,4'-DDT	50-29-3	µg/kg	< 0.39 UJ	< 0.54 UJ	< 0.68 UJ	< 0.65 UJ	< 0.64 UJ	< 0.59 UJ	0.60 J	< 0.52 UJ	0.68 J	0.37 J
Total DDx (b)	T_DDx (PDI)	µg/kg	< 0.47 UJ	2.6	4.5	3.2	2.5	4.3	4.1	2.0	4.4	3.0
Aldrin	309-00-2	µg/kg	< 0.40 U	< 0.54 U	< 0.68 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.66 U	< 0.52 U	< 0.66 U	< 0.57 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.77 U	< 1.1 U	< 1.4 U	< 1.3 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.1 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.49 U	< 0.54 U	< 0.68 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.66 U	< 0.52 U	< 0.66 U	< 0.57 U
Dieldrin	60-57-1	µg/kg	< 1.0 U	< 1.1 U	< 1.4 U	< 1.3 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.1 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.39 U	< 0.54 U	< 0.68 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.66 U	< 0.52 U	< 0.66 U	< 0.57 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.77 U	< 1.1 U	< 1.4 U	< 1.3 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.1 U
Heptachlor	76-44-8	µg/kg	< 0.39 UJ	< 0.54 UJ	< 0.68 UJ	< 0.65 UJ	< 0.64 UJ	< 0.59 UJ	< 0.66 UJ	< 0.52 UJ	< 0.66 UJ	< 0.57 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.0 U	< 1.1 U	< 1.4 U	< 1.3 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.1 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.77 U	< 1.1 U	< 1.4 U	< 1.3 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.1 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1 U	< 1.1 U	< 1.4 U	< 1.3 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1 U	< 1.3 U	< 1.1 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	0.46 J	1.6	1.2 J	1.1 J	2.6	1.3	1.3 J	1.2	0.96 J	1.5
Acenaphthene	83-32-9	µg/kg	0.67 J	2.0	1.2	1.1	2.3	1.8	1.3	1.7	1.2	1.7
Acenaphthylene	208-96-8	µg/kg	6.9 J	2.0	1.4	1.3	1.6	2.6	1.2	3.1	1.7	2.9
Anthracene	120-12-7	µg/kg	8.2 J	4.4	3.8	3.0	4.4	21	3.7	5.1	3.9	5.2
Benz(a)anthracene	56-55-3	µg/kg	45 J	14	11	10	12	15	12	22	12	20
Benzo(a)pyrene	50-32-8	µg/kg	73 J	20	15	13	16	26	15	35	24	31
Benzo(b)fluoranthene	205-99-2	µg/kg	58 J	22	19	16	18	26	18	34	19	33
Benzo(g,h,i)perylene	191-24-2	µg/kg	57 J	17	14	12	14	22	13	30	17	26
Benzo(k)fluoranthene	207-08-9	µg/kg	20 J	7.3	5.6	5.3	5.9	8.3	6.2	11	6.1	11
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	13 J	100 J	94 J	150	91 J	73 J	100 J	41 J	76 J	66 J
Chrysene	218-01-9	µg/kg	55 J	21	20	16	16	23	20	30	23	28
Dibenz(a,h)anthracene	53-70-3	µg/kg	6.6	3.0	2.4	2.0	2.3	3.5	2.3	4.4	2.4	4.0
Fluoranthene	206-44-0	µg/kg	77 J	29	25	22	27	29	24	45	23	43
Fluorene	86-73-7	µg/kg	0.68 J	2.3	1.7	1.5	2.6	2.7	1.7	2.0	1.5	2.3
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	52 J	16	13	11	13	21	12	28	14	25
Naphthalene	91-20-3	µg/kg	1.5 J	3.3	2.1	2.2	3.8	2.7	2.1	2.7	2.0	3.6
Phenanthrene	85-01-8	µg/kg	13 J	15	11	9.8	19	13	10	17	10	15
Pyrene	129-00-0	µg/kg	120 J	36	30	27	33	37	29	56	31	53
Total PAHs (b)	T_PAH (PDI)	µg/kg	595	216	177	154	194	256	173	328	193	306
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	95	28	22	19	23	36	22	48	31	43
Metals												
Arsenic	7440-38-2	mg/kg	3.5	5.0	6.2	5.6	5.2	4.9	6.0	3.9	5.7	4.6
Cadmium	7440-43-9	mg/kg	0.23 J	0.41	0.33 J	0.39	0.31 J	0.37	0.36 J	0.27 J	0.36	0.33
Copper	7440-50-8	mg/kg	28	32	43	40	38	37	43	30	41	35
Lead	7439-92-1	mg/kg	8.7	10	12	11	11	11	12	8.7	11	10
Mercury	7439-97-6	mg/kg	0.032 J	0.061	0.055 J	0.062 J	0.059	0.066	0.061	0.050 J	0.065	0.059
Tri-n-butyltin	36643-28-4	µg/kg	< 1.5 U	1.4 J	1.4 J	1.9 J	1.9 J	< 2.3 U	3.8	< 2.1 U	< 2.6 U	3.6
Zinc	7440-66-6	mg/kg	72	100	110	100	98	100	110	83	100	93
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 75 U	37 J	48 J	64 J	66 J	51 J	93 J	43 J	< 120 U	< 110 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	39 J	230	440	390	390	270	500	240	260	110
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										
Total Solids@104C - E160.3 (f)	TSOLID	%	62.2	46.2	38.6	37.5	38.6	41.9	36.2	48.0	37.4	45.0
Total Solids@104C - E160.3M (f)	TSOLID	%	64.2	45.5	36.7	37.4	38.8	42.5	38.0	47.5	37.0	43.3
Total Solids@70C	TSOLID70	%	66	49	39	41	43	46	39	52	40	47
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0	0.1	0.2	0	0	0	0	0	0
Sand, Medium	GS-Msand	%	0.2	0.3	0.1	0.2	0.2	0.1	0.3	0.3	0.4	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	18.19	20.31	3.971	4.834	6.688	8.45	3.884	15.16	4.354	8.847
Sand, Fine (#230) (d)	GS-Fsand	%	24.8	26.1	5.7	6.7	9.1	12.3	5.3	22.2	5.8	12.6
Silt (#200) (d)	GS-Silt-200	%	74.50	74.18	83.72	88.76	87.11	91.44	92.71	79.43	95.34	91.05

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B001	B002	B003	B004	B005	B006	B007	B008	B009	B010
		Sample ID	PDI-SG-B001-BL1	PDI-SG-B002-BL1	PDI-SG-B003-BL1	PDI-SG-B004-BL1	PDI-SG-B005-BL1	PDI-SG-B006-BL1	PDI-SG-B007-BL1	PDI-SG-B008-BL1	PDI-SG-B009-BL1	PDI-SG-B010-BL1
		Sample Date	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	30 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-14 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	67.9	68.4	82.0	86.9	84.7	87.6	91.3	72.4	93.9	87.3
Clay	GS-Clay	%	7.2	5.3	12.1	5.9	5.9	0	3.1	5.1	0	0
Percent Fines (e)	GS-FINES	%	81.7	79.48	95.82	94.66	93.01	91.44	95.81	84.53	95.34	91.05
Total Organic Carbon	TOC	mg/kg	4500	17000	33000	31000	28000	20000	33000	18000	33000	21000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B011	B012	B013	B014	B015	B016	B017	B018	B019	B020
		Sample ID	PDI-SG-B011-BL1	PDI-SG-B012-BL1	PDI-SG-B013-BL1	PDI-SG-B014-BL1	PDI-SG-B015-BL1	PDI-SG-B016-BL1	PDI-SG-B017-BL1	PDI-SG-B018-BL1	PDI-SG-B019-BL1	PDI-SG-B020-BL1
		Sample Date	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.062 J	0.039 J	0.034 J	0.040 J	0.047 J	0.0087 J	0.042 J	0.027 J	0.030 J	0.060 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.011 JN	0.0066 JN	0.0058 JN	0.0061 JN	0.0070 JN	0.0015 JN	0.0061 JN	0.0047 JN	0.0052	0.010 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0012 J+	0.00090 J+	0.0010 J+	< 0.00026 U	< 0.00028 U	< 0.000077 U	< 0.00026 U	0.00068 J+	0.00074 J+	< 0.00035 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00073 J	0.00049 J+	0.00062 JN	0.00058 JN	0.00098 J	0.00014 JN	0.00054 J	0.00051 J+	0.00035 JN	0.00082 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0016 J	< 0.00022 U	0.0011 J	< 0.00034 U	0.0014 J	< 0.00011 U	< 0.00037 U	0.00079 JN	0.00097 J	< 0.00042 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0023 J	0.0012 J	0.0017 J	0.0015 J	0.0022 J	0.00029 JN	0.0016 J	0.0012 J	0.0013 J	0.0021 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00069 J	< 0.00019 U	0.00070 J	0.0031 J+	0.0038 J+	0.00057 J+	0.0031 J+	0.00041 J	< 0.00017 U	0.0034 J+
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0015 JN	0.00099 J	0.0014 J	0.0013 J	0.0016 J	0.00027 J	0.0012 J	0.00092 J	0.0010 J	0.0017 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00047 JN	0.00041 J+	0.00053 J+	< 0.00016 U	0.00044 J	< 0.000048 U	< 0.00016 U	0.00033 JN	0.00028 J+	< 0.00019 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00041 J	0.00036 J	0.00058 J	< 0.00023 U	0.0013 J	< 0.000070 U	< 0.00021 U	< 0.00010 U	0.00028 J	< 0.00027 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00073 J+	0.00059 J+	0.00082 J+	< 0.00017 U	0.0016 J	< 0.000045 U	< 0.00017 U	0.00058 J+	0.00051 J+	< 0.00021 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00026 J	0.00026 J	0.00047 J	< 0.00019 U	0.00062 J	< 0.000058 U	< 0.00021 U	0.00021 JN	0.00024 JN	< 0.00023 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00050 J	0.00029 J	0.00046 JN	< 0.00021 U	0.0010 J	< 0.000048 U	< 0.00019 U	0.00034 J	0.00031 J	0.00026 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00020 JN	0.00014 JN	0.00011 J	< 0.000084 U	0.00059 JN	< 0.000035 U	< 0.000081 U	0.00013 JN	0.00020 JN	< 0.00011 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0012 J	0.00070 J	0.00071 J	0.00053 J	0.00085 J	0.000062 J	0.00062 J	0.00067 J	0.00074 J	0.00057 J
OCDD	3268-87-9	µg/kg	0.55	0.34	0.29	0.30	0.32	0.059	0.31	0.24	0.26	0.46
OCDF	39001-02-0	µg/kg	0.046	0.060	0.024	0.023	0.026	0.0040 J	0.025	0.019	0.024	0.034
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0026	0.0016	0.0021	0.0014	0.0041	0.00029	0.0014	0.0012	0.0015	0.0019
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0023	0.0015	0.0019	0.0013	0.0038	0.00023	0.0013	0.00091	0.0014	0.0019
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0022	0.0015	0.0019	0.0011	0.0035	0.0002	0.0012	0.00084	0.0013	0.0018
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.017	< 0.00073 U	< 0.00062 U	< 0.0024 U	0.0054 JN	< 0.00081 U	0.0037 J+	< 0.00061 U	< 0.00078 U	< 0.0026 U
PCB-10	33146-45-1	ng/g	0.0048 J	< 0.0012 U	< 0.0016 U	< 0.0023 U	< 0.0023 U	< 0.0021 U	< 0.0024 U	< 0.00073 U	< 0.0014 U	< 0.0014 U
PCB-103	60145-21-3	ng/g	0.013 JN	< 0.0018 U	0.0091 JN	0.0064 JN	0.0043 J	< 0.00024 U	0.0041 JN	< 0.0012 U	0.0031 JN	0.0084 J
PCB-104	56558-16-8	ng/g	< 0.0011 U	< 0.0014 U	< 0.0015 U	< 0.00049 U	< 0.00036 U	< 0.00018 U	< 0.00025 U	< 0.00094 U	< 0.0013 U	< 0.00016 U
PCB-105	32598-14-4	ng/g	0.54	0.053	0.11	0.16	0.084	0.021 JN	0.13	0.060	0.064	0.095
PCB-106	70424-69-0	ng/g	< 0.0041 U	< 0.0025 U	< 0.0043 U	< 0.0015 U	< 0.0014 U	< 0.00056 U	< 0.0012 U	< 0.0028 U	< 0.0023 U	< 0.0010 U
PCB-107	70424-68-9	ng/g	0.10	0.011 JN	0.023 JN	0.034	0.020	0.0043 JN	0.030	0.013 JN	0.014	0.027
PCB-108/124	70362-41-3	ng/g	0.044	< 0.0025 U	0.013 J	0.017 J	0.0087 J	0.0022 J	0.013 J	0.0061 JN	0.0046 JN	0.0097 J
PCB-11	2050-67-1	ng/g	0.11	0.060	0.13	0.090	0.070	0.020 JN	0.11	0.047 JN	0.057	0.15
PCB-110/115	38380-03-9	ng/g	1.3	0.17	0.40	0.50	0.25	0.067	0.33	0.19	0.20	0.35
PCB-111	39635-32-0	ng/g	< 0.00094 U	< 0.0012 U	< 0.0013 U	< 0.00045 U	< 0.00034 U	< 0.00017 U	< 0.00024 U	< 0.00084 U	< 0.0011 U	< 0.00014 U
PCB-112	74472-36-9	ng/g	< 0.0010 U	< 0.0014 U	< 0.0014 U	< 0.00047 U	< 0.00035 U	< 0.00018 U	< 0.00025 U	0.0023 JN	< 0.0012 U	< 0.00015 U
PCB-114	74472-37-0	ng/g	0.034	< 0.0022 U	< 0.0040 U	0.0081 J	0.0043 J	0.0014 JN	0.0059 J	< 0.0024 U	< 0.0021 U	0.0034 JN
PCB-118	31508-00-6	ng/g	1.1	0.14	0.30	0.39	0.23	0.057	0.31	0.16	0.17	0.29
PCB-12/13	2974-92-7	ng/g	0.036 JN	< 0.0010 U	0.0073 JN	0.0046 JN	0.0044 JN	< 0.0019 U	0.0061 JN	0.0027 JN	0.0025 JN	0.0041 JN
PCB-120	68194-12-7	ng/g	< 0.00093 U	< 0.0012 U	< 0.0013 U	< 0.00046 U	0.0021 JN	< 0.00017 U	< 0.00024 U	< 0.00083 U	< 0.0011 U	< 0.00015 U
PCB-121	56558-18-0	ng/g	< 0.0010 U	< 0.0013 U	< 0.0014 U	< 0.00047 U	< 0.00035 U	< 0.00018 U	< 0.00025 U	< 0.00090 U	< 0.0012 U	< 0.00015 U
PCB-122	76842-07-4	ng/g	0.024 JN	< 0.0028 U	< 0.0047 U	< 0.0017 U	< 0.0016 U	< 0.00064 U	0.0058 J	< 0.0031 U	< 0.0026 U	0.0027 JN
PCB-123	65510-44-3	ng/g	0.029	< 0.0023 U	0.0075 JN	0.0043 JN	0.0035 JN	0.00073 JN	0.0068 J	< 0.0025 U	0.0044 J	0.0051 JN
PCB-126	57465-28-8	ng/g	< 0.0040 U	< 0.0024 U	< 0.0042 U	< 0.0017 U	< 0.0015 U	< 0.00057 U	< 0.0013 U	< 0.0030 U	< 0.0022 U	< 0.0010 U
PCB-127	39635-33-1	ng/g	< 0.0039 U	< 0.0024 U	< 0.0041 U	< 0.0015 U	< 0.0014 U	< 0.00056 U	< 0.0012 U	< 0.0027 U	< 0.0022 U	< 0.0010 U
PCB-128/166	38380-07-3	ng/g	0.16	0.033 JN	0.062 JN	0.094	0.058	0.011 J	0.062	0.043	0.041	0.063
PCB-129/138/160/163	55215-18-4	ng/g	0.90	0.24	0.53	0.67	0.45	0.084	0.52	0.22 JN	0.29	0.54
PCB-130	52663-66-8	ng/g	0.062	0.013 JN	0.032	0.039 JN	0.025	0.0034 JN	0.033	0.018 JN	0.019 JN	0.030
PCB-131	61798-70-7	ng/g	0.015	< 0.0030 U	0.0056 JN	0.0082 JN	< 0.0024 U	< 0.0010 U	< 0.0027 U	< 0.0037 U	0.0032 JN	0.0040 JN
PCB-132	38380-05-1	ng/g	0.30	0.063	0.16	0.23	0.13	0.020 JN	0.14	0.080	0.083	0.16
PCB-133	35694-04-3	ng/g	0.012 JN	< 0.0028 U	0.014	0.012	0.011 J	< 0.00092 U	0.0099 JN	< 0.0034 U	0.0037 JN	0.0097 J
PCB-134/143	52704-70-8	ng/g	0.057	0.011 JN	0.033	0.028 JN	0.020 J	< 0.00096 U	0.024 J	< 0.0036 U	0.012 J	0.023 J
PCB-135/151	52744-13-5	ng/g	0.29	0.091	0.25	0.16	0.095 JN	0.018 J	0.13	0.12	0.10	0.20
PCB-136	38411-22-2	ng/g	0.12	0.034	0.080	0.061	0.034 JN	0.0055 JN	0.045	0.038	0.037	0.077
PCB-137	35694-06-5	ng/g	0.046	0.0055 JN	0.017	0.025	0.013 JN	0.0021 JN	0.018	0.0095 JN	0.0097 J	0.018
PCB-139/140	56030-56-9	ng/g	0.016 JN	0.0044 JN	0.0054 JN	0.012 J	0.0061 J	< 0.00082 U	0.0074 JN	< 0.0031 U	< 0.0026 U	0.0048 JN
PCB-14	34883-41-5	ng/g	< 0.0018 U	< 0.00095 U	< 0.0013 U	< 0.0018 U	< 0.0018 U	< 0.0016 U	< 0.0018 U	< 0.00057 U	< 0.0011 U	< 0.0011 U
PCB-141	52712-04-6	ng/g	0.17	0.040 JN	0.11	0.11	0.069	0.011 JN	0.087	0.049	0.044	0.098
PCB-142	41411-61-4	ng/g	< 0.0026 U	< 0.0028 U	< 0.0028 U	< 0.0034 U	< 0.0021 U	< 0.00091 U	< 0.0025 U	< 0.0035 U	< 0.0030 U	< 0.0014 U
PCB-144	68194-14-9	ng/g	0.038	0.0071 J	0.022 JN	0.015 JN	0.0080 JN	0.0018 JN	0.013	0.0090 JN	0.013	0.021
PCB-145	74472-40-5	ng/g	< 0.00014 U	< 0.00018 U	< 0.00015 U	< 0.00028 U	< 0.000093 U	< 0.000047 U	< 0.00014 U	< 0.00017 U	< 0.00013 U	< 0.000094 U
PCB-146	51908-16-8	ng/g	0.15	0.037 JN	0.10	0.11	0.085	0.0074 JN	0.099	0.038 JN	0.047	0.087
PCB-147/149	68194-13-8	ng/g	0.67	0.18	0.45	0.56	0.37	0.052 J-	0.44	0.19 JN	0.22	0.53
PCB-148	74472-41-6	ng/g	0.0031 J	< 0.00025 U	< 0.00020 U	< 0.00040 U	0.0012 J	< 0.000066 U	0.0014 JN	< 0.00022 U	0.0012 JN	0.0015 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B011	B012	B013	B014	B015	B016	B017	B018	B019	B020
		Sample ID	PDI-SG-B011-BL1	PDI-SG-B012-BL1	PDI-SG-B013-BL1	PDI-SG-B014-BL1	PDI-SG-B015-BL1	PDI-SG-B016-BL1	PDI-SG-B017-BL1	PDI-SG-B018-BL1	PDI-SG-B019-BL1	PDI-SG-B020-BL1
		Sample Date	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.45	0.012 JN	0.026	0.030	0.017	0.0034 JN	0.036	0.014	0.015 JN	0.019
PCB-150	68194-08-1	ng/g	0.0032 JN	< 0.00017 U	0.0032 JN	0.0017 JN	< 0.000089 U	< 0.000045 U	0.0014 JN	0.00056 J	0.00039 JN	0.0017 JN
PCB-152	68194-09-2	ng/g	< 0.00014 U	< 0.00018 U	0.00087 JN	< 0.00029 U	< 0.000095 U	< 0.000049 U	< 0.00014 U	< 0.00016 U	< 0.00012 U	< 0.000097 U
PCB-153/168	35065-27-1	ng/g	0.70	0.20	0.47	0.52	0.37	0.056	0.45	0.22	0.23	0.50
PCB-154	60145-22-4	ng/g	0.019	0.0039 J	0.016 JN	0.0071 JN	0.0066 JN	0.00085 JN	0.0098 J	0.0087 JN	0.0065 J	0.0092 J
PCB-155	33979-03-2	ng/g	< 0.00013 U	< 0.00017 U	0.00057 JN	< 0.00027 U	< 0.000089 U	< 0.000045 U	< 0.00013 U	< 0.00015 U	< 0.00012 U	< 0.000090 U
PCB-156/157	38380-08-4	ng/g	0.12	0.022 JN	0.056	0.064	0.039	0.0079 JN	0.044	0.027	0.028	0.045
PCB-158	74472-42-7	ng/g	0.10	0.023	0.047	0.062	0.030 JN	0.0081 J	0.038	0.025	0.028	0.043
PCB-159	39635-35-3	ng/g	0.0074 J	< 0.0018 U	0.0058 J	< 0.0023 U	< 0.0014 U	< 0.00061 U	< 0.0016 U	< 0.0022 U	0.0025 JN	0.0034 JN
PCB-16	38444-78-9	ng/g	0.080 JN	0.012 JN	0.020 JN	0.012 JN	0.0071 J	0.0027 J	0.013 JN	0.017 JN	0.0076 JN	0.013
PCB-161	74472-43-8	ng/g	< 0.0017 U	< 0.0018 U	< 0.0018 U	< 0.0023 U	< 0.0014 U	< 0.00061 U	< 0.0016 U	< 0.0023 U	< 0.0019 U	< 0.00092 U
PCB-162	39635-34-2	ng/g	0.0078 JN	< 0.0017 U	< 0.0017 U	< 0.0023 U	< 0.0014 U	< 0.00060 U	< 0.0016 U	< 0.0021 U	< 0.0018 U	0.0023 JN
PCB-164	74472-45-0	ng/g	0.066	0.020	0.036	0.045	0.025 JN	0.0042 JN	0.035	0.021	0.023	0.036
PCB-165	74472-46-1	ng/g	< 0.0020 U	< 0.0021 U	< 0.0021 U	< 0.0026 U	< 0.0016 U	< 0.00069 U	< 0.0019 U	< 0.0026 U	< 0.0022 U	< 0.0010 U
PCB-167	52663-72-6	ng/g	0.037	0.0078 JN	0.019	0.020	0.011 JN	0.0024 JN	0.016	0.0084 JN	0.0080 JN	0.015
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.0013 U	< 0.0013 U	< 0.0020 U	< 0.0012 U	< 0.00048 U	< 0.0014 U	< 0.0015 U	< 0.0015 U	< 0.00073 U
PCB-17	37680-66-3	ng/g	0.48	0.012	0.033	0.024	0.013 JN	0.0040 JN	0.037	0.013 JN	0.019	0.025
PCB-170	35065-30-6	ng/g	0.24	0.067	0.17	0.13	0.12	0.019 JN	0.14	0.085	0.090	0.14 J
PCB-171/173	52663-71-5	ng/g	0.079	0.030	0.054	0.038	0.029	0.0060 JN	0.036	0.023 JN	0.026	0.041 J
PCB-172	52663-74-8	ng/g	0.040	0.010 JN	0.031	0.020	0.016	< 0.00060 U	0.020	0.0091 JN	0.017 JN	0.019 JN
PCB-174	38411-25-5	ng/g	0.26	0.088	0.19	0.12	0.11	0.017	0.12	0.071 JN	0.094	0.14 J
PCB-175	40186-70-7	ng/g	0.011 J	0.0015 JN	0.0038 JN	0.0049 J	0.0031 JN	< 0.00054 U	0.0030 JN	< 0.00012 U	0.0041 JN	0.0049 JN
PCB-176	52663-65-7	ng/g	0.023 JN	0.0072 J	0.020 JN	0.015	0.014	< 0.00041 U	0.014	0.0062 JN	0.0055 JN	0.019 J
PCB-177	52663-70-4	ng/g	0.15	0.057	0.11	0.067	0.077	0.0099	0.082	0.040	0.055	0.085 J
PCB-178	52663-67-9	ng/g	0.049 JN	0.015 JN	0.040	0.031	0.024	0.0032 JN	0.027 JN	0.019 JN	0.016 JN	0.035 J
PCB-179	52663-64-6	ng/g	0.10	0.033	0.089	0.062	0.059	0.0068 J	0.059 JN	0.027 JN	0.041	0.077 J
PCB-18/30	37680-65-2	ng/g	0.67	0.024	0.043 JN	0.038	0.029	0.0073 J	0.053	0.035	0.027	0.043
PCB-180/193	35065-29-3	ng/g	0.53	0.18	0.37	0.23	0.24	0.036	0.25	0.18	0.21	0.28 J
PCB-181	74472-47-2	ng/g	< 0.000035 U	0.0023 JN	< 0.00043 U	< 0.0011 U	< 0.00074 U	< 0.00054 U	< 0.00073 U	< 0.00012 U	< 0.000076 U	< 0.00017 UJ
PCB-182	60145-23-5	ng/g	< 0.000033 U	< 0.00022 U	< 0.00041 U	< 0.0010 U	< 0.00071 U	< 0.00052 U	< 0.00071 U	< 0.00011 U	< 0.000072 U	< 0.00017 UJ
PCB-183/185	52663-69-1	ng/g	0.16	0.045 JN	0.12	0.083	0.080	0.012 J	0.085	0.056	0.062	0.097 J
PCB-184	74472-48-3	ng/g	< 0.000028 U	< 0.00018 U	< 0.00035 U	< 0.00088 U	< 0.00061 U	< 0.00044 U	< 0.00060 U	< 0.000096 U	< 0.000062 U	< 0.00014 UJ
PCB-186	74472-49-4	ng/g	< 0.000027 U	< 0.00018 U	< 0.00034 U	< 0.00085 U	< 0.00059 U	< 0.00043 U	< 0.00058 U	< 0.000092 U	< 0.000059 U	< 0.00014 UJ
PCB-187	52663-68-0	ng/g	0.29	0.11	0.25	0.16	0.17	0.020	0.17	0.11 JN	0.13	0.19 J
PCB-188	74487-85-7	ng/g	< 0.000025 U	< 0.00017 U	< 0.00033 U	< 0.00069 U	< 0.00049 U	< 0.00038 U	< 0.00049 U	< 0.000085 U	< 0.000056 U	< 0.00012 U
PCB-189	39635-31-9	ng/g	0.012	0.0029 JN	0.0080 J	< 0.0024 U	0.0037 JN	< 0.00071 U	< 0.0017 U	0.0027 JN	0.0032 J	0.0053 J
PCB-19	38444-73-4	ng/g	0.078 JN	0.0061 JN	0.016 JN	0.015	0.011 JN	0.0023 J	0.016	0.0063 JN	0.0077 JN	0.020 JN
PCB-190	41411-64-7	ng/g	0.056	0.014 JN	0.030 JN	0.017	0.015 JN	0.0032 J+	0.019	0.020 JN	0.016	0.021 J
PCB-191	74472-50-7	ng/g	0.012	0.0031 J	0.0072 J	0.0042 J+	0.0035 JN	< 0.00041 U	0.0039 J+	0.0037 JN	0.0039 JN	0.0036 JN
PCB-192	74472-51-8	ng/g	< 0.000028 U	< 0.00018 U	< 0.00035 U	< 0.00090 U	< 0.00062 U	< 0.00045 U	< 0.00062 U	< 0.000093 U	< 0.000061 U	< 0.00015 UJ
PCB-194	35694-08-7	ng/g	0.12	0.039 JN	0.089	0.071	0.068	0.0060 JN	0.070	0.050 JN	0.054	0.064
PCB-195	52663-78-2	ng/g	0.050	0.020	0.047	0.022	0.027	0.0031 JN	0.032	0.019 JN	0.019	0.025
PCB-196	42740-50-1	ng/g	0.069	0.022	0.042	0.025	0.023	0.0027 JN	0.027	0.029 JN	0.021	0.031
PCB-197	33091-17-7	ng/g	0.0018 JN	< 0.00023 U	0.0028 JN	0.0027 JN	< 0.00075 U	< 0.00017 U	0.0018 JN	0.0023 J	0.0018 JN	0.0018 JN
PCB-198/199	68194-17-2	ng/g	0.14 JN	0.061	0.12 JN	0.062	0.059	0.0092 J	0.073	0.072	0.069	0.074
PCB-2	2051-61-8	ng/g	0.023 JN	0.013 JN	0.023 JN	0.0098 J	0.0095 JN	0.0021 J	0.010 JN	0.018	0.017	0.0075 JN
PCB-20/28	38444-84-7	ng/g	1.5	0.069	0.13	0.11	0.068	0.014 J	0.14	0.071	0.072	0.090
PCB-200	52663-73-7	ng/g	0.016 JN	0.0052 JN	0.0089 JN	0.0069 JN	0.0038 JN	0.00064 J	0.0064 J	0.0046 JN	0.0042 JN	0.0052 JN
PCB-201	40186-71-8	ng/g	0.018	0.0041 JN	0.015 JN	0.0065 J	0.0066 J	0.00040 JN	0.0061 JN	0.0048 JN	0.0062 JN	0.0074 JN
PCB-202	2136-99-4	ng/g	0.029	0.011	0.026	0.017 JN	0.017	0.00098 JN	0.015	0.015	0.0091 JN	0.014
PCB-203	52663-76-0	ng/g	0.097	0.028 JN	0.082	0.036	0.034	0.0051 JN	0.032 JN	0.043 JN	0.037	0.039
PCB-204	74472-52-9	ng/g	< 0.00040 U	< 0.00025 U	< 0.00064 U	< 0.00097 U	< 0.00075 U	< 0.00017 U	< 0.00041 U	< 0.00053 U	< 0.00018 U	< 0.00015 U
PCB-205	74472-53-0	ng/g	0.0079 J	0.0011 JN	0.0063 J	< 0.0040 U	< 0.0029 U	< 0.0013 U	< 0.0025 U	0.0017 JN	0.0027 J	0.0026 JN
PCB-206	40186-72-9	ng/g	0.097	0.065 JN	0.11 JN	< 0.0079 U	0.043	0.0047 JN	0.061 JN	0.047 JN	0.039	0.066
PCB-207	52663-79-3	ng/g	0.0056 JN	0.0022 JN	0.0062 JN	< 0.0047 U	< 0.0030 U	< 0.0019 U	< 0.0030 U	< 0.0046 U	< 0.0015 U	0.0041 JN
PCB-208	52663-77-1	ng/g	0.019 JN	0.011 JN	0.019 JN	0.016	0.016	< 0.0019 U	0.018 JN	< 0.0048 U	< 0.0018 U	0.025
PCB-209	2051-24-3	ng/g	0.064	0.037 JN	0.094	0.065	0.054	0.0071 JN	0.076 JN	0.038	0.041	0.064
PCB-21/33	55702-46-0	ng/g	0.23	0.023 JN	0.051	0.034	0.023 J	0.0058 J	0.043	0.031	0.029	0.030
PCB-22	38444-85-8	ng/g	0.22	0.019 JN	0.036	0.027	0.018	0.0041 J+	0.032	0.020 JN	0.020	0.025
PCB-23	55720-44-0	ng/g	< 0.0069 U	< 0.0015 U	< 0.0019 U	< 0.00077 U	< 0.00071 U	< 0.00035 U	< 0.00065 U	< 0.0012 U	< 0.0012 U	< 0.00052 U
PCB-24	55702-45-9	ng/g	< 0.0014 U	< 0.00029 U	< 0.00050 U	< 0.00054 U	< 0.00047 U	< 0.00030 U	< 0.00050 U	< 0.00032 U	0.0013 JN	0.00042 JN
PCB-25	55712-37-3	ng/g	0.21	0.0060 J	0.014	0.010 J	0.0054 JN	< 0.00032 U	0.011 J	0.0051 JN	0.0067 JN	0.0095 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B011	B012	B013	B014	B015	B016	B017	B018	B019	B020
		Sample ID	PDI-SG-B011-BL1	PDI-SG-B012-BL1	PDI-SG-B013-BL1	PDI-SG-B014-BL1	PDI-SG-B015-BL1	PDI-SG-B016-BL1	PDI-SG-B017-BL1	PDI-SG-B018-BL1	PDI-SG-B019-BL1	PDI-SG-B020-BL1
		Sample Date	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.33	0.013 J	0.022	0.016 J	0.012 J	0.0020 J	0.021 J	0.011 J	0.011 J	0.017 J
PCB-27	38444-76-7	ng/g	0.064	0.00099 JN	0.0088 J	0.0047 J	0.0022 JN	< 0.00026 U	0.0066 J	0.0027 JN	0.0018 J	0.0050 J
PCB-3	2051-62-9	ng/g	0.035	0.0040 J	0.0049 JN	0.0041 J+	0.0055 JN	< 0.0012 U	0.0052 J+	0.0049 JN	0.0034 JN	0.0033 J+
PCB-31	16606-02-3	ng/g	0.97	0.047	0.095	0.077	0.047	0.012 J	0.096	0.051	0.047	0.068
PCB-32	38444-77-8	ng/g	0.43	0.0074 J	0.024	0.014 JN	0.011 J	0.0016 JN	0.023 JN	0.011	0.012	0.014 JN
PCB-34	37680-68-5	ng/g	0.017	< 0.0016 U	< 0.0020 U	< 0.00080 U	< 0.00074 U	< 0.00036 U	< 0.00067 U	< 0.0013 U	< 0.0013 U	< 0.00054 U
PCB-35	37680-69-6	ng/g	< 0.0068 U	< 0.0015 U	< 0.0019 U	0.0026 J+	0.0013 JN	< 0.00035 U	0.0015 J+	0.0017 JN	< 0.0012 U	0.0019 J+
PCB-36	38444-87-0	ng/g	< 0.0062 U	< 0.0014 U	< 0.0017 U	< 0.00075 U	< 0.00069 U	< 0.00034 U	< 0.00063 U	< 0.0011 U	< 0.0011 U	< 0.00051 U
PCB-37	38444-90-5	ng/g	0.28	0.024	0.040 JN	0.035	0.023	0.0044 J	0.045	0.020	0.023	0.027 JN
PCB-38	53555-66-1	ng/g	< 0.0067 U	< 0.0015 U	< 0.0018 U	< 0.00081 U	< 0.00074 U	< 0.00036 U	< 0.00068 U	< 0.0012 U	< 0.0012 U	< 0.00055 U
PCB-39	38444-88-1	ng/g	0.011 J	< 0.0014 U	< 0.0017 U	< 0.00072 U	< 0.00067 U	< 0.00033 U	< 0.00061 U	< 0.0011 U	< 0.0011 U	< 0.00049 U
PCB-4	13029-08-8	ng/g	0.14	0.0090 JN	0.022	0.015 J	0.014 JN	0.0029 J	0.023 J	0.0087 J	0.0078 JN	0.020 J
PCB-40/41/71	38444-93-8	ng/g	0.87	0.032	0.063	0.073	0.041	0.0060 J	0.096	0.039	0.042	0.057
PCB-42	36559-22-5	ng/g	0.32	0.019	0.036	0.032	0.018	< 0.0013 U	0.046	0.020	0.021 JN	0.028
PCB-43/73	70362-46-8	ng/g	0.043	< 0.0021 U	0.0056 JN	0.0049 J	< 0.0019 U	< 0.0012 U	0.0044 JN	< 0.0032 U	< 0.0021 U	0.0056 JN
PCB-44/47/65	41464-39-5	ng/g	1.3	0.083	0.16	0.20	0.099	0.020 J	0.20	0.092	0.097	0.16
PCB-45/51	70362-45-7	ng/g	0.25	0.014 JN	0.029 JN	0.025 JN	0.019 J	< 0.0014 U	0.032 JN	< 0.0037 U	0.016 J	0.031
PCB-46	41464-47-5	ng/g	0.11	0.0046 J	0.0057 JN	< 0.0030 U	< 0.0026 U	< 0.0016 U	0.0080 JN	< 0.0043 U	< 0.0029 U	0.0064 JN
PCB-48	70362-47-9	ng/g	0.17	0.012	0.021	0.016	0.0099 JN	0.0023 JN	0.024	0.015	0.012	0.016
PCB-49/69	41464-40-8	ng/g	1.1	0.053	0.11	0.12	0.074	0.0094 JN	0.14	0.055	0.072	0.12
PCB-5	16605-91-7	ng/g	< 0.0022 U	0.0024 J	< 0.0015 U	< 0.0024 U	< 0.0023 U	< 0.0021 U	< 0.0024 U	< 0.00068 U	< 0.0013 U	< 0.0014 U
PCB-50/53	62796-65-0	ng/g	0.25	0.0097 JN	0.026	0.025	0.021 J	0.0026 JN	0.030	0.016 J	0.013 JN	0.033
PCB-52	35693-99-3	ng/g	1.7	0.10	0.20	0.28	0.14	0.036	0.23	0.11	0.13	0.22
PCB-54	15968-05-5	ng/g	0.0062 JN	< 0.00028 U	0.0050 JN	0.0034 JN	0.0025 JN	< 0.000058 U	0.0020 JN	< 0.00024 U	0.00091 JN	0.0024 JN
PCB-55	74338-24-2	ng/g	0.030 JN	< 0.0016 U	0.0025 JN	< 0.0017 U	< 0.0015 U	< 0.00094 U	0.0022 JN	< 0.0024 U	< 0.0016 U	0.0016 JN
PCB-56	41464-43-1	ng/g	0.58	0.031	0.058 JN	0.060	0.037	0.0056 J	0.091	0.031	0.041	0.049
PCB-57	70424-67-8	ng/g	< 0.0033 U	< 0.0017 U	< 0.0014 U	< 0.0017 U	< 0.0015 U	< 0.00096 U	< 0.0011 U	< 0.0024 U	< 0.0016 U	< 0.0010 U
PCB-58	41464-49-7	ng/g	< 0.0031 U	< 0.0016 U	< 0.0013 U	< 0.0018 U	< 0.0015 U	< 0.00097 U	< 0.0011 U	< 0.0023 U	< 0.0016 U	< 0.0010 U
PCB-59/62/75	74472-33-6	ng/g	0.10	0.0084 J	0.011 JN	0.0092 J	0.0046 JN	< 0.00091 U	0.015 J	0.0046 JN	0.0073 J	0.0083 JN
PCB-6	25569-80-6	ng/g	0.15	< 0.0011 U	0.0075 J	0.0087 JN	0.0030 JN	< 0.0018 U	0.010 J	0.0052 JN	0.0029 JN	0.0073 J
PCB-60	33025-41-1	ng/g	0.25	0.012	0.022	0.025	0.015	0.0040 J	0.041	0.011 JN	0.015	0.018
PCB-61/70/74/76	33284-53-6	ng/g	1.9	0.14	0.25	0.30	0.16	0.037 J	0.32	0.13	0.16	0.23
PCB-63	74472-34-7	ng/g	0.053	< 0.0014 U	0.0044 J	0.0038 JN	0.0035 J	< 0.00088 U	0.0069 J	< 0.0021 U	0.0040 J	0.0043 J
PCB-64	52663-58-8	ng/g	0.49	0.034	0.052	0.060	0.031	0.0052 JN	0.073	0.029	0.034	0.043
PCB-66	32598-10-0	ng/g	1.3	0.076 JN	0.16	0.16	0.092	0.016	0.22	0.090	0.10	0.13
PCB-67	73575-53-8	ng/g	0.026 JN	0.0018 JN	0.0042 J	< 0.0015 U	< 0.0013 U	< 0.00083 U	0.0040 JN	< 0.0023 U	0.0017 JN	0.0027 J
PCB-68	73575-52-7	ng/g	0.019	< 0.0014 U	< 0.0012 U	< 0.0015 U	< 0.0013 U	< 0.00085 U	< 0.00098 U	< 0.0021 U	< 0.0014 U	0.0028 JN
PCB-7	33284-50-3	ng/g	0.012	< 0.0011 U	< 0.0015 U	0.0025 JN	< 0.0021 U	< 0.0019 U	< 0.0022 U	0.0022 J	< 0.0012 U	< 0.0013 U
PCB-72	41464-42-0	ng/g	0.026 JN	< 0.0016 U	0.0036 J	< 0.0017 U	< 0.0015 U	< 0.00094 U	0.0031 JN	< 0.0024 U	0.0018 JN	0.0028 JN
PCB-77	32598-13-3	ng/g	0.15	0.0087 J	0.018 JN	0.015	0.0095 J	0.0021 J	0.022	0.011 JN	0.010	0.012 JN
PCB-78	70362-49-1	ng/g	< 0.0031 U	< 0.0016 U	< 0.0013 U	< 0.0018 U	< 0.0015 U	< 0.00097 U	< 0.0011 U	< 0.0024 U	< 0.0016 U	< 0.0010 U
PCB-79	41464-48-6	ng/g	0.011 JN	< 0.0014 U	< 0.0011 U	< 0.0015 U	< 0.0013 U	< 0.00084 U	< 0.00097 U	< 0.0020 U	< 0.0013 U	0.0026 J
PCB-8	34883-43-7	ng/g	0.43	0.017 J	0.033	0.026	0.012 JN	0.0036 JN	0.031	0.014 JN	0.014 J	0.022 J
PCB-80	33284-52-5	ng/g	< 0.0028 U	< 0.0014 U	< 0.0012 U	< 0.0015 U	< 0.0013 U	< 0.00082 U	< 0.00095 U	< 0.0021 U	< 0.0014 U	< 0.00086 U
PCB-81	70362-50-4	ng/g	< 0.0030 U	< 0.0015 U	< 0.0013 U	< 0.0016 U	< 0.0014 U	< 0.00090 U	< 0.0010 U	< 0.0023 U	< 0.0015 U	< 0.00091 U
PCB-82	52663-62-4	ng/g	0.19	0.015 JN	0.038	0.035 JN	0.019	0.0057 JN	0.035	0.014 JN	0.021 JN	0.023 JN
PCB-83/99	60145-20-2	ng/g	0.90	0.10 JN	0.23	0.25	0.14	0.026 JN	0.19	0.11	0.11	0.19
PCB-84	52663-60-2	ng/g	0.36	0.024 JN	0.071	0.11	0.041	0.012	0.064	0.037	0.038	0.080
PCB-85/116/117	65510-45-4	ng/g	0.29	0.029 J	0.064	0.073	0.037 J	0.0058 JN	0.064	0.023 JN	0.034	0.056
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.80	0.090	0.21	0.28	0.14	0.032 JN	0.19	0.10 JN	0.11	0.19
PCB-88/91	55215-17-3	ng/g	0.24	0.026	0.059	0.071	0.035	0.0071 J	0.043	0.021 JN	0.033	0.059
PCB-89	73575-57-2	ng/g	0.027 JN	< 0.0021 U	< 0.0022 U	0.0051 J	< 0.00054 U	< 0.00027 U	< 0.00038 U	< 0.0014 U	< 0.0019 U	< 0.00023 U
PCB-9	34883-39-1	ng/g	0.013 JN	< 0.0013 U	0.0041 JN	< 0.0022 U	< 0.0021 U	< 0.0019 U	< 0.0023 U	< 0.00075 U	< 0.0014 U	0.0017 JN
PCB-90/101/113	68194-07-0	ng/g	1.1	0.15	0.38	0.44	0.22	0.054	0.29	0.16	0.18	0.37
PCB-92	52663-61-3	ng/g	0.24	0.032 JN	0.075	0.083	0.039	0.0084 JN	0.049	0.037	0.035	0.071
PCB-93/100	73575-56-1	ng/g	0.042	< 0.0019 U	0.017 JN	0.010 JN	0.0080 JN	< 0.00024 U	0.0051 JN	0.0068 J	< 0.0018 U	0.012 J
PCB-94	73575-55-0	ng/g	0.013 JN	< 0.0021 U	< 0.0022 U	< 0.00072 U	0.0032 J	< 0.00027 U	< 0.00038 U	0.0026 JN	< 0.0019 U	< 0.00023 U
PCB-95	38379-99-6	ng/g	0.84	0.12	0.26	0.35	0.16	0.048	0.23	0.12	0.14	0.32
PCB-96	73575-54-9	ng/g	0.014 JN	< 0.0015 U	< 0.0016 U	0.0040 JN	< 0.00041 U	< 0.00021 U	< 0.00029 U	0.0015 JN	< 0.0014 U	0.0032 JN
PCB-98/102	60233-25-2	ng/g	0.094	< 0.0019 U	0.014 JN	0.014 J	0.0048 JN	0.0012 JN	0.0074 JN	0.0034 JN	0.0090 J	0.0089 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	33	4.0	9.0	9.0	5.8	1.1	8.1	4.2	4.7	8.1

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B011	B012	B013	B014	B015	B016	B017	B018	B019	B020
		Sample ID	PDI-SG-B011-BL1	PDI-SG-B012-BL1	PDI-SG-B013-BL1	PDI-SG-B014-BL1	PDI-SG-B015-BL1	PDI-SG-B016-BL1	PDI-SG-B017-BL1	PDI-SG-B018-BL1	PDI-SG-B019-BL1	PDI-SG-B020-BL1
		Sample Date	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.63 U	0.37 J	< 0.57 U	< 0.65 U	0.41 J	< 0.38 U	< 0.64 U	< 0.58 U	< 0.56 U	0.44 J
2,4-DDE	3424-82-6	µg/kg	< 0.63 U	< 0.58 U	< 0.57 U	< 0.65 U	< 0.63 U	< 0.40 U	< 0.64 U	< 0.58 U	< 0.56 U	< 0.66 U
2,4-DDT	789-02-6	µg/kg	< 0.63 UJ	< 0.58 UJ	< 0.57 UJ	< 0.65 UJ	< 0.63 UJ	< 0.47 U	< 0.64 UJ	< 0.58 UJ	< 0.56 UJ	< 0.66 U
4,4'-DDD	72-54-8	µg/kg	0.86	1.1	0.73	1.1	1.3	< 0.38 U	0.66	0.72	0.90	1.3
4,4'-DDE	72-55-9	µg/kg	1.7	1.3	1.5	2.3	1.8	< 0.38 U	1.5	1.4	1.6	4.1
4,4'-DDT	50-29-3	µg/kg	< 0.63 UJ	0.51 J	< 0.57 UJ	3.5 J	1.1 J	< 0.38 UJ	0.35 J	< 0.58 UJ	< 0.56 UJ	< 0.66 UJ
Total DDx (b)	T_DDx (PDI)	µg/kg	2.9	3.6	2.5	7.2	4.9	< 0.47 U	2.8	2.4	2.8	6.2
Aldrin	309-00-2	µg/kg	< 0.63 U	< 0.58 U	< 0.57 U	< 0.65 U	< 0.63 U	< 0.40 U	< 0.64 U	< 0.58 U	< 0.56 U	< 0.66 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U	< 1.3 U	< 0.77 U	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.63 U	< 0.58 U	< 0.57 U	< 0.65 U	< 0.63 U	< 0.49 U	< 0.64 U	< 0.58 U	< 0.56 U	< 0.66 U
Dieldrin	60-57-1	µg/kg	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U	< 1.3 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.63 U	< 0.58 U	< 0.57 U	< 0.65 U	< 0.63 U	< 0.38 U	< 0.64 U	< 0.58 U	< 0.56 U	< 0.66 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U	< 1.3 U	< 0.77 U	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U
Heptachlor	76-44-8	µg/kg	< 0.63 UJ	< 0.58 UJ	< 0.57 UJ	< 0.65 UJ	< 0.63 UJ	< 0.38 U	< 0.64 UJ	< 0.58 UJ	< 0.56 UJ	< 0.66 U
Oxychlordane	27304-13-8	µg/kg	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U	< 1.3 U	< 1.0 UJ	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U	< 1.3 U	< 0.77 U	< 1.3 U	< 1.2 U	< 1.1 U	0.55 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.3 U	< 1.2 U	< 1.1 U	< 1.3 U	< 1.3 U	< 1 UJ	< 1.3 U	< 1.2 U	< 1.1 U	1.2
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	4.2	1.7	1.4	1.5 J	2.8	0.53 J	1.7	2.3	3.2	2.4
Acenaphthene	83-32-9	µg/kg	4.3	2.2	2.2	2.1	3.4	0.36 J	2.6	3.0	3.2	6.6
Acenaphthylene	208-96-8	µg/kg	3.7	4.7	3.8	2.4	3.5	1.7	2.5	3.5	3.0	3.6
Anthracene	120-12-7	µg/kg	8.1	6.9	6.1	4.7	9.3	1.2	6.9	6.9	6.3	12
Benz(a)anthracene	56-55-3	µg/kg	23	28	24	15	24	17	19	25	23	25
Benzo(a)pyrene	50-32-8	µg/kg	33	43	37	28	49	35	36	38	35	42
Benzo(b)fluoranthene	205-99-2	µg/kg	39	41	37	24	34	31	32	36	34	35
Benzo(g,h,i)perylene	191-24-2	µg/kg	27	36	29	22	34	30	27	31	29	31
Benzo(k)fluoranthene	207-08-9	µg/kg	12	14	11	8.7	12	13	11	13	11	12
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	89 J	58 J	67 J	74 J	83 J	16 J	82 J	61 J	72 J	76 J
Chrysene	218-01-9	µg/kg	39	36	31	27	36	30 J	39	32	31	40 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	5.0	5.4	4.5	3.4	3.8	3.1	3.5	5.5	4.5	3.3 J
Fluoranthene	206-44-0	µg/kg	51	53	43	33	46	16	48	43	38	72
Fluorene	86-73-7	µg/kg	5.0	2.6	2.3	2.6	4.1	0.44	3.7	2.8	2.8	6.0
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	26	33	28	18	29	27	23	29	27	26
Naphthalene	91-20-3	µg/kg	6.4	3.7	3.1	3.0	4.5	1.5	2.7	3.6	6.9	4.8
Phenanthrene	85-01-8	µg/kg	27	20	17	16	27	3.8	24	22	19	49
Pyrene	129-00-0	µg/kg	61	72	56	43	69 J	32 J	62 J	56	51	110 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	375	403	336	254	391	244	345	353	328	481
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	47	59	51	37	62	46	47	53	48	54
Metals												
Arsenic	7440-38-2	mg/kg	5.5	4.4	4.6	5.4	5.5	3.0	6.0	4.8	4.9	5.1
Cadmium	7440-43-9	mg/kg	0.44	0.38	0.33	0.33 J	0.31 J	0.14 J	0.40	0.35 J	0.42	0.32 J
Copper	7440-50-8	mg/kg	40	34	34	40	40	17	42	37	32	39
Lead	7439-92-1	mg/kg	13	10	10	11	11	4.8	12	11	10	11
Mercury	7439-97-6	mg/kg	0.072	0.064	0.077	0.060 J	0.060 J	0.023 J	0.069	0.053	0.052 J	0.056 J
Tri-n-butyltin	36643-28-4	µg/kg	2.6	< 2.3 U	< 2.3 U	1.5 J	1.7 J	< 1.5 U	< 2.6 U	1.7 J	1.1 J	2.1 J
Zinc	7440-66-6	mg/kg	120	94	93	100	100	50	110	100	99	95
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 110 U	< 100 U	30 J	< 120 U	< 120 U	< 76 U	43 J	29 J	< 100 U	< 120 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	150	150	260	190	230	34 J	330	280	190	250
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										
Total Solids@104C - E160.3 (f)	TSOLID	%	40.1	45.9	45.6	40.2	39.4	64.7	38.9	44.6	47.6	38.2
Total Solids@104C - E160.3M (f)	TSOLID	%	39.3	43.2	43.8	38.3	39.1	65.0	38.2	42.8	43.9	37.8
Total Solids@70C	TSOLID70	%	41	47	46	41	41	65	41	46	48	39
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0	0.1
Sand, Coarse	GS-Csand	%	0	0	0	0	0	0	0	0	0	0.1
Sand, Medium	GS-Msand	%	0.2	0.1	0.4	0.2	0.2	0.1	0.2	0.1	0.1	1.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	4.621	12.59	13.96	5.258	11.76	50.2	3.532	10.38	18.96	9.813
Sand, Fine (#230) (d)	GS-Fsand	%	6.6	16.8	18.3	7.2	15.1	57.7	4.8	14.5	24.4	13.2
Silt (#200) (d)	GS-Silt-200	%	89.17	82.00	80.13	88.44	76.03	43.19	83.86	89.51	80.93	80.48

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B011	B012	B013	B014	B015	B016	B017	B018	B019	B020
		Sample ID	PDI-SG-B011-BL1	PDI-SG-B012-BL1	PDI-SG-B013-BL1	PDI-SG-B014-BL1	PDI-SG-B015-BL1	PDI-SG-B016-BL1	PDI-SG-B017-BL1	PDI-SG-B018-BL1	PDI-SG-B019-BL1	PDI-SG-B020-BL1
		Sample Date	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	87.2	77.8	75.8	86.5	72.7	35.7	82.6	85.4	75.5	77.1
Clay	GS-Clay	%	5.9	5.3	5.4	6.0	12.1	6.4	12.3	0	0	8.4
Percent Fines (e)	GS-FINES	%	95.07	87.3	85.53	94.44	88.13	49.59	96.16	89.51	80.93	88.88
Total Organic Carbon	TOC	mg/kg	27000	20000	25000	31000	33000	4500	30000	23000	20000	32000 J

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B020	B021	B022	B023	B024	B025	B026	B026	B027	B028
		Sample ID	PDI-SG-B020-BL1-D	PDI-SG-B021-BL1	PDI-SG-B022-BL1	PDI-SG-B023-BL1	PDI-SG-B024-BL1	PDI-SG-B025-BL1	PDI-SG-B026-BL1	PDI-SG-B026-BL1-D	PDI-SG-B027-BL1	PDI-SG-B028-BL1
		Sample Date	01 Apr 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	16 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	FD	N	N
		Depth	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-14 cm	0-24 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.053 J	0.050 J	0.041 J	0.050 J	0.042 J	0.037 J	0.025 J	0.041 J	0.018 J	0.13
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.013 JN	0.0078 JN	0.0074 JN	0.0053 JN	0.011 JN	0.0089 JN	0.0036 JN	0.0068 JN	0.0025 JN	0.019
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00087 U	< 0.00031 U	0.00080 J+	0.00099 J+	< 0.00072 U	< 0.00064 U	< 0.00018 U	< 0.00017 U	< 0.00016 U	0.0026 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00093 JN	0.00056 JN	0.00050 JN	0.00056 J+	0.00083 JN	0.00076 J	0.00031 J+	0.00041 J+	0.00021 JN	0.0014 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0016 J	< 0.00043 U	0.00095 J	0.00076 J	< 0.00059 U	0.0011 J	< 0.00020 U	< 0.00026 U	0.00039 J	0.0028 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0027 J	0.0020 J	0.0014 J	0.0015 J	0.0020 J	0.0024 J	0.00084 J	0.0012 J	0.00070 J+	0.0040 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0047 J+	0.0034 J+	< 0.00017 U	0.00037 J	< 0.0044 U	0.0035 JN	0.0018 J+	< 0.0022 U	0.00074 J	0.0010 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0019 JN	0.0015 J	0.0011 J	0.00097 J	0.0019 J	0.0016 JN	0.00066 J	0.00099 J	0.00053 J	0.0039 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00040 U	< 0.00020 U	0.00041 J+	0.00054 J+	< 0.00059 U	< 0.00030 U	< 0.000092 U	< 0.00011 U	< 0.000098 U	0.0013 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00030 U	< 0.00025 U	0.00030 J	0.00023 J	< 0.00037 U	< 0.00030 U	< 0.00012 U	< 0.00016 U	< 0.00014 U	0.00047 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00034 U	< 0.00020 U	0.00050 JN	0.00050 J+	< 0.00033 U	< 0.00037 U	< 0.000099 U	0.00048 J	< 0.000097 U	0.0013 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00038 U	< 0.00024 U	< 0.00010 U	0.00023 J	< 0.00058 U	< 0.00031 U	< 0.00011 U	< 0.00014 U	< 0.00012 U	0.00055 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00035 U	< 0.00023 U	0.00035 J	< 0.000076 U	< 0.00037 U	< 0.00039 U	< 0.00011 U	0.00017 J	< 0.00010 U	0.00074 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00022 U	< 0.00010 U	0.00017 JN	0.00011 JN	< 0.00020 U	< 0.00026 U	< 0.000048 U	0.000098 JN	< 0.000083 U	< 0.00017 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00052 J	0.00066 J	0.00077 JN	0.00056 J	< 0.00034 U	< 0.00038 U	0.00044 J	0.00078 J	0.00016 J	0.0013
OCDD	3268-87-9	µg/kg	0.40	0.37	0.43	0.54	0.33	0.28	0.21	0.33	0.16	0.92
OCDF	39001-02-0	µg/kg	0.037	0.026	0.036	0.028	0.026	0.021	0.017	0.020	0.0074 J	0.062
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0022	0.0016	0.0017	0.0016	0.0013	0.0016	0.00082	0.0012	0.0006	0.0043
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0019	0.0016	0.0015	0.0016	0.0012	0.0012	0.00078	0.0011	0.00055	0.0029
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0017	0.0015	0.0014	0.0015	0.001	0.00098	0.00072	0.00099	0.00048	0.0027
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.00022 U	0.0045 JN	0.0022 J	0.0029 JN	0.0064 J+	< 0.0018 U	< 0.0022 U	< 0.0022 U	< 0.0018 U	0.012 J
PCB-10	33146-45-1	ng/g	< 0.0024 U	< 0.0019 U	< 0.0011 U	< 0.0016 U	< 0.0015 U	< 0.0015 U	< 0.0015 U	< 0.0014 U	< 0.0032 U	0.0021 JN
PCB-103	60145-21-3	ng/g	0.0087 J	0.0043 JN	< 0.0012 U	0.0063 JN	0.0064 J	0.0057 J	0.0072 JN	0.0085 J	< 0.00020 U	0.012 J
PCB-104	56558-16-8	ng/g	< 0.00027 U	< 0.00037 U	< 0.00094 U	< 0.0013 U	< 0.00022 U	< 0.00023 U	< 0.00027 U	< 0.00024 U	< 0.00015 U	< 0.00016 U
PCB-105	32598-14-4	ng/g	0.11	0.079	0.070	0.049	0.14	0.065	0.11 J	0.063 J	0.026	0.43
PCB-106	70424-69-0	ng/g	< 0.0011 U	< 0.0012 U	< 0.0021 U	< 0.0023 U	< 0.0010 U	< 0.0010 U	< 0.00088 U	< 0.00086 U	< 0.00061 U	< 0.0021 U
PCB-107	70424-68-9	ng/g	0.029	0.020	0.015 JN	0.013	0.030	0.018	0.029	0.018	0.0044 JN	0.073
PCB-108/124	70362-41-3	ng/g	0.011 J	0.0067 JN	0.0068 JN	0.0047 JN	0.010 JN	0.0070 J	0.013 J	0.0052 J	0.0026 J	0.037
PCB-11	2050-67-1	ng/g	0.19	0.080	0.065	0.039 JN	0.089	0.064	0.037	0.039	0.028	0.11
PCB-110/115	38380-03-9	ng/g	0.36	0.23	0.19	0.18	0.39	0.20	0.39	0.25	0.078	0.96
PCB-111	39635-32-0	ng/g	< 0.00025 U	< 0.00034 U	< 0.00084 U	< 0.0012 U	< 0.00020 U	< 0.00021 U	< 0.00025 U	< 0.00022 U	< 0.00014 U	< 0.00014 U
PCB-112	74472-36-9	ng/g	0.0014 JN	< 0.00036 U	< 0.00092 U	< 0.0013 U	< 0.00022 U	< 0.00022 U	< 0.00026 U	< 0.00023 U	< 0.00015 U	0.0062 JN
PCB-114	74472-37-0	ng/g	0.0058 J	0.0029 JN	< 0.0018 U	< 0.0021 U	0.0056 JN	0.0033 J	0.0073 J	0.0031 J	0.0015 J	0.029
PCB-118	31508-00-6	ng/g	0.30	0.20	0.19	0.14	0.34	0.17	0.33 J	0.19 J	0.063	0.82
PCB-12/13	2974-92-7	ng/g	0.0060 JN	0.0039 JN	< 0.00094 U	< 0.0014 U	0.0062 JN	0.0031 JN	0.0022 JN	0.0025 JN	< 0.0029 U	0.017 J
PCB-120	68194-12-7	ng/g	0.0028 J	< 0.00035 U	< 0.00083 U	< 0.0011 U	< 0.00021 U	< 0.00022 U	< 0.00025 U	0.0016 JN	< 0.00014 U	< 0.00014 U
PCB-121	56558-18-0	ng/g	< 0.00027 U	< 0.00036 U	< 0.00090 U	< 0.0012 U	< 0.00021 U	< 0.00022 U	< 0.00026 U	< 0.00023 U	< 0.00015 U	< 0.00015 U
PCB-122	76842-07-4	ng/g	0.0038 JN	0.0024 JN	< 0.0023 U	< 0.0025 U	0.0033 JN	0.0027 JN	0.0040 J	0.0023 JN	< 0.00070 U	0.020
PCB-123	65510-44-3	ng/g	0.0061 J	0.0032 JN	0.0033 J	0.0036 JN	0.0075 J	0.0026 J	0.0054 JN	0.0026 J	0.0011 JN	0.023
PCB-126	57465-28-8	ng/g	< 0.0011 U	0.0025 J+	< 0.0020 U	< 0.0022 U	0.0024 JN	< 0.0011 U	< 0.00098 U	< 0.00092 U	< 0.00065 U	0.0039 J
PCB-127	39635-33-1	ng/g	< 0.0011 U	< 0.0012 U	< 0.0020 U	< 0.0022 U	< 0.0010 U	< 0.00099 U	< 0.00088 U	< 0.00086 U	< 0.00060 U	< 0.0020 U
PCB-128/166	38380-07-3	ng/g	0.065	0.051	0.048	0.028 JN	0.071	0.044	0.077	0.044	0.016 J	0.14
PCB-129/138/160/163	55215-18-4	ng/g	0.55	0.42	0.28	0.22	0.55	0.35	0.54	0.36	0.11	0.85
PCB-130	52663-66-8	ng/g	0.029 JN	0.028	0.021	0.014 JN	0.031 JN	0.019	0.038	0.026	0.0046 JN	0.061
PCB-131	61798-70-7	ng/g	< 0.0026 U	< 0.0023 U	< 0.0023 U	< 0.0029 U	0.0065 J	0.0029 J	< 0.0022 U	< 0.0018 U	< 0.0013 U	0.012 J
PCB-132	38380-05-1	ng/g	0.16	0.12	0.091	0.066	0.15	0.095	0.17	0.11	0.026	0.27
PCB-133	35694-04-3	ng/g	0.0083 J	0.0052 JN	0.0058 J	0.0053 JN	0.011 J	0.0060 J	0.011	0.0097 J	< 0.0012 U	0.014 JN
PCB-134/143	52704-70-8	ng/g	0.026	0.016 JN	0.014 JN	0.013 J	0.022 JN	0.010 JN	0.025 JN	0.015 JN	0.0032 JN	0.049
PCB-135/151	52744-13-5	ng/g	0.14	0.11	0.11	0.093	0.13	0.091	0.15	0.12	0.029	0.27
PCB-136	38411-22-2	ng/g	0.061	0.038	0.040	0.030	0.046	0.032	0.056	0.040	0.0084 J	0.095
PCB-137	35694-06-5	ng/g	0.013 JN	0.014 JN	0.011 JN	0.0037 JN	0.019	0.0097 JN	0.018 JN	0.011 JN	0.0041 J	0.040
PCB-139/140	56030-56-9	ng/g	0.0059 JN	0.0057 JN	0.0054 JN	< 0.0024 U	0.010 J	0.0041 JN	0.011 J	0.0051 JN	0.0015 J	0.017 J
PCB-14	34883-41-5	ng/g	< 0.0019 U	< 0.0015 U	< 0.00086 U	< 0.0013 U	< 0.0012 U	< 0.0011 U	< 0.0012 U	< 0.0011 U	< 0.0025 U	< 0.00047 U
PCB-141	52712-04-6	ng/g	0.096	0.068	0.053	0.039	0.095	0.055	0.089	0.056	0.017	0.16
PCB-142	41411-61-4	ng/g	< 0.0024 U	< 0.0020 U	< 0.0021 U	< 0.0027 U	< 0.0023 U	< 0.0014 U	< 0.0019 U	< 0.0017 U	< 0.0012 U	< 0.0012 U
PCB-144	68194-14-9	ng/g	0.017	0.011 JN	0.013 JN	0.0061 JN	0.011 JN	0.0079 JN	0.012 JN	0.011 JN	0.0031 JN	0.032
PCB-145	74472-40-5	ng/g	< 0.00024 U	< 0.00014 U	< 0.00013 U	< 0.00011 U	< 0.000092 U	< 0.00011 U	0.00030 JN	< 0.00012 U	< 0.000081 U	< 0.000047 U
PCB-146	51908-16-8	ng/g	0.093	0.072	0.055	0.039	0.092	0.059	0.12	0.089	0.015	0.13
PCB-147/149	68194-13-8	ng/g	0.49	0.36	0.22	0.17	0.46 J-	0.30	0.51 J-	0.38	0.071	0.61
PCB-148	74472-41-6	ng/g	< 0.00034 U	< 0.00019 U	0.00064 JN	0.00047 JN	0.0014 JN	< 0.00015 U	0.0033 JN	0.0018 J	< 0.00011 U	0.00090 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B020	B021	B022	B023	B024	B025	B026	B026	B027	B028
		Sample ID	PDI-SG-B020-BL1-D	PDI-SG-B021-BL1	PDI-SG-B022-BL1	PDI-SG-B023-BL1	PDI-SG-B024-BL1	PDI-SG-B025-BL1	PDI-SG-B026-BL1	PDI-SG-B026-BL1-D	PDI-SG-B027-BL1	PDI-SG-B028-BL1
		Sample Date	01 Apr 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	16 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	FD	N	N
		Depth	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-14 cm	0-24 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.020 JN	0.020	0.012	0.013	0.042	0.013 JN	0.019	0.020	0.0097 JN	0.16
PCB-150	68194-08-1	ng/g	0.0016 J	0.0011 JN	< 0.00011 U	0.00096 JN	0.00062 JN	< 0.00011 U	0.0017 JN	0.0017 JN	< 0.000077 U	0.0011 JN
PCB-152	68194-09-2	ng/g	< 0.00025 U	< 0.00014 U	< 0.00012 U	< 0.00010 U	< 0.000095 U	< 0.00011 U	< 0.000098 U	< 0.00013 U	< 0.000083 U	0.00089 JN
PCB-153/168	35065-27-1	ng/g	0.45	0.35	0.25	0.18	0.46	0.30	0.47	0.34	0.077	0.65
PCB-154	60145-22-4	ng/g	0.0063 JN	0.0055 J	0.0044 J	0.0050 JN	0.0061 JN	0.0043 J	0.013	0.011 JN	0.0014 JN	0.016
PCB-155	33979-03-2	ng/g	0.00061 J	< 0.00013 U	< 0.00012 U	< 0.000098 U	< 0.000088 U	< 0.00011 U	< 0.000092 U	< 0.00012 U	< 0.000077 U	0.00035 J
PCB-156/157	38380-08-4	ng/g	0.048	0.034	0.026 JN	0.022 JN	0.050	0.030	0.050	0.027	0.012 J	0.10
PCB-158	74472-42-7	ng/g	0.047	0.035	0.025	0.022	0.048	0.028	0.040 JN	0.022 JN	0.0090 J	0.087
PCB-159	39635-35-3	ng/g	< 0.0016 U	0.0030 JN	0.0033 J	< 0.0017 U	0.0033 J	0.0023 JN	< 0.0013 U	< 0.0011 U	< 0.00078 U	0.0087 J
PCB-16	38444-78-9	ng/g	0.017	0.011 J	0.0045 JN	0.0095 J	0.023	0.0087 JN	0.012	0.028	0.0032 JN	0.040
PCB-161	74472-43-8	ng/g	< 0.0016 U	< 0.0014 U	< 0.0014 U	< 0.0018 U	< 0.0015 U	< 0.00095 U	< 0.0013 U	< 0.0011 U	< 0.00078 U	< 0.00081 U
PCB-162	39635-34-2	ng/g	< 0.0015 U	< 0.0013 U	< 0.0013 U	< 0.0017 U	< 0.0015 U	< 0.00094 U	< 0.0013 U	< 0.0011 U	< 0.00077 U	< 0.00077 U
PCB-164	74472-45-0	ng/g	0.037	0.028	0.021	0.015	0.039	0.022	0.037	0.025	0.0069 J	0.062
PCB-165	74472-46-1	ng/g	< 0.0018 U	< 0.0015 U	< 0.0016 U	< 0.0020 U	< 0.0017 U	< 0.0011 U	< 0.0015 U	< 0.0013 U	< 0.00089 U	< 0.00092 U
PCB-167	52663-72-6	ng/g	0.015	0.013	0.011	0.0066 J	0.017	0.010 J	0.016	0.011	0.0038 J	0.032
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.0011 U	< 0.00099 U	< 0.0013 U	< 0.0013 U	< 0.00080 U	< 0.0010 U	< 0.00090 U	< 0.00059 U	< 0.00061 U
PCB-17	37680-66-3	ng/g	0.024 JN	0.021	0.015 JN	0.014	0.047	0.015	0.020	0.036	0.0055 JN	0.12
PCB-170	35065-30-6	ng/g	0.14	0.099	0.078	0.084	0.14 J	0.091	0.12	0.097	0.026	0.22
PCB-171/173	52663-71-5	ng/g	0.034 JN	0.028	0.022	0.025 JN	0.038 J	0.026	0.034	0.030	0.0076 J+	0.070
PCB-172	52663-74-8	ng/g	0.021	0.018	0.017 JN	0.015	0.023 J	0.011 JN	0.019	0.015	0.0044 J	0.040
PCB-174	38411-25-5	ng/g	0.13	0.10	0.099	0.091	0.13 J	0.091	0.12	0.11	0.025	0.24
PCB-175	40186-70-7	ng/g	0.0044 JN	< 0.0013 U	0.0018 JN	0.0021 JN	0.0031 JN	0.0026 J	0.0025 J	0.0048 J	0.0015 JN	0.0072 JN
PCB-176	52663-65-7	ng/g	0.016	0.013	0.0094 JN	0.0073 J	0.016 J	0.0096 JN	0.015	0.012	0.0020 JN	0.027
PCB-177	52663-70-4	ng/g	0.085	0.061	0.051 JN	0.059	0.077 J	0.058	0.075	0.060	0.015	0.14
PCB-178	52663-67-9	ng/g	0.033	0.023	0.020 JN	0.017	0.031 J	0.022 JN	0.032	0.027	0.0047 J	0.049
PCB-179	52663-64-6	ng/g	0.065	0.050	0.040	0.036	0.063 J	0.042	0.067	0.057	0.010	0.095
PCB-18/30	37680-65-2	ng/g	0.048	0.028 JN	0.017 JN	0.020 J	0.066 JN	0.020 JN	0.035	0.076	0.012 JN	0.16
PCB-180/193	35065-29-3	ng/g	0.26	0.20	0.18	0.19	0.26 J	0.17	0.23	0.21	0.056	0.47
PCB-181	74472-47-2	ng/g	< 0.00055 U	< 0.0013 U	< 0.000068 U	< 0.00038 U	< 0.00056 UJ	< 0.00055 U	< 0.00023 U	< 0.00049 U	< 0.00044 U	< 0.00011 U
PCB-182	60145-23-5	ng/g	< 0.00053 U	< 0.0013 U	< 0.000065 U	0.0017 JN	< 0.00054 UJ	< 0.00053 U	0.0019 JN	0.0021 J	< 0.00042 U	< 0.00011 U
PCB-183/185	52663-69-1	ng/g	0.089	0.068	0.053	0.057	0.092 J	0.056	0.077	0.070	0.014 JN	0.14
PCB-184	74472-48-3	ng/g	< 0.00045 U	< 0.0011 U	< 0.000056 U	< 0.00031 U	< 0.00046 UJ	< 0.00045 U	< 0.00019 U	< 0.00041 U	< 0.00036 U	< 0.000091 U
PCB-186	74472-49-4	ng/g	< 0.00044 U	< 0.0011 U	< 0.000053 U	< 0.00030 U	< 0.00045 UJ	< 0.00044 U	< 0.00018 U	< 0.00039 U	< 0.00035 U	< 0.000087 U
PCB-187	52663-68-0	ng/g	0.19	0.14	0.11	0.11	0.17 J	0.13	0.18	0.15	0.029 JN	0.28
PCB-188	74487-85-7	ng/g	< 0.00037 U	< 0.00089 U	< 0.000050 U	< 0.00028 U	< 0.00037 UJ	< 0.00037 U	< 0.00015 U	< 0.00033 U	< 0.00032 U	< 0.000082 U
PCB-189	39635-31-9	ng/g	0.0032 JN	< 0.0018 U	0.0021 JN	0.0039 J	0.0040 J	0.0033 JN	0.0022 JN	0.0033 JN	< 0.00066 U	0.0089 J
PCB-19	38444-73-4	ng/g	0.020	0.012	0.0077 J	0.0064 JN	0.016 JN	0.011	0.0094 JN	0.013 JN	< 0.00049 U	0.047
PCB-190	41411-64-7	ng/g	0.019	0.016	0.017	0.019	0.023 J	0.014	0.017	0.013 JN	0.0036 JN	0.044
PCB-191	74472-50-7	ng/g	0.0036 JN	0.0041 J+	0.0026 JN	0.0025 JN	0.0039 JN	0.0034 J+	0.0039 J+	0.0029 JN	0.0011 JN	0.0095 JN
PCB-192	74472-51-8	ng/g	< 0.00046 U	< 0.0011 U	< 0.000054 U	< 0.00030 U	< 0.00048 UJ	< 0.00046 U	< 0.00019 U	< 0.00042 U	< 0.00037 U	< 0.000089 U
PCB-194	35694-08-7	ng/g	0.068	0.052	0.044	0.061	0.081 J	0.052	0.062	0.057	0.014	0.12
PCB-195	52663-78-2	ng/g	0.032	0.028	0.017	0.025 JN	0.033 J	0.019	0.028	0.023	0.0056 J	0.051
PCB-196	42740-50-1	ng/g	0.023	0.020 JN	0.020	0.033	0.026 J	0.016	0.020 JN	0.022	0.0055 J	0.054
PCB-197	33091-17-7	ng/g	0.00087 JN	0.0024 J	0.0016 J	0.0022 J	0.0032 JN	0.0011 JN	0.0011 JN	0.0035 J	0.00034 JN	0.0050 J
PCB-198/199	68194-17-2	ng/g	0.072	0.058	0.059	0.078	0.073 J	0.052	0.063	0.057	0.015 J	0.13
PCB-2	2051-61-8	ng/g	0.0079 J	0.0096 JN	0.0099 JN	0.013	0.014	0.0058 J	0.012	0.011	0.0043 J	0.014 JN
PCB-20/28	38444-84-7	ng/g	0.10	0.075	0.060	0.063	0.17	0.071	0.098	0.13	0.034	0.50
PCB-200	52663-73-7	ng/g	0.0077 J	0.0051 JN	0.0033 JN	0.0060 JN	0.0054 JN	0.0036 JN	0.0051 JN	0.0047 J	0.0014 JN	0.013
PCB-201	40186-71-8	ng/g	0.0075 J	0.0067 JN	0.0042 JN	0.0070 JN	0.0075 J	0.0036 JN	0.0066 J	0.0048 JN	0.0016 J	0.013
PCB-202	2136-99-4	ng/g	0.013 JN	0.014	0.010 J	0.012 JN	0.016 J	0.0091 JN	0.014 JN	0.0092 J	0.0026 JN	0.023
PCB-203	52663-76-0	ng/g	0.040	0.031	0.036	0.043	0.042 J	0.029	0.037	0.030 JN	0.0086 J	0.078
PCB-204	74472-52-9	ng/g	< 0.00059 U	< 0.00042 U	< 0.00018 U	< 0.00028 U	< 0.00033 UJ	< 0.00023 U	< 0.00019 U	< 0.00024 U	0.00055 JN	< 0.00022 U
PCB-205	74472-53-0	ng/g	< 0.0018 U	< 0.0021 U	0.00088 JN	0.0024 JN	0.0037 J	< 0.0014 U	0.0019 JN	< 0.0013 U	< 0.00095 U	0.0068 J
PCB-206	40186-72-9	ng/g	0.067	0.046	0.046 JN	0.071	0.057	0.034	0.051	0.040	0.0096 J	0.079
PCB-207	52663-79-3	ng/g	0.0061 J	< 0.0026 U	0.0044 J	< 0.0029 U	0.0058 J	< 0.0020 U	0.0039 JN	0.0030 JN	< 0.0012 U	0.0081 J
PCB-208	52663-77-1	ng/g	0.024	0.011 J	0.010 JN	0.013 JN	0.016	0.0092 J	0.017	0.014	0.0031 J	0.026
PCB-209	2051-24-3	ng/g	0.074	0.050	0.031 JN	0.037 JN	0.069	0.047 JN	0.049	0.046	0.019	0.077
PCB-21/33	55702-46-0	ng/g	0.036	0.027	0.017 JN	0.021 JN	0.052	0.025	0.042	0.063	0.014 JN	0.093
PCB-22	38444-85-8	ng/g	0.027	0.019	0.014	0.016	0.040	0.019	0.022	0.036	0.0098	0.095
PCB-23	55720-44-0	ng/g	< 0.00064 U	< 0.00063 U	< 0.0016 U	< 0.0016 U	< 0.00058 U	< 0.00080 U	< 0.00046 U	< 0.00046 U	< 0.00053 U	< 0.0018 U
PCB-24	55702-45-9	ng/g	0.0011 JN	< 0.00033 U	< 0.00023 U	< 0.00037 U	< 0.00031 U	< 0.00030 U	< 0.00033 U	< 0.00032 U	< 0.00034 U	0.0035 J
PCB-25	55712-37-3	ng/g	0.010 J	0.0063 J	0.0058 J	0.0053 JN	0.014	0.0062 J	0.0068 J	0.0077 J	0.0024 J	0.039

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B020	B021	B022	B023	B024	B025	B026	B026	B027	B028
		Sample ID	PDI-SG-B020-BL1-D	PDI-SG-B021-BL1	PDI-SG-B022-BL1	PDI-SG-B023-BL1	PDI-SG-B024-BL1	PDI-SG-B025-BL1	PDI-SG-B026-BL1	PDI-SG-B026-BL1-D	PDI-SG-B027-BL1	PDI-SG-B028-BL1
		Sample Date	01 Apr 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	16 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	FD	N	N
		Depth	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-14 cm	0-24 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.016 JN	0.012 J	0.0098 J	0.011 J	0.027	0.011 J	0.011 J	0.015 JN	0.0043 J	0.070
PCB-27	38444-76-7	ng/g	0.0051 JN	0.0030 JN	0.0019 JN	0.0019 JN	0.0074 JN	0.0032 JN	0.0032 JN	0.0036 JN	0.0020 J	0.024
PCB-3	2051-62-9	ng/g	0.0037 J+	0.0057 J+	0.0029 JN	0.0040 JN	0.0077 J+	0.0026 J+	0.0030 JN	< 0.0017 U	0.0022 JN	0.031
PCB-31	16606-02-3	ng/g	0.075	0.054	0.039	0.043	0.11	0.053	0.063	0.097	0.025	0.26
PCB-32	38444-77-8	ng/g	0.022	0.011 J	0.010 J	0.0095 J	0.035	0.0090 J	0.015	0.024	0.0034 JN	0.12
PCB-34	37680-68-5	ng/g	< 0.00066 U	< 0.00066 U	< 0.0017 U	< 0.0016 U	< 0.00060 U	< 0.00083 U	0.00087 JN	< 0.00048 U	< 0.00055 U	< 0.0019 U
PCB-35	37680-69-6	ng/g	0.0032 J	0.0015 JN	< 0.0016 U	< 0.0016 U	0.0023 J+	0.0013 JN	0.0013 J+	< 0.00046 U	< 0.00053 U	< 0.0018 U
PCB-36	38444-87-0	ng/g	< 0.00062 U	< 0.00062 U	< 0.0014 U	< 0.0014 U	< 0.00056 U	< 0.00078 U	< 0.00045 U	< 0.00045 U	< 0.00051 U	< 0.0016 U
PCB-37	38444-90-5	ng/g	0.029	0.023	0.018	0.019	0.055	0.022 JN	0.031	0.039	0.010	0.15
PCB-38	53555-66-1	ng/g	< 0.00067 U	< 0.00066 U	< 0.0016 U	< 0.0015 U	< 0.00060 U	< 0.00084 U	< 0.00048 U	< 0.00048 U	< 0.00055 U	< 0.0018 U
PCB-39	38444-88-1	ng/g	< 0.00060 U	< 0.00059 U	< 0.0014 U	< 0.0014 U	< 0.00054 U	< 0.00075 U	< 0.00043 U	< 0.00043 U	< 0.00050 U	0.0028 JN
PCB-4	13029-08-8	ng/g	0.021 J	0.012 JN	0.0099 J	0.0063 JN	0.023 JN	0.0099 JN	0.0065 JN	0.015 J	< 0.0044 U	0.084
PCB-40/41/71	38444-93-8	ng/g	0.062	0.044	0.037	0.027 J	0.12	0.037	0.059	0.074	0.014 J	0.47
PCB-42	36559-22-5	ng/g	0.028	0.024	0.018	0.017	0.050	0.021	0.030	0.032 JN	0.0056 JN	0.23
PCB-43/73	70362-46-8	ng/g	< 0.0015 U	< 0.0017 U	< 0.0020 U	< 0.0018 U	0.0050 JN	0.0022 JN	0.0033 J	0.0037 JN	< 0.00099 U	0.033
PCB-44/47/65	41464-39-5	ng/g	0.17	0.11	0.094	0.072	0.24	0.10	0.15	0.16	0.026 JN	0.90
PCB-45/51	70362-45-7	ng/g	0.042	0.027	0.013 J	0.014 JN	0.042	0.019 J	0.025	0.031	0.0051 J	0.15
PCB-46	41464-47-5	ng/g	0.0074 J	0.0056 J	< 0.0027 U	< 0.0025 U	0.010 J	0.0043 J	0.0044 J	0.0072 J	< 0.0013 U	0.047
PCB-48	70362-47-9	ng/g	0.016 JN	0.011 JN	0.013	0.012	0.031	0.014	0.019	0.022 JN	0.0038 JN	0.12
PCB-49/69	41464-40-8	ng/g	0.13	0.077	0.066	0.044 JN	0.16	0.069	0.10	0.10	0.018 J	0.58
PCB-5	16605-91-7	ng/g	< 0.0025 U	< 0.0020 U	< 0.0010 U	< 0.0015 U	< 0.0015 U	< 0.0015 U	< 0.0015 U	< 0.0015 U	< 0.0033 U	< 0.00056 U
PCB-50/53	62796-65-0	ng/g	0.043	0.019 J	0.014 JN	0.0096 JN	0.034	0.018 J	0.022	0.026	0.0031 J	0.15
PCB-52	35693-99-3	ng/g	0.24	0.14	0.13	0.085	0.27	0.12	0.22	0.17	0.037	1.0
PCB-54	15968-05-5	ng/g	0.0049 J	0.0030 J	< 0.00031 U	0.0012 JN	0.0023 JN	0.0024 J	0.0019 JN	0.0029 J	0.00061 JN	0.0066 J
PCB-55	74338-24-2	ng/g	< 0.0012 U	0.0018 JN	< 0.0015 U	< 0.0014 U	0.0031 JN	< 0.0011 U	0.0025 J	0.0016 JN	0.0012 J	0.023 JN
PCB-56	41464-43-1	ng/g	0.046	0.040	0.034	0.033	0.097	0.035	0.054	0.061	0.0089 J	0.43
PCB-57	70424-67-8	ng/g	< 0.0012 U	< 0.0013 U	< 0.0015 U	< 0.0014 U	< 0.0013 U	< 0.0011 U	< 0.00093 U	< 0.00090 U	< 0.00078 U	< 0.0013 U
PCB-58	41464-49-7	ng/g	< 0.0012 U	< 0.0013 U	< 0.0015 U	< 0.0014 U	< 0.0013 U	< 0.0011 U	0.0010 JN	< 0.00092 U	< 0.00079 U	< 0.0013 U
PCB-59/62/75	74472-33-6	ng/g	0.0079 JN	0.0073 J	0.0061 JN	0.0060 J	0.017 J	0.0061 JN	0.0092 J	0.012 J	0.0016 JN	0.073
PCB-6	25569-80-6	ng/g	0.0068 J	0.0039 JN	0.0031 JN	0.0033 JN	0.010 JN	0.0043 JN	0.0054 J	0.0074 JN	< 0.0029 U	0.037
PCB-60	33025-41-1	ng/g	0.017	0.016	0.012 JN	0.010 JN	0.043	0.0083 JN	0.014	0.021	0.0048 J	0.22
PCB-61/70/74/76	33284-53-6	ng/g	0.23	0.16	0.14	0.11	0.36	0.15	0.24	0.22	0.045	1.3
PCB-63	74472-34-7	ng/g	0.0028 JN	0.0045 J	< 0.0013 U	0.0025 JN	0.0083 J	0.0040 JN	0.0047 J	0.0041 J	< 0.00071 U	0.029 JN
PCB-64	52663-58-8	ng/g	0.049	0.039	0.023 JN	0.028	0.087	0.027 JN	0.052	0.053	0.011	0.36
PCB-66	32598-10-0	ng/g	0.12	0.11	0.085	0.082	0.25	0.084	0.14	0.14	0.023	1.0
PCB-67	73575-53-8	ng/g	< 0.0010 U	0.0026 J	< 0.0014 U	< 0.0013 U	0.0040 JN	0.0013 JN	0.0020 JN	0.0024 JN	< 0.00067 U	0.016 JN
PCB-68	73575-52-7	ng/g	0.0028 JN	0.0025 J	< 0.0013 U	< 0.0012 U	0.0024 JN	0.0015 JN	< 0.00082 U	0.0023 J	< 0.00069 U	0.0063 J
PCB-7	33284-50-3	ng/g	< 0.0022 U	0.0022 JN	< 0.00098 U	< 0.0015 U	0.0019 JN	< 0.0014 U	< 0.0014 U	< 0.0013 U	< 0.0029 U	0.0038 J
PCB-72	41464-42-0	ng/g	0.0037 J	0.0016 JN	< 0.0015 U	< 0.0014 U	0.0045 J	0.0023 JN	0.0039 J	0.0032 J	< 0.00076 U	0.012 J
PCB-77	32598-13-3	ng/g	0.013	0.012	0.0084 J	0.0095 J	0.023	0.0096 J	0.013	0.014	0.0023 JN	0.10
PCB-78	70362-49-1	ng/g	< 0.0012 U	< 0.0013 U	< 0.0015 U	< 0.0014 U	< 0.0013 U	< 0.0011 U	< 0.00094 U	< 0.00091 U	< 0.00079 U	< 0.0013 U
PCB-79	41464-48-6	ng/g	< 0.0011 U	0.0021 JN	< 0.0013 U	< 0.0012 U	0.0026 JN	0.0016 JN	0.0026 J	0.0020 J	< 0.00068 U	0.0087 J
PCB-8	34883-43-7	ng/g	0.023 J	0.017 JN	0.015 JN	0.014 JN	0.035	0.013 JN	0.016 JN	0.031	0.0072 JN	0.11
PCB-80	33284-52-5	ng/g	< 0.0010 U	< 0.0011 U	< 0.0013 U	< 0.0012 U	< 0.0011 U	< 0.00094 U	< 0.00080 U	< 0.00078 U	< 0.00067 U	< 0.0011 U
PCB-81	70362-50-4	ng/g	< 0.0011 U	< 0.0012 U	< 0.0014 U	< 0.0013 U	0.0021 JN	< 0.0010 U	< 0.00084 U	< 0.00083 U	< 0.00072 U	< 0.0012 U
PCB-82	52663-62-4	ng/g	0.028 JN	0.017 JN	0.018 JN	0.014 JN	0.038 JN	0.013 JN	0.034	0.020	0.0067 JN	0.16
PCB-83/99	60145-20-2	ng/g	0.21	0.14	0.12	0.11	0.22	0.12	0.23	0.15	0.034	0.62
PCB-84	52663-60-2	ng/g	0.072	0.040	0.032 JN	0.039	0.075 JN	0.034	0.090 J	0.048 J	0.014	0.25
PCB-85/116/117	65510-45-4	ng/g	0.051 JN	0.037	0.025 JN	0.025 JN	0.071	0.034	0.057	0.034	0.012 JN	0.22
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.19	0.11	0.12	0.10	0.23	0.10	0.21	0.12	0.041 J	0.65
PCB-88/91	55215-17-3	ng/g	0.058	0.032	0.029	0.028	0.059	0.028	0.062	0.040	0.0067 J	0.17
PCB-89	73575-57-2	ng/g	< 0.00041 U	0.0015 JN	< 0.0014 U	< 0.0019 U	0.0035 JN	0.0015 JN	< 0.00040 U	< 0.00035 U	< 0.00022 U	0.021
PCB-9	34883-39-1	ng/g	< 0.0023 U	< 0.0018 U	< 0.0011 U	< 0.0017 U	0.0019 JN	< 0.0014 U	< 0.0014 U	< 0.0013 U	< 0.0030 U	0.0067 J
PCB-90/101/113	68194-07-0	ng/g	0.34	0.21	0.20	0.17 JN	0.34	0.19	0.36	0.22	0.065	0.81
PCB-92	52663-61-3	ng/g	0.060	0.035 JN	0.039	0.036	0.065	0.022 JN	0.073	0.042	0.011	0.16
PCB-93/100	73575-56-1	ng/g	0.013 J	0.0084 J	0.0055 JN	0.0060 JN	0.0065 JN	0.0051 JN	0.010 J	0.0074 J	0.00088 JN	0.024 JN
PCB-94	73575-55-0	ng/g	< 0.00041 U	< 0.00055 U	< 0.0014 U	< 0.0019 U	< 0.00033 U	< 0.00034 U	< 0.00040 U	< 0.00035 U	< 0.00022 U	0.0085 JN
PCB-95	38379-99-6	ng/g	0.26 JN	0.16	0.15	0.11	0.26	0.14	0.29 J	0.17 J	0.048	0.64
PCB-96	73575-54-9	ng/g	< 0.00031 U	< 0.00041 U	< 0.0010 U	< 0.0014 U	0.0031 JN	0.0021 J	0.0029 J	0.0019 JN	< 0.00017 U	0.012 JN
PCB-98/102	60233-25-2	ng/g	0.0091 J	0.0068 J	0.0064 JN	0.0059 JN	0.011 JN	0.0031 JN	0.010 JN	0.0063 JN	0.0016 JN	0.052
Total PCBs (b)	T_PCBCg (PDI)	ng/g	8.0	5.6	4.6	4.0	8.9	4.8	7.8	6.2	1.5	22

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B020	B021	B022	B023	B024	B025	B026	B026	B027	B028
		Sample ID	PDI-SG-B020-BL1-D	PDI-SG-B021-BL1	PDI-SG-B022-BL1	PDI-SG-B023-BL1	PDI-SG-B024-BL1	PDI-SG-B025-BL1	PDI-SG-B026-BL1	PDI-SG-B026-BL1-D	PDI-SG-B027-BL1	PDI-SG-B028-BL1
		Sample Date	01 Apr 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	16 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	FD	N	N
		Depth	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-14 cm	0-24 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.57 J	< 0.63 U	< 0.57 U	< 0.53 U	0.45 J	0.49 J	< 0.43 U	< 0.44 U	< 0.42 U	< 1.3 U
2,4-DDE	3424-82-6	µg/kg	< 0.64 UJ	< 0.63 U	< 0.57 U	< 0.53 U	< 0.62 U	< 0.61 U	< 0.43 U	< 0.44 U	< 0.42 U	< 1.3 U
2,4-DDT	789-02-6	µg/kg	< 0.64 UJ	< 0.63 U	< 0.57 UJ	< 0.53 UJ	< 0.62 U	< 0.61 U	< 0.47 U	< 0.47 U	< 0.47 U	< 1.3 U
4,4'-DDD	72-54-8	µg/kg	1.6 J	1.2	0.74	0.89	1.2	1.2	0.83	0.71	0.31 J	1.3 J
4,4'-DDE	72-55-9	µg/kg	4.6 J	3.3	1.4	1.4	3.6	3.4	1.8	1.5	0.49	2.3
4,4'-DDT	50-29-3	µg/kg	< 0.64 UJ	< 0.63 UJ	< 0.57 UJ	< 0.53 UJ	< 0.62 UJ	< 0.61 UJ	< 0.43 UJ	< 0.44 UJ	< 0.42 UJ	< 1.3 U
Total DDx (b)	T_DDx (PDI)	µg/kg	7.1	4.8	2.4	2.6	5.6	5.4	2.9	2.4	1.0	4.3
Aldrin	309-00-2	µg/kg	< 0.64 UJ	< 0.63 U	< 0.57 U	< 0.53 U	1.2	0.84	< 0.43 U	< 0.44 U	< 0.42 U	< 1.3 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 1.3 UJ	< 1.3 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.85 U	< 0.87 U	< 0.84 U	< 2.5 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.64 UJ	< 0.63 U	< 0.57 U	< 0.53 U	< 0.62 U	< 0.61 U	< 0.49 U	< 0.49 U	< 0.49 U	< 1.3 U
Dieldrin	60-57-1	µg/kg	< 1.3 UJ	< 1.3 U	< 1.1 U	< 1.1 U	0.65 J	< 1.2 U	< 1.0 U	< 1.0 U	0.53 J	< 2.5 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.64 UJ	< 0.63 U	< 0.57 U	< 0.53 U	0.20 J	< 0.61 U	< 0.43 U	< 0.44 U	< 0.42 U	< 1.3 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.3 UJ	0.54 J	< 1.1 U	< 1.1 U	0.54 J	< 1.2 U	< 0.85 U	< 0.87 U	< 0.84 U	< 2.5 U
Heptachlor	76-44-8	µg/kg	< 0.64 UJ	< 0.63 U	< 0.57 UJ	< 0.53 UJ	< 0.62 U	< 0.61 U	< 0.43 U	< 0.44 U	< 0.42 U	< 1.3 U
Oxychlordane	27304-13-8	µg/kg	< 1.3 UJ	< 1.3 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.5 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.3 UJ	0.51 J	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.85 U	< 0.87 U	< 0.84 U	< 2.5 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.3 UJ	1.7	< 1.1 U	< 1.1 U	1.14	< 1.2 U	< 1 U	< 1 U	< 1 U	< 2.5 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.5	2.0	2.1	5.4	2.0	1.9	3.9	5.4	0.60 J	4.2
Acenaphthene	83-32-9	µg/kg	9.6	3.0	3.1	3.9	3.4	4.5	11	11	1.1	6.0
Acenaphthylene	208-96-8	µg/kg	3.8	2.8	8.5	6.2	5.1	5.2	7.1	11	4.7	5.7
Anthracene	120-12-7	µg/kg	12	8.2	11	9.0	8.1	12	16	18	3.7	14
Benz(a)anthracene	56-55-3	µg/kg	30	22	48	35	33	41	72	59	28	49
Benzo(a)pyrene	50-32-8	µg/kg	58	41	73	60	55	69	110	120	48	69
Benzo(b)fluoranthene	205-99-2	µg/kg	43	33	66	53	55	55	100	96	39	100
Benzo(g,h,i)perylene	191-24-2	µg/kg	40	27	54	49	41	48	92	100	42	38 J
Benzo(k)fluoranthene	207-08-9	µg/kg	15	12	23	18	19	17	40	36	15	29
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	150 J	80 J	53 J	54 J	62 J	67 J	49 J	23 J	21 J	66 J
Chrysene	218-01-9	µg/kg	43 J	36 J	67	44	57 J	61 J	87 J	85 J	34 J	110
Dibenz(a,h)anthracene	53-70-3	µg/kg	5.6 J	3.8	8.8	7.1	4.9	6.2	12	13	4.1	8.4
Fluoranthene	206-44-0	µg/kg	71	48	74	55	68	100	130	90	49	130
Fluorene	86-73-7	µg/kg	7.8	3.9	3.3	4.3	4.4	4.9	6.0	7.4	1.1	8.8
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	35	23	53	47	37	42	81	89	36	39
Naphthalene	91-20-3	µg/kg	6.4	3.2	4.1	6.7	3.1	3.7	7.5	9.6	1.5	5.8
Phenanthrene	85-01-8	µg/kg	54	26	31	30	31	49	60	56	18	65
Pyrene	129-00-0	µg/kg	110 J	67 J	100	74	90 J	150 J	190 J	140 J	86 J	130
Total PAHs (b)	T_PAH (PDI)	µg/kg	548	362	630	508	517	670	1026	946	412	812
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	75	53	99	81	73	89	148	158	63	97
Metals												
Arsenic	7440-38-2	mg/kg	5.0	5.6	5.1	5.4	5.9	4.9	3.9	4.0	3.4	6.8
Cadmium	7440-43-9	mg/kg	0.30 J	0.35 J	0.35	0.45	0.36	0.31 J	0.20	0.21	0.15 J	0.35 J
Copper	7440-50-8	mg/kg	38	42	34	36	44	36	24	25	23	47
Lead	7439-92-1	mg/kg	10	11	10	11	12	9.7	7.6	8.2	6.3	14
Mercury	7439-97-6	mg/kg	0.054	0.094	0.058	0.051	0.073	0.057	0.050	0.043	0.018 J	0.058
Tri-n-butyltin	36643-28-4	µg/kg	2.3 J	2.5	< 2.3 U	1.6 J	2.2 J	1.8 J	6.7	11	< 1.7 U	3.9
Zinc	7440-66-6	mg/kg	94	110	100	110	110	92	77	79	60	130
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	34 J	< 110 U	< 110 U	< 100 U	< 120 U	< 110 U	< 76 U	< 79 U	< 81 U	62 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	410 J	200	150	210	150	180	83	95	< 81 U	620
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										38.1
Total Solids@104C - E160.3 (f)	TSOLID	%	38.0	40.9	45.5	46.9	38.9	42.7	60.5	58.9	56.5	
Total Solids@104C - E160.3M (f)	TSOLID	%	38.4	39.2	43.1	47.5	39.8	40.5	57.8	56.8	58.6	39.3
Total Solids@70C	TSOLID70	%	40	41	46	50	41	42	60	59	63	38
Gravel	GS-Gravel	%		0	0	0	0	0	0		4.8	0
Sand, Coarse	GS-Csand	%		0	0	0	0.1	0.2	0.2		0.1	0
Sand, Medium	GS-Msand	%		0.3	0.2	0.6	0.1	0.4	17.8		0.1	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%		8.456	19.51	28.96	5.241	11.14	34.53		11.51	9.435
Sand, Fine (#230) (d)	GS-Fsand	%		12.2	24.4	34.0	7.3	15.3	37.4		16.5	12.7
Silt (#200) (d)	GS-Silt-200	%		83.34	80.28	65.43	83.95	80.75	39.36		77.18	78.16

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B020	B021	B022	B023	B024	B025	B026	B026	B027	B028
		Sample ID	PDI-SG-B020-BL1-D	PDI-SG-B021-BL1	PDI-SG-B022-BL1	PDI-SG-B023-BL1	PDI-SG-B024-BL1	PDI-SG-B025-BL1	PDI-SG-B026-BL1	PDI-SG-B026-BL1-D	PDI-SG-B027-BL1	PDI-SG-B028-BL1
		Sample Date	01 Apr 2018	01 Apr 2018	31 Mar 2018	31 Mar 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	01 Apr 2018	16 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	FD	N	N
		Depth	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-14 cm	0-24 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%		79.6	75.4	60.4	81.9	76.6	36.5		72.2	74.9
Clay	GS-Clay	%		8.0	0	5.0	10.7	7.6	8.1		6.2	12.2
Percent Fines (e)	GS-FINES	%		91.34	80.28	70.43	94.65	88.35	47.46		83.38	90.36
Total Organic Carbon	TOC	mg/kg	57000 J	32000	20000	17000	34000	43000	11000	12000	6800	25000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B029	B030	B031	B032	B033	B034	B035	B036	B037	B038
		Sample ID	PDI-SG-B029-BL1	PDI-SG-B030-BL1	PDI-SG-B031-BL1	PDI-SG-B032-BL1	PDI-SG-B033-BL1	PDI-SG-B034-BL1	PDI-SG-B035-BL1	PDI-SG-B036-BL1	PDI-SG-B037-BL1	PDI-SG-B038-BL1
		Sample Date	01 Apr 2018	17 Jun 2018	17 Jun 2018	01 Apr 2018	03 Apr 2018	01 Apr 2018	02 Apr 2018	01 Apr 2018	02 Apr 2018	02 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-29 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.036 J	0.13	0.25	0.024 J	0.013	0.040 J	0.029	0.045 J	0.048	0.048
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0048 JN	0.014 JN	0.014 JN	0.0066	0.0024 J	0.010 JN	0.0057 JN	0.0093 JN	0.0094 J-	0.0088 J-
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00015 U	0.0012 J+	0.0011 J+	< 0.00032 U	< 0.00013 U	< 0.00066 U	< 0.00029 U	< 0.00065 U	< 0.00045 U	< 0.00037 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00042 J+	0.00084 J	0.0011 J	0.00058 J	0.00022 JN	< 0.00022 U	0.00050 J	0.00088 J	0.00068 JN	0.00061 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0010 J	0.0019 J	0.0022 J	0.0018 JN	0.00046 J+	0.0014 JN	0.0012 J+	0.0013 J	0.0013 J+	0.0013 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0013 J	0.0032 J	0.0048 J	0.0013 JN	0.00046 JN	0.0026 J	0.0014 J	0.0023 J	0.0022 J	0.0021 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0018 U	0.00077 JN	0.00068 JN	0.0021 JN	< 0.00010 U	0.0043 J	< 0.0018 U	0.0048 J+	< 0.0026 U	< 0.0024 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00090 J	0.0024 J	0.0036 J	0.00077 J	0.00033 JN	0.0015 J	0.00090 JN	0.0018 J	0.0017 J	0.0016 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00014 U	0.00040 J+	0.00039 J+	< 0.00017 U	< 0.000064 U	< 0.00032 U	< 0.00011 U	< 0.00028 U	< 0.00022 U	< 0.00017 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00019 U	0.00053 JN	0.00057 J	< 0.00021 U	< 0.000079 U	< 0.00027 U	< 0.00015 U	< 0.00035 U	< 0.00019 U	< 0.00035 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00046 J	0.00073 J	0.00080 J	0.0014 JN	< 0.000084 U	< 0.00037 U	0.00057 J	< 0.00042 U	< 0.00025 U	< 0.00020 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00017 U	0.00032 JN	0.00042 J	< 0.00018 U	< 0.000076 U	< 0.00033 U	< 0.00012 U	< 0.00029 U	< 0.00024 U	< 0.00017 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00018 J	0.00052 J	0.00059 J	0.00044 JN	< 0.000094 U	< 0.00042 U	0.00036 J	< 0.00045 U	< 0.00028 U	< 0.00025 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00025 JN	0.00026 JN	0.00021 JN	< 0.00015 U	< 0.000056 U	< 0.00019 U	< 0.000086 U	< 0.00023 U	< 0.00011 U	< 0.00011 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00047 JN	0.0011 J	0.0011 J	0.00095	0.00090	0.0010 J	0.00064 J	< 0.00038 U	0.00074 J	0.00087 J
OCDD	3268-87-9	µg/kg	0.30	1.1	1.7	0.18	0.12	0.33	0.26	0.32	0.40	0.40
OCDF	39001-02-0	µg/kg	0.015	0.071	0.052	0.017	0.0057 J	0.026	0.016	0.024	0.028	0.025
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0013	0.0039	0.0056	0.0014	0.00047	0.0018	0.0011	0.0019	0.0015	0.0015
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0011	0.0032	0.0054	0.0007	0.00037	0.0017	0.001	0.0019	0.0014	0.0015
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00093	0.003	0.0053	0.0006	0.00033	0.0015	0.00093	0.0018	0.0013	0.0013
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.0024 U	0.0065 J+	0.0073 J+	0.0032 J+	< 0.00062 U	0.0036 JN	0.0034 J	0.0044 J+	0.0071 JN	0.0033 JN
PCB-10	33146-45-1	ng/g	< 0.0018 U	0.0023 J	0.0012 JN	< 0.0018 U	< 0.00097 U	< 0.0023 U	< 0.00089 U	< 0.0023 U	< 0.0014 U	< 0.0014 U
PCB-103	60145-21-3	ng/g	0.0057 J	0.0055 JN	0.0079 J	0.0041 JN	0.0038 JN	0.0062 J	0.0029 JN	0.0088 J	0.0032 JN	0.0026 JN
PCB-104	56558-16-8	ng/g	< 0.00021 U	< 0.00025 U	< 0.00075 U	< 0.00017 U	< 0.0011 U	< 0.00043 U	< 0.0011 U	< 0.00030 U	< 0.00099 U	< 0.00079 U
PCB-105	32598-14-4	ng/g	0.081	0.14	0.20	0.069	0.055	0.095	0.052	0.10	0.071	0.076
PCB-106	70424-69-0	ng/g	< 0.00093 U	< 0.0011 U	< 0.0020 U	< 0.00065 U	< 0.0014 U	< 0.0011 U	< 0.0012 U	< 0.0011 U	< 0.0023 U	< 0.0022 U
PCB-107	70424-68-9	ng/g	0.024	0.029	0.038	0.016	0.013 JN	0.024	0.013	0.023	0.017	0.016
PCB-108/124	70362-41-3	ng/g	0.010 J	0.014 J	0.020 J	0.0057 JN	0.0045 J	0.0096 J	0.0036 JN	0.0092 JN	0.0066 J	0.0058 JN
PCB-11	2050-67-1	ng/g	0.033	0.089	0.083	0.033	0.018 J	0.081	0.043	0.17	0.065	0.055 JN
PCB-110/115	38380-03-9	ng/g	0.32	0.38	0.59	0.27	0.22	0.27	0.15 JN	0.30	0.25	0.25
PCB-111	39635-32-0	ng/g	< 0.00020 U	< 0.00022 U	0.0033 JN	< 0.00016 U	< 0.00099 U	< 0.00040 U	< 0.0010 U	< 0.00027 U	< 0.00089 U	< 0.00071 U
PCB-112	74472-36-9	ng/g	< 0.00021 U	< 0.00025 U	< 0.00073 U	< 0.00017 U	< 0.0011 U	< 0.00042 U	< 0.0011 U	< 0.00029 U	< 0.00097 U	< 0.00077 U
PCB-114	74472-37-0	ng/g	0.0018 JN	0.0079 J	0.011 J	0.0038 J	0.0034 JN	0.0055 J	0.0044 JN	0.0034 JN	< 0.0021 U	< 0.0020 U
PCB-118	31508-00-6	ng/g	0.28	0.31	0.48	0.17	0.14	0.24	0.14	0.26	0.18	0.20
PCB-12/13	2974-92-7	ng/g	0.0022 JN	0.011 J	0.012 J	0.0020 JN	< 0.00083 U	0.0044 JN	0.0010 JN	0.0053 JN	0.0026 JN	< 0.0012 U
PCB-120	68194-12-7	ng/g	0.0032 JN	0.0026 J	0.0036 J	< 0.00016 U	0.0020 JN	< 0.00041 U	< 0.00098 U	< 0.00028 U	< 0.00088 U	< 0.00070 U
PCB-121	56558-18-0	ng/g	< 0.00021 U	< 0.00024 U	< 0.00072 U	< 0.00017 U	< 0.0011 U	< 0.00042 U	< 0.0011 U	< 0.00029 U	< 0.00095 U	< 0.00076 U
PCB-122	76842-07-4	ng/g	0.0016 JN	0.0051 JN	< 0.0022 U	0.0023 J	0.0026 J	0.0037 JN	0.0033 J	< 0.0013 U	< 0.0025 U	0.0031 JN
PCB-123	65510-44-3	ng/g	0.0035 J	0.0065 J	0.0074 JN	0.0030 J	0.0017 JN	0.0035 JN	< 0.0011 U	0.0050 JN	< 0.0021 U	0.0047 JN
PCB-126	57465-28-8	ng/g	< 0.00096 U	0.0016 JN	0.0023 J	< 0.00069 U	< 0.0014 U	< 0.0012 U	< 0.0011 U	< 0.0013 U	< 0.0021 U	< 0.0023 U
PCB-127	39635-33-1	ng/g	< 0.00093 U	< 0.0011 U	< 0.0019 U	< 0.00065 U	< 0.0013 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0022 U	< 0.0021 U
PCB-128/166	38380-07-3	ng/g	0.19	0.074	0.11	0.034 JN	0.036	0.062	0.040	0.071	0.057	0.061
PCB-129/138/160/163	55215-18-4	ng/g	2.6	0.51	0.70	0.32	0.22	0.49	0.29	0.54	0.39	0.42
PCB-130	52663-66-8	ng/g	0.073 JN	0.034	0.049	0.019 JN	0.013 JN	0.026	0.014	0.033	0.027	0.029
PCB-131	61798-70-7	ng/g	< 0.0045 U	0.0039 JN	0.0088 J	< 0.0014 U	< 0.00059 U	< 0.0033 U	0.0027 JN	< 0.0028 U	< 0.0024 U	< 0.0028 U
PCB-132	38380-05-1	ng/g	0.54	0.14	0.23	0.10	0.074	0.13	0.079	0.16	0.099 JN	0.13
PCB-133	35694-04-3	ng/g	0.031	0.0092 J	0.013	0.0049 J	0.0080 J	0.010 J	0.0023 JN	0.0096 J	0.0083 JN	0.0083 JN
PCB-134/143	52704-70-8	ng/g	0.082	0.028	0.041	0.014 JN	0.0073 JN	0.024 J	0.014 J	0.024 JN	0.024	0.018 JN
PCB-135/151	52744-13-5	ng/g	0.74	0.15	0.20	0.10	0.090	0.13	0.089	0.14	0.13	0.14
PCB-136	38411-22-2	ng/g	0.16	0.053	0.076	0.033	0.036	0.048	0.029 JN	0.052	0.054	0.054
PCB-137	35694-06-5	ng/g	0.014 JN	0.020	0.035	0.010	0.0090 JN	0.012 JN	0.0079 J	0.016	0.010 JN	0.012
PCB-139/140	56030-56-9	ng/g	< 0.0037 U	0.0097 J	0.013 J	0.0033 JN	0.0020 JN	0.0056 JN	0.0015 JN	0.0059 JN	0.0058 J	0.0072 JN
PCB-14	34883-41-5	ng/g	< 0.0014 U	< 0.00057 U	< 0.00052 U	< 0.0014 U	< 0.00076 U	< 0.0018 U	< 0.00069 U	< 0.0018 U	< 0.0011 U	< 0.0011 U
PCB-141	52712-04-6	ng/g	0.71	0.095	0.13	0.057	0.041	0.070 JN	0.046	0.093	0.069 JN	0.070
PCB-142	41411-61-4	ng/g	< 0.0041 U	< 0.0016 U	< 0.0023 U	< 0.0013 U	< 0.00056 U	< 0.0030 U	< 0.00047 U	< 0.0026 U	< 0.0023 U	< 0.0026 U
PCB-144	68194-14-9	ng/g	0.11	0.020	0.026 JN	0.0099 JN	0.012	0.012 J	0.0099 JN	0.013 JN	0.012 JN	0.014
PCB-145	74472-40-5	ng/g	< 0.00017 U	0.00030 JN	< 0.00035 U	< 0.00013 U	< 0.00012 U	< 0.00034 U	< 0.00015 U	< 0.00020 U	< 0.00032 U	< 0.00019 U
PCB-146	51908-16-8	ng/g	0.44	0.086	0.11	0.060	0.038 JN	0.089	0.041	0.10	0.071	0.069
PCB-147/149	68194-13-8	ng/g	2.2	0.36	0.51	0.31 J-	0.22 J-	0.43	0.22	0.51	0.32	0.30 J-
PCB-148	74472-41-6	ng/g	0.0018 JN	0.0015 J	0.0018 JN	< 0.00018 U	< 0.00016 U	0.00086 JN	< 0.00020 U	< 0.00029 U	< 0.00043 U	< 0.00026 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B029	B030	B031	B032	B033	B034	B035	B036	B037	B038
		Sample ID	PDI-SG-B029-BL1	PDI-SG-B030-BL1	PDI-SG-B031-BL1	PDI-SG-B032-BL1	PDI-SG-B033-BL1	PDI-SG-B034-BL1	PDI-SG-B035-BL1	PDI-SG-B036-BL1	PDI-SG-B037-BL1	PDI-SG-B038-BL1
		Sample Date	01 Apr 2018	17 Jun 2018	17 Jun 2018	01 Apr 2018	03 Apr 2018	01 Apr 2018	02 Apr 2018	01 Apr 2018	02 Apr 2018	02 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-29 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.017	0.053	0.048	0.019	0.024	0.027	0.0083 JN	0.026	0.021	0.021 JN
PCB-150	68194-08-1	ng/g	0.0011 JN	0.0016 J	0.0011 JN	< 0.00012 U	0.00022 J	< 0.00032 U	0.00033 JN	0.0016 JN	0.00091 J	0.00076 JN
PCB-152	68194-09-2	ng/g	< 0.00018 U	0.00074 JN	< 0.00033 U	< 0.00013 U	< 0.00012 U	< 0.00035 U	< 0.00015 U	0.00049 JN	< 0.00031 U	< 0.00018 U
PCB-153/168	35065-27-1	ng/g	3.2	0.41	0.53	0.28	0.18 JN	0.42	0.23	0.48	0.33	0.35
PCB-154	60145-22-4	ng/g	0.011 JN	0.0089 JN	0.012 J	0.0035 JN	0.0053 JN	0.0063 J	0.0032 JN	0.0068 JN	0.0039 JN	0.0088 JN
PCB-155	33979-03-2	ng/g	< 0.00017 U	0.00038 JN	< 0.00032 U	< 0.00012 U	< 0.00011 U	< 0.00032 U	< 0.00014 U	< 0.00020 U	< 0.00030 U	< 0.00018 U
PCB-156/157	38380-08-4	ng/g	0.19	0.051	0.076	0.024 JN	0.020 JN	0.039	0.025 JN	0.039 JN	0.038	0.041
PCB-158	74472-42-7	ng/g	0.23	0.046	0.073	0.024	0.017 JN	0.037	0.015 JN	0.039 JN	0.037	0.039
PCB-159	39635-35-3	ng/g	0.044	0.0051 J	0.0069 J	0.0029 J	0.00084 JN	< 0.0020 U	0.0021 J	< 0.0017 U	0.0039 JN	0.0031 JN
PCB-16	38444-78-9	ng/g	0.0074 JN	0.027	0.027	0.012	0.029	0.013	0.0032 JN	0.014 JN	0.015	0.018
PCB-161	74472-43-8	ng/g	< 0.0027 U	< 0.0010 U	< 0.0015 U	< 0.00086 U	< 0.00036 U	< 0.0020 U	< 0.00031 U	< 0.0017 U	< 0.0015 U	< 0.0017 U
PCB-162	39635-34-2	ng/g	0.0031 JN	< 0.00097 U	< 0.0014 U	< 0.00085 U	< 0.00035 U	< 0.0019 U	< 0.00029 U	< 0.0017 U	< 0.0014 U	< 0.0016 U
PCB-164	74472-45-0	ng/g	0.18	0.035	0.049	0.023	0.016	0.033	0.019	0.037	0.025 JN	0.027 JN
PCB-165	74472-46-1	ng/g	< 0.0031 U	< 0.0012 U	< 0.0017 U	< 0.00097 U	< 0.00042 U	< 0.0022 U	< 0.00035 U	< 0.0019 U	< 0.0017 U	< 0.0019 U
PCB-167	52663-72-6	ng/g	0.076	0.018	0.027	0.0091 J	0.0070 J	0.012 J	0.0093 JN	0.015	0.014	0.017
PCB-169	32774-16-6	ng/g	< 0.0022 U	< 0.00075 U	< 0.0011 U	< 0.00071 U	< 0.00027 U	< 0.0017 U	< 0.00023 U	< 0.0015 U	< 0.0011 U	< 0.0013 U
PCB-17	37680-66-3	ng/g	0.013	0.045	0.043	0.014 JN	0.040	0.028	0.011 JN	0.027	0.020	0.022 JN
PCB-170	35065-30-6	ng/g	2.0	0.14	0.16	0.090	0.056 JN	0.12	0.084	0.12	0.096	0.11
PCB-171/173	52663-71-5	ng/g	0.60	0.044	0.049	0.022	0.019 JN	0.036	0.023 JN	0.040	0.033 JN	0.033
PCB-172	52663-74-8	ng/g	0.31	0.025	0.029	0.013	0.0098 JN	0.022	0.018	0.018 JN	0.017 JN	0.016 JN
PCB-174	38411-25-5	ng/g	1.9	0.15	0.16	0.086	0.075	0.12	0.094	0.13	0.12	0.13
PCB-175	40186-70-7	ng/g	0.081	0.0053 JN	0.0064 J	0.0031 JN	0.0039 J	0.0052 JN	0.0023 JN	0.0041 JN	< 0.000093 U	0.0016 JN
PCB-176	52663-65-7	ng/g	0.24	0.015	0.017	0.0078 JN	0.0081 J	0.015	0.0098 J	0.015 JN	0.013	0.011 JN
PCB-177	52663-70-4	ng/g	1.1	0.090	0.10	0.045	0.042 JN	0.074	0.052	0.081	0.059 JN	0.066 JN
PCB-178	52663-67-9	ng/g	0.38	0.033	0.034	0.019	0.020	0.030	0.020	0.035	0.03	0.029 JN
PCB-179	52663-64-6	ng/g	0.82	0.059	0.067	0.039	0.031 JN	0.058	0.038	0.068	0.055	0.054
PCB-18/30	37680-65-2	ng/g	0.027	0.065	0.069	0.029 JN	0.073	0.040	0.017 JN	0.043	0.029 JN	0.042
PCB-180/193	35065-29-3	ng/g	4.5	0.30	0.32	0.16	0.14	0.24	0.19	0.25	0.23	0.23
PCB-181	74472-47-2	ng/g	< 0.00041 U	0.0016 JN	< 0.00038 U	< 0.00060 U	< 0.00020 U	< 0.0013 U	< 0.00014 U	< 0.00080 U	< 0.000089 U	< 0.00054 U
PCB-182	60145-23-5	ng/g	0.0081 JN	0.0018 JN	0.0029 JN	< 0.00058 U	< 0.00019 U	< 0.0013 U	< 0.00014 U	< 0.00078 U	< 0.000084 U	< 0.00051 U
PCB-183/185	52663-69-1	ng/g	1.5	0.092	0.10	0.057	0.040 JN	0.078	0.056	0.088	0.080	0.075
PCB-184	74472-48-3	ng/g	< 0.00034 U	< 0.000092 U	< 0.00031 U	< 0.00049 U	< 0.00016 U	< 0.0011 U	< 0.00012 U	< 0.00066 U	< 0.000072 U	< 0.00044 U
PCB-186	74472-49-4	ng/g	< 0.00033 U	< 0.000088 U	< 0.00030 U	< 0.00048 U	< 0.00016 U	< 0.0011 U	< 0.00011 U	< 0.00064 U	< 0.000069 U	< 0.00042 U
PCB-187	52663-68-0	ng/g	2.4	0.19	0.19	0.10	0.095	0.17	0.12	0.18	0.15	0.14 JN
PCB-188	74487-85-7	ng/g	< 0.00028 U	< 0.000083 U	< 0.00028 U	< 0.00041 U	< 0.00014 U	< 0.00088 U	< 0.00010 U	< 0.00052 U	< 0.000067 U	< 0.00039 U
PCB-189	39635-31-9	ng/g	0.059	0.0051 J	0.0055 J	< 0.0015 U	0.0041 JN	0.0053 J+	0.0029 JN	0.0034 J+	0.0037 JN	0.0038 JN
PCB-19	38444-73-4	ng/g	0.0076 JN	0.023	0.023	0.0071 J	0.012 JN	0.017	0.012	0.023	0.018 JN	0.013 JN
PCB-190	41411-64-7	ng/g	0.35	0.028	0.031	0.013	0.012 JN	0.021	0.019	0.019	0.023	0.019 JN
PCB-191	74472-50-7	ng/g	0.073	0.0067 J	0.0070 J	0.0025 JN	0.0015 JN	0.0035 JN	0.0012 JN	0.0039 J+	0.0028 JN	0.0060 J
PCB-192	74472-51-8	ng/g	< 0.00034 U	< 0.000090 U	< 0.00030 U	< 0.00050 U	< 0.00016 U	< 0.0011 U	< 0.00011 U	< 0.00068 U	< 0.000071 U	< 0.00043 U
PCB-194	35694-08-7	ng/g	1.2	0.075	0.073	0.041 JN	0.036	0.066	0.041 JN	0.076	0.045	0.057
PCB-195	52663-78-2	ng/g	0.57	0.032	0.032	0.018	0.012 JN	0.026	0.020 JN	0.035	0.017	0.026 JN
PCB-196	42740-50-1	ng/g	0.46	0.037	0.036	0.016	0.018 JN	0.024	0.022	0.024	0.030	0.032
PCB-197	33091-17-7	ng/g	0.031	0.0011 JN	0.0025 JN	0.0014 JN	< 0.00015 U	< 0.00078 U	0.0018 JN	< 0.00093 U	0.0015 JN	0.0010 JN
PCB-198/199	68194-17-2	ng/g	0.87	0.094	0.094	0.040	0.037 JN	0.068	0.056 JN	0.063 JN	0.080	0.079 JN
PCB-2	2051-61-8	ng/g	0.0088 J	0.013	0.016	0.0064 J	0.0050 J	0.0098 J	0.0085 J	0.012 J	0.010 J	0.014
PCB-20/28	38444-84-7	ng/g	0.076	0.19	0.20	0.087	0.18	0.10	0.056	0.11	0.084	0.11
PCB-200	52663-73-7	ng/g	0.11	0.011 J	0.0096 J	0.0028 JN	0.0014 JN	0.0066 J	0.0054 JN	0.0068 J	0.0050 JN	0.0088 JN
PCB-201	40186-71-8	ng/g	0.11	0.010 J	0.011 J	0.0037 JN	0.0056 JN	0.0077 J	0.0047 JN	0.0074 JN	0.0083 JN	0.0085 JN
PCB-202	2136-99-4	ng/g	0.15	0.020	0.019	0.0069 JN	0.010 JN	0.015	0.0085 JN	0.017	0.012 JN	0.018
PCB-203	52663-76-0	ng/g	0.53	0.059	0.057	0.023	0.019 JN	0.038	0.039	0.035	0.046	0.058
PCB-204	74472-52-9	ng/g	< 0.00046 U	< 0.00030 U	< 0.00062 U	< 0.00021 U	< 0.00017 U	< 0.00078 U	< 0.00024 U	< 0.00094 U	< 0.00015 U	< 0.00057 U
PCB-205	74472-53-0	ng/g	0.059	0.0036 JN	0.0038 J	< 0.0010 U	0.0016 JN	< 0.0031 U	0.0013 JN	< 0.0028 U	0.0018 JN	0.0025 JN
PCB-206	40186-72-9	ng/g	0.21	0.061 JN	0.076 JN	0.022 JN	0.027	0.094	0.037	0.051	0.042 JN	0.084
PCB-207	52663-79-3	ng/g	0.026	0.0050 J	0.0049 J	0.0033 J	0.0020 JN	0.0073 J	0.0012 JN	< 0.0025 U	< 0.0022 U	0.0098 J
PCB-208	52663-77-1	ng/g	0.037	0.020	0.017	0.0079 J	0.0095 J	0.032	0.012 JN	0.018	0.016	0.029
PCB-209	2051-24-3	ng/g	0.029	0.068	0.063	0.033	0.018	0.11	0.036 JN	0.066	0.032 JN	0.048 JN
PCB-21/33	55702-46-0	ng/g	0.026	0.057	0.068	0.031	0.074 JN	0.034	0.021 J	0.040	0.035	0.038
PCB-22	38444-85-8	ng/g	0.016	0.046	0.051	0.018	0.039	0.026	0.013 JN	0.030	0.026	0.032
PCB-23	55720-44-0	ng/g	< 0.00040 U	< 0.0018 U	< 0.0016 U	< 0.00040 U	< 0.0013 U	< 0.00065 U	< 0.0012 U	< 0.00057 U	< 0.0014 U	< 0.0014 U
PCB-24	55702-45-9	ng/g	0.00059 J	0.00084 JN	0.0010 JN	< 0.00027 U	< 0.00046 U	< 0.00047 U	< 0.00018 U	< 0.00042 U	< 0.00035 U	0.0013 JN
PCB-25	55712-37-3	ng/g	0.0058 J	0.020	0.020	0.0060 J	0.010	0.0065 JN	0.0043 JN	0.010 J	0.0090 J	0.0099 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B029	B030	B031	B032	B033	B034	B035	B036	B037	B038
		Sample ID	PDI-SG-B029-BL1	PDI-SG-B030-BL1	PDI-SG-B031-BL1	PDI-SG-B032-BL1	PDI-SG-B033-BL1	PDI-SG-B034-BL1	PDI-SG-B035-BL1	PDI-SG-B036-BL1	PDI-SG-B037-BL1	PDI-SG-B038-BL1
		Sample Date	01 Apr 2018	17 Jun 2018	17 Jun 2018	01 Apr 2018	03 Apr 2018	01 Apr 2018	02 Apr 2018	01 Apr 2018	02 Apr 2018	02 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-29 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.010 J	0.034	0.034	0.010 J	0.018 JN	0.015 J	0.011 J	0.018 J	0.014 JN	0.015 JN
PCB-27	38444-76-7	ng/g	0.0029 J	0.0082 J	0.0083 JN	0.0037 JN	0.0050 JN	0.0036 JN	0.0014 JN	0.0040 J	0.0042 J	0.0063 JN
PCB-3	2051-62-9	ng/g	0.0026 JN	0.010 J	0.012 J	0.0027 J+	< 0.00068 U	0.0044 JN	0.0033 JN	0.0051 J+	0.0040 J+	0.0061 J+
PCB-31	16606-02-3	ng/g	0.050	0.12	0.13	0.059	0.12	0.072	0.039	0.079	0.060	0.075
PCB-32	38444-77-8	ng/g	0.012	0.030	0.033	0.011	0.025 JN	0.014 JN	0.0044 JN	0.019	0.013 JN	0.012 JN
PCB-34	37680-68-5	ng/g	< 0.00042 U	< 0.0018 U	< 0.0017 U	< 0.00042 U	0.0019 JN	< 0.00067 U	< 0.0012 U	< 0.00059 U	< 0.0015 U	< 0.0015 U
PCB-35	37680-69-6	ng/g	0.0012 J+	< 0.0018 U	0.0046 J	0.0012 JN	< 0.0013 U	0.0022 J+	0.0025 J	0.0019 JN	< 0.0014 U	< 0.0014 U
PCB-36	38444-87-0	ng/g	< 0.00039 U	< 0.0016 U	< 0.0014 U	< 0.00039 U	< 0.0012 U	< 0.00063 U	< 0.0010 U	< 0.00055 U	< 0.0013 U	< 0.0013 U
PCB-37	38444-90-5	ng/g	0.023	0.057	0.059	0.029	0.050	0.034	0.018	0.034	0.023 JN	0.033
PCB-38	53555-66-1	ng/g	< 0.00042 U	< 0.0017 U	< 0.0016 U	< 0.00042 U	< 0.0013 U	< 0.00068 U	< 0.0011 U	< 0.00059 U	< 0.0014 U	< 0.0014 U
PCB-39	38444-88-1	ng/g	< 0.00037 U	< 0.0016 U	< 0.0014 U	< 0.00038 U	< 0.0011 U	< 0.00061 U	< 0.0010 U	< 0.00053 U	< 0.0013 U	< 0.0013 U
PCB-4	13029-08-8	ng/g	0.0076 JN	0.042	0.038	0.0074 JN	< 0.0015 U	0.015 JN	0.0098 JN	0.016 JN	0.020 JN	0.016 JN
PCB-40/41/71	38444-93-8	ng/g	0.048	0.12	0.12	0.068	0.098	0.053	0.028 J	0.064	0.059	0.062
PCB-42	36559-22-5	ng/g	0.022	0.058	0.057	0.036	0.049	0.027	0.020	0.032	0.028	0.032
PCB-43/73	70362-46-8	ng/g	0.0033 J	0.0069 JN	0.0066 JN	0.0049 JN	0.0043 JN	< 0.0017 U	< 0.0021 U	0.0055 JN	< 0.0015 U	0.0029 JN
PCB-44/47/65	41464-39-5	ng/g	0.10	0.26	0.28	0.14	0.18	0.13	0.082	0.17	0.15	0.14
PCB-45/51	70362-45-7	ng/g	0.019	0.042	0.037 JN	0.024	0.035 JN	0.025	0.010 JN	0.036	0.032	0.024
PCB-46	41464-47-5	ng/g	0.0037 JN	0.0085 JN	0.0075 JN	0.0082 J	0.012	0.0036 JN	< 0.0029 U	0.0074 J	< 0.0020 U	0.0073 JN
PCB-48	70362-47-9	ng/g	0.012	0.032	0.033	0.020	0.032	0.015	0.011 J	0.019	0.018	0.016 JN
PCB-49/69	41464-40-8	ng/g	0.078	0.16	0.17	0.090	0.13	0.090	0.050 JN	0.12	0.098	0.093
PCB-5	16605-91-7	ng/g	< 0.0018 U	< 0.00068 U	0.0011 J	< 0.0018 U	< 0.00091 U	< 0.0024 U	< 0.00083 U	< 0.0023 U	< 0.0014 U	< 0.0014 U
PCB-50/53	62796-65-0	ng/g	0.019	0.038	0.036 JN	0.022	0.032	0.021 J	0.012 JN	0.037	0.030	0.024
PCB-52	35693-99-3	ng/g	0.14	0.29	0.41	0.16	0.22	0.16	0.096	0.20	0.19	0.17
PCB-54	15968-05-5	ng/g	0.00069 JN	0.0048 J	0.0040 J	0.00070 JN	< 0.00028 U	0.0020 JN	0.00066 JN	0.0042 JN	0.0038 J	0.00099 JN
PCB-55	74338-24-2	ng/g	< 0.0011 U	< 0.00099 U	< 0.00097 U	0.0022 J	< 0.0017 U	< 0.0013 U	< 0.0016 U	< 0.0012 U	0.0040 J	< 0.0018 U
PCB-56	41464-43-1	ng/g	0.038	0.10	0.11	0.061	0.070	0.047	0.026	0.054	0.049	0.047
PCB-57	70424-67-8	ng/g	< 0.0011 U	< 0.0010 U	< 0.00099 U	< 0.00089 U	< 0.0017 U	< 0.0014 U	< 0.0016 U	< 0.0012 U	< 0.0011 U	< 0.0018 U
PCB-58	41464-49-7	ng/g	0.0012 J	0.0013 JN	< 0.00095 U	< 0.00091 U	< 0.0017 U	< 0.0014 U	< 0.0016 U	< 0.0012 U	< 0.0011 U	< 0.0018 U
PCB-59/62/75	74472-33-6	ng/g	0.0071 J	0.018 JN	0.018 JN	0.0098 J	0.015 JN	0.0078 JN	0.0043 JN	0.011 J	0.013 J	0.011 J
PCB-6	25569-80-6	ng/g	0.0035 JN	0.017	0.015	0.0039 JN	0.0065 JN	0.0065 J	0.0017 JN	0.0074 JN	0.0068 JN	0.0072 JN
PCB-60	33025-41-1	ng/g	0.014	0.049	0.053	0.021	0.021 JN	0.018	0.010 JN	0.021	0.018 JN	0.022
PCB-61/70/74/76	33284-53-6	ng/g	0.17	0.35	0.43	0.23	0.28	0.20	0.12	0.23	0.19	0.20
PCB-63	74472-34-7	ng/g	0.0031 JN	0.0084 J	0.0082 JN	0.0057 J	0.0061 JN	0.0020 JN	< 0.0014 U	0.0048 J	0.0052 JN	0.0057 J
PCB-64	52663-58-8	ng/g	0.036	0.090	0.093	0.053	0.059 JN	0.042	0.026	0.050	0.047	0.046
PCB-66	32598-10-0	ng/g	0.10	0.26	0.28	0.13	0.20	0.12	0.069	0.14	0.12	0.13
PCB-67	73575-53-8	ng/g	0.0017 JN	0.0049 JN	0.0041 J	0.0019 JN	0.0025 JN	< 0.0012 U	< 0.0015 U	0.0024 JN	0.0018 JN	0.0026 JN
PCB-68	73575-52-7	ng/g	0.0035 JN	0.0034 J	0.0032 J	0.0015 J	0.0019 JN	< 0.0012 U	< 0.0014 U	0.0038 JN	< 0.00099 U	< 0.0016 U
PCB-7	33284-50-3	ng/g	< 0.0016 U	0.0017 JN	0.0025 J	< 0.0016 U	0.0020 JN	< 0.0021 U	< 0.00078 U	< 0.0021 U	0.0029 J	0.0021 JN
PCB-72	41464-42-0	ng/g	0.0031 J	0.0036 J	0.0045 J	0.0032 J	< 0.0017 U	< 0.0013 U	< 0.0016 U	< 0.0012 U	0.0032 JN	< 0.0018 U
PCB-77	32598-13-3	ng/g	0.0094 J	0.028	0.031	0.015	0.020	0.014	0.0089 JN	0.016	0.012	0.013 JN
PCB-78	70362-49-1	ng/g	< 0.0011 U	< 0.00097 U	< 0.00095 U	< 0.00091 U	< 0.0017 U	< 0.0014 U	< 0.0016 U	< 0.0012 U	< 0.0011 U	< 0.0018 U
PCB-79	41464-48-6	ng/g	0.0025 J	0.0035 J	0.0046 JN	0.0014 J	< 0.0014 U	< 0.0012 U	< 0.0014 U	< 0.0011 U	0.0016 J	0.0024 JN
PCB-8	34883-43-7	ng/g	0.015 J	0.051	0.050	0.016 J	0.030	0.024 JN	0.010 JN	0.024 J	0.028	0.027
PCB-80	33284-52-5	ng/g	< 0.00092 U	< 0.00086 U	< 0.00084 U	< 0.00077 U	< 0.0015 U	< 0.0012 U	< 0.0014 U	< 0.0011 U	< 0.00098 U	< 0.0016 U
PCB-81	70362-50-4	ng/g	< 0.0010 U	< 0.00092 U	0.0021 JN	< 0.00084 U	< 0.0016 U	< 0.0012 U	< 0.0016 U	< 0.0011 U	< 0.00099 U	< 0.0017 U
PCB-82	52663-62-4	ng/g	0.021 JN	0.050	0.073	0.025 JN	0.025 JN	0.028	0.015	0.026	0.020 JN	0.023
PCB-83/99	60145-20-2	ng/g	0.19	0.23	0.33	0.15	0.15	0.16	0.093	0.16	0.17	0.15
PCB-84	52663-60-2	ng/g	0.054	0.085	0.14	0.060	0.054 JN	0.048	0.030	0.054	0.052	0.050
PCB-85/116/117	65510-45-4	ng/g	0.033 JN	0.071	0.095	0.040	0.033 JN	0.046	0.028 J	0.049	0.039	0.039
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.15 JN	0.23	0.36	0.14	0.12	0.14	0.087	0.15	0.13	0.13
PCB-88/91	55215-17-3	ng/g	0.035 JN	0.061	0.083	0.033 JN	0.040	0.040	0.021 JN	0.048	0.036 JN	0.032
PCB-89	73575-57-2	ng/g	< 0.00032 U	0.0053 JN	0.0062 JN	0.0026 JN	0.0061 J	< 0.00065 U	< 0.0017 U	0.0031 JN	< 0.0015 U	< 0.0012 U
PCB-9	34883-39-1	ng/g	< 0.0017 U	0.0031 JN	0.0032 J	< 0.0017 U	0.0013 JN	< 0.0022 U	0.0023 JN	< 0.0021 U	< 0.0015 U	< 0.0015 U
PCB-90/101/113	68194-07-0	ng/g	0.39	0.33	0.55	0.23	0.20	0.25	0.14	0.28	0.24	0.24
PCB-92	52663-61-3	ng/g	0.072	0.073	0.11	0.039 JN	0.039	0.051	0.034	0.051	0.054	0.049
PCB-93/100	73575-56-1	ng/g	0.0060 J	0.015 JN	0.017 J	0.0033 JN	< 0.0016 U	0.0087 J	0.0062 JN	0.0091 JN	0.0074 JN	0.012 JN
PCB-94	73575-55-0	ng/g	< 0.00032 U	0.0029 JN	0.0044 J	< 0.00026 U	0.0052 JN	< 0.00065 U	< 0.0017 U	< 0.00044 U	< 0.0015 U	0.0021 JN
PCB-95	38379-99-6	ng/g	0.22	0.24	0.43	0.20	0.18	0.19	0.097	0.23	0.18	0.15 JN
PCB-96	73575-54-9	ng/g	< 0.00024 U	0.0034 J	0.0052 J	0.0019 JN	0.0046 JN	< 0.00049 U	< 0.0012 U	0.0033 J	< 0.0011 U	0.0024 J
PCB-98/102	60233-25-2	ng/g	0.0073 J	0.017 J	0.022 J	0.0072 JN	0.011 JN	0.0068 JN	0.0063 JN	0.0069 J	0.0072 JN	0.0061 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	36	9.1	12	5.3	5.4	6.8	4.0	7.6	6.0	6.3

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B029	B030	B031	B032	B033	B034	B035	B036	B037	B038
		Sample ID	PDI-SG-B029-BL1	PDI-SG-B030-BL1	PDI-SG-B031-BL1	PDI-SG-B032-BL1	PDI-SG-B033-BL1	PDI-SG-B034-BL1	PDI-SG-B035-BL1	PDI-SG-B036-BL1	PDI-SG-B037-BL1	PDI-SG-B038-BL1
		Sample Date	01 Apr 2018	17 Jun 2018	17 Jun 2018	01 Apr 2018	03 Apr 2018	01 Apr 2018	02 Apr 2018	01 Apr 2018	02 Apr 2018	02 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-29 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.65	0.40 J	0.38 J	0.59	0.53	0.50 J	0.41 J	0.56 J	0.43 J	0.42 J
2,4-DDE	3424-82-6	µg/kg	< 0.44 U	< 0.53 U	< 0.51 U	< 0.44 U	< 0.40 U	< 0.64 U	< 0.60 U	< 0.62 UJ	< 0.64 U	< 0.62 U
2,4-DDT	789-02-6	µg/kg	< 0.47 U	< 0.53 U	< 0.51 U	< 0.47 U	< 0.47 U	< 0.64 U	< 0.60 U	< 0.62 UJ	< 0.64 U	< 0.62 U
4,4'-DDD	72-54-8	µg/kg	1.6	0.98	0.99	1.4	2.0	1.2	1.4	1.9 J	1.3	1.1
4,4'-DDE	72-55-9	µg/kg	1.3	2.2	2.1	0.99	0.73	3.6	2.4	4.3 J	2.9	3.2
4,4'-DDT	50-29-3	µg/kg	< 0.44 UJ	0.89	0.66	< 0.44 UJ	7.3 J	< 0.64 UJ	5.4 J	0.35 J	< 0.64 UJ	< 0.62 UJ
Total DDx (b)	T_DDx (PDI)	µg/kg	3.8	4.7	4.4	3.2	11	5.6	9.9	7.4	5.0	5.0
Aldrin	309-00-2	µg/kg	< 0.44 U	< 0.53 U	< 0.51 U	< 0.44 U	< 0.40 U	< 0.64 U	< 0.60 U	< 0.62 UJ	< 0.64 U	< 0.62 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.88 U	< 1.1 U	< 1.0 U	< 0.88 U	< 0.77 U	< 1.3 U	< 1.2 U	< 1.2 UJ	< 1.3 U	< 1.2 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.49 U	< 0.53 U	< 0.51 U	< 0.49 U	< 0.49 U	< 0.64 U	< 0.60 U	< 0.62 UJ	< 0.64 U	< 0.62 U
Dieldrin	60-57-1	µg/kg	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.2 UJ	< 1.3 U	< 1.2 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.44 U	< 0.53 U	< 0.51 U	< 0.44 U	< 0.38 U	< 0.64 U	< 0.60 U	< 0.62 UJ	< 0.64 U	< 0.62 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.88 U	< 1.1 U	< 1.0 U	< 0.88 U	< 0.77 U	< 1.3 U	< 1.2 U	< 1.2 UJ	< 1.3 U	< 1.2 U
Heptachlor	76-44-8	µg/kg	< 0.44 U	< 0.53 U	< 0.51 U	< 0.44 U	< 0.38 UJ	< 0.64 U	< 0.60 UJ	< 0.62 UJ	< 0.64 UJ	< 0.62 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.3 U	< 1.2 U	< 1.2 UJ	< 1.3 U	< 1.2 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.88 U	< 1.1 U	< 1.0 U	< 0.88 U	< 0.77 U	0.39 J	< 1.2 U	< 1.2 UJ	< 1.3 U	< 1.2 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1 U	< 1.1 U	< 1 U	< 1 U	< 1 U	1.04	< 1.2 U	< 1.2 UJ	< 1.3 U	< 1.2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	15 J	< 120 UJ	19	6.7	6.1	2.9	2.6	3.6	5.3	2.9
Acenaphthene	83-32-9	µg/kg	31	< 120 UJ	39	190	8.6	3.3	3.6	8.3	9.9	5.2
Acenaphthylene	208-96-8	µg/kg	18	< 120 UJ	13	17	20	3.9	4.7	5.5	9.7	4.6
Anthracene	120-12-7	µg/kg	27	27 J	51	20	48	8.5	11	13	20	10
Benz(a)anthracene	56-55-3	µg/kg	120	58 J	69	96	120	24	35	38	89	36
Benzo(a)pyrene	50-32-8	µg/kg	190	44 J	59	160	230	45	64	68	120	61
Benzo(b)fluoranthene	205-99-2	µg/kg	170	82 J	100	130	200	37	49	54	110	50
Benzo(g,h,i)perylene	191-24-2	µg/kg	180	47 J	51	140	220	34	47	46	81	43
Benzo(k)fluoranthene	207-08-9	µg/kg	60	36 J	33	47	65	13	18	16	36	18
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	35 J	< 400 UJ	< 360 U	26 J	22 J	72 J	79 J	70 J	68 J	77 J
Chrysene	218-01-9	µg/kg	160	95 J	93	120 J	210	40 J	54	51 J	140	52
Dibenz(a,h)anthracene	53-70-3	µg/kg	27	37 J	12	16	34	4.0	6.1	6.4	12	5.6
Fluoranthene	206-44-0	µg/kg	160	190 J	250	140	120	52	75	83	200	65
Fluorene	86-73-7	µg/kg	18	20 J	48	6.3	6.5	4.2	4.0	7.5	8.9	6.0
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	170	68 J	84	120	200	30	41	40	74	39
Naphthalene	91-20-3	µg/kg	33	< 120 UJ	27 J	18	18	5.0	7.5	7.7	11	4.5
Phenanthrene	85-01-8	µg/kg	100	93 J	190	120	68	28	35	52	81	37
Pyrene	129-00-0	µg/kg	220	170 J	220	250 J	230 J	74 J	110 J	120 J	210	89 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	1699	1027	1358	1597	1804	409	568	620	1218	529
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	264	102	97	211	317	58	83	88	160	79
Metals												
Arsenic	7440-38-2	mg/kg	3.5	6.0	6.1	5.2	5.3	5.4	5.6	5.3	5.1	5.8 J
Cadmium	7440-43-9	mg/kg	0.15 J	0.38 J	0.35 J	0.21 J	0.22	0.29 J	0.25 J	0.31 J	0.26 J	0.31 J
Copper	7440-50-8	mg/kg	20	42	43	26	20	39	38	37	36	41 J
Lead	7439-92-1	mg/kg	7.9	12	13	8.8	8.7	11	11	10	10	12 J
Mercury	7439-97-6	mg/kg	0.043	0.080	0.074 J	0.047	0.025 J	0.065	0.040 J	0.073	0.026 J	0.060
Tri-n-butyltin	36643-28-4	µg/kg	< 1.7 U	< 190 UJ	< 180 UJ	< 1.8 U	< 1.5 U	2.1 J	< 2.4 U	4.3	11	2.2 J
Zinc	7440-66-6	mg/kg	70	110	110	87	88	100	100	97	97	110 J
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 82 U	73 J	58 J	< 85 U	< 77 U	< 120 U	39 J	< 120 U	48 J	34 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	110	460	320	86	140	120	350	200	460	320
Other												
Total Solids@104C - D2216 (f)	TSOLID	%		37.9	37.8 40.8							
Total Solids@104C - E160.3 (f)	TSOLID	%	57.5			57.5	63.6	39.7	42.9	39.0	41.5	40.8
Total Solids@104C - E160.3M (f)	TSOLID	%	56.5	37.7	37.7	55.7	64.7	39.1	41.6	39.5	38.6	39.7
Total Solids@70C	TSOLID70	%	60	37	64	57	67	40	43	39	41	41
Gravel	GS-Gravel	%	0	0	0	2.2	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0	0.9	0.9	0.4	0.1	0	0.1	0.2	0
Sand, Medium	GS-Msand	%	2.4	0.3	15.0	4.3	24.1	0.2	0.2	0.9	0.8	0.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	50.34	4.926	57.84	35.16	40.92	7.853	11.57	15.61	17.42	8.649
Sand, Fine (#230) (d)	GS-Fsand	%	58.5	6.5	59.4	41.1	46.7	10.9	15.4	19.6	21.9	11.6
Silt (#200) (d)	GS-Silt-200	%	44.45	82.67	21.75	52.23	30.67	80.64	78.12	72.98	74.37	77.95

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B029	B030	B031	B032	B033	B034	B035	B036	B037	B038
		Sample ID	PDI-SG-B029-BL1	PDI-SG-B030-BL1	PDI-SG-B031-BL1	PDI-SG-B032-BL1	PDI-SG-B033-BL1	PDI-SG-B034-BL1	PDI-SG-B035-BL1	PDI-SG-B036-BL1	PDI-SG-B037-BL1	PDI-SG-B038-BL1
		Sample Date	01 Apr 2018	17 Jun 2018	17 Jun 2018	01 Apr 2018	03 Apr 2018	01 Apr 2018	02 Apr 2018	01 Apr 2018	02 Apr 2018	02 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-29 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	36.3	81.1	20.2	46.3	24.9	77.6	74.3	69.0	69.9	75.0
Clay	GS-Clay	%	2.8	12.1	4.4	5.3	3.9	11.2	10.1	10.4	7.2	13.2
Percent Fines (e)	GS-FINES	%	47.25	94.77	26.15	57.53	34.57	91.84	88.22	83.38	81.57	91.15
Total Organic Carbon	TOC	mg/kg	9400	28000	28000	20000	6000	22000	24000	40000	39000	29000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B039	B040	B041	B042	B043	B044	B045	B046	B047	B048
		Sample ID	PDI-SG-B039-BL1	PDI-SG-B040-BL1	PDI-SG-B041-BL1	PDI-SG-B042-BL1	PDI-SG-B043-BL1	PDI-SG-B044-BL1	PDI-SG-B045-BL1	PDI-SG-B046-BL1	PDI-SG-B047-BL1	PDI-SG-B048-BL1
		Sample Date	02 Apr 2018	03 Apr 2018	08 Apr 2018	17 Jun 2018	10 Apr 2018	02 Apr 2018	03 Apr 2018	03 Apr 2018	04 Apr 2018	04 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-20 cm	0-23 cm	0-19 cm	0-25 cm	0-29 cm	0-27 cm	0-30 cm	0-30 cm	0-14 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.060	0.036	0.018	0.14	0.088	0.072	0.041	0.034	0.059	0.0036
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.011 JN	0.021 J-	0.0038 JN	0.050	0.013 JN	0.014 J-	0.0094	0.0081 JN	0.012 JN	0.00048 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00055 U	< 0.00024 U	< 0.00019 U	0.0032 J	0.0018 J	< 0.00051 U	< 0.00039 U	< 0.00052 U	0.0011 J+	< 0.00021 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00090 J	0.00045 JN	< 0.000092 UJ	0.00042 JN	0.00073 J+	0.00063 J	0.00075 J	< 0.00023 U	0.00070 JN	< 0.00019 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0015 J+	< 0.00099 U	0.00073 J+	0.0063	0.0029 J	0.0013 J+	0.00096 JN	< 0.00037 U	0.0024 J	< 0.00013 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0030 J	0.0014 J	0.0014 J+	0.0049	0.0032 J	0.0023 J	0.0020 JN	0.0023	0.0029 J	< 0.00024 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0031 U	0.0012 JN	< 0.00029 U	0.0062	0.0041 J	0.0025 J+	0.0030 J+	0.0031 J+	0.00092 J+	< 0.000066 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0021 J	0.00062 J	0.00049 JN	0.0021 J	0.0016 J+	0.0016 J	0.0014 JN	0.0013 JN	0.0020 J+	< 0.00015 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00026 U	< 0.00064 U	< 0.000079 U	< 0.00020 U	< 0.00016 U	< 0.00013 U	< 0.00042 U	< 0.00027 U	0.00075 JN	< 0.00025 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00056 U	< 0.00016 U	< 0.00017 U	< 0.00017 U	< 0.00019 U	< 0.00032 U	< 0.00028 U	< 0.00027 U	0.00043 J+	< 0.000058 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00032 U	0.0013 J	< 0.00026 U	0.0025 J	0.0011 J+	< 0.00026 U	< 0.00028 U	< 0.00030 U	0.0011 J+	< 0.000069 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00033 JN	< 0.00071 U	< 0.000092 U	0.00099 J	0.00038 J+	< 0.00014 U	< 0.00036 U	< 0.00025 U	0.00053 J+	< 0.000029 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00064 U	< 0.00051 U	< 0.00012 U	0.0012 JN	0.00041 J+	< 0.00042 U	< 0.00031 U	< 0.00034 U	0.00073 J+	< 0.000073 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00011 U	< 0.000092 U	< 0.00014 U	< 0.00010 U	< 0.00017 U	< 0.00010 U	< 0.00019 U	< 0.00014 U	< 0.00014 U	< 0.000062 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00087 J	< 0.00090 U	< 0.00050 U	0.00065 J	0.00088 J	0.00073 J	0.00069 J	0.00063 J	0.00089 J+	< 0.00025 U
OCDD	3268-87-9	µg/kg	0.53	0.51	0.12	1.6	0.77	0.66	0.34	0.28	0.42	0.023
OCDF	39001-02-0	µg/kg	0.030	0.019	0.0077 J	0.14	0.037	0.10	0.017	0.022	0.035	0.0010 J+
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.002	0.0012	0.0006	0.0051	0.0029	0.0022	0.0016	0.0014	0.0027	0.000079
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.002	0.001	0.00052	0.0048	0.0029	0.0022	0.0012	0.0012	0.0026	0.000074
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0017	0.00097	0.00043	0.0046	0.0028	0.002	0.0011	0.0011	0.0025	0.000043
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0015 JN	0.0020 JN	0.0022 J	0.0050 J+	0.0056 JN	0.0035 JN	0.0026 JN	0.0011 JN	0.0053 J	< 0.00040 U
PCB-10	33146-45-1	ng/g	< 0.0013 U	< 0.0017 U	< 0.0017 U	< 0.00045 U	< 0.0017 U	0.0022 JN	< 0.00052 U	< 0.00056 U	< 0.0033 U	< 0.00074 U
PCB-103	60145-21-3	ng/g	0.0053 JN	0.059	0.017	0.043	0.031	0.0066 JN	0.011 JN	0.010	0.0082 J	< 0.00023 U
PCB-104	56558-16-8	ng/g	< 0.0014 U	< 0.0030 U	< 0.00020 U	< 0.00027 U	< 0.00026 U	< 0.0015 U	< 0.00053 U	< 0.00081 U	< 0.00031 U	< 0.00018 U
PCB-105	32598-14-4	ng/g	0.070	0.056 JN	0.068	0.12	0.12	0.094	0.075	0.055 JN	0.12	0.0030 JN
PCB-106	70424-69-0	ng/g	< 0.0034 U	< 0.0026 U	< 0.00066 U	< 0.0016 U	< 0.0011 U	< 0.0014 U	< 0.0016 U	< 0.0016 U	< 0.0012 U	< 0.00083 U
PCB-107	70424-68-9	ng/g	0.016 JN	0.064	0.019	0.072	0.042	0.016 JN	0.027	0.020	0.028	< 0.00080 U
PCB-108/124	70362-41-3	ng/g	< 0.0034 U	0.0076 JN	0.0065 JN	0.015 J	0.0097 JN	0.012 J	0.0080 JN	0.0055 JN	0.010 JN	< 0.00084 U
PCB-11	2050-67-1	ng/g	0.067	0.018 JN	0.22	0.013 J+	0.072	0.074	0.046 JN	0.048	0.097	0.0045 J
PCB-110/115	38380-03-9	ng/g	0.26	0.57	0.28	0.82	0.55	0.31	0.28	0.21	0.38	0.0088 JN
PCB-111	39635-32-0	ng/g	< 0.0012 U	0.0049 JN	0.0019 JN	0.0051 J	< 0.00024 U	< 0.0014 U	< 0.00048 U	< 0.00072 U	< 0.00029 U	< 0.00016 U
PCB-112	74472-36-9	ng/g	< 0.0013 U	< 0.0030 U	< 0.00019 U	< 0.00026 U	< 0.00025 U	< 0.0015 U	< 0.00052 U	< 0.00079 U	0.00098 JN	< 0.00018 U
PCB-114	74472-37-0	ng/g	< 0.0030 U	0.0042 JN	0.0040 JN	0.0069 JN	0.0066 J	0.0052 J	0.0042 JN	< 0.0014 U	0.0049 J	< 0.00076 U
PCB-118	31508-00-6	ng/g	0.20	0.23	0.18	0.45	0.38	0.26	0.21	0.16	0.30	0.0058 JN
PCB-12/13	2974-92-7	ng/g	0.0087 J	< 0.0014 U	0.0079 JN	0.0024 J	0.0061 JN	0.0049 J	0.0029 JN	0.0035 J	0.0067 JN	< 0.00063 U
PCB-120	68194-12-7	ng/g	< 0.0012 U	0.025	0.0051 J	0.015	0.0069 JN	< 0.0014 U	0.0019 JN	< 0.00071 U	0.0029 J	< 0.00016 U
PCB-121	56558-18-0	ng/g	< 0.0013 U	< 0.0029 U	< 0.00019 U	< 0.00026 U	< 0.00025 U	< 0.0015 U	< 0.00051 U	< 0.00077 U	< 0.00030 U	< 0.00017 U
PCB-122	76842-07-4	ng/g	< 0.0037 U	0.0057 J	0.0022 JN	0.0077 J	0.0032 JN	0.0023 JN	< 0.0018 U	< 0.0018 U	0.0025 JN	< 0.00092 U
PCB-123	65510-44-3	ng/g	< 0.0032 U	0.0046 JN	0.0029 JN	0.0069 J	0.0064 J	0.0025 JN	0.0040 J	< 0.0015 U	0.0056 J	< 0.00072 U
PCB-126	57465-28-8	ng/g	< 0.0030 U	< 0.0025 U	0.0016 J	0.0015 J	< 0.0011 U	< 0.0013 U	< 0.0016 U	< 0.0014 U	< 0.0011 U	< 0.00082 U
PCB-127	39635-33-1	ng/g	< 0.0032 U	< 0.0025 U	< 0.00065 U	< 0.0015 U	< 0.0011 U	< 0.0014 U	< 0.0016 U	< 0.0015 U	< 0.0011 U	< 0.00079 U
PCB-128/166	38380-07-3	ng/g	0.062	0.10	0.055	0.15	0.073	0.072	0.051 JN	0.042	0.065	0.0021 J
PCB-129/138/160/163	55215-18-4	ng/g	0.37	1.0	0.49	1.3	0.65	0.51	0.43	0.33	0.55	0.018 J
PCB-130	52663-66-8	ng/g	0.013 JN	0.096	0.028	0.11	0.042	0.035	0.029	0.022 JN	0.032	< 0.00034 U
PCB-131	61798-70-7	ng/g	< 0.0032 U	< 0.0072 U	0.0048 JN	< 0.0059 U	< 0.0019 U	< 0.0011 U	0.0046 J	0.0038 JN	< 0.0022 U	< 0.00035 U
PCB-132	38380-05-1	ng/g	0.087 JN	0.32	0.16	0.48	0.20	0.15	0.14	0.10	0.15	0.0023 JN
PCB-133	35694-04-3	ng/g	0.0076 JN	0.060	0.013	0.057	0.025	0.0094 JN	0.013	0.0070 JN	0.012 J	< 0.00032 U
PCB-134/143	52704-70-8	ng/g	0.020 J	0.056 JN	0.026	0.080	0.033	0.024 JN	0.023	0.017 JN	0.024 J	< 0.00034 U
PCB-135/151	52744-13-5	ng/g	0.17	0.65	0.21	0.72	0.29	0.16	0.19	0.14	0.19	0.0081 J
PCB-136	38411-22-2	ng/g	0.055	0.24	0.087	0.27	0.11	0.065	0.068	0.050	0.061	0.00039 JN
PCB-137	35694-06-5	ng/g	0.012 J	0.023	0.013 JN	0.025	0.021	0.019	0.0093 JN	0.0075 JN	0.017	< 0.00028 U
PCB-139/140	56030-56-9	ng/g	< 0.0026 U	0.030	0.0097 J	0.030	0.013 J	0.0036 JN	0.0050 J	0.0062 J	0.0067 JN	< 0.00029 U
PCB-14	34883-41-5	ng/g	0.0017 J	< 0.0013 U	< 0.0013 U	< 0.00035 U	< 0.0013 U	< 0.00050 U	< 0.00041 U	< 0.00043 U	< 0.0026 U	< 0.00058 U
PCB-141	52712-04-6	ng/g	0.052 JN	0.18	0.10	0.25	0.10	0.090	0.081	0.055	0.089	0.0030 J
PCB-142	41411-61-4	ng/g	< 0.0030 U	< 0.0067 U	< 0.0016 U	< 0.0055 U	< 0.0017 U	< 0.0010 U	< 0.0020 U	< 0.0018 U	< 0.0019 U	< 0.00033 U
PCB-144	68194-14-9	ng/g	0.010 JN	0.057	0.020	0.048 J	0.020	0.015 JN	0.021	0.013 JN	0.014 JN	0.0010 J
PCB-145	74472-40-5	ng/g	0.0015 J	< 0.00021 U	< 0.00019 U	< 0.00027 U	< 0.00026 U	< 0.00011 U	< 0.000048 U	< 0.000088 U	< 0.00018 U	< 0.00017 U
PCB-146	51908-16-8	ng/g	0.059	0.48	0.13	0.45	0.19	0.087	0.087	0.075	0.11	< 0.00027 U
PCB-147/149	68194-13-8	ng/g	0.31 J-	1.5	0.65	1.5	0.85	0.38 J-	0.39	0.32 J-	0.48	0.015 J
PCB-148	74472-41-6	ng/g	< 0.00018 U	0.017 JN	0.0048 J	0.017	0.0077 J	0.0019 JN	0.00049 JN	< 0.00012 U	0.0014 JN	< 0.00023 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B039	B040	B041	B042	B043	B044	B045	B046	B047	B048
		Sample ID	PDI-SG-B039-BL1	PDI-SG-B040-BL1	PDI-SG-B041-BL1	PDI-SG-B042-BL1	PDI-SG-B043-BL1	PDI-SG-B044-BL1	PDI-SG-B045-BL1	PDI-SG-B046-BL1	PDI-SG-B047-BL1	PDI-SG-B048-BL1
		Sample Date	02 Apr 2018	03 Apr 2018	08 Apr 2018	17 Jun 2018	10 Apr 2018	02 Apr 2018	03 Apr 2018	03 Apr 2018	04 Apr 2018	04 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-20 cm	0-23 cm	0-19 cm	0-25 cm	0-29 cm	0-27 cm	0-30 cm	0-30 cm	0-14 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.013 JN	0.013	0.031	0.0096 J	0.046	0.020 JN	0.018	0.014	0.034	< 0.00064 U
PCB-150	68194-08-1	ng/g	0.00072 JN	0.025 JN	0.0038 JN	0.013	0.0089 J	0.00072 JN	0.0018 JN	0.00049 JN	0.0016 JN	< 0.00015 U
PCB-152	68194-09-2	ng/g	< 0.00013 U	< 0.00020 U	< 0.00020 U	< 0.00026 U	0.0014 JN	0.00041 JN	0.00020 JN	< 0.000084 U	0.00086 J	< 0.00016 U
PCB-153/168	35065-27-1	ng/g	0.33	1.4	0.52	1.5	0.69	0.42	0.40	0.31	0.48	0.012 J
PCB-154	60145-22-4	ng/g	0.0076 J	0.15	0.027	0.071 JN	0.046	0.0096 J	0.011 JN	0.0093 JN	0.010 JN	< 0.00020 U
PCB-155	33979-03-2	ng/g	0.00050 JN	< 0.00019 U	0.0016 J	0.00062 JN	0.00071 J	< 0.000099 U	< 0.000044 U	0.00027 JN	< 0.00017 U	< 0.00016 U
PCB-156/157	38380-08-4	ng/g	0.040	0.066	0.039	0.077	0.051	0.052	0.034	0.026 JN	0.053	< 0.00026 U
PCB-158	74472-42-7	ng/g	0.032	0.056 JN	0.039	0.082	0.044	0.043 JN	0.032	0.028	0.043	0.0013 JN
PCB-159	39635-35-3	ng/g	0.0046 J	0.017 JN	0.0041 JN	0.020	< 0.0012 U	0.0023 JN	0.0037 JN	0.0021 JN	< 0.0013 U	< 0.00021 U
PCB-16	38444-78-9	ng/g	0.0098 JN	0.0075 J+	0.016 JN	0.018	0.032	0.020	0.019	0.0079 JN	0.021	< 0.00017 U
PCB-161	74472-43-8	ng/g	< 0.0020 U	< 0.0044 U	< 0.0010 U	< 0.0036 U	< 0.0011 U	< 0.00065 U	< 0.0013 U	< 0.0011 U	< 0.0013 U	< 0.00021 U
PCB-162	39635-34-2	ng/g	< 0.0019 U	< 0.0042 U	0.0016 JN	< 0.0034 U	< 0.0011 U	< 0.00062 U	< 0.0012 U	< 0.0011 U	< 0.0013 U	< 0.00020 U
PCB-164	74472-45-0	ng/g	0.030	0.093	0.032 JN	0.11	0.045	0.035	0.032	0.022	0.035	0.00053 JN
PCB-165	74472-46-1	ng/g	< 0.0022 U	< 0.0050 U	< 0.0012 U	< 0.0041 U	< 0.0013 U	< 0.00075 U	< 0.0015 U	< 0.0013 U	< 0.0015 U	< 0.00024 U
PCB-167	52663-72-6	ng/g	0.011 JN	0.021	0.012	0.029	0.018	0.019	0.012 JN	0.0095 J	0.018	< 0.00016 U
PCB-169	32774-16-6	ng/g	< 0.0015 U	< 0.0033 U	0.0011 JN	< 0.0024 U	< 0.00089 U	< 0.00051 U	< 0.00095 U	< 0.00087 U	< 0.0010 U	< 0.00015 U
PCB-17	37680-66-3	ng/g	0.013 J	0.015 JN	0.020	0.025	0.055	0.028	0.035	0.016	0.032	< 0.00013 U
PCB-170	35065-30-6	ng/g	0.11	0.47	0.14	0.44	0.19	0.15	0.11	0.091	0.16	0.0039 JN
PCB-171/173	52663-71-5	ng/g	0.039	0.18	0.044	0.16	0.060	0.040	0.039	0.030 JN	0.048	0.00019 JN
PCB-172	52663-74-8	ng/g	0.022	0.091 JN	0.024	0.083	0.037	0.019 JN	0.022 JN	0.014 JN	0.027	0.0014 JN
PCB-174	38411-25-5	ng/g	0.10 JN	0.54	0.16	0.56	0.20	0.16	0.13	0.12	0.17	0.00084 JN
PCB-175	40186-70-7	ng/g	0.0056 JN	0.024	0.0056 JN	0.022	0.0084 J	0.0018 JN	0.0075 J	0.0020 JN	0.0056 J	< 0.000030 U
PCB-176	52663-65-7	ng/g	0.0093 JN	0.072	0.021	0.069	0.026	0.017 JN	0.014	0.014 JN	0.019	0.00011 JN
PCB-177	52663-70-4	ng/g	0.071	0.35	0.096	0.35	0.13	0.093	0.084	0.069	0.10	< 0.000034 U
PCB-178	52663-67-9	ng/g	0.020 JN	0.13	0.039	0.13	0.058	0.033	0.031	0.020 JN	0.037	< 0.000032 U
PCB-179	52663-64-6	ng/g	0.049	0.27	0.087	0.27	0.12	0.073	0.069	0.049	0.083	0.0011 JN
PCB-18/30	37680-65-2	ng/g	0.027 JN	0.021 JN	0.042	0.040	0.090	0.044	0.045	0.027 JN	0.056	< 0.00012 U
PCB-180/193	35065-29-3	ng/g	0.27	1.2	0.32	1.0	0.44	0.30	0.25	0.20	0.36	0.0078 JN
PCB-181	74472-47-2	ng/g	< 0.00011 U	< 0.00025 U	< 0.00035 U	< 0.00034 U	< 0.00065 U	< 0.00010 U	< 0.000032 U	< 0.00055 U	< 0.00066 U	< 0.000029 U
PCB-182	60145-23-5	ng/g	0.0013 JN	< 0.00024 U	0.0017 JN	0.0082 J	0.0043 J	< 0.000096 U	< 0.000031 U	< 0.00052 U	< 0.00064 U	< 0.00028 U
PCB-183/185	52663-69-1	ng/g	0.081	0.36	0.11	0.35	0.14	0.10	0.079	0.061	0.11	0.0043 JN
PCB-184	74472-48-3	ng/g	< 0.000091 U	< 0.00021 U	0.0023 J	< 0.00027 U	< 0.00054 U	0.0016 JN	< 0.000026 U	< 0.00045 U	< 0.00055 U	< 0.000024 U
PCB-186	74472-49-4	ng/g	< 0.000087 U	< 0.00020 U	< 0.00028 U	< 0.00026 U	< 0.00052 U	< 0.000079 U	< 0.000025 U	< 0.00043 U	< 0.00053 U	< 0.00023 U
PCB-187	52663-68-0	ng/g	0.16	0.78	0.22	0.72	0.31	0.20	0.18	0.15	0.22	0.0032 JN
PCB-188	74487-85-7	ng/g	< 0.000086 U	0.0043 JN	< 0.00024 U	< 0.00025 U	0.0027 J	< 0.000071 U	< 0.000023 U	< 0.00039 U	< 0.00047 U	< 0.000021 U
PCB-189	39635-31-9	ng/g	0.0048 J	0.016 JN	0.0049 J	0.015	0.0061 J	0.0055 JN	0.0049 JN	0.0025 JN	0.0045 JN	< 0.0011 U
PCB-19	38444-73-4	ng/g	0.013 JN	0.0025 JN	0.0074 J	0.0052 J	0.018	0.015 JN	0.025 JN	0.015	0.017 JN	< 0.00016 U
PCB-190	41411-64-7	ng/g	0.025 JN	0.087	0.024	0.078	0.035	0.030	0.021 JN	0.019	0.031	< 0.000022 U
PCB-191	74472-50-7	ng/g	0.0032 JN	0.013 JN	0.0048 J	0.018 JN	0.0073 J	0.0041 JN	0.0043 JN	< 0.00041 U	0.0052 JN	< 0.000022 U
PCB-192	74472-51-8	ng/g	< 0.000089 U	< 0.00020 U	< 0.00029 U	< 0.00027 U	< 0.00055 U	< 0.000080 U	< 0.000026 U	< 0.00044 U	< 0.00056 U	< 0.000023 U
PCB-194	35694-08-7	ng/g	0.053	0.33	0.082	0.24	0.13	0.079	0.061	0.051	0.086	0.0020 JN
PCB-195	52663-78-2	ng/g	0.020	0.14	0.038	0.10	0.052	0.031 JN	0.027	0.015 JN	0.036	0.0011 JN
PCB-196	42740-50-1	ng/g	0.028 JN	0.13 JN	0.035	0.13	0.058	0.040	0.031	0.020 JN	0.035	< 0.00019 U
PCB-197	33091-17-7	ng/g	0.0016 JN	0.0092 JN	0.0025 J	0.0097 J	0.0031 JN	0.0036 J	0.0017 JN	0.0011 JN	0.0032 J	< 0.00013 U
PCB-198/199	68194-17-2	ng/g	0.074 JN	0.36	0.078	0.29	0.13	0.091	0.073	0.062	0.099	0.00098 JN
PCB-2	2051-61-8	ng/g	0.0063 JN	0.0054 JN	0.0058 J	0.0036 J+	0.012	0.015 JN	0.016	0.012	0.019 JN	< 0.00040 U
PCB-20/28	38444-84-7	ng/g	0.077	0.080	0.12	0.11	0.25	0.12	0.13	0.080	0.14	0.0044 J
PCB-200	52663-73-7	ng/g	0.0066 JN	0.034 JN	0.0071 JN	0.033	0.011 JN	0.011 JN	0.0085 J	0.0038 JN	0.010 J	< 0.00014 U
PCB-201	40186-71-8	ng/g	0.011 J	0.041	0.0085 J	0.032	0.014	0.0089 JN	0.0061 JN	0.0054 JN	0.0092 J	< 0.00014 U
PCB-202	2136-99-4	ng/g	0.017 JN	0.062 JN	0.015	0.062	0.028	0.018 JN	0.018	0.0087 JN	0.018	< 0.00015 U
PCB-203	52663-76-0	ng/g	0.052	0.22	0.045	0.16	0.075	0.046 JN	0.034 JN	0.035 JN	0.058	0.0012 JN
PCB-204	74472-52-9	ng/g	< 0.00020 U	< 0.00031 U	< 0.00019 U	< 0.00076 U	< 0.00042 U	< 0.00012 U	< 0.00025 U	< 0.00020 U	< 0.00038 U	< 0.00014 U
PCB-205	74472-53-0	ng/g	0.0029 J	0.016 JN	0.0048 J	0.0096 J	0.0061 J	0.0036 J	0.0032 J	0.0012 JN	0.0045 J	< 0.00023 U
PCB-206	40186-72-9	ng/g	0.049	0.39	0.051	0.23	0.072	0.060	0.047	0.056	0.066	0.0082 JN
PCB-207	52663-79-3	ng/g	< 0.0023 U	0.036	0.0041 J	0.016	0.0058 JN	0.0046 JN	0.0051 J	0.0021 J	0.0058 J	< 0.0015 U
PCB-208	52663-77-1	ng/g	0.019	0.14	0.013	0.061	0.019	0.021	0.014	0.014	0.019	< 0.0016 U
PCB-209	2051-24-3	ng/g	0.049	0.45	0.036	0.27	0.059	0.065 JN	0.046 JN	0.055	0.072	< 0.00027 U
PCB-21/33	55702-46-0	ng/g	0.024 J	0.047	0.053	0.055	0.092	0.038 JN	0.044	0.024 JN	0.050	0.00087 JN
PCB-22	38444-85-8	ng/g	0.022	0.013	0.042	0.027	0.051	0.032	0.029	0.023 JN	0.036	< 0.00063 U
PCB-23	55720-44-0	ng/g	< 0.0020 U	< 0.0014 U	< 0.00056 U	< 0.00089 U	< 0.00062 U	< 0.0013 U	< 0.00099 U	< 0.00083 U	< 0.00064 U	< 0.00062 U
PCB-24	55702-45-9	ng/g	< 0.00040 U	< 0.00033 U	0.0012 JN	0.00032 JN	< 0.00028 U	0.00074 JN	0.00090 JN	< 0.00018 U	0.0010 JN	< 0.00010 U
PCB-25	55712-37-3	ng/g	0.0083 J	0.020	0.0098	0.0079 J	0.018	0.012	0.0097 JN	0.0094 JN	0.011 J	< 0.00059 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B039	B040	B041	B042	B043	B044	B045	B046	B047	B048
		Sample ID	PDI-SG-B039-BL1	PDI-SG-B040-BL1	PDI-SG-B041-BL1	PDI-SG-B042-BL1	PDI-SG-B043-BL1	PDI-SG-B044-BL1	PDI-SG-B045-BL1	PDI-SG-B046-BL1	PDI-SG-B047-BL1	PDI-SG-B048-BL1
		Sample Date	02 Apr 2018	03 Apr 2018	08 Apr 2018	17 Jun 2018	10 Apr 2018	02 Apr 2018	03 Apr 2018	03 Apr 2018	04 Apr 2018	04 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-20 cm	0-23 cm	0-19 cm	0-25 cm	0-29 cm	0-27 cm	0-30 cm	0-30 cm	0-14 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.013 J	0.016 J	0.017 J	0.014 J	0.029	0.019 J	0.020	0.017 J	0.020 J	< 0.00062 U
PCB-27	38444-76-7	ng/g	0.0024 JN	0.00070 JN	0.0035 J	0.0028 J	0.0095 J	0.0057 J	0.0075 J	0.0016 JN	0.0048 JN	< 0.000099 U
PCB-3	2051-62-9	ng/g	0.0043 J+	0.0058 JN	0.0061 J	0.0038 JN	0.0039 JN	< 0.00071 U	0.0028 JN	0.0019 JN	0.0065 JN	< 0.00041 U
PCB-31	16606-02-3	ng/g	0.051 JN	0.047	0.096	0.085	0.16	0.079	0.088	0.065	0.096	< 0.0024 U
PCB-32	38444-77-8	ng/g	0.0069 JN	0.011 JN	0.018	0.011	0.038	0.017	0.021	0.015	0.022	< 0.000091 U
PCB-34	37680-68-5	ng/g	< 0.0021 U	0.0058 J	< 0.00058 U	0.0015 J	0.0012 JN	< 0.0013 U	< 0.0010 U	< 0.00086 U	< 0.00066 U	< 0.00064 U
PCB-35	37680-69-6	ng/g	< 0.0020 U	0.0023 JN	0.010	0.0028 JN	0.0046 J	0.0030 J	0.0019 J	< 0.00082 U	0.0028 J	< 0.00061 U
PCB-36	38444-87-0	ng/g	< 0.0018 U	0.0020 JN	0.00081 JN	< 0.00080 U	< 0.00060 U	< 0.0012 U	< 0.00089 U	< 0.00075 U	< 0.00062 U	< 0.00055 U
PCB-37	38444-90-5	ng/g	0.021	0.017	0.058	0.024	0.078	0.035	0.035	0.024	0.044	0.0019 JN
PCB-38	53555-66-1	ng/g	< 0.0020 U	< 0.0014 U	0.00074 J	< 0.00087 U	< 0.00065 U	< 0.0013 U	< 0.00096 U	< 0.00081 U	< 0.00067 U	< 0.00060 U
PCB-39	38444-88-1	ng/g	< 0.0018 U	< 0.0012 U	0.0013 JN	< 0.00079 U	0.0016 JN	< 0.0011 U	< 0.00088 U	< 0.00074 U	0.0020 JN	< 0.00055 U
PCB-4	13029-08-8	ng/g	0.013 JN	0.0066 JN	0.0061 JN	0.0059 JN	0.018 JN	0.018 JN	0.019 J	0.015 J	0.020 JN	< 0.0011 U
PCB-40/41/71	38444-93-8	ng/g	0.033 JN	0.052	0.074	0.083	0.15	0.072	0.073	0.044	0.081	< 0.00090 U
PCB-42	36559-22-5	ng/g	0.019 JN	0.022	0.035	0.047	0.069	0.036	0.038	0.022 JN	0.039	0.00099 JN
PCB-43/73	70362-46-8	ng/g	< 0.0015 U	< 0.0060 U	0.0025 JN	0.0048 JN	0.012 J	0.0032 JN	0.0051 J	< 0.0011 U	0.0033 JN	< 0.00082 U
PCB-44/47/65	41464-39-5	ng/g	0.10	0.26	0.17	0.24	0.47	0.16	0.18	0.12	0.19	0.0056 J
PCB-45/51	70362-45-7	ng/g	0.017 JN	< 0.0070 U	0.023	0.023	0.068	0.027	0.044	0.022 JN	0.036	< 0.00095 U
PCB-46	41464-47-5	ng/g	< 0.0020 U	< 0.0082 U	0.0073 J	0.0081 J	0.013	0.0071 J	0.0090 JN	0.0054 J	0.0088 J	< 0.0011 U
PCB-48	70362-47-9	ng/g	0.0082 JN	< 0.0063 U	0.023	0.018	0.039	0.018	0.019 JN	0.018	0.020	< 0.00086 U
PCB-49/69	41464-40-8	ng/g	0.062	0.25	0.13	0.20	0.24	0.11	0.12	0.079	0.12	0.0022 J
PCB-5	16605-91-7	ng/g	< 0.0012 U	< 0.0016 U	< 0.0018 U	< 0.00042 U	< 0.0017 U	< 0.00060 U	< 0.00049 U	0.00085 JN	< 0.0034 U	< 0.00070 U
PCB-50/53	62796-65-0	ng/g	0.018 JN	0.012 JN	0.016 J	0.020	0.045	0.029	0.044	0.020 J	0.029	< 0.00090 U
PCB-52	35693-99-3	ng/g	0.13	0.30	0.20	0.41	0.33	0.21	0.23	0.14	0.19	0.0053 JN
PCB-54	15968-05-5	ng/g	0.00066 JN	< 0.00045 U	0.0010 JN	0.00017 JN	0.0037 JN	0.0020 J	0.0063 J	0.00087 JN	0.0038 JN	< 0.00019 U
PCB-55	74338-24-2	ng/g	< 0.0011 U	< 0.0045 U	0.0025 JN	< 0.0014 U	< 0.0012 U	< 0.0010 U	< 0.0012 U	0.0012 JN	0.0022 J	< 0.00062 U
PCB-56	41464-43-1	ng/g	0.032 JN	0.041 JN	0.065	0.087	0.10	0.058	0.054	0.037	0.068	< 0.00063 U
PCB-57	70424-67-8	ng/g	< 0.0011 U	< 0.0046 U	< 0.0010 U	< 0.0015 U	< 0.0012 U	< 0.0011 U	< 0.0012 U	< 0.00082 U	< 0.00089 U	< 0.00063 U
PCB-58	41464-49-7	ng/g	< 0.0011 U	< 0.0044 U	< 0.0010 U	0.032	0.0021 JN	0.0015 JN	< 0.0012 U	< 0.00079 U	< 0.00091 U	< 0.00061 U
PCB-59/62/75	74472-33-6	ng/g	0.0080 JN	< 0.0045 U	0.010 J	0.013 J	0.026 J	0.013 J	0.014 J	0.0071 JN	0.014 J	< 0.00061 U
PCB-6	25569-80-6	ng/g	0.0048 JN	0.0061 JN	0.0038 JN	0.0037 J	0.012	0.0074 J	0.0068 J	0.0041 JN	0.0078 JN	< 0.00069 U
PCB-60	33025-41-1	ng/g	0.014	< 0.0045 U	0.043	0.017	0.035	0.021	0.020	0.013	0.027	< 0.00061 U
PCB-61/70/74/76	33284-53-6	ng/g	0.14	0.21	0.24	0.42	0.44	0.23	0.23	0.16	0.27	0.0067 JN
PCB-63	74472-34-7	ng/g	0.0041 JN	< 0.0040 U	0.0042 JN	0.0070 JN	0.0082 J	0.0049 J	0.0041 JN	0.0031 JN	0.0069 J	< 0.00055 U
PCB-64	52663-58-8	ng/g	0.030	0.026 JN	0.060	0.064	0.095	0.053	0.049	0.039	0.061	0.0013 JN
PCB-66	32598-10-0	ng/g	0.084	0.13	0.14	0.21	0.29	0.16	0.14	0.099	0.17	0.0037 JN
PCB-67	73575-53-8	ng/g	< 0.0011 U	< 0.0043 U	0.0021 JN	0.0031 JN	0.0035 JN	0.0040 JN	0.0034 JN	0.0021 JN	0.0032 JN	< 0.00058 U
PCB-68	73575-52-7	ng/g	0.0031 JN	0.052	0.014	0.0084 J	0.012	0.0036 J	0.0036 JN	0.0013 J	< 0.00079 U	< 0.00055 U
PCB-7	33284-50-3	ng/g	0.0028 JN	< 0.0015 U	0.0021 JN	0.00093 JN	0.0018 JN	0.0018 J	0.00080 JN	< 0.00049 U	< 0.0031 U	0.0010 JN
PCB-72	41464-42-0	ng/g	0.0046 J	0.036	0.0088 J	0.019	0.013	0.0041 J	0.0031 JN	0.0026 JN	< 0.00088 U	< 0.00062 U
PCB-77	32598-13-3	ng/g	0.012 J	< 0.0042 U	0.015	0.011	0.026	0.014 JN	0.014	0.011	0.018	< 0.00057 U
PCB-78	70362-49-1	ng/g	< 0.0011 U	< 0.0045 U	< 0.0010 U	< 0.0014 U	< 0.0012 U	< 0.0010 U	< 0.0012 U	< 0.00079 U	< 0.00090 U	< 0.00061 U
PCB-79	41464-48-6	ng/g	0.0012 JN	0.014	0.0049 J	0.010	0.0050 J	0.0029 J	0.0019 JN	0.0011 JN	< 0.00078 U	< 0.00052 U
PCB-8	34883-43-7	ng/g	0.012 JN	0.015 JN	0.021	0.014 J	0.044	0.024	0.024	0.017 JN	0.033	< 0.00067 U
PCB-80	33284-52-5	ng/g	0.0016 JN	< 0.0039 U	< 0.00088 U	< 0.0013 U	< 0.0010 U	< 0.00091 U	< 0.0010 U	< 0.00070 U	< 0.00077 U	< 0.00054 U
PCB-81	70362-50-4	ng/g	< 0.0010 U	< 0.0042 U	< 0.00099 U	< 0.0014 U	< 0.0011 U	< 0.00092 U	< 0.0011 U	< 0.00075 U	< 0.00082 U	< 0.00057 U
PCB-82	52663-62-4	ng/g	0.027 JN	0.027 JN	0.024	0.061	0.040	0.026 JN	0.022 JN	0.013 JN	0.028 JN	< 0.00027 U
PCB-83/99	60145-20-2	ng/g	0.19	0.61	0.22	0.64	0.38	0.20	0.17	0.13 JN	0.21	0.0036 JN
PCB-84	52663-60-2	ng/g	0.045	0.087	0.053	0.16	0.098	0.064	0.060	0.040	0.061	0.00072 JN
PCB-85/116/117	65510-45-4	ng/g	0.044	0.048	0.034 JN	0.084	0.074	0.056	0.040	0.027 JN	0.053 JN	0.0014 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.13	0.22	0.15	0.40	0.28	0.17	0.15	0.11	0.19	0.0022 JN
PCB-88/91	55215-17-3	ng/g	0.032 JN	0.14 JN	0.060	0.13	0.13	0.050	0.047	0.031	0.052	< 0.00025 U
PCB-89	73575-57-2	ng/g	< 0.0020 U	< 0.0045 U	< 0.00030 U	< 0.00040 U	< 0.00038 U	< 0.0023 U	< 0.00079 U	< 0.0012 U	< 0.00046 U	< 0.00027 U
PCB-9	34883-39-1	ng/g	0.0033 JN	< 0.0017 U	< 0.0016 U	0.0015 JN	0.0020 JN	0.0017 JN	0.0018 J	< 0.00057 U	< 0.0031 U	< 0.00076 U
PCB-90/101/113	68194-07-0	ng/g	0.28	0.83	0.33	1.0	0.56	0.29	0.29	0.22	0.34	0.012 JN
PCB-92	52663-61-3	ng/g	0.043	0.23	0.066	0.29	0.12	0.060	0.058	0.055	0.069	< 0.00026 U
PCB-93/100	73575-56-1	ng/g	0.010 JN	0.064	0.011 JN	0.031	0.052	0.0076 J	0.016 J	0.0094 J	0.010 J	< 0.00025 U
PCB-94	73575-55-0	ng/g	< 0.0021 U	< 0.0045 U	< 0.00030 U	< 0.00040 U	0.0094 JN	< 0.0023 U	0.0035 JN	< 0.0012 U	< 0.00046 U	< 0.00027 U
PCB-95	38379-99-6	ng/g	0.16	0.60	0.26	0.84	0.41	0.25	0.23	0.16	0.25	0.0060 JN
PCB-96	73575-54-9	ng/g	< 0.0015 U	< 0.0034 U	0.0024 JN	0.0044 J	0.0055 J	0.0024 JN	0.0029 JN	0.0018 JN	< 0.00035 U	< 0.00020 U
PCB-98/102	60233-25-2	ng/g	0.0053 JN	0.029 JN	0.0090 J	0.027	0.052	0.012 JN	0.0062 JN	0.0050 JN	0.0078 J	0.0015 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	5.7	19	8.3	21	13	7.7	7.2	5.3	8.6	0.18

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

			Location	B039	B040	B041	B042	B043	B044	B045	B046	B047	B048
			Sample ID	PDI-SG-B039-BL1	PDI-SG-B040-BL1	PDI-SG-B041-BL1	PDI-SG-B042-BL1	PDI-SG-B043-BL1	PDI-SG-B044-BL1	PDI-SG-B045-BL1	PDI-SG-B046-BL1	PDI-SG-B047-BL1	PDI-SG-B048-BL1
			Sample Date	02 Apr 2018	03 Apr 2018	08 Apr 2018	17 Jun 2018	10 Apr 2018	02 Apr 2018	03 Apr 2018	03 Apr 2018	04 Apr 2018	04 Apr 2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-25 cm	0-20 cm	0-23 cm	0-19 cm	0-25 cm	0-29 cm	0-27 cm	0-30 cm	0-30 cm	0-14 cm
Chemical		**CAS_RN**	**Units**										
Pesticides													
2,4-DDD		53-19-0	µg/kg	0.52 J	2.3	0.61	2.9	0.52	0.71	0.88	0.39 J	0.42 J	< 0.32 U
2,4-DDE		3424-82-6	µg/kg	< 0.70 U	< 0.47 U	< 0.42 U	< 0.53 U	< 0.45 U	< 0.59 U	< 0.53 U	< 0.57 U	< 0.60 U	< 0.40 U
2,4-DDT		789-02-6	µg/kg	< 0.70 U	< 0.47 U	< 0.47 U	< 0.53 U	< 0.47 U	< 0.59 U	< 0.53 U	< 0.57 U	< 0.60 U	< 0.47 U
4,4'-DDD		72-54-8	µg/kg	1.5	6.1	1.5	8.0	1.5	2.1	3.1	1.3	1.2	< 0.31 U
4,4'-DDE		72-55-9	µg/kg	4.4	3.3	0.62	5.1	1.6	3.2	4.1	2.7	2.8	< 0.35 U
4,4'-DDT		50-29-3	µg/kg	< 0.70 UJ	0.25 J	< 0.42 U	0.67	0.26 J	< 0.59 UJ	< 0.53 UJ	< 0.57 UJ	< 0.60 U	< 0.31 U
Total DDx	(b)	T_DDx (PDI)	µg/kg	6.8	12	3.0	17	4.1	6.3	8.3	4.7	4.7	< 0.47 U
Aldrin		309-00-2	µg/kg	< 0.70 U	< 0.47 U	< 0.42 U	< 0.53 U	< 0.45 U	< 0.59 U	< 0.53 U	< 0.57 U	< 0.60 U	< 0.40 U
alpha-Chlordane		5103-71-9	µg/kg	< 1.4 U	< 0.93 U	< 0.85 U	< 1.1 U	< 0.91 U	< 1.2 U	0.45 J	< 1.1 U	< 1.2 U	< 0.62 U
cis-Nonachlor		5103-73-1	µg/kg	< 0.70 U	< 0.49 U	< 0.49 UJ	< 0.53 U	< 0.49 UJ	< 0.59 U	< 0.53 U	< 0.57 U	< 0.60 UJ	< 0.49 UJ
Dieldrin		60-57-1	µg/kg	< 1.4 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.0 U
gamma-BHC (Lindane)		58-89-9	µg/kg	< 0.70 U	0.21 J	< 0.42 U	< 0.53 U	< 0.45 U	0.23 J	< 0.53 U	< 0.57 U	< 0.60 U	< 0.31 U
gamma-Chlordane		5566-34-7	µg/kg	< 1.4 U	< 0.93 U	< 0.85 U	< 1.1 U	< 0.91 U	< 1.2 U	0.54 J	< 1.1 U	< 1.2 U	< 0.62 U
Heptachlor		76-44-8	µg/kg	< 0.70 UJ	< 0.47 UJ	< 0.42 UJ	< 0.53 U	< 0.45 UJ	< 0.59 UJ	< 0.53 UJ	< 0.57 UJ	< 0.60 UJ	< 0.31 UJ
Oxychlordane		27304-13-8	µg/kg	< 1.4 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.0 U
trans-Nonachlor		39765-80-5	µg/kg	0.69 J	< 0.93 U	< 0.85 U	< 1.1 U	< 0.91 U	< 1.2 U	0.33 J	< 1.1 U	< 1.2 U	< 0.62 U
Total Chlordanes	(b)	T_Clrdn (PDI)	µg/kg	1.39	< 1 U	< 1 U	< 1.1 U	< 1 U	< 1.2 U	1.87	< 1.1 U	< 1.2 U	< 1 U
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	2.5	70	50	57 J	31	7.6	23	3.8	13	1.1
Acenaphthene		83-32-9	µg/kg	5.2	110	42	470 J	89	6.5	60	8.1	9.6	0.55
Acenaphthylene		208-96-8	µg/kg	3.7	71	33	250 J	45	4.6	20	10	6.8	4.4
Anthracene		120-12-7	µg/kg	11	110	65	300 J	61	13	62	18	16	2.3
Benz(a)anthracene		56-55-3	µg/kg	26	560	260	2900	290	34	170	63	46	35
Benzo(a)pyrene		50-32-8	µg/kg	48	810	390	4100	470	61	290	130	66	54
Benzo(b)fluoranthene		205-99-2	µg/kg	37	710	330	3700	400	53	200	87	66	46
Benzo(g,h,i)perylene		191-24-2	µg/kg	32	790	340	3200	430	44	210 J	94	51	39
Benzo(k)fluoranthene		207-08-9	µg/kg	11	220	110	1100	150	19	73	30	22	16
Bis(2-ethylhexyl)phthalate		117-81-7	µg/kg	68 J	47 J	20 J	< 210 U	53 J	36 J	41 J	42 J	53 J	< 62 U
Chrysene		218-01-9	µg/kg	41	740	330	2900	390	61	200	84	62	44
Dibenz(a,h)anthracene		53-70-3	µg/kg	3.7	91	49	550	59	6.2	37	13	8.9	6.3
Fluoranthene		206-44-0	µg/kg	66	1200	390	3300 J	370	87	440	110	94	27
Fluorene		86-73-7	µg/kg	5.0	58	45	250 J	29	7.6	36	7.2	11	0.43
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	27	680	300	3100	390	40	190 J	82	49	38
Naphthalene		91-20-3	µg/kg	5.5	140	110	160 J	52	9.9	67	8.8	22 J	1.8
Phenanthrene		85-01-8	µg/kg	37	820	300	2000 J	260	48	300	57	56	4.2
Pyrene		129-00-0	µg/kg	97 J	1900	640	4300 J	620 J	110 J	710 J	180 J	120	51
Total PAHs	(b)	T_PAH (PDI)	µg/kg	459	9080	3784	32637	4136	612	3088	986	719	371
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	61	1099	529	5634	639	80	384	167	91	72
Metals													
Arsenic		7440-38-2	mg/kg	6.9	6.7	4.7	4.3	5.0	5.5	4.8	5.0	5.4	4.2
Cadmium		7440-43-9	mg/kg	0.32 J	0.74	0.16 J	0.30	0.36	0.27 J	0.25 J	0.27 J	0.31	0.10 J
Copper		7440-50-8	mg/kg	53	29	27	23	31	39	34	35	39	21
Lead		7439-92-1	mg/kg	14	17	9.2	11	11	11	10	10	11	5.9
Mercury		7439-97-6	mg/kg	0.051 J	0.083	0.057	0.15	0.053	0.045 J	0.049	0.030 J	0.051 J	0.018 J
Tri-n-butyltin		36643-28-4	µg/kg	< 2.8 U	< 1.9 U	< 1.7 U	< 100 U	30	2.3 J	2.7	2.0 J	2.4 J	< 1.2 U
Zinc		7440-66-6	mg/kg	120	130	76	88	100	100	98	92	100	61
TPH													
TPH-Diesel Range Organics		68334-30-5	mg/kg	54 J	86	24 J	270	< 94 U	38 J	98	37 J	57 J	< 67 U
TPH-Motor Oil Range Organics		TPH-MOIL	mg/kg	490	280	110	590	110	320	530	370	460	< 67 U
Other													
Total Solids@104C - D2216	(f)	TSOLID	%				63.9 70.2						
Total Solids@104C - E160.3	(f)	TSOLID	%	35.4	58.8	56.9		51.8	43.0	50.8	46.7	39.2	70.2
Total Solids@104C - E160.3M	(f)	TSOLID	%	35.0	53.2	58.8	37.6	54.8	42.1	46.5	43.2	40.5	79.3
Total Solids@70C		TSOLID70	%	37	56	61	38	54	43	49	46	43	86
Gravel		GS-Gravel	%	0.3	2.6	2.4	0	0	0	0.1	0	0	28.7
Sand, Coarse		GS-Csand	%	0.5	2.6	0.8	0	0.1	0	0.3	0.1	0	11.2
Sand, Medium		GS-Msand	%	0.6	8.5	9.8	0.3	1.1	0.2	1.3	0.5	0.1	22.3
Sand, Fine (#200)	(d)	GS-Fsand-200	%	5.325	27.4	45.8	4.128	44.25	10.06	38.76	24.4	12.12	17.9
Sand, Fine (#230)	(d)	GS-Fsand	%	6.5	30.8	50.1	5.6	49.9	13.4	44.2	30.1	15.7	19.0
Silt (#200)	(d)	GS-Silt-200	%	74.07	53.29	33.79	81.97	46.14	78.93	49.93	65.69	74.57	17.29

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B039	B040	B041	B042	B043	B044	B045	B046	B047	B048
		Sample ID	PDI-SG-B039-BL1	PDI-SG-B040-BL1	PDI-SG-B041-BL1	PDI-SG-B042-BL1	PDI-SG-B043-BL1	PDI-SG-B044-BL1	PDI-SG-B045-BL1	PDI-SG-B046-BL1	PDI-SG-B047-BL1	PDI-SG-B048-BL1
		Sample Date	02 Apr 2018	03 Apr 2018	08 Apr 2018	17 Jun 2018	10 Apr 2018	02 Apr 2018	03 Apr 2018	03 Apr 2018	04 Apr 2018	04 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-20 cm	0-23 cm	0-19 cm	0-25 cm	0-29 cm	0-27 cm	0-30 cm	0-30 cm	0-14 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	72.9	49.9	29.5	80.5	40.5	75.6	44.5	60.0	71.0	16.2
Clay	GS-Clay	%	19.2	5.7	7.5	13.6	8.5	10.8	9.6	9.3	13.1	2.6
Percent Fines (e)	GS-FINES	%	93.27	58.99	41.29	95.57	54.64	89.73	59.53	74.99	87.67	19.89
Total Organic Carbon	TOC	mg/kg	48000	12000	9300	8900	12000	21000	41000	25000	30000	3100

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B049	B050	B051	B052	B053	B054	B055	B056	B057	B058
		Sample ID	PDI-SG-B049-BL1	PDI-SG-B050-BL1	PDI-SG-B051-BL1	PDI-SG-B052-BL1	PDI-SG-B053-BL1	PDI-SG-B054-BL1	PDI-SG-B055-BL1	PDI-SG-B056-BL1	PDI-SG-B057-BL1	PDI-SG-B058-BL1
		Sample Date	04 Apr 2018	04 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-16 cm	0-30 cm	0-18 cm	0-20 cm	0-22 cm	0-13 cm	0-30 cm	0-25 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.093	0.0061	0.066	0.090	0.0090	0.0096	0.0045	0.047	0.030	0.027
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.017	0.0012 J+	0.013	0.019	0.0024 J	0.0020 J	0.0012 JN	0.0099 JN	0.0063	0.0050 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0012 JN	< 0.00014 U	0.0011 J+	0.0023 J	< 0.00030 U	0.00033 JN	< 0.00040 U	0.00080 J+	0.00086 JN	0.00060 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0011 J+	< 0.00015 U	0.00070 JN	0.0011 JN	< 0.00027 U	< 0.00049 U	< 0.00032 U	0.00084 J+	< 0.00045 U	< 0.00045 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0036 J	< 0.00023 U	0.0019 J+	0.0061	0.00065 JN	< 0.00038 U	< 0.00031 U	0.0011 JN	0.011	0.00086 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0056	0.00043 J+	0.0026 J	0.0037 JN	0.00050 JN	0.00043 JN	< 0.00033 U	0.0022 J	0.0011 JN	0.0011 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0012 JN	< 0.00018 U	0.00079 JN	0.0026 J	< 0.00022 U	< 0.00023 U	< 0.000097 U	0.00054 J+	0.0028 J	< 0.00036 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0023 J	< 0.00032 U	0.0020 J+	0.0018 JN	< 0.00036 U	0.00061 J+	< 0.00027 U	0.0013 J+	0.00086 J+	0.00067 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00044 U	< 0.00027 U	0.00073 J	< 0.00043 U	< 0.00026 U	< 0.00023 U	< 0.00036 U	< 0.00045 U	< 0.00037 U	< 0.00030 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00049 J+	< 0.000052 U	0.00030 JN	0.00039 J+	< 0.000061 U	< 0.00018 U	< 0.000074 U	0.00041 JN	< 0.000077 U	0.00028 J+
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0048 J	< 0.00016 U	0.00084 J+	0.0045 J	< 0.00030 U	< 0.00011 U	< 0.000087 U	< 0.00053 U	0.015	< 0.00039 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00092 J+	< 0.000041 U	< 0.00019 U	0.00057 JN	< 0.000052 U	< 0.00022 U	< 0.000050 U	0.00030 JN	0.00071 J+	0.00021 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0080	< 0.000063 U	0.00078 J+	0.0019 J	< 0.00018 U	< 0.00013 U	< 0.000095 U	< 0.00032 U	0.0056	< 0.00026 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00013 U	< 0.000062 U	< 0.00013 U	0.00042 J+	< 0.000051 U	< 0.000071 U	< 0.000075 U	0.00030 JN	< 0.000041 U	< 0.000070 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.028	0.00034 J+	0.00096 J+	0.0025	0.00042 J+	< 0.00060 U	< 0.00024 U	0.00079 J+	0.0038	0.00063 J+
OCDD	3268-87-9	µg/kg	0.65	0.046	0.47	1.0	0.068	0.075	0.037	0.45	0.22	0.25
OCDF	39001-02-0	µg/kg	0.046	0.0034 J+	0.036	0.057	0.0053 J	0.0049 J	0.0027 J+	0.034	0.011	0.018
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0087	0.0002	0.0025	0.0048	0.00032	0.00034	0.00011	0.0022	0.0046	0.0011
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0086	0.0002	0.0022	0.0043	0.00021	0.00029	0.000094	0.0015	0.0045	0.0011
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0085	0.00016	0.002	0.0041	0.00018	0.0002	0.000057	0.0013	0.0045	0.001
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0029 JN	0.0016 JN	0.0046 J	0.0088 JN	0.00098 JN	0.00095 J	< 0.00079 U	0.0027 J	0.0021 JN	0.0031 J
PCB-10	33146-45-1	ng/g	0.0037 JN	< 0.0020 U	< 0.0043 U	0.0016 JN	< 0.00065 U	< 0.0025 U	< 0.00052 U	< 0.0027 U	< 0.0028 U	< 0.0030 U
PCB-103	60145-21-3	ng/g	0.0093 J	< 0.00023 U	0.0064 J	0.021	< 0.00069 U	< 0.00019 U	0.00083 J	0.0069 J	0.0024 JN	0.0039 JN
PCB-104	56558-16-8	ng/g	< 0.0027 U	< 0.00018 U	< 0.00048 U	< 0.00093 U	< 0.00054 U	< 0.00014 U	< 0.00034 U	< 0.00021 U	< 0.00032 U	< 0.00031 U
PCB-105	32598-14-4	ng/g	0.080 J	0.0060 JN	0.13	0.17	0.011 JN	0.014 J+	0.012	0.076	0.030	0.058
PCB-106	70424-69-0	ng/g	< 0.0036 U	< 0.00028 U	< 0.0014 U	< 0.0021 U	< 0.00053 U	< 0.00048 U	< 0.00069 U	< 0.00099 U	< 0.00060 U	< 0.0012 U
PCB-107	70424-68-9	ng/g	0.016 JN	< 0.00030 U	0.033	0.058	0.0024 JN	< 0.00051 U	0.0029 JN	0.020	0.0068 J	0.013 JN
PCB-108/124	70362-41-3	ng/g	< 0.0036 U	< 0.00029 U	0.011 JN	0.020	< 0.00054 U	0.0014 J	< 0.00070 U	0.0070 JN	0.0035 JN	0.0053 J
PCB-11	2050-67-1	ng/g	0.048 J	0.018 JN	0.11	0.017 J+	0.0056 JN	0.010 JN	0.0095 JN	0.090	0.036	0.051
PCB-110/115	38380-03-9	ng/g	0.30	0.027 JN	0.42	0.90	0.050	0.055	0.043	0.27	0.11	0.22
PCB-111	39635-32-0	ng/g	< 0.0024 U	< 0.00016 U	< 0.00044 U	< 0.00083 U	< 0.00048 U	< 0.00013 U	< 0.00031 U	< 0.00020 U	< 0.00029 U	< 0.00028 U
PCB-112	74472-36-9	ng/g	< 0.0026 U	< 0.00017 U	< 0.00046 U	< 0.00091 U	< 0.00052 U	< 0.00014 U	< 0.00033 U	< 0.00021 U	< 0.00031 U	< 0.00030 U
PCB-114	74472-37-0	ng/g	< 0.0031 U	< 0.00028 U	0.0073 JN	0.0079 JN	< 0.00049 U	< 0.00047 U	< 0.00062 U	0.0031 JN	< 0.00055 U	< 0.0011 U
PCB-118	31508-00-6	ng/g	0.20	0.019	0.34	0.50	0.033	0.039	0.030	0.21	0.083	0.15
PCB-12/13	2974-92-7	ng/g	< 0.0017 U	< 0.0018 U	0.0059 JN	0.0087 J+	< 0.00055 U	< 0.0023 U	< 0.00044 U	0.0047 JN	< 0.0025 U	0.0030 JN
PCB-120	68194-12-7	ng/g	< 0.0023 U	< 0.00017 U	< 0.00045 U	< 0.00082 U	< 0.00047 U	< 0.00013 U	0.00035 JN	0.0019 JN	0.0011 JN	0.0022 J
PCB-121	56558-18-0	ng/g	< 0.0025 U	< 0.00017 U	< 0.00046 U	< 0.00089 U	< 0.00051 U	< 0.00014 U	< 0.00033 U	< 0.00021 U	< 0.00031 U	< 0.00030 U
PCB-122	76842-07-4	ng/g	< 0.0040 U	< 0.00033 U	0.0042 JN	0.0075 JN	< 0.00059 U	< 0.00055 U	< 0.00077 U	0.0023 JN	< 0.00069 U	< 0.0014 U
PCB-123	65510-44-3	ng/g	< 0.0032 U	< 0.00030 U	0.0052 JN	0.0097	< 0.00048 U	< 0.00049 U	< 0.00065 U	0.0030 J	0.0016 JN	0.0021 JN
PCB-126	57465-28-8	ng/g	< 0.0036 U	< 0.00028 U	< 0.0014 U	< 0.0019 U	< 0.00052 U	< 0.00049 U	< 0.00067 U	< 0.0010 U	< 0.00061 U	< 0.0012 U
PCB-127	39635-33-1	ng/g	< 0.0034 U	< 0.00028 U	< 0.0014 U	< 0.0020 U	< 0.00051 U	< 0.00047 U	< 0.00066 U	< 0.00099 U	< 0.00060 U	< 0.0012 U
PCB-128/166	38380-07-3	ng/g	0.061 J	0.0056 J	0.078	0.13	0.0093 J	0.010 J	0.010 JN	0.050	0.019 J	0.039
PCB-129/138/160/163	55215-18-4	ng/g	0.48	0.045	0.60	1.0	0.066	0.074	0.061 JN	0.44	0.18	0.32
PCB-130	52663-66-8	ng/g	0.036 J	0.0017 JN	0.033	0.080	0.0034 JN	0.0029 JN	0.0044 J	0.021 JN	0.0077 JN	0.019
PCB-131	61798-70-7	ng/g	< 0.0038 U	< 0.00073 U	< 0.0029 U	0.0093 JN	0.0010 JN	< 0.0011 U	< 0.00064 U	0.0034 JN	< 0.0013 U	< 0.0027 U
PCB-132	38380-05-1	ng/g	0.15	0.012 JN	0.17	0.37	0.018 JN	0.020 JN	0.023	0.13	0.056	0.091
PCB-133	35694-04-3	ng/g	0.012 JN	< 0.00066 U	0.0096 JN	0.033	0.00075 JN	< 0.00099 U	< 0.00060 U	0.0047 JN	< 0.0012 U	< 0.0025 U
PCB-134/143	52704-70-8	ng/g	0.027 J	0.0016 JN	0.019 JN	0.061	0.0025 JN	0.0025 JN	0.0011 JN	0.019 J	0.0072 JN	0.012 J
PCB-135/151	52744-13-5	ng/g	0.17 J	0.018 JN	0.19	0.44	0.027	0.023	0.026	0.15	0.061	0.11
PCB-136	38411-22-2	ng/g	0.059 J	0.0036 JN	0.070	0.15 J-	0.0070 J	0.0093	0.0085 J	0.053	0.021	0.034
PCB-137	35694-06-5	ng/g	0.015 J	0.00092 JN	0.017	0.032	0.0014 JN	0.0023 JN	0.0021 J	0.012 JN	0.0051 J	0.0066 JN
PCB-139/140	56030-56-9	ng/g	0.0046 JN	< 0.00059 U	0.0091 J	0.013 JN	0.0016 JN	< 0.00089 U	< 0.00053 U	0.0058 J	< 0.0011 U	0.0055 JN
PCB-14	34883-41-5	ng/g	< 0.0016 U	< 0.0015 U	< 0.0033 U	< 0.00099 U	< 0.00051 U	< 0.0019 U	< 0.00040 U	< 0.0021 U	< 0.0021 U	< 0.0023 U
PCB-141	52712-04-6	ng/g	0.085 J	0.0066 JN	0.10	0.18	0.012 JN	0.013	0.011	0.078	0.031	0.054
PCB-142	41411-61-4	ng/g	< 0.0036 U	< 0.00066 U	< 0.0026 U	< 0.0024 U	< 0.00053 U	< 0.00099 U	< 0.00061 U	< 0.0017 U	< 0.0012 U	< 0.0025 U
PCB-144	68194-14-9	ng/g	0.012 JN	0.0019 J	0.025	0.030 J-	0.0026 J	0.0025 JN	0.0020 JN	0.012 JN	0.0072 J	0.010 JN
PCB-145	74472-40-5	ng/g	< 0.00018 U	< 0.000062 U	< 0.00037 U	< 0.00013 U	< 0.000091 U	< 0.00011 U	< 0.00015 U	< 0.00020 U	< 0.00015 U	< 0.00029 U
PCB-146	51908-16-8	ng/g	0.093 J	0.0086 J	0.11	0.25	0.015	0.010	0.010 JN	0.078	0.027	0.067
PCB-147/149	68194-13-8	ng/g	0.44	0.038 JN	0.55	1.0	0.055 J-	0.064 J-	0.049 JN	0.40	0.16 J-	0.30
PCB-148	74472-41-6	ng/g	0.00039 JN	< 0.000088 U	0.0019 JN	0.0057 JN	< 0.00012 U	< 0.00015 U	< 0.00020 U	0.0015 JN	< 0.00022 U	0.0031 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B049	B050	B051	B052	B053	B054	B055	B056	B057	B058
		Sample ID	PDI-SG-B049-BL1	PDI-SG-B050-BL1	PDI-SG-B051-BL1	PDI-SG-B052-BL1	PDI-SG-B053-BL1	PDI-SG-B054-BL1	PDI-SG-B055-BL1	PDI-SG-B056-BL1	PDI-SG-B057-BL1	PDI-SG-B058-BL1
		Sample Date	04 Apr 2018	04 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-16 cm	0-30 cm	0-18 cm	0-20 cm	0-22 cm	0-13 cm	0-30 cm	0-25 cm	0-28 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.017 JN	0.0025 JN	0.043	0.056	0.0043 J	0.0049 JN	0.0044 J	0.021 JN	0.014 JN	0.018 JN
PCB-150	68194-08-1	ng/g	0.0013 JN	< 0.000060 U	0.0016 JN	0.0054 J	< 0.000082 U	< 0.00010 U	< 0.00014 U	0.0013 JN	< 0.00015 U	0.0015 JN
PCB-152	68194-09-2	ng/g	< 0.00017 U	< 0.000064 U	0.0014 JN	< 0.00012 U	< 0.000088 U	< 0.00011 U	< 0.00015 U	< 0.00021 U	< 0.00016 U	< 0.00029 U
PCB-153/168	35065-27-1	ng/g	0.44	0.040	0.54	0.94	0.059	0.056	0.054 JN	0.38	0.15	0.30
PCB-154	60145-22-4	ng/g	0.0036 JN	0.00078 JN	0.0076 JN	0.030 JN	0.00034 JN	0.00056 JN	0.00036 JN	0.0067 J	0.0020 JN	0.0073 J
PCB-155	33979-03-2	ng/g	< 0.00017 U	< 0.000060 U	< 0.00035 U	< 0.00012 U	< 0.000084 U	< 0.00010 U	< 0.00014 U	< 0.00019 U	< 0.00015 U	< 0.00027 U
PCB-156/157	38380-08-4	ng/g	0.031 JN	0.0031 JN	0.055	0.075	0.0053 JN	0.0069 JN	0.0057 JN	0.040	0.012 J	0.026
PCB-158	74472-42-7	ng/g	0.040 JN	0.0030 J	0.048	0.077	0.0030 JN	0.0069	0.0040 JN	0.036	0.013	0.024
PCB-159	39635-35-3	ng/g	0.0031 JN	< 0.00044 U	< 0.0018 U	0.013	0.00068 JN	< 0.00066 U	0.00078 JN	0.0041 J	< 0.00079 U	< 0.0016 U
PCB-16	38444-78-9	ng/g	0.015 J	< 0.00036 U	0.024	0.084	0.0035 JN	0.0050 JN	0.00065 JN	0.0096 JN	0.0040 JN	0.011
PCB-161	74472-43-8	ng/g	< 0.0023 U	< 0.00044 U	< 0.0017 U	< 0.0016 U	< 0.00034 U	< 0.00066 U	< 0.00040 U	< 0.0011 U	< 0.00078 U	< 0.0016 U
PCB-162	39635-34-2	ng/g	< 0.0022 U	< 0.00043 U	< 0.0017 U	< 0.0015 U	< 0.00033 U	< 0.00065 U	< 0.00038 U	< 0.0011 U	< 0.00077 U	< 0.0016 U
PCB-164	74472-45-0	ng/g	0.027 JN	0.0040 JN	0.040 JN	0.079	0.0031 JN	0.0035 JN	0.0032 JN	0.029	0.012	0.022
PCB-165	74472-46-1	ng/g	< 0.0027 U	< 0.00050 U	< 0.0020 U	< 0.0018 U	< 0.00039 U	< 0.00075 U	< 0.00045 U	< 0.0013 U	< 0.00089 U	< 0.0019 U
PCB-167	52663-72-6	ng/g	0.0090 JN	< 0.00035 U	0.017	0.028	0.0026 J	0.0023 J	0.0017 JN	0.012 JN	0.0046 J	0.0082 J
PCB-169	32774-16-6	ng/g	< 0.0017 U	< 0.00033 U	< 0.0014 U	< 0.0012 U	< 0.00025 U	< 0.00050 U	< 0.00030 U	< 0.00096 U	< 0.00059 U	< 0.0013 U
PCB-17	37680-66-3	ng/g	0.019 JN	< 0.00033 U	0.040	0.11	0.0035 JN	0.0071	0.0025 JN	0.021	0.0076 JN	0.015 JN
PCB-170	35065-30-6	ng/g	0.14	0.013	0.19	0.27	0.018	0.015 JN	0.022	0.13	0.042	0.098
PCB-171/173	52663-71-5	ng/g	0.032 JN	0.0044 J	0.046 JN	0.091	0.0055 JN	0.0072 J	0.0068 J	0.033 JN	0.013 J	0.025 JN
PCB-172	52663-74-8	ng/g	0.027 J	0.0023 J	0.032	0.050	0.0026 JN	0.0023 JN	0.0028 JN	0.020	0.0057 JN	0.018
PCB-174	38411-25-5	ng/g	0.17	0.015 JN	0.18	0.34	0.019 JN	0.020	0.019	0.14	0.050	0.11
PCB-175	40186-70-7	ng/g	0.0041 J	< 0.00049 U	0.0080 J	0.010 JN	< 0.000068 U	< 0.00057 U	< 0.000023 U	0.0052 JN	< 0.00052 U	0.0019 JN
PCB-176	52663-65-7	ng/g	0.016 J	0.0020 J	0.021	0.042	0.0019 JN	0.0019 JN	0.0025 JN	0.015	0.0048 JN	0.011
PCB-177	52663-70-4	ng/g	0.10	0.0095 J	0.11	0.20	0.010 JN	0.012	0.015	0.080	0.029	0.063
PCB-178	52663-67-9	ng/g	0.037 J	0.0036 JN	0.044	0.076	0.00011 JN	0.0036 JN	0.0032 JN	0.030	0.010	0.025
PCB-179	52663-64-6	ng/g	0.079 J	0.0058 JN	0.088	0.16	0.0096	0.0098	0.0085 JN	0.067	0.024	0.048
PCB-18/30	37680-65-2	ng/g	0.033 JN	0.0062 J	0.056 JN	0.20	0.0064 JN	0.014	0.0059 JN	0.035	0.017 J	0.032
PCB-180/193	35065-29-3	ng/g	0.29	0.027	0.40	0.62	0.051	0.041	0.046	0.29	0.099	0.21
PCB-181	74472-47-2	ng/g	< 0.00014 U	< 0.00049 U	< 0.0014 U	0.0035 J	< 0.000065 U	< 0.00056 U	< 0.000022 U	< 0.00031 U	< 0.00052 U	< 0.0011 U
PCB-182	60145-23-5	ng/g	< 0.00014 U	< 0.00047 U	< 0.0014 U	< 0.00015 U	< 0.000061 U	< 0.00054 U	< 0.000021 U	0.0012 JN	< 0.00050 U	< 0.0011 U
PCB-183/185	52663-69-1	ng/g	0.094 J	0.0068 JN	0.12	0.21	0.016 JN	0.012 J	0.013 J	0.087	0.029 JN	0.068
PCB-184	74472-48-3	ng/g	< 0.00012 U	< 0.00040 U	< 0.0012 U	< 0.00012 U	< 0.000053 U	< 0.00046 U	< 0.000018 U	< 0.00025 U	< 0.00042 U	< 0.00090 U
PCB-186	74472-49-4	ng/g	< 0.00011 U	< 0.00039 U	< 0.0012 U	< 0.00012 U	< 0.000050 U	< 0.00045 U	< 0.000017 U	< 0.00024 U	< 0.00041 U	< 0.00087 U
PCB-187	52663-68-0	ng/g	0.22	0.024	0.25	0.45	0.033	0.023	0.028	0.18	0.066	0.14
PCB-188	74487-85-7	ng/g	< 0.00010 U	< 0.00036 U	< 0.0010 U	< 0.00011 U	< 0.000046 U	< 0.00040 U	< 0.000016 U	< 0.00022 U	< 0.00037 U	< 0.00076 U
PCB-189	39635-31-9	ng/g	< 0.00094 U	< 0.00042 U	0.0062 JN	0.0084 JN	0.00037 JN	< 0.00084 U	0.00071 JN	0.0050 J	< 0.00078 U	< 0.0019 U
PCB-19	38444-73-4	ng/g	0.020 JN	< 0.00040 U	0.019 JN	0.030	0.0020 J	0.0014 JN	0.0020 JN	0.016	0.0045 JN	0.011
PCB-190	41411-64-7	ng/g	0.025 J	0.0020 JN	0.032	0.044	0.0051 J	0.0028 JN	0.0034 JN	0.025	0.0068 JN	0.019
PCB-191	74472-50-7	ng/g	0.0046 JN	< 0.00037 U	0.0062 JN	0.012	0.00022 JN	< 0.00043 U	0.00068 JN	0.0048 J	0.0018 JN	0.0034 JN
PCB-192	74472-51-8	ng/g	< 0.00011 U	< 0.00041 U	< 0.0012 U	< 0.00012 U	< 0.000052 U	< 0.00047 U	< 0.000018 U	< 0.00026 U	< 0.00044 U	< 0.00092 U
PCB-194	35694-08-7	ng/g	0.061 J	0.0057 JN	0.11	0.13	0.016 JN	0.0073 JN	0.0082 J	0.070	0.019	0.055
PCB-195	52663-78-2	ng/g	0.022 JN	0.0025 J	0.042	0.053	0.0058 JN	< 0.0015 U	0.0056 J	0.027	0.0091 J	0.021
PCB-196	42740-50-1	ng/g	0.020 JN	0.0012 JN	0.046	0.062	0.0089 JN	0.0042 JN	0.0040 JN	0.028	0.0083 JN	0.021
PCB-197	33091-17-7	ng/g	0.0013 JN	< 0.00017 U	0.0045 J	0.0047 JN	< 0.00017 U	< 0.00030 U	0.00026 JN	0.0023 JN	< 0.00022 U	< 0.00086 U
PCB-198/199	68194-17-2	ng/g	0.097 J	0.0068 JN	0.13	0.16	0.021 JN	0.012 J	0.014 J	0.074	0.023	0.052 JN
PCB-2	2051-61-8	ng/g	0.012 JN	0.0028 J+	0.019	0.0032 J+	0.0011 JN	< 0.00073 U	0.0014 JN	0.013 JN	0.0016 JN	0.012 J+
PCB-20/28	38444-84-7	ng/g	0.11 J	0.011 J	0.17	0.50	0.017 J	0.019	0.015 J	0.086	0.046	0.067
PCB-200	52663-73-7	ng/g	0.0099 J	0.00068 JN	0.012 J	0.014 JN	0.0024 JN	0.0013 JN	0.00041 JN	0.0066 J	0.0024 JN	0.0045 JN
PCB-201	40186-71-8	ng/g	0.014 J	0.00079 JN	0.012 J	0.021	0.0021 JN	0.0010 JN	0.0015 JN	0.0073 J	0.0030 JN	0.0041 JN
PCB-202	2136-99-4	ng/g	0.016 JN	0.0015 JN	0.028 JN	0.030 JN	0.0034 JN	0.0016 JN	0.0040 J	0.011 JN	0.0050 JN	0.0091 JN
PCB-203	52663-76-0	ng/g	0.050 J	0.0041 JN	0.067 JN	0.086	0.017	0.0057 JN	0.0072 JN	0.046	0.011 JN	0.029 JN
PCB-204	74472-52-9	ng/g	< 0.00031 U	< 0.00017 U	< 0.00051 U	< 0.00041 U	< 0.00018 U	< 0.00030 U	< 0.000077 U	< 0.00020 U	< 0.00022 U	< 0.00086 U
PCB-205	74472-53-0	ng/g	0.0039 J	< 0.00046 U	0.0053 J	0.0047 JN	0.0014 JN	< 0.0012 U	0.00051 JN	0.0021 JN	0.0014 J	< 0.0032 U
PCB-206	40186-72-9	ng/g	0.051 J	0.0032 JN	0.11	0.15	0.022 JN	0.0075	0.0097 JN	0.044	0.019	0.034 JN
PCB-207	52663-79-3	ng/g	0.0048 JN	< 0.00091 U	0.0096 JN	0.0087 JN	< 0.0019 U	< 0.0016 U	< 0.0010 U	0.0036 JN	< 0.0012 U	< 0.0032 U
PCB-208	52663-77-1	ng/g	0.012 JN	< 0.00095 U	0.028	0.026 JN	0.0033 J	< 0.0016 U	< 0.0011 U	0.016	0.0044 J	0.012 JN
PCB-209	2051-24-3	ng/g	0.031 JN	0.0058 J	0.078 JN	0.36	0.0076 JN	0.011 JN	0.0089 JN	0.050	0.019	0.049
PCB-21/33	55702-46-0	ng/g	0.036 J	0.0034 J	0.056	0.19	0.0042 JN	0.0099 J	0.0047 JN	0.033	0.015 J	0.024
PCB-22	38444-85-8	ng/g	0.031 J	0.0030 J	0.044	0.11	0.0048 J	0.0062 J	0.0041 J	0.024	0.010	0.018
PCB-23	55720-44-0	ng/g	< 0.0019 U	< 0.00028 U	< 0.00077 U	< 0.0030 U	< 0.00047 U	< 0.00026 U	< 0.00047 U	< 0.00054 U	< 0.00041 U	< 0.00056 U
PCB-24	55702-45-9	ng/g	< 0.00047 U	< 0.00027 U	< 0.00065 U	0.0022 JN	< 0.00012 U	< 0.00029 U	< 0.00012 U	0.00079 JN	< 0.00047 U	0.0015 JN
PCB-25	55712-37-3	ng/g	0.011 J	< 0.00025 U	0.012 J	0.033	0.0010 JN	0.0010 JN	0.0011 JN	0.0070 J	0.0028 JN	0.0051 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B049	B050	B051	B052	B053	B054	B055	B056	B057	B058
		Sample ID	PDI-SG-B049-BL1	PDI-SG-B050-BL1	PDI-SG-B051-BL1	PDI-SG-B052-BL1	PDI-SG-B053-BL1	PDI-SG-B054-BL1	PDI-SG-B055-BL1	PDI-SG-B056-BL1	PDI-SG-B057-BL1	PDI-SG-B058-BL1
		Sample Date	04 Apr 2018	04 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-16 cm	0-30 cm	0-18 cm	0-20 cm	0-22 cm	0-13 cm	0-30 cm	0-25 cm	0-28 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.016 J	0.0015 J	0.024 J	0.056	0.0019 JN	0.0027 J	0.0028 JN	0.013 J	0.0057 J	0.0096 JN
PCB-27	38444-76-7	ng/g	0.0064 J	0.00041 JN	0.0084 J	0.020	0.00036 JN	< 0.00026 U	< 0.00011 U	0.0055 JN	0.0022 JN	0.0027 JN
PCB-3	2051-62-9	ng/g	0.0045 JN	< 0.00017 U	0.0045 J+	0.0079 JN	0.00061 JN	0.00059 JN	< 0.00041 U	0.0034 J+	0.0013 J+	< 0.00030 U
PCB-31	16606-02-3	ng/g	0.075 J	0.0078 J	0.11	0.34	0.012 J	0.014	0.010 J	0.065	0.032	0.046
PCB-32	38444-77-8	ng/g	0.014 JN	0.0023 J	0.025 JN	0.071	0.0033 J+	0.0038 JN	0.0024 JN	0.013	0.0063 J	0.0091 JN
PCB-34	37680-68-5	ng/g	< 0.0020 U	< 0.00029 U	< 0.00080 U	0.0047 J	< 0.00049 U	< 0.00027 U	< 0.00048 U	< 0.00056 U	< 0.00042 U	< 0.00058 U
PCB-35	37680-69-6	ng/g	< 0.0019 U	< 0.00028 U	0.0028 J	< 0.0030 U	< 0.00046 U	< 0.00026 U	< 0.00083 U	0.0024 J	< 0.00041 U	< 0.00057 U
PCB-36	38444-87-0	ng/g	< 0.0017 U	< 0.00027 U	< 0.00075 U	< 0.0027 U	< 0.00042 U	< 0.00025 U	< 0.00042 U	< 0.00052 U	< 0.00040 U	< 0.00055 U
PCB-37	38444-90-5	ng/g	0.031 J	0.0038 J	0.053	0.12	0.0075 J	0.0061 J	0.0047 J	0.029	0.017	0.022
PCB-38	53555-66-1	ng/g	< 0.0019 U	< 0.00029 U	< 0.00081 U	< 0.0029 U	< 0.00046 U	< 0.00027 U	< 0.00045 U	< 0.00056 U	< 0.00043 U	< 0.00059 U
PCB-39	38444-88-1	ng/g	< 0.0017 U	< 0.00026 U	< 0.00073 U	< 0.0027 U	0.00059 JN	< 0.00024 U	< 0.00041 U	< 0.00050 U	< 0.00038 U	< 0.00053 U
PCB-4	13029-08-8	ng/g	0.020 JN	< 0.0026 U	0.026 JN	0.029	0.0024 JN	0.0041 JN	0.0047 J	0.014 JN	0.0060 JN	0.010 JN
PCB-40/41/71	38444-93-8	ng/g	0.071 J	0.0058 J	0.093	0.33	0.016 J	0.0070 J	0.0081 J	0.042	0.018 J	0.034
PCB-42	36559-22-5	ng/g	0.031 J	0.0033 J	0.047	0.17	0.0079 J	0.0070	0.0048 J	0.021	0.010	0.019 JN
PCB-43/73	70362-46-8	ng/g	< 0.0033 U	< 0.00035 U	0.0056 JN	0.021	0.00083 JN	< 0.00053 U	< 0.00088 U	0.0045 JN	< 0.0011 U	< 0.0016 U
PCB-44/47/65	41464-39-5	ng/g	0.16 J	0.013 J	0.21	0.62	0.028 J	0.020 J	0.029	0.12	0.043	0.10
PCB-45/51	70362-45-7	ng/g	0.033 J	< 0.00040 U	0.030 JN	0.12	0.0060 J	0.0038 JN	< 0.0010 U	0.020 J	0.0076 J	0.012 JN
PCB-46	41464-47-5	ng/g	< 0.0045 U	< 0.00048 U	0.0089 JN	0.041 JN	0.0010 JN	< 0.00072 U	< 0.0012 U	0.0050 J	< 0.0015 U	< 0.0022 U
PCB-48	70362-47-9	ng/g	0.021 J	0.0022 J	0.030	0.12	0.0026 JN	0.0031 J	0.0017 JN	0.013	0.0055 JN	0.0097 JN
PCB-49/69	41464-40-8	ng/g	0.10 J	0.0091 J	0.14	0.42	0.016 J	0.012 J	0.015 J	0.079	0.027	0.064
PCB-5	16605-91-7	ng/g	< 0.0019 U	< 0.0020 U	< 0.0044 U	< 0.0012 U	< 0.00061 U	< 0.0025 U	< 0.00049 U	< 0.0027 U	< 0.0028 U	< 0.0031 U
PCB-50/53	62796-65-0	ng/g	0.033 J	0.0015 J	0.031	0.099	0.0053 JN	0.0026 JN	0.0042 JN	0.019 J	0.0070 J	0.015 J
PCB-52	35693-99-3	ng/g	0.20	0.018	0.23	0.83	0.040	0.027	0.028 JN	0.14	0.055	0.10
PCB-54	15968-05-5	ng/g	< 0.00035 U	< 0.000036 U	0.0033 JN	0.0036 J	< 0.00012 U	< 0.000052 U	< 0.00011 U	0.0020 J	< 0.000075 U	0.0030 J
PCB-55	74338-24-2	ng/g	< 0.0025 U	< 0.00027 U	< 0.0014 U	0.0097	< 0.00045 U	< 0.00041 U	< 0.00066 U	0.0012 JN	< 0.00086 U	< 0.0012 U
PCB-56	41464-43-1	ng/g	0.063 J	0.0055 J	0.082	0.24	0.012	0.0063 J	0.0064 JN	0.041	0.019 JN	0.034
PCB-57	70424-67-8	ng/g	< 0.0025 U	< 0.00028 U	< 0.0014 U	< 0.0016 U	< 0.00046 U	< 0.00042 U	< 0.00068 U	< 0.00090 U	< 0.00087 U	< 0.0013 U
PCB-58	41464-49-7	ng/g	< 0.0024 U	< 0.00028 U	< 0.0014 U	< 0.0016 U	< 0.00044 U	< 0.00043 U	< 0.00065 U	0.0012 JN	< 0.00088 U	< 0.0013 U
PCB-59/62/75	74472-33-6	ng/g	0.012 JN	< 0.00027 U	0.014 J	0.056	0.0012 JN	0.0016 JN	0.0025 JN	0.0078 J	< 0.00083 U	0.0054 JN
PCB-6	25569-80-6	ng/g	0.0029 JN	< 0.0018 U	0.0095 JN	0.013 JN	< 0.00060 U	< 0.0022 U	< 0.00048 U	0.0042 JN	< 0.0025 U	0.0047 JN
PCB-60	33025-41-1	ng/g	0.012 JN	0.0024 J	0.035	0.085	0.0052 JN	0.0030 JN	< 0.00066 U	0.015	0.0076 JN	0.011
PCB-61/70/74/76	33284-53-6	ng/g	0.26 J	0.020 J	0.32	0.98	0.047	0.030	0.037 J	0.17	0.072	0.14
PCB-63	74472-34-7	ng/g	0.0060 J	< 0.00026 U	0.0077 JN	0.022 JN	0.0013 J	< 0.00038 U	< 0.00059 U	0.0041 J	< 0.00080 U	0.0030 J
PCB-64	52663-58-8	ng/g	0.062 J	0.0050 JN	0.075	0.26	0.015	0.0072 JN	0.0073 J	0.038	0.016	0.029
PCB-66	32598-10-0	ng/g	0.17	0.015	0.21	0.63	0.030	0.017	0.021	0.11	0.046	0.093
PCB-67	73575-53-8	ng/g	< 0.0023 U	< 0.00024 U	0.0045 JN	0.016	< 0.00042 U	< 0.00036 U	< 0.00063 U	0.0019 J	< 0.00075 U	< 0.0011 U
PCB-68	73575-52-7	ng/g	< 0.0022 U	< 0.00025 U	< 0.0012 U	0.011	< 0.00040 U	< 0.00037 U	< 0.00059 U	0.0022 JN	< 0.00077 U	< 0.0011 U
PCB-7	33284-50-3	ng/g	0.0045 JN	< 0.0018 U	< 0.0039 U	0.0026 JN	< 0.00057 U	< 0.0023 U	< 0.00046 U	< 0.0025 U	< 0.0025 U	< 0.0028 U
PCB-72	41464-42-0	ng/g	< 0.0025 U	< 0.00027 U	0.0030 J	0.016	0.00067 J+	< 0.00041 U	< 0.00067 U	0.0023 J	< 0.00086 U	< 0.0012 U
PCB-77	32598-13-3	ng/g	0.017 J	0.0017 J	0.023	0.049	0.0044 J	0.0020 J	0.0019 JN	0.011 JN	0.0065 JN	0.0093 J
PCB-78	70362-49-1	ng/g	< 0.0024 U	< 0.00028 U	< 0.0014 U	< 0.0016 U	< 0.00044 U	< 0.00042 U	< 0.00065 U	< 0.00091 U	< 0.00088 U	< 0.0013 U
PCB-79	41464-48-6	ng/g	< 0.0021 U	< 0.00025 U	< 0.0012 U	0.010	< 0.00038 U	< 0.00037 U	< 0.00056 U	< 0.00079 U	< 0.00077 U	< 0.0011 U
PCB-8	34883-43-7	ng/g	0.016 JN	< 0.0017 U	0.038	0.072	0.0021 JN	0.0067 JN	0.0017 JN	0.022 JN	0.010 JN	0.017 J
PCB-80	33284-52-5	ng/g	< 0.0022 U	< 0.00024 U	< 0.0012 U	0.0044 JN	< 0.00039 U	< 0.00036 U	< 0.00058 U	< 0.00078 U	< 0.00075 U	< 0.0011 U
PCB-81	70362-50-4	ng/g	< 0.0022 U	< 0.00026 U	< 0.0013 U	< 0.0014 U	< 0.00042 U	< 0.00040 U	< 0.00063 U	< 0.00082 U	< 0.00083 U	< 0.0012 U
PCB-82	52663-62-4	ng/g	0.032 JN	0.0020 J	0.033 JN	0.088	0.0068 JN	0.0032 JN	0.0050 JN	0.023	0.0062 JN	0.018
PCB-83/99	60145-20-2	ng/g	0.19 J	0.012 JN	0.25	0.53 J-	0.026 JN	0.022	0.025	0.15	0.053	0.14
PCB-84	52663-60-2	ng/g	0.062 J	0.0056 J	0.072	0.22	0.0071 JN	0.0091 JN	0.011 JN	0.050	0.014 JN	0.043
PCB-85/116/117	65510-45-4	ng/g	0.053 J	0.0046 J	0.065	0.12	0.0061 JN	0.0072 JN	0.0041 JN	0.037 JN	0.011 JN	0.034
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.15 J	0.012 J	0.22	0.42	0.022 J	0.025 J	0.024 J	0.14	0.050 J	0.11
PCB-88/91	55215-17-3	ng/g	0.043 J	0.0042 JN	0.060	0.15	0.0062 JN	0.0067 J	0.0061 JN	0.036 JN	0.012 JN	0.032
PCB-89	73575-57-2	ng/g	< 0.0039 U	< 0.00026 U	< 0.00071 U	0.0093 JN	< 0.00080 U	< 0.00021 U	< 0.00051 U	< 0.00032 U	< 0.00047 U	< 0.00046 U
PCB-9	34883-39-1	ng/g	< 0.0021 U	< 0.0019 U	< 0.0040 U	0.0033 JN	0.0015 JN	< 0.0023 U	< 0.00053 U	< 0.0025 U	< 0.0026 U	< 0.0028 U
PCB-90/101/113	68194-07-0	ng/g	0.27 J	0.022 J	0.39	0.79	0.042	0.046	0.039	0.25	0.096	0.20
PCB-92	52663-61-3	ng/g	0.031 JN	0.0035 JN	0.072	0.11 JN	0.0068 JN	0.0067 J	0.011	0.048	0.018	0.035
PCB-93/100	73575-56-1	ng/g	0.011 JN	< 0.00023 U	0.011 JN	0.019	< 0.00075 U	0.0012 JN	0.0012 JN	0.0077 JN	0.0016 JN	0.0059 J
PCB-94	73575-55-0	ng/g	< 0.0040 U	< 0.00026 U	0.0054 J	< 0.0014 U	< 0.00080 U	< 0.00021 U	< 0.00051 U	< 0.00032 U	< 0.00047 U	< 0.00046 U
PCB-95	38379-99-6	ng/g	0.22 J-	0.022	0.27	0.71	0.038	0.040	0.026 JN	0.20	0.079	0.15
PCB-96	73575-54-9	ng/g	< 0.0030 U	< 0.00020 U	< 0.00054 U	0.0073 JN	< 0.00060 U	< 0.00016 U	< 0.00038 U	0.0020 J	< 0.00036 U	< 0.00034 U
PCB-98/102	60233-25-2	ng/g	0.0094 JN	0.00062 JN	0.014 JN	0.033	0.0021 JN	0.0011 JN	0.0026 JN	0.0066 J	0.0017 JN	0.0062 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	7.3	0.65	9.8	21	1.2	1.1	1.0	6.4	2.4	4.9

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B049	B050	B051	B052	B053	B054	B055	B056	B057	B058
		Sample ID	PDI-SG-B049-BL1	PDI-SG-B050-BL1	PDI-SG-B051-BL1	PDI-SG-B052-BL1	PDI-SG-B053-BL1	PDI-SG-B054-BL1	PDI-SG-B055-BL1	PDI-SG-B056-BL1	PDI-SG-B057-BL1	PDI-SG-B058-BL1
		Sample Date	04 Apr 2018	04 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-16 cm	0-30 cm	0-18 cm	0-20 cm	0-22 cm	0-13 cm	0-30 cm	0-25 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.1	< 0.33 U	0.47 J	4.0	< 0.34 U	< 0.34 U	< 0.40 U	< 0.57 U	0.53	< 0.49 U
2,4-DDE	3424-82-6	µg/kg	< 0.56 U	< 0.40 U	< 0.61 U	< 0.46 U	< 0.40 U	< 0.40 U	< 0.40 U	< 0.57 U	< 0.41 U	< 0.49 U
2,4-DDT	789-02-6	µg/kg	< 0.56 U	< 0.47 U	< 0.61 U	0.89 J	< 0.47 U	< 0.47 U	< 0.47 U	< 0.57 U	< 0.47 U	< 0.49 U
4,4'-DDD	72-54-8	µg/kg	2.3	0.37	1.4	7.2	0.22 J	< 0.34 U	0.39 J	1.0	1.6	0.85
4,4'-DDE	72-55-9	µg/kg	2.6	< 0.35 U	3.1	3.0	< 0.35 U	< 0.35 U	0.39 J	2.3	0.53	1.3
4,4'-DDT	50-29-3	µg/kg	< 0.56 U	< 0.33 U	0.31 J	5.0	< 0.34 U	< 0.34 U	< 0.40 U	< 0.57 U	1.2	< 0.49 U
Total DDx (b)	T_DDx (PDI)	µg/kg	6.3	0.61	5.6	20	0.46	< 0.47 U	1.0	3.6	4.1	2.4
Aldrin	309-00-2	µg/kg	< 0.56 U	< 0.40 U	< 0.61 U	< 0.46 U	< 0.40 U	< 0.40 U	< 0.40 U	< 0.57 U	< 0.41 U	< 0.49 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.1 U	< 0.66 U	< 1.2 U	< 0.92 U	< 0.67 U	< 0.69 U	< 0.80 U	< 1.1 U	< 0.81 U	< 0.99 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.56 UJ	< 0.49 UJ	< 0.61 UJ	< 0.49 UJ	< 0.49 UJ	< 0.49 UJ	< 0.49 UJ	< 0.57 UJ	< 0.49 UJ	< 0.49 UJ
Dieldrin	60-57-1	µg/kg	< 1.1 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.56 U	< 0.33 U	< 0.61 U	< 0.46 U	< 0.34 U	< 0.34 U	< 0.40 U	< 0.57 U	< 0.41 U	< 0.49 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.1 U	< 0.66 U	< 1.2 U	< 0.92 U	< 0.67 U	< 0.69 U	< 0.80 U	< 1.1 U	< 0.81 U	< 0.99 U
Heptachlor	76-44-8	µg/kg	< 0.56 UJ	< 0.33 UJ	< 0.61 UJ	< 0.46 UJ	< 0.34 UJ	< 0.34 UJ	< 0.40 UJ	< 0.57 UJ	< 0.41 UJ	< 0.49 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.1 U	< 1.0 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.1 U	< 0.66 U	< 1.2 U	< 0.92 U	< 0.67 U	< 0.69 U	< 0.80 U	0.41 J	< 0.81 U	0.38 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.1 U	< 1 U	< 1.2 U	< 1 U	< 1 U	< 1 U	< 1 U	0.96	< 1 U	0.88
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	4.3	2.5	5.1	54	1.7	0.19 J	4.3 J	3.7	7.4	14
Acenaphthene	83-32-9	µg/kg	8.9	5.9	6.2	130	2.3	0.77	5.0	7.4	5.0	19
Acenaphthylene	208-96-8	µg/kg	8.9	12	8.7	110	9.3	0.37	4.8	6.7	19	16
Anthracene	120-12-7	µg/kg	18	7.1	21	130	9.0	0.91	7.0	12	19	28
Benz(a)anthracene	56-55-3	µg/kg	79	72	49	950	49	6.8	23	36	110	78
Benzo(a)pyrene	50-32-8	µg/kg	110	120	71	1500	82	6.7	39	53	220	130
Benzo(b)fluoranthene	205-99-2	µg/kg	100	100	74	1200	74	11	35	56	200	120
Benzo(g,h,i)perylene	191-24-2	µg/kg	71	93	59	1200	66	4.8	36	44	160	110
Benzo(k)fluoranthene	207-08-9	µg/kg	30	36	25	430	24	3.4	13	18	61	40
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	53 J	< 67 U	56 J	18 J	< 68 U	11 J	12 J	63 J	12 J	42 J
Chrysene	218-01-9	µg/kg	120	82	77	1200	60	9.3	30	48	140	97
Dibenz(a,h)anthracene	53-70-3	µg/kg	10	14	11	150	10	1.1	4.5	6.8	23	15
Fluoranthene	206-44-0	µg/kg	170	81	110	1300	57	9.0	40	77	140	150
Fluorene	86-73-7	µg/kg	8.0	2.1	7.8	64	2.3	0.35 J	4.4	6.5	5.8	14
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	64	92	58	1100	64	5.1	31	41	150	99
Naphthalene	91-20-3	µg/kg	9.1	4.2	8.3	140	7.1	0.38 J	12	7.9	21	37
Phenanthrene	85-01-8	µg/kg	70	21	53	680	28	12	35	37	62	110
Pyrene	129-00-0	µg/kg	240 J	130	130	2300 J	120	13	57	100	270 J	240 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	1121	875	774	12638	666	85	381	561	1613	1317
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	145	161	100	1981	111	10	53	73	290	175
Metals												
Arsenic	7440-38-2	mg/kg	4.5	5.2	5.8	7.4	5.5	5.0	3.9	5.2	6.5	4.3
Cadmium	7440-43-9	mg/kg	0.44	0.13 J	0.35 J	0.21 J	0.11 J	0.071 J	0.15 J	0.30 J	0.12 J	0.23 J
Copper	7440-50-8	mg/kg	30	14	44	23	14	13	27	37	21	27
Lead	7439-92-1	mg/kg	11	5.5	12	18	10	4.8	5.8	10	12	14
Mercury	7439-97-6	mg/kg	0.048 J	0.018 J	0.058 J	0.085	0.034 J	0.012 J	0.031 J	0.038 J	0.034 J	0.043 J
Tri-n-butyltin	36643-28-4	µg/kg	2.6	< 1.3 U	2.4 J	1.5 J	< 1.3 U	< 1.4 U	< 1.6 U	1.3 J	< 1.6 U	< 2.0 U
Zinc	7440-66-6	mg/kg	87	65	110	110	63	53	64	97	91	81
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	72 J	< 70 U	39 J	130	< 63 U	< 71 U	< 72 U	48 J	< 82 U	33 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	430	< 70 U	360	470	71	51 J	39 J	460	81 J	260
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										
Total Solids@104C - E160.3 (f)	TSOLID	%	47.0	69.8	38.4	54.2	67.5	69.9	66.7	42.5	59.4	52.2
Total Solids@104C - E160.3M (f)	TSOLID	%	44.8	74.5	40.1	54.3	73.2	72.3	61.1	43.6	60.8	50.5
Total Solids@70C	TSOLID70	%	47	78	42	62	75	73	64	48	62	53
Gravel	GS-Gravel	%	1.0	0	0	4.3	3.4	0.4	8.7	0	0	0
Sand, Coarse	GS-Csand	%	0.2	2.5	0	1.0	3.8	0.2	3.2	0	0	0.1
Sand, Medium	GS-Msand	%	0.7	36.8	0.1	6.0	34.9	27.8	4.9	0.2	0.6	1.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	38.86	55.51	10.69	64.31	51.65	66.67	31.99	23.55	82.09	36.07
Sand, Fine (#230) (d)	GS-Fsand	%	46.2	55.9	13.8	65.1	52.1	66.9	36.5	28.5	82.7	40.6
Silt (#200) (d)	GS-Silt-200	%	51.03	4.188	74.30	19.78	5.346	2.429	42.20	63.24	10.50	51.02

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B049	B050	B051	B052	B053	B054	B055	B056	B057	B058
		Sample ID	PDI-SG-B049-BL1	PDI-SG-B050-BL1	PDI-SG-B051-BL1	PDI-SG-B052-BL1	PDI-SG-B053-BL1	PDI-SG-B054-BL1	PDI-SG-B055-BL1	PDI-SG-B056-BL1	PDI-SG-B057-BL1	PDI-SG-B058-BL1
		Sample Date	04 Apr 2018	04 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	04 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-16 cm	0-30 cm	0-18 cm	0-20 cm	0-22 cm	0-13 cm	0-30 cm	0-25 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	43.7	3.8	71.2	19.0	4.9	2.2	37.7	58.3	9.9	46.5
Clay	GS-Clay	%	8.1	1.0	14.9	4.6	0.8	2.5	9.0	12.9	6.8	11.8
Percent Fines (e)	GS-FINES	%	59.13	5.188	89.2	24.38	6.146	4.929	51.2	76.14	17.3	62.82
Total Organic Carbon	TOC	mg/kg	33000	1500 J	28000	51000	2800	2100	6600	27000	5300	16000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B059	B060	B060	B061	B062	B063	B064	B065	B066	B067
		Sample ID	PDI-SG-B059-BL1	PDI-SG-B060-BL1	PDI-SG-B060-BL1-D	PDI-SG-B061-BL1	PDI-SG-B062-BL1	PDI-SG-B063-BL1	PDI-SG-B064-BL1	PDI-SG-B065-BL1	PDI-SG-B066-BL1	PDI-SG-B067-BL1
		Sample Date	06 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-24 cm	0-24 cm	0-30 cm	0-19 cm	0-28 cm	0-30 cm	0-30 cm	0-20 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.080	0.018 J	0.031 J	0.037	0.027	0.030	0.036	0.064	0.0052	0.12
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0083 JN	0.0034 J	0.0059	0.0064 JN	0.0048	0.0054 JN	0.0076 JN	0.011 JN	0.0014 JN	0.016 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00075 J+	< 0.00036 U	0.00080 J+	0.00045 J+	< 0.00026 U	0.00035 JN	< 0.00042 U	0.0011 J+	< 0.00014 U	0.0024 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00078 JN	< 0.00027 U	< 0.00037 U	< 0.00048 U	< 0.00040 U	< 0.00042 U	0.00071 J+	0.0011 J+	< 0.00024 U	0.0016 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0020 J+	0.00084 JN	0.0021 J	0.00087 J+	0.00063 JN	0.00093 J+	0.0018 J+	0.0030 J	< 0.00020 U	0.0020 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0023 JN	0.00077 JN	0.0012 J+	0.0018 J	0.0010 JN	0.0013 JN	0.0016 JN	0.0026 J	< 0.00022 U	0.0044
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00067 JN	< 0.00029 U	0.00084 J+	0.00042 J+	< 0.00024 U	0.00039 J+	0.00059 J+	0.0010 J+	< 0.00012 U	0.0011 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0019 J	< 0.00038 U	0.00060 J+	0.00086 J+	0.00081 J+	0.00091 J+	0.0014 J+	0.0022 J	< 0.00030 U	0.0038
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00010 U	< 0.00022 U	< 0.00032 U	< 0.00032 U	< 0.000081 U	< 0.00027 U	< 0.00013 U	< 0.00019 U	< 0.000050 U	0.0011 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00022 U	< 0.00019 U	< 0.00023 U	< 0.00023 U	< 0.00011 U	< 0.00015 U	< 0.00015 U	0.00048 JN	< 0.000093 U	0.00065 J+
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00058 J+	0.00056 J+	0.0015 J+	0.00057 J+	< 0.00011 U	0.00057 J+	0.0015 J+	0.0022 J+	< 0.000085 U	0.0012 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00049 J+	< 0.00010 U	< 0.00020 U	< 0.00019 U	< 0.00021 U	< 0.00027 U	< 0.00015 U	< 0.00033 U	< 0.000063 U	0.0011 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00081 J+	< 0.00035 U	0.00084 J+	< 0.00035 U	< 0.00012 U	< 0.00013 U	0.00087 JN	0.0010 J+	< 0.000089 U	0.0010 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000094 U	< 0.000052 U	< 0.00013 U	< 0.000063 U	< 0.000075 U	< 0.00011 U	< 0.00011 U	0.00028 JN	< 0.000069 U	< 0.000099 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00067 J+	0.0011 J+	0.0022	0.00090 J+	< 0.00050 U	0.00087 J+	0.0019 J+	0.0016 J+	< 0.00059 U	0.00081 J+
OCDD	3268-87-9	µg/kg	0.53	0.19 J	0.33 J	0.36	0.22	0.21	0.25	0.51	0.042	0.63
OCDF	39001-02-0	µg/kg	0.021	0.0095	0.016	0.022	0.018	0.015 JN	0.022	0.033	0.0029 J+	0.040
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0023	0.00066	0.0016	0.0012	0.00069	0.00096	0.0017	0.0032	0.00013	0.0042
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0019	0.0005	0.0016	0.0012	0.00053	0.00082	0.0013	0.0027	0.00011	0.0038
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0018	0.0004	0.0015	0.0011	0.00047	0.00075	0.0012	0.0024	0.000065	0.0038
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.016	< 0.00022 U	0.0023 JN	0.0048 J	0.0024 JN	0.0028 J	0.0025 JN	< 0.00079 U	0.0016 J	0.0088
PCB-10	33146-45-1	ng/g	< 0.0032 U	< 0.0037 U	< 0.0033 U	< 0.0029 U	< 0.0023 U	< 0.0026 U	< 0.0056 U	< 0.017 U	< 0.0057 U	< 0.0023 U
PCB-103	60145-21-3	ng/g	0.0051 JN	0.0053 JN	0.021 J	0.015	0.0021 JN	0.0043 JN	0.0087 JN	< 0.0019 U	0.0018 JN	0.0089
PCB-104	56558-16-8	ng/g	< 0.00015 U	< 0.00022 U	< 0.00016 U	< 0.00015 U	< 0.00014 U	< 0.00015 U	< 0.00050 U	< 0.0014 U	< 0.00027 U	< 0.00023 U
PCB-105	32598-14-4	ng/g	0.077	0.052	0.067	0.078	0.047 J	0.064 J	0.078	0.15	0.029	0.16
PCB-106	70424-69-0	ng/g	< 0.00081 U	< 0.00088 U	< 0.00080 U	< 0.0010 U	< 0.00059 U	< 0.00077 U	< 0.0016 U	< 0.0031 U	< 0.00099 U	< 0.00096 U
PCB-107	70424-68-9	ng/g	0.020	0.020	0.033	0.025	0.0096 J	0.013 JN	0.020 JN	0.025 JN	0.0064 J	0.036
PCB-108/124	70362-41-3	ng/g	0.0067 JN	0.0047 JN	0.0058 JN	0.0061 J	0.0043 J	0.0061 JN	0.0073 JN	0.010 JN	0.0026 JN	0.016 JN
PCB-11	2050-67-1	ng/g	0.055	0.033 JN	0.035	0.059	0.031 JN	0.040 J	0.11	0.11 J	0.043 JN	0.050
PCB-110/115	38380-03-9	ng/g	0.28	0.29	0.43	0.34	0.16	0.22	0.31	0.50	0.088 JN	0.60
PCB-111	39635-32-0	ng/g	< 0.00014 U	< 0.00020 U	< 0.00015 U	< 0.00014 U	< 0.00013 U	< 0.00013 U	< 0.00046 U	< 0.0013 U	< 0.00025 U	< 0.00021 U
PCB-112	74472-36-9	ng/g	< 0.00015 U	0.00056 JN	< 0.00016 U	0.0012 J	< 0.00013 U	< 0.00014 U	< 0.00049 U	< 0.0014 U	< 0.00026 U	< 0.00023 U
PCB-114	74472-37-0	ng/g	0.0032 J	0.0031 J	0.0034 JN	0.0027 JN	0.0021 J	0.0027 J	0.0045 JN	< 0.0029 U	0.0011 JN	0.0080
PCB-118	31508-00-6	ng/g	0.20	0.19	0.26	0.24	0.11	0.18	0.24	0.39	0.076	0.44
PCB-12/13	2974-92-7	ng/g	0.0071 JN	< 0.0034 U	0.0066 JN	0.0044 JN	0.0023 JN	0.0034 JN	< 0.0050 U	< 0.015 U	< 0.0052 U	0.017 JN
PCB-120	68194-12-7	ng/g	0.0020 J+	0.0019 J+	0.0052 J	0.0044 J	< 0.00013 U	0.0012 JN	0.0024 J	< 0.0013 U	< 0.00025 U	< 0.00022 U
PCB-121	56558-18-0	ng/g	< 0.00015 U	< 0.00021 U	< 0.00016 U	< 0.00015 U	< 0.00013 U	< 0.00014 U	< 0.00049 U	< 0.0014 U	< 0.00026 U	< 0.00022 U
PCB-122	76842-07-4	ng/g	0.0028 J	< 0.0010 U	0.0025 JN	< 0.0012 U	0.0014 J	0.0023 JN	< 0.0019 U	< 0.0036 U	< 0.0011 U	0.0049 JN
PCB-123	65510-44-3	ng/g	0.0023 JN	0.0020 J	0.0028 JN	0.0031 J	0.0019 JN	0.0033 JN	0.0030 JN	0.0069 JN	0.0017 JN	0.0060 JN
PCB-126	57465-28-8	ng/g	< 0.00080 U	< 0.00088 U	< 0.00079 U	< 0.0010 U	< 0.00059 U	< 0.00078 U	< 0.0016 U	< 0.0032 U	< 0.0010 U	0.0021 JN
PCB-127	39635-33-1	ng/g	< 0.00081 U	< 0.00088 U	< 0.00079 U	< 0.0010 U	< 0.00059 U	< 0.00077 U	< 0.0016 U	< 0.0031 U	< 0.00099 U	< 0.00096 U
PCB-128/166	38380-07-3	ng/g	0.052	0.035	0.047	0.056	0.035 J	0.041 J	0.056	0.077 J	0.021 J	0.11
PCB-129/138/160/163	55215-18-4	ng/g	0.38	0.29	0.40	0.49	0.26 J	0.30 J	0.47	0.58	0.17 J	0.85
PCB-130	52663-66-8	ng/g	0.020 JN	0.017 JN	0.028	0.028	0.015 J	0.019 J	0.033	0.042 J	0.0088 J	0.050
PCB-131	61798-70-7	ng/g	< 0.0018 U	< 0.0023 U	< 0.0015 U	< 0.0025 U	0.0019 JN	0.0020 JN	< 0.0039 U	< 0.0067 U	< 0.0019 UJ	0.0085
PCB-132	38380-05-1	ng/g	0.11	0.085	0.13	0.15	0.082	0.092	0.13	0.13 JN	0.035 JN	0.26
PCB-133	35694-04-3	ng/g	0.0066 J	0.0075 J	0.020 JN	0.0095 J	0.0038 J	0.0043 JN	0.0084 J	0.0095 J	< 0.0017 UJ	0.010
PCB-134/143	52704-70-8	ng/g	0.015 J	0.015 J	0.021	0.025	0.012 J	0.012 J	0.016 JN	0.021 JN	< 0.0018 UJ	0.042
PCB-135/151	52744-13-5	ng/g	0.12	0.13	0.23	0.24	0.075 J	0.10 J	0.15	0.18	0.045 J	0.26
PCB-136	38411-22-2	ng/g	0.040	0.037 JN	0.068 J	0.076	0.025 J	0.036 J	0.048	0.061	0.017 J	0.090
PCB-137	35694-06-5	ng/g	0.0093 JN	0.0066 J	0.011	0.012	0.0091 J	0.0080 JN	0.013 JN	0.018 J	0.0054 J	0.031
PCB-139/140	56030-56-9	ng/g	< 0.0014 U	0.0038 JN	0.011 J	0.0081 J	0.0026 JN	0.0049 J	0.0053 JN	< 0.0054 U	< 0.0015 UJ	0.012 J
PCB-14	34883-41-5	ng/g	< 0.0025 U	< 0.0028 U	< 0.0025 U	< 0.0023 U	< 0.0018 U	< 0.0020 U	< 0.0043 U	< 0.013 U	< 0.0044 U	< 0.0018 U
PCB-141	52712-04-6	ng/g	0.061	0.042 JN	0.062	0.089	0.044 J	0.054 J	0.074	0.077 JN	0.027 J	0.16
PCB-142	41411-61-4	ng/g	< 0.0016 U	< 0.0021 U	< 0.0014 U	< 0.0023 U	< 0.0011 U	< 0.0013 U	< 0.0035 U	< 0.0061 U	< 0.0017 UJ	< 0.0019 U
PCB-144	68194-14-9	ng/g	0.0089 JN	0.010	0.0089 JN	0.018	0.0079 JN	0.010 JN	0.014	0.019 JN	0.0057 J	0.028
PCB-145	74472-40-5	ng/g	< 0.00014 U	< 0.00016 U	< 0.00019 U	< 0.00021 U	< 0.000081 U	< 0.00013 U	< 0.00021 U	< 0.00071 U	< 0.00015 UJ	< 0.00016 U
PCB-146	51908-16-8	ng/g	0.067	0.072	0.12	0.11	0.036 J	0.054 J	0.085	0.092	0.031 J	0.13
PCB-147/149	68194-13-8	ng/g	0.33	0.32 J	0.54 J	0.56	0.22 J-	0.27	0.43	0.44 J-	0.13 J	0.73
PCB-148	74472-41-6	ng/g	< 0.00020 U	0.0013 JN	0.011 J	0.0020 JN	< 0.00011 U	< 0.00018 U	0.0024 JN	< 0.0010 U	< 0.00022 UJ	0.0018 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B059	B060	B060	B061	B062	B063	B064	B065	B066	B067
		Sample ID	PDI-SG-B059-BL1	PDI-SG-B060-BL1	PDI-SG-B060-BL1-D	PDI-SG-B061-BL1	PDI-SG-B062-BL1	PDI-SG-B063-BL1	PDI-SG-B064-BL1	PDI-SG-B065-BL1	PDI-SG-B066-BL1	PDI-SG-B067-BL1
		Sample Date	06 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-24 cm	0-24 cm	0-30 cm	0-19 cm	0-28 cm	0-30 cm	0-30 cm	0-20 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.039	0.025	0.033	0.030	0.013 JN	0.028 J	0.029	0.038 JN	0.0084 JN	0.17
PCB-150	68194-08-1	ng/g	0.00088 JN	0.00099 JN	0.0087 J	0.0017 JN	< 0.000077 U	< 0.00012 U	0.0018 JN	< 0.00068 U	< 0.00015 UJ	0.0014 J
PCB-152	68194-09-2	ng/g	< 0.00015 U	< 0.00016 U	0.0031 JN	< 0.00022 U	< 0.000083 U	< 0.00013 U	< 0.00022 U	< 0.00073 U	< 0.00016 UJ	< 0.00016 U
PCB-153/168	35065-27-1	ng/g	0.32	0.29	0.40	0.49	0.20	0.27	0.43	0.45	0.14 J	0.67
PCB-154	60145-22-4	ng/g	0.0074 JN	0.0068 JN	0.028 J	0.014 JN	0.0014 JN	0.0066 J	0.011	0.0085 JN	0.0035 JN	0.0093 JN
PCB-155	33979-03-2	ng/g	< 0.00014 U	< 0.00015 U	< 0.00018 U	< 0.00020 U	< 0.000078 U	< 0.00012 U	< 0.00020 U	< 0.00068 U	< 0.00015 U	< 0.00015 U
PCB-156/157	38380-08-4	ng/g	0.035 JN	0.023	0.032	0.041	0.022 J	0.027 J	0.034 JN	0.059 JN	0.013 J	0.086
PCB-158	74472-42-7	ng/g	0.031	0.018 JN	0.027	0.037	0.024 J	0.025 J	0.035	0.045 JN	0.013 J	0.075
PCB-159	39635-35-3	ng/g	< 0.0011 U	< 0.0014 U	< 0.00091 U	0.0040 JN	< 0.00074 U	0.0028 J	< 0.0024 U	< 0.0041 U	0.0015 JN	0.0041 JN
PCB-16	38444-78-9	ng/g	0.021	0.019	0.029	0.030	0.011 J	0.0091 JN	0.014	< 0.0041 U	0.0049 J	0.043
PCB-161	74472-43-8	ng/g	< 0.0011 U	< 0.0014 U	< 0.00090 U	< 0.0015 U	< 0.00074 U	< 0.00087 U	< 0.0023 U	< 0.0040 U	< 0.0011 UJ	< 0.0012 U
PCB-162	39635-34-2	ng/g	< 0.0010 U	< 0.0014 U	< 0.00089 U	< 0.0015 U	< 0.00073 U	< 0.00086 U	< 0.0023 U	< 0.0040 U	< 0.0011 UJ	< 0.0012 U
PCB-164	74472-45-0	ng/g	0.025	0.023	0.029	0.036	0.017 J	0.021 J	0.029	0.040 J	0.010 J	0.057
PCB-165	74472-46-1	ng/g	< 0.0012 U	< 0.0016 U	< 0.0010 U	< 0.0017 U	< 0.00084 U	< 0.00099 U	< 0.0027 U	< 0.0046 U	< 0.0013 UJ	< 0.0014 U
PCB-167	52663-72-6	ng/g	0.012	0.0091 J	0.010	0.014	0.0087 J	0.0086 J	0.013	0.021 J	0.0061 J	0.028
PCB-169	32774-16-6	ng/g	< 0.00078 U	< 0.0011 U	< 0.00067 U	< 0.0011 U	< 0.00058 U	< 0.00064 U	< 0.0018 U	< 0.0030 U	< 0.00085 U	< 0.00095 U
PCB-17	37680-66-3	ng/g	0.041	0.033 JN	0.054 JN	0.045 JN	0.012 JN	0.018 J	0.024 JN	0.030 J	0.0064 J	0.064
PCB-170	35065-30-6	ng/g	0.11	0.082	0.11	0.17	0.070 J	0.087	0.15	0.14	0.035 JN	0.23
PCB-171/173	52663-71-5	ng/g	0.034	0.026	0.036	0.050	0.022 J	0.027 J	0.039	0.048 J	0.011 JN	0.068
PCB-172	52663-74-8	ng/g	0.017 JN	0.011 JN	0.019	0.031	0.011 J	0.012 JN	0.028	0.025 J	0.0080 J	0.037
PCB-174	38411-25-5	ng/g	0.12	0.088	0.13	0.20	0.070 J	0.096	0.15	0.13	0.042	0.22
PCB-175	40186-70-7	ng/g	0.0032 J	< 0.0011 U	0.0065 J	0.0064 J	0.0028 J	0.0031 J	0.0061 JN	< 0.0021 U	< 0.00086 U	0.0059 JN
PCB-176	52663-65-7	ng/g	0.013	0.0082 JN	0.015	0.022	0.0093 J	0.011 J	0.017	0.013 JN	0.0035 JN	0.025
PCB-177	52663-70-4	ng/g	0.073	0.053	0.072	0.11	0.037 J	0.053 J	0.092	0.083 JN	0.024 JN	0.13
PCB-178	52663-67-9	ng/g	0.022	0.022 JN	0.036	0.046	0.0097 JN	0.020 J	0.033	0.029 JN	0.011	0.045
PCB-179	52663-64-6	ng/g	0.053	0.045	0.069	0.098	0.032 J	0.044 J	0.071	0.061	0.018	0.098
PCB-18/30	37680-65-2	ng/g	0.065	0.069	0.091	0.087	0.026 JN	0.030 J	0.028 JN	0.047 J	0.0088 JN	0.11
PCB-180/193	35065-29-3	ng/g	0.26	0.20	0.26	0.40	0.15	0.20	0.34	0.32	0.10	0.49
PCB-181	74472-47-2	ng/g	< 0.00043 U	< 0.0011 U	0.0026 J	< 0.00038 U	< 0.00024 U	< 0.00043 U	< 0.0016 U	< 0.0021 U	< 0.00085 U	< 0.00041 U
PCB-182	60145-23-5	ng/g	< 0.00042 U	< 0.0010 U	< 0.00061 U	< 0.00037 U	< 0.00023 U	< 0.00041 U	0.0029 JN	< 0.0020 U	< 0.00082 U	0.0021 JN
PCB-183/185	52663-69-1	ng/g	0.076	0.057	0.081	0.13	0.047 J	0.060 J	0.10	0.086 JN	0.027 JN	0.15
PCB-184	74472-48-3	ng/g	< 0.00036 U	< 0.00088 U	< 0.00052 U	< 0.00031 U	< 0.00020 U	< 0.00035 U	< 0.0013 U	< 0.0017 U	< 0.00070 U	< 0.00033 U
PCB-186	74472-49-4	ng/g	< 0.00035 U	< 0.00086 U	< 0.00051 U	< 0.00031 U	< 0.00019 U	< 0.00034 U	< 0.0013 U	< 0.0016 U	< 0.00068 U	< 0.00033 U
PCB-187	52663-68-0	ng/g	0.15	0.13	0.17	0.26	0.089	0.13	0.21	0.19	0.061	0.27
PCB-188	74487-85-7	ng/g	< 0.00031 U	< 0.00077 U	< 0.00046 U	< 0.00028 U	< 0.00016 U	< 0.00030 U	< 0.0011 U	< 0.0015 U	< 0.00061 U	< 0.00028 U
PCB-189	39635-31-9	ng/g	0.0032 JN	< 0.0014 U	0.0033 J	0.0046 J	0.0014 JN	0.0024 J	0.0055 J	< 0.0033 U	< 0.0013 U	0.0078 JN
PCB-19	38444-73-4	ng/g	0.019 JN	0.0049 JN	0.0069 JN	0.019	0.0078 J	0.0073 J	0.023 JN	< 0.0045 U	0.0069 JN	0.023 JN
PCB-190	41411-64-7	ng/g	0.020	0.016	0.022	0.030 JN	0.012 J	0.016 J	0.025	0.031 J	0.0069 JN	0.042
PCB-191	74472-50-7	ng/g	0.0028 JN	0.0031 JN	0.0052 J	0.0063 JN	0.0024 JN	0.0031 J	0.0055 JN	0.0021 JN	< 0.00064 U	0.0069 JN
PCB-192	74472-51-8	ng/g	< 0.00037 U	< 0.00090 U	< 0.00054 U	< 0.00032 U	< 0.00020 U	< 0.00036 U	< 0.0014 U	< 0.0017 U	0.0015 JN	< 0.00034 U
PCB-194	35694-08-7	ng/g	0.056	0.043	0.062	0.10	0.030 J	0.046 J	0.095	0.063	0.019 JN	0.12
PCB-195	52663-78-2	ng/g	0.022	0.018	0.025	0.046	0.013 JN	0.022 J	0.037	0.024 JN	0.0084 J	0.048
PCB-196	42740-50-1	ng/g	0.024	0.020	0.031	0.053	0.013 JN	0.020 J	0.033 JN	0.022 JN	0.0099	0.051
PCB-197	33091-17-7	ng/g	0.0013 JN	0.0017 JN	0.0026 J	0.0021 JN	0.0046 J	0.0040 JN	0.011	< 0.00046 U	0.00091 JN	0.010 JN
PCB-198/199	68194-17-2	ng/g	0.065	0.048	0.067	0.13	0.036 J	0.054 J	0.10	0.070 J	0.022	0.11
PCB-2	2051-61-8	ng/g	0.012 J+	0.0047 JN	0.0044 JN	0.015	< 0.0023 U	0.0074 J+	0.016	0.018 J	0.0036 JN	0.015 J+
PCB-20/28	38444-84-7	ng/g	0.14	0.15	0.23	0.14	0.054 J	0.097 J	0.11	0.11 J	0.034	0.29
PCB-200	52663-73-7	ng/g	0.0059 JN	0.0044 JN	0.0059 JN	0.012	0.00042 JN	0.0011 JN	0.0018 JN	0.0091 J	0.0023 J	0.0020 JN
PCB-201	40186-71-8	ng/g	0.0064 J	0.0058 J	0.0049 JN	0.0099 J	0.0036 JN	0.0041 JN	0.0093 JN	0.010 JN	0.0011 JN	0.0090 JN
PCB-202	2136-99-4	ng/g	0.012	0.011	0.011	0.020 JN	0.0055 JN	0.011 J	0.018	0.0094 JN	0.0057 JN	0.021
PCB-203	52663-76-0	ng/g	0.036	0.026	0.037	0.076	0.019 J	0.026 JN	0.045 JN	0.050 J	0.013 JN	0.077
PCB-204	74472-52-9	ng/g	< 0.00038 U	< 0.00081 U	< 0.00051 U	< 0.00044 U	< 0.00013 U	< 0.00022 U	< 0.00051 U	< 0.00046 U	< 0.00032 U	< 0.00024 U
PCB-205	74472-53-0	ng/g	0.0022 JN	< 0.0023 U	< 0.0015 U	0.0038 JN	0.0019 JN	0.0026 J	0.0056 J	< 0.0023 U	< 0.0015 U	0.0063 J
PCB-206	40186-72-9	ng/g	0.047	0.028	0.034	0.072	0.017 J	0.030 J	0.11	0.052 J	0.018	0.067
PCB-207	52663-79-3	ng/g	0.0031 J	< 0.0025 U	0.0037 J	0.0068 J	0.0022 JN	0.0030 J	0.012	< 0.0046 U	< 0.0022 U	0.0056 J
PCB-208	52663-77-1	ng/g	0.015	0.0098 JN	0.0070 JN	0.022	0.0053 J	0.0070 JN	0.041	0.016 J	< 0.0022 U	0.018
PCB-209	2051-24-3	ng/g	0.057	0.034	0.044	0.070	0.013 J	0.041 J	0.12	0.058 J	0.030 J	0.052 JN
PCB-21/33	55702-46-0	ng/g	0.056	0.059	0.088	0.060	0.023 JN	0.040 J	0.044	0.041 J	0.012 J	0.13
PCB-22	38444-85-8	ng/g	0.037	0.031	0.048	0.034	0.016 J	0.023 J	0.027	0.029 J	0.0077 J	0.081
PCB-23	55720-44-0	ng/g	< 0.00044 U	< 0.00052 U	< 0.00049 U	< 0.00046 U	< 0.00037 U	< 0.00044 U	< 0.00093 U	< 0.0023 U	< 0.00063 U	< 0.00051 U
PCB-24	55702-45-9	ng/g	< 0.00044 U	< 0.00054 U	< 0.00047 U	< 0.00040 U	0.00065 JN	0.00082 J	< 0.00075 U	< 0.0031 U	< 0.00068 U	0.0019 JN
PCB-25	55712-37-3	ng/g	0.0097	0.0090 J	0.018	0.010 JN	0.0036 J	0.0066 J	0.0078 J	0.010 J	0.0028 J	0.020

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B059	B060	B060	B061	B062	B063	B064	B065	B066	B067
		Sample ID	PDI-SG-B059-BL1	PDI-SG-B060-BL1	PDI-SG-B060-BL1-D	PDI-SG-B061-BL1	PDI-SG-B062-BL1	PDI-SG-B063-BL1	PDI-SG-B064-BL1	PDI-SG-B065-BL1	PDI-SG-B066-BL1	PDI-SG-B067-BL1
		Sample Date	06 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-24 cm	0-24 cm	0-30 cm	0-19 cm	0-28 cm	0-30 cm	0-30 cm	0-20 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.019	0.019 J	0.050	0.019 J	0.0076 J	0.012 J	0.015 J	0.015 J	0.0041 JN	0.039
PCB-27	38444-76-7	ng/g	0.0066 JN	0.0045 JN	0.0050 JN	0.0062 JN	0.0023 JN	0.0035 JN	0.0044 JN	< 0.0027 U	< 0.00059 U	0.012
PCB-3	2051-62-9	ng/g	0.0030 JN	0.0018 JN	0.0038 J	0.0044 J	0.0015 JN	0.0032 J	0.0031 J	< 0.00097 U	0.0022 JN	0.011
PCB-31	16606-02-3	ng/g	0.089	0.095 J	0.16 J	0.094	0.037 J	0.060 J	0.074	0.080 J	0.023	0.20
PCB-32	38444-77-8	ng/g	0.027 JN	0.022	0.028 JN	0.027	0.011 J	0.013 J	0.015	0.016 J	0.0058 J	0.040
PCB-34	37680-68-5	ng/g	< 0.00046 U	0.0018 J	0.0019 JN	0.0013 J	< 0.00038 U	< 0.00045 U	< 0.00097 U	< 0.0024 U	< 0.00066 U	< 0.00052 U
PCB-35	37680-69-6	ng/g	0.0011 JN	0.0013 JN	0.0020 J	0.0011 JN	0.0010 J	0.0012 JN	< 0.00094 U	0.0039 J	< 0.00064 U	0.0045 J
PCB-36	38444-87-0	ng/g	< 0.00043 U	< 0.00051 U	< 0.00048 U	< 0.00045 U	< 0.00036 U	< 0.00042 U	< 0.00090 U	< 0.0023 U	< 0.00061 U	< 0.00049 U
PCB-37	38444-90-5	ng/g	0.042	0.039	0.061	0.041	0.016 J	0.033 J	0.035	0.032 J	0.012	0.13
PCB-38	53555-66-1	ng/g	< 0.00046 U	< 0.00055 U	< 0.00052 U	< 0.00049 U	< 0.00039 U	< 0.00046 U	< 0.00097 U	< 0.0025 U	< 0.00066 U	< 0.00053 U
PCB-39	38444-88-1	ng/g	< 0.00041 U	0.0011 JN	< 0.00046 U	< 0.00044 U	< 0.00035 U	< 0.00041 U	< 0.00087 U	< 0.0022 U	< 0.00059 U	< 0.00047 U
PCB-4	13029-08-8	ng/g	0.047 JN	0.0056 JN	0.0046 JN	0.021 JN	0.0088 JN	0.0085 JN	0.016 JN	< 0.024 U	< 0.0076 U	0.035
PCB-40/41/71	38444-93-8	ng/g	0.070	0.079	0.13	0.069	0.030 J	0.044 J	0.058	0.049 J	0.017 J	0.11
PCB-42	36559-22-5	ng/g	0.032	0.040 J	0.072 J	0.037	0.014 J	0.021 J	0.027	0.028 J	0.0070 JN	0.052
PCB-43/73	70362-46-8	ng/g	0.0029 JN	0.0056 J	0.012 JN	0.0032 JN	0.0012 JN	0.0036 JN	0.0038 JN	< 0.0067 U	0.0022 JN	0.0054 JN
PCB-44/47/65	41464-39-5	ng/g	0.14	0.17 J	0.35 J	0.16	0.063 J	0.098 J	0.15	0.16 J	0.044	0.28
PCB-45/51	70362-45-7	ng/g	0.027 JN	0.025 J	0.077 J	0.028	0.011 J	0.011 JN	0.024	0.019 JN	0.0074 JN	0.046 JN
PCB-46	41464-47-5	ng/g	0.0064 J	0.0073 J	0.014	0.0072 JN	0.0032 J	0.0036 J	0.0040 JN	< 0.0091 U	< 0.0014 U	0.0089 JN
PCB-48	70362-47-9	ng/g	0.024	0.029	0.048	0.024	0.0085 JN	0.012 JN	0.014 JN	0.017 JN	0.0044 J	0.038
PCB-49/69	41464-40-8	ng/g	0.094	0.12 J	0.31 J	0.12	0.038 J	0.064 J	0.089	0.10 J	0.028	0.15
PCB-5	16605-91-7	ng/g	< 0.0033 U	< 0.0038 U	< 0.0033 U	< 0.0030 U	< 0.0023 U	< 0.0026 U	< 0.0056 U	< 0.017 U	< 0.0058 U	< 0.0024 U
PCB-50/53	62796-65-0	ng/g	0.023	0.022	0.039	0.025	0.0098 J	0.011 J	0.022 JN	< 0.0069 U	0.0070 J	0.036
PCB-52	35693-99-3	ng/g	0.16	0.19 J	0.54 J	0.19	0.078	0.11	0.15	0.23	0.051	0.31
PCB-54	15968-05-5	ng/g	0.0015 JN	0.0018 JN	0.0025 JN	0.0022 JN	0.0011 JN	0.0025 J	0.0049 JN	< 0.00022 U	< 0.000079 U	0.0031 JN
PCB-55	74338-24-2	ng/g	< 0.00085 U	0.0012 J	0.0017 J	< 0.00085 U	< 0.00067 U	0.0016 JN	< 0.0016 U	< 0.0052 U	< 0.00082 U	0.0030 J
PCB-56	41464-43-1	ng/g	0.052	0.072	0.12	0.053	0.020 J	0.037 J	0.049	0.052 J	0.012 JN	0.070
PCB-57	70424-67-8	ng/g	< 0.00086 U	< 0.0010 U	< 0.00096 U	< 0.00086 U	< 0.00068 U	< 0.0011 U	< 0.0016 U	< 0.0053 U	< 0.00083 U	< 0.0011 U
PCB-58	41464-49-7	ng/g	< 0.00087 U	< 0.0010 U	< 0.00097 U	< 0.00088 U	< 0.00069 U	< 0.0011 U	< 0.0016 U	< 0.0054 U	< 0.00084 U	< 0.0011 U
PCB-59/62/75	74472-33-6	ng/g	0.011 J	0.011 JN	0.023 J	0.013 J	0.0047 J	0.0071 J	0.0088 JN	< 0.0051 U	0.0026 JN	0.018 J
PCB-6	25569-80-6	ng/g	0.011 JN	0.0058 JN	0.0066 JN	0.012 JN	0.0051 JN	0.0042 JN	< 0.0050 U	< 0.015 U	< 0.0051 U	0.021 JN
PCB-60	33025-41-1	ng/g	0.020	0.017	0.020 JN	0.016 JN	0.0092 J	0.012 J	0.016	0.014 JN	0.0044 JN	0.030
PCB-61/70/74/76	33284-53-6	ng/g	0.20	0.28 J	0.49 J	0.22	0.087 J	0.15 J	0.20	0.26	0.062	0.33
PCB-63	74472-34-7	ng/g	0.0043 J	0.0068 J	0.012	0.0046 JN	0.00097 JN	0.0025 J	0.0040 J	< 0.0048 U	< 0.00076 U	0.0057 JN
PCB-64	52663-58-8	ng/g	0.051	0.062	0.10	0.056	0.023 J	0.034 J	0.043	0.041 JN	0.010 JN	0.083
PCB-66	32598-10-0	ng/g	0.13	0.19	0.31	0.15	0.047 J	0.10	0.14	0.14	0.036	0.20
PCB-67	73575-53-8	ng/g	0.0028 J	0.0034 J	0.0062 J	< 0.00075 U	< 0.00059 U	0.0021 JN	0.0026 JN	< 0.0046 U	< 0.00072 U	0.0049 JN
PCB-68	73575-52-7	ng/g	0.0015 JN	< 0.00091 U	0.0095 J	0.0032 J	< 0.00060 U	0.0016 JN	0.0033 J	< 0.0047 U	< 0.00074 U	0.0083
PCB-7	33284-50-3	ng/g	< 0.0029 U	< 0.0034 U	< 0.0030 U	< 0.0027 U	< 0.0021 U	< 0.0024 U	< 0.0051 U	< 0.016 U	< 0.0052 U	0.0052 JN
PCB-72	41464-42-0	ng/g	< 0.00084 U	0.0036 J	0.015 J	0.0017 JN	< 0.00067 U	0.0016 J	0.0030 J	< 0.0052 U	< 0.00082 U	0.0031 JN
PCB-77	32598-13-3	ng/g	0.013	0.015	0.025	0.014	0.0047 J	0.0096 J	0.014	< 0.0049 U	0.0049 J	0.022
PCB-78	70362-49-1	ng/g	< 0.00087 U	< 0.0010 U	< 0.00097 U	< 0.00087 U	< 0.00069 U	< 0.0011 U	< 0.0016 U	< 0.0054 U	< 0.00084 U	< 0.0011 U
PCB-79	41464-48-6	ng/g	< 0.00075 U	0.0014 JN	0.0038 J	0.0013 JN	< 0.00060 U	< 0.00094 U	< 0.0014 U	< 0.0046 U	< 0.00073 U	0.0029 J
PCB-8	34883-43-7	ng/g	0.051	0.028	0.029	0.046	0.019 JN	0.028 J	0.025 JN	0.032 JN	0.0075 JN	0.11
PCB-80	33284-52-5	ng/g	< 0.00074 U	< 0.00089 U	< 0.00082 U	< 0.00074 U	< 0.00059 U	< 0.00092 U	< 0.0014 U	< 0.0046 U	< 0.00072 U	< 0.00097 U
PCB-81	70362-50-4	ng/g	< 0.00080 U	< 0.00097 U	< 0.00089 U	< 0.00080 U	< 0.00063 U	< 0.0010 U	< 0.0015 U	< 0.0051 U	< 0.00080 U	< 0.0010 U
PCB-82	52663-62-4	ng/g	0.026	0.019 JN	0.035	0.026	0.013 JN	0.019 J	0.022 JN	0.055 J	0.0047 JN	0.052
PCB-83/99	60145-20-2	ng/g	0.15	0.20	0.30	0.26	0.069 J	0.13 J	0.20	0.21 JN	0.049 JN	0.30
PCB-84	52663-60-2	ng/g	0.056	0.058 J	0.099 J	0.063	0.029 J	0.040 J	0.054	0.095	0.016	0.12
PCB-85/116/117	65510-45-4	ng/g	0.041	0.039	0.060 JN	0.046	0.020 J	0.031 J	0.038	0.063 JN	0.016 J	0.074 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.14	0.14	0.22	0.17	0.081 J	0.11 J	0.15	0.26 J	0.043 J	0.31
PCB-88/91	55215-17-3	ng/g	0.034 JN	0.047 J	0.11 J	0.057	0.018 J	0.029 J	0.039 JN	0.057 J	0.013 JN	0.080
PCB-89	73575-57-2	ng/g	< 0.00023 U	0.0028 JN	< 0.00024 U	< 0.00023 U	< 0.00020 U	< 0.00022 U	< 0.00075 U	< 0.0021 U	< 0.00040 U	< 0.00035 U
PCB-9	34883-39-1	ng/g	< 0.0030 U	< 0.0035 U	< 0.0031 U	0.0040 JN	< 0.0022 U	0.0025 JN	< 0.0052 U	< 0.016 U	< 0.0054 U	0.0050 JN
PCB-90/101/113	68194-07-0	ng/g	0.24	0.27 J	0.56 J	0.37	0.13 J	0.20 J	0.28	0.44	0.079 JN	0.54
PCB-92	52663-61-3	ng/g	0.044	0.057 J	0.15 J	0.089	0.020 JN	0.037 J	0.044	0.058 JN	0.013 JN	0.097
PCB-93/100	73575-56-1	ng/g	0.0068 J	0.0064 JN	0.058 J	0.0079 JN	0.0026 JN	0.0054 JN	0.011 JN	0.012 JN	0.0020 JN	0.014 J
PCB-94	73575-55-0	ng/g	< 0.00023 U	< 0.00032 U	0.024	< 0.00023 U	< 0.00020 U	< 0.00022 U	0.0036 JN	< 0.0021 U	< 0.00040 U	< 0.00034 U
PCB-95	38379-99-6	ng/g	0.19	0.19 J	0.33 J	0.26	0.11	0.15	0.17 JN	0.32	0.063	0.45
PCB-96	73575-54-9	ng/g	0.0026 J	< 0.00024 U	0.0070 JN	< 0.00017 U	< 0.00015 U	< 0.00016 U	0.0023 JN	< 0.0016 U	< 0.00030 U	0.0041 JN
PCB-98/102	60233-25-2	ng/g	0.0067 JN	0.0072 JN	0.015 J	0.0086 JN	0.0038 J	0.0047 JN	0.010 JN	< 0.0018 U	0.0026 JN	0.014 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	6.4	6.1	10	8.8	3.4	4.9	7.4	8.3	2.2	13

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B059	B060	B060	B061	B062	B063	B064	B065	B066	B067
		Sample ID	PDI-SG-B059-BL1	PDI-SG-B060-BL1	PDI-SG-B060-BL1-D	PDI-SG-B061-BL1	PDI-SG-B062-BL1	PDI-SG-B063-BL1	PDI-SG-B064-BL1	PDI-SG-B065-BL1	PDI-SG-B066-BL1	PDI-SG-B067-BL1
		Sample Date	06 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-24 cm	0-24 cm	0-30 cm	0-19 cm	0-28 cm	0-30 cm	0-30 cm	0-20 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.44 U	0.87	0.55	0.85	< 0.37 U	< 0.44 U	0.73	0.68	< 0.45 U	0.42 J
2,4-DDE	3424-82-6	µg/kg	< 0.44 U	< 0.41 U	< 0.40 U	< 0.50 U	< 0.40 U	< 0.44 U	< 0.54 U	< 0.57 U	< 0.45 U	< 0.54 U
2,4-DDT	789-02-6	µg/kg	< 0.47 U	< 0.47 U	< 0.47 U	< 0.50 U	< 0.47 U	< 0.47 U	< 0.54 U	< 0.57 U	< 0.47 U	< 0.54 U
4,4'-DDD	72-54-8	µg/kg	0.63	2.3	1.5	1.1	1.1	0.40 J	2.1	1.8	0.72	1.0
4,4'-DDE	72-55-9	µg/kg	1.1	1.0	1.0	1.9	0.35 J	1.0	2.5	2.9	0.92	2.4
4,4'-DDT	50-29-3	µg/kg	1.2	< 0.41 U	1.9	< 0.50 U	1.4	< 0.44 U	0.37 J	0.58	< 0.45 U	0.34 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.2	4.4	5.2	4.1	3.1	1.6	6.0	6.2	1.9	4.4
Aldrin	309-00-2	µg/kg	< 0.44 U	< 0.41 U	0.46	< 0.50 U	< 0.40 U	< 0.44 U	< 0.54 U	< 0.57 U	< 0.45 U	< 0.54 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.87 U	< 0.82 U	< 0.81 U	< 1.0 U	< 0.75 U	< 0.88 U	< 1.1 U	< 1.1 U	< 0.90 U	< 1.1 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.49 UJ	< 0.49 UJ	< 0.49 UJ	< 0.50 UJ	< 0.49 UJ	< 0.49 UJ	< 0.54 UJ	< 0.57 UJ	< 0.49 UJ	< 0.54 UJ
Dieldrin	60-57-1	µg/kg	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	0.61 J	< 1.0 U	< 1.1 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.44 U	< 0.41 U	< 0.40 U	< 0.50 U	< 0.37 U	< 0.44 U	< 0.54 U	< 0.57 U	< 0.45 U	0.18 J
gamma-Chlordane	5566-34-7	µg/kg	< 0.87 U	< 0.82 U	< 0.81 U	< 1.0 U	< 0.75 U	< 0.88 U	< 1.1 U	0.74 J	< 0.90 U	< 1.1 U
Heptachlor	76-44-8	µg/kg	< 0.44 UJ	< 0.41 UJ	< 0.40 UJ	< 0.50 UJ	< 0.37 UJ	< 0.44 UJ	< 0.54 UJ	< 0.57 UJ	< 0.45 UJ	< 0.54 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.1 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.87 U	< 0.82 U	< 0.81 U	< 1.0 U	< 0.75 U	< 0.88 U	0.34 J	< 1.1 U	< 0.90 U	< 1.1 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	0.89	1.29	< 1 U	< 1.1 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.0	10	11	3.7	0.59 J	3.3	4.9	5.4	55	2.9
Acenaphthene	83-32-9	µg/kg	9.2	20	22	140	4.9	7.1	7.9	7.8	23	6.1
Acenaphthylene	208-96-8	µg/kg	5.2	28 J	16 J	13	2.5	4.8	6.5	7.2	17	7.1
Anthracene	120-12-7	µg/kg	13	39	28	15	4.7	11	16	18	31	16
Benz(a)anthracene	56-55-3	µg/kg	38	230	140	86	23	35	58	58	100	55
Benzo(a)pyrene	50-32-8	µg/kg	58	280 J	150 J	130	29	39	84	82	140	87
Benzo(b)fluoranthene	205-99-2	µg/kg	66	230 J	130 J	120	33	86	81	86	120	95
Benzo(g,h,i)perylene	191-24-2	µg/kg	46	240 J	110 J	100	26	30	69	67	100	74
Benzo(k)fluoranthene	207-08-9	µg/kg	22	80 J	43 J	41	11	30	28	27	40	28
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	36 J	30 J	32 J	54 J	24 J	39 J	62 J	68 J	28 J	170
Chrysene	218-01-9	µg/kg	61	280 J	160 J	100	39	150	80	81	130	95
Dibenz(a,h)anthracene	53-70-3	µg/kg	8.0	32 J	17 J	16	4.0	6.2	11	10	15	14
Fluoranthene	206-44-0	µg/kg	99	640	690	100	56	410	110	120	240	120
Fluorene	86-73-7	µg/kg	5.4	18	16	6.7	1.7	8.3	7.1	8.1	21	8.4
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	43	210 J	110 J	98	24	32	64	63	100	70
Naphthalene	91-20-3	µg/kg	6.8	25	25	10	1.2	4.6	12	11	62	6.3
Phenanthrene	85-01-8	µg/kg	65	590	370	61	45	200	52	59	98	48
Pyrene	129-00-0	µg/kg	120	1100 J	1300 J	150	81	320	150	150	400 J	140
Total PAHs (b)	T_PAH (PDI)	µg/kg	669	4052	3338	1190	387	1377	841	861	1692	873
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	81	380	206	177	41	61	116	113	188	123
Metals												
Arsenic	7440-38-2	mg/kg	4.6	4.7	4.5	5.1	6.4	4.4	4.5	5.2	4.1	3.7
Cadmium	7440-43-9	mg/kg	0.22	0.25	0.29	0.32	0.14 J	0.22 J	0.24 J	0.28 J	0.20 J	0.21
Copper	7440-50-8	mg/kg	26	24	22	37	16	26	34	42	29	28
Lead	7439-92-1	mg/kg	8.3	8.2	7.5	11	34	7.5	9.8	11	7.1	8.7
Mercury	7439-97-6	mg/kg	0.036	0.050	0.041	0.040 J	< 0.043 U	0.036 J	0.059 J	0.062 J	0.043	0.044
Tri-n-butyltin	36643-28-4	µg/kg	2.7	2.3	2.2	14	< 1.5 U	2.1	3.6	1.4 J	0.85 J	3.6
Zinc	7440-66-6	mg/kg	86	91	88	100	72	77	88	100	73	75
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 84 U	38 J	31 J	47 J	< 71 U	< 80 U	33 J	< 120 U	< 88 U	19 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	180	240	190	310	85	200	330	220	110	170
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										
Total Solids@104C - E160.3 (f)	TSOLID	%	56.8	64.2	62.7	49.3	66.5	59.7	45.9	40.6	53.3	65.2
Total Solids@104C - E160.3M (f)	TSOLID	%	56.3	59.9	60.9	49.4	67.0	56.8	45.3	42.8	54.3	46.3
Total Solids@70C	TSOLID70	%	59	64	66	53	70	60	48	44	55	49
Gravel	GS-Gravel	%	0.1	2.1		0	1.4	0	0	0	0	0.1
Sand, Coarse	GS-Csand	%	0.2	1.6		0.2	0.5	0.1	0.1	0.1	0.1	0
Sand, Medium	GS-Msand	%	17.7	8.0		3.1	17.0	32.7	0.1	0.1	1.0	0.3
Sand, Fine (#200) (d)	GS-Fsand-200	%	47.27	55.85		31.28	74.43	30.56	20.32	12.55	24.37	23.48
Sand, Fine (#230) (d)	GS-Fsand	%	48.9	59.7		35.6	74.9	32.1	25.4	16.9	27.1	30.3
Silt (#200) (d)	GS-Silt-200	%	29.42	25.24		53.81	4.962	28.33	66.87	74.34	64.92	65.91

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B059	B060	B060	B061	B062	B063	B064	B065	B066	B067
		Sample ID	PDI-SG-B059-BL1	PDI-SG-B060-BL1	PDI-SG-B060-BL1-D	PDI-SG-B061-BL1	PDI-SG-B062-BL1	PDI-SG-B063-BL1	PDI-SG-B064-BL1	PDI-SG-B065-BL1	PDI-SG-B066-BL1	PDI-SG-B067-BL1
		Sample Date	06 Apr 2018	05 Apr 2018	05 Apr 2018	05 Apr 2018	06 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-24 cm	0-24 cm	0-30 cm	0-19 cm	0-28 cm	0-30 cm	0-30 cm	0-20 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	27.8	21.4		49.5	4.5	26.8	61.8	70.0	62.2	59.1
Clay	GS-Clay	%	5.4	7.1		11.6	1.7	8.3	12.6	12.9	9.6	10.1
Percent Fines (e)	GS-FINES	%	34.82	32.34		65.41	6.662	36.63	79.47	87.24	74.52	76.01
Total Organic Carbon	TOC	mg/kg	15000	9200	9900	20000	3700	12000	23000	32000	12000	26000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B068	B069	B070	B071	B072	B073	B074	B075	B076	B077
		Sample ID	PDI-SG-B068-BL1	PDI-SG-B069-BL1	PDI-SG-B070-BL1	PDI-SG-B071-BL1	PDI-SG-B072-BL1	PDI-SG-B073-BL1	PDI-SG-B074-BL1	PDI-SG-B075-BL1	PDI-SG-B076-BL1	PDI-SG-B077-BL1
		Sample Date	06 Apr 2018	10 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-13 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-26 cm	0-28 cm	0-27 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.071	0.014	0.039	0.050	0.040	0.052	0.035	0.051	0.060	0.13
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.012 JN	0.0042	0.0087	0.011 J+	0.0083 JN	0.013 JN	0.0084 JN	0.0095 JN	0.014	0.019 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0017 J	< 0.00015 U	0.00088 J+	0.0013 J+	0.00056 JN	0.00099 J+	< 0.00055 U	0.00086 J+	0.0012 J+	0.0012 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0014 J+	0.00035 J+	0.00080 J+	0.00093 JN	0.00063 J+	0.0010 J+	0.00048 JN	< 0.00015 U	0.00078 JN	0.0011 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0024 J	0.00058 JN	0.0022 JN	0.0039 J	0.0014 JN	0.0021 J+	0.0022 J	0.0018 J+	0.0026 J	0.0028 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0036 J	0.00072 J	0.0025 J	0.0028 J	0.0021 J	0.0029 J	0.0018 J+	0.0025 JN	0.0030 J	0.0040 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0012 J+	0.0012 J	0.00083 J+	0.0010 JN	0.00066 J+	0.00087 J+	0.0010 J+	0.00070 JN	0.0011 J+	0.0012 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0022 J	0.00057 JN	0.0014 JN	0.0017 J+	0.0015 JN	0.0020 JN	0.0013 J+	0.0020 J	0.0019 JN	0.0032 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00076 J+	< 0.000094 U	< 0.000096 U	< 0.00016 U	< 0.00018 U	< 0.00013 U	< 0.00013 U	< 0.00013 U	< 0.00014 U	0.00023 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00024 U	< 0.00012 U	< 0.00027 U	0.00036 J+	< 0.00018 U	< 0.00017 U	< 0.00026 U	< 0.00029 U	0.00038 J+	0.00074 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0010 JN	0.00047 J	0.0018 J	0.0025 JN	0.00057 JN	0.00099 JN	0.0014 JN	0.0010 J+	0.0019 J	0.00097 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00063 JN	< 0.000095 U	< 0.00029 U	0.00044 JN	< 0.00018 U	0.00039 J+	0.00038 J+	< 0.00035 U	0.00038 JN	0.00064 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00028 U	< 0.00013 U	0.00077 JN	0.0014 J+	< 0.00020 U	< 0.00023 U	0.00077 JN	0.00065 J+	0.00089 JN	0.00075 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00018 U	< 0.000096 U	0.00030 JN	< 0.00016 U	< 0.00014 U	0.00038 JN	< 0.00022 U	0.00044 JN	< 0.00026 U	0.000097 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0012 J+	0.00042 J	0.0022 J+	0.0021 J+	0.0014 J+	0.0010 J+	0.0019 J+	0.0012 J+	0.0017 J+	0.0012 J
OCDD	3268-87-9	µg/kg	0.46	0.13	0.28	0.35	0.29	0.35	0.31	0.36	0.49	1.1
OCDF	39001-02-0	µg/kg	0.036	0.0083	0.023	0.028	0.025	0.036	0.066	0.033	0.040	0.075
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0025	0.00068	0.0023	0.003	0.0015	0.0023	0.0019	0.0024	0.0029	0.0044
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0024	0.00057	0.0014	0.0026	0.0011	0.0018	0.0015	0.0017	0.0023	0.0044
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0023	0.00051	0.0013	0.0026	0.0011	0.0016	0.0014	0.0015	0.0022	0.0044
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0037 J	0.0097	0.0030 J	0.0035 JN	0.0034 J	0.0032 JN	0.0022 J	0.0046 J	0.0083 J	0.017
PCB-10	33146-45-1	ng/g	< 0.0031 U	< 0.0010 U	< 0.0035 U	< 0.0032 U	< 0.0031 U	< 0.0030 U	< 0.0027 U	< 0.0031 U	0.0044 JN	0.0067 JN
PCB-103	60145-21-3	ng/g	0.0061 JN	0.0090 J	0.013	0.019	0.0077 J	0.0050 JN	0.0047 JN	0.0074 JN	0.0070 JN	0.020
PCB-104	56558-16-8	ng/g	< 0.00034 U	< 0.00043 U	< 0.00029 U	< 0.00057 U	< 0.00041 U	< 0.00028 U	< 0.00036 U	< 0.00036 U	< 0.00037 U	< 0.00066 U
PCB-105	32598-14-4	ng/g	0.11	0.086	0.11	0.16	0.12	0.11	0.077	0.12	0.20	0.46
PCB-106	70424-69-0	ng/g	< 0.0012 U	< 0.0017 U	< 0.0014 U	< 0.0014 U	< 0.0012 U	< 0.0012 U	< 0.00091 U	< 0.0012 U	< 0.0013 U	< 0.0029 U
PCB-107	70424-68-9	ng/g	0.028	0.024	0.035	0.055	0.032	0.021	0.019	0.027	0.047	0.092
PCB-108/124	70362-41-3	ng/g	0.011 J	0.010 J	0.012 J	0.016 J	0.012 J	0.0090 J	0.0074 J	0.013 J	0.020 J	0.053
PCB-11	2050-67-1	ng/g	0.096	0.14	0.087	0.12	0.079	0.090	0.099	0.11	0.11	0.060
PCB-110/115	38380-03-9	ng/g	0.37	0.28	0.44	0.60	0.46	0.35	0.29	0.41	0.74	1.6
PCB-111	39635-32-0	ng/g	< 0.00032 U	0.0012 J	< 0.00027 U	0.0047 J	< 0.00038 U	< 0.00026 U	< 0.00033 U	< 0.00033 U	< 0.00034 U	< 0.00059 U
PCB-112	74472-36-9	ng/g	< 0.00034 U	< 0.00042 U	< 0.00028 U	< 0.00056 U	< 0.00040 U	< 0.00027 U	< 0.00035 U	0.0015 J	0.0012 JN	< 0.00064 U
PCB-114	74472-37-0	ng/g	0.0031 JN	0.0067 J	0.0054 J	0.0088 J	0.0058 J	0.0033 JN	0.0024 JN	0.0046 JN	0.011 J	0.030
PCB-118	31508-00-6	ng/g	0.30	0.24	0.33	0.48	0.36	0.26	0.22	0.33	0.56	1.1
PCB-12/13	2974-92-7	ng/g	0.0062 JN	0.0056 JN	0.0046 JN	0.0072 JN	0.0055 JN	0.0045 JN	0.0044 JN	0.0078 JN	0.013 JN	0.014 JN
PCB-120	68194-12-7	ng/g	0.0025 JN	0.0029 JN	< 0.00027 U	0.0078 JN	0.0024 JN	0.0020 JN	< 0.00034 U	< 0.00034 U	0.0041 JN	0.0081 JN
PCB-121	56558-18-0	ng/g	< 0.00033 U	< 0.00041 U	< 0.00028 U	< 0.00055 U	< 0.00040 U	< 0.00027 U	< 0.00035 U	< 0.00035 U	< 0.00035 U	< 0.00063 U
PCB-122	76842-07-4	ng/g	< 0.0014 U	0.0029 JN	0.0055 J	0.0057 JN	0.0041 JN	< 0.0014 U	< 0.0011 U	0.0055 JN	0.0073 JN	0.016 JN
PCB-123	65510-44-3	ng/g	0.0047 JN	0.0054 J	0.0050 JN	0.0097 J	0.0056 J	0.0038 JN	0.0039 JN	0.0076 JN	0.0086 J	0.020 JN
PCB-126	57465-28-8	ng/g	0.0026 J	< 0.0018 U	0.0018 J	< 0.0014 U	< 0.0012 U	< 0.0013 U	< 0.00094 U	< 0.0012 U	< 0.0013 U	< 0.0030 U
PCB-127	39635-33-1	ng/g	< 0.0012 U	< 0.0016 U	< 0.0014 U	< 0.0014 U	< 0.0012 U	< 0.0012 U	< 0.00091 U	< 0.0012 U	< 0.0013 U	< 0.0028 U
PCB-128/166	38380-07-3	ng/g	0.068	0.083	0.077	0.10	0.077	0.074	0.053	0.081	0.13	0.34
PCB-129/138/160/163	55215-18-4	ng/g	0.55	0.65	0.64	0.86	0.60	0.58	0.42	0.64	1.0	2.1
PCB-130	52663-66-8	ng/g	0.027 JN	0.044	0.045	0.062	0.036	0.029 JN	0.023 JN	0.037	0.061	0.14
PCB-131	61798-70-7	ng/g	< 0.0027 U	< 0.0022 U	0.0058 J	0.0067 J	0.0068 J	< 0.0022 U	< 0.0023 U	< 0.0025 U	< 0.0027 U	0.035
PCB-132	38380-05-1	ng/g	0.16	0.19	0.17	0.25	0.18	0.16	0.12	0.18	0.30	0.72
PCB-133	35694-04-3	ng/g	0.010 J	0.013	0.0092 JN	0.055	0.0078 J	0.0098 J	0.0080 J	0.0084 JN	0.015	0.037
PCB-134/143	52704-70-8	ng/g	0.022 J	0.030	0.030	0.045	0.024	0.022 JN	0.020 J	0.024 JN	0.048	0.13
PCB-135/151	52744-13-5	ng/g	0.17	0.16	0.25	0.42	0.21	0.18	0.13 JN	0.20	0.30	0.62
PCB-136	38411-22-2	ng/g	0.056	0.054	0.078	0.10	0.062 JN	0.056	0.047	0.069	0.10	0.24
PCB-137	35694-06-5	ng/g	0.019	0.016 JN	0.014 JN	0.023 JN	0.019 JN	0.020	0.012 JN	0.017 JN	0.037	0.10
PCB-139/140	56030-56-9	ng/g	0.0051 JN	0.0085 J	0.0080 JN	0.020 JN	0.0079 J	0.0064 J	0.0052 J	0.0079 J	0.015 J	0.039
PCB-14	34883-41-5	ng/g	< 0.0024 U	< 0.00081 U	< 0.0027 U	< 0.0024 U	< 0.0024 U	< 0.0023 U	< 0.0021 U	< 0.0024 U	< 0.0019 U	< 0.00060 U
PCB-141	52712-04-6	ng/g	0.089	0.13	0.11	0.13	0.10	0.10	0.069	0.11	0.17	0.38
PCB-142	41411-61-4	ng/g	< 0.0024 U	< 0.0021 U	< 0.0022 U	< 0.0024 U	< 0.0024 U	< 0.0020 U	< 0.0021 U	< 0.0023 U	< 0.0024 U	< 0.0033 U
PCB-144	68194-14-9	ng/g	0.016 JN	0.023	0.023	0.027 JN	0.019	0.019	0.013	0.017 JN	0.031	0.086
PCB-145	74472-40-5	ng/g	< 0.00031 U	< 0.00028 U	< 0.00020 U	< 0.00029 U	< 0.00026 U	< 0.00031 U	< 0.00020 U	< 0.00026 U	< 0.00023 U	< 0.00073 U
PCB-146	51908-16-8	ng/g	0.095	0.12	0.12	0.39	0.10	0.096	0.081	0.11	0.17	0.30
PCB-147/149	68194-13-8	ng/g	0.49	0.53	0.63	0.95	0.57	0.49	0.39	0.54	0.83	1.5
PCB-148	74472-41-6	ng/g	< 0.00043 U	0.0014 J	0.0016 JN	0.013 JN	< 0.00036 U	0.0022 JN	0.0011 JN	0.0019 J	0.0025 JN	0.0062 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B068	B069	B070	B071	B072	B073	B074	B075	B076	B077
		Sample ID	PDI-SG-B068-BL1	PDI-SG-B069-BL1	PDI-SG-B070-BL1	PDI-SG-B071-BL1	PDI-SG-B072-BL1	PDI-SG-B073-BL1	PDI-SG-B074-BL1	PDI-SG-B075-BL1	PDI-SG-B076-BL1	PDI-SG-B077-BL1
		Sample Date	06 Apr 2018	10 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-13 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-26 cm	0-28 cm	0-27 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.039	0.033	0.033	0.039	0.036 JN	0.037	0.023 JN	0.048	0.087	0.12
PCB-150	68194-08-1	ng/g	< 0.00029 U	0.0014 JN	0.0027 JN	0.0057 JN	0.0011 JN	0.0020 J	0.0015 JN	0.0018 J	0.0018 JN	0.0038 J
PCB-152	68194-09-2	ng/g	< 0.00031 U	0.00033 JN	0.0013 JN	< 0.00030 U	< 0.00026 U	< 0.00032 U	< 0.00021 U	< 0.00027 U	0.0013 J	0.0023 J
PCB-153/168	35065-27-1	ng/g	0.48	0.59	0.60	0.90	0.53	0.48	0.38	0.52	0.82	1.5
PCB-154	60145-22-4	ng/g	0.0071 JN	0.010	0.013 JN	0.078	0.0079 JN	0.0087 J	< 0.00023 U	0.010 JN	0.017	0.034
PCB-155	33979-03-2	ng/g	< 0.00029 U	< 0.00026 U	< 0.00019 U	< 0.00028 U	< 0.00025 U	< 0.00030 U	< 0.00020 U	< 0.00025 U	< 0.00022 U	< 0.00067 U
PCB-156/157	38380-08-4	ng/g	0.049	0.046	0.060	0.074	0.059	0.054	0.039	0.053 JN	0.098	0.24
PCB-158	74472-42-7	ng/g	0.044	0.054	0.049	0.064	0.053	0.046 JN	0.034	0.050	0.084	0.22
PCB-159	39635-35-3	ng/g	0.0037 J	< 0.0013 U	0.0036 JN	0.0057 JN	< 0.0016 U	0.0031 JN	< 0.0014 U	0.0047 J	< 0.0016 U	0.018
PCB-16	38444-78-9	ng/g	0.017 JN	0.024 JN	0.020	0.027	0.019 JN	0.016	0.012	0.027	0.056	0.081
PCB-161	74472-43-8	ng/g	< 0.0016 U	< 0.0014 U	< 0.0015 U	< 0.0016 U	< 0.0016 U	< 0.0013 U	< 0.0014 U	< 0.0015 U	< 0.0016 U	< 0.0022 U
PCB-162	39635-34-2	ng/g	< 0.0016 U	< 0.0013 U	< 0.0014 U	0.0024 JN	< 0.0016 U	< 0.0013 U	< 0.0014 U	< 0.0015 U	< 0.0016 U	< 0.0020 U
PCB-164	74472-45-0	ng/g	0.034	0.047	0.048	0.062	0.042	0.042	0.031	0.043	0.067	0.14
PCB-165	74472-46-1	ng/g	< 0.0018 U	< 0.0015 U	< 0.0017 U	< 0.0018 U	< 0.0018 U	< 0.0015 U	< 0.0016 U	< 0.0017 U	< 0.0018 U	< 0.0025 U
PCB-167	52663-72-6	ng/g	0.017	0.018	0.019	0.024	0.020	0.018	0.013	0.019	0.034	0.076
PCB-169	32774-16-6	ng/g	< 0.0012 U	< 0.0010 U	< 0.0011 U	< 0.0012 U	< 0.0012 U	< 0.0011 U	< 0.0011 U	< 0.0012 U	< 0.0013 U	< 0.0018 U
PCB-17	37680-66-3	ng/g	0.032 JN	0.030 J	0.024 JN	0.050	0.040	0.029	0.021 JN	0.042	0.10	0.10
PCB-170	35065-30-6	ng/g	0.16	0.17 J	0.20	0.25	0.18	0.17	0.13	0.19	0.26	0.41
PCB-171/173	52663-71-5	ng/g	0.044	0.051 J	0.063	0.076	0.058	0.046	0.038	0.054	0.071 JN	0.13
PCB-172	52663-74-8	ng/g	0.026	0.035 J	0.035	0.042	0.027	0.029	0.023	0.028	0.042	0.073
PCB-174	38411-25-5	ng/g	0.17	0.19 J	0.22	0.27	0.18	0.17	0.13	0.17	0.27	0.43
PCB-175	40186-70-7	ng/g	0.0073 J	0.0077 JN	0.0086 J	0.0082 JN	0.0071 J	0.0050 J	0.0043 JN	0.0070 J	0.0094 J	0.016
PCB-176	52663-65-7	ng/g	0.021	0.023 J	0.023 JN	0.037	0.022	0.018	0.014	0.022	0.032	0.047
PCB-177	52663-70-4	ng/g	0.098	0.13 J	0.13	0.18	0.11	0.10	0.080	0.11	0.16	0.26
PCB-178	52663-67-9	ng/g	0.036	0.046 J	0.050	0.080	0.041	0.040	0.031	0.040 JN	0.056	0.083
PCB-179	52663-64-6	ng/g	0.074	0.086 J	0.10	0.16	0.084 JN	0.077	0.065	0.083	0.13	0.16
PCB-18/30	37680-65-2	ng/g	0.057	0.066 J	0.058	0.061 JN	0.063	0.045 JN	0.037	0.067	0.14	0.17
PCB-180/193	35065-29-3	ng/g	0.35	0.38 J	0.46	0.54	0.37	0.35	0.27	0.36	0.57	0.85
PCB-181	74472-47-2	ng/g	< 0.00093 U	< 0.00054 UJ	< 0.00068 U	< 0.00089 U	< 0.00090 U	< 0.0010 U	< 0.0011 U	< 0.00096 U	< 0.00055 U	0.0047 JN
PCB-182	60145-23-5	ng/g	< 0.00090 U	0.0021 JN	0.0019 JN	0.0042 JN	0.00088 JN	< 0.0010 U	< 0.0010 U	< 0.00092 U	< 0.00053 U	0.0064 J
PCB-183/185	52663-69-1	ng/g	0.11	0.11 J	0.15	0.17	0.12	0.11	0.087	0.11	0.19	0.27
PCB-184	74472-48-3	ng/g	< 0.00076 U	< 0.00044 UJ	< 0.00056 U	< 0.00073 U	< 0.00074 U	< 0.00085 U	< 0.00087 U	< 0.00078 U	< 0.00045 U	< 0.00057 U
PCB-186	74472-49-4	ng/g	< 0.00074 U	< 0.00042 UJ	< 0.00054 U	< 0.00071 U	< 0.00072 U	< 0.00083 U	< 0.00085 U	< 0.00076 U	< 0.00044 U	< 0.00055 U
PCB-187	52663-68-0	ng/g	0.21	0.26 J	0.29	0.42	0.22	0.22	0.18	0.22	0.34	0.49
PCB-188	74487-85-7	ng/g	< 0.00065 U	< 0.00035 U	< 0.00048 U	< 0.00064 U	< 0.00064 U	< 0.00072 U	< 0.00075 U	< 0.00066 U	< 0.00039 U	< 0.00051 U
PCB-189	39635-31-9	ng/g	0.0050 JN	0.0068 J	0.0068 J	0.0093 J	0.0049 J	0.0049 J	0.0042 J	0.0060 J	0.0091 J	0.015
PCB-19	38444-73-4	ng/g	0.015 JN	0.017 JN	0.024	0.033	0.016 JN	0.018 JN	0.012 JN	0.022 JN	0.067 JN	0.066
PCB-190	41411-64-7	ng/g	0.029	0.030 J	0.036	0.046	0.031	0.032	0.023	0.028	0.051	0.080
PCB-191	74472-50-7	ng/g	0.0064 J	0.0062 JN	0.0058 JN	0.0076 J	0.0058 JN	0.0065 JN	0.0022 JN	0.0076 J	0.011 J	0.018
PCB-192	74472-51-8	ng/g	< 0.00079 U	< 0.00043 UJ	< 0.00057 U	< 0.00075 U	< 0.00076 U	< 0.00088 U	< 0.00089 U	< 0.00081 U	< 0.00046 U	< 0.00056 U
PCB-194	35694-08-7	ng/g	0.089	0.11	0.12	0.13	0.099	0.087	0.073	0.091	0.14	0.21
PCB-195	52663-78-2	ng/g	0.032 JN	0.049	0.045	0.052	0.041	0.039	0.029	0.037	0.062	0.083
PCB-196	42740-50-1	ng/g	0.037	0.044	0.050	0.061	0.041	0.033	0.029	0.036	0.060	0.096
PCB-197	33091-17-7	ng/g	0.0081 J	0.0031 J	0.00085 JN	0.0042 JN	0.0090 JN	0.0021 JN	0.0029 J	0.0028 JN	0.0036 JN	0.0059 JN
PCB-198/199	68194-17-2	ng/g	0.091	0.12	0.13	0.15	0.097	0.093	0.075	0.099	0.15	0.22
PCB-2	2051-61-8	ng/g	0.016 JN	0.0074 J	0.020	0.027	0.015 JN	0.0079 J	0.015	0.0095 JN	0.018	0.017 JN
PCB-20/28	38444-84-7	ng/g	0.15	0.18 J	0.15	0.18	0.15	0.11	0.096	0.15	0.31	0.41
PCB-200	52663-73-7	ng/g	0.0015 JN	0.010 JN	0.011 JN	0.014	0.0027 JN	0.0077 JN	0.0077 J	0.0078 JN	0.013	0.024
PCB-201	40186-71-8	ng/g	0.0094 J	0.012	0.0091 JN	0.013	0.0079 JN	0.0089 J	0.0082 J	0.0095 J	0.017	0.024 JN
PCB-202	2136-99-4	ng/g	0.016	0.030	0.025	0.027	0.019 JN	0.019	0.017	0.021	0.029	0.050
PCB-203	52663-76-0	ng/g	0.054	0.069	0.074	0.086	0.058	0.050	0.041	0.057	0.097	0.14
PCB-204	74472-52-9	ng/g	< 0.00047 U	< 0.0010 U	< 0.00035 U	< 0.00033 U	< 0.00047 U	< 0.00051 U	< 0.00037 U	< 0.00045 U	< 0.00038 U	< 0.00069 U
PCB-205	74472-53-0	ng/g	0.0059 J	0.0046 J	0.0036 JN	0.0079 J	0.0039 JN	0.0041 J	< 0.0012 U	0.0056 J	0.0066 J	0.011 J
PCB-206	40186-72-9	ng/g	0.065	0.21	0.090	0.11	0.096	0.076	0.045	0.068	0.14	0.39 JN
PCB-207	52663-79-3	ng/g	0.0066 J	0.015	0.0081 J	0.010 J	0.0052 J	0.0046 J	0.0035 JN	0.0063 J	0.011 J	0.018
PCB-208	52663-77-1	ng/g	0.020	0.080	0.028	0.030	0.030	0.023	0.013 JN	0.025	0.052	0.079
PCB-209	2051-24-3	ng/g	0.078	0.29	0.097	0.11	0.11	0.078	0.058	0.069	0.14	0.19
PCB-21/33	55702-46-0	ng/g	0.060	0.083 J	0.061	0.069	0.061	0.041	0.032	0.061	0.13	0.18
PCB-22	38444-85-8	ng/g	0.040	0.056 J	0.035	0.041	0.040	0.031	0.023	0.042	0.085	0.13
PCB-23	55720-44-0	ng/g	< 0.00065 U	< 0.0014 UJ	< 0.00060 U	< 0.00072 U	< 0.00066 U	< 0.00070 U	< 0.00058 U	< 0.00078 U	< 0.00074 U	< 0.0019 U
PCB-24	55702-45-9	ng/g	0.0011 J	0.00088 J	0.00072 JN	0.0016 J	< 0.00064 U	< 0.00070 U	< 0.00055 U	< 0.00071 U	0.0032 JN	0.0045 J
PCB-25	55712-37-3	ng/g	0.012	0.017 J	0.011	0.013	0.019	0.0095 J	0.0083 J	0.012 JN	0.026	0.040

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B068	B069	B070	B071	B072	B073	B074	B075	B076	B077
		Sample ID	PDI-SG-B068-BL1	PDI-SG-B069-BL1	PDI-SG-B070-BL1	PDI-SG-B071-BL1	PDI-SG-B072-BL1	PDI-SG-B073-BL1	PDI-SG-B074-BL1	PDI-SG-B075-BL1	PDI-SG-B076-BL1	PDI-SG-B077-BL1
		Sample Date	06 Apr 2018	10 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-13 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-26 cm	0-28 cm	0-27 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.023 J	0.029 J	0.019 J	0.022 J	0.028	0.017 J	0.015 J	0.025	0.049	0.072
PCB-27	38444-76-7	ng/g	0.0055 JN	0.0060 JN	0.0059 JN	0.0085 J	0.0086 J	0.0073 JN	0.0044 JN	0.0067 JN	0.028 JN	0.033
PCB-3	2051-62-9	ng/g	0.0047 J	0.0062 J	0.0055 J	0.0036 JN	0.0041 JN	0.0062 J	0.0022 JN	0.0054 J+	0.0062 J	0.015
PCB-31	16606-02-3	ng/g	0.11	0.14 J	0.096	0.11	0.11	0.080	0.067	0.11	0.22	0.29
PCB-32	38444-77-8	ng/g	0.022	0.019 J	0.022	0.026	0.022	0.017	0.016	0.021 JN	0.054 JN	0.073
PCB-34	37680-68-5	ng/g	< 0.00068 U	< 0.0014 UJ	< 0.00062 U	0.0014 JN	< 0.00068 U	< 0.00072 U	< 0.00060 U	< 0.00081 U	< 0.00076 U	< 0.0020 U
PCB-35	37680-69-6	ng/g	0.0024 JN	0.0053 JN	0.0029 J	0.0020 JN	0.0025 JN	0.0029 JN	0.0016 J	0.0033 J	0.0055 J	0.0055 JN
PCB-36	38444-87-0	ng/g	< 0.00064 U	< 0.0012 UJ	0.00095 JN	< 0.00070 U	< 0.00064 U	< 0.00068 U	< 0.00057 U	< 0.00076 U	< 0.00072 U	< 0.0017 U
PCB-37	38444-90-5	ng/g	0.058	0.064	0.047	0.059	0.052	0.036 JN	0.033	0.048	0.096	0.14
PCB-38	53555-66-1	ng/g	< 0.00068 U	< 0.0013 UJ	0.00079 JN	< 0.00076 U	< 0.00069 U	< 0.00073 U	< 0.00061 U	< 0.00081 U	< 0.00077 U	< 0.0019 U
PCB-39	38444-88-1	ng/g	< 0.00061 U	< 0.0012 UJ	0.00083 JN	< 0.00068 U	< 0.00062 U	< 0.00065 U	< 0.00055 U	< 0.00073 U	< 0.00069 U	< 0.0017 U
PCB-4	13029-08-8	ng/g	0.022 JN	0.018 JN	0.015 JN	0.021 JN	0.020 JN	0.018 JN	0.014 JN	0.032 JN	0.063	0.088
PCB-40/41/71	38444-93-8	ng/g	0.075	0.11 J	0.081	0.096	0.074	0.058	0.040	0.075 JN	0.16	0.26
PCB-42	36559-22-5	ng/g	0.037	0.046 J	0.041	0.049	0.040	0.030	0.023	0.039	0.069	0.12
PCB-43/73	70362-46-8	ng/g	0.0059 JN	0.0060 JN	0.0049 JN	0.0073 JN	< 0.0019 U	0.0046 JN	0.0036 J	0.0062 JN	0.012 J	0.037
PCB-44/47/65	41464-39-5	ng/g	0.18	0.32 J	0.20	0.25	0.18	0.15	0.11	0.18	0.35	0.62
PCB-45/51	70362-45-7	ng/g	0.030	0.16 J	0.032 JN	0.036	0.028	0.029	0.021 J	0.034	0.067	0.11
PCB-46	41464-47-5	ng/g	0.0085 J	0.014 J	0.0063 JN	0.0060 JN	0.0062 JN	< 0.0019 U	0.0047 J	0.0087 J	0.016	0.025
PCB-48	70362-47-9	ng/g	0.021 JN	0.034 J	0.022 JN	0.029	0.024	0.016 JN	0.010 JN	0.023	0.052	0.082
PCB-49/69	41464-40-8	ng/g	0.11	0.18 J	0.14	0.17	0.13	0.092	0.077	0.12	0.22	0.37
PCB-5	16605-91-7	ng/g	< 0.0031 U	< 0.00097 U	< 0.0035 U	< 0.0032 U	< 0.0032 U	< 0.0031 U	< 0.0027 U	< 0.0032 U	< 0.0025 U	0.0019 JN
PCB-50/53	62796-65-0	ng/g	0.027	0.12 J	0.028	0.038	0.027	0.024 J	0.022	0.030	0.055	0.092
PCB-52	35693-99-3	ng/g	0.19	0.28 J	0.22	0.30	0.21	0.17	0.13	0.20	0.40	1.0
PCB-54	15968-05-5	ng/g	0.0037 JN	0.013 J	0.0047 J	0.0059 JN	0.0042 J	0.0035 J	0.0030 JN	0.0045 J	0.0071 J	0.013 J
PCB-55	74338-24-2	ng/g	0.0015 JN	0.0028 JN	0.0022 JN	0.0026 J	0.0029 JN	< 0.0011 U	< 0.00096 U	< 0.0011 U	< 0.0011 U	< 0.0025 U
PCB-56	41464-43-1	ng/g	0.061	0.080 J	0.072	0.079	0.060	0.048	0.042	0.053	0.093	0.15
PCB-57	70424-67-8	ng/g	0.0015 J	< 0.00024 UJ	< 0.0014 U	< 0.0012 U	< 0.0015 U	< 0.0011 U	< 0.00098 U	< 0.0011 U	< 0.0012 U	< 0.0025 U
PCB-58	41464-49-7	ng/g	< 0.0013 U	< 0.00023 UJ	0.0016 J	0.0023 J	0.0016 JN	< 0.0011 U	0.0018 JN	< 0.0011 U	0.0014 J	0.0032 JN
PCB-59/62/75	74472-33-6	ng/g	0.011 JN	0.022 J	0.016 J	0.017 J	0.011 J	0.0096 J	0.0072 J	0.012 J	0.026 J	0.044
PCB-6	25569-80-6	ng/g	0.0083 JN	0.0065 J	0.0069 JN	0.0089 JN	0.0086 JN	0.0073 JN	0.0048 J	0.0085 JN	0.019 JN	0.029
PCB-60	33025-41-1	ng/g	0.020	0.036 J	0.018	0.022	0.023	0.021	0.015	0.022	0.035	0.062
PCB-61/70/74/76	33284-53-6	ng/g	0.25	0.29 J	0.29	0.37	0.26	0.21	0.18	0.24	0.43	0.79
PCB-63	74472-34-7	ng/g	0.0041 J	0.0067 JN	0.0052 JN	0.0072 JN	0.0064 J	0.0048 JN	0.0031 JN	< 0.0010 U	0.0086 J	0.013 JN
PCB-64	52663-58-8	ng/g	0.058	0.068 J	0.062	0.078	0.061	0.048	0.039	0.054	0.12	0.19
PCB-66	32598-10-0	ng/g	0.16	0.17 J	0.20	0.23	0.16	0.13	0.11	0.15	0.25	0.39
PCB-67	73575-53-8	ng/g	0.0030 JN	0.0049 JN	0.0028 JN	0.0044 J	0.0034 J	0.0027 JN	0.0015 JN	< 0.00095 U	0.0079 J	0.011 J
PCB-68	73575-52-7	ng/g	0.0033 JN	0.0048 J	0.0064 J	0.0029 JN	0.0030 JN	< 0.00097 U	< 0.00086 U	< 0.00097 U	0.0047 J	0.0074 J
PCB-7	33284-50-3	ng/g	< 0.0028 U	< 0.00091 U	< 0.0032 U	0.0033 JN	< 0.0029 U	< 0.0028 U	< 0.0025 U	< 0.0029 U	0.0033 JN	0.0061 J
PCB-72	41464-42-0	ng/g	0.0034 J	0.0053 J	0.0049 JN	0.0040 J	0.0022 JN	0.0019 JN	< 0.00096 U	0.0040 J	0.0046 JN	0.0083 J
PCB-77	32598-13-3	ng/g	0.017	0.019	0.016 JN	0.022	0.016 JN	0.016	0.012	0.019	0.025	0.035
PCB-78	70362-49-1	ng/g	< 0.0013 U	< 0.00023 UJ	< 0.0014 U	< 0.0012 U	< 0.0015 U	< 0.0011 U	< 0.00099 U	< 0.0011 U	< 0.0012 U	< 0.0024 U
PCB-79	41464-48-6	ng/g	0.0017 JN	0.0041 J	0.0022 JN	0.0036 JN	0.0028 J	< 0.00096 U	< 0.00086 U	0.0019 JN	0.0036 J	0.012 J
PCB-8	34883-43-7	ng/g	0.038	0.028	0.034	0.038	0.041	0.031	0.022 JN	0.045	0.082	0.12
PCB-80	33284-52-5	ng/g	< 0.0011 U	< 0.00021 UJ	< 0.0012 U	< 0.00099 U	< 0.0013 U	< 0.00095 U	< 0.00084 U	< 0.00094 U	< 0.0010 U	< 0.0022 U
PCB-81	70362-50-4	ng/g	< 0.0012 U	< 0.00023 U	< 0.0013 U	< 0.0011 U	< 0.0014 U	< 0.0010 U	< 0.00087 U	< 0.0010 U	< 0.0011 U	< 0.0023 U
PCB-82	52663-62-4	ng/g	0.029 JN	0.030	0.031	0.055	0.038	0.029	0.024	0.035	0.065	0.18
PCB-83/99	60145-20-2	ng/g	0.20	0.17	0.29	0.49	0.24	0.19	0.17	0.20	0.38	0.81
PCB-84	52663-60-2	ng/g	0.066	0.060	0.070 JN	0.12	0.094	0.056 JN	0.048	0.075	0.15	0.38
PCB-85/116/117	65510-45-4	ng/g	0.046 JN	0.042	0.061	0.085 JN	0.062	0.046 JN	0.044	0.057	0.11	0.23
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.19	0.16	0.19 JN	0.32	0.24	0.18	0.14	0.20	0.38	0.95
PCB-88/91	55215-17-3	ng/g	0.049	0.048	0.077	0.11	0.063	0.047 JN	0.038	0.053	0.098	0.20
PCB-89	73575-57-2	ng/g	< 0.00051 U	< 0.00064 U	< 0.00044 U	< 0.00085 U	< 0.00061 U	< 0.00041 U	< 0.00054 U	< 0.00054 U	< 0.00055 U	0.015
PCB-9	34883-39-1	ng/g	0.0031 JN	0.0015 JN	< 0.0033 U	< 0.0030 U	< 0.0029 U	< 0.0028 U	< 0.0025 U	< 0.0029 U	0.0050 JN	0.0099 J
PCB-90/101/113	68194-07-0	ng/g	0.34	0.30	0.41	0.65	0.41	0.32	0.27	0.37	0.65	1.4
PCB-92	52663-61-3	ng/g	0.064	0.064	0.082	0.12 JN	0.076	0.057	0.043 JN	0.066	0.12	0.29
PCB-93/100	73575-56-1	ng/g	0.015 J	0.0045 JN	0.014 J	0.029 JN	0.011 J	0.010 JN	0.0076 J	0.013 J	0.019 J	0.026 JN
PCB-94	73575-55-0	ng/g	0.0022 JN	0.0054 JN	0.0041 JN	0.0047 JN	< 0.00061 U	< 0.00041 U	< 0.00054 U	< 0.00054 U	< 0.00054 U	0.013 J
PCB-95	38379-99-6	ng/g	0.25	0.25	0.29	0.41	0.33	0.24	0.20	0.28	0.51	1.2
PCB-96	73575-54-9	ng/g	< 0.00039 U	0.0065 J	0.0037 J	0.0044 J	< 0.00046 U	0.0042 J	0.0023 J	0.0034 JN	0.0079 J	0.012 J
PCB-98/102	60233-25-2	ng/g	0.0087 JN	0.011 JN	0.012 J	0.016 J	0.012 J	0.0081 JN	0.0059 JN	0.0066 JN	0.023 J	0.051 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	8.5	10	10	14	9.6	8.1	6.4	9.2	16	30

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B068	B069	B070	B071	B072	B073	B074	B075	B076	B077
		Sample ID	PDI-SG-B068-BL1	PDI-SG-B069-BL1	PDI-SG-B070-BL1	PDI-SG-B071-BL1	PDI-SG-B072-BL1	PDI-SG-B073-BL1	PDI-SG-B074-BL1	PDI-SG-B075-BL1	PDI-SG-B076-BL1	PDI-SG-B077-BL1
		Sample Date	06 Apr 2018	10 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-13 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-26 cm	0-28 cm	0-27 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.59 U	< 0.39 U	0.51 J	0.74	0.38 J	< 0.65 U	0.54 J	< 0.59 U	0.49 J	0.63 J
2,4-DDE	3424-82-6	µg/kg	< 0.59 U	< 0.40 U	< 0.54 U	< 0.56 U	< 0.59 U	< 0.65 U	< 0.55 U	< 0.59 U	< 0.62 U	< 0.66 U
2,4-DDT	789-02-6	µg/kg	< 0.59 U	< 0.47 U	< 0.54 U	< 0.56 U	< 0.59 U	< 0.65 U	< 0.55 U	< 0.59 U	< 0.62 U	< 0.66 U
4,4'-DDD	72-54-8	µg/kg	0.94	0.85	1.6	2.0	0.97	1.0	1.4	1.0	1.4	1.3
4,4'-DDE	72-55-9	µg/kg	2.4	0.57	2.7	3.4	2.2	2.4	2.6	2.3	2.5	2.9
4,4'-DDT	50-29-3	µg/kg	< 0.59 U	< 0.39 U	0.33 J	0.48 J	< 0.59 U	0.66	6.0	0.62	1.0	0.48 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.6	1.7	5.4	6.9	3.8	4.4	11	4.2	5.7	5.6
Aldrin	309-00-2	µg/kg	< 0.59 U	< 0.40 U	< 0.54 U	< 0.56 U	< 0.59 U	0.52 J	< 0.55 U	< 0.59 U	< 0.62 U	< 0.66 U
alpha-Chlordane	5103-71-9	µg/kg	0.41 J	< 0.77 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 1.3 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.59 UJ	< 0.49 UJ	< 0.54 UJ	< 0.56 UJ	< 0.59 UJ	< 0.65 UJ	< 0.55 UJ	< 0.59 UJ	< 0.62 UJ	< 0.66 U
Dieldrin	60-57-1	µg/kg	< 1.2 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 U	< 1.2 U	0.52 J	< 1.3 U
gamma-BHC (Lindane)	58-89-9	µg/kg	0.25 J	< 0.39 U	0.22 J	0.19 J	0.20 J	< 0.65 U	< 0.55 U	< 0.59 U	< 0.62 U	< 0.66 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.2 U	< 0.77 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 1.3 U
Heptachlor	76-44-8	µg/kg	< 0.59 UJ	< 0.39 UJ	< 0.54 UJ	< 0.56 UJ	< 0.59 UJ	< 0.65 UJ	< 0.55 UJ	< 0.59 UJ	< 0.62 UJ	< 0.66 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.2 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 U	< 1.2 U	< 1.2 U	< 1.3 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 1.2 U	< 0.77 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 U	0.49 J	0.36 J	< 1.3 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	1.01	< 1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 U	1.09	0.96	< 1.3 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.2	46	4.5	5.2	2.7	2.1	3.0	2.2	5.0	5.7
Acenaphthene	83-32-9	µg/kg	3.7	73	12	13	3.2	3.2	7.4	3.3	5.1	4.4
Acenaphthylene	208-96-8	µg/kg	3.3	91	11	17	4.1	2.7	6.4	3.2	4.9	4.6
Anthracene	120-12-7	µg/kg	8.4	120	22	28	9.0	6.8	15	9.4	12	12
Benz(a)anthracene	56-55-3	µg/kg	25	630	98	97	30	23	54	28	39	37
Benzo(a)pyrene	50-32-8	µg/kg	41	880	180	190	40	45	98	50	70	68
Benzo(b)fluoranthene	205-99-2	µg/kg	39	760	140	150	44	36	74	42	58	68
Benzo(g,h,i)perylene	191-24-2	µg/kg	34	750	150	180	33	32	77	37	55	42
Benzo(k)fluoranthene	207-08-9	µg/kg	12	240	51	52	14	11	25	15	21	22
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	64 J	24 J	120	67 J	59 J	90 J	64 J	88 J	80 J	99 J
Chrysene	218-01-9	µg/kg	40	780	130	130	45	38	71	43	61	61
Dibenz(a,h)anthracene	53-70-3	µg/kg	5.0	96	22	26	5.5	4.5	11	5.4	9.3	7.0
Fluoranthene	206-44-0	µg/kg	53	950	190	170	60	53	110	61	81	79
Fluorene	86-73-7	µg/kg	4.7	75	8.2	11	4.2	4.1	6.5	4.6	6.5	5.4
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	30	680	130	150	31	28	68	33	49	40
Naphthalene	91-20-3	µg/kg	4.1	410	12	14	5.6	3.0	6.3	4.9	9.5	15
Phenanthrene	85-01-8	µg/kg	27	520	74	81	25	25	49	28	41	36
Pyrene	129-00-0	µg/kg	65	1400	250	220	75	64	140	75	100	98
Total PAHs (b)	T_PAH (PDI)	µg/kg	397	8501	1485	1534	431	381	822	445	627	605
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	56	1186	239	256	56	58	129	66	94	90
Metals												
Arsenic	7440-38-2	mg/kg	5.0	4.1	4.9	5.3	5.0	5.3	4.6	4.9	4.7	5.3
Cadmium	7440-43-9	mg/kg	0.27 J	0.18 J	0.29 J	0.28	0.28 J	0.27 J	0.26 J	0.26 J	0.26 J	0.36 J
Copper	7440-50-8	mg/kg	39	21	37	43	37	41	36	38	37	43
Lead	7439-92-1	mg/kg	11	6.8	11	13	10	11	9.7	10	11	14
Mercury	7439-97-6	mg/kg	0.077	0.024 J	0.064	0.067	0.052	0.056 J	0.053	0.059 J	0.073	0.049 J
Tri-n-butyltin	36643-28-4	µg/kg	2.2 J	< 1.6 U	7.4	5.6	2.3 J	2.5 J	2.2 J	2.3 J	4.3	7.8
Zinc	7440-66-6	mg/kg	98	79	95	110	93	99	92	93	96	110
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	30 J	26 J	30 J	43 J	< 110 U	36 J	27 J	30 J	35 J	49 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	300	110	290	290	200	360	230	260	310	430
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										36.5
Total Solids@104C - E160.3 (f)	TSOLID	%	41.8	64.1	44.3	42.8	43.5	38.3	45.1	42.4	40.9	
Total Solids@104C - E160.3M (f)	TSOLID	%	41.9	63.3	45.8	44.2	42.0	38.5	45.3	41.7	39.7	37.9
Total Solids@70C	TSOLID70	%	44	83	46	45	44	39	45	42	41	38
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0.6	0	0.4	0	0	0.1	0	0	0
Sand, Medium	GS-Msand	%	0.1	11.3	0.2	0.2	0.1	0.1	0.1	1.2	0.4	0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	12.08	54.01	16.59	14.45	14.57	7.354	17.69	13.68	12	9.949
Sand, Fine (#230) (d)	GS-Fsand	%	15.7	55.5	20.5	17.9	18.4	9.4	22.1	16.2	14.6	11.8
Silt (#200) (d)	GS-Silt-200	%	73.51	29.08	65.20	69.44	71.82	76.64	66.90	70.01	72.09	73.45

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B068	B069	B070	B071	B072	B073	B074	B075	B076	B077
		Sample ID	PDI-SG-B068-BL1	PDI-SG-B069-BL1	PDI-SG-B070-BL1	PDI-SG-B071-BL1	PDI-SG-B072-BL1	PDI-SG-B073-BL1	PDI-SG-B074-BL1	PDI-SG-B075-BL1	PDI-SG-B076-BL1	PDI-SG-B077-BL1
		Sample Date	06 Apr 2018	10 Apr 2018	08 Apr 2018	08 Apr 2018	06 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	08 Apr 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-13 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-26 cm	0-28 cm	0-27 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	69.9	27.6	61.3	66.0	68.0	74.6	62.5	67.5	69.5	71.6
Clay	GS-Clay	%	14.3	4.9	18.1	15.6	13.6	15.9	15.2	15.2	15.5	16.3
Percent Fines (e)	GS-FINES	%	87.81	33.98	83.3	85.04	85.42	92.54	82.1	85.21	87.59	89.75
Total Organic Carbon	TOC	mg/kg	27000	7000	24000	26000	27000	36000	27000	33000	35000	27000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B078	B079	B080	B081	B081	B082	B082	B083	B084	B085
		Sample ID	PDI-SG-B078-BL1	PDI-SG-B079-BL1	PDI-SG-B080-BL1	PDI-SG-B081-BL1	PDI-SG-B081-BL1-D	PDI-SG-B082-BL1	PDI-SG-B082-BL1-D	PDI-SG-B083-BL1	PDI-SG-B084-BL1	PDI-SG-B085-BL1
		Sample Date	09 May 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N	N
		Depth	0-22 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-19 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.039	0.023	0.038	0.050	0.052	0.056	0.045	0.064	0.035	0.0057
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0074 JN	0.0045 JN	0.0078 J	0.0094 J	0.0077 JN	0.0083 JN	0.0091	0.010 JN	0.0074 J	0.00091 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00038 J	< 0.00046 U	< 0.00047 U	< 0.00067 U	< 0.00035 U	< 0.00079 U	< 0.00055 U	0.0012 J+	< 0.00042 U	< 0.000099 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00037 JN	0.00042 J+	0.00061 J+	0.00067 J+	0.00065 J	0.00079 J+	0.00088 J+	0.00074 J+	< 0.00026 U	< 0.00013 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00077 J	0.0010 JN	0.0029 J	0.0025 J	0.0021 J	0.0021 J	0.0024 J	0.0048 J	< 0.00051 U	< 0.00015 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0012 J	0.0011 JN	0.0017 J	0.0026 J	0.0026 J	0.0022 J	0.0033 J	0.0022 J	0.0010 JN	< 0.00026 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00037 J	0.0020 J	0.0031 J	0.0032 J	0.0037 J	0.0033 J	0.0027 J	0.0041 J	0.0021 J	< 0.00026 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0011 J	0.00086 J+	0.0011 JN	0.0015 J+	0.0015 J+	0.0017 J	0.0017 JN	0.0016 J+	< 0.00023 U	< 0.00031 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00013 JN	< 0.000086 U	< 0.00016 U	< 0.00020 U	< 0.00019 U	< 0.00020 U	< 0.00015 U	< 0.00013 U	< 0.00025 U	< 0.000023 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00026 J	< 0.00011 U	< 0.00020 U	< 0.00018 U	< 0.00023 U	< 0.00024 U	< 0.00023 U	< 0.00025 U	< 0.00043 U	< 0.000037 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00034 J	0.00062 JN	0.0014 J	0.0016 J	0.0013 J	0.0014 J	0.00093 J+	0.0015 J+	< 0.00030 U	< 0.000026 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00024 J	< 0.000093 U	< 0.00017 U	< 0.00021 U	0.00035 J+	0.00047 J+	0.00021 J+	0.00038 J+	< 0.00029 U	< 0.000027 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00034 J	0.00032 J+	0.00059 J+	0.00059 J+	0.00049 J+	0.00058 J+	0.00041 JN	0.00055 J+	< 0.00033 U	< 0.000028 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000048 U	< 0.000052 U	< 0.000076 U	< 0.000076 U	0.00020 JN	< 0.00011 U	< 0.000080 U	< 0.00018 U	< 0.00016 U	< 0.00023 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00067 J	0.00089 J+	0.0019	0.0018	0.0014	0.0012	0.0010 J+	0.0012	0.00049 J	0.00011 J+
OCDD	3268-87-9	µg/kg	0.32	0.19	0.33	0.46	0.44	0.54	0.38	0.53	0.38	0.052
OCDF	39001-02-0	µg/kg	0.021	0.012	0.018	0.021	0.024	0.025	0.021	0.028	0.035 J	0.0020 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0015	0.0011	0.002	0.0023	0.0025	0.0023	0.0021	0.0028	0.0011	0.00011
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0014	0.00086	0.0019	0.0023	0.0023	0.0023	0.0019	0.0028	0.001	0.0001
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0014	0.0008	0.0018	0.0022	0.0022	0.0022	0.0017	0.0026	0.00081	0.000084
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.021	0.0018 J	0.0040 J	< 0.00019 U	0.0031 J	0.0050 JN	0.0041 J	0.0022 JN	0.0097 J	< 0.00017 U
PCB-10	33146-45-1	ng/g	0.0052 J	< 0.0017 U	< 0.0016 U	< 0.0023 U	< 0.0013 U	< 0.0042 U	< 0.0050 U	< 0.0012 U	0.0031 JN	< 0.0020 U
PCB-103	60145-21-3	ng/g	< 0.00040 U	0.0039 J	0.0073 J	0.012	0.0093 J	0.0088 J	0.0081 JN	< 0.00041 U	0.0081 JN	< 0.00027 U
PCB-104	56558-16-8	ng/g	< 0.00031 U	< 0.00019 U	< 0.00031 U	< 0.00028 U	< 0.00029 U	< 0.00029 U	< 0.00034 U	< 0.00031 U	< 0.00031 U	< 0.00021 U
PCB-105	32598-14-4	ng/g	1.3 J-	0.058	0.099	0.095 J	0.16 J	0.11	0.12	0.20	0.36	0.0060 JN
PCB-106	70424-69-0	ng/g	< 0.0059 U	< 0.00070 U	< 0.0010 U	< 0.0011 U	< 0.0012 U	< 0.0011 U	< 0.0012 U	< 0.0017 U	< 0.0022 U	< 0.00036 U
PCB-107	70424-68-9	ng/g	0.23	< 0.00075 U	0.028	0.033	0.039	0.025	0.027	0.035	0.070	0.0012 JN
PCB-108/124	70362-41-3	ng/g	0.16	0.0063 J	0.0067 JN	0.0095 J	0.017 J	0.010 J	0.013 J	0.019 J	0.043	< 0.00037 U
PCB-11	2050-67-1	ng/g	0.054	0.055	0.15	0.078	0.068	0.070 JN	0.071 JN	0.063	0.023	0.011 JN
PCB-110/115	38380-03-9	ng/g	5.3	0.20	0.36	0.38	0.55	0.43	0.45	0.84	1.4	0.037
PCB-111	39635-32-0	ng/g	< 0.00028 U	< 0.00018 U	< 0.00029 U	< 0.00026 U	< 0.00027 U	< 0.00027 U	< 0.00032 U	< 0.00029 U	< 0.00027 U	< 0.00019 U
PCB-112	74472-36-9	ng/g	< 0.00030 U	< 0.00019 U	< 0.00030 U	< 0.00027 U	< 0.00028 U	0.0034 J	< 0.00033 U	< 0.00030 U	< 0.00030 U	< 0.00020 U
PCB-114	74472-37-0	ng/g	0.081	0.0023 JN	0.0033 JN	0.0062 J	0.0082 J	0.0047 J	0.0065 J	0.012	0.020	< 0.00035 U
PCB-118	31508-00-6	ng/g	3.2	0.16	0.28	0.30	0.45	0.31	0.32	0.82	0.85	0.017 JN
PCB-12/13	2974-92-7	ng/g	0.013 J	0.0029 JN	0.0062 JN	< 0.0021 U	0.0045 J	0.0078 JN	0.0063 JN	0.0036 JN	0.0083 J	< 0.0018 U
PCB-120	68194-12-7	ng/g	< 0.00027 U	0.0012 J	< 0.00029 U	< 0.00026 U	0.0035 J	< 0.00027 U	0.0031 J	< 0.00029 U	< 0.00027 U	< 0.00020 U
PCB-121	56558-18-0	ng/g	< 0.00030 U	< 0.00019 U	< 0.00030 U	< 0.00027 U	< 0.00028 U	< 0.00028 U	< 0.00033 U	< 0.00030 U	< 0.00029 U	< 0.00020 U
PCB-122	76842-07-4	ng/g	0.064	0.0020 J	< 0.0012 U	0.0038 JN	0.0056 J	0.0045 J	0.0030 JN	0.0031 JN	0.015 JN	< 0.00042 U
PCB-123	65510-44-3	ng/g	0.064	0.0017 JN	0.0041 JN	0.0055 JN	0.0072 J	0.0057 J	0.0057 J	0.0085 JN	0.017	< 0.00038 U
PCB-126	57465-28-8	ng/g	0.0068 J	< 0.00075 U	< 0.0010 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0013 U	0.0022 JN	< 0.0024 U	< 0.00036 U
PCB-127	39635-33-1	ng/g	0.015	< 0.00069 U	< 0.0010 U	< 0.0011 U	< 0.0012 U	< 0.0011 U	< 0.0012 U	< 0.0017 U	< 0.0021 U	< 0.00036 U
PCB-128/166	38380-07-3	ng/g	0.98	0.042	0.067	0.074	0.097	0.080	0.088	0.90	0.37	0.0053 J
PCB-129/138/160/163	55215-18-4	ng/g	5.4	0.32	0.50	0.55	0.69	0.61	0.65	13	2.4	0.040
PCB-130	52663-66-8	ng/g	0.40	0.018	0.027 JN	0.037	0.040	0.035	0.034 JN	0.36	0.16	0.0029 J
PCB-131	61798-70-7	ng/g	0.096	< 0.0016 U	< 0.0022 U	< 0.0027 U	0.0071 J	< 0.0022 U	0.0039 JN	0.057 JN	0.032	< 0.0010 U
PCB-132	38380-05-1	ng/g	1.9	0.086	0.14	0.16	0.21	0.17	0.19	2.9	0.87	0.013
PCB-133	35694-04-3	ng/g	0.073	0.0066 J	0.0068 J	0.0080 J	0.012	0.011	0.0078 J	0.12	0.033	< 0.00094 U
PCB-134/143	52704-70-8	ng/g	0.35	0.013 J	0.023	0.025	0.034	0.028	0.028	0.40	0.15	< 0.00098 U
PCB-135/151	52744-13-5	ng/g	1.6	0.095	0.17	0.20	0.22	0.20	0.21	4.8	0.73	0.016 JN
PCB-136	38411-22-2	ng/g	0.66	0.028 JN	0.056	0.062	0.074	0.071	0.071	1.1	0.26	0.0057 JN
PCB-137	35694-06-5	ng/g	0.31	0.0099 J	0.016	0.016 JN	0.022 JN	0.021	0.022	0.047	0.10	< 0.00085 U
PCB-139/140	56030-56-9	ng/g	0.11	0.0037 JN	0.0064 JN	0.0050 JN	0.0097 J	0.0076 J	0.0076 JN	< 0.025 U	0.037	< 0.00084 U
PCB-14	34883-41-5	ng/g	< 0.00043 U	< 0.0013 U	< 0.0012 U	< 0.0018 U	< 0.0010 U	< 0.0032 U	< 0.0038 U	< 0.00094 U	< 0.00031 U	< 0.0015 U
PCB-141	52712-04-6	ng/g	1.0	0.052	0.077	0.085	0.11	0.11	0.11	4.1	0.51	0.0070 J
PCB-142	41411-61-4	ng/g	< 0.0042 U	< 0.0014 U	< 0.0019 U	< 0.0024 U	< 0.0025 U	< 0.0020 U	< 0.0023 U	< 0.028 U	< 0.0027 U	< 0.00094 U
PCB-144	68194-14-9	ng/g	0.25	0.0077 J	0.016	0.016 JN	0.023	0.017 JN	0.018 JN	0.70	0.10	0.0013 JN
PCB-145	74472-40-5	ng/g	0.0035 JN	< 0.00014 U	< 0.00017 U	< 0.00022 U	< 0.00019 U	< 0.00028 U	< 0.00026 U	< 0.00027 U	< 0.00022 U	< 0.00011 U
PCB-146	51908-16-8	ng/g	0.66	0.058	0.091	0.11	0.12	0.11	0.10	1.8	0.33	0.0067 J
PCB-147/149	68194-13-8	ng/g	3.8	0.29	0.44	0.51	0.59	0.56	0.55	12	2.1	0.041
PCB-148	74472-41-6	ng/g	0.0028 JN	0.0013 J	0.0015 J	0.0018 JN	0.0025 J	0.0013 JN	< 0.00037 U	< 0.00038 U	< 0.00030 U	< 0.00016 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B078	B079	B080	B081	B081	B082	B082	B083	B084	B085
		Sample ID	PDI-SG-B078-BL1	PDI-SG-B079-BL1	PDI-SG-B080-BL1	PDI-SG-B081-BL1	PDI-SG-B081-BL1-D	PDI-SG-B082-BL1	PDI-SG-B082-BL1-D	PDI-SG-B083-BL1	PDI-SG-B084-BL1	PDI-SG-B085-BL1
		Sample Date	09 May 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N	N
		Depth	0-22 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-19 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
PCB-15	2050-68-2	ng/g	0.10	0.013 JN	0.030 JN	0.028	0.027	0.063	0.052	0.016	0.083	0.0021 JN
PCB-150	68194-08-1	ng/g	0.0044 JN	0.00087 JN	0.0013 JN	0.0021 J	0.0013 J	0.0015 JN	0.0016 JN	< 0.00026 U	0.0021 J	< 0.00011 U
PCB-152	68194-09-2	ng/g	0.0048 JN	< 0.00014 U	< 0.00018 U	0.00082 JN	0.0014 J	0.00055 JN	< 0.00027 U	< 0.00028 U	0.0011 JN	< 0.00012 U
PCB-153/168	35065-27-1	ng/g	3.6	0.27	0.44	0.51	0.58	0.52	0.52	15	1.9	0.032 JN
PCB-154	60145-22-4	ng/g	0.055	0.0044 JN	0.0083 JN	0.013	0.012	0.012	0.0082 JN	0.011 JN	0.021	< 0.00013 U
PCB-155	33979-03-2	ng/g	< 0.000060 U	< 0.00013 U	< 0.00017 U	< 0.00021 U	0.00048 J	< 0.00026 U	< 0.00025 U	< 0.00026 U	< 0.00020 U	< 0.00011 U
PCB-156/157	38380-08-4	ng/g	0.69 J-	0.028	0.045	0.048	0.069	0.058	0.065	0.96	0.21	0.0035 J
PCB-158	74472-42-7	ng/g	0.63	0.025	0.036 JN	0.039 JN	0.057	0.051	0.054	1.2	0.25	0.0031 J
PCB-159	39635-35-3	ng/g	0.041	0.0016 JN	< 0.0013 U	0.0040 JN	0.0039 JN	< 0.0013 U	0.0040 J	0.21	0.030	< 0.00063 U
PCB-16	38444-78-9	ng/g	0.087	0.0096 J	0.016	0.018 JN	0.022	0.039 JN	0.033	0.013	0.062	0.0014 JN
PCB-161	74472-43-8	ng/g	< 0.0028 U	< 0.00096 U	< 0.0013 U	< 0.0016 U	< 0.0016 U	< 0.0013 U	< 0.0015 U	< 0.019 U	< 0.0018 U	< 0.00062 U
PCB-162	39635-34-2	ng/g	< 0.0026 U	< 0.00095 U	< 0.0013 U	< 0.0016 U	0.0021 JN	< 0.0013 U	0.0027 J	0.14	< 0.0017 U	< 0.00062 U
PCB-164	74472-45-0	ng/g	0.39	0.021	0.034	0.033 JN	0.042 JN	0.043	0.042	0.89	0.19	0.0028 JN
PCB-165	74472-46-1	ng/g	< 0.0032 U	< 0.0011 U	< 0.0015 U	< 0.0018 U	< 0.0019 U	< 0.0015 U	< 0.0017 U	< 0.021 U	< 0.0020 U	< 0.00071 U
PCB-167	52663-72-6	ng/g	0.23	0.0096 J	0.015	0.019	0.022	0.022	0.021	0.34	0.079	< 0.00052 U
PCB-169	32774-16-6	ng/g	< 0.0020 U	< 0.00077 U	< 0.0010 U	< 0.0012 U	< 0.0012 U	< 0.0010 U	< 0.0012 U	< 0.016 U	< 0.0014 U	< 0.00046 U
PCB-17	37680-66-3	ng/g	0.089	0.013 JN	0.029	0.035	0.035	0.056	0.047	0.014 JN	0.067	0.0017 JN
PCB-170	35065-30-6	ng/g	1.0	0.089	0.14	0.17	0.19	0.17	0.17	9.4	0.71	0.011 JN
PCB-171/173	52663-71-5	ng/g	0.33	0.026	0.043	0.051	0.053	0.052	0.051	2.9	0.23	0.0026 JN
PCB-172	52663-74-8	ng/g	0.18	0.013	0.024	0.028	0.029	0.027	0.026	1.5	0.13	0.0024 J
PCB-174	38411-25-5	ng/g	1.1	0.086	0.15	0.18	0.19	0.18	0.17	9.3	0.82	0.014 JN
PCB-175	40186-70-7	ng/g	0.043	0.0041 J	0.0037 J	0.0049 JN	0.0048 JN	0.0069 J	0.0064 J	0.38	0.034	< 0.00061 U
PCB-176	52663-65-7	ng/g	0.11	0.012	0.017	0.021	0.020	0.019	0.016 JN	1.2	0.094	< 0.00046 U
PCB-177	52663-70-4	ng/g	0.60	0.051	0.085	0.11	0.11	0.11	0.10	5.2	0.44	0.0063 JN
PCB-178	52663-67-9	ng/g	0.18	0.022	0.035	0.044	0.042	0.038	0.038	1.7	0.15	0.0038 JN
PCB-179	52663-64-6	ng/g	0.38	0.051	0.067	0.084	0.088	0.083	0.073	3.9	0.34	0.0070 J
PCB-18/30	37680-65-2	ng/g	0.18	0.024	0.046	0.052	0.063	0.11	0.088	0.033	0.12	0.0060 J
PCB-180/193	35065-29-3	ng/g	2.1	0.17	0.31	0.37	0.38	0.37	0.34	21	1.6	0.027
PCB-181	74472-47-2	ng/g	0.015	< 0.00062 U	< 0.00057 U	< 0.00087 U	< 0.00027 U	< 0.00041 U	< 0.00091 U	0.038	< 0.00020 U	< 0.00061 U
PCB-182	60145-23-5	ng/g	< 0.000041 U	< 0.00059 U	< 0.00055 U	< 0.00084 U	0.0023 JN	< 0.00040 U	< 0.00088 U	0.044	< 0.00019 U	< 0.00059 U
PCB-183/185	52663-69-1	ng/g	0.64	0.059	0.097	0.12	0.12	0.11	0.11	7.0	0.52	0.010 J
PCB-184	74472-48-3	ng/g	< 0.000036 U	< 0.00051 U	< 0.00047 U	< 0.00072 U	< 0.00023 U	< 0.00034 U	< 0.00075 U	< 0.00053 U	< 0.00017 U	< 0.00050 U
PCB-186	74472-49-4	ng/g	< 0.000034 U	< 0.00049 U	< 0.00045 U	< 0.00070 U	< 0.00022 U	< 0.00033 U	< 0.00073 U	< 0.00052 U	< 0.00016 U	< 0.00048 U
PCB-187	52663-68-0	ng/g	1.1	0.13	0.20	0.25	0.24	0.24	0.22	11	0.95	0.017 JN
PCB-188	74487-85-7	ng/g	< 0.000032 U	< 0.00042 U	< 0.00040 U	< 0.00061 U	< 0.00019 U	< 0.00029 U	< 0.00065 U	< 0.00045 U	< 0.00014 U	< 0.00043 U
PCB-189	39635-31-9	ng/g	0.041	0.0030 J	0.0052 J	0.0056 J	0.0046 JN	0.0045 J	0.0033 J	0.28	0.024	< 0.00053 U
PCB-19	38444-73-4	ng/g	0.033	0.011	0.016	0.025	0.022 JN	0.031	0.022 JN	0.015	0.028	0.0012 JN
PCB-190	41411-64-7	ng/g	0.20	0.016	0.025	0.030	0.032	0.031	0.025 JN	1.7	0.13	0.0033 J
PCB-191	74472-50-7	ng/g	0.047	0.0039 J	0.0051 JN	0.0065 JN	0.0061 J	0.0054 JN	0.0058 J	0.39	0.034	< 0.00046 U
PCB-192	74472-51-8	ng/g	< 0.000035 U	< 0.00052 U	< 0.00048 U	< 0.00074 U	< 0.00023 U	< 0.00035 U	< 0.00077 U	< 0.00055 U	< 0.00016 U	< 0.00051 U
PCB-194	35694-08-7	ng/g	0.45	0.048	0.075	0.099	0.10	0.10	0.090	5.1	0.42	0.0050 J
PCB-195	52663-78-2	ng/g	0.19	0.022	0.032	0.043	0.042	0.036	0.038	2.3	0.18	0.0023 J
PCB-196	42740-50-1	ng/g	0.22	0.016 JN	0.028 JN	0.044	0.043	0.041	0.036	2.3	0.17	0.0025 JN
PCB-197	33091-17-7	ng/g	0.015	0.0016 J	0.0017 JN	0.0029 JN	0.0023 JN	0.0033 JN	0.0013 JN	0.17	0.013	< 0.00025 U
PCB-198/199	68194-17-2	ng/g	0.52	0.047	0.090	0.11	0.11	0.11	0.10	4.1	0.38	0.0073 J
PCB-2	2051-61-8	ng/g	0.0056 JN	0.0077 J	0.017	0.013 JN	0.016	0.011 JN	0.0097 J	0.0070 J	0.0047 J	< 0.00020 U
PCB-20/28	38444-84-7	ng/g	0.47	0.060	0.12	0.13	0.12	0.20	0.16	0.078	0.37	0.013 J
PCB-200	52663-73-7	ng/g	0.057	0.0053 JN	0.0068 JN	0.0091 J	0.0083 J	0.0076 JN	0.0089 J	0.47	0.049	0.0015 J
PCB-201	40186-71-8	ng/g	0.058	0.0054 J	0.0071 JN	0.011	0.011	0.012	0.011	0.50	0.049	< 0.00023 U
PCB-202	2136-99-4	ng/g	0.097	0.012 JN	0.017	0.023	0.020 JN	0.021	0.022	0.64	0.079	0.0019 J
PCB-203	52663-76-0	ng/g	0.32	0.028	0.050	0.064	0.064	0.063	0.062	2.6	0.24	0.0047 J
PCB-204	74472-52-9	ng/g	< 0.00018 U	< 0.00034 U	< 0.00033 U	< 0.00037 U	< 0.00026 U	< 0.00031 U	< 0.00047 U	< 0.00069 U	< 0.00026 U	< 0.00025 U
PCB-205	74472-53-0	ng/g	0.022	0.0031 J	0.0036 JN	0.0055 J	0.0044 J	0.0046 J	0.0033 JN	0.26	0.020	< 0.00091 U
PCB-206	40186-72-9	ng/g	0.30	0.040	0.063	0.076	0.065	0.094	0.084	0.84	0.22 JN	< 0.0017 U
PCB-207	52663-79-3	ng/g	0.028	0.0033 J	0.0057 JN	0.0059 JN	0.0064 J	0.0068 J	0.0055 JN	0.12	0.022	< 0.0012 U
PCB-208	52663-77-1	ng/g	0.082	0.012	0.022	0.024	0.020	0.029	0.026	0.13	0.049	< 0.0012 U
PCB-209	2051-24-3	ng/g	0.18	0.048	0.074	0.097	0.073	0.073	0.085	0.078	0.054	0.0036 J
PCB-21/33	55702-46-0	ng/g	0.21	0.021	0.045	0.053	0.053	0.081	0.069	0.029	0.15	0.0031 JN
PCB-22	38444-85-8	ng/g	0.15	0.014	0.030	0.031	0.032	0.058	0.045	0.022	0.11	0.0029 J
PCB-23	55720-44-0	ng/g	< 0.0020 U	< 0.00037 U	< 0.00051 U	< 0.00055 U	< 0.00056 U	< 0.00065 U	< 0.00076 U	< 0.00059 U	< 0.0012 U	< 0.00027 U
PCB-24	55702-45-9	ng/g	0.0037 JN	0.00054 JN	0.00037 JN	< 0.00028 U	0.00074 JN	0.0014 J	0.00081 JN	0.00048 JN	0.0020 JN	< 0.00019 U
PCB-25	55712-37-3	ng/g	0.043	0.0051 J	0.0082 JN	0.0096 J	0.0076 JN	0.015	0.013	0.0063 J	0.027	0.00067 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B078	B079	B080	B081	B081	B082	B082	B083	B084	B085
		Sample ID	PDI-SG-B078-BL1	PDI-SG-B079-BL1	PDI-SG-B080-BL1	PDI-SG-B081-BL1	PDI-SG-B081-BL1-D	PDI-SG-B082-BL1	PDI-SG-B082-BL1-D	PDI-SG-B083-BL1	PDI-SG-B084-BL1	PDI-SG-B085-BL1
		Sample Date	09 May 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N	N
		Depth	0-22 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-19 cm	0-23 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.077	0.0086 J	0.017 J	0.017 J	0.016 J	0.031	0.025	0.012 J	0.051	0.0018 JN
PCB-27	38444-76-7	ng/g	0.023	0.0031 JN	0.0046 JN	0.0073 J	0.0063 J	0.0097 JN	0.0094 J	0.0037 JN	0.016	< 0.00016 U
PCB-3	2051-62-9	ng/g	0.011 J+	0.0016 JN	0.0038 JN	0.0029 J	0.0037 J	0.0049 J	0.0026 JN	0.0028 JN	0.0078 J	< 0.00023 U
PCB-31	16606-02-3	ng/g	0.33	0.040	0.084	0.085	0.087	0.14	0.12	0.057	0.25	0.0091 J
PCB-32	38444-77-8	ng/g	0.087	0.0076 J	0.019	0.022	0.020 JN	0.040	0.031	0.012	0.043 JN	0.0017 J
PCB-34	37680-68-5	ng/g	< 0.0021 U	< 0.00039 U	< 0.00052 U	< 0.00057 U	< 0.00058 U	< 0.00068 U	< 0.00079 U	< 0.00061 U	< 0.0012 U	< 0.00028 U
PCB-35	37680-69-6	ng/g	< 0.0020 U	0.0010 JN	0.0025 J	0.0019 J	0.0021 J	0.0027 JN	0.0017 JN	0.0015 JN	0.0060 J	< 0.00028 U
PCB-36	38444-87-0	ng/g	< 0.0018 U	< 0.00036 U	< 0.00049 U	< 0.00053 U	< 0.00055 U	< 0.00063 U	< 0.00074 U	< 0.00057 U	< 0.0011 U	< 0.00027 U
PCB-37	38444-90-5	ng/g	0.16	0.019	0.041	0.042	0.040	0.066	0.054	0.025	0.12	0.0038 JN
PCB-38	53555-66-1	ng/g	< 0.0020 U	< 0.00039 U	< 0.00053 U	< 0.00058 U	< 0.00059 U	< 0.00068 U	< 0.00079 U	< 0.00062 U	< 0.0012 U	< 0.00029 U
PCB-39	38444-88-1	ng/g	< 0.0018 U	< 0.00035 U	< 0.00047 U	< 0.00051 U	0.00081 J	< 0.00061 U	< 0.00071 U	0.00086 JN	< 0.0011 U	< 0.00026 U
PCB-4	13029-08-8	ng/g	0.066	0.011 J	0.017 J	0.015 JN	0.020 J	0.031 JN	0.031 JN	0.011 JN	0.038	< 0.0025 U
PCB-40/41/71	38444-93-8	ng/g	0.39	0.033	0.059	0.066	0.075	0.10	0.082	0.042	0.25	0.0064 J
PCB-42	36559-22-5	ng/g	0.18	0.016	0.031	0.036	0.039	0.051	0.040	0.022	0.12	0.0026 JN
PCB-43/73	70362-46-8	ng/g	0.039	< 0.0011 U	< 0.0013 U	0.0057 J	0.0037 JN	0.0051 JN	0.0033 JN	0.0035 J	0.018 J	< 0.00053 U
PCB-44/47/65	41464-39-5	ng/g	0.97	0.087	0.15	0.17	0.20	0.22	0.21	0.11	0.52	0.014 J
PCB-45/51	70362-45-7	ng/g	0.14	0.012 JN	0.022 JN	0.032	0.029	0.040	0.036 JN	0.017 JN	0.092	0.0019 JN
PCB-46	41464-47-5	ng/g	0.051	< 0.0014 U	0.0061 J	< 0.0022 U	0.0065 JN	0.0096 J	0.0081 J	0.0029 JN	0.032	< 0.00072 U
PCB-48	70362-47-9	ng/g	0.11	0.010 J	0.018 JN	0.024	0.024	0.036	0.026	0.014	0.085	< 0.00056 U
PCB-49/69	41464-40-8	ng/g	0.56	0.053	0.098	0.11	0.13	0.15	0.13	0.074	0.31	0.0077 JN
PCB-5	16605-91-7	ng/g	0.0027 JN	< 0.0017 U	< 0.0016 U	< 0.0023 U	< 0.0013 U	< 0.0043 U	< 0.0051 U	< 0.0012 U	0.0013 JN	< 0.0020 U
PCB-50/53	62796-65-0	ng/g	0.13	0.012 J	0.022	0.028	0.028	0.035	0.029	0.016 J	0.075	0.0021 JN
PCB-52	35693-99-3	ng/g	2.3	0.094	0.18	0.19	0.29	0.25	0.23	0.13	0.89	0.018 JN
PCB-54	15968-05-5	ng/g	0.0038 JN	0.0021 J	0.0031 J	0.0043 JN	0.0049 J	0.0042 JN	0.0031 JN	0.0034 J	0.0017 JN	< 0.000038 U
PCB-55	74338-24-2	ng/g	0.017	< 0.00082 U	< 0.0010 U	0.0014 JN	0.0021 J	0.0020 JN	0.0025 J	0.0016 JN	0.0092 J	< 0.00041 U
PCB-56	41464-43-1	ng/g	0.25	0.032	0.058	0.057	0.064	0.068	0.057	0.040	0.12	0.0057 J
PCB-57	70424-67-8	ng/g	< 0.0019 U	< 0.00083 U	< 0.0010 U	< 0.0013 U	< 0.0011 U	< 0.0012 U	< 0.0011 U	0.00075 JN	< 0.00016 U	< 0.00042 U
PCB-58	41464-49-7	ng/g	0.0077 J	< 0.00084 U	< 0.0010 U	< 0.0013 U	< 0.0011 U	< 0.0013 U	< 0.0012 U	0.00073 JN	< 0.00016 U	< 0.00042 U
PCB-59/62/75	74472-33-6	ng/g	0.067	0.0050 J	0.010 J	0.013 J	0.012 J	0.017 J	0.014 J	0.0072 J	0.046	< 0.00040 U
PCB-6	25569-80-6	ng/g	0.027	0.0025 JN	0.0067 JN	0.0076 JN	0.0068 JN	0.011 JN	0.011 JN	0.0036 JN	0.019	< 0.0017 U
PCB-60	33025-41-1	ng/g	0.11	0.012	0.019	0.018	0.024	0.027	0.023 JN	0.017	0.059	0.0025 JN
PCB-61/70/74/76	33284-53-6	ng/g	1.6	0.13	0.25	0.25	0.33	0.29	0.26	0.18	0.61	0.024 J
PCB-63	74472-34-7	ng/g	0.019	< 0.00076 U	0.0038 JN	0.0060 J	0.0064 J	0.0061 J	0.0048 JN	0.0037 J	0.012	< 0.00038 U
PCB-64	52663-58-8	ng/g	0.34	0.027	0.049	0.054	0.063	0.078	0.062	0.036	0.19	0.0055 J
PCB-66	32598-10-0	ng/g	0.64	0.082	0.16	0.17	0.18	0.17	0.16	0.11	0.32	0.015
PCB-67	73575-53-8	ng/g	0.015	< 0.00072 U	0.0021 J	0.0025 JN	0.0028 J	0.0030 JN	0.0038 J	0.0021 JN	0.013	< 0.00036 U
PCB-68	73575-52-7	ng/g	< 0.0016 U	< 0.00074 U	< 0.00090 U	< 0.0011 U	0.0026 J	0.0040 J	0.0032 J	0.0034 J	0.0040 J+	< 0.00037 U
PCB-7	33284-50-3	ng/g	0.0056 J	< 0.0016 U	< 0.0015 U	< 0.0021 U	0.0022 JN	< 0.0039 U	< 0.0046 U	0.0012 JN	0.0032 JN	< 0.0018 U
PCB-72	41464-42-0	ng/g	0.0089 J	< 0.00082 U	< 0.00099 U	0.0038 J	0.0039 J	0.0021 JN	0.0029 JN	0.0023 J	0.0038 JN	< 0.00041 U
PCB-77	32598-13-3	ng/g	0.056	0.0089 J	0.016	0.017	0.018	0.017	0.013 JN	0.013	0.033	0.0014 J
PCB-78	70362-49-1	ng/g	< 0.0018 U	< 0.00084 U	< 0.0010 U	< 0.0013 U	< 0.0011 U	< 0.0013 U	< 0.0012 U	< 0.00071 U	< 0.00016 U	< 0.00042 U
PCB-79	41464-48-6	ng/g	0.033	< 0.00073 U	< 0.00089 U	< 0.0011 U	0.0025 JN	< 0.0011 U	0.0011 JN	0.0020 JN	0.0099 J	< 0.00037 U
PCB-8	34883-43-7	ng/g	0.12	0.013 J	0.027	0.028	0.031	0.067	0.054	0.016 J	0.083	0.0041 JN
PCB-80	33284-52-5	ng/g	< 0.0016 U	< 0.00072 U	< 0.00087 U	< 0.0011 U	< 0.00093 U	< 0.0011 U	< 0.00098 U	0.00071 J	< 0.00014 U	< 0.00036 U
PCB-81	70362-50-4	ng/g	< 0.0017 U	< 0.00079 U	< 0.00095 U	< 0.0012 U	0.0038 J	< 0.0011 U	< 0.0010 U	< 0.00064 U	< 0.00015 U	< 0.00038 U
PCB-82	52663-62-4	ng/g	0.54	0.016	0.028 JN	0.031	0.049	0.033 JN	0.037	0.033 JN	0.13	0.0027 JN
PCB-83/99	60145-20-2	ng/g	2.3	0.11	0.21	0.23	0.33	0.23	0.25	0.25	0.59	0.015 J
PCB-84	52663-60-2	ng/g	1.3	0.036	0.065	0.069 JN	0.11	0.080	0.069 JN	0.065	0.32	0.0076 JN
PCB-85/116/117	65510-45-4	ng/g	0.68	0.033	0.054	0.054	0.084	0.063	0.068	0.066	0.18	0.0032 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	2.8	0.11	0.19	0.19	0.30	0.21	0.24	0.33	0.68	0.013 J
PCB-88/91	55215-17-3	ng/g	0.60	0.028	0.051	0.059	0.076	0.068	0.067	0.044	0.16	0.0047 J
PCB-89	73575-57-2	ng/g	0.042	< 0.00029 U	< 0.00046 U	< 0.00042 U	< 0.00043 U	< 0.00043 U	< 0.00051 U	< 0.00046 U	0.0085 JN	0.00081 J
PCB-9	34883-39-1	ng/g	0.0089 J	< 0.0016 U	< 0.0015 U	< 0.0021 U	0.0015 JN	0.0047 JN	< 0.0047 U	< 0.0012 U	0.0059 J	< 0.0018 U
PCB-90/101/113	68194-07-0	ng/g	4.2	0.18	0.33	0.35	0.52	0.40	0.43	1.7	1.1	0.029 J
PCB-92	52663-61-3	ng/g	0.84	0.032	0.062	0.070	0.090	0.073	0.079	0.16	0.21	0.0063 J
PCB-93/100	73575-56-1	ng/g	0.11	0.0060 JN	0.012 J	0.013 J	0.013 J	0.011 JN	0.014 J	0.0084 JN	0.022	< 0.00027 U
PCB-94	73575-55-0	ng/g	< 0.00046 U	< 0.00029 U	< 0.00046 U	< 0.00042 U	< 0.00043 U	< 0.00043 U	< 0.00051 U	< 0.00046 U	< 0.00046 U	< 0.00031 U
PCB-95	38379-99-6	ng/g	4.0	0.13	0.24	0.26	0.40	0.30	0.33	0.44	1.1	0.029 JN
PCB-96	73575-54-9	ng/g	< 0.00035 U	0.0016 JN	0.0025 J	0.0035 J	< 0.00032 U	0.0035 J	0.0042 J	< 0.00035 U	0.0092 J	< 0.00023 U
PCB-98/102	60233-25-2	ng/g	0.13	0.0035 JN	0.0092 J	0.010 J	0.011 JN	0.013 J	0.013 J	0.0092 J	0.040	0.00093 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	72	4.5	7.8	8.8	11	10	10	164	32	0.7

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

			Location	B078	B079	B080	B081	B081	B082	B082	B083	B084	B085
			Sample ID	PDI-SG-B078-BL1	PDI-SG-B079-BL1	PDI-SG-B080-BL1	PDI-SG-B081-BL1	PDI-SG-B081-BL1-D	PDI-SG-B082-BL1	PDI-SG-B082-BL1-D	PDI-SG-B083-BL1	PDI-SG-B084-BL1	PDI-SG-B085-BL1
			Sample Date	09 May 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018
			Sample Type Code	N	N	N	N	FD	N	FD	N	N	N
			Depth	0-22 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-19 cm	0-23 cm
Chemical		**CAS_RN**	**Units**										
Pesticides													
2,4-DDD		53-19-0	µg/kg	1.5	< 0.52 U	0.54	0.63	0.51 J	< 0.56 U	< 0.55 U	0.61	< 0.34 U	< 0.34 U
2,4-DDE		3424-82-6	µg/kg	< 0.28 U	< 0.52 U	< 0.52 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.55 U	< 0.58 U	< 0.40 U	< 0.40 U
2,4-DDT		789-02-6	µg/kg	1.5 J	< 0.52 U	< 0.52 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.55 U	< 0.58 U	< 0.47 U	< 0.47 U
4,4'-DDD		72-54-8	µg/kg	5.3	0.96	1.9	2.0	1.6	0.95	0.86	1.6	0.95	0.21 J
4,4'-DDE		72-55-9	µg/kg	2.8	1.7	1.9	2.6	2.4	1.9	1.6	2.7	0.87	< 0.35 U
4,4'-DDT		50-29-3	µg/kg	6.3 J	5.0	0.28 J	0.36 J	0.58	< 0.56 U	0.31 J	0.80	1.2	< 0.34 U
Total DDx	(b)	T_DDx (PDI)	µg/kg	18	7.9	4.9	5.9	5.4	3.1	3.0	6.0	3.3	0.45
Aldrin		309-00-2	µg/kg	< 0.28 U	< 0.52 UJ	< 0.52 UJ	< 0.56 UJ	< 0.56 UJ	< 0.56 UJ	< 0.55 UJ	< 0.58 UJ	< 0.40 UJ	< 0.40 U
alpha-Chlordane		5103-71-9	µg/kg	< 0.56 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 0.69 U	< 0.67 U
cis-Nonachlor		5103-73-1	µg/kg	< 0.28 U	< 0.52 U	< 0.52 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.55 U	< 0.58 U	< 0.49 U	< 0.49 UJ
Dieldrin		60-57-1	µg/kg	< 0.56 U	< 1.0 U	< 1.0 U	0.47 J	< 1.1 U	< 1.1 U	< 1.1 U	1.1 J	0.49 J	< 1.0 U
gamma-BHC (Lindane)		58-89-9	µg/kg	< 0.28 U	< 0.52 U	< 0.52 U	< 0.56 U	< 0.56 U	< 0.56 U	< 0.55 U	< 0.58 U	< 0.34 U	< 0.34 U
gamma-Chlordane		5566-34-7	µg/kg	< 0.56 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 0.69 U	< 0.67 U
Heptachlor		76-44-8	µg/kg	< 0.28 U	< 0.52 UJ	< 0.52 UJ	< 0.56 UJ	< 0.56 UJ	< 0.56 UJ	< 0.55 UJ	< 0.58 UJ	< 0.34 UJ	< 0.34 UJ
Oxychlordane		27304-13-8	µg/kg	< 0.56 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.0 U
trans-Nonachlor		39765-80-5	µg/kg	< 0.56 U	< 1.0 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 0.69 U	< 0.67 U
Total Chlordanes	(b)	T_Clrdn (PDI)	µg/kg	< 0.56 U	< 1 U	< 1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1 U	< 1 U
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	1.9 J	5.5	4.7	5.6	5.1	5.0 J	8.6 J	5.3	1.6 J	1.8
Acenaphthene		83-32-9	µg/kg	5.3	15	8.7	12	9.6	4.9	6.5	7.5	53	2.0
Acenaphthylene		208-96-8	µg/kg	4.0	56	16	19	14	7.1	5.2	7.5	3.2	11
Anthracene		120-12-7	µg/kg	12	34	21	24	20	13	12	20	110	6.0
Benz(a)anthracene		56-55-3	µg/kg	50 J	310	88	150	100	56	38	64	730	56
Benzo(a)pyrene		50-32-8	µg/kg	63	550	180	230	210	85	68	110	490	99
Benzo(b)fluoranthene		205-99-2	µg/kg	83	460	130	200	160	77	58	90	580	86
Benzo(g,h,i)perylene		191-24-2	µg/kg	57	470	150	200	170	63	50	95	250	72
Benzo(k)fluoranthene		207-08-9	µg/kg	27	170	51	63	56	29	20	30	240	27
Bis(2-ethylhexyl)phthalate		117-81-7	µg/kg	80	47 J	47 J	53 J	62 J	100 J	74 J	73 J	44 J	< 68 U
Chrysene		218-01-9	µg/kg	74	460	120 J	190 J	140 J	75 J	65	94 J	750	72
Dibenz(a,h)anthracene		53-70-3	µg/kg	12	60	19	35	28	9.1	6.3	12	70	12
Fluoranthene		206-44-0	µg/kg	94 J	190	170	170	150	98	78	130	1300	53
Fluorene		86-73-7	µg/kg	3.0	11	8.6	9.8	8.4	5.9	7.0	8.4	20	1.6
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	54	430	130	190	150	57	46	82	290	71
Naphthalene		91-20-3	µg/kg	4.3	19	28	17	15	11 J	58 J	14	4.0	9.8
Phenanthrene		85-01-8	µg/kg	180	69	74	82	68	44	43	70	500	9.7
Pyrene		129-00-0	µg/kg	130 J	340 J	210 J	250	210 J	140 J	100 J	200 J	1700	100
Total PAHs	(b)	T_PAH (PDI)	µg/kg	855	3650	1409	1847	1514	780	670	1040	7092	690
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	94	732	234	320	280	113	89	146	723	133
Metals													
Arsenic		7440-38-2	mg/kg	6.1 J	4.1	4.5	4.7	4.1	5.1	4.0	4.9	5.0	4.2
Cadmium		7440-43-9	mg/kg	0.37	0.16 J	0.23 J	0.23 J	0.22 J	0.31	0.23 J	0.21 J	0.23	0.13 J
Copper		7440-50-8	mg/kg	26 J	28	35	38	32	41	33	38	30	15
Lead		7439-92-1	mg/kg	51 J	7.5	9.4	11	9.0	12	9.1	9.8	27 J	4.6
Mercury		7439-97-6	mg/kg	0.021 J	0.050 J	0.051 J	0.059	0.052 J	0.059	0.041 J	0.050 J	0.034	< 0.029 U
Tri-n-butyltin		36643-28-4	µg/kg	7.9 J	1.8 J	1.2 J	5.2	2.5	3.8	3.7	1.7 J	3.6	< 1.3 U
Zinc		7440-66-6	mg/kg	210	76	91	93	82	100	83	91	92	62
TPH													
TPH-Diesel Range Organics		68334-30-5	mg/kg	< 68 U	< 99 U	< 110 U	34 J	< 110 U	< 110 U	< 110 U	< 110 U	< 180 U	< 64 U
TPH-Motor Oil Range Organics		TPH-MOIL	mg/kg	98	180	290	240	190	180	200	220	460 J	< 64 U
Other													
Total Solids@104C - D2216	(f)	TSOLID	%	71.3									
Total Solids@104C - E160.3	(f)	TSOLID	%		47.0	44.8	45.7	43.5	44.5	45.0	42.7	69.4	73.5
Total Solids@104C - E160.3M	(f)	TSOLID	%	69.5	47.7	47.7	44.3	44.3	44.2	44.6	42.7	72.4	73.2
Total Solids@70C		TSOLID70	%	73	48	48	45	47	45	48	42	77	75
Gravel		GS-Gravel	%	1.5	0	0	0		0		0	6.8	0
Sand, Coarse		GS-Csand	%	1.5	0.1	0	0		0		0	5.8	0.5
Sand, Medium		GS-Msand	%	29.7	2.6	0.1	0.3		0.1		0.1	27.2	28.4
Sand, Fine (#200)	(d)	GS-Fsand-200	%	56.97	32.9	25.24	17.78		18.38		9.77	49.26	65.16
Sand, Fine (#230)	(d)	GS-Fsand	%	57.5	35.7	29.4	21.4		23.9		13.3	50.3	65.5
Silt (#200)	(d)	GS-Silt-200	%	6.929	53.89	64.15	71.21		67.81		79.62	7.138	5.033

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B078	B079	B080	B081	B081	B082	B082	B083	B084	B085
		Sample ID	PDI-SG-B078-BL1	PDI-SG-B079-BL1	PDI-SG-B080-BL1	PDI-SG-B081-BL1	PDI-SG-B081-BL1-D	PDI-SG-B082-BL1	PDI-SG-B082-BL1-D	PDI-SG-B083-BL1	PDI-SG-B084-BL1	PDI-SG-B085-BL1
		Sample Date	09 May 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N	N
		Depth	0-22 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-19 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	6.4	51.1	60.0	67.6		62.3		76.1	6.1	4.7
Clay	GS-Clay	%	3.4	10.5	10.2	10.7		13.6		10.5	3.8	0.9
Percent Fines (e)	GS-FINES	%	10.329	64.39	74.35	81.91		81.41		90.12	10.938	5.933
Total Organic Carbon	TOC	mg/kg	5300	17000	16000	18000	18000	19000	19000	22000	4800	840 J

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B086	B087	B088	B089	B090	B091	B092	B093	B094	B095
		Sample ID	PDI-SG-B086-BL1	PDI-SG-B087-BL1	PDI-SG-B088-BL1	PDI-SG-B089-BL1	PDI-SG-B090-BL1	PDI-SG-B091-BL1	PDI-SG-B092-BL1	PDI-SG-B093-BL1	PDI-SG-B094-BL1	PDI-SG-B095-BL1
		Sample Date	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018	09 Apr 2018	10 Apr 2018	10 Apr 2018	09 Apr 2018	09 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-25 cm	0-30 cm	0-29 cm	0-25 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.043	0.047	0.067	0.059	0.16	0.12	0.075	0.019	0.063	0.039
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.010 JN	0.0076 JN	0.0098 JN	0.011 JN	0.015	0.0082 JN	0.011 JN	0.0029 JN	0.012 JN	0.0078 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0014 J	< 0.00079 U	< 0.00037 U	< 0.00060 U	< 0.00036 U	< 0.00043 U	0.0014 J	0.00044 J+	< 0.0012 U	< 0.00058 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00066 J+	0.00062 J+	0.00064 J+	0.00086 J+	0.0013 J+	0.00064 J+	0.00086 J+	0.00050 J+	0.00072 J+	0.00076 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0082	0.0015 J	0.0060	0.0013 JN	0.0023 J	0.0027 JN	0.0058 J	0.00098 J+	0.0083	0.0018 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0020 J	0.0021 JN	0.0018 J	0.0024 J	0.0043 J	0.0020 J	0.0029 J	0.00096 J+	0.0023 J	0.0024 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0039 J	0.0031 J	0.0070	0.0029 J	0.0049 J	0.0036 J	0.0051 J	0.0012 J+	0.0058	0.0031 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0016 J	0.0014 J	0.0014 J+	0.0018 J	0.0023 J	0.0014 J+	0.0021 J	0.00079 J+	0.0015 J	0.0016 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00023 U	< 0.00017 U	< 0.00015 U	< 0.00018 U	< 0.00023 U	< 0.00029 U	< 0.00027 U	0.00036 J+	< 0.00019 U	0.00033 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00037 J+	< 0.00019 U	< 0.00027 U	< 0.00019 U	< 0.00033 U	< 0.00022 U	0.00046 JN	0.00048 J+	< 0.00032 U	< 0.00019 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0047 J	< 0.00023 U	0.0024 J	0.00072 J+	0.00084 J+	0.00081 J+	0.0078	0.00073 J+	0.012	0.0013 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00026 U	< 0.00020 U	0.00042 J+	< 0.00019 U	0.00036 J+	< 0.00034 U	0.00072 J+	0.00037 J+	0.00041 J+	< 0.00021 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0017 J	0.00028 JN	0.00065 J+	0.00046 J+	0.00065 J+	< 0.00029 U	0.0036 J	0.00045 J+	0.0035 J	0.00058 JN
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000065 U	< 0.000081 U	< 0.00014 U	< 0.000076 U	< 0.000088 U	< 0.000075 U	0.00022 JN	< 0.00017 U	< 0.000081 U	< 0.000070 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0018	0.00066 JN	0.0016	0.00083 J+	0.0010	0.00093 J	0.0059	0.00051 J+	0.0031	0.00099 J+
OCDD	3268-87-9	µg/kg	0.39	0.44	0.56	0.53	1.1	0.86	0.67	0.15	0.67	0.32
OCDF	39001-02-0	µg/kg	0.022	0.023	0.027	0.033	0.044	0.020	0.031	0.0082	0.039	0.018
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0035	0.0018	0.0032	0.0021	0.0041	0.0028	0.0054	0.0016	0.0047	0.002
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0035	0.0015	0.0032	0.002	0.0041	0.0026	0.005	0.0015	0.0047	0.0014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0035	0.0013	0.0031	0.0019	0.004	0.0024	0.0047	0.0014	0.0046	0.0012
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0024 JN	0.0064 J	< 0.00044 U	0.0031 JN	0.0074 J	0.081	0.0028 JN	0.0012 J	0.021	0.0018 JN
PCB-10	33146-45-1	ng/g	< 0.0039 U	< 0.0043 U	< 0.0030 U	< 0.0043 U	0.0016 JN	< 0.0030 U	< 0.0014 U	< 0.0016 U	0.0073 JN	< 0.0019 U
PCB-103	60145-21-3	ng/g	0.0068 JN	0.0066 JN	0.0073 JN	0.0054 JN	0.012	< 0.00060 U	0.012	0.0023 J	0.016	0.0071 J
PCB-104	56558-16-8	ng/g	< 0.00035 U	< 0.00029 U	< 0.00039 U	< 0.00029 U	< 0.00036 U	< 0.00046 U	< 0.00035 U	< 0.00021 U	< 0.00047 U	< 0.00020 U
PCB-105	32598-14-4	ng/g	0.11	0.11	0.13	0.080	0.29	0.10	0.10	0.021	0.28	0.076
PCB-106	70424-69-0	ng/g	< 0.0012 U	< 0.0011 U	< 0.0014 U	< 0.0012 U	< 0.0014 U	< 0.0015 U	< 0.0012 U	< 0.00047 U	< 0.0016 U	< 0.0010 U
PCB-107	70424-68-9	ng/g	0.023	0.024	0.041	0.014 JN	0.070	0.024	0.034	0.0055 J	0.059	0.022
PCB-108/124	70362-41-3	ng/g	0.011 J	0.011 J	0.012 JN	0.0055 JN	0.037	0.0096 JN	0.011 J	0.0023 JN	0.030	0.0072 JN
PCB-11	2050-67-1	ng/g	0.065 JN	0.059 JN	0.055 JN	0.063	0.086	0.054	0.075	0.023	0.057	0.070
PCB-110/115	38380-03-9	ng/g	0.42	0.42	0.54	0.30	1.2	0.38	0.44	0.079	1.0	0.26
PCB-111	39635-32-0	ng/g	< 0.00033 U	< 0.00027 U	< 0.00036 U	< 0.00027 U	< 0.00034 U	< 0.00043 U	< 0.00032 U	< 0.00019 U	< 0.00043 U	< 0.00018 U
PCB-112	74472-36-9	ng/g	< 0.00035 U	< 0.00028 U	< 0.00038 U	< 0.00028 U	< 0.00035 U	< 0.00045 U	< 0.00034 U	< 0.00020 U	< 0.00046 U	< 0.00019 U
PCB-114	74472-37-0	ng/g	0.0024 JN	0.0043 J	0.0083 J	0.0036 J	0.013	0.0048 JN	0.0042 JN	0.0012 JN	0.014	0.0043 J
PCB-118	31508-00-6	ng/g	0.30	0.30	0.41	0.22	0.90	0.29	0.34	0.060	0.73	0.21
PCB-12/13	2974-92-7	ng/g	< 0.0036 U	0.0096 JN	< 0.0028 U	0.0047 JN	0.0070 JN	< 0.0028 U	0.0076 JN	< 0.0015 U	0.042 JN	0.0023 JN
PCB-120	68194-12-7	ng/g	0.0032 J	0.0022 JN	< 0.00036 U	0.0023 JN	< 0.00034 U	< 0.00043 U	0.0038 J	< 0.00020 U	< 0.00044 U	< 0.00018 U
PCB-121	56558-18-0	ng/g	< 0.00034 U	< 0.00028 U	< 0.00037 U	< 0.00028 U	< 0.00035 U	< 0.00044 U	< 0.00034 U	< 0.00020 U	< 0.00045 U	< 0.00019 U
PCB-122	76842-07-4	ng/g	0.0026 JN	0.0033 JN	0.0044 J	0.0028 JN	0.011	0.0049 J	0.0042 JN	0.00084 JN	0.010	0.0032 J
PCB-123	65510-44-3	ng/g	0.0043 JN	0.0048 J	0.0044 JN	0.0030 JN	0.018	0.0041 JN	0.0049 JN	0.00085 JN	0.013	0.0034 JN
PCB-126	57465-28-8	ng/g	< 0.0013 U	< 0.0011 U	< 0.0014 U	< 0.0012 U	0.0029 J	< 0.0015 U	0.0023 J	< 0.00047 U	0.0040 J	< 0.0011 U
PCB-127	39635-33-1	ng/g	< 0.0012 U	< 0.0011 U	< 0.0014 U	< 0.0011 U	< 0.0014 U	< 0.0015 U	< 0.0012 U	< 0.00047 U	< 0.0016 U	< 0.0010 U
PCB-128/166	38380-07-3	ng/g	0.076	0.080	0.087	0.088	0.22	0.066	0.083	0.014 J	0.17	0.061
PCB-129/138/160/163	55215-18-4	ng/g	0.54	0.57	0.70	0.89	1.5	0.49	0.64	0.11	1.1	0.46
PCB-130	52663-66-8	ng/g	0.031	0.035	0.045	0.038	0.077	0.030	0.037	0.0058 J	0.068	0.025
PCB-131	61798-70-7	ng/g	0.0061 J	0.0037 JN	< 0.0031 U	0.0045 JN	0.014 JN	< 0.0030 U	0.0047 JN	0.0015 J	0.013 JN	< 0.0028 U
PCB-132	38380-05-1	ng/g	0.16	0.17	0.21	0.20	0.43	0.13	0.18	0.032	0.35	0.12
PCB-133	35694-04-3	ng/g	0.0074 JN	0.0083 J	0.017 J	0.0088 J	0.015	0.0092 J	0.011 J	0.0023 J	0.017	0.0066 J
PCB-134/143	52704-70-8	ng/g	0.019 JN	0.027	0.036 J	0.033	0.064	0.018 JN	0.028	0.0053 J	0.057	0.016 J
PCB-135/151	52744-13-5	ng/g	0.17	0.18	0.28	0.25	0.35	0.16	0.23	0.040	0.33	0.14
PCB-136	38411-22-2	ng/g	0.054 JN	0.065	0.093	0.066	0.12	0.055	0.072	0.011	0.12	0.046
PCB-137	35694-06-5	ng/g	0.015 JN	0.018	0.015 JN	0.015	0.052 JN	0.011 JN	0.021	0.0035 JN	0.049	0.011 JN
PCB-139/140	56030-56-9	ng/g	0.0089 J	0.0089 J	0.0085 JN	0.0077 J	0.022	0.0074 JN	0.010 J	0.0017 JN	0.017 J	0.0061 J
PCB-14	34883-41-5	ng/g	< 0.0030 U	< 0.0033 U	< 0.0023 U	< 0.0033 U	< 0.0011 U	< 0.0023 U	< 0.0010 U	< 0.0013 U	< 0.0030 U	< 0.0015 U
PCB-141	52712-04-6	ng/g	0.089	0.099	0.12	0.20	0.24	0.079	0.11	0.018	0.20	0.077
PCB-142	41411-61-4	ng/g	< 0.0020 U	< 0.0021 U	< 0.0028 U	< 0.0033 U	< 0.0034 U	< 0.0027 U	< 0.0023 U	< 0.00086 U	< 0.0026 U	< 0.0025 U
PCB-144	68194-14-9	ng/g	0.018	0.021	0.025	0.031	0.047	0.015 J	0.018	0.0033 J	0.038	0.013 JN
PCB-145	74472-40-5	ng/g	< 0.00035 U	< 0.00026 U	< 0.00039 U	< 0.00023 U	< 0.00034 U	< 0.00022 U	< 0.00028 U	< 0.00013 U	< 0.00032 U	< 0.00022 U
PCB-146	51908-16-8	ng/g	0.089	0.10	0.16	0.13	0.20	0.087	0.12	0.020	0.17	0.085
PCB-147/149	68194-13-8	ng/g	0.45	0.49	0.66	0.70	1.1	0.40	0.62	0.095	0.95	0.38
PCB-148	74472-41-6	ng/g	< 0.00050 U	< 0.00036 U	0.0052 J	0.0012 JN	0.0020 J	0.0023 J	0.0031 J	< 0.00018 U	0.0028 J	0.0011 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B086	B087	B088	B089	B090	B091	B092	B093	B094	B095
		Sample ID	PDI-SG-B086-BL1	PDI-SG-B087-BL1	PDI-SG-B088-BL1	PDI-SG-B089-BL1	PDI-SG-B090-BL1	PDI-SG-B091-BL1	PDI-SG-B092-BL1	PDI-SG-B093-BL1	PDI-SG-B094-BL1	PDI-SG-B095-BL1
		Sample Date	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018	09 Apr 2018	10 Apr 2018	10 Apr 2018	09 Apr 2018	09 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-25 cm	0-30 cm	0-29 cm	0-25 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.020 JN	0.071	0.029	0.027 JN	0.057	0.041	0.024 JN	0.0048 JN	0.36	0.021
PCB-150	68194-08-1	ng/g	0.0013 JN	0.0012 JN	0.0030 J	0.0011 J	0.0012 JN	< 0.00021 U	0.0023 J	< 0.00012 U	0.0035 JN	0.0012 JN
PCB-152	68194-09-2	ng/g	< 0.00037 U	< 0.00026 U	< 0.00040 U	0.00058 JN	< 0.00035 U	< 0.00022 U	0.00051 JN	< 0.00013 U	0.0022 JN	< 0.00022 U
PCB-153/168	35065-27-1	ng/g	0.45	0.47	0.63	0.86	1.1	0.40	0.59	0.096	0.89	0.41
PCB-154	60145-22-4	ng/g	0.011 J	0.0091 J	0.015 J	0.0077 J	0.016	0.0067 J	0.013 JN	0.0017 JN	0.017	0.0074 J
PCB-155	33979-03-2	ng/g	< 0.00034 U	< 0.00025 U	< 0.00037 U	< 0.00022 U	< 0.00032 U	< 0.00021 U	< 0.00026 U	< 0.00012 U	< 0.00031 U	< 0.00021 U
PCB-156/157	38380-08-4	ng/g	0.048	0.057	0.063	0.076	0.15	0.046	0.054	0.0097 J	0.13	0.042
PCB-158	74472-42-7	ng/g	0.042	0.052	0.054	0.077	0.13	0.037	0.049	0.0073 JN	0.10	0.036
PCB-159	39635-35-3	ng/g	0.0032 J	0.0031 J	< 0.0019 U	0.0085 JN	0.0067 JN	< 0.0018 U	0.0054 J	0.00080 JN	0.0049 JN	0.0042 JN
PCB-16	38444-78-9	ng/g	0.018	0.036	0.025 JN	0.015 JN	0.064	0.019 JN	0.017	0.0030 J	0.30	0.011 JN
PCB-161	74472-43-8	ng/g	< 0.0013 U	< 0.0014 U	< 0.0019 U	< 0.0022 U	< 0.0023 U	< 0.0018 U	< 0.0015 U	< 0.00057 U	< 0.0017 U	< 0.0017 U
PCB-162	39635-34-2	ng/g	0.0023 JN	0.0015 JN	< 0.0019 U	< 0.0022 U	0.0045 JN	< 0.0018 U	0.0027 JN	< 0.00056 U	0.0040 JN	< 0.0016 U
PCB-164	74472-45-0	ng/g	0.029 JN	0.042	0.048	0.059	0.098	0.033	0.044	0.0071 J	0.074	0.031
PCB-165	74472-46-1	ng/g	< 0.0015 U	< 0.0016 U	< 0.0021 U	< 0.0025 U	< 0.0026 U	< 0.0021 U	< 0.0018 U	< 0.00065 U	< 0.0020 U	< 0.0019 U
PCB-167	52663-72-6	ng/g	0.017	0.016 JN	0.020 J	0.028	0.051	0.018 J	0.019	0.0037 J	0.039	0.015
PCB-169	32774-16-6	ng/g	< 0.0010 U	< 0.0011 U	< 0.0014 U	0.0060 JN	< 0.0017 U	< 0.0013 U	< 0.0012 U	< 0.00043 U	< 0.0013 U	< 0.0013 U
PCB-17	37680-66-3	ng/g	0.026 JN	0.043 JN	0.039	0.026	0.085	0.044 JN	0.029	0.0043 JN	0.35	0.019
PCB-170	35065-30-6	ng/g	0.13	0.16	0.21	0.49	0.32	0.13	0.19	0.035	0.29	0.22
PCB-171/173	52663-71-5	ng/g	0.036	0.040 JN	0.069	0.14	0.10	0.032 JN	0.058	0.010 JN	0.080	0.058
PCB-172	52663-74-8	ng/g	0.023	0.028	0.035	0.076	0.043	0.022 JN	0.034	0.0061 J	0.043	0.033
PCB-174	38411-25-5	ng/g	0.14	0.15	0.23	0.46	0.27	0.12	0.20	0.036	0.27	0.18
PCB-175	40186-70-7	ng/g	0.0057 JN	0.0057 JN	0.0086 J	0.017	0.011	0.0049 J	0.0072 J	0.00075 JN	0.0094 J	0.0063 JN
PCB-176	52663-65-7	ng/g	0.014	0.019	0.026	0.050	0.035	0.016 J	0.023	0.0035 JN	0.032	0.020
PCB-177	52663-70-4	ng/g	0.084	0.092	0.13	0.26	0.16	0.076	0.12	0.020	0.15	0.11
PCB-178	52663-67-9	ng/g	0.029	0.033	0.061	0.087	0.056	0.030	0.047	0.0077 J	0.060	0.044
PCB-179	52663-64-6	ng/g	0.061	0.069	0.11	0.17	0.11	0.061	0.096	0.018	0.12	0.075
PCB-18/30	37680-65-2	ng/g	0.040 JN	0.090	0.085	0.043	0.15	0.065	0.044	0.010 J	0.72	0.032
PCB-180/193	35065-29-3	ng/g	0.28	0.32	0.47	1.1	0.62	0.28	0.41	0.077	0.60	0.50
PCB-181	74472-47-2	ng/g	< 0.0013 U	< 0.00067 U	< 0.0011 U	< 0.00077 U	0.0036 JN	< 0.0011 U	0.0029 JN	< 0.00021 U	< 0.00093 U	< 0.00055 U
PCB-182	60145-23-5	ng/g	< 0.0012 U	0.0012 JN	< 0.0011 U	< 0.00074 U	0.0027 JN	< 0.0011 U	0.0025 JN	< 0.00020 U	0.0029 JN	< 0.00053 U
PCB-183/185	52663-69-1	ng/g	0.088	0.10	0.14	0.33	0.20	0.087	0.14	0.025	0.18	0.14
PCB-184	74472-48-3	ng/g	< 0.0011 U	< 0.00055 U	< 0.00094 U	< 0.00063 U	< 0.00085 U	< 0.00092 U	< 0.00050 U	< 0.00017 U	< 0.00076 U	< 0.00045 U
PCB-186	74472-49-4	ng/g	< 0.0010 U	< 0.00054 U	< 0.00091 U	< 0.00061 U	< 0.00083 U	< 0.00090 U	< 0.00049 U	< 0.00017 U	< 0.00074 U	< 0.00044 U
PCB-187	52663-68-0	ng/g	0.17	0.20	0.31	0.55	0.33	0.17	0.26	0.049	0.36	0.27
PCB-188	74487-85-7	ng/g	< 0.00091 U	< 0.00048 U	< 0.00082 U	< 0.00053 U	< 0.00071 U	< 0.00081 U	< 0.00042 U	< 0.00015 U	< 0.00065 U	< 0.00038 U
PCB-189	39635-31-9	ng/g	0.0038 JN	0.0050 J	< 0.0015 U	0.014	0.011	< 0.0018 U	0.0071 J	< 0.00053 U	0.0058 JN	0.0096 J
PCB-19	38444-73-4	ng/g	0.019 JN	0.026	0.015 J	0.020 JN	0.036	0.033	0.016	0.0044 JN	0.10	0.020
PCB-190	41411-64-7	ng/g	0.022	0.026	0.039	0.093	0.055	0.024 JN	0.033	0.0050 JN	0.049	0.039
PCB-191	74472-50-7	ng/g	0.0054 J	0.0052 JN	0.0086 J	0.020	0.011 JN	0.0054 JN	0.0058 JN	0.0013 JN	0.011	0.0065 JN
PCB-192	74472-51-8	ng/g	< 0.0011 U	< 0.00057 U	< 0.00097 U	< 0.00065 U	< 0.00087 U	< 0.00095 U	< 0.00051 U	< 0.00018 U	< 0.00078 U	< 0.00046 U
PCB-194	35694-08-7	ng/g	0.067	0.089	0.11	0.26	0.14	0.062	0.11	0.019	0.16	0.18
PCB-195	52663-78-2	ng/g	0.027	0.033	0.042	0.11	0.058	0.024	0.045	0.0081 J	0.061	0.077
PCB-196	42740-50-1	ng/g	0.030	0.037	0.057	0.11	0.056	0.031	0.043	0.0076 JN	0.073	0.069
PCB-197	33091-17-7	ng/g	0.0024 JN	0.0048 J	0.0023 J	0.0068 JN	0.0029 JN	0.0019 JN	0.0019 JN	< 0.00017 U	0.0027 JN	0.0041 JN
PCB-198/199	68194-17-2	ng/g	0.071	0.093	0.13	0.24	0.13	0.074	0.11	0.021	0.18	0.15
PCB-2	2051-61-8	ng/g	0.0080 J	0.0063 JN	0.0096 J	0.0070 JN	0.015	0.011 J	0.011 J	0.0026 J	0.013	0.0048 J
PCB-20/28	38444-84-7	ng/g	0.089	0.19	0.19	0.082	0.27	0.14	0.12	0.024	1.1	0.075
PCB-200	52663-73-7	ng/g	0.0073 J	0.0053 JN	0.012 JN	0.026	0.012	0.0061 JN	0.011 J	0.0021 JN	0.017	0.014 JN
PCB-201	40186-71-8	ng/g	0.0079 J	0.0083 JN	0.012 JN	0.025	0.014	0.0090 J	0.012	0.0020 J	0.019	0.017
PCB-202	2136-99-4	ng/g	0.014	0.016	0.026	0.039	0.027	0.014 J	0.023	0.0038 JN	0.034	0.028
PCB-203	52663-76-0	ng/g	0.045	0.055	0.071	0.14	0.081	0.044	0.063	0.011	0.11	0.094
PCB-204	74472-52-9	ng/g	< 0.00048 U	< 0.00043 U	< 0.00055 U	< 0.00052 U	< 0.00051 U	< 0.00054 U	< 0.00057 U	< 0.00017 U	< 0.00063 U	< 0.00034 U
PCB-205	74472-53-0	ng/g	0.0027 JN	0.0046 J	0.0055 J	0.014	0.0071 J	< 0.0016 U	0.0047 J	0.0013 JN	0.0054 JN	0.010 J
PCB-206	40186-72-9	ng/g	0.045 JN	0.077	0.065	0.12	0.082	0.065	0.13	0.021	0.14	0.10
PCB-207	52663-79-3	ng/g	0.0051 J	0.0056 J	< 0.0025 U	0.011	0.0061 J	< 0.0024 U	0.0069 J	0.0018 JN	0.012	0.0089 J
PCB-208	52663-77-1	ng/g	0.015	0.022	0.020 J	0.036	0.024	0.021	0.030	0.0068 J	0.044	0.032
PCB-209	2051-24-3	ng/g	0.058	0.070	0.082	0.088	0.097	0.073	0.25	0.029	0.11	0.087
PCB-21/33	55702-46-0	ng/g	0.035	0.086	0.079	0.033	0.11	0.056	0.047	0.0097 J	0.53	0.029
PCB-22	38444-85-8	ng/g	0.023	0.053	0.049	0.024	0.086	0.040	0.026	0.0050 J	0.33	0.020
PCB-23	55720-44-0	ng/g	< 0.00073 U	< 0.00063 U	< 0.00079 U	< 0.00058 U	< 0.00072 U	< 0.00087 U	< 0.00063 U	< 0.00030 U	< 0.00099 U	< 0.00052 U
PCB-24	55702-45-9	ng/g	< 0.00066 U	0.0016 JN	< 0.00053 U	0.0010 J	0.0020 JN	0.0015 JN	0.00074 JN	< 0.00026 U	0.015 JN	< 0.00027 U
PCB-25	55712-37-3	ng/g	0.0061 J	0.013	0.013 J	0.0063 JN	0.021	0.014 J	0.0097 J	0.0021 J	0.068	0.0065 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B086	B087	B088	B089	B090	B091	B092	B093	B094	B095
		Sample ID	PDI-SG-B086-BL1	PDI-SG-B087-BL1	PDI-SG-B088-BL1	PDI-SG-B089-BL1	PDI-SG-B090-BL1	PDI-SG-B091-BL1	PDI-SG-B092-BL1	PDI-SG-B093-BL1	PDI-SG-B094-BL1	PDI-SG-B095-BL1
		Sample Date	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018	09 Apr 2018	10 Apr 2018	10 Apr 2018	09 Apr 2018	09 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-25 cm	0-30 cm	0-29 cm	0-25 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.013 J	0.027	0.028 J	0.012 J	0.041	0.027 J	0.016 J	0.0032 J	0.15	0.012 J
PCB-27	38444-76-7	ng/g	0.0045 JN	0.0091 JN	0.0062 J	0.0055 J	0.012 JN	0.013 J	0.0048 JN	0.0013 J	0.054	0.0043 JN
PCB-3	2051-62-9	ng/g	0.0018 JN	0.0049 JN	0.0048 J	0.0040 J	0.0053 J	0.013 JN	0.0036 J	0.0011 J	0.020	0.0026 JN
PCB-31	16606-02-3	ng/g	0.063	0.14	0.15	0.060	0.21	0.12	0.079	0.016 J	0.81	0.055
PCB-32	38444-77-8	ng/g	0.016	0.030	0.027	0.018	0.052	0.038	0.015 JN	0.0034 J	0.25	0.012 J
PCB-34	37680-68-5	ng/g	< 0.00076 U	< 0.00065 U	< 0.00081 U	< 0.00061 U	< 0.00075 U	< 0.00091 U	0.0017 JN	< 0.00031 U	< 0.0010 U	< 0.00054 U
PCB-35	37680-69-6	ng/g	0.0016 J	0.0028 J	0.0030 J	0.0016 J	0.0041 J	0.0035 J	0.0027 J	0.00086 J	0.013	0.0018 J
PCB-36	38444-87-0	ng/g	< 0.00071 U	< 0.00061 U	< 0.00076 U	0.00058 J	0.00071 JN	< 0.00085 U	< 0.00061 U	< 0.00029 U	< 0.00096 U	< 0.00051 U
PCB-37	38444-90-5	ng/g	0.028	0.064	0.055	0.028	0.088	0.048	0.039	0.0058 JN	0.33	0.024
PCB-38	53555-66-1	ng/g	< 0.00077 U	< 0.00066 U	< 0.00082 U	< 0.00061 U	< 0.00076 U	< 0.00091 U	< 0.00066 U	< 0.00032 U	< 0.0010 U	< 0.00055 U
PCB-39	38444-88-1	ng/g	0.00074 JN	< 0.00059 U	< 0.00074 U	0.00055 JN	0.0014 J	< 0.00082 U	0.0013 JN	< 0.00028 U	0.0027 JN	< 0.00049 U
PCB-4	13029-08-8	ng/g	0.019 JN	0.036 JN	0.019 J	0.023	0.046	0.10	0.013 JN	0.0039 JN	0.15	0.017 JN
PCB-40/41/71	38444-93-8	ng/g	0.050	0.084	0.10	0.050	0.13	0.060 JN	0.073	0.013 J	0.46	0.040
PCB-42	36559-22-5	ng/g	0.027	0.037	0.050	0.023	0.082	0.034	0.042	0.0060 J	0.21	0.015 JN
PCB-43/73	70362-46-8	ng/g	0.0043 JN	0.0032 JN	< 0.0024 U	0.0035 JN	0.0085 J	< 0.0021 U	0.0020 JN	0.0013 J	0.027	< 0.0012 U
PCB-44/47/65	41464-39-5	ng/g	0.14	0.18	0.24	0.13	0.40	0.15	0.18	0.032	0.81	0.11
PCB-45/51	70362-45-7	ng/g	0.026	0.034	0.033 J	0.026	0.035 JN	0.031 J	0.029	0.0049 JN	0.16	0.024 J
PCB-46	41464-47-5	ng/g	0.0028 JN	0.0058 JN	0.010 J	0.0063 J	0.013	0.0071 J	0.0062 JN	0.0012 JN	0.051	< 0.0016 U
PCB-48	70362-47-9	ng/g	0.017	0.028	0.036 JN	0.015	0.039 JN	0.022	0.021	0.0026 JN	0.18	0.0095 JN
PCB-49/69	41464-40-8	ng/g	0.088	0.11	0.16	0.078	0.32	0.097	0.14	0.023	0.48	0.072
PCB-5	16605-91-7	ng/g	< 0.0040 U	< 0.0044 U	< 0.0031 U	< 0.0043 U	0.0017 JN	< 0.0031 U	< 0.0014 U	< 0.0017 U	0.0096 JN	< 0.0019 U
PCB-50/53	62796-65-0	ng/g	0.021 J	0.027	0.027 J	0.021 J	0.040	0.025 J	0.027	0.0056 J	0.12	0.019 J
PCB-52	35693-99-3	ng/g	0.16	0.22	0.31	0.14	0.56	0.18	0.23	0.037	0.90	0.13
PCB-54	15968-05-5	ng/g	0.0049 JN	0.0040 J	0.0034 JN	0.0037 JN	0.0039 J	0.0032 JN	0.0033 J	0.0015 J	0.0085 J	0.0040 J
PCB-55	74338-24-2	ng/g	0.0017 JN	0.0026 JN	< 0.0018 U	0.0017 J	0.0043 J	< 0.0016 U	0.0016 JN	< 0.00052 U	0.0092 J	< 0.00091 U
PCB-56	41464-43-1	ng/g	0.045	0.060	0.10	0.039	0.11	0.054	0.060	0.012	0.22	0.037
PCB-57	70424-67-8	ng/g	< 0.0011 U	< 0.0010 U	< 0.0019 U	< 0.0013 U	< 0.0015 U	< 0.0016 U	< 0.0010 U	< 0.00053 U	< 0.0021 U	< 0.00092 U
PCB-58	41464-49-7	ng/g	0.0011 J	0.0013 JN	< 0.0019 U	< 0.0013 U	0.0018 JN	< 0.0017 U	0.0019 J	< 0.00054 U	< 0.0021 U	< 0.00094 U
PCB-59/62/75	74472-33-6	ng/g	0.0075 JN	0.014 J	0.018 J	0.0069 J	0.026 J	0.010 J	0.012 J	0.0021 JN	0.073	0.0047 JN
PCB-6	25569-80-6	ng/g	0.0060 JN	0.021	0.0071 JN	0.0073 JN	0.016	0.014 JN	0.0074 JN	< 0.0015 U	0.10	0.0041 JN
PCB-60	33025-41-1	ng/g	0.020	0.025	0.035	0.015	0.051	0.022	0.017	0.0030 JN	0.11	0.016
PCB-61/70/74/76	33284-53-6	ng/g	0.20	0.27	0.43	0.16	0.65	0.23	0.28	0.049	0.97	0.15
PCB-63	74472-34-7	ng/g	0.0046 J	0.0054 J	0.0087 J	0.0026 JN	0.0098	0.0055 J	0.0064 J	0.00067 JN	0.021	0.0027 J
PCB-64	52663-58-8	ng/g	0.039	0.057	0.085	0.032 JN	0.11	0.049	0.058	0.011	0.32	0.032
PCB-66	32598-10-0	ng/g	0.12	0.16	0.24	0.10	0.33	0.14	0.19	0.030	0.54	0.095
PCB-67	73575-53-8	ng/g	0.0024 JN	0.0039 JN	0.0052 JN	0.0019 J	0.0072 J	0.0034 JN	0.0033 J	0.00091 J	0.019	< 0.00080 U
PCB-68	73575-52-7	ng/g	0.0018 JN	0.0030 J	0.0044 J	0.0029 J	0.0085 J	< 0.0014 U	0.0030 JN	0.00089 J	0.0045 JN	0.0033 J
PCB-7	33284-50-3	ng/g	< 0.0036 U	0.0045 JN	< 0.0028 U	< 0.0039 U	0.0023 JN	< 0.0028 U	0.0018 JN	< 0.0015 U	0.019 JN	< 0.0017 U
PCB-72	41464-42-0	ng/g	0.0030 J	0.0036 JN	0.0035 JN	0.0023 JN	0.013	0.0038 J	0.0054 J	0.00084 JN	0.0054 JN	< 0.00091 U
PCB-77	32598-13-3	ng/g	0.012	0.017	0.021	0.012	0.027	0.017 J	0.016 JN	0.0035 J	0.054	0.012 J
PCB-78	70362-49-1	ng/g	< 0.0011 U	< 0.0010 U	< 0.0019 U	< 0.0013 U	< 0.0015 U	< 0.0017 U	< 0.0010 U	< 0.00054 U	< 0.0021 U	< 0.00094 U
PCB-79	41464-48-6	ng/g	0.0032 J	0.0020 JN	< 0.0016 U	< 0.0011 U	0.0043 JN	< 0.0014 U	0.0041 J	< 0.00046 U	0.0059 JN	0.0020 JN
PCB-8	34883-43-7	ng/g	0.024	0.078 JN	0.032 J	0.029 JN	0.065	0.099	0.023	0.0055 JN	0.50	0.018 J
PCB-80	33284-52-5	ng/g	< 0.00092 U	< 0.00088 U	< 0.0016 U	< 0.0011 U	< 0.0013 U	< 0.0014 U	< 0.00089 U	< 0.00046 U	< 0.0018 U	< 0.00080 U
PCB-81	70362-50-4	ng/g	< 0.00099 U	< 0.00096 U	< 0.0017 U	< 0.0012 U	0.0016 JN	< 0.0015 U	< 0.00096 U	< 0.00051 U	< 0.0020 U	< 0.00086 U
PCB-82	52663-62-4	ng/g	0.029 JN	0.033	0.044 JN	0.023	0.091	0.031	0.035	0.0065 JN	0.11	0.021
PCB-83/99	60145-20-2	ng/g	0.24	0.23	0.29	0.17	0.73	0.21	0.27	0.044	0.53	0.15
PCB-84	52663-60-2	ng/g	0.069	0.075	0.10 JN	0.049	0.20	0.058	0.076 JN	0.012 JN	0.22	0.046
PCB-85/116/117	65510-45-4	ng/g	0.063	0.054 JN	0.085	0.042 JN	0.18	0.053 J	0.058	0.013 J	0.16	0.037 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.23	0.22	0.29	0.16	0.58	0.18	0.21	0.041 J	0.58	0.13
PCB-88/91	55215-17-3	ng/g	0.053	0.056	0.075	0.037 JN	0.14	0.046	0.069	0.0082 JN	0.13 JN	0.038
PCB-89	73575-57-2	ng/g	< 0.00053 U	< 0.00043 U	< 0.00058 U	< 0.00043 U	< 0.00054 U	< 0.00068 U	< 0.00052 U	< 0.00031 U	0.010	< 0.00029 U
PCB-9	34883-39-1	ng/g	< 0.0037 U	0.0057 JN	< 0.0029 U	< 0.0040 U	0.0042 JN	< 0.0028 U	0.0017 JN	< 0.0015 U	0.028 JN	< 0.0018 U
PCB-90/101/113	68194-07-0	ng/g	0.38	0.38	0.54	0.29	1.0	0.33	0.40	0.071	0.89	0.25
PCB-92	52663-61-3	ng/g	0.069	0.070	0.11	0.054	0.18	0.062	0.079	0.014	0.16	0.045
PCB-93/100	73575-56-1	ng/g	0.013 J	0.0098 J	0.012 J	0.0094 JN	0.0089 JN	0.0098 J	0.012 J	0.0029 JN	0.031	0.0096 J
PCB-94	73575-55-0	ng/g	< 0.00053 U	0.0034 JN	< 0.00057 U	0.0031 J	< 0.00054 U	< 0.00068 U	< 0.00052 U	< 0.00031 U	0.0071 JN	< 0.00029 U
PCB-95	38379-99-6	ng/g	0.29	0.30	0.41	0.20	0.78	0.25	0.31	0.053	0.74	0.18
PCB-96	73575-54-9	ng/g	< 0.00040 U	0.0030 JN	< 0.00043 U	0.0024 J	< 0.00041 U	< 0.00052 U	0.0033 J	< 0.00023 U	0.0071 JN	0.0022 JN
PCB-98/102	60233-25-2	ng/g	0.010 JN	0.0094 JN	0.015 JN	0.0080 JN	0.017 JN	0.0065 JN	0.013 J	0.0015 JN	0.032	0.0076 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	7.7	9.1	12	12	20	7.9	10.0	1.7	26	7.3

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B086	B087	B088	B089	B090	B091	B092	B093	B094	B095
		Sample ID	PDI-SG-B086-BL1	PDI-SG-B087-BL1	PDI-SG-B088-BL1	PDI-SG-B089-BL1	PDI-SG-B090-BL1	PDI-SG-B091-BL1	PDI-SG-B092-BL1	PDI-SG-B093-BL1	PDI-SG-B094-BL1	PDI-SG-B095-BL1
		Sample Date	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018	09 Apr 2018	10 Apr 2018	10 Apr 2018	09 Apr 2018	09 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-25 cm	0-30 cm	0-29 cm	0-25 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.41 J	< 0.56 U	4.1	< 0.61 U	1.9	1.1	0.44 J	< 0.38 U	< 0.52 U	< 0.66 U
2,4-DDE	3424-82-6	µg/kg	< 0.59 U	< 0.56 U	< 0.53 U	< 0.61 U	< 0.50 U	< 0.55 U	< 0.57 U	< 0.40 U	< 0.52 U	< 0.66 U
2,4-DDT	789-02-6	µg/kg	< 0.59 U	< 0.56 U	< 0.53 U	< 0.61 U	< 0.50 U	< 0.55 U	< 0.57 U	< 0.47 U	< 0.52 U	< 0.66 U
4,4'-DDD	72-54-8	µg/kg	1.1	0.81	8.6	0.86	4.4	2.6	1.3	0.38 J	1.4	1.0
4,4'-DDE	72-55-9	µg/kg	1.9	1.6	2.8	2.2	1.9	2.3	2.5	0.47	2.2	2.5
4,4'-DDT	50-29-3	µg/kg	0.37 J	0.37 J	0.35 J	0.33 J	0.30 J	0.30 J	2.5	< 0.38 U	0.81	0.42 J
Total DDx (b)	T_DDx (PDI)	µg/kg	4.1	3.1	16	3.7	8.8	6.6	7.0	1.1	4.7	4.3
Aldrin	309-00-2	µg/kg	< 0.59 UJ	< 0.56 UJ	< 0.53 UJ	< 0.61 UJ	< 0.50 UJ	< 0.55 UJ	< 0.57 UJ	< 0.40 UJ	< 0.52 UJ	< 0.66 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 1.1 U	< 0.76 U	< 1.0 U	< 1.3 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.59 U	< 0.56 U	< 0.53 U	< 0.61 U	< 0.50 U	< 0.55 U	< 0.57 U	< 0.49 U	< 0.52 U	< 0.66 U
Dieldrin	60-57-1	µg/kg	< 1.2 U	< 1.1 U	< 1.1 U	0.64 J	1.7	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.3 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.59 U	< 0.56 U	< 0.53 U	< 0.61 U	< 0.50 U	< 0.55 U	< 0.57 U	< 0.38 U	< 0.52 U	< 0.66 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 1.1 U	< 0.76 U	< 1.0 U	< 1.3 U
Heptachlor	76-44-8	µg/kg	< 0.59 UJ	< 0.56 UJ	< 0.53 UJ	< 0.61 UJ	< 0.50 UJ	< 0.55 UJ	< 0.57 UJ	< 0.38 UJ	< 0.52 UJ	< 0.66 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.3 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.0 U	0.36 J	< 1.1 U	< 0.76 U	< 1.0 U	< 1.3 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1 U	0.91	< 1.1 U	< 1 U	< 1 U	< 1.3 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	5.6	3.7	80	2.9	29	68	7.0	1.7	5.5	3.2
Acenaphthene	83-32-9	µg/kg	11	9.4	130	5.2	34	71	64	7.9	5.5	5.3
Acenaphthylene	208-96-8	µg/kg	10	12	42	4.7	36	46	19	19	4.6	4.4
Anthracene	120-12-7	µg/kg	20	23	180	10	76	120	33	9.9	13	12
Benz(a)anthracene	56-55-3	µg/kg	70	78	360	40	290	280	110	95	48	42
Benzo(a)pyrene	50-32-8	µg/kg	120	130	530	67	330	370	180	160	79	72
Benzo(b)fluoranthene	205-99-2	µg/kg	94	100	440	58	370	360	150	130	74	64
Benzo(g,h,i)perylene	191-24-2	µg/kg	88	98	480	51	270	340	140	140	61	53
Benzo(k)fluoranthene	207-08-9	µg/kg	34	36	150	22	120	120	51	46	26	22
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	65 J	82 J	51 J	65 J	62 J	64 J	57 J	19 J	190	85 J
Chrysene	218-01-9	µg/kg	94 J	96 J	470	58 J	420	420	150	110	77 J	66 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	12	12	55	6.2	38	38	22	22	8.2	6.5
Fluoranthene	206-44-0	µg/kg	160	160	860	84	560	940	270	83	100	95
Fluorene	86-73-7	µg/kg	11	8.0	100	5.8	44	88	28	3.2	6.5	6.1
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	79	87	420	46	250	290	130	130	56	48
Naphthalene	91-20-3	µg/kg	16	8.3	190	5.4	57	140	15	4.1	11	6.3
Phenanthrene	85-01-8	µg/kg	75	100	830	34	360	650	220	25	46	46
Pyrene	129-00-0	µg/kg	240 J	220 J	1200	110 J	790 J	1100	350	180	130 J	120 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	1140	1181	6517	610	4074	5441	1939	1167	751	672
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	157	169	709	88	461	503	242	218	105	94
Metals												
Arsenic	7440-38-2	mg/kg	5.3	4.4	3.8	4.6	4.3	3.3	4.8	3.3	4.5	5.2
Cadmium	7440-43-9	mg/kg	0.26 J	0.30	0.20 J	0.16 J	0.18 J	0.19 J	0.21 J	0.10 J	0.28 J	0.28 J
Copper	7440-50-8	mg/kg	40	36	29	37	27	26	38	16	38	42
Lead	7439-92-1	mg/kg	11	10	8.1	10	12	14	10	4.8	12	11
Mercury	7439-97-6	mg/kg	0.053 J	0.046 J	0.054 J	0.039 J	0.043	0.052 J	0.053	0.019 J	0.058	0.058
Tri-n-butyltin	36643-28-4	µg/kg	2.6	6.9	1.4 J	2.9	1.1 J	1.3 J	5.8	0.77 J	14	3.3
Zinc	7440-66-6	mg/kg	100	91	76	90	76	69	95	55	100	97
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 110 U	51 J	94 J	< 110 U	68 J	110	< 110 U	< 73 U	< 97 U	< 130 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	230	280	360	170	370	420	170	57 J	220	340
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										
Total Solids@104C - E160.3 (f)	TSOLID	%	42.3	45.6	47.9	43.1	49.9	47.5	42.3	65.8	49.1	38.3
Total Solids@104C - E160.3M (f)	TSOLID	%	41.6	43.7	46.2	41.1	50.2	44.8	43.7	65.2	47.4	37.5
Total Solids@70C	TSOLID70	%	43	44	46	41	53	46	45	68	47	37
Gravel	GS-Gravel	%	0	0	0.6	0	0.2	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0	0.2	0	0	0.1	0	0.3	0	0
Sand, Medium	GS-Msand	%	0.5	0.1	1.5	0	0.2	0.3	0.5	18.6	2.4	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	24	19.02	30.19	10.92	25.31	27.74	22.39	58.82	20.68	6.763
Sand, Fine (#230) (d)	GS-Fsand	%	28.5	24.7	36.1	14.6	31.3	33.9	25.9	58.9	25.6	9.2
Silt (#200) (d)	GS-Silt-200	%	64.29	69.07	61.00	74.37	65.28	59.75	66.40	18.77	67.41	76.33

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B086	B087	B088	B089	B090	B091	B092	B093	B094	B095
		Sample ID	PDI-SG-B086-BL1	PDI-SG-B087-BL1	PDI-SG-B088-BL1	PDI-SG-B089-BL1	PDI-SG-B090-BL1	PDI-SG-B091-BL1	PDI-SG-B092-BL1	PDI-SG-B093-BL1	PDI-SG-B094-BL1	PDI-SG-B095-BL1
		Sample Date	09 Apr 2018	09 Apr 2018	09 Apr 2018	09 Apr 2018	10 Apr 2018	09 Apr 2018	10 Apr 2018	10 Apr 2018	09 Apr 2018	09 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-25 cm	0-30 cm	0-29 cm	0-25 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	59.8	63.4	55.1	70.7	59.3	53.6	62.9	18.7	62.5	73.9
Clay	GS-Clay	%	11.1	11.8	6.6	14.7	8.9	12.1	10.7	3.5	9.4	16.7
Percent Fines (e)	GS-FINES	%	75.39	80.87	67.6	89.07	74.18	71.85	77.1	22.27	76.81	93.03
Total Organic Carbon	TOC	mg/kg	29000	19000	25000	22000	17000	20000	18000	5200	17000	26000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B096	B096	B097	B098	B099	B100	B101	B102	B103	B104
		Sample ID	PDI-SG-B096-BL1	PDI-SG-B096-BL1-D	PDI-SG-B097-BL1	PDI-SG-B098-BL1	PDI-SG-B099-BL1	PDI-SG-B100-BL1	PDI-SG-B101-BL1	PDI-SG-B102-BL1	PDI-SG-B103-BL1	PDI-SG-B104-BL1
		Sample Date	20 Jun 2018	20 Jun 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	11 Apr 2018	13 Jun 2018	10 Apr 2018	10 Apr 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-27 cm	0-27 cm	0-28 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-20 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.12	0.097	0.077	0.43	0.097	0.098	0.20	0.68	0.12	0.033
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.014 JN	0.013 JN	0.013 JN	0.041	0.017 JN	0.013 JN	0.042 JN	0.17	0.034	0.0062
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0012 J	0.0014 J	< 0.00040 U	0.0031 J	< 0.00040 U	< 0.00054 U	0.0049 J	0.017	0.0026 J	0.00086 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00085 J	0.00090 J	0.00084 J+	0.0013 J+	0.00069 JN	0.00093 J+	0.0011 J+	0.0030 J	0.00082 J	0.00038 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0042 J	0.0057 J	0.0019 J	0.0059	< 0.00041 U	0.0030 J	0.012	0.054	0.0062	0.0025 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0030 J	0.0027 J	0.0025 J	0.0053 J	0.0029 J	0.0029 J	0.0057 J	0.019	0.0040 J	0.0012 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0011 J	0.0017 J	0.0046 J	0.015	0.0053 J	0.0048 J	0.012	0.012	0.0027 JN	0.0035 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0024 J	0.0021 J	0.0018 J+	0.0044 J	0.0015 J+	0.0021 J	0.0023 JN	0.0059 J	0.0020 J	0.00078 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00023 U	0.00024 J+	< 0.00019 U	0.00085 JN	< 0.00019 U	< 0.00023 U	< 0.00036 U	0.00083 JN	< 0.0016 U	< 0.00016 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00052 J	0.00051 J	< 0.00022 U	< 0.00031 U	< 0.00032 U	< 0.00024 U	< 0.00033 U	0.0015 J	< 0.00042 U	< 0.00018 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0023 J	0.0040 J	0.00074 J+	0.0038 J	< 0.00019 U	0.00092 J+	0.0014 JN	0.0034 J	0.0029 J	0.0017 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00046 J	0.00066 J	< 0.00023 U	< 0.00055 U	0.00056 J+	0.00034 JN	0.0014 J+	0.0040 J	< 0.0015 U	< 0.00019 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0010 J	0.0041 J	< 0.00022 U	0.0013 J+	0.00036 J+	0.00049 J+	0.0033 J	0.015	< 0.0014 U	0.00055 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00063 J	0.00045 J	0.00023 JN	0.00037 J+	0.00022 JN	< 0.000078 U	0.00023 JN	< 0.000089 U	< 0.00018 U	< 0.00013 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0019 J	0.014 J	0.00065 J	0.0019	0.00075 J	0.00078 J	0.0011 J	0.0025	0.0028	0.0010
OCDD	3268-87-9	µg/kg	1.0	0.81	0.69	5.9 J	0.98	0.75	1.8	6.4 J	1.1	0.39
OCDF	39001-02-0	µg/kg	0.045	0.046	0.048	0.19	0.093	0.047	0.19	0.60	0.048	0.017
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0046	0.0065	0.0027	0.011	0.0031	0.0031	0.0081	0.027	0.0041	0.0018
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0046	0.0065	0.0025	0.011	0.0028	0.0031	0.0076	0.027	0.0038	0.0015
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0046	0.0065	0.0024	0.011	0.0027	0.003	0.0074	0.027	0.0036	0.0014
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.00040 U	< 0.00043 U	< 0.00025 U	0.0075 J	0.0055 J	0.0042 J	0.012 J	0.013 J	0.0086 J	0.0065 JN
PCB-10	33146-45-1	ng/g	< 0.0025 U	< 0.0022 U	< 0.0021 U	< 0.0042 U	< 0.0018 U	< 0.0017 U	0.0037 J	0.0048 J	< 0.0017 U	< 0.0017 U
PCB-103	60145-21-3	ng/g	0.0046 JN	0.0038 JN	0.0074 JN	0.0073 J	0.0075 J	0.0086 J	0.010 J	0.018	< 0.0041 U	0.0085 JN
PCB-104	56558-16-8	ng/g	< 0.00052 U	< 0.00040 U	< 0.00022 U	< 0.00036 U	< 0.00032 U	< 0.00029 U	< 0.0012 U	< 0.00026 U	< 0.0032 U	< 0.00018 U
PCB-105	32598-14-4	ng/g	0.079	0.084	0.15	0.12	0.10	0.10	0.14	0.34	0.14	0.11
PCB-106	70424-69-0	ng/g	< 0.0026 U	< 0.0023 U	< 0.0011 U	< 0.0021 U	< 0.0012 U	< 0.00097 U	< 0.0026 U	< 0.0034 U	< 0.0049 U	< 0.00080 U
PCB-107	70424-68-9	ng/g	0.019 JN	0.019 JN	0.029 JN	0.028	0.025	0.029	0.028	0.069	0.039 JN	0.043
PCB-108/124	70362-41-3	ng/g	0.0092 J	0.011 J	0.013 JN	0.011 JN	0.0097 J	0.012 J	0.015 J	0.034	0.014 JN	0.012 J
PCB-11	2050-67-1	ng/g	0.048 JN	0.053	0.10	0.19	0.080	0.071	0.088	0.080	0.028 J	0.023 JN
PCB-110/115	38380-03-9	ng/g	0.28	0.31	0.47	0.38	0.34	0.39	0.38	1.1	0.70	0.58
PCB-111	39635-32-0	ng/g	< 0.00048 U	< 0.00037 U	< 0.00021 U	< 0.00033 U	< 0.00030 U	< 0.00027 U	< 0.0011 U	< 0.00023 U	< 0.0028 U	< 0.00016 U
PCB-112	74472-36-9	ng/g	< 0.00051 U	0.0028 J	< 0.00022 U	< 0.00035 U	< 0.00032 U	< 0.00028 U	< 0.0012 U	< 0.00025 U	< 0.0031 U	0.00081 JN
PCB-114	74472-37-0	ng/g	0.0040 J	0.0041 J	0.0066 J	0.0038 JN	0.0024 JN	0.0049 JN	0.0057 J	0.017 JN	0.0076 JN	0.0055 J
PCB-118	31508-00-6	ng/g	0.22	0.23	0.39	0.32	0.29	0.32	0.34	0.82	0.43	0.39
PCB-12/13	2974-92-7	ng/g	0.0039 JN	0.0037 JN	< 0.0019 U	0.011 JN	0.0068 JN	0.0073 J	0.018 J	0.029 JN	< 0.0014 U	0.0067 J
PCB-120	68194-12-7	ng/g	0.0013 JN	0.0020 JN	< 0.00021 U	< 0.00034 U	0.0026 J	0.0031 J	0.0028 JN	0.0080 J	< 0.0028 U	0.0045 JN
PCB-121	56558-18-0	ng/g	< 0.00050 U	< 0.00038 U	< 0.00022 U	< 0.00035 U	< 0.00031 U	< 0.00028 U	< 0.0012 U	< 0.00025 U	< 0.0030 U	< 0.00017 U
PCB-122	76842-07-4	ng/g	0.0033 JN	< 0.0026 U	0.0039 JN	< 0.0025 U	< 0.0014 U	0.0043 JN	0.0057 J	0.015	< 0.0055 U	0.0048 J
PCB-123	65510-44-3	ng/g	0.0044 JN	0.0040 JN	0.0041 JN	0.0053 J	0.0035 JN	0.0043 JN	0.0059 JN	0.016	< 0.0044 U	0.0049 JN
PCB-126	57465-28-8	ng/g	< 0.0026 U	< 0.0023 U	< 0.0010 U	< 0.0022 U	< 0.0012 U	< 0.0010 U	< 0.0025 U	< 0.0033 U	< 0.0048 U	< 0.00083 U
PCB-127	39635-33-1	ng/g	< 0.0026 U	< 0.0023 U	< 0.0010 U	< 0.0021 U	< 0.0012 U	< 0.00097 U	< 0.0025 U	< 0.0033 U	< 0.0047 U	< 0.00080 U
PCB-128/166	38380-07-3	ng/g	0.059	0.056	0.085	0.069	0.082	0.087	0.13	0.25	0.12 JN	0.083
PCB-129/138/160/163	55215-18-4	ng/g	0.42	0.42	0.60	0.54	0.67	0.66	0.83	1.5	1.2	0.65
PCB-130	52663-66-8	ng/g	0.025	0.025	0.035	0.032	0.038	0.042	0.050	0.10	0.070 J	0.045
PCB-131	61798-70-7	ng/g	< 0.0052 U	0.0071 J	< 0.0024 U	< 0.0041 U	< 0.0023 U	< 0.0023 U	0.0072 J	0.016 JN	< 0.014 U	< 0.0018 U
PCB-132	38380-05-1	ng/g	0.12	0.11	0.17	0.16	0.17	0.19	0.23	0.48	0.39	0.21
PCB-133	35694-04-3	ng/g	0.0075 JN	0.0048 JN	0.0091 J	0.0087 J	0.0087 JN	0.011 J	0.013	0.031	0.022 J	0.013
PCB-134/143	52704-70-8	ng/g	0.021 J	0.019 J	0.026	0.019 JN	0.026	0.028	0.037	0.090	0.049 JN	0.033
PCB-135/151	52744-13-5	ng/g	0.11	0.13	0.19	0.16	0.18	0.20	0.18	0.46	0.38	0.25
PCB-136	38411-22-2	ng/g	0.037 JN	0.044	0.062	0.046 JN	0.061	0.065	0.062	0.17	0.13	0.085
PCB-137	35694-06-5	ng/g	0.015	0.015	0.022	0.016 JN	0.016 JN	0.019 JN	0.032	0.066	0.038 JN	0.022
PCB-139/140	56030-56-9	ng/g	0.0058 JN	0.0035 JN	0.0065 JN	< 0.0033 U	< 0.0019 U	< 0.0019 U	< 0.0024 U	0.029 J	< 0.012 U	0.0082 JN
PCB-14	34883-41-5	ng/g	< 0.0019 U	< 0.0017 U	< 0.0016 U	< 0.0032 U	< 0.0014 U	< 0.0013 U	< 0.00085 U	< 0.00059 U	< 0.0013 U	< 0.0013 U
PCB-141	52712-04-6	ng/g	0.066	0.070	0.097	0.089	0.11	0.11	0.14	0.26	0.33	0.11
PCB-142	41411-61-4	ng/g	< 0.0047 U	< 0.0038 U	< 0.0021 U	< 0.0037 U	< 0.0021 U	< 0.0021 U	< 0.0027 U	< 0.0032 U	< 0.013 U	< 0.0016 U
PCB-144	68194-14-9	ng/g	0.012	0.014	0.018	< 0.00047 U	0.017	0.019	0.020	0.049 JN	0.031 JN	0.022
PCB-145	74472-40-5	ng/g	< 0.00049 U	< 0.00036 U	< 0.00022 U	< 0.00036 U	< 0.00020 U	< 0.00024 U	0.00085 JN	< 0.00046 U	< 0.00046 U	< 0.00017 U
PCB-146	51908-16-8	ng/g	0.066	0.068	0.099	0.087	0.10	0.11	0.13	0.25	0.25	0.13
PCB-147/149	68194-13-8	ng/g	0.33	0.35	0.50	0.47	0.50	0.57	0.57	1.1	1.1	0.65
PCB-148	74472-41-6	ng/g	< 0.00069 U	< 0.00051 U	< 0.00030 U	< 0.00051 U	0.00060 JN	0.0021 JN	0.0011 JN	0.0053 J	< 0.00061 U	0.0026 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B096	B096	B097	B098	B099	B100	B101	B102	B103	B104
		Sample ID	PDI-SG-B096-BL1	PDI-SG-B096-BL1-D	PDI-SG-B097-BL1	PDI-SG-B098-BL1	PDI-SG-B099-BL1	PDI-SG-B100-BL1	PDI-SG-B101-BL1	PDI-SG-B102-BL1	PDI-SG-B103-BL1	PDI-SG-B104-BL1
		Sample Date	20 Jun 2018	20 Jun 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	11 Apr 2018	13 Jun 2018	10 Apr 2018	10 Apr 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-27 cm	0-27 cm	0-28 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-20 cm	0-23 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.018 JN	0.018	0.046	0.035	0.040	0.035	0.075 JN	0.22	0.051 J	0.034
PCB-150	68194-08-1	ng/g	< 0.00047 U	< 0.00035 U	0.00093 JN	0.0013 JN	0.0012 JN	0.0015 JN	0.0019 J	0.0029 JN	< 0.00041 U	0.0020 J
PCB-152	68194-09-2	ng/g	< 0.00050 U	< 0.00038 U	< 0.00022 U	< 0.00037 U	< 0.00021 U	< 0.00025 U	< 0.00023 U	0.0019 J+	< 0.00044 U	0.00051 J
PCB-153/168	35065-27-1	ng/g	0.34	0.35	0.49	0.46	0.56	0.54	0.61	1.2	1.2	0.57
PCB-154	60145-22-4	ng/g	0.0059 JN	0.0077 J	0.0078 J	0.0067 JN	0.0081 J	0.0088 JN	0.0063 JN	0.040	0.012 JN	0.015
PCB-155	33979-03-2	ng/g	< 0.00047 U	< 0.00035 U	< 0.00021 U	< 0.00034 U	< 0.00019 U	0.00069 JN	< 0.00022 U	0.0012 J+	< 0.00042 U	< 0.00017 U
PCB-156/157	38380-08-4	ng/g	0.042	0.041	0.064	0.054	0.071	0.063	0.085	0.16	0.095 J	0.055
PCB-158	74472-42-7	ng/g	0.029 JN	0.037	0.049	0.050	0.057	0.052	0.078	0.15	0.091 J	0.048
PCB-159	39635-35-3	ng/g	< 0.0031 U	< 0.0025 U	0.0045 J	< 0.0025 U	0.0045 JN	< 0.0014 U	0.011 J	0.014 J	0.023 J	< 0.0011 U
PCB-16	38444-78-9	ng/g	0.013 JN	0.018	0.025	0.029 JN	0.025	0.016 JN	0.067	0.13	0.058 JN	0.030 JN
PCB-161	74472-43-8	ng/g	< 0.0031 U	< 0.0025 U	< 0.0014 U	< 0.0024 U	< 0.0014 U	< 0.0014 U	< 0.0017 U	< 0.0021 U	< 0.0086 U	< 0.0011 U
PCB-162	39635-34-2	ng/g	< 0.0031 U	< 0.0025 U	< 0.0014 U	< 0.0024 U	< 0.0014 U	< 0.0014 U	< 0.0017 U	< 0.0020 U	< 0.0082 U	< 0.0011 U
PCB-164	74472-45-0	ng/g	0.023 JN	0.028	0.038	0.039	0.048	0.044	0.062	0.11	0.087 J	0.046
PCB-165	74472-46-1	ng/g	< 0.0035 U	< 0.0029 U	< 0.0016 U	< 0.0028 U	< 0.0016 U	< 0.0016 U	< 0.0020 U	< 0.0024 U	< 0.0098 U	< 0.0012 U
PCB-167	52663-72-6	ng/g	0.014	0.013 JN	0.021	0.016	0.024	0.020	0.027	0.055	0.031 JN	0.020
PCB-169	32774-16-6	ng/g	< 0.0025 U	< 0.0021 U	< 0.0012 U	< 0.0018 U	< 0.0011 U	< 0.0011 U	< 0.0013 U	< 0.0016 U	< 0.0066 U	< 0.00081 U
PCB-17	37680-66-3	ng/g	0.027 J	0.020 JN	0.038	0.044	0.033	0.032	0.067	0.14	0.068 J	0.056
PCB-170	35065-30-6	ng/g	0.11	0.12	0.17	0.15	0.26	0.17	0.22	0.44	0.42	0.19
PCB-171/173	52663-71-5	ng/g	0.035	0.033 JN	0.050	0.039	0.079	0.051	0.069	0.13	0.12 JN	0.060
PCB-172	52663-74-8	ng/g	0.020	0.018 JN	0.026 JN	0.019 JN	0.043	0.026	0.038	0.078	0.097 J	0.032 JN
PCB-174	38411-25-5	ng/g	0.11	0.11	0.18	0.14	0.23	0.17	0.24	0.45	0.55 J	0.20
PCB-175	40186-70-7	ng/g	0.0044 J	0.0047 J	0.0062 J	0.0028 JN	0.0087 J	0.0049 JN	0.0067 JN	0.015	0.027 JN	0.0089 J
PCB-176	52663-65-7	ng/g	0.014	0.014	0.019	0.017	0.029	0.019	0.024	0.048	0.056 JN	0.026
PCB-177	52663-70-4	ng/g	0.065	0.069	0.10	0.076	0.14	0.10	0.15	0.27	0.29 J	0.12
PCB-178	52663-67-9	ng/g	0.025 JN	0.027	0.040	0.026	0.048	0.046	0.051	0.093	0.10 J	0.045
PCB-179	52663-64-6	ng/g	0.049	0.048	0.080	0.066	0.096	0.082	0.097	0.17	0.22 J	0.096
PCB-18/30	37680-65-2	ng/g	0.038 JN	0.037	0.061	0.078	0.054 JN	0.050	0.13	0.21 JN	0.13 J	0.11
PCB-180/193	35065-29-3	ng/g	0.23	0.26	0.40	0.29	0.56	0.37	0.41	0.90	1.0 J	0.41
PCB-181	74472-47-2	ng/g	< 0.0018 U	< 0.0013 U	< 0.00030 U	< 0.0018 U	< 0.00047 U	< 0.00086 U	< 0.0021 U	0.0059 JN	< 0.0066 UJ	0.0030 J
PCB-182	60145-23-5	ng/g	< 0.0018 U	< 0.0012 U	< 0.00029 U	< 0.0017 U	< 0.00046 U	< 0.00083 U	< 0.0020 U	< 0.00078 U	< 0.0063 UJ	< 0.00042 U
PCB-183/185	52663-69-1	ng/g	0.068	0.071 JN	0.12	0.091	0.17	0.12	0.15	0.28	0.34 J	0.13
PCB-184	74472-48-3	ng/g	< 0.0015 U	< 0.0010 U	< 0.00024 U	< 0.0015 U	< 0.00039 U	< 0.00070 U	< 0.0017 U	< 0.00067 U	< 0.0054 UJ	< 0.00036 U
PCB-186	74472-49-4	ng/g	< 0.0015 U	< 0.0010 U	< 0.00024 U	< 0.0014 U	< 0.00038 U	< 0.00068 U	< 0.0017 U	< 0.00064 U	< 0.0052 UJ	< 0.00035 U
PCB-187	52663-68-0	ng/g	0.16	0.15	0.24	0.18	0.28	0.22	0.30	0.57	0.68 J	0.25
PCB-188	74487-85-7	ng/g	< 0.0012 U	< 0.00086 U	< 0.00021 U	< 0.0012 U	< 0.00033 U	< 0.00060 U	< 0.0015 U	< 0.00061 U	< 0.0047 UJ	< 0.00030 U
PCB-189	39635-31-9	ng/g	< 0.0029 U	< 0.0024 U	0.0070 J	< 0.0028 U	0.0093 J	0.0055 J	0.0084 J	0.015	0.016 J	0.0067 J
PCB-19	38444-73-4	ng/g	0.013 JN	0.0099 JN	0.029	0.021 JN	0.026	0.024	0.025 JN	0.048 JN	0.011 JN	0.011
PCB-190	41411-64-7	ng/g	0.020	0.023	0.030 JN	0.023 JN	0.050	0.030	0.038	0.086	0.075 J	0.029
PCB-191	74472-50-7	ng/g	< 0.0014 U	0.0058 J	0.0070 J	0.0055 J	0.010 JN	0.0064 JN	0.0077 JN	0.018	0.014 JN	0.0065 J
PCB-192	74472-51-8	ng/g	< 0.0015 U	< 0.0011 U	< 0.00025 U	< 0.0015 U	< 0.00040 U	< 0.00072 U	< 0.0017 U	< 0.00065 U	< 0.0053 UJ	< 0.00037 U
PCB-194	35694-08-7	ng/g	0.061	0.061	0.12	0.069 JN	0.13	0.098	0.11	0.25	0.32	0.10
PCB-195	52663-78-2	ng/g	0.023 JN	0.025	0.042	0.025	0.051	0.040	0.048	0.094	0.11	0.043
PCB-196	42740-50-1	ng/g	0.026	0.028	0.050	0.021 JN	0.056	0.038	0.036 JN	0.11	0.13 JN	0.038 JN
PCB-197	33091-17-7	ng/g	< 0.0013 U	0.0035 JN	0.0035 J	< 0.00048 U	0.0039 J	0.0012 JN	0.0021 JN	0.0077 J	0.0050 JN	0.0017 J
PCB-198/199	68194-17-2	ng/g	0.069	0.079	0.14	0.079	0.13	0.093	0.11	0.27	0.35	0.099
PCB-2	2051-61-8	ng/g	0.0042 JN	0.0057 J	0.0075 J	0.011 J	0.0073 J	0.010 J	0.017 J	0.031	< 0.0026 U	0.0052 JN
PCB-20/28	38444-84-7	ng/g	0.086 J	0.082	0.15	0.18	0.13	0.12	0.30	0.72	0.39	0.23
PCB-200	52663-73-7	ng/g	0.0074 JN	0.0076 JN	0.0095 J	0.0045 JN	0.013	0.0093 J	0.0095 JN	0.028	0.034 J	0.012
PCB-201	40186-71-8	ng/g	0.0081 J	0.0065 JN	0.014	0.0073 JN	0.012 J	0.0098 JN	0.014	0.030	0.025 JN	0.0098
PCB-202	2136-99-4	ng/g	0.014	0.016	0.029	0.012	0.020 JN	0.020	0.027 JN	0.050	0.082 J	0.018
PCB-203	52663-76-0	ng/g	0.038 JN	0.041 JN	0.087	0.046	0.078	0.051	0.066	0.15	0.17 JN	0.057
PCB-204	74472-52-9	ng/g	< 0.0013 U	< 0.00089 U	< 0.00023 U	< 0.00048 U	< 0.00041 U	< 0.00038 U	< 0.00083 U	< 0.00098 U	< 0.00094 U	< 0.00032 U
PCB-205	74472-53-0	ng/g	< 0.0039 U	< 0.0030 U	0.0050 J	< 0.0025 U	0.0060 J	0.0062 J	0.0071 J	0.012 J	0.018 J	0.0054 J
PCB-206	40186-72-9	ng/g	0.045	0.048	0.12	0.049 JN	0.078	0.078	0.74 JN	0.23 JN	0.79 JN	0.054
PCB-207	52663-79-3	ng/g	< 0.0018 U	< 0.0019 U	0.0095 J	< 0.0040 U	0.0048 J	0.0075 J	0.010 J	0.012 JN	0.066 J	0.0041 J
PCB-208	52663-77-1	ng/g	0.014	0.013	0.040	0.016 JN	0.025	0.028	0.039	0.058	0.28	0.016
PCB-209	2051-24-3	ng/g	0.059	0.065	0.12	0.097	0.079	0.11	0.14	0.15	1.3	0.043 JN
PCB-21/33	55702-46-0	ng/g	0.039 J	0.036	0.061	0.085	0.055	0.046	0.15	0.33	0.18 J	0.084
PCB-22	38444-85-8	ng/g	0.028 J	0.024	0.042	0.055	0.037	0.033	0.10	0.25	0.13	0.055
PCB-23	55720-44-0	ng/g	< 0.0012 UJ	< 0.00099 U	< 0.00051 U	< 0.0011 U	< 0.00059 U	< 0.00055 U	< 0.0018 U	< 0.0027 U	< 0.0047 U	< 0.00054 U
PCB-24	55702-45-9	ng/g	0.0013 JN	0.00046 JN	0.0014 J	< 0.00072 U	0.0010 JN	0.0013 JN	0.0018 JN	0.0060 J	< 0.00068 U	0.0010 JN
PCB-25	55712-37-3	ng/g	0.0081 J	0.0074 J	0.012	0.015	0.0096 JN	0.011 J	0.027	0.060	0.028 J	0.018

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B096	B096	B097	B098	B099	B100	B101	B102	B103	B104
		Sample ID	PDI-SG-B096-BL1	PDI-SG-B096-BL1-D	PDI-SG-B097-BL1	PDI-SG-B098-BL1	PDI-SG-B099-BL1	PDI-SG-B100-BL1	PDI-SG-B101-BL1	PDI-SG-B102-BL1	PDI-SG-B103-BL1	PDI-SG-B104-BL1
		Sample Date	20 Jun 2018	20 Jun 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	11 Apr 2018	13 Jun 2018	10 Apr 2018	10 Apr 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-27 cm	0-27 cm	0-28 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-20 cm	0-23 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.015 J	0.012 JN	0.022 J	0.029	0.019 J	0.021 J	0.051	0.11	0.065 J	0.033
PCB-27	38444-76-7	ng/g	0.0042 JN	0.0045 J	0.0049 JN	0.0078 J	0.0064 JN	0.0050 JN	0.016	0.029	0.0094 JN	0.0070 JN
PCB-3	2051-62-9	ng/g	0.0026 JN	0.0024 J	0.0035 JN	0.0087 J	0.0048 J	0.0034 J	0.013 J	0.019	< 0.0030 U	0.0080 J
PCB-31	16606-02-3	ng/g	0.064 J	0.063	0.11	0.14	0.095	0.085	0.23	0.50	0.30	0.18
PCB-32	38444-77-8	ng/g	0.017 J	0.014	0.025	0.024 JN	0.026	0.016 JN	0.047	0.096	0.041 J-	0.030
PCB-34	37680-68-5	ng/g	< 0.0013 UJ	< 0.0010 U	< 0.00052 U	< 0.0012 U	< 0.00062 U	< 0.00057 U	< 0.0018 U	< 0.0028 U	< 0.0048 U	0.0025 J
PCB-35	37680-69-6	ng/g	0.0028 JN	< 0.0010 U	0.0039 J	0.0028 JN	0.0025 JN	0.0022 J	0.0079 J	0.014 J	0.0092 JN	0.0040 J
PCB-36	38444-87-0	ng/g	< 0.0012 UJ	< 0.00096 U	< 0.00049 U	< 0.0011 U	< 0.00058 U	< 0.00053 U	< 0.0016 U	< 0.0024 U	< 0.0042 U	< 0.00053 U
PCB-37	38444-90-5	ng/g	0.028	0.031	0.057	0.064	0.047	0.043	0.11	0.29	0.15	0.066
PCB-38	53555-66-1	ng/g	< 0.0013 UJ	< 0.0010 U	< 0.00053 U	< 0.0012 U	< 0.00062 U	< 0.00057 U	< 0.0017 U	< 0.0026 U	< 0.0045 U	< 0.00057 U
PCB-39	38444-88-1	ng/g	< 0.0011 UJ	< 0.00093 U	< 0.00047 U	< 0.0010 U	< 0.00056 U	< 0.00051 U	< 0.0016 U	0.0029 J	< 0.0041 U	0.0020 J
PCB-4	13029-08-8	ng/g	0.012 JN	0.011 JN	0.026 JN	0.027 JN	0.031	0.025	0.046 JN	0.077	0.015 JN	0.011 JN
PCB-40/41/71	38444-93-8	ng/g	0.052	0.049	0.075	0.089	0.067	0.067	0.14	0.30	0.19 J	0.12
PCB-42	36559-22-5	ng/g	0.027	0.026	0.037	0.037 JN	0.030	0.029	0.066 JN	0.14	0.086 J	0.063
PCB-43/73	70362-46-8	ng/g	0.0065 J	0.0037 JN	0.0032 J	< 0.0032 U	0.0059 J	0.0038 JN	0.0095 J	0.020 J	< 0.0073 U	0.0062 J
PCB-44/47/65	41464-39-5	ng/g	0.13	0.12	0.19	0.18	0.18	0.17	0.30	0.59	0.32	0.24
PCB-45/51	70362-45-7	ng/g	0.019 J	0.020 J	0.034	0.025	0.029 JN	0.038	0.061	0.11	0.055 JN	0.036
PCB-46	41464-47-5	ng/g	0.0039 J	0.0058 JN	0.0076 J	0.012	0.0062 JN	0.0049 JN	0.012 JN	0.025 JN	0.020 JN	0.012
PCB-48	70362-47-9	ng/g	0.019	0.012 JN	0.023	0.024 JN	0.023	0.020	0.049	0.11	0.070 J	0.041
PCB-49/69	41464-40-8	ng/g	0.081	0.074	0.12	0.13	0.11	0.11	0.18	0.36	0.20	0.17
PCB-5	16605-91-7	ng/g	< 0.0025 U	< 0.0022 U	< 0.0021 U	< 0.0043 U	< 0.0018 U	< 0.0018 U	0.0026 J	0.0038 JN	< 0.0016 U	< 0.0017 U
PCB-50/53	62796-65-0	ng/g	0.017 J	0.017 J	0.029	0.029	0.025 JN	0.027	0.051	0.085	0.047 JN	0.027
PCB-52	35693-99-3	ng/g	0.15	0.17	0.25	0.23	0.18	0.19	0.33	0.68	0.46	0.32
PCB-54	15968-05-5	ng/g	0.0034 J	0.0027 JN	0.0038 JN	0.0021 JN	0.0046 J	0.0051 J	0.0041 JN	0.0091 JN	< 0.0011 U	0.00086 JN
PCB-55	74338-24-2	ng/g	0.0029 J	0.0020 JN	0.0022 J	< 0.0025 U	< 0.0012 U	< 0.0011 U	0.0076 JN	0.017 JN	0.0097 JN	< 0.0011 U
PCB-56	41464-43-1	ng/g	0.046	0.045	0.062	0.074	0.047	0.048	0.094	0.18	0.17 JN	0.12
PCB-57	70424-67-8	ng/g	< 0.0015 U	< 0.0012 U	< 0.00091 U	< 0.0025 U	< 0.0012 U	< 0.0011 U	< 0.0015 U	< 0.0015 U	< 0.0057 U	< 0.0011 U
PCB-58	41464-49-7	ng/g	< 0.0015 U	< 0.0013 U	0.0014 J	< 0.0026 U	< 0.0012 U	< 0.0011 U	0.0015 JN	0.0034 J	< 0.0054 U	< 0.0011 U
PCB-59/62/75	74472-33-6	ng/g	0.0078 JN	0.0065 J	0.011 J	< 0.0024 U	0.012 J	0.011 J	0.027 J	0.056	0.022 JN	0.020 J
PCB-6	25569-80-6	ng/g	0.0054 JN	0.0045 JN	0.0071 JN	0.012	0.0085 J	0.0099 J	0.021 JN	0.043	0.0022 JN	0.0084 J
PCB-60	33025-41-1	ng/g	0.020	0.022	0.023	0.037	0.018	0.015	0.046	0.077	0.082 JN	0.030
PCB-61/70/74/76	33284-53-6	ng/g	0.20	0.20	0.28	0.30	0.21	0.22	0.38	0.76	0.58	0.47
PCB-63	74472-34-7	ng/g	0.0039 J	0.0036 JN	0.0053 J	0.0057 JN	0.0049 J	0.0044 J	0.0084 J	0.018	0.011 JN	0.010
PCB-64	52663-58-8	ng/g	0.043	0.040	0.058	0.068	0.049	0.046	0.10	0.21	0.12	0.095
PCB-66	32598-10-0	ng/g	0.11	0.12	0.16	0.17	0.13	0.13	0.24	0.46	0.32	0.31
PCB-67	73575-53-8	ng/g	0.0037 J	0.0031 J	0.0030 JN	0.0036 JN	0.0024 J	0.0027 J	0.0060 JN	0.018	0.016 JN	0.0060 J
PCB-68	73575-52-7	ng/g	0.0024 J	0.0031 J	< 0.00080 U	< 0.0022 U	0.0052 J	0.0025 J	0.0038 J+	0.0051 J	< 0.0049 U	0.0046 J
PCB-7	33284-50-3	ng/g	< 0.0023 U	< 0.0020 U	< 0.0019 U	< 0.0039 U	0.0018 JN	< 0.0016 U	0.0055 J	0.0069 JN	0.0021 JN	0.0020 J
PCB-72	41464-42-0	ng/g	0.0027 J	0.0017 J	< 0.00089 U	< 0.0025 U	0.0019 JN	0.0040 J	0.0038 JN	0.0074 J	0.0084 J	0.0072 J
PCB-77	32598-13-3	ng/g	0.015	0.014	0.018	0.019	0.015	0.015	0.025 JN	0.056	0.028 JN	0.029
PCB-78	70362-49-1	ng/g	< 0.0015 U	< 0.0013 U	< 0.00092 U	< 0.0026 U	< 0.0012 U	< 0.0011 U	< 0.0015 U	< 0.0015 U	< 0.0055 U	< 0.0011 U
PCB-79	41464-48-6	ng/g	0.0021 JN	0.0028 J	0.0021 JN	< 0.0022 U	< 0.0011 U	< 0.00095 U	0.0023 JN	0.0051 JN	< 0.0047 U	0.0028 JN
PCB-8	34883-43-7	ng/g	0.018 J	0.017 JN	0.040	0.041 JN	0.042	0.032	0.10	0.17	0.029 JN	0.031
PCB-80	33284-52-5	ng/g	< 0.0013 U	< 0.0011 U	< 0.00078 U	< 0.0022 U	< 0.0010 U	< 0.00093 U	< 0.0013 U	< 0.0013 U	< 0.0048 U	< 0.00092 U
PCB-81	70362-50-4	ng/g	< 0.0014 U	< 0.0012 U	< 0.00084 U	< 0.0024 U	< 0.0011 U	< 0.0010 U	< 0.0014 U	0.0016 JN	< 0.0052 U	< 0.0010 U
PCB-82	52663-62-4	ng/g	0.031	0.031	0.043	0.029 JN	0.025 JN	0.034	0.036 JN	0.11	0.062 JN	0.043
PCB-83/99	60145-20-2	ng/g	0.16	0.17	0.24	0.20	0.18	0.23	0.24	0.60	0.33	0.33
PCB-84	52663-60-2	ng/g	0.056	0.062	0.089	0.066	0.061	0.074	0.080	0.23	0.11 JN	0.11
PCB-85/116/117	65510-45-4	ng/g	0.048	0.044 JN	0.069	0.061	0.052	0.047 JN	0.064	0.16	0.092 J	0.070
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.15	0.16	0.25	0.19	0.17	0.20	0.21	0.59	0.36 J	0.27
PCB-88/91	55215-17-3	ng/g	0.039	0.038 JN	0.059	0.048	0.048	0.056	0.070	0.13 JN	0.054 JN	0.070 JN
PCB-89	73575-57-2	ng/g	0.0046 J	0.0031 J	< 0.00033 U	< 0.00053 U	< 0.00048 U	< 0.00043 U	0.0039 JN	0.0087 JN	< 0.0047 U	< 0.00026 U
PCB-9	34883-39-1	ng/g	< 0.0023 U	< 0.0020 U	< 0.0019 U	0.0053 JN	0.0022 JN	0.0019 JN	0.0032 JN	0.013 J	< 0.0017 U	0.0020 JN
PCB-90/101/113	68194-07-0	ng/g	0.26	0.27	0.40	0.31 JN	0.31	0.37	0.37	0.91	0.73	0.52
PCB-92	52663-61-3	ng/g	0.047	0.051	0.075	0.058	0.059	0.076	0.073	0.19	0.17	0.10
PCB-93/100	73575-56-1	ng/g	0.0056 JN	0.0061 J	0.011 J	0.0090 J	0.014 J	0.016 J	0.014 J	0.039	< 0.0045 U	0.0065 JN
PCB-94	73575-55-0	ng/g	0.0029 J	< 0.00059 U	< 0.00033 U	< 0.00053 U	< 0.00048 U	< 0.00043 U	0.0034 J	0.0069 JN	< 0.0047 U	< 0.00026 U
PCB-95	38379-99-6	ng/g	0.19	0.23	0.32	0.27	0.23	0.28	0.29	0.73	0.48 JN	0.39
PCB-96	73575-54-9	ng/g	0.0021 JN	0.0022 J	0.0032 JN	< 0.00040 U	< 0.00037 U	< 0.00033 U	0.0046 JN	0.0052 JN	< 0.0035 U	< 0.00020 U
PCB-98/102	60233-25-2	ng/g	0.0091 J	0.0093 J	0.011 J	0.0082 JN	0.0095 J	0.0096 JN	0.019 JN	0.042 JN	0.017 J	0.013 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	6.1	6.3	10	8.6	9.3	9.0	13	26	22	11

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B096	B096	B097	B098	B099	B100	B101	B102	B103	B104
		Sample ID	PDI-SG-B096-BL1	PDI-SG-B096-BL1-D	PDI-SG-B097-BL1	PDI-SG-B098-BL1	PDI-SG-B099-BL1	PDI-SG-B100-BL1	PDI-SG-B101-BL1	PDI-SG-B102-BL1	PDI-SG-B103-BL1	PDI-SG-B104-BL1
		Sample Date	20 Jun 2018	20 Jun 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	11 Apr 2018	13 Jun 2018	10 Apr 2018	10 Apr 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-27 cm	0-27 cm	0-28 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-20 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.49	0.55	< 0.63 U	0.66	< 0.63 U	0.40 J	0.65	< 2.8 U	31	1.6
2,4-DDE	3424-82-6	µg/kg	< 0.46 U	< 0.44 U	< 0.63 U	< 0.59 U	< 0.63 U	< 0.60 U	< 0.63 U	< 2.8 U	2.7	< 0.40 U
2,4-DDT	789-02-6	µg/kg	< 0.46 U	< 0.44 U	< 0.63 U	< 0.59 U	< 0.63 U	< 0.60 U	< 0.63 U	< 2.8 U	< 0.47 U	< 0.47 U
4,4'-DDD	72-54-8	µg/kg	1.3	1.6	1.4	1.6	1.2	1.3	1.7	2.6 J	45 J	4.7
4,4'-DDE	72-55-9	µg/kg	2.1	2.4	2.9	2.6	2.5	2.7	3.1	4.8	11	1.5
4,4'-DDT	50-29-3	µg/kg	0.40 J	0.58	0.46 J	0.42 J	0.43 J	0.56 J	0.54 J	< 2.8 U	2.7	0.38 J
Total DDx (b)	T_DDx (PDI)	µg/kg	4.5	5.4	5.1	5.6	4.4	5.3	6.3	8.8	93	8.4
Aldrin	309-00-2	µg/kg	< 0.46 U	< 0.44 U	0.91	< 0.59 UJ	< 0.63 U	< 0.60 U	< 0.63 U	< 2.8 U	< 0.40 UJ	< 0.40 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.91 U	< 0.89 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.2 U	< 1.3 U	< 5.7 U	< 0.77 U	< 0.78 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.46 U	< 0.44 U	< 0.63 UJ	< 0.59 U	< 0.63 UJ	< 0.60 UJ	< 0.63 U	< 2.8 U	< 0.49 U	< 0.49 UJ
Dieldrin	60-57-1	µg/kg	< 0.91 U	< 0.89 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.2 U	< 1.3 U	< 5.7 U	< 1.0 U	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.46 U	< 0.44 U	< 0.63 U	< 0.59 U	< 0.63 U	< 0.60 U	< 0.63 U	< 2.8 U	< 0.38 U	0.20 J
gamma-Chlordane	5566-34-7	µg/kg	< 0.91 U	0.37 J	< 1.3 U	< 1.2 U	< 1.3 U	< 1.2 U	< 1.3 U	< 5.7 U	< 0.77 U	0.36 J
Heptachlor	76-44-8	µg/kg	< 0.46 U	< 0.44 U	< 0.63 UJ	< 0.59 UJ	< 0.63 UJ	< 0.60 UJ	< 0.63 UJ	< 2.8 U	< 0.38 UJ	< 0.39 UJ
Oxychlordane	27304-13-8	µg/kg	< 0.91 U	< 0.89 U	< 1.3 U	< 1.2 U	< 1.3 U	< 1.2 U	< 1.3 U	< 5.7 U	< 1.0 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	0.38 J	0.44 J	0.38 J	0.66 J	< 1.3 U	< 1.2 U	0.57 J	< 5.7 U	< 0.77 U	< 0.78 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	0.835	1.26	1.03	1.26	< 1.3 U	< 1.2 U	1.22	< 5.7 U	< 1 U	0.86
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	15	12	2.6	89	3.4	3.3	2.5	17	120	44
Acenaphthene	83-32-9	µg/kg	30	19	2.7	270	5.4	5.1	5.6	22	560	50
Acenaphthylene	208-96-8	µg/kg	22	10 J	2.1	43	3.5	5.8	3.3	17	110	42
Anthracene	120-12-7	µg/kg	51	33	6.8	240	10	12	11	59	380	63
Benz(a)anthracene	56-55-3	µg/kg	89	65	22	520	33	49	51	240	2000	260
Benzo(a)pyrene	50-32-8	µg/kg	110 J	64 J	27	410	41	72	75	220	2600	420
Benzo(b)fluoranthene	205-99-2	µg/kg	120	100	35	540	49	79	77	370	2200	370
Benzo(g,h,i)perylene	191-24-2	µg/kg	73	47	23	400 J	35	55	58 J	190	2300	410
Benzo(k)fluoranthene	207-08-9	µg/kg	41	23	11	170	17	25	27	96	700	120
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	< 340 U	< 330 U	78 J	100 J	94 J	76 J	< 130 U	< 470 U	36 J	170
Chrysene	218-01-9	µg/kg	110	85	35	700	49	63	73	280	2700	330
Dibenz(a,h)anthracene	53-70-3	µg/kg	12	8.6 J	4.3	52	6.3	10	11	52	260	52
Fluoranthene	206-44-0	µg/kg	310	200	48	2400	71	84	87	420	6400	440
Fluorene	86-73-7	µg/kg	23	20	3.6	460	6.4	5.9	5.0	21	490	44
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	89	60	22	350 J	33	54	55	280	2100	370
Naphthalene	91-20-3	µg/kg	65 J	32 J	4.9	84	6.2	6.9	5.1	34	310	100
Phenanthrene	85-01-8	µg/kg	200 J	100 J	21	2500	37	37	37	130	7700	380
Pyrene	129-00-0	µg/kg	320	200	56	2100	83	100	100	390	9200	660 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	1680	1079	327	11328	489	667	684	2838	40130	4155
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	152	95	39	605	59	101	105	362	3500	574
Metals												
Arsenic	7440-38-2	mg/kg	5.6	5.2	5.7	5.2	5.4	5.1	6.0	6.2	5.3	2.7
Cadmium	7440-43-9	mg/kg	0.20 J	0.19 J	0.30 J	0.21 J	0.26 J	0.21 J	0.30 J	0.38 J	0.34	0.12 J
Copper	7440-50-8	mg/kg	43	40	45	36	37	40	43	46	28	17
Lead	7439-92-1	mg/kg	12	11	12	16	11	12	15	31	20	9.4
Mercury	7439-97-6	mg/kg	0.059 J	0.065 J	0.10	0.051 J	0.057 J	0.052 J	0.061 J	0.11	0.080	0.041
Tri-n-butyltin	36643-28-4	µg/kg	< 170 U	< 170 U	5.0	< 2.4 U	43	6.1	3.0	< 230 U	< 1.5 U	< 1.6 U
Zinc	7440-66-6	mg/kg	100	95	110	93	90	99	110	130	99	62
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	55 J	95 J	< 120 U	82 J	< 120 U	< 110 U	< 110 U	83 J	520	27 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	330	470	140	810 J	120	110	150 J	490	1200	140
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	39.5 43.1	39.4 44.0						31.9		
Total Solids@104C - E160.3 (f)	TSOLID	%			40.1	42.5	39.4	40.5	38.2	31.9	55.4	65.2
Total Solids@104C - E160.3M (f)	TSOLID	%	40.9	41.2	39.9	42.0	39.0	41.1	39.4	34.0	64.3	63.7
Total Solids@70C	TSOLID70	%	40	40	40	42	39	41	39	34	64	65
Gravel	GS-Gravel	%	0		0	0.1	0	0	0	0	0.6	0.5
Sand, Coarse	GS-Csand	%	0		0	0	0	0	0	0	0.3	0
Sand, Medium	GS-Msand	%	0.2		0	0.6	0.3	0.2	0.3	0.1	1.0	0.7
Sand, Fine (#200) (d)	GS-Fsand-200	%	9.87		6.857	13.67	9.044	12.54	7.583	1.92	39.18	65.85
Sand, Fine (#230) (d)	GS-Fsand	%	12.8		9.2	17.6	11.7	16.4	9.8	2.3	45.6	71.8
Silt (#200) (d)	GS-Silt-200	%	78.92		81.24	76.32	77.35	76.15	79.01	73.97	53.51	30.24

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B096	B096	B097	B098	B099	B100	B101	B102	B103	B104
		Sample ID	PDI-SG-B096-BL1	PDI-SG-B096-BL1-D	PDI-SG-B097-BL1	PDI-SG-B098-BL1	PDI-SG-B099-BL1	PDI-SG-B100-BL1	PDI-SG-B101-BL1	PDI-SG-B102-BL1	PDI-SG-B103-BL1	PDI-SG-B104-BL1
		Sample Date	20 Jun 2018	20 Jun 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	10 Apr 2018	11 Apr 2018	13 Jun 2018	10 Apr 2018	10 Apr 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-27 cm	0-27 cm	0-28 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-20 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	76.0		78.9	72.4	74.7	72.3	76.8	73.6	47.1	24.3
Clay	GS-Clay	%	11.0		11.9	9.3	13.3	11.0	13.1	24.1	5.3	2.8
Percent Fines (e)	GS-FINES	%	89.92		93.14	85.62	90.65	87.15	92.11	98.07	58.81	33.04
Total Organic Carbon	TOC	mg/kg	26000	27000	22000	27000	21000	19000	23000	30000	12000	6100

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B105	B106	B107	B108	B109	B110	B111	B112	B113	B114
		Sample ID	PDI-SG-B105-BL1	PDI-SG-B106-BL1	PDI-SG-B107-BL1	PDI-SG-B108-BL1	PDI-SG-B109-BL1	PDI-SG-B110-BL1	PDI-SG-B111-BL1	PDI-SG-B112-BL1	PDI-SG-B113-BL1	PDI-SG-B114-BL1
		Sample Date	11 Apr 2018	10 Apr 2018	11 Apr 2018	17 Apr 2018	11 Apr 2018	02 Jun 2018	11 Apr 2018	16 Apr 2018	11 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-30 cm	0-28 cm	0-30 cm	0-26 cm	0-15 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.067	0.066	0.067	0.054	0.076	0.061	0.053	0.15	0.034	0.016
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0093 JN	0.011 JN	0.012 JN	0.0084 JN	0.0093 JN	0.011	0.0083 JN	0.017	0.0046 JN	0.0032 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00029 U	< 0.00033 U	0.0012 J+	< 0.00037 U	< 0.00035 U	0.00098 J+	0.00089 J+	< 0.00065 U	0.00058 J+	< 0.00020 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00065 J+	0.00082 J+	0.00055 JN	0.00067 J+	0.00069 JN	0.00038 J	0.00065 J+	0.00095 JN	< 0.00048 U	0.00021 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.00035 U	0.0025 J	0.0037 J	0.0025 J	0.0016 J+	0.00096 J	0.0028 J	0.0030 J	0.0033 J	0.00044 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0020 J	0.0024 J	0.0022 J	0.0025 J	0.0024 J	0.0018 J	0.0019 J+	0.0060	0.0013 J+	0.00054 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0031 J	0.0039 J	0.0039 J	0.0042 J	0.0036 J	0.00031 JN	0.0036 J	0.0039 J	0.0024 J	0.00026 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0013 JN	0.0018 J+	0.0015 J+	0.0015 J	0.0018 J+	0.00082 J	0.0014 J+	0.0030 J	0.00099 J+	0.00057 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00017 U	< 0.00013 U	< 0.00014 U	< 0.00031 U	< 0.00023 U	< 0.00056 U	< 0.00011 U	< 0.00026 U	< 0.00017 U	< 0.00013 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00020 U	< 0.00023 U	< 0.00022 U	< 0.00032 U	< 0.00026 U	0.00017 J	< 0.00035 U	< 0.00042 U	< 0.00024 U	< 0.000079 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00056 J+	0.0014 J+	0.0015 J+	0.0015 J	< 0.00026 U	0.00032 J	0.0012 J+	0.0021 J	0.0015 J+	0.00028 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00021 U	0.00042 J+	0.00044 J+	< 0.00037 U	0.00057 JN	0.00025 J	< 0.00037 U	< 0.00030 U	< 0.00028 U	< 0.000053 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00018 U	0.00053 J+	0.00060 J+	0.00060 J	< 0.00027 U	0.00017 J	0.00068 J+	0.0011 J+	0.00058 J+	< 0.000065 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00020 JN	0.00027 JN	0.00017 JN	0.00020 JN	0.00020 JN	0.000079 JN	0.00019 JN	< 0.00019 U	< 0.00010 U	< 0.000072 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00068 J	0.0011 J	0.00090 J	0.0016	0.00066 J	< 0.00023 U	0.0025	0.0025	0.0013	0.00019 J
OCDD	3268-87-9	µg/kg	0.55	0.54	0.56	0.41	0.58	0.43	0.42	1.1	0.27	0.20
OCDF	39001-02-0	µg/kg	0.033	0.035	0.035	0.021	0.033	0.047	0.030	0.037	0.013	0.0088
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.002	0.0028	0.0028	0.0026	0.0025	0.0017	0.0026	0.0045	0.0017	0.00052
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0017	0.0026	0.0026	0.0024	0.0022	0.0016	0.0025	0.0045	0.0017	0.0005
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0016	0.0024	0.0025	0.0023	0.002	0.0015	0.0023	0.0042	0.0016	0.00046
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0065 J	0.0019 JN	0.0035 J+	0.0077 J	0.0075 J	0.0028 J	0.0020 JN	0.0045 J	0.0027 J+	< 0.00021 U
PCB-10	33146-45-1	ng/g	0.0017 JN	< 0.0017 U	0.0013 JN	0.018	0.0012 JN	0.0015 J	0.0016 JN	< 0.00073 U	< 0.00037 U	< 0.0013 U
PCB-103	60145-21-3	ng/g	0.0079 JN	0.0055 J	0.0065 J	0.013	0.0077 J	< 0.00025 U	0.0069 J	0.0084 J	0.0083 J	0.0043 JN
PCB-104	56558-16-8	ng/g	< 0.00062 U	< 0.00019 U	< 0.00047 U	< 0.00025 U	< 0.00034 U	< 0.00020 U	< 0.00038 U	< 0.00071 U	< 0.00052 U	< 0.00027 U
PCB-105	32598-14-4	ng/g	0.071	0.15	0.066	0.22	0.068	0.15	0.081	0.30	0.055	0.018
PCB-106	70424-69-0	ng/g	< 0.0019 U	< 0.0010 U	< 0.0015 U	< 0.0013 U	< 0.00094 U	< 0.00089 U	< 0.0013 U	< 0.0023 U	< 0.00087 U	< 0.00062 U
PCB-107	70424-68-9	ng/g	0.019	0.031	0.019	0.044	0.018	0.025	0.021	0.053	0.016	0.011
PCB-108/124	70362-41-3	ng/g	0.0077 J	0.015 J	0.0080 J	0.022 J	0.0080 J	0.015 J	0.0064 JN	0.033	0.0064 J	0.0019 JN
PCB-11	2050-67-1	ng/g	0.054	0.059	0.049	0.30	0.066	0.015 JN	0.047	0.044	0.026	0.010 JN
PCB-110/115	38380-03-9	ng/g	0.27	0.48	0.25	0.88	0.23	0.44	0.26	0.96	0.23	0.12
PCB-111	39635-32-0	ng/g	< 0.00055 U	< 0.00018 U	< 0.00042 U	< 0.00023 U	< 0.00030 U	< 0.00018 U	< 0.00034 U	< 0.00064 U	< 0.00047 U	< 0.00025 U
PCB-112	74472-36-9	ng/g	< 0.00060 U	0.00099 J	0.0017 J	0.0021 JN	0.0018 JN	< 0.00019 U	< 0.00037 U	< 0.00070 U	< 0.00051 U	< 0.00026 U
PCB-114	74472-37-0	ng/g	0.0036 J	0.0073 J	0.0041 J	0.0076 JN	0.0039 J	0.010 JN	< 0.0012 U	0.016 JN	0.0028 J	< 0.00058 U
PCB-118	31508-00-6	ng/g	0.19	0.38	0.18	0.69	0.19	0.32	0.21	0.71	0.17	0.070
PCB-12/13	2974-92-7	ng/g	0.0050 JN	0.0052 JN	0.0043 J	0.032	0.0036 J	0.0074 JN	0.0036 JN	0.0080 J	< 0.00077 U	0.0017 JN
PCB-120	68194-12-7	ng/g	0.0029 J	< 0.00018 U	0.0018 JN	0.0046 J	0.00098 JN	< 0.00017 U	< 0.00034 U	< 0.00063 U	0.00084 JN	0.0015 JN
PCB-121	56558-18-0	ng/g	< 0.00059 U	< 0.00019 U	< 0.00045 U	< 0.00024 U	< 0.00032 U	< 0.00019 U	< 0.00036 U	< 0.00068 U	< 0.00050 U	< 0.00026 U
PCB-122	76842-07-4	ng/g	< 0.0021 U	0.0036 JN	0.0025 J	0.0040 JN	0.0021 JN	0.0064 JN	< 0.0015 U	0.012	0.0022 JN	< 0.00072 U
PCB-123	65510-44-3	ng/g	0.0028 JN	0.0047 JN	0.0036 JN	0.0086 JN	< 0.00085 U	0.0055 JN	0.0043 JN	0.013 JN	0.0029 J	0.0015 JN
PCB-126	57465-28-8	ng/g	< 0.0019 U	< 0.0011 U	< 0.0015 U	0.0028 JN	< 0.00094 U	0.0012 JN	< 0.0013 U	< 0.0022 U	< 0.00083 U	< 0.00065 U
PCB-127	39635-33-1	ng/g	< 0.0018 U	< 0.0010 U	< 0.0015 U	< 0.0013 U	< 0.00090 U	< 0.00085 U	< 0.0013 U	< 0.0022 U	< 0.00084 U	< 0.00062 U
PCB-128/166	38380-07-3	ng/g	0.061	0.082	0.055	0.40	0.064	0.068	0.069	0.18	0.051	0.020
PCB-129/138/160/163	55215-18-4	ng/g	0.46	0.54	0.41	5.4	0.50	0.36	0.47	1.0	0.34	0.18
PCB-130	52663-66-8	ng/g	0.031	0.031 JN	0.028	0.17	0.032	0.027	0.030	0.074	0.026	0.012
PCB-131	61798-70-7	ng/g	0.0038 JN	< 0.0021 U	< 0.0017 U	0.026 JN	0.0043 J	0.0072 JN	< 0.0020 U	0.020	< 0.0022 U	< 0.0017 U
PCB-132	38380-05-1	ng/g	0.14	0.16	0.12	1.4	0.14	0.13	0.14	0.36	0.098	0.059
PCB-133	35694-04-3	ng/g	0.0080 J	0.0056 JN	0.0087 J	0.049 JN	0.011 J	0.0057 J	0.0099 JN	0.016	0.0097	0.0043 J
PCB-134/143	52704-70-8	ng/g	0.026	0.024 J	0.020 JN	0.19	0.023	0.024	0.023 JN	0.067	0.019	0.0094 J
PCB-135/151	52744-13-5	ng/g	0.14	0.13	0.13	2.1	0.13	0.085	0.14	0.22	0.087	0.077
PCB-136	38411-22-2	ng/g	0.051	0.051	0.042	0.53	0.048	0.038	0.049	0.093	0.037	0.028
PCB-137	35694-06-5	ng/g	0.015	0.021 JN	0.013	0.041	0.015	0.022	0.018	0.055	0.0099 JN	0.0027 JN
PCB-139/140	56030-56-9	ng/g	0.0031 JN	< 0.0017 U	0.0075 J	0.017 J	0.0070 J	0.0078 J	0.0065 J	0.019 J	0.0051 JN	0.0024 J
PCB-14	34883-41-5	ng/g	< 0.00058 U	< 0.0013 U	0.00059 J	< 0.0015 U	< 0.00039 U	< 0.00045 U	< 0.00038 U	< 0.00057 U	< 0.00029 U	< 0.00099 U
PCB-141	52712-04-6	ng/g	0.086	0.082	0.079	1.6	0.093	0.067	0.088	0.17	0.057	0.033
PCB-142	41411-61-4	ng/g	< 0.0021 U	< 0.0019 U	< 0.0016 U	< 0.0074 U	< 0.0012 U	< 0.0012 U	< 0.0019 U	< 0.0022 U	< 0.0021 U	< 0.0015 U
PCB-144	68194-14-9	ng/g	0.018	0.015	0.014	0.29	0.014	0.014	0.013	0.031	0.0082 JN	0.0068 J
PCB-145	74472-40-5	ng/g	< 0.00023 U	< 0.00022 U	< 0.00012 U	< 0.00013 U	< 0.00014 U	< 0.00016 U	< 0.000095 U	< 0.00030 U	< 0.000057 U	< 0.00034 U
PCB-146	51908-16-8	ng/g	0.081	0.078	0.073	0.78	0.087	0.044	0.086	0.14	0.063	0.052
PCB-147/149	68194-13-8	ng/g	0.39	0.40	0.33	5.2	0.40	0.24	0.40	0.73	0.28	0.21
PCB-148	74472-41-6	ng/g	0.0018 JN	0.0014 JN	< 0.00016 U	< 0.00018 U	0.0010 JN	0.00028 JN	0.00098 JN	0.00097 JN	0.00050 JN	< 0.00047 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B105	B106	B107	B108	B109	B110	B111	B112	B113	B114
		Sample ID	PDI-SG-B105-BL1	PDI-SG-B106-BL1	PDI-SG-B107-BL1	PDI-SG-B108-BL1	PDI-SG-B109-BL1	PDI-SG-B110-BL1	PDI-SG-B111-BL1	PDI-SG-B112-BL1	PDI-SG-B113-BL1	PDI-SG-B114-BL1
		Sample Date	11 Apr 2018	10 Apr 2018	11 Apr 2018	17 Apr 2018	11 Apr 2018	02 Jun 2018	11 Apr 2018	16 Apr 2018	11 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-30 cm	0-28 cm	0-30 cm	0-26 cm	0-15 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.023	0.020	0.016 JN	0.18	0.018	0.14	0.024	0.032	0.013	0.0046 J
PCB-150	68194-08-1	ng/g	0.0023 J	0.00097 J	0.00082 JN	< 0.00013 U	0.0018 J	< 0.00023 U	0.00038 JN	< 0.00027 U	0.00063 JN	< 0.00032 U
PCB-152	68194-09-2	ng/g	< 0.00022 U	< 0.00022 U	< 0.00011 U	< 0.00013 U	< 0.00013 U	< 0.00015 U	< 0.000091 U	< 0.00029 U	< 0.000055 U	< 0.00035 U
PCB-153/168	35065-27-1	ng/g	0.40	0.39	0.36	5.9	0.43	0.23	0.42	0.71	0.30	0.19
PCB-154	60145-22-4	ng/g	0.0066 J	0.0059 JN	0.0077 JN	0.019 JN	0.0088 J	0.0020 JN	0.0070 JN	0.0069 JN	0.0078 J	0.0070 JN
PCB-155	33979-03-2	ng/g	< 0.00021 U	< 0.00021 U	< 0.00011 U	< 0.00013 U	0.00017 JN	< 0.00014 U	< 0.000087 U	0.00047 JN	< 0.000052 U	< 0.00032 U
PCB-156/157	38380-08-4	ng/g	0.042	0.062	0.036	0.38	0.041	0.047	0.042	0.13	0.031	0.014 J
PCB-158	74472-42-7	ng/g	0.044	0.050	0.035	0.49	0.043	0.043	0.045	0.11	0.029	0.012
PCB-159	39635-35-3	ng/g	0.0050 JN	< 0.0013 U	0.0052 J	0.074	0.0070 J	0.0024 J	< 0.0012 U	0.0065 J	0.0039 J	0.0018 J
PCB-16	38444-78-9	ng/g	0.012 JN	0.020	0.011 JN	0.032	0.012	0.28	0.012	0.043	0.0089 JN	0.0050 J
PCB-161	74472-43-8	ng/g	< 0.0014 U	< 0.0012 U	< 0.0010 U	< 0.0049 U	< 0.00076 U	< 0.00080 U	< 0.0012 U	< 0.0015 U	< 0.0014 U	< 0.0010 U
PCB-162	39635-34-2	ng/g	< 0.0013 U	< 0.0012 U	< 0.00099 U	0.0069 J	0.0013 JN	< 0.00076 U	< 0.0011 U	< 0.0014 U	< 0.0013 U	< 0.0010 U
PCB-164	74472-45-0	ng/g	0.033	0.029 JN	0.030	0.37	0.035	0.026	0.032	0.069	0.024	0.015
PCB-165	74472-46-1	ng/g	< 0.0016 U	< 0.0014 U	< 0.0012 U	< 0.0056 U	< 0.00087 U	< 0.00091 U	< 0.0014 U	< 0.0017 U	< 0.0016 U	< 0.0012 U
PCB-167	52663-72-6	ng/g	0.015	0.020	0.013	0.13	0.016	0.015	0.017	0.037 JN	0.011	0.0045 J
PCB-169	32774-16-6	ng/g	< 0.0010 U	< 0.00096 U	< 0.00083 U	< 0.0038 U	< 0.00061 U	< 0.00059 U	< 0.00091 U	< 0.0011 U	< 0.0011 U	< 0.00075 U
PCB-17	37680-66-3	ng/g	0.033	0.029	0.020 JN	0.093	0.020 JN	0.26	0.017 JN	0.040	0.017	0.0098 J
PCB-170	35065-30-6	ng/g	0.13	0.12	0.12	3.3	0.14	0.064	0.13	0.17	0.099	0.061
PCB-171/173	52663-71-5	ng/g	0.035	0.032	0.039	0.98	0.044	0.021	0.040 JN	0.052	0.029	0.020
PCB-172	52663-74-8	ng/g	0.018 JN	0.019	0.018 JN	0.53	0.023	0.011	0.023	0.022 JN	0.020	0.012
PCB-174	38411-25-5	ng/g	0.13	0.11	0.15	3.3	0.17	0.061	0.15	0.16	0.12	0.066
PCB-175	40186-70-7	ng/g	0.0035 JN	0.0045 J	0.0052 JN	0.13	0.0058 JN	0.0019 J	0.0032 JN	0.0052 J	0.0034 JN	0.0043 J
PCB-176	52663-65-7	ng/g	0.014 JN	0.012 J	0.015	0.42	0.018	0.0066 J	0.015 JN	0.018	0.013	0.0088 J
PCB-177	52663-70-4	ng/g	0.074	0.066	0.084	1.8	0.10	0.038	0.092	0.099	0.068	0.039
PCB-178	52663-67-9	ng/g	0.027 JN	0.027	0.034	0.63	0.040	0.011 JN	0.029 JN	0.035	0.027	0.016
PCB-179	52663-64-6	ng/g	0.061	0.047	0.058	1.4	0.073	0.022	0.067	0.068	0.048	0.034
PCB-18/30	37680-65-2	ng/g	0.039	0.062	0.025 JN	0.083	0.030	0.51	0.027	0.081	0.026	0.013 J
PCB-180/193	35065-29-3	ng/g	0.26	0.24	0.27	7.2	0.30	0.12	0.28	0.32	0.22	0.14
PCB-181	74472-47-2	ng/g	< 0.00087 U	< 0.00062 U	< 0.000029 U	0.014 JN	< 0.00022 U	0.0016 JN	< 0.00030 U	0.0024 JN	< 0.00030 U	< 0.00043 U
PCB-182	60145-23-5	ng/g	< 0.00082 U	< 0.00060 U	0.0015 JN	0.014	0.0018 JN	< 0.00037 U	0.0015 JN	< 0.00085 U	0.0016 JN	< 0.00042 U
PCB-183/185	52663-69-1	ng/g	0.081	0.073	0.085	2.5	0.11	0.037	0.093	0.098	0.068	0.047
PCB-184	74472-48-3	ng/g	< 0.00071 U	< 0.00051 U	< 0.000024 U	< 0.00032 U	< 0.00018 U	< 0.00032 U	< 0.00025 U	< 0.00073 U	< 0.00025 U	< 0.00035 U
PCB-186	74472-49-4	ng/g	< 0.00068 U	< 0.00050 U	< 0.000023 U	< 0.00032 U	< 0.00017 U	< 0.00031 U	< 0.00023 U	< 0.00070 U	< 0.00024 U	< 0.00034 U
PCB-187	52663-68-0	ng/g	0.17	0.15	0.18	3.8	0.21	0.070	0.20	0.19	0.15	0.087
PCB-188	74487-85-7	ng/g	< 0.00059 U	< 0.00043 U	< 0.000020 U	< 0.00027 U	< 0.00015 U	< 0.00029 U	< 0.00021 U	< 0.00063 U	< 0.00021 U	< 0.00030 U
PCB-189	39635-31-9	ng/g	0.0041 JN	< 0.0013 U	0.0043 J	0.10	0.0047 J	0.0026 J	0.0035 J	0.0044 JN	0.0031 J	0.0021 J
PCB-19	38444-73-4	ng/g	0.030 JN	0.017	0.023	0.39	0.019	0.051	0.035 JN	0.025	0.0074 JN	0.0018 JN
PCB-190	41411-64-7	ng/g	0.019 JN	0.022	0.025	0.59	0.026	0.0097 JN	0.023	0.032	0.017 JN	0.011
PCB-191	74472-50-7	ng/g	0.0061 J	0.0046 J	0.0064 J	0.13	0.0067 J	0.0033 JN	0.0067 J	0.0084 J	0.0044 J	0.0028 JN
PCB-192	74472-51-8	ng/g	< 0.00069 U	< 0.00053 U	< 0.000023 U	< 0.00033 U	< 0.00018 U	< 0.00031 U	< 0.00024 U	< 0.00071 U	< 0.00024 U	< 0.00036 U
PCB-194	35694-08-7	ng/g	0.068	0.066	0.061	1.7	0.081	0.027	0.075	0.069	0.059	0.037
PCB-195	52663-78-2	ng/g	0.028	0.028	0.028	0.76	0.035	0.0096 JN	0.032	0.026 JN	0.025	0.016 JN
PCB-196	42740-50-1	ng/g	0.027	0.025	0.024	0.76	0.029	0.011	0.032	0.026	0.026	0.016
PCB-197	33091-17-7	ng/g	0.0019 JN	0.0014 JN	0.0023 J	0.060	0.0018 J-	0.00098 JN	0.0019 JN	0.0030 JN	0.0015 JN	0.0012 JN
PCB-198/199	68194-17-2	ng/g	0.089	0.074	0.065	1.4	0.070	0.029	0.078	0.074	0.067	0.038
PCB-2	2051-61-8	ng/g	0.0084 JN	0.0034 JN	0.0064 JN	0.020	0.0091 JN	0.0040 J	0.014	0.0077 JN	0.0070 J	0.00096 JN
PCB-20/28	38444-84-7	ng/g	0.10	0.11	0.080	0.21	0.080	0.92	0.10	0.18	0.080	0.038
PCB-200	52663-73-7	ng/g	0.0069 JN	0.0078 J	0.0091 J	0.17	0.0083 J	0.0032 JN	0.012	0.0073 JN	0.0065 JN	0.0040 J
PCB-201	40186-71-8	ng/g	0.0070 JN	0.0065 JN	0.0068 JN	0.17	0.0083 J	0.0031 J	0.0078 JN	0.0091 J	0.0079 J	0.0041 JN
PCB-202	2136-99-4	ng/g	0.013 JN	0.016	0.016	0.23	0.019	0.0072 J	0.017	0.015 JN	0.013 JN	0.0073 J
PCB-203	52663-76-0	ng/g	0.043	0.049	0.038	0.87	0.045	0.018	0.042	0.043	0.036 JN	0.017 JN
PCB-204	74472-52-9	ng/g	< 0.00073 U	< 0.00036 U	< 0.000091 U	< 0.00024 U	< 0.00030 U	< 0.00029 U	< 0.00018 U	< 0.00015 U	< 0.00023 U	< 0.00035 U
PCB-205	74472-53-0	ng/g	0.0040 J	0.0039 J	0.0034 JN	0.090	0.0031 JN	0.0011 JN	0.0045 J	0.0046 JN	0.0026 JN	< 0.00090 U
PCB-206	40186-72-9	ng/g	0.55 JN	0.056	0.062	0.34	0.080 JN	0.028 JN	0.12 JN	0.094 JN	0.094 JN	0.045
PCB-207	52663-79-3	ng/g	0.010	0.0059 J	0.0051 J	0.044	0.0051 JN	0.0025 J	0.0062 J	0.0072 J	0.0042 JN	0.0045 JN
PCB-208	52663-77-1	ng/g	0.044	0.017	0.021	0.071	0.025	0.0041 JN	0.021	0.028	0.017 JN	0.051 JN
PCB-209	2051-24-3	ng/g	0.14	0.057	0.061	0.10	0.067	0.014	0.065	0.072 JN	0.043	0.051
PCB-21/33	55702-46-0	ng/g	0.041	0.053	0.029 JN	0.089	0.030	0.51	0.041	0.081	0.031	0.013 JN
PCB-22	38444-85-8	ng/g	0.029	0.034	0.022	0.063	0.023	0.35	0.027	0.059	0.017	0.0071 J
PCB-23	55720-44-0	ng/g	< 0.0010 U	< 0.00060 U	< 0.00080 U	< 0.00069 U	< 0.00078 U	< 0.0023 U	< 0.00089 U	< 0.0019 U	< 0.00071 U	< 0.00038 U
PCB-24	55702-45-9	ng/g	< 0.00037 U	0.00060 JN	< 0.00016 U	0.0012 JN	0.0011 J	0.011	0.00090 JN	0.00075 JN	< 0.00014 U	< 0.00020 U
PCB-25	55712-37-3	ng/g	0.010	0.0083 JN	0.0080 JN	0.021	0.0085 J	0.071	0.010 J	0.016	0.0066 J	0.0025 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B105	B106	B107	B108	B109	B110	B111	B112	B113	B114
		Sample ID	PDI-SG-B105-BL1	PDI-SG-B106-BL1	PDI-SG-B107-BL1	PDI-SG-B108-BL1	PDI-SG-B109-BL1	PDI-SG-B110-BL1	PDI-SG-B111-BL1	PDI-SG-B112-BL1	PDI-SG-B113-BL1	PDI-SG-B114-BL1
		Sample Date	11 Apr 2018	10 Apr 2018	11 Apr 2018	17 Apr 2018	11 Apr 2018	02 Jun 2018	11 Apr 2018	16 Apr 2018	11 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-30 cm	0-28 cm	0-30 cm	0-26 cm	0-15 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.016 JN	0.019 J	0.012 JN	0.036	0.014 J	0.15	0.019 J	0.031	0.010 J	0.0044 J
PCB-27	38444-76-7	ng/g	0.0058 J	0.0058 J	0.0053 JN	0.082	0.0049 JN	0.046	0.0038 JN	0.010 J	0.0032 J+	0.0015 J
PCB-3	2051-62-9	ng/g	0.0046 JN	0.0024 JN	0.0038 JN	0.014	0.0071 J	0.0039 J+	0.0034 JN	0.0060 J	0.0027 J	0.0016 JN
PCB-31	16606-02-3	ng/g	0.070	0.091	0.057	0.17	0.057	0.74	0.073	0.15	0.045	0.025
PCB-32	38444-77-8	ng/g	0.016	0.022	0.015	0.093	0.010 J	0.18	0.010 JN	0.027	0.0080 JN	0.0055 J
PCB-34	37680-68-5	ng/g	< 0.0010 U	< 0.00062 U	< 0.00083 U	< 0.00071 U	< 0.00080 U	< 0.0023 U	< 0.00092 U	< 0.0019 U	0.00092 J	< 0.00040 U
PCB-35	37680-69-6	ng/g	0.0024 JN	0.0021 JN	0.0022 J	0.011	0.0026 J	0.015	0.0020 JN	0.0046 J	0.0010 JN	0.00051 J
PCB-36	38444-87-0	ng/g	< 0.00090 U	< 0.00058 U	< 0.00071 U	0.0017 J	< 0.00070 U	< 0.0020 U	< 0.00080 U	< 0.0017 U	< 0.00064 U	< 0.00037 U
PCB-37	38444-90-5	ng/g	0.031	0.037	0.023	0.076	0.027	0.34	0.032	0.059	0.025	0.0088 J
PCB-38	53555-66-1	ng/g	< 0.00097 U	< 0.00062 U	< 0.00078 U	< 0.00072 U	< 0.00076 U	< 0.0022 U	< 0.00087 U	< 0.0018 U	< 0.00070 U	< 0.00040 U
PCB-39	38444-88-1	ng/g	< 0.00089 U	< 0.00056 U	< 0.00071 U	0.0013 J	< 0.00069 U	< 0.0020 U	< 0.00079 U	< 0.0017 U	< 0.00063 U	< 0.00036 U
PCB-4	13029-08-8	ng/g	0.022 JN	0.013 JN	0.020 J	0.13	0.020 J	0.034	0.020 J	0.023 J	0.0067 JN	0.0027 JN
PCB-40/41/71	38444-93-8	ng/g	0.061	0.062	0.051	0.10	0.053	0.38	0.065	0.14	0.052	0.023 J
PCB-42	36559-22-5	ng/g	0.030	0.028	0.024	0.047	0.024 JN	0.17	0.035	0.070	0.032	0.013
PCB-43/73	70362-46-8	ng/g	< 0.0026 U	0.0041 JN	0.0031 J	0.011 J	0.0031 JN	0.029	0.0029 JN	0.010 JN	0.0050 J	< 0.00091 U
PCB-44/47/65	41464-39-5	ng/g	0.16	0.16	0.14	0.30	0.17	0.53	0.17	0.39	0.13	0.056
PCB-45/51	70362-45-7	ng/g	0.030	0.019 J	0.030	0.052	0.033	0.12	0.032	0.046	0.026	0.0070 JN
PCB-46	41464-47-5	ng/g	0.0052 JN	0.0042 JN	0.0052 J	0.010 JN	0.0061 J	0.047	0.0079 J	0.014	0.0025 JN	< 0.0012 U
PCB-48	70362-47-9	ng/g	0.014 JN	0.021	0.014	0.033	0.014	0.15	0.018 JN	0.038 JN	0.016	0.0073 J
PCB-49/69	41464-40-8	ng/g	0.098	0.096	0.054 JN	0.16	0.091	0.30	0.12	0.22	0.093	0.044
PCB-5	16605-91-7	ng/g	0.0015 J	< 0.0017 U	< 0.00053 U	< 0.0020 U	< 0.00047 U	0.0012 J	< 0.00045 U	0.00082 JN	< 0.00034 U	< 0.0013 U
PCB-50/53	62796-65-0	ng/g	0.029	0.019 J	0.028	0.044	0.026	0.078	0.031	0.051	0.022	0.0058 J
PCB-52	35693-99-3	ng/g	0.17	0.26	0.16	0.34	0.17	0.61	0.20	0.82	0.16	0.064
PCB-54	15968-05-5	ng/g	0.0045 JN	0.0034 J	0.0037 JN	0.019	0.0056 J	0.0012 JN	0.0077 JN	0.0033 J	0.0011 JN	< 0.000076 U
PCB-55	74338-24-2	ng/g	< 0.0020 U	< 0.0011 U	< 0.0011 U	0.0033 JN	< 0.00076 U	0.036 JN	< 0.00031 U	0.0052 JN	0.0027 JN	0.0013 J
PCB-56	41464-43-1	ng/g	0.040	0.056	0.037 JN	0.088	0.045	0.28	0.051	0.11	0.047	0.018
PCB-57	70424-67-8	ng/g	< 0.0020 U	< 0.0011 U	< 0.0012 U	< 0.0012 U	< 0.00078 U	< 0.0011 U	< 0.00031 U	< 0.0017 U	< 0.00013 U	< 0.00072 U
PCB-58	41464-49-7	ng/g	< 0.0019 U	< 0.0011 U	< 0.0011 U	< 0.0013 U	0.0012 J	< 0.0011 U	< 0.00030 U	< 0.0017 U	0.0013 JN	< 0.00073 U
PCB-59/62/75	74472-33-6	ng/g	0.012 J	0.0081 J	0.0085 JN	0.017 J	0.0084 JN	0.063	0.015 J	0.025 J	0.011 J	0.0036 J
PCB-6	25569-80-6	ng/g	0.0092 J	0.0063 JN	0.0051 J	0.014 JN	0.0057 J	0.023	0.0050 JN	0.0090 JN	0.0022 JN	0.0018 JN
PCB-60	33025-41-1	ng/g	0.018	0.028	0.014 JN	0.042 JN	0.016	0.18	0.022	0.053	0.014	0.0029 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.19	0.29	0.17	0.41	0.19	0.83	0.22	0.66	0.19	0.090
PCB-63	74472-34-7	ng/g	0.0043 JN	< 0.0010 U	0.0049 J	0.0071 JN	0.0035 JN	0.018	0.0048 JN	0.0093 J	0.0043 JN	0.0010 JN
PCB-64	52663-58-8	ng/g	0.045	0.057	0.037	0.090	0.040	0.23	0.048	0.13	0.042	0.016
PCB-66	32598-10-0	ng/g	0.13	0.14	0.11	0.23	0.12	0.49	0.14	0.28	0.14	0.057
PCB-67	73575-53-8	ng/g	0.0032 J	0.0024 JN	0.0024 JN	0.0042 JN	0.0032 J	0.023	0.0044 J	0.0058 J	0.0018 JN	< 0.00062 U
PCB-68	73575-52-7	ng/g	0.0045 J+	< 0.0010 U	0.0018 JN	0.0054 J	0.0093 J	< 0.00099 U	0.0030 JN	< 0.0015 U	0.0041 J+	0.0023 J
PCB-7	33284-50-3	ng/g	0.0028 J	< 0.0015 U	0.0010 JN	0.0031 JN	0.00093 JN	0.0017 JN	0.0014 JN	0.0031 J	0.00059 JN	< 0.0012 U
PCB-72	41464-42-0	ng/g	0.0022 JN	< 0.0011 U	0.0024 J	0.0035 JN	0.0034 JN	< 0.0011 U	0.0030 JN	< 0.0017 U	0.0046 J	0.0036 J
PCB-77	32598-13-3	ng/g	0.013	0.014	0.012	0.022	0.013	0.057	0.017	0.023	0.013	0.0034 JN
PCB-78	70362-49-1	ng/g	< 0.0019 U	< 0.0011 U	< 0.0011 U	< 0.0013 U	< 0.00075 U	< 0.0011 U	< 0.00030 U	< 0.0017 U	< 0.00013 U	< 0.00073 U
PCB-79	41464-48-6	ng/g	0.0029 J	0.0023 J	< 0.00096 U	0.0037 J	0.0022 J	0.0041 J	0.0040 J	0.0078 J	0.0017 JN	< 0.00063 U
PCB-8	34883-43-7	ng/g	0.026 JN	0.025 J	0.016 J	0.065	0.019 J	0.14	0.019 J	0.044	0.011 JN	0.0048 JN
PCB-80	33284-52-5	ng/g	< 0.0017 U	< 0.00097 U	< 0.00099 U	< 0.0011 U	< 0.00067 U	< 0.00097 U	< 0.00027 U	< 0.0015 U	< 0.00011 U	< 0.00062 U
PCB-81	70362-50-4	ng/g	< 0.0018 U	< 0.0011 U	< 0.0011 U	< 0.0012 U	< 0.00072 U	< 0.0010 U	< 0.00028 U	< 0.0016 U	< 0.00012 U	< 0.00064 U
PCB-82	52663-62-4	ng/g	0.021 JN	0.043	0.023	0.064	0.022	0.068	0.026	0.096	0.017 JN	0.0097 J
PCB-83/99	60145-20-2	ng/g	0.17	0.24	0.15	0.39	0.15	0.23	0.17	0.47	0.16	0.090
PCB-84	52663-60-2	ng/g	0.048 JN	0.097	0.041 JN	0.14	0.049	0.13	0.053	0.23	0.044 JN	0.025
PCB-85/116/117	65510-45-4	ng/g	0.043	0.068 JN	0.040	0.10	0.036	0.073	0.041	0.14	0.033	0.012 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.14	0.27	0.14	0.44	0.12	0.30	0.15	0.58	0.12	0.059
PCB-88/91	55215-17-3	ng/g	0.043	0.050 JN	0.037	0.097	0.042	0.059	0.044	0.11	0.036 JN	0.019 JN
PCB-89	73575-57-2	ng/g	< 0.00091 U	< 0.00029 U	0.0033 J	< 0.00037 U	0.0015 JN	0.0074 J	< 0.00056 U	< 0.0011 U	0.0020 JN	< 0.00040 U
PCB-9	34883-39-1	ng/g	0.0027 JN	< 0.0016 U	< 0.00058 U	0.0032 JN	0.00081 JN	0.0037 JN	0.00090 JN	0.0035 JN	0.0010 JN	< 0.0012 U
PCB-90/101/113	68194-07-0	ng/g	0.25	0.41	0.24	1.2	0.24	0.38	0.26	0.86	0.23	0.14
PCB-92	52663-61-3	ng/g	0.054	0.076	0.052	0.16	0.052	0.070	0.059	0.16	0.053	0.033
PCB-93/100	73575-56-1	ng/g	0.015 JN	0.0068 J	0.011 JN	0.021 J	0.011 JN	0.0067 J	0.014 JN	0.017 J	0.0063 JN	0.0094 JN
PCB-94	73575-55-0	ng/g	0.0036 J	< 0.00029 U	0.0029 J	< 0.00037 U	0.0021 JN	< 0.00029 U	0.0038 J	< 0.0011 U	< 0.00078 U	< 0.00040 U
PCB-95	38379-99-6	ng/g	0.20	0.32	0.18	0.63	0.18	0.33	0.20	0.74	0.17	0.11
PCB-96	73575-54-9	ng/g	0.0022 JN	0.0035 J	0.0027 J	< 0.00028 U	0.0023 JN	0.0033 JN	0.0038 J	0.0062 J	0.0020 JN	< 0.00030 U
PCB-98/102	60233-25-2	ng/g	0.013 J	0.0096 J	0.0083 J	0.016 J	0.0086 JN	0.017 J	0.011 JN	0.032	0.0087 JN	0.0042 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	7.4	8.1	6.2	69	6.9	14	7.2	16	6	3.1

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B105	B106	B107	B108	B109	B110	B111	B112	B113	B114
		Sample ID	PDI-SG-B105-BL1	PDI-SG-B106-BL1	PDI-SG-B107-BL1	PDI-SG-B108-BL1	PDI-SG-B109-BL1	PDI-SG-B110-BL1	PDI-SG-B111-BL1	PDI-SG-B112-BL1	PDI-SG-B113-BL1	PDI-SG-B114-BL1
		Sample Date	11 Apr 2018	10 Apr 2018	11 Apr 2018	17 Apr 2018	11 Apr 2018	02 Jun 2018	11 Apr 2018	16 Apr 2018	11 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-30 cm	0-28 cm	0-30 cm	0-26 cm	0-15 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.55 U	0.69	< 0.58 U	< 1.1 U	0.46 J	< 0.65 U	0.69 J	< 2.4 UJ	0.79 J	< 0.27 U
2,4-DDE	3424-82-6	µg/kg	< 0.55 U	< 0.65 U	< 0.58 U	< 1.1 U	< 0.62 U	< 0.79 U	< 0.60 UJ	< 2.4 UJ	< 0.43 UJ	< 0.27 U
2,4-DDT	789-02-6	µg/kg	< 0.55 U	< 0.65 U	< 0.58 U	< 1.1 U	< 0.62 U	< 0.94 U	< 0.60 UJ	< 2.4 UJ	< 0.47 UJ	< 0.27 U
4,4'-DDD	72-54-8	µg/kg	1.0	1.9	1.1	1.1 J	1.2	< 0.65 U	2.0 J	3.9 J	1.3 J	0.31
4,4'-DDE	72-55-9	µg/kg	2.3	3.1	2.5	2.0	2.9	< 0.70 U	2.9 J	4.3 J	1.3 J	0.30
4,4'-DDT	50-29-3	µg/kg	0.37 J	2.3	0.42 J	< 1.1 U	1.7	< 0.65 U	0.59 J	1.5 J	0.29 J	0.15 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.9	8.3	4.3	3.7	6.6	< 0.94 U	6.5	11	3.9	0.90
Aldrin	309-00-2	µg/kg	< 0.55 U	< 0.65 U	< 0.58 U	< 1.1 U	< 0.62 U	< 0.79 U	< 0.60 UJ	< 2.4 UJ	< 0.43 UJ	< 0.27 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.1 U	< 1.3 U	< 1.2 U	< 2.2 U	< 1.2 U	< 1.3 U	< 1.2 UJ	< 4.9 UJ	< 0.87 UJ	< 0.54 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.55 U	< 0.65 UJ	< 0.58 U	< 1.1 UJ	< 0.62 U	< 0.97 U	< 0.60 UJ	< 2.4 UJ	< 0.49 UJ	< 0.27 U
Dieldrin	60-57-1	µg/kg	< 1.1 U	< 1.3 U	< 1.2 U	< 2.2 UJ	< 1.2 U	< 2.0 U	< 1.2 UJ	< 4.9 UJ	< 1.0 UJ	< 0.54 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.55 U	< 0.65 U	< 0.58 U	< 1.1 U	< 0.62 U	< 0.65 U	< 0.60 UJ	< 2.4 UJ	< 0.43 UJ	< 0.27 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.1 U	< 1.3 U	< 1.2 U	< 2.2 U	< 1.2 U	< 1.3 U	< 1.2 UJ	< 4.9 UJ	< 0.87 UJ	< 0.54 U
Heptachlor	76-44-8	µg/kg	< 0.55 UJ	< 0.65 UJ	< 0.58 UJ	< 1.1 U	< 0.62 UJ	< 0.65 U	< 0.60 UJ	< 2.4 UJ	< 0.43 UJ	< 0.27 U
Oxychlordane	27304-13-8	µg/kg	< 1.1 U	< 1.3 U	< 1.2 U	< 2.2 U	< 1.2 U	< 2.0 U	< 1.2 UJ	< 4.9 UJ	< 1.0 UJ	< 0.54 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.1 U	0.67 J	< 1.2 U	< 2.2 U	< 1.2 U	< 1.3 U	< 1.2 UJ	< 4.9 UJ	< 0.87 UJ	< 0.54 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.1 U	1.32	< 1.2 U	< 2.2 U	< 1.2 U	< 2 U	< 1.2 UJ	< 4.9 UJ	< 1 UJ	< 0.54 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	5.6	3.7	3.6	5.9	4.4	1.3	6.7	6.4	4.3	20
Acenaphthene	83-32-9	µg/kg	7.2	5.6	6.1	27	7.8	4.5	11	29	16	14
Acenaphthylene	208-96-8	µg/kg	5.5	4.9	5.4	17	6.2	3.2	8.9	7.7	21	5.9 J
Anthracene	120-12-7	µg/kg	17	12	14	31	19	7.5	24	37	20	18
Benz(a)anthracene	56-55-3	µg/kg	58	37	55	150	65	26	66	200	190	54
Benzo(a)pyrene	50-32-8	µg/kg	93	51	94	230	110	30	130	200	290	52
Benzo(b)fluoranthene	205-99-2	µg/kg	79	55	75	200	86	37	92	340	260	67
Benzo(g,h,i)perylene	191-24-2	µg/kg	66 J	45	65 J	210	75 J	28	99 J	120	270	35
Benzo(k)fluoranthene	207-08-9	µg/kg	29	18	27	64	28	13	30	110	86	18
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	< 110 U	97 J	< 120 U	68 J	< 120 U	26 J	67 J	84 J	37 J	< 220 U
Chrysene	218-01-9	µg/kg	83	55	70	190	87	39	96	640	230	55
Dibenz(a,h)anthracene	53-70-3	µg/kg	12	6.7	11	31	13	3.8	15	31	39	5.8 J
Fluoranthene	206-44-0	µg/kg	130	86	110	230	130	79	140	1000	290	120
Fluorene	86-73-7	µg/kg	8.2	5.8	7.3	14	9.7	3.6	11	37	7.9	13
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	61	42	60	180	69	26	86	130	240	49
Naphthalene	91-20-3	µg/kg	11	8.2	8.5	11	7.7	1.8	17	10	12	48
Phenanthrene	85-01-8	µg/kg	62	41	57	120	61	48	80	270	110	79
Pyrene	129-00-0	µg/kg	150	110	130	340	160	95	200	830	430	140
Total PAHs (b)	T_PAH (PDI)	µg/kg	878	587	799	2051	939	447	1113	3998	2516	794
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	125	71	124	315	145	43	170	300	399	75
Metals												
Arsenic	7440-38-2	mg/kg	4.8	5.4	4.9	5.7	5.2	4.0	5.7	4.7	4.6	2.9
Cadmium	7440-43-9	mg/kg	0.24 J	0.23 J	0.24 J	0.18 J	0.28 J	0.088 J	0.20 J	0.14 J	< 0.53 U	0.058 J
Copper	7440-50-8	mg/kg	38	43	41	39	43	15	41	35	26	15
Lead	7439-92-1	mg/kg	11	11	11	12	12	13	12	11	8.0	4.2
Mercury	7439-97-6	mg/kg	0.065	0.044 J	0.046 J	0.061	0.053 J	< 0.029 U	0.059	0.049	0.033	0.016 J
Tri-n-butyltin	36643-28-4	µg/kg	3.2	< 2.6 U	2.1 J	3.6	3.5	< 1.3 U	3.3	< 2.5 U	8.5	< 99 U
Zinc	7440-66-6	mg/kg	100	95	100	110	110	72	100	88	79	50
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 100 U	< 120 U	< 110 U	< 110 U	< 120 U	< 60 U	75 J	140	35 J	< 72 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	99 J	140	160	110	150	86	420	870	190	45 J
Other												
Total Solids@104C - D2216 (f)	TSOLID	%						74.4				69.4
Total Solids@104C - E160.3 (f)	TSOLID	%	47.2	38.0	44.0	43.0	41.8		42.0	40.7	60.4	
Total Solids@104C - E160.3M (f)	TSOLID	%	44.6	37.7	42.6	44.6	40.1	76.6	41.4	39.3	57.3	69.6
Total Solids@70C	TSOLID70	%	45	39	42	46	40	78	41	40	59	72
Gravel	GS-Gravel	%	0	0.1	0	0	0	2.5	0	0.3	0	0
Sand, Coarse	GS-Csand	%	0	0	0	0	0	0.9	0	0.5	0	0.1
Sand, Medium	GS-Msand	%	0.1	0.1	0.1	2.8	0.1	24.4	0.3	1.2	16.3	42.0
Sand, Fine (#200) (d)	GS-Fsand-200	%	22.01	4.848	16.92	28.82	9.437	58.71	13.9	21.75	44.03	52.9
Sand, Fine (#230) (d)	GS-Fsand	%	28.5	6.7	22.0	30.9	12.7	59.7	16.7	25.6	45.2	52.9
Silt (#200) (d)	GS-Silt-200	%	70.38	83.25	75.17	53.87	77.36	12.18	74.09	63.74	30.96	2.7

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B105	B106	B107	B108	B109	B110	B111	B112	B113	B114
		Sample ID	PDI-SG-B105-BL1	PDI-SG-B106-BL1	PDI-SG-B107-BL1	PDI-SG-B108-BL1	PDI-SG-B109-BL1	PDI-SG-B110-BL1	PDI-SG-B111-BL1	PDI-SG-B112-BL1	PDI-SG-B113-BL1	PDI-SG-B114-BL1
		Sample Date	11 Apr 2018	10 Apr 2018	11 Apr 2018	17 Apr 2018	11 Apr 2018	02 Jun 2018	11 Apr 2018	16 Apr 2018	11 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-30 cm	0-28 cm	0-30 cm	0-26 cm	0-15 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	63.9	81.4	70.1	51.8	74.1	11.2	71.3	59.9	29.8	2.7
Clay	GS-Clay	%	7.5	11.5	7.8	14.5	13.1	1.3	11.7	12.5	8.6	2.4
Percent Fines (e)	GS-FINES	%	77.88	94.75	82.97	68.37	90.46	13.48	85.79	76.24	39.56	5.1
Total Organic Carbon	TOC	mg/kg	20000	25000	24000	20000	26000	4200	24000	38000	9900	1400 J

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B115	B116	B117	B118	B119	B120	B120	B121	B122	B122
		Sample ID	PDI-SG-B115-BL1	PDI-SG-B116-BL1	PDI-SG-B117-BL1	PDI-SG-B118-BL1	PDI-SG-B119-BL1	PDI-SG-B120-BL1	PDI-SG-B120-BL1-D	PDI-SG-B121-BL1	PDI-SG-B122-BL1	PDI-SG-B122-BL1-D
		Sample Date	16 Apr 2018	12 Apr 2018	14 Jun 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	11 Apr 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N	FD
		Depth	0-30 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-22 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.074	0.060	0.20	0.049	0.063	0.031	0.031	0.064	0.063	0.067
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.013 J	0.0076 J	0.016 JN	0.0076 JN	0.0078 JN	0.0041	0.0036	0.011 JN	0.011 JN	0.015 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00056 U	0.0011 J	0.0014 J+	0.00068 J+	0.00084 J+	< 0.00012 U	< 0.00012 U	< 0.00035 U	0.0016 J+	0.0013 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00060 U	0.00033 J+	0.0011 J	0.00061 J+	0.00065 J+	0.00039 J+	0.00032 J+	0.00072 J	0.0011 J+	0.00077 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0030 J	0.0017 J	0.0026 J	0.0018 J+	0.0032 J	0.00039 JN	0.00053 J	< 0.00045 U	0.0059	0.0040 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0034 J	0.0015 J	0.0040 J	0.0018 J+	0.0019 J+	0.0011 J	0.00090 J	0.0023 JN	0.0025 J	0.0025 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0040 J	0.0022 J	0.00085 J	0.0031 J	0.0031 J	< 0.00023 U	< 0.0011 U	0.0043 J	0.0044 J	0.0055
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0020 J+	0.00066 J	0.0017 J	0.0012 J+	0.0015 J+	0.00087 JN	0.00035 JN	0.0017 J	0.0019 J+	0.0017 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00020 U	< 0.00010 U	0.00093 J+	< 0.00015 U	0.00051 J+	< 0.00017 U	< 0.00024 U	< 0.00021 U	0.00051 J+	< 0.00017 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00032 U	< 0.00011 U	0.00057 J	< 0.00037 U	< 0.00043 U	< 0.00013 U	< 0.00017 U	< 0.00031 U	0.00086 J+	< 0.00027 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0016 J+	< 0.00010 U	0.00091 J	0.00065 J+	0.0024 J	< 0.000091 U	< 0.00011 U	< 0.00024 U	0.0022 J	0.0047 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00023 U	< 0.00013 U	0.00048 J	< 0.00029 U	< 0.00041 U	< 0.00016 U	< 0.00018 U	0.00043 J	0.00074 J+	0.00066 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00061 J+	0.00019 J	0.00066 JN	< 0.00031 U	0.0013 J+	< 0.00010 U	< 0.000094 U	0.00036 J	0.0012 J+	0.0017 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00024 JN	< 0.000055 U	< 0.00018 U	< 0.00015 U	< 0.00013 U	< 0.00016 U	< 0.000091 U	0.00020 JN	0.00030 JN	0.00018 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0011 J	0.00019 J	0.00099	0.00078 J	0.0025	< 0.00015 U	0.00016 J	0.00073 J	0.0018	0.0026
OCDD	3268-87-9	µg/kg	0.58	0.55	1.7	0.42	0.48	0.24	0.24	0.50	0.55	0.56
OCDF	39001-02-0	µg/kg	0.031	0.020	0.051	0.025	0.025	0.012	0.0088	0.031	0.033	0.048
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.003	0.0016	0.0048	0.0018	0.0029	0.00078	0.00073	0.0024	0.0044	0.0038
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0028	0.0016	0.0047	0.0018	0.0029	0.00066	0.0007	0.002	0.0043	0.0036
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0026	0.0016	0.0046	0.0017	0.0027	0.00058	0.00061	0.0018	0.0041	0.0034
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0038 J	< 0.00046 U	0.0062 J	0.0044 J+	0.0037 JN	0.0028 J	0.0020 J	0.0025 JN	0.0075 JN	0.0073 J
PCB-10	33146-45-1	ng/g	< 0.00091 U	< 0.00028 U	0.0013 J	0.0019 JN	< 0.00059 U	< 0.0014 U	< 0.0015 U	< 0.00090 U	< 0.00064 U	< 0.00068 U
PCB-103	60145-21-3	ng/g	0.0068 J	0.0034 J	0.013	0.012	0.0092 J	0.0018 JN	0.0024 J	0.010 J	0.0098 JN	0.018 JN
PCB-104	56558-16-8	ng/g	< 0.00044 U	< 0.00028 U	< 0.00021 U	< 0.00051 U	< 0.00068 U	< 0.00013 U	< 0.00013 U	< 0.00066 U	< 0.0010 U	< 0.00061 U
PCB-105	32598-14-4	ng/g	0.19	0.022	0.11	0.064	0.080	0.049	0.039	0.076	0.41 J	1.2 J
PCB-106	70424-69-0	ng/g	< 0.0025 U	< 0.00061 U	< 0.0010 U	< 0.0017 U	< 0.0012 U	< 0.00064 U	< 0.00057 U	< 0.0019 U	< 0.0027 U	< 0.0031 U
PCB-107	70424-68-9	ng/g	0.046	0.0072 J	0.031	0.021	0.018	0.0095 J	0.0083 J	0.017	0.073 J	0.20 J
PCB-108/124	70362-41-3	ng/g	0.020 J	0.0018 JN	0.012 J	0.0076 J	0.0086 J	0.0034 JN	0.0043 J	0.0096 J	0.048 J	0.13 J
PCB-11	2050-67-1	ng/g	0.041 JN	0.020	0.035	0.040	0.034 JN	0.25	0.26	0.041	0.050	0.054
PCB-110/115	38380-03-9	ng/g	0.62	0.11	0.43	0.26	0.23 JN	0.20	0.19	0.30	1.2 J	3.3 J
PCB-111	39635-32-0	ng/g	< 0.00039 U	< 0.00025 U	< 0.00019 U	< 0.00046 U	< 0.00061 U	< 0.00012 U	< 0.00012 U	< 0.00059 U	< 0.00093 U	< 0.00054 U
PCB-112	74472-36-9	ng/g	< 0.00043 U	< 0.00027 U	< 0.00021 U	0.0017 JN	< 0.00067 U	< 0.00013 U	< 0.00013 U	< 0.00064 U	< 0.0010 UJ	0.014 J
PCB-114	74472-37-0	ng/g	0.011 JN	0.0011 JN	0.0068 J	< 0.0015 U	0.0035 JN	0.0025 JN	0.0014 JN	< 0.0017 U	0.036 J	0.079 J
PCB-118	31508-00-6	ng/g	0.45	0.063	0.31	0.17	0.21	0.12	0.11	0.21	0.97 J	2.7 J
PCB-12/13	2974-92-7	ng/g	0.0055 JN	0.0015 J	0.0057 J	< 0.0016 U	0.0043 JN	0.0067 JN	0.0066 JN	0.0051 J+	0.0035 JN	0.0051 JN
PCB-120	68194-12-7	ng/g	< 0.00039 U	0.0010 JN	0.0040 J	0.0016 JN	< 0.00060 U	< 0.00012 U	0.0011 J	0.0011 JN	< 0.00092 U	< 0.00054 U
PCB-121	56558-18-0	ng/g	< 0.00042 U	< 0.00027 U	< 0.00020 U	< 0.00049 U	< 0.00065 U	< 0.00013 U	< 0.00013 U	< 0.00063 U	< 0.00099 U	< 0.00058 U
PCB-122	76842-07-4	ng/g	0.0088 JN	< 0.00067 U	0.0052 J	< 0.0019 U	0.0031 J	0.0012 JN	0.00097 JN	< 0.0021 U	0.013 JN	0.046
PCB-123	65510-44-3	ng/g	0.0085 JN	0.0011 J	0.0058 J	0.0025 JN	0.0033 JN	0.0019 JN	0.0014 JN	0.0051 J	0.017 J	0.047 J
PCB-126	57465-28-8	ng/g	< 0.0024 U	< 0.00058 U	0.0013 JN	< 0.0016 U	0.0019 J	< 0.00066 U	0.0011 J	< 0.0018 U	< 0.0027 U	< 0.0031 U
PCB-127	39635-33-1	ng/g	< 0.0024 U	< 0.00058 U	< 0.00098 U	< 0.0016 U	< 0.0011 U	< 0.00064 U	< 0.00057 U	< 0.0018 U	< 0.0026 U	< 0.0029 U
PCB-128/166	38380-07-3	ng/g	0.13	0.024	0.082	0.063	0.061	0.051	0.059	0.063	0.29 J	0.59 J
PCB-129/138/160/163	55215-18-4	ng/g	0.75	0.18	0.62	0.49	0.45	0.51	0.63	0.47	1.6 J	3.2 J
PCB-130	52663-66-8	ng/g	0.053	0.012	0.041	0.031	0.030	0.021	0.029	0.027 JN	0.12 J	0.25 J
PCB-131	61798-70-7	ng/g	0.0095 JN	0.0018 J	< 0.0018 U	0.0046 JN	0.0048 J	0.0037 J	0.0055 J	< 0.0021 U	0.025 J	0.066 J
PCB-132	38380-05-1	ng/g	0.23	0.063	0.20	0.15	0.14	0.15	0.19	0.14	0.57 J	1.3 J
PCB-133	35694-04-3	ng/g	0.011 J	0.0047 J	0.015	0.013 JN	0.0097 J	0.0058 J	0.0072 J	0.0037 JN	0.030 J	0.056 J
PCB-134/143	52704-70-8	ng/g	0.035 JN	0.0094 JN	0.034	0.027 JN	0.025 JN	0.020	0.025	0.027	0.10 J	0.23 J
PCB-135/151	52744-13-5	ng/g	0.16	0.072	0.24	0.19	0.13	0.18	0.21	0.17	0.29 J	0.66 J
PCB-136	38411-22-2	ng/g	0.066	0.024	0.089	0.059	0.045	0.060	0.066	0.059	0.15 J	0.30 J
PCB-137	35694-06-5	ng/g	0.027 JN	0.0050 J	0.018	0.021	0.017	0.0077 JN	0.0097	0.012 JN	0.087 J	0.21 J
PCB-139/140	56030-56-9	ng/g	0.013 JN	0.0033 JN	0.010 JN	0.0066 JN	0.0054 JN	0.0031 JN	0.0038 J	0.0060 JN	0.031 J	0.078 J
PCB-14	34883-41-5	ng/g	< 0.00071 U	< 0.00022 U	< 0.00036 U	< 0.00044 U	< 0.00046 U	< 0.0011 U	< 0.0012 U	< 0.00070 U	< 0.00050 U	< 0.00053 U
PCB-141	52712-04-6	ng/g	0.12	0.041	0.13	0.11	0.082	0.11	0.13	0.089	0.27 J	0.55 J
PCB-142	41411-61-4	ng/g	< 0.0028 U	< 0.0011 U	< 0.0017 U	< 0.0024 U	< 0.0025 U	< 0.0013 U	< 0.0012 U	< 0.0020 U	< 0.0039 U	< 0.0032 U
PCB-144	68194-14-9	ng/g	0.017 JN	0.0062 JN	0.025	0.023	0.010	0.022	0.025	0.018	0.040 J	0.11 J
PCB-145	74472-40-5	ng/g	< 0.00018 U	< 0.000072 U	< 0.00019 U	< 0.000082 U	< 0.000056 U	< 0.00013 U	< 0.00011 U	< 0.00039 U	0.0010 JN	< 0.00033 U
PCB-146	51908-16-8	ng/g	0.10	0.038	0.13	0.097	0.078	0.075	0.095	0.081	0.24 J	0.42 J
PCB-147/149	68194-13-8	ng/g	0.51	0.18	0.57	0.46	0.35	0.50	0.67	0.39	1.1 J	2.2 J
PCB-148	74472-41-6	ng/g	0.0010 JN	0.00018 JN	0.0038 JN	0.0035 JN	0.0011 JN	< 0.00018 U	< 0.00016 U	0.0014 JN	0.0028 JN	0.0024 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B115	B116	B117	B118	B119	B120	B120	B121	B122	B122
		Sample ID	PDI-SG-B115-BL1	PDI-SG-B116-BL1	PDI-SG-B117-BL1	PDI-SG-B118-BL1	PDI-SG-B119-BL1	PDI-SG-B120-BL1	PDI-SG-B120-BL1-D	PDI-SG-B121-BL1	PDI-SG-B122-BL1	PDI-SG-B122-BL1-D
		Sample Date	16 Apr 2018	12 Apr 2018	14 Jun 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	11 Apr 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N	FD
		Depth	0-30 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-22 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.038	0.0070 J	0.024	0.017	0.10	0.031	0.025 JN	0.020	0.029	0.031
PCB-150	68194-08-1	ng/g	< 0.00016 U	0.00054 JN	0.0035 J	0.00047 JN	0.00051 JN	< 0.00012 U	< 0.00011 U	0.00079 JN	0.0021 JN	0.0049 J
PCB-152	68194-09-2	ng/g	0.00038 JN	< 0.000069 U	0.00057 JN	< 0.000079 U	< 0.000054 U	< 0.00013 U	< 0.00012 U	< 0.00038 U	< 0.00051 U	0.0031 J
PCB-153/168	35065-27-1	ng/g	0.54	0.17	0.57	0.47	0.38	0.45	0.59	0.40	1.1 J	2.0 J
PCB-154	60145-22-4	ng/g	0.012 J	0.0031 JN	0.021	0.012 JN	0.0070 J	0.0026 JN	0.0031 JN	0.0097 J	0.019	0.031
PCB-155	33979-03-2	ng/g	< 0.00016 U	< 0.000066 U	< 0.00034 U	< 0.000075 U	< 0.000051 U	0.0017 JN	0.0011 JN	< 0.00036 U	< 0.00049 U	< 0.00030 U
PCB-156/157	38380-08-4	ng/g	0.093	0.015 J	0.052	0.045	0.042	0.030	0.029	0.044	0.18 J	0.43 J
PCB-158	74472-42-7	ng/g	0.080	0.016	0.055	0.045	0.039	0.045	0.053	0.046	0.18 J	0.38 J
PCB-159	39635-35-3	ng/g	0.0050 JN	0.0021 JN	0.0083 J	0.0071 J	< 0.0016 U	< 0.00090 U	0.0069 J	0.0067 J	0.010	0.012 JN
PCB-16	38444-78-9	ng/g	0.038	0.0049 J	0.023	0.014 JN	0.019 JN	0.023	0.015 JN	0.015	0.035	0.038
PCB-161	74472-43-8	ng/g	< 0.0018 U	< 0.00074 U	< 0.0011 U	< 0.0016 U	< 0.0016 U	< 0.00089 U	< 0.00080 U	< 0.0013 U	< 0.0025 U	< 0.0021 U
PCB-162	39635-34-2	ng/g	< 0.0017 U	< 0.00070 U	< 0.0011 U	< 0.0015 U	< 0.0015 U	< 0.00088 U	< 0.00079 U	< 0.0012 U	0.0055 JN	0.012
PCB-164	74472-45-0	ng/g	0.048	0.016	0.045	0.038	0.032	0.039	0.048	0.033	0.12 J	0.21 J
PCB-165	74472-46-1	ng/g	< 0.0021 U	< 0.00084 U	< 0.0013 U	< 0.0018 U	< 0.0018 U	< 0.0010 U	< 0.00091 U	< 0.0015 U	< 0.0029 U	< 0.0024 U
PCB-167	52663-72-6	ng/g	0.029	0.0057 J	0.018	0.018	0.016	0.014	0.014	0.016 JN	0.057 J	0.13 J
PCB-169	32774-16-6	ng/g	< 0.0014 U	< 0.00054 U	< 0.00085 U	< 0.0012 U	< 0.0012 U	< 0.00069 U	0.0010 J	< 0.00094 U	< 0.0019 U	< 0.0015 U
PCB-17	37680-66-3	ng/g	0.042	0.0072 J	0.033	0.020 JN	0.031	0.023	0.021	0.022	0.035	0.032 JN
PCB-170	35065-30-6	ng/g	0.16	0.065	0.21	0.21	0.11	0.26	0.30	0.15	0.25	0.37
PCB-171/173	52663-71-5	ng/g	0.051	0.016 JN	0.068	0.053	0.031	0.079	0.090	0.048	0.082	0.11
PCB-172	52663-74-8	ng/g	0.029 JN	0.011	0.036 JN	0.031	0.019	0.037	0.045	0.027	0.050	0.055
PCB-174	38411-25-5	ng/g	0.19	0.074	0.24	0.20	0.12	0.24	0.29	0.16	0.25	0.32
PCB-175	40186-70-7	ng/g	0.0040 JN	0.0028 J	0.0097	0.0072 J	0.0033 JN	0.0078 J	0.010	0.0063 J	0.0078 JN	0.012 JN
PCB-176	52663-65-7	ng/g	0.017	0.0082 J	0.026	0.021	0.013	0.030	0.033	0.017 JN	0.032	0.043
PCB-177	52663-70-4	ng/g	0.11	0.043	0.14	0.11	0.071	0.13	0.15	0.10	0.16	0.20
PCB-178	52663-67-9	ng/g	0.040	0.016	0.054	0.037 JN	0.028	0.042	0.050	0.033 JN	0.054	0.063
PCB-179	52663-64-6	ng/g	0.073	0.033	0.097	0.083	0.058	0.096	0.11	0.068	0.10	0.13
PCB-18/30	37680-65-2	ng/g	0.085	0.011 J	0.056	0.034	0.037	0.043 JN	0.037	0.033	0.068	0.085
PCB-180/193	35065-29-3	ng/g	0.37	0.13	0.45	0.43	0.22	0.49	0.62	0.32	0.47	0.60
PCB-181	74472-47-2	ng/g	0.0021 JN	< 0.00070 U	< 0.00038 U	< 0.00024 U	0.0017 J	< 0.00040 U	< 0.00033 U	< 0.00048 U	0.0038 JN	0.0084 J
PCB-182	60145-23-5	ng/g	< 0.00050 U	< 0.00066 U	< 0.00036 U	< 0.00022 U	0.0015 JN	< 0.00038 U	0.0018 JN	0.0029 JN	0.0033 JN	0.0034 JN
PCB-183/185	52663-69-1	ng/g	0.12	0.038	0.14	0.12	0.070	0.18	0.21	0.11	0.15	0.19
PCB-184	74472-48-3	ng/g	< 0.00043 U	< 0.00057 U	< 0.00031 U	< 0.00019 U	< 0.00034 U	< 0.00033 U	< 0.00027 U	< 0.00039 U	< 0.0012 U	< 0.00046 U
PCB-186	74472-49-4	ng/g	< 0.00041 U	< 0.00055 U	< 0.00030 U	< 0.00018 U	< 0.00033 U	< 0.00032 U	< 0.00026 U	< 0.00037 U	< 0.0011 U	< 0.00044 U
PCB-187	52663-68-0	ng/g	0.24	0.081	0.30	0.23	0.16	0.28	0.32	0.21	0.32	0.34
PCB-188	74487-85-7	ng/g	< 0.00039 U	< 0.00050 U	< 0.00028 U	< 0.00017 U	< 0.00030 U	< 0.00027 U	< 0.00022 U	< 0.00035 U	< 0.00098 U	< 0.00040 U
PCB-189	39635-31-9	ng/g	0.0052 JN	0.0022 JN	0.0068 J	0.0083 J	0.0039 J	0.0064 J	0.0092 J	0.0051 J	0.011	0.015
PCB-19	38444-73-4	ng/g	0.016 JN	0.0064 J	0.020	0.018 JN	0.019 JN	0.0064 JN	0.0076 J	0.028	0.012 JN	0.020
PCB-190	41411-64-7	ng/g	0.029	0.011	0.038	0.040	0.022	0.042	0.046	0.031	0.043	0.061
PCB-191	74472-50-7	ng/g	0.011 JN	0.0022 JN	0.0085 JN	0.0060 JN	0.0032 JN	0.0078 JN	0.0099	0.0046 JN	0.011 JN	0.014
PCB-192	74472-51-8	ng/g	< 0.00042 U	< 0.00056 U	< 0.00030 U	< 0.00019 U	< 0.00034 U	< 0.00033 U	< 0.00028 U	< 0.00038 U	< 0.0012 U	< 0.00045 U
PCB-194	35694-08-7	ng/g	0.13	0.031	0.11	0.14	0.062	0.11	0.13	0.067	0.10	0.12
PCB-195	52663-78-2	ng/g	0.049	0.012	0.047	0.048	0.025	0.058	0.062	0.033	0.047	0.049
PCB-196	42740-50-1	ng/g	0.055	0.016	0.050	0.045 JN	0.023	0.048	0.062	0.033 JN	0.043	0.046 JN
PCB-197	33091-17-7	ng/g	0.0050 J	0.0012 JN	0.0029 JN	0.0027 J	0.0016 JN	0.0038 J	0.0043 J	0.0031 J	0.0023 JN	0.0030 JN
PCB-198/199	68194-17-2	ng/g	0.13 JN	0.035	0.13	0.12	0.072	0.088	0.11	0.089	0.11	0.13
PCB-2	2051-61-8	ng/g	0.0099 J	0.0030 J	0.0079 J	0.013	0.011	0.0077 J	0.0050 JN	0.0057 JN	0.011	0.0088 J
PCB-20/28	38444-84-7	ng/g	0.21	0.033	0.16	0.084	0.12	0.12	0.10	0.091	0.16	0.18
PCB-200	52663-73-7	ng/g	0.020	0.0037 JN	0.013	0.012	0.0056 JN	0.010	0.011 JN	0.014	0.014	0.013
PCB-201	40186-71-8	ng/g	0.016 JN	0.0027 JN	0.013	0.011	0.0052 J	0.011	0.012	0.0086 JN	0.010 JN	0.010 JN
PCB-202	2136-99-4	ng/g	0.037	0.0081 J	0.027	0.018 JN	0.018	0.015	0.017	0.011 JN	0.022 JN	0.027
PCB-203	52663-76-0	ng/g	0.084	0.020	0.067	0.079	0.041	0.059	0.071	0.048	0.069	0.080
PCB-204	74472-52-9	ng/g	< 0.00055 U	< 0.00026 U	< 0.00056 U	< 0.00035 U	< 0.00013 U	< 0.00020 U	< 0.00023 U	< 0.00043 U	< 0.00074 U	< 0.00095 U
PCB-205	74472-53-0	ng/g	0.0068 J	0.0014 JN	0.0052 J	0.0070 J	0.0024 JN	0.0058 J	0.0050 JN	0.0048 J	0.0052 JN	0.0062 J
PCB-206	40186-72-9	ng/g	0.18 JN	0.22 JN	0.17 JN	0.23 JN	0.11 JN	0.034	0.038	0.37 JN	0.091 J	0.19 JN
PCB-207	52663-79-3	ng/g	0.011 J	0.0033 J	0.0087 J	0.0084 JN	0.0050 J	0.0035 JN	0.0039 J	0.0075 J	0.0077 J	0.0093 J
PCB-208	52663-77-1	ng/g	0.034	0.019	0.050	0.030	0.018 JN	0.0088 J	0.0087 J	0.026	0.035	0.037
PCB-209	2051-24-3	ng/g	0.066	0.064	0.14	0.085	0.077	0.014 JN	0.024 J	0.082	0.11	0.12
PCB-21/33	55702-46-0	ng/g	0.10	0.011 JN	0.057	0.029	0.049	0.057	0.047	0.033	0.073	0.086
PCB-22	38444-85-8	ng/g	0.075	0.0089 J	0.039	0.019 JN	0.034	0.046	0.036	0.026	0.052	0.059
PCB-23	55720-44-0	ng/g	< 0.0019 U	< 0.00045 U	< 0.0016 U	< 0.0014 U	< 0.0010 U	< 0.00052 U	< 0.00053 U	< 0.0015 U	< 0.0014 U	< 0.0020 U
PCB-24	55702-45-9	ng/g	< 0.00029 U	< 0.000070 U	0.00083 J	< 0.00024 U	< 0.000075 U	0.00071 JN	0.00097 JN	< 0.00050 U	0.00080 JN	0.00073 JN
PCB-25	55712-37-3	ng/g	0.020	0.0036 JN	0.026	0.0079 JN	0.013	0.0060 J	0.0048 J	0.0085 J	0.013	0.014

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B115	B116	B117	B118	B119	B120	B120	B121	B122	B122
		Sample ID	PDI-SG-B115-BL1	PDI-SG-B116-BL1	PDI-SG-B117-BL1	PDI-SG-B118-BL1	PDI-SG-B119-BL1	PDI-SG-B120-BL1	PDI-SG-B120-BL1-D	PDI-SG-B121-BL1	PDI-SG-B122-BL1	PDI-SG-B122-BL1-D
		Sample Date	16 Apr 2018	12 Apr 2018	14 Jun 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	11 Apr 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N	FD
		Depth	0-30 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-22 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.035	0.0067 J	0.038	0.015 JN	0.020	0.011 J	0.010 J	0.015 J	0.025	0.028
PCB-27	38444-76-7	ng/g	0.0097 J	0.00065 JN	0.0066 J	0.0030 JN	0.0071 JN	0.0028 JN	0.0028 J	0.0046 JN	0.0062 J	0.0066 JN
PCB-3	2051-62-9	ng/g	0.0034 JN	0.0026 J	0.0059 J	0.0032 JN	0.0028 JN	0.0060 JN	0.0047 J	0.0039 JN	0.0071 JN	0.0061 JN
PCB-31	16606-02-3	ng/g	0.16	0.021	0.11	0.059	0.091	0.097	0.078	0.062	0.12	0.17
PCB-32	38444-77-8	ng/g	0.028	0.0025 JN	0.017	0.014	0.022	0.019	0.013	0.016	0.021	0.022
PCB-34	37680-68-5	ng/g	< 0.0020 U	< 0.00046 U	< 0.0016 U	< 0.0014 U	< 0.0011 U	< 0.00054 U	< 0.00055 U	< 0.0015 U	< 0.0015 U	< 0.0021 U
PCB-35	37680-69-6	ng/g	0.0046 J	0.0011 J	< 0.0016 U	< 0.0013 U	0.0021 JN	0.0095 J	0.0081 J	< 0.0015 U	0.0030 J	0.0037 J
PCB-36	38444-87-0	ng/g	< 0.0017 U	< 0.00040 U	< 0.0014 U	< 0.0012 U	< 0.00092 U	0.0018 J	0.0013 JN	< 0.0013 U	< 0.0013 U	< 0.0018 U
PCB-37	38444-90-5	ng/g	0.076	0.0088 JN	0.048	0.022	0.039	0.054	0.039	0.029	0.055	0.059
PCB-38	53555-66-1	ng/g	< 0.0018 U	< 0.00044 U	< 0.0015 U	< 0.0013 U	< 0.0010 U	< 0.00054 U	< 0.00055 U	< 0.0014 U	< 0.0014 U	< 0.0020 U
PCB-39	38444-88-1	ng/g	< 0.0017 U	< 0.00040 U	< 0.0014 U	0.0013 JN	< 0.00091 U	0.00084 J	0.00065 JN	< 0.0013 U	< 0.0013 U	< 0.0018 U
PCB-4	13029-08-8	ng/g	0.021 J	0.0026 JN	0.016 J	0.013 JN	0.017 J	0.0045 JN	0.0074 JN	0.015 JN	0.019 JN	0.022
PCB-40/41/71	38444-93-8	ng/g	0.13	0.024 J	0.11	0.053	0.073	0.060	0.048	0.054	0.13 J	0.24 J
PCB-42	36559-22-5	ng/g	0.059	0.012	0.046	0.026	0.036	0.028	0.021	0.024	0.063	0.10
PCB-43/73	70362-46-8	ng/g	0.0062 JN	0.0012 JN	0.0034 JN	0.0023 JN	0.0043 J	0.0027 JN	0.0027 JN	< 0.0019 U	0.015 J	0.034
PCB-44/47/65	41464-39-5	ng/g	0.28	0.062	0.25	0.14	0.21	0.12	0.097	0.15	0.43 J	1.1 J
PCB-45/51	70362-45-7	ng/g	0.045	0.012 J	0.047	0.030	0.045	0.020	0.017 J	0.031	0.038	0.053
PCB-46	41464-47-5	ng/g	0.013	0.0021 JN	0.012 JN	0.0064 JN	0.0075 JN	0.0067 J	0.0046 JN	< 0.0025 U	0.012	0.020
PCB-48	70362-47-9	ng/g	0.043	0.0058 JN	0.025	0.014 JN	0.025	0.021	0.018	0.015	0.037 J	0.066 J
PCB-49/69	41464-40-8	ng/g	0.17	0.038	0.18	0.090	0.13	0.063	0.052	0.089	0.23 J	0.54 J
PCB-5	16605-91-7	ng/g	< 0.00085 U	< 0.00026 U	< 0.00043 U	< 0.00053 U	< 0.00055 U	< 0.0014 U	< 0.0016 U	< 0.00084 U	0.00099 JN	0.00069 JN
PCB-50/53	62796-65-0	ng/g	0.035 JN	0.0092 J	0.050	0.028 JN	0.030 JN	0.014 J	0.012 J	0.028	0.047	0.072
PCB-52	35693-99-3	ng/g	0.48	0.067	0.33	0.17	0.20	0.12	0.10	0.18	1.0	3.0
PCB-54	15968-05-5	ng/g	0.0022 JN	0.0012 JN	0.0048 J	0.0060 JN	0.0043 J	< 0.00010 U	0.00085 JN	0.0039 JN	0.0023 JN	0.0034 J
PCB-55	74338-24-2	ng/g	0.0068 J	0.0011 J+	< 0.00065 U	0.0030 JN	0.0028 JN	0.0018 JN	< 0.00073 U	< 0.0014 U	0.0062 JN	< 0.0090 U
PCB-56	41464-43-1	ng/g	0.11	0.017	0.065	0.042	0.058	0.055	0.035 JN	0.044	0.12 J	0.24 J
PCB-57	70424-67-8	ng/g	< 0.0014 U	< 0.00057 U	< 0.00066 U	< 0.00010 U	< 0.00019 U	< 0.00081 U	< 0.00074 U	< 0.0014 U	< 0.0015 U	< 0.0092 U
PCB-58	41464-49-7	ng/g	< 0.0014 U	0.00071 JN	0.0027 J	< 0.000098 U	< 0.00018 U	< 0.00082 U	< 0.00075 U	< 0.0014 U	< 0.0015 U	< 0.0089 U
PCB-59/62/75	74472-33-6	ng/g	0.020 J	0.0035 JN	0.015 J	0.012 J	0.014 J	0.0091 J	0.0075 J	0.011 J	0.018 JN	0.025 J
PCB-6	25569-80-6	ng/g	0.0098 J	0.0016 JN	0.0073 J	0.0049 JN	0.0048 JN	0.0040 JN	0.0037 JN	0.0065 J	0.0098 J	0.010
PCB-60	33025-41-1	ng/g	0.058	0.0052 JN	0.025	0.015 JN	0.024	0.037	0.025	0.015	0.053 J	0.097 J
PCB-61/70/74/76	33284-53-6	ng/g	0.50	0.071	0.32	0.17	0.24	0.19	0.15	0.19	0.79 J	2.2 J
PCB-63	74472-34-7	ng/g	0.0082 J	0.0019 J	0.0062 JN	0.0052 J	0.0052 JN	0.0041 J	0.0021 J	0.0038 J	0.0090 JN	0.019
PCB-64	52663-58-8	ng/g	0.10	0.016	0.060	0.039	0.050	0.050	0.041	0.040	0.12 J	0.32 J
PCB-66	32598-10-0	ng/g	0.25	0.046	0.19	0.11	0.14	0.11	0.080	0.12	0.28 J	0.63 J
PCB-67	73575-53-8	ng/g	0.0071 JN	0.0016 J	0.0051 J	0.0024 JN	0.0036 JN	0.0020 JN	0.0013 JN	0.0019 JN	0.0064 J	< 0.0085 U
PCB-68	73575-52-7	ng/g	< 0.0012 U	0.0025 JN	0.0051 J	0.0025 JN	0.0039 J+	0.0021 J	0.0024 J	0.0046 JN	< 0.0013 U	< 0.0080 U
PCB-7	33284-50-3	ng/g	0.0036 JN	0.00071 JN	0.0014 J	< 0.00050 U	0.0014 JN	0.0018 JN	0.0017 JN	< 0.00079 U	0.0016 J	0.0017 JN
PCB-72	41464-42-0	ng/g	0.0042 J	0.0017 J	0.0066 J	0.0031 JN	0.0034 JN	< 0.00079 U	0.0012 J	0.0039 J	< 0.0015 U	< 0.0090 U
PCB-77	32598-13-3	ng/g	0.026	0.0053 J	0.017	0.011	0.015	0.013	0.0080 J	0.011 JN	0.019	0.021
PCB-78	70362-49-1	ng/g	< 0.0014 U	< 0.00055 U	< 0.00064 U	< 0.000098 U	< 0.00018 U	< 0.00082 U	< 0.00075 U	< 0.0014 U	< 0.0015 U	< 0.0089 U
PCB-79	41464-48-6	ng/g	0.0035 JN	0.0010 J	0.0041 J	0.0029 JN	0.0028 JN	< 0.00071 U	0.0011 J	0.0018 JN	0.012	0.025
PCB-8	34883-43-7	ng/g	0.036 JN	0.0064 J	0.024	0.021 J	0.026	0.021	0.020	0.018 J	0.038	0.049
PCB-80	33284-52-5	ng/g	< 0.0012 U	< 0.00049 U	< 0.00057 U	< 0.000087 U	< 0.00016 U	< 0.00069 U	< 0.00063 U	< 0.0012 U	< 0.0013 U	< 0.0079 U
PCB-81	70362-50-4	ng/g	< 0.0013 U	< 0.00053 U	< 0.00063 U	< 0.000093 U	< 0.00017 U	< 0.00078 U	< 0.00074 U	< 0.0013 U	< 0.0014 U	< 0.0084 U
PCB-82	52663-62-4	ng/g	0.064	0.011	0.041	0.022	0.021 JN	0.020	0.013 JN	0.024 JN	0.12	0.38
PCB-83/99	60145-20-2	ng/g	0.34	0.056 JN	0.26	0.17	0.16	0.084	0.080	0.18	0.63 J	1.6 J
PCB-84	52663-60-2	ng/g	0.15	0.025	0.10	0.044	0.054	0.040	0.034	0.062	0.36 J	0.98 J
PCB-85/116/117	65510-45-4	ng/g	0.093	0.015 J	0.058	0.039	0.045	0.027 J	0.022 J	0.046	0.15	0.47
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.38	0.055 J	0.24	0.13	0.14	0.10	0.084	0.16	0.78 J	2.1 J
PCB-88/91	55215-17-3	ng/g	0.078	0.021	0.072	0.039 JN	0.038 JN	0.024	0.024	0.051	0.16 J	0.43 J
PCB-89	73575-57-2	ng/g	< 0.00065 U	0.0011 J	< 0.00032 U	< 0.00076 U	0.0031 J	0.0020 JN	0.0016 JN	0.0040 JN	< 0.0015 UJ	0.034 J
PCB-9	34883-39-1	ng/g	0.0032 J	0.0013 J	0.0021 J+	0.0016 J	0.0018 JN	0.0018 JN	< 0.0014 U	< 0.00092 U	0.0036 J	0.0023 JN
PCB-90/101/113	68194-07-0	ng/g	0.54	0.10	0.43	0.28	0.23	0.17	0.18	0.29	1.2 J	3.0 J
PCB-92	52663-61-3	ng/g	0.11	0.023 JN	0.098	0.055 JN	0.050	0.027	0.030	0.060	0.25 J	0.55 J
PCB-93/100	73575-56-1	ng/g	0.011 J	0.0052 J	0.017 J	0.017 J	0.012 JN	0.0023 JN	0.0024 JN	0.0055 JN	0.018 JN	0.047
PCB-94	73575-55-0	ng/g	< 0.00066 U	0.0011 JN	0.0031 J	0.0018 JN	0.0025 JN	< 0.00019 U	< 0.00019 U	0.0022 JN	< 0.0015 U	< 0.00091 U
PCB-95	38379-99-6	ng/g	0.47	0.082 JN	0.35	0.21	0.19	0.16	0.17	0.22	1.0 J	2.9 J
PCB-96	73575-54-9	ng/g	< 0.00049 U	0.0015 JN	0.0052 J	< 0.00057 U	0.0021 JN	< 0.00015 U	0.0015 J	0.0033 JN	0.0060 JN	0.022
PCB-98/102	60233-25-2	ng/g	0.018 JN	0.0049 JN	0.021	0.0046 JN	0.0082 JN	0.0043 J	0.0052 J	0.0021 JN	0.031 JN	0.097
Total PCBs (b)	T_PCBCg (PDI)	ng/g	12	3.1	11	7.8	6.9	7.5	8.2	7.5	21	47

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B115	B116	B117	B118	B119	B120	B120	B121	B122	B122
		Sample ID	PDI-SG-B115-BL1	PDI-SG-B116-BL1	PDI-SG-B117-BL1	PDI-SG-B118-BL1	PDI-SG-B119-BL1	PDI-SG-B120-BL1	PDI-SG-B120-BL1-D	PDI-SG-B121-BL1	PDI-SG-B122-BL1	PDI-SG-B122-BL1-D
		Sample Date	16 Apr 2018	12 Apr 2018	14 Jun 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	11 Apr 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N	FD
		Depth	0-30 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-22 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 1.2 U	0.59	1.3 J	< 0.57 U	0.62 J	< 0.34 U	0.75	0.39 J	2.0 J	1.8 J
2,4-DDE	3424-82-6	µg/kg	< 1.2 U	< 0.40 U	< 1.9 U	< 0.57 U	< 0.53 UJ	< 0.40 U	< 0.40 U	< 0.60 UJ	< 0.50 UJ	< 0.49 UJ
2,4-DDT	789-02-6	µg/kg	< 1.2 U	< 0.47 U	< 1.9 U	< 0.57 U	< 0.53 UJ	< 0.47 U	< 0.47 U	< 0.60 UJ	0.56 J	< 0.49 UJ
4,4'-DDD	72-54-8	µg/kg	1.5	1.7	5.5	1.1	1.8 J	0.92 J	2.0 J	1.3 J	6.2 J	4.9 J
4,4'-DDE	72-55-9	µg/kg	1.9	1.4	3.0	2.1	2.2 J	0.71	0.95	2.4 J	3.2 J	2.8 J
4,4'-DDT	50-29-3	µg/kg	< 1.2 U	0.97	1.9	0.54 J	0.27 J	0.95	0.41	0.44 J	1.7 J	2.1 J
Total DDx (b)	T_DDx (PDI)	µg/kg	4.0	4.9	13	4.0	5.2	2.8	4.3	4.8	14	12
Aldrin	309-00-2	µg/kg	< 1.2 U	0.42	< 1.9 U	< 0.57 U	< 0.53 UJ	< 0.40 U	< 0.40 U	< 0.60 UJ	< 0.50 UJ	< 0.49 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 2.5 U	< 0.68 U	< 3.9 U	< 1.1 U	0.45 J	< 0.68 U	< 0.69 U	< 1.2 UJ	< 1.0 UJ	< 0.99 UJ
cis-Nonachlor	5103-73-1	µg/kg	< 1.2 U	< 0.49 U	< 1.9 U	< 0.57 U	< 0.53 UJ	< 0.49 U	< 0.49 U	< 0.60 UJ	< 0.50 UJ	< 0.49 UJ
Dieldrin	60-57-1	µg/kg	< 2.5 UJ	< 1.0 U	< 3.9 U	0.51 J	< 1.1 UJ	< 1.0 U	< 1.0 U	< 1.2 UJ	< 1.0 UJ	< 1.0 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 1.2 U	< 0.34 U	< 1.9 U	< 0.57 U	< 0.53 UJ	< 0.34 U	< 0.34 U	< 0.60 UJ	< 0.50 UJ	< 0.49 UJ
gamma-Chlordane	5566-34-7	µg/kg	< 2.5 U	< 0.68 U	< 3.9 U	< 1.1 U	0.36 J	< 0.68 U	< 0.69 U	< 1.2 UJ	< 1.0 UJ	< 0.99 UJ
Heptachlor	76-44-8	µg/kg	< 1.2 U	< 0.34 UJ	< 1.9 U	< 0.57 U	< 0.53 UJ	< 0.34 UJ	< 0.34 UJ	< 0.60 UJ	< 0.50 UJ	< 0.49 UJ
Oxychlordane	27304-13-8	µg/kg	< 2.5 U	< 1.0 U	< 3.9 U	< 1.1 U	< 1.1 UJ	< 1.0 U	< 1.0 U	< 1.2 UJ	< 1.0 UJ	< 1.0 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 2.5 U	< 0.68 U	< 3.9 U	0.64 J	0.48 J	< 0.68 U	< 0.69 U	< 1.2 UJ	< 1.0 UJ	0.30 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2.5 U	< 1 U	< 3.9 U	1.19	1.84	< 1 U	< 1 U	< 1.2 UJ	< 1 UJ	0.8
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.4	15	370	4.8	4.1	13 J	80 J	6.4	6.8	9.3
Acenaphthene	83-32-9	µg/kg	7.4	18	240	9.8	8.9	63 J	350 J	19	12	12
Acenaphthylene	208-96-8	µg/kg	4.4	31	750	18	10	2.2	3.5 J	5.4	21	23
Anthracene	120-12-7	µg/kg	10	82	1600	22	20	65 J	400 J	36	29	32
Benz(a)anthracene	56-55-3	µg/kg	52	430	4800	95	82	520 J	2600 J	92	140	130
Benzo(a)pyrene	50-32-8	µg/kg	92	560	5900	170	170	590 J	2900 J	140	270	250
Benzo(b)fluoranthene	205-99-2	µg/kg	82	490	5700	130	120	810 J	3900 J	140	250	240
Benzo(g,h,i)perylene	191-24-2	µg/kg	72	490 J	5000	140 J	130	480 J	2300 J	100 J	310	280
Benzo(k)fluoranthene	207-08-9	µg/kg	27	180	2100	45	39	220 J	1200 J	46	84	74
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	81 J	< 68 U	77 J	55 J	51 J	< 69 U	< 69 U	68 J	59 J	72 J
Chrysene	218-01-9	µg/kg	89	510	4900	120	110	670 J	3100 J	130	220	190
Dibenz(a,h)anthracene	53-70-3	µg/kg	12	66	880	20	22	140 J	690 J	23	46	38
Fluoranthene	206-44-0	µg/kg	170	820	12000	170	170	830 J	4000 J	170	300	250
Fluorene	86-73-7	µg/kg	7.8	34	610	8.8	8.9	41 J	250 J	20	12	12
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	64	450	6500	120	110	520 J	2500 J	99	270	250
Naphthalene	91-20-3	µg/kg	6.3	53	1500	15	10	12 J	75 J	9.0	18	22
Phenanthrene	85-01-8	µg/kg	64	300	4400	68	71	420 J	2300 J	110	160	150
Pyrene	129-00-0	µg/kg	170	1300	15000	240	230 J	770 J	3800 J	190	400	340
Total PAHs (b)	T_PAH (PDI)	µg/kg	933	5829	72250	1396	1316	6166	30449	1336	2549	2302
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	124	765	8506	225	224	918	4505	197	383	351
Metals												
Arsenic	7440-38-2	mg/kg	4.7	4.6	6.4	5.8	4.6	6.2 J	3.5 J	5.2	4.4	3.6
Cadmium	7440-43-9	mg/kg	0.13 J	0.39	1.0	0.25 J	0.17 J	0.37	0.51	0.21 J	0.18 J	0.15 J
Copper	7440-50-8	mg/kg	36	21	50	40	34	19	16	39	31	25
Lead	7439-92-1	mg/kg	10	14	48	11	9.9	38	55	12	12	9.6
Mercury	7439-97-6	mg/kg	0.056 J	0.016 J	0.065	0.066	0.050	0.020 J	0.022 J	0.059	0.058	0.058
Tri-n-butyltin	36643-28-4	µg/kg	1.2 J	1.8	< 130 U	4.9	1.2 J	1.1 J	0.69 J	4.1	1.3 J	1.2 J
Zinc	7440-66-6	mg/kg	88	100	180	110	87	130	170	97	84	70
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	83 J	19 J	190 J	52 J	48 J	< 69 U	< 65 U	62 J	55 J	53 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	570	91	580	300	300	45 J	66	390	290	350
Other												
Total Solids@104C - D2216 (f)	TSOLID	%			55.1				71.3			
Total Solids@104C - E160.3 (f)	TSOLID	%	39.5	70.9	51.2	44.9	48.9	69.9		41.8	48.7	50.7
Total Solids@104C - E160.3M (f)	TSOLID	%	40.2	72.8	50.4	43.5	46.2	72.3	72.0	41.3	49.4	50.1
Total Solids@70C	TSOLID70	%	41	74	50	44	47	72		42	52	53
Gravel	GS-Gravel	%	0	0	0	0	0	0.6		0	0	
Sand, Coarse	GS-Csand	%	0	0.2	0	0	0	1.3		0.2	0	
Sand, Medium	GS-Msand	%	0.2	34.1	6.6	0.3	0.2	30.4		2.2	0.2	
Sand, Fine (#200) (d)	GS-Fsand-200	%	8.311	54.71	39.99	28.55	15.96	59.63		14.04	16.15	
Sand, Fine (#230) (d)	GS-Fsand	%	11.2	55.1	41.7	32.5	21.3	60.0		17.4	22.4	
Silt (#200) (d)	GS-Silt-200	%	77.68	8.485	42.10	57.24	74.13	5.760		72.65	76.04	

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B115	B116	B117	B118	B119	B120	B120	B121	B122	B122
		Sample ID	PDI-SG-B115-BL1	PDI-SG-B116-BL1	PDI-SG-B117-BL1	PDI-SG-B118-BL1	PDI-SG-B119-BL1	PDI-SG-B120-BL1	PDI-SG-B120-BL1-D	PDI-SG-B121-BL1	PDI-SG-B122-BL1	PDI-SG-B122-BL1-D
		Sample Date	16 Apr 2018	12 Apr 2018	14 Jun 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	11 Apr 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N	FD
		Depth	0-30 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-22 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	74.8	8.1	40.4	53.3	68.8	5.4		69.3	69.8	
Clay	GS-Clay	%	13.8	2.4	11.3	13.9	9.7	2.4		11.0	7.5	
Percent Fines (e)	GS-FINES	%	91.48	10.885	53.4	71.14	83.83	8.16		83.65	83.54	
Total Organic Carbon	TOC	mg/kg	26000	4000	20000	19000	21000	4100	5700	23000	23000	20000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B123	B124	B125	B126	B127	B128	B129	B130	B131	B132
		Sample ID	PDI-SG-B123-BL1	PDI-SG-B124-BL1	PDI-SG-B125-BL1	PDI-SG-B126-BL1	PDI-SG-B127-BL1	PDI-SG-B128-BL1	PDI-SG-B129-BL1	PDI-SG-B130-BL1	PDI-SG-B131-BL1	PDI-SG-B132-BL1
		Sample Date	11 Apr 2018	11 Apr 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	29 May 2018	29 May 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-25 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.023	0.043	0.048	0.11	0.058	0.068	0.059	0.086	0.087	0.13
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0030 JN	0.0059 JN	0.0066 JN	0.018	0.0092 JN	0.019 JN	0.014	0.013 JN	0.011 JN	0.018 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00039 J+	0.00049 J+	0.00054 J+	0.0022 J	< 0.00030 U	0.0026 J+	0.0022 J+	< 0.00033 U	< 0.00030 U	< 0.00047 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00033 U	0.00060 J+	0.00053 JN	0.0011 JN	0.00076 J	0.0012 J	0.00077 J+	0.00094 J	0.00083 J	0.0017 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0014 J+	0.0013 J+	0.0010 JN	0.0059 J	0.0013 JN	0.0052 J	0.0048 J	0.0017 J	< 0.00045 U	0.0025 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00082 J+	0.0016 J+	0.0017 J+	0.0043 J	0.0023 J	0.0034 J	0.0029 J	0.0029 J	0.0028 J	0.0064
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0011 J+	0.0025 J	0.0028 J	0.0081	0.0043 J	0.0016 J	0.0017 J	0.0034 J	0.0034 J	0.0038 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00067 J+	0.0011 J+	0.0012 J+	0.0027 J	0.0016 J	0.0026 J	0.0019 J	0.0019 J	0.0018 J	0.0033 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00011 U	< 0.00013 U	< 0.00012 U	< 0.00029 U	< 0.00022 U	0.0011 J+	0.00088 J+	< 0.00018 U	< 0.00021 U	< 0.00050 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00014 U	< 0.00027 U	< 0.00036 U	< 0.00043 U	< 0.00037 U	0.0012 J	0.00047 JN	0.00065 J	0.00048 J	0.00066 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00082 J+	0.00050 J+	0.00042 J+	0.0047 J	< 0.00028 U	0.0032 J	0.0027 J	< 0.00019 U	< 0.00024 U	0.0015 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00012 U	< 0.00032 U	< 0.00034 U	0.00084 J+	0.00028 J	0.00078 J	0.00053 J	0.00031 J	< 0.00027 U	< 0.00054 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00036 U	< 0.00029 U	< 0.00031 U	0.0015 J+	< 0.00030 U	0.0016 J	0.0010 J	0.00028 J	< 0.00026 U	0.00070 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00013 U	< 0.00014 U	< 0.00015 U	0.00048 J+	< 0.00012 U	0.0055	0.00040 JN	< 0.000085 U	0.00017 JN	0.00021 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00064 J	0.00075 J	0.00060 J	0.0036	0.00099 J	0.0058	0.0017	0.00076 J	0.00082 J	0.0012
OCDD	3268-87-9	µg/kg	0.18	0.33	0.41	0.92	0.45	0.61	0.54	0.71	0.71	1.3
OCDF	39001-02-0	µg/kg	0.010	0.017	0.022	0.049	0.026	0.048	0.040	0.040	0.030	0.040
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00088	0.0015	0.0017	0.0055	0.0022	0.011	0.0037	0.0032	0.0029	0.0049
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00085	0.0015	0.0015	0.0054	0.002	0.011	0.0031	0.0032	0.0027	0.0043
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00078	0.0014	0.0013	0.0052	0.0018	0.011	0.0028	0.0031	0.0026	0.004
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0016 JN	0.0024 J+	0.0025 JN	0.0079 J	0.0042 JN	0.0026 JN	0.0034 J	0.0064 J	0.0043 J	0.0071 J
PCB-10	33146-45-1	ng/g	< 0.00040 U	< 0.00084 U	< 0.0012 U	0.0020 JN	0.0017 J	< 0.00049 U	< 0.00048 U	< 0.0030 U	< 0.00094 U	< 0.00085 U
PCB-103	60145-21-3	ng/g	< 0.00058 U	0.011	0.0085 JN	0.027	0.012	0.0054 J	0.0066 J	0.015	0.0052 J	0.029
PCB-104	56558-16-8	ng/g	< 0.00045 U	< 0.00059 U	0.0018 JN	< 0.0016 U	< 0.0014 U	< 0.00037 U	< 0.00022 U	< 0.00019 U	< 0.00087 U	< 0.00037 U
PCB-105	32598-14-4	ng/g	0.023 JN	0.065	0.056	0.13	0.088 JN	0.081	0.078	0.12	0.041	0.12
PCB-106	70424-69-0	ng/g	< 0.00074 U	< 0.0015 U	< 0.0018 U	< 0.0025 U	< 0.0019 U	< 0.0016 U	< 0.0013 U	< 0.0014 U	< 0.00093 U	< 0.0019 U
PCB-107	70424-68-9	ng/g	0.0051 J	0.020 JN	0.017 JN	0.057	0.025	0.023	0.027	0.030	0.011 J	0.062
PCB-108/124	70362-41-3	ng/g	0.0018 JN	0.0085 J	0.0050 JN	0.013 JN	0.010 J	0.0082 J	0.0080 J	0.0085 JN	0.0040 JN	0.014 J
PCB-11	2050-67-1	ng/g	0.033	0.042	0.033	0.097	0.045	0.053	0.048	0.31	0.042	0.034
PCB-110/115	38380-03-9	ng/g	0.089	0.29	0.23	0.63	0.34	0.28	0.30	0.40	0.16	0.59
PCB-111	39635-32-0	ng/g	< 0.00040 U	< 0.00053 U	< 0.00061 U	0.0032 J	< 0.0013 U	< 0.00033 U	< 0.00019 U	< 0.00017 U	< 0.00078 U	0.0049 J
PCB-112	74472-36-9	ng/g	< 0.00044 U	0.0022 J	< 0.00067 U	< 0.0015 U	< 0.0014 U	< 0.00036 U	< 0.00021 U	< 0.00018 U	< 0.00085 U	0.0028 JN
PCB-114	74472-37-0	ng/g	0.0017 J	0.0049 J	< 0.0016 U	< 0.0023 U	0.0050 JN	0.0043 J	0.0023 JN	0.0049 JN	0.0021 J	0.0080 J
PCB-118	31508-00-6	ng/g	0.064	0.20	0.16	0.46	0.26	0.20	0.21	0.31	0.11	0.41
PCB-12/13	2974-92-7	ng/g	0.0015 JN	0.0028 JN	0.0044 JN	0.0049 JN	0.0042 J+	0.0048 JN	0.0044 J+	0.012 JN	< 0.00080 U	0.0059 JN
PCB-120	68194-12-7	ng/g	< 0.00040 U	0.0016 JN	0.0031 JN	0.011 J	0.0034 J	0.0026 J	0.0032 JN	0.0028 JN	< 0.00077 U	0.011
PCB-121	56558-18-0	ng/g	< 0.00043 U	< 0.00057 U	< 0.00065 U	< 0.0015 U	< 0.0013 U	< 0.00035 U	< 0.0021 U	< 0.00018 U	< 0.00083 U	< 0.00035 U
PCB-122	76842-07-4	ng/g	0.0014 J	< 0.0017 U	< 0.0020 U	< 0.0028 U	< 0.0021 U	0.0037 JN	0.0031 JN	0.0033 J	< 0.0010 U	0.0081 J
PCB-123	65510-44-3	ng/g	0.00076 JN	0.0038 JN	0.0033 JN	0.0051 JN	0.0040 J	0.0042 J	0.0044 J	0.0041 J	0.0021 JN	0.0055 J
PCB-126	57465-28-8	ng/g	< 0.00074 U	< 0.0015 U	< 0.0017 U	< 0.0026 U	< 0.0019 U	< 0.0015 U	< 0.0012 U	0.0030 JN	< 0.00089 U	< 0.0019 U
PCB-127	39635-33-1	ng/g	< 0.00071 U	< 0.0014 U	< 0.0017 U	< 0.0024 U	< 0.0018 U	< 0.0015 U	< 0.0012 U	< 0.0014 U	< 0.00089 U	< 0.0018 U
PCB-128/166	38380-07-3	ng/g	0.020	0.067	0.059	0.13	0.086	0.059	0.060	0.074	0.028	0.12
PCB-129/138/160/163	55215-18-4	ng/g	0.12	0.51	0.40	0.92	0.58	0.41	0.40	0.59	0.21	0.95
PCB-130	52663-66-8	ng/g	0.0071 JN	0.033	0.021 JN	0.072	0.039	0.026	0.029	0.033	0.012	0.076
PCB-131	61798-70-7	ng/g	< 0.0014 U	< 0.0018 U	0.0052 JN	0.012 J	0.0055 J	0.0039 J	< 0.0017 U	0.0052 J	0.0023 J	< 0.0028 U
PCB-132	38380-05-1	ng/g	0.044	0.16	0.11	0.29	0.18	0.12	0.13	0.16	0.063	0.32
PCB-133	35694-04-3	ng/g	0.0031 JN	0.011	0.012	0.028	0.013	0.0084 J	0.0084 J	0.010	0.0044 J	0.034
PCB-134/143	52704-70-8	ng/g	0.0057 JN	0.027	0.018 J	0.054	0.034	0.020 J	0.024	0.024	0.011 JN	0.056
PCB-135/151	52744-13-5	ng/g	0.042	0.17	0.11 JN	0.30	0.19	0.13	0.13	0.18	0.088	0.37
PCB-136	38411-22-2	ng/g	0.014	0.065	0.051	0.12	0.070	0.044	0.047	0.061	0.026	0.13
PCB-137	35694-06-5	ng/g	0.0036 JN	0.014	0.013	0.026	0.019 JN	0.015	0.015	0.022	0.0063 JN	0.027
PCB-139/140	56030-56-9	ng/g	< 0.0012 U	0.0069 JN	0.0072 J	0.020 J	0.0090 JN	0.0049 JN	0.0060 J	0.0049 JN	0.0024 JN	0.023
PCB-14	34883-41-5	ng/g	< 0.00031 U	< 0.00066 U	< 0.00091 U	< 0.00081 U	< 0.00052 U	< 0.00038 U	< 0.00037 U	< 0.0023 U	< 0.00073 U	< 0.00066 U
PCB-141	52712-04-6	ng/g	0.024	0.099	0.068 JN	0.16	0.11	0.073	0.070	0.10	0.039	0.17
PCB-142	41411-61-4	ng/g	< 0.0013 U	< 0.0017 U	< 0.0015 U	< 0.0033 U	< 0.0021 U	< 0.0015 U	< 0.0016 U	< 0.0020 U	< 0.0015 U	< 0.0027 U
PCB-144	68194-14-9	ng/g	0.0023 JN	0.018 JN	0.013 JN	0.027	0.020 JN	0.013	0.014	0.019	0.0080 JN	0.033
PCB-145	74472-40-5	ng/g	< 0.000080 U	< 0.000076 U	< 0.000098 U	< 0.00045 U	< 0.000078 U	< 0.00011 U	0.00025 J	0.00045 JN	< 0.00011 U	< 0.00013 U
PCB-146	51908-16-8	ng/g	0.025	0.098	0.082	0.23	0.11	0.069	0.079	0.10	0.037	0.27
PCB-147/149	68194-13-8	ng/g	0.11	0.45	0.35	0.96	0.52	0.30	0.34	0.50	0.19	0.95
PCB-148	74472-41-6	ng/g	0.0011 J	0.00057 J	0.0041 J	0.0053 JN	0.00073 JN	0.0014 J	0.0017 JN	0.0022 JN	0.00037 JN	0.0072 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B123	B124	B125	B126	B127	B128	B129	B130	B131	B132
		Sample ID	PDI-SG-B123-BL1	PDI-SG-B124-BL1	PDI-SG-B125-BL1	PDI-SG-B126-BL1	PDI-SG-B127-BL1	PDI-SG-B128-BL1	PDI-SG-B129-BL1	PDI-SG-B130-BL1	PDI-SG-B131-BL1	PDI-SG-B132-BL1
		Sample Date	11 Apr 2018	11 Apr 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	29 May 2018	29 May 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-25 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0060 J	0.012 JN	0.015	0.048	0.013 JN	0.018	0.018	0.048	0.013	0.025 JN
PCB-150	68194-08-1	ng/g	0.00022 JN	0.0015 J	0.0030 J	0.0049 J	0.00046 JN	0.00056 JN	0.0014 J	0.0014 JN	0.00025 JN	0.0070 J
PCB-152	68194-09-2	ng/g	< 0.000077 U	0.00062 J	< 0.000094 U	< 0.00043 U	0.0011 J	0.00029 J	0.00034 JN	< 0.00021 U	< 0.00011 U	< 0.00013 U
PCB-153/168	35065-27-1	ng/g	0.099 JN	0.46	0.36	0.92	0.51	0.34	0.36	0.48	0.18	1.0
PCB-154	60145-22-4	ng/g	0.0022 JN	0.015	0.0092 JN	0.033	0.013	0.0074 J	0.0092 J	0.011	0.0032 JN	0.048
PCB-155	33979-03-2	ng/g	< 0.000074 U	0.00030 JN	< 0.000089 U	< 0.00041 U	0.00045 JN	0.00029 JN	0.00018 JN	0.0012 J	< 0.00010 U	< 0.00012 U
PCB-156/157	38380-08-4	ng/g	0.012 J	0.044	0.033	0.078	0.055	0.038	0.036	0.054	0.018 JN	0.080
PCB-158	74472-42-7	ng/g	0.012	0.042	0.034	0.073	0.053	0.037	0.034	0.050	0.017	0.067
PCB-159	39635-35-3	ng/g	0.0017 JN	0.0066 J	0.0058 J	0.012 J	0.0070 J	0.0038 J	0.0048 J	< 0.0013 U	0.0024 J	0.013 JN
PCB-16	38444-78-9	ng/g	0.0022 JN	0.014	0.012 JN	0.030 JN	0.0095 J	0.017	0.018	0.037	0.013	0.028 JN
PCB-161	74472-43-8	ng/g	< 0.00086 U	< 0.0011 U	< 0.0010 U	< 0.0022 U	< 0.0014 U	< 0.0010 U	< 0.0011 U	< 0.0013 U	< 0.00096 U	< 0.0017 U
PCB-162	39635-34-2	ng/g	< 0.00081 U	< 0.0010 U	< 0.00096 U	< 0.0021 U	< 0.0013 U	< 0.00095 U	< 0.0010 U	< 0.0013 U	< 0.00091 U	< 0.0017 U
PCB-164	74472-45-0	ng/g	0.0098 J	0.038	0.031	0.068	0.041	0.030	0.029	0.042	0.013	0.072
PCB-165	74472-46-1	ng/g	< 0.00098 U	< 0.0013 U	< 0.0012 U	< 0.0025 U	< 0.0016 U	< 0.0011 U	< 0.0012 U	< 0.0015 U	< 0.0011 U	< 0.0020 U
PCB-167	52663-72-6	ng/g	0.0044 J	0.014	0.014	0.029	0.019	0.013	0.012	0.020	0.0054 JN	0.028
PCB-169	32774-16-6	ng/g	< 0.00066 U	< 0.00085 U	< 0.00077 U	< 0.0016 U	< 0.00097 U	< 0.00075 U	< 0.00079 U	< 0.0010 U	< 0.00072 U	< 0.0013 U
PCB-17	37680-66-3	ng/g	0.0062 JN	0.019 JN	0.024	0.065	0.020	0.022	0.025	0.045	0.017	0.044
PCB-170	35065-30-6	ng/g	0.038	0.14	0.12	0.27	0.17	0.11	0.12	0.16	0.061	0.32
PCB-171/173	52663-71-5	ng/g	0.0093 JN	0.044	0.034 JN	0.092	0.050	0.035	0.036	0.052	0.015 JN	0.098
PCB-172	52663-74-8	ng/g	0.0066 J	0.024	0.026	0.057	0.027	0.021	0.021	0.025	0.012	0.056
PCB-174	38411-25-5	ng/g	0.041	0.16	0.14	0.29	0.17	0.13	0.13	0.16	0.065	0.36
PCB-175	40186-70-7	ng/g	< 0.00082 U	0.0034 JN	0.0050 JN	0.011 JN	0.0057 JN	0.0040 JN	0.0051 J	0.0054 J	0.0016 JN	0.012 JN
PCB-176	52663-65-7	ng/g	0.0053 J	0.017	0.016	0.038	0.022	0.013	0.015	0.018	0.0074 J	0.046
PCB-177	52663-70-4	ng/g	0.025	0.097	0.082	0.20	0.11	0.077	0.082	0.092	0.041	0.22
PCB-178	52663-67-9	ng/g	0.0075 JN	0.037	0.028 JN	0.070	0.040	0.032	0.031	0.038	0.014	0.079
PCB-179	52663-64-6	ng/g	0.019	0.073	0.064	0.15	0.078	0.048	0.051	0.071	0.028	0.17
PCB-18/30	37680-65-2	ng/g	0.011 JN	0.027	0.035	0.092	0.037	0.034	0.040	0.082	0.029	0.057
PCB-180/193	35065-29-3	ng/g	0.076	0.30	0.25	0.66	0.36	0.25	0.26	0.33	0.13	0.69
PCB-181	74472-47-2	ng/g	< 0.00078 U	< 0.000078 U	< 0.00014 U	< 0.000068 U	< 0.000020 U	0.0019 J	< 0.00024 U	< 0.00029 U	< 0.00022 U	0.0041 J
PCB-182	60145-23-5	ng/g	< 0.00074 U	< 0.000074 U	0.0020 JN	< 0.000064 U	0.0023 JN	0.0013 JN	< 0.00023 U	0.0023 J	< 0.00021 U	0.0038 J
PCB-183/185	52663-69-1	ng/g	0.028	0.10	0.086	0.19	0.11	0.076	0.083	0.11	0.041	0.22
PCB-184	74472-48-3	ng/g	< 0.00064 U	< 0.000063 U	< 0.00012 U	< 0.000055 U	< 0.000017 U	< 0.000055 U	< 0.00019 U	< 0.00024 U	< 0.00018 U	< 0.00049 U
PCB-186	74472-49-4	ng/g	< 0.00061 U	< 0.000061 U	< 0.00011 U	< 0.000053 U	< 0.000016 U	< 0.000053 U	< 0.00019 U	< 0.00023 U	< 0.00017 U	< 0.00047 U
PCB-187	52663-68-0	ng/g	0.055	0.20	0.17	0.43	0.22	0.17	0.18	0.21	0.074 JN	0.45
PCB-188	74487-85-7	ng/g	< 0.00053 U	< 0.000054 U	< 0.00010 U	< 0.000050 U	< 0.000015 U	< 0.000049 U	< 0.00017 U	< 0.00020 U	< 0.00016 U	< 0.00044 U
PCB-189	39635-31-9	ng/g	0.0014 JN	0.0068 JN	0.0050 JN	0.0080 JN	0.0071 J	0.0037 JN	0.0032 JN	0.0052 JN	0.0031 J	0.012
PCB-19	38444-73-4	ng/g	0.0033 JN	0.019	0.018 JN	0.018	0.028	0.012 JN	0.012	0.025 JN	0.0071 JN	0.012 JN
PCB-190	41411-64-7	ng/g	0.0073 J	0.027	0.021	0.049 JN	0.032	0.021	0.021	0.029	0.014	0.064
PCB-191	74472-50-7	ng/g	0.0011 JN	0.0035 JN	0.0051 JN	0.014	0.0068 JN	0.0028 JN	0.0052 J	0.0058 J	0.0021 J	0.013 JN
PCB-192	74472-51-8	ng/g	< 0.00062 U	< 0.000062 U	< 0.00011 U	< 0.000054 U	< 0.000016 U	< 0.000054 U	< 0.00019 U	< 0.00024 U	< 0.00018 U	< 0.00048 U
PCB-194	35694-08-7	ng/g	0.020	0.068	0.056	0.17	0.083	0.065	0.063	0.079	0.027	0.17
PCB-195	52663-78-2	ng/g	0.0098 J	0.029	0.022 JN	0.075	0.038	0.026	0.027	0.032	0.011 J	0.080
PCB-196	42740-50-1	ng/g	0.0067 JN	0.034	0.030	0.072	0.037	0.028	0.028	0.035	0.013 JN	0.083
PCB-197	33091-17-7	ng/g	0.00060 JN	0.0019 JN	0.0024 J	0.0053 JN	0.0016 JN	0.0022 J	0.0018 JN	0.0015 JN	< 0.00027 U	0.0059 J
PCB-198/199	68194-17-2	ng/g	0.019 J	0.084	0.076	0.17	0.094	0.075	0.079	0.082	0.032	0.19
PCB-2	2051-61-8	ng/g	0.0027 JN	0.011	0.0093 J	0.021	0.011 J	0.0065 J	0.0090 J	0.013	0.0081 JN	0.0043 JN
PCB-20/28	38444-84-7	ng/g	0.035	0.083	0.088	0.28	0.10	0.084	0.11	0.21	0.074	0.19
PCB-200	52663-73-7	ng/g	0.0024 J	0.0078 JN	0.0078 JN	0.020 JN	0.0088 JN	0.0065 JN	0.0078 J	0.0079 J	0.0033 J	0.022
PCB-201	40186-71-8	ng/g	0.0011 JN	0.0063 JN	0.0079 J	0.0067 JN	0.0091 JN	0.0065 JN	0.0067 J	0.0076 JN	0.0029 JN	0.020
PCB-202	2136-99-4	ng/g	0.0032 JN	0.017 JN	0.017 JN	0.038	0.020 JN	0.018	0.016	0.019	0.0071 JN	0.039
PCB-203	52663-76-0	ng/g	0.011	0.050	0.046	0.095	0.057	0.044	0.046	0.043	0.025	0.11
PCB-204	74472-52-9	ng/g	< 0.00015 U	< 0.000062 U	< 0.00019 U	< 0.00011 U	< 0.000071 U	< 0.000089 U	< 0.00029 U	< 0.00018 U	< 0.00030 U	< 0.00052 U
PCB-205	74472-53-0	ng/g	< 0.00066 U	0.0033 JN	0.0026 JN	0.0081 JN	0.0045 J	0.0030 J	0.0034 J	0.0036 J	< 0.00064 U	0.0084 J
PCB-206	40186-72-9	ng/g	0.13 JN	0.069	0.085	0.14	0.098	0.065	0.072 JN	0.097	0.089 JN	0.12 JN
PCB-207	52663-79-3	ng/g	< 0.0015 U	0.0070 J	0.0068 J	0.014	0.0078 J	0.0059 J	0.0048 J	0.0045 JN	< 0.0019 U	0.012
PCB-208	52663-77-1	ng/g	0.0046 J	0.024	0.031	0.040	0.043	0.023	0.019	0.035	0.012	0.037
PCB-209	2051-24-3	ng/g	0.017	0.068	0.060	0.15 JN	0.11	0.090	0.067	0.074	0.041	0.10
PCB-21/33	55702-46-0	ng/g	0.014 J	0.032	0.035	0.098	0.039	0.030	0.039	0.088	0.030	0.088
PCB-22	38444-85-8	ng/g	0.0097 J	0.022	0.021	0.061	0.028	0.024	0.027	0.063	0.021	0.038
PCB-23	55720-44-0	ng/g	< 0.00079 U	< 0.0014 U	< 0.0012 U	< 0.0017 U	< 0.0013 U	< 0.00071 U	< 0.00056 U	< 0.00070 U	< 0.00061 U	< 0.0017 U
PCB-24	55702-45-9	ng/g	< 0.00011 U	< 0.00036 U	< 0.00044 U	< 0.00051 U	0.0017 JN	< 0.00033 U	0.00084 JN	0.0020 J	< 0.00024 U	0.0017 JN
PCB-25	55712-37-3	ng/g	0.0041 JN	0.0097 J	0.012	0.032	0.011 J	0.0080 J	0.0089 J	0.012	0.0064 J	0.018

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B123	B124	B125	B126	B127	B128	B129	B130	B131	B132
		Sample ID	PDI-SG-B123-BL1	PDI-SG-B124-BL1	PDI-SG-B125-BL1	PDI-SG-B126-BL1	PDI-SG-B127-BL1	PDI-SG-B128-BL1	PDI-SG-B129-BL1	PDI-SG-B130-BL1	PDI-SG-B131-BL1	PDI-SG-B132-BL1
		Sample Date	11 Apr 2018	11 Apr 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	29 May 2018	29 May 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-25 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0094 J	0.014 J	0.014 J	0.059	0.018 J	0.013 J	0.015 J	0.024	0.012 J	0.023
PCB-27	38444-76-7	ng/g	0.00024 JN	0.0053 JN	0.0048 J+	0.013	0.0034 JN	0.0045 J	0.0057 J	0.0073 JN	0.0027 JN	0.0071 J
PCB-3	2051-62-9	ng/g	0.0023 J	0.0020 JN	0.0042 J	0.0089 J	0.0038 JN	0.0030 JN	0.0052 J	0.0076 J	0.0034 JN	0.0055 J
PCB-31	16606-02-3	ng/g	0.026	0.054	0.053	0.17	0.070	0.059	0.070	0.15	0.052	0.11
PCB-32	38444-77-8	ng/g	0.0045 J-	0.012 JN	0.017 JN	0.029 JN	0.012	0.012 JN	0.016	0.044	0.011 JN	0.026
PCB-34	37680-68-5	ng/g	< 0.00082 U	< 0.0014 U	< 0.0012 U	0.0031 JN	< 0.0013 U	< 0.00073 U	< 0.00058 U	< 0.00072 U	< 0.00063 U	0.0023 JN
PCB-35	37680-69-6	ng/g	< 0.00078 U	< 0.0014 U	< 0.0011 U	< 0.0017 U	0.0023 JN	0.0027 J	0.0026 J	0.012	0.0011 JN	0.0021 JN
PCB-36	38444-87-0	ng/g	< 0.00071 U	< 0.0012 U	< 0.0010 U	< 0.0016 U	< 0.0011 U	< 0.00064 U	< 0.00050 U	0.0024 J	< 0.00054 U	< 0.0015 U
PCB-37	38444-90-5	ng/g	0.011	0.026	0.023	0.070	0.031	0.027	0.029	0.077	0.019 JN	0.053
PCB-38	53555-66-1	ng/g	< 0.00077 U	< 0.0013 U	< 0.0011 U	< 0.0017 U	< 0.0012 U	< 0.00069 U	< 0.00054 U	0.0013 J	< 0.00059 U	< 0.0016 U
PCB-39	38444-88-1	ng/g	< 0.00070 U	< 0.0012 U	< 0.0010 U	0.0033 J	< 0.0011 U	< 0.00063 U	0.00064 JN	0.0018 J	< 0.00054 U	0.0026 J
PCB-4	13029-08-8	ng/g	0.0049 JN	0.013 JN	0.013 JN	0.023 JN	0.022 JN	0.012 J	0.011 J	0.022 JN	0.013 JN	0.016 J
PCB-40/41/71	38444-93-8	ng/g	0.024 J	0.059	0.052 JN	0.22	0.073	0.058	0.069	0.15	0.038	0.15
PCB-42	36559-22-5	ng/g	0.012	0.034	0.031	0.12	0.033 JN	0.032	0.038	0.063	0.018 JN	0.079
PCB-43/73	70362-46-8	ng/g	< 0.00084 U	0.0061 JN	0.0075 JN	0.012 JN	0.011 J	0.0061 J	0.0045 J	0.011 JN	0.0037 J	0.0061 J
PCB-44/47/65	41464-39-5	ng/g	0.052	0.17	0.19	0.51	0.19	0.14	0.15	0.38	0.097	0.31
PCB-45/51	70362-45-7	ng/g	0.0096 J	0.034 JN	0.052	0.091	0.040	0.027	0.025	0.085	0.019 J	0.048
PCB-46	41464-47-5	ng/g	0.0034 J	0.0062 JN	0.0060 JN	0.030	0.0071 JN	0.0061 J	0.0061 JN	0.015	0.0044 J	0.0099 JN
PCB-48	70362-47-9	ng/g	0.0077 J	0.018	0.014	0.066	0.021	0.019	0.021	0.037	0.014 JN	0.038
PCB-49/69	41464-40-8	ng/g	0.034	0.12	0.12	0.40	0.13	0.10	0.11	0.17	0.063	0.28
PCB-5	16605-91-7	ng/g	< 0.00037 U	< 0.00079 U	< 0.0011 U	< 0.00098 U	< 0.00062 U	< 0.00046 U	< 0.00044 U	< 0.0031 U	< 0.00088 U	< 0.00079 U
PCB-50/53	62796-65-0	ng/g	0.0074 JN	0.028 JN	0.039	0.10	0.038	0.024	0.023	0.058	0.015 J	0.062
PCB-52	35693-99-3	ng/g	0.069	0.23	0.18	0.61	0.23	0.19	0.19	0.27	0.13	0.43
PCB-54	15968-05-5	ng/g	< 0.00016 U	0.0061 J	0.0022 JN	0.0033 JN	0.0042 JN	0.0031 J	0.0026 JN	0.0055 J	< 0.00010 U	0.0032 J
PCB-55	74338-24-2	ng/g	< 0.00063 U	0.0022 JN	< 0.0015 U	0.0041 JN	0.0017 JN	0.0015 JN	< 0.00054 U	0.0046 J	< 0.0010 U	< 0.0016 U
PCB-56	41464-43-1	ng/g	0.018	0.048	0.034	0.14	0.051	0.047	0.053	0.086	0.033	0.10
PCB-57	70424-67-8	ng/g	< 0.00065 U	< 0.00026 U	< 0.0016 U	< 0.0014 U	< 0.00050 U	< 0.00073 U	< 0.00056 U	0.0019 J	< 0.0010 U	< 0.0017 U
PCB-58	41464-49-7	ng/g	< 0.00062 U	< 0.00025 U	< 0.0015 U	0.0045 J	< 0.00048 U	< 0.00070 U	0.0021 J	0.0021 JN	< 0.0010 U	0.0036 JN
PCB-59/62/75	74472-33-6	ng/g	0.0039 J	0.012 J	0.011 J	0.038	0.012 J	0.012 J	0.013 J	0.025 J	0.0055 JN	0.025 J
PCB-6	25569-80-6	ng/g	0.0022 JN	0.0045 J	0.0049 J	0.015 JN	0.0052 JN	0.0042 J	0.0053 J	0.011	0.0049 JN	0.014
PCB-60	33025-41-1	ng/g	0.0068 J	0.015	0.014	0.027 JN	0.019	0.018	0.018	0.044	0.014	0.026
PCB-61/70/74/76	33284-53-6	ng/g	0.074	0.20	0.17	0.63	0.23	0.18	0.21	0.37	0.13	0.47
PCB-63	74472-34-7	ng/g	0.00086 JN	0.0050 JN	0.0032 JN	0.012 JN	< 0.00043 U	0.0039 J	0.0045 JN	0.012	0.0030 JN	0.011
PCB-64	52663-58-8	ng/g	0.017	0.045	0.038	0.14	0.048	0.043	0.050	0.10	0.031	0.098
PCB-66	32598-10-0	ng/g	0.046	0.13	0.11	0.44	0.14	0.12	0.15	0.23	0.078	0.34
PCB-67	73575-53-8	ng/g	0.0013 J	0.0022 JN	0.0025 JN	0.0089 JN	< 0.00046 U	0.0025 J	0.0027 JN	0.0061 J	< 0.00097 U	0.0079 J
PCB-68	73575-52-7	ng/g	< 0.0011 U	0.0057 JN	0.0045 J+	0.015	< 0.00043 U	0.0024 J	0.0038 J	0.0095 J	< 0.0014 U	0.012
PCB-7	33284-50-3	ng/g	< 0.00035 U	< 0.00074 U	< 0.0010 U	< 0.00092 U	0.0017 JN	0.00097 JN	0.0011 JN	0.0032 JN	< 0.00083 U	0.0030 J
PCB-72	41464-42-0	ng/g	0.0011 JN	0.0047 J	0.0053 J	0.020	0.0045 JN	0.0030 J	0.0041 J	0.0066 J	< 0.0010 U	0.013 JN
PCB-77	32598-13-3	ng/g	0.0047 JN	0.012	0.012	0.040	0.015	0.015	0.013 JN	0.023	0.0082 J	0.026
PCB-78	70362-49-1	ng/g	< 0.00062 U	< 0.00025 U	< 0.0015 U	< 0.0013 U	< 0.00048 U	< 0.00070 U	< 0.00054 U	< 0.0015 U	< 0.0010 U	< 0.0016 U
PCB-79	41464-48-6	ng/g	0.0013 J	0.0036 JN	< 0.0013 U	0.0090 JN	0.0038 JN	0.0017 J	0.0021 J	0.0042 JN	< 0.00086 U	0.0063 JN
PCB-8	34883-43-7	ng/g	0.0069 JN	0.016 J	0.017 J	0.040	0.021 JN	0.017 J	0.019 J	0.050	0.023 J	0.051
PCB-80	33284-52-5	ng/g	< 0.00055 U	< 0.00022 U	< 0.0013 U	< 0.0012 U	< 0.00043 U	< 0.00062 U	< 0.00048 U	< 0.0013 U	< 0.00090 U	< 0.0014 U
PCB-81	70362-50-4	ng/g	< 0.00059 U	0.0013 J	< 0.0014 U	< 0.0013 U	< 0.00046 U	< 0.00066 U	< 0.00051 U	< 0.0014 U	< 0.00097 U	< 0.0015 U
PCB-82	52663-62-4	ng/g	0.0088 JN	0.023 JN	0.022	0.055	0.032	0.029	0.032	0.039	0.020	0.054
PCB-83/99	60145-20-2	ng/g	0.043 JN	0.17	0.17	0.47	0.20	0.18	0.19	0.23	0.091	0.45
PCB-84	52663-60-2	ng/g	0.017 JN	0.051 JN	0.044	0.13	0.064	0.060	0.064	0.085	0.033	0.12 JN
PCB-85/116/117	65510-45-4	ng/g	0.011 JN	0.041	0.035	0.079	0.051	0.052	0.047	0.062	0.024 J	0.073
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.044 J	0.15	0.11	0.31	0.18	0.15	0.15	0.22	0.080	0.31
PCB-88/91	55215-17-3	ng/g	0.012 J	0.055	0.043 JN	0.13	0.055	0.044	0.048	0.098	0.025	0.12
PCB-89	73575-57-2	ng/g	< 0.00067 U	< 0.00088 U	< 0.0010 U	0.0057 JN	< 0.0021 U	0.0038 J	0.0033 J	< 0.00028 U	< 0.0013 U	0.0058 J
PCB-9	34883-39-1	ng/g	0.00081 J	< 0.00087 U	< 0.0012 U	0.0030 J	< 0.00068 U	< 0.00050 U	0.0013 J	0.0031 JN	0.0029 JN	0.0031 J
PCB-90/101/113	68194-07-0	ng/g	0.073	0.30	0.23	0.61	0.33	0.26	0.27	0.41	0.14	0.60
PCB-92	52663-61-3	ng/g	0.015	0.061	0.061	0.15	0.070	0.055	0.060	0.084	0.034	0.14 JN
PCB-93/100	73575-56-1	ng/g	0.0032 JN	0.013 JN	0.018 JN	0.027	0.019 JN	0.0084 J	0.015 J	0.030	0.0029 J	0.026
PCB-94	73575-55-0	ng/g	< 0.00067 U	0.0022 JN	0.0050 J	< 0.0023 U	0.0024 JN	0.0024 J	0.0023 J	0.0084 J	< 0.0013 U	0.0049 JN
PCB-95	38379-99-6	ng/g	0.062	0.26	0.17	0.49	0.27	0.21	0.22	0.36	0.11	0.46
PCB-96	73575-54-9	ng/g	< 0.00050 U	0.0016 JN	0.0043 JN	0.0072 JN	0.0043 JN	0.0026 JN	0.0022 JN	0.0058 J	< 0.00097 U	0.0049 JN
PCB-98/102	60233-25-2	ng/g	0.0018 JN	0.012 J	0.0062 JN	0.025 JN	0.0099 JN	0.013 J	0.012 JN	0.015 J	0.0048 JN	0.017 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	2.2	7.4	6.3	17	8.6	6.4	6.8	10	3.8	16

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B123	B124	B125	B126	B127	B128	B129	B130	B131	B132
		Sample ID	PDI-SG-B123-BL1	PDI-SG-B124-BL1	PDI-SG-B125-BL1	PDI-SG-B126-BL1	PDI-SG-B127-BL1	PDI-SG-B128-BL1	PDI-SG-B129-BL1	PDI-SG-B130-BL1	PDI-SG-B131-BL1	PDI-SG-B132-BL1
		Sample Date	11 Apr 2018	11 Apr 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	29 May 2018	29 May 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-25 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.39 UJ	0.38 J	< 0.52 U	1.6 J	0.43 J	< 5.6 U	< 1.1 U	1.9	0.54 J	0.43 J
2,4-DDE	3424-82-6	µg/kg	< 0.40 UJ	< 0.55 U	< 0.52 U	< 0.60 UJ	< 0.59 UJ	< 5.6 U	< 1.1 U	< 0.52 U	< 0.59 U	< 0.44 U
2,4-DDT	789-02-6	µg/kg	< 0.47 UJ	< 0.55 U	< 0.52 U	< 0.60 UJ	< 0.59 UJ	< 5.6 U	< 1.1 U	1.1 J	< 0.59 U	< 0.47 U
4,4'-DDD	72-54-8	µg/kg	0.86 J	1.2	0.93	5.6 J	1.7 J	2.4 J	2.0	2.2	1.2	0.87
4,4'-DDE	72-55-9	µg/kg	0.47 J	2.1	1.8	5.4 J	2.5 J	< 5.6 U	2.3	4.0	3.0	1.9
4,4'-DDT	50-29-3	µg/kg	< 0.39 UJ	0.59	1.1	0.59 J	0.39 J	< 5.6 U	0.55 J	2.4	0.36 J	0.42 J
Total DDx (b)	T_DDx (PDI)	µg/kg	1.6	4.5	4.1	13	5.3	5.2	5.4	12	5.4	3.9
Aldrin	309-00-2	µg/kg	< 0.40 UJ	< 0.55 U	< 0.52 U	< 0.60 UJ	< 0.59 UJ	< 5.6 U	< 1.1 U	< 0.52 U	< 0.59 U	< 0.44 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.77 UJ	< 1.1 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 11 U	< 2.1 U	< 1.0 U	< 1.2 U	< 0.88 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.49 UJ	< 0.55 U	< 0.52 U	< 0.60 UJ	< 0.59 UJ	< 5.6 U	< 1.1 U	< 0.52 U	< 0.59 U	< 0.49 U
Dieldrin	60-57-1	µg/kg	< 1.0 UJ	< 1.1 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 11 U	< 2.1 U	< 1.0 U	< 1.2 U	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.39 UJ	< 0.55 U	< 0.52 U	0.54 J	0.31 J	< 5.6 U	< 1.1 U	< 0.52 U	< 0.59 U	< 0.44 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.77 UJ	< 1.1 U	< 1.0 U	0.44 J	< 1.2 UJ	< 11 U	< 2.1 U	< 1.0 U	< 1.2 U	< 0.88 U
Heptachlor	76-44-8	µg/kg	< 0.39 UJ	< 0.55 U	< 0.52 U	< 0.60 UJ	< 0.59 UJ	< 5.6 U	< 1.1 U	< 0.52 UJ	< 0.59 UJ	< 0.44 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.0 UJ	< 1.1 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 2.4 U	< 2.1 U	< 1.0 U	< 1.2 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	0.35 J	0.36 J	0.31 J	< 1.2 UJ	< 1.2 UJ	< 11 U	< 2.1 U	< 1.0 U	< 1.2 U	< 0.88 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	0.85	0.91	0.81	1.04	< 1.2 UJ	< 11 U	< 2.1 U	< 1 U	< 1.2 U	< 1 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.7 J	6.6	11	15	10	27	9.4	7.6	7.0	4.4
Acenaphthene	83-32-9	µg/kg	8.7	19	21	45	31	37	15	43	8.1	6.7
Acenaphthylene	208-96-8	µg/kg	55	14	6.0	20	7.2	22	15	6.1	4.9	19
Anthracene	120-12-7	µg/kg	44	33	210	60	29	63	29	21	12	20
Benz(a)anthracene	56-55-3	µg/kg	660	110	87	210	88	190	120 J	51	43	86
Benzo(a)pyrene	50-32-8	µg/kg	890	200	89	310	130	220	180	81	63	150
Benzo(b)fluoranthene	205-99-2	µg/kg	730	150	81	270	110	200	170 J	85	57	130
Benzo(g,h,i)perylene	191-24-2	µg/kg	780	150 J	59 J	290	90 J	150	140	64	43 J	150
Benzo(k)fluoranthene	207-08-9	µg/kg	240	55	28	100	37	75	62	30	20	52
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	30 J	48 J	69 J	77 J	280	110 J	98 J	250	< 120 U	51 J
Chrysene	218-01-9	µg/kg	900	140	110	260	120	210	150 J	98	60	110
Dibenz(a,h)anthracene	53-70-3	µg/kg	100	25	11	36	17	24	21	12	7.0	20
Fluoranthene	206-44-0	µg/kg	1200	210	240	440	240	470	260 J	220	100	130
Fluorene	86-73-7	µg/kg	7.2	14	54	38	24	38	15	17	9.5	5.7
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	700	140	55	260	85	150	140	58	38	140
Naphthalene	91-20-3	µg/kg	12	13	11	39	14	79	20	16	16	12
Phenanthrene	85-01-8	µg/kg	44	95	270	320	180	350	130 J	110	51	32
Pyrene	129-00-0	µg/kg	1900	280	250	600	260	590	340 J	250	120	210
Total PAHs (b)	T_PAH (PDI)	µg/kg	8275	1655	1593	3313	1472	2895	1816	1170	660	1278
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	1202	266	123	421	176	299	245	113	84	206
Metals												
Arsenic	7440-38-2	mg/kg	4.1	5.0	4.7	5.8	5.2	5.3	5.0	5.0	5.4	4.7
Cadmium	7440-43-9	mg/kg	0.088 J	0.18 J	0.20 J	0.24 J	0.18 J	0.19 J	0.16 J	0.20 J	0.23 J	0.19 J
Copper	7440-50-8	mg/kg	20	35	34	46	39	38	34	34	43	26
Lead	7439-92-1	mg/kg	6.0	9.9	9.4	15	26	12	9.7	18	15	11
Mercury	7439-97-6	mg/kg	0.034 J	0.058	0.049	0.078	0.086	0.064	0.038 J	0.052	0.054 J	0.036
Tri-n-butyltin	36643-28-4	µg/kg	1.3 J	16	5.6	24	130	2.6	3.1	4.4	3.4	3.9
Zinc	7440-66-6	mg/kg	65	92	91	110	96	94	83	100	110	81
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	2200 J	94 J	57 J	140	79 J	130	91 J	< 180 U	< 120 U	60 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	3800 J	300	320	570	460	350	330	190	200	220
Other												
Total Solids@104C - D2216 (f)	TSOLID	%						41.0	47.2			
Total Solids@104C - E160.3 (f)	TSOLID	%	65.8	49.2	49.8	39.1	40.7			50.3	42.3	56.7
Total Solids@104C - E160.3M (f)	TSOLID	%	63.8	44.4	48.2	41.1	41.3	40.4	46.1	47.3	41.8	56.2
Total Solids@70C	TSOLID70	%	69	50	50	41	42	40	46	50	43	58
Gravel	GS-Gravel	%	3.2	0.9	0.1	0	0	0	0	0	0	0.1
Sand, Coarse	GS-Csand	%	0.6	0.2	0	0.2	0.1	0	0.4	0.7	0	0
Sand, Medium	GS-Msand	%	30.1	1.3	8.5	0.6	0.8	0.6	8.0	8.0	0.2	8.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	46.89	38.06	30.74	7.412	20.94	14.52	23.04	37.31	16.11	53.32
Sand, Fine (#230) (d)	GS-Fsand	%	47.6	40.8	33.6	9.5	24.6	17.3	25.9	41.6	20.9	54.2
Silt (#200) (d)	GS-Silt-200	%	15.90	50.73	52.35	76.88	66.75	70.97	56.45	47.38	75.78	29.17

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B123	B124	B125	B126	B127	B128	B129	B130	B131	B132
		Sample ID	PDI-SG-B123-BL1	PDI-SG-B124-BL1	PDI-SG-B125-BL1	PDI-SG-B126-BL1	PDI-SG-B127-BL1	PDI-SG-B128-BL1	PDI-SG-B129-BL1	PDI-SG-B130-BL1	PDI-SG-B131-BL1	PDI-SG-B132-BL1
		Sample Date	11 Apr 2018	11 Apr 2018	11 Apr 2018	11 Apr 2018	12 Apr 2018	29 May 2018	29 May 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-25 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	15.2	48.0	49.5	74.8	63.1	68.2	53.6	43.1	71.0	28.3
Clay	GS-Clay	%	3.4	8.9	8.3	14.8	11.5	13.8	12.0	6.6	7.9	9.2
Percent Fines (e)	GS-FINES	%	19.3	59.63	60.65	91.68	78.25	84.77	68.45	53.98	83.68	38.37
Total Organic Carbon	TOC	mg/kg	7000	17000	14000	30000	24000	31000	26000	20000	24000	9600

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B133	B134	B135	B136	B137	B138	B139	B140	B141	B142
		Sample ID	PDI-SG-B133-BL1	PDI-SG-B134-BL1	PDI-SG-B135-BL1	PDI-SG-B136-BL1	PDI-SG-B137-BL1	PDI-SG-B138-BL1	PDI-SG-B139-BL1	PDI-SG-B140-BL1	PDI-SG-B141-BL1	PDI-SG-B142-BL1
		Sample Date	16 Apr 2018	12 Apr 2018	16 Apr 2018	11 Apr 2018	16 May 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.024	0.11	0.053	0.061	0.020	0.14	0.049	0.024	0.054	0.065
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0068 JN	0.010 JN	0.013 JN	0.012 JN	0.011	0.0082 J	0.0074 JN	0.0035 JN	0.0077 JN	0.011 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00040 U	< 0.00027 U	0.0013 J+	0.0018 J	0.00085 J+	< 0.00046 U	< 0.00027 U	< 0.00019 U	< 0.00042 U	< 0.00051 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00062 U	0.00086 J	0.00078 J+	0.00083 J+	< 0.00015 U	< 0.00051 U	0.00034 J+	0.00026 JN	< 0.00063 U	0.00068 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0022 J+	0.0014 J	0.0052 J	0.0058 J	0.0010 J+	0.0012 J	0.0030 J	0.0017 J	0.0012 J+	0.0012 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0015 J+	0.0030 J	0.0027 J	0.0024 J	0.0014 J	0.0025 J	0.0018 J	0.00098 J	0.0021 JN	0.0029 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0022 J+	0.0030 J	0.0044 J	0.0050 J	0.00067 J+	0.0028 J	0.0038 J	0.0025 J	0.0022 J+	< 0.0034 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0011 J+	0.0021 J	0.0019 J+	0.0017 J+	0.00086 JN	0.0011 JN	0.0013 J	0.00078 J	0.0014 J+	0.0018 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00020 U	< 0.00026 U	< 0.00024 U	< 0.00020 U	< 0.00071 U	< 0.00026 U	< 0.00013 U	< 0.00010 U	< 0.00021 U	< 0.00024 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00020 U	0.00053 J	< 0.00028 U	< 0.00028 U	0.00022 JN	< 0.0019 U	< 0.00023 U	< 0.00012 U	< 0.00027 U	< 0.00029 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0011 J+	< 0.00023 U	0.0026 J	0.0045 J	0.00028 J	< 0.00022 U	0.0017 J	0.0012 J	< 0.00020 U	< 0.00024 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00056 J+	< 0.00031 U	< 0.00026 U	0.00057 J+	< 0.00037 U	< 0.00026 U	0.00036 J	0.00025 J	< 0.00024 U	< 0.00025 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00053 JN	< 0.00022 U	0.00087 JN	0.0021 J	< 0.00012 U	< 0.00023 U	0.00061 J	0.00049 J	< 0.00023 U	< 0.00025 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00010 U	0.00019 JN	0.00030 JN	0.00024 JN	< 0.00016 U	< 0.00025 U	0.00017 JN	0.00013 JN	0.00018 JN	< 0.00015 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0010 J+	0.00066 J	0.0022	0.0048	0.00036 JN	0.00054 J	0.0017	0.0013	0.00072 J+	0.00079 J
OCDD	3268-87-9	µg/kg	0.20	0.73	0.38	0.49	0.16	0.85	0.39	0.20	0.43	0.51
OCDF	39001-02-0	µg/kg	0.014	0.027	0.031	0.033	0.018	0.016	0.021	0.0098	0.016	0.027
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0015	0.0033	0.0033	0.0042	0.0011	0.0035	0.0024	0.0015	0.0018	0.0018
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0014	0.0032	0.0027	0.0039	0.0008	0.0034	0.0023	0.0013	0.0014	0.0015
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0013	0.0031	0.0026	0.0038	0.00069	0.0024	0.0022	0.0012	0.0013	0.0013
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0016 JN	0.0035 J+	0.0040 J	0.0041 J	< 0.00072 U	0.016 JN	0.0072 JN	0.0024 JN	0.0043 J	0.0072 J
PCB-10	33146-45-1	ng/g	< 0.00037 U	0.0016 J	0.0012 JN	0.0012 JN	< 0.00068 U	0.0072 J	< 0.0010 U	0.0025 J	< 0.0032 U	0.0023 JN
PCB-103	60145-21-3	ng/g	0.00093 JN	0.0079 JN	0.0034 JN	0.0060 JN	0.0028 J	0.17	0.0065 J	0.0066 JN	0.0061 JN	0.010 J
PCB-104	56558-16-8	ng/g	< 0.00037 U	0.0014 JN	< 0.00067 U	< 0.00074 U	< 0.00059 U	0.020 J	< 0.0014 U	< 0.00068 U	< 0.00011 U	< 0.00090 U
PCB-105	32598-14-4	ng/g	0.048	0.074	0.087	0.093	0.033	0.51	0.098	0.059	0.14	0.089
PCB-106	70424-69-0	ng/g	< 0.00097 U	< 0.0014 U	< 0.0017 U	< 0.0011 U	< 0.00097 U	< 0.011 U	< 0.0020 U	< 0.0014 U	< 0.0011 U	< 0.0020 U
PCB-107	70424-68-9	ng/g	0.011 JN	0.020	0.022	0.022	0.0074 JN	0.12	0.020	0.019	0.029	0.028
PCB-108/124	70362-41-3	ng/g	0.0057 J	0.0063 J	0.0077 JN	0.0099 J	0.0039 J	0.073 J	0.0078 JN	0.0056 J	0.013 J	0.010 J
PCB-11	2050-67-1	ng/g	0.026	0.044	0.050 JN	0.068	0.029	0.045 J	0.045	0.021 JN	0.048 JN	0.059
PCB-110/115	38380-03-9	ng/g	0.15	0.28	0.26	0.28	0.12	3.6	0.32	0.27	0.49	0.31
PCB-111	39635-32-0	ng/g	< 0.00033 U	0.0019 J	< 0.00060 U	< 0.00066 U	< 0.00053 U	< 0.0012 U	< 0.0013 U	< 0.00060 U	< 0.00010 U	< 0.00080 U
PCB-112	74472-36-9	ng/g	0.0013 J	< 0.00063 U	0.0015 J	< 0.00072 U	< 0.00058 U	< 0.0013 U	< 0.0014 U	< 0.00066 U	< 0.00011 U	< 0.00088 U
PCB-114	74472-37-0	ng/g	< 0.00089 U	0.0032 JN	0.0057 J	0.0049 JN	< 0.00088 U	0.043 JN	0.0046 J	0.0027 JN	0.0064 J	< 0.0018 U
PCB-118	31508-00-6	ng/g	0.11	0.20	0.21	0.24	0.091	2.3	0.25	0.18	0.40	0.24
PCB-12/13	2974-92-7	ng/g	0.0014 JN	0.0046 J+	0.0048 J	0.0035 JN	< 0.00058 U	0.0028 JN	< 0.00089 U	< 0.00096 U	0.0034 JN	0.0041 JN
PCB-120	68194-12-7	ng/g	< 0.00032 U	0.0035 J	< 0.00059 U	0.0024 JN	< 0.00052 U	0.026 JN	0.0029 J	< 0.00060 U	< 0.00010 U	0.0028 JN
PCB-121	56558-18-0	ng/g	< 0.00035 U	0.0015 J	< 0.00064 U	< 0.00070 U	< 0.00057 U	< 0.0013 U	< 0.0013 U	< 0.00065 U	< 0.00011 U	< 0.00086 U
PCB-122	76842-07-4	ng/g	0.0019 JN	< 0.0015 U	0.0027 JN	0.0031 JN	0.0014 JN	< 0.012 U	< 0.0022 U	< 0.0015 U	0.0031 JN	< 0.0022 U
PCB-123	65510-44-3	ng/g	0.0014 JN	0.0030 J	0.0031 JN	0.0042 J	0.0022 J	0.026 J	0.0053 J	0.0032 JN	0.0048 J	0.0048 JN
PCB-126	57465-28-8	ng/g	< 0.00097 U	< 0.0013 U	< 0.0017 U	< 0.0011 U	< 0.00093 U	< 0.011 U	< 0.0020 U	< 0.0013 U	< 0.0012 U	< 0.0019 U
PCB-127	39635-33-1	ng/g	< 0.00093 U	< 0.0013 U	< 0.0017 U	< 0.0010 U	< 0.00093 U	< 0.011 U	< 0.0019 U	< 0.0013 U	< 0.0011 U	< 0.0019 U
PCB-128/166	38380-07-3	ng/g	0.033	0.063	0.070	0.076	0.029	2.9	0.060	0.050	0.10	0.084
PCB-129/138/160/163	55215-18-4	ng/g	0.22	0.46	0.46	0.53	0.22	37	0.41	0.34	0.73	0.62
PCB-130	52663-66-8	ng/g	0.015	0.029 JN	0.029 JN	0.035	0.010 JN	1.2	0.029	0.025 JN	0.046	0.038 JN
PCB-131	61798-70-7	ng/g	< 0.0011 U	< 0.0023 U	0.0043 J	0.0054 J	< 0.0017 U	< 0.057 U	0.0055 J	< 0.0012 U	0.0073 J	< 0.0022 U
PCB-132	38380-05-1	ng/g	0.057	0.13	0.13	0.15	0.066	9.0	0.13	0.10	0.22	0.17
PCB-133	35694-04-3	ng/g	0.0035 JN	0.0075 JN	0.0068 JN	0.0097 J	0.0039 J	0.42	0.0063 JN	0.0085 J	0.0089 JN	0.012
PCB-134/143	52704-70-8	ng/g	0.011 J	0.022 J	0.027 J	0.027	0.0078 JN	1.9	0.022 J	0.0087 JN	0.035	0.030
PCB-135/151	52744-13-5	ng/g	0.055	0.17	0.11	0.13	0.085	16	0.13	0.12 JN	0.19	0.20
PCB-136	38411-22-2	ng/g	0.021	0.059	0.038	0.050	0.030	4.5	0.047	0.045	0.067	0.061
PCB-137	35694-06-5	ng/g	0.0086 J	0.013 JN	0.018	0.018	0.0056 JN	0.30	0.019	0.0095 J	0.031	0.019 JN
PCB-139/140	56030-56-9	ng/g	0.0039 JN	0.0048 JN	0.0078 J	0.0086 J	< 0.0014 U	< 0.047 U	0.0091 J	0.0059 J	0.011 J	0.0067 JN
PCB-14	34883-41-5	ng/g	< 0.00028 U	< 0.00060 U	< 0.00049 U	< 0.00026 U	< 0.00053 U	< 0.0015 U	< 0.00082 U	< 0.00088 U	< 0.0025 U	< 0.00079 U
PCB-141	52712-04-6	ng/g	0.040	0.087	0.081	0.088	0.045	12	0.072	0.063	0.12	0.13
PCB-142	41411-61-4	ng/g	< 0.0010 U	< 0.0021 U	< 0.0019 U	< 0.0021 U	< 0.0016 U	< 0.054 U	< 0.0016 U	< 0.0012 U	< 0.0021 U	< 0.0021 U
PCB-144	68194-14-9	ng/g	0.0057 JN	0.019	0.0096 JN	0.0097 JN	0.011 JN	2.4	0.017	0.012 JN	0.022	0.021 JN
PCB-145	74472-40-5	ng/g	0.00017 J	< 0.00021 U	< 0.00017 U	< 0.00019 U	< 0.00018 U	< 0.00095 U	< 0.00010 U	0.00021 J	< 0.00013 U	< 0.00015 U
PCB-146	51908-16-8	ng/g	0.036	0.080	0.072	0.096	0.035	5.3	0.064	0.070	0.11	0.11
PCB-147/149	68194-13-8	ng/g	0.16	0.37	0.34	0.41	0.18	37	0.31	0.28	0.56	0.46
PCB-148	74472-41-6	ng/g	0.00057 JN	0.0020 J	< 0.00022 U	0.00070 JN	< 0.00025 U	< 0.0013 U	0.00080 JN	0.0011 JN	0.0013 JN	0.0016 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B133	B134	B135	B136	B137	B138	B139	B140	B141	B142
		Sample ID	PDI-SG-B133-BL1	PDI-SG-B134-BL1	PDI-SG-B135-BL1	PDI-SG-B136-BL1	PDI-SG-B137-BL1	PDI-SG-B138-BL1	PDI-SG-B139-BL1	PDI-SG-B140-BL1	PDI-SG-B141-BL1	PDI-SG-B142-BL1
		Sample Date	16 Apr 2018	12 Apr 2018	16 Apr 2018	11 Apr 2018	16 May 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0088 J	0.019	0.015 JN	0.022	0.0051 JN	0.022 JN	0.017 JN	0.015	0.019 JN	0.022
PCB-150	68194-08-1	ng/g	0.00042 JN	0.0019 JN	0.00038 JN	0.0014 J	0.00041 JN	0.074	0.0010 JN	0.00047 JN	0.00077 JN	0.0011 JN
PCB-152	68194-09-2	ng/g	< 0.000053 U	< 0.00020 U	< 0.00016 U	< 0.00018 U	< 0.00018 U	0.018 JN	< 0.000099 U	< 0.00015 U	< 0.00014 U	< 0.00015 U
PCB-153/168	35065-27-1	ng/g	0.18	0.41	0.37	0.44	0.21	42	0.34	0.32	0.56	0.58
PCB-154	60145-22-4	ng/g	0.0018 JN	0.012	0.0047 JN	0.0092 J	0.0030 J	0.32	0.0041 JN	0.010	0.0097 J	0.011 J
PCB-155	33979-03-2	ng/g	< 0.000051 U	0.00054 J	< 0.00015 U	< 0.00017 U	< 0.00017 U	< 0.00087 U	< 0.000094 U	< 0.00015 U	< 0.00013 U	< 0.00014 U
PCB-156/157	38380-08-4	ng/g	0.026	0.044	0.044	0.049	0.018 J	2.6	0.046	0.029	0.067	0.056
PCB-158	74472-42-7	ng/g	0.020	0.040	0.037 JN	0.045	0.018	3.7	0.040	0.028	0.066	0.050 JN
PCB-159	39635-35-3	ng/g	0.0025 J	0.0066 J	0.0043 J	0.0058 J	0.0035 J	0.93	0.0024 JN	0.0034 JN	< 0.0014 U	0.0080 J
PCB-16	38444-78-9	ng/g	0.010 JN	0.014	0.014	0.013 JN	0.010	0.013 JN	0.014	0.018	0.011 JN	0.015
PCB-161	74472-43-8	ng/g	< 0.00066 U	< 0.0014 U	< 0.0012 U	< 0.0014 U	< 0.0010 U	< 0.035 U	< 0.0010 U	< 0.00076 U	< 0.0014 U	< 0.0014 U
PCB-162	39635-34-2	ng/g	0.00083 JN	0.0017 JN	< 0.0012 U	< 0.0013 U	< 0.00097 U	< 0.033 U	0.0019 J	0.0018 JN	< 0.0014 U	< 0.0013 U
PCB-164	74472-45-0	ng/g	0.016	0.034	0.032	0.037	0.016	2.8	0.031	0.028	0.046	0.048
PCB-165	74472-46-1	ng/g	< 0.00076 U	< 0.0016 U	< 0.0014 U	< 0.0016 U	< 0.0012 U	< 0.040 U	< 0.0012 U	< 0.00087 U	< 0.0016 U	< 0.0016 U
PCB-167	52663-72-6	ng/g	0.0073 JN	0.016	0.014	0.016	0.0069 J	0.97	0.015	0.011	0.022	0.020
PCB-169	32774-16-6	ng/g	< 0.00052 U	< 0.0010 U	< 0.00091 U	< 0.0012 U	< 0.00080 U	< 0.026 U	< 0.00078 U	< 0.00058 U	< 0.0011 U	< 0.0010 U
PCB-17	37680-66-3	ng/g	0.012	0.020 JN	0.015 JN	0.023	0.0069 JN	0.042 J	0.022	0.021	0.020	0.018
PCB-170	35065-30-6	ng/g	0.053	0.16	0.12	0.16	0.079	22	0.11	0.11	0.14	0.19
PCB-171/173	52663-71-5	ng/g	0.020	0.044	0.038	0.044	0.025	7.2	0.036	0.036	0.039	0.057
PCB-172	52663-74-8	ng/g	0.010 JN	0.025 JN	0.019	0.029	0.015	3.9	0.018 JN	0.020	0.020	0.028 JN
PCB-174	38411-25-5	ng/g	0.060 JN	0.15	0.13	0.16	0.093	25	0.12	0.14	0.13	0.19
PCB-175	40186-70-7	ng/g	0.0025 J	0.0036 JN	0.0028 JN	0.0066 JN	0.0012 JN	1.0	0.0037 JN	0.0047 JN	0.0030 JN	0.0089 J
PCB-176	52663-65-7	ng/g	0.0067 J	0.017 JN	0.012 JN	0.017	0.011	2.8	0.015	0.015	0.015	0.020 JN
PCB-177	52663-70-4	ng/g	0.041	0.099	0.076	0.10	0.053	13	0.072	0.078	0.074	0.12
PCB-178	52663-67-9	ng/g	0.012	0.028 JN	0.025	0.036	0.019	4.3	0.030	0.030	0.028	0.044
PCB-179	52663-64-6	ng/g	0.027	0.065	0.054	0.070	0.041	9.8	0.053	0.061	0.063	0.086
PCB-18/30	37680-65-2	ng/g	0.020	0.034	0.029	0.034	0.017 J	0.024 JN	0.035	0.039	0.037	0.028 JN
PCB-180/193	35065-29-3	ng/g	0.12	0.32	0.25	0.36	0.21	52	0.24	0.25	0.26	0.42
PCB-181	74472-47-2	ng/g	< 0.000058 U	< 0.00040 U	0.0013 JN	0.0031 JN	< 0.00068 U	< 0.0024 U	< 0.00026 U	< 0.000067 U	< 0.00035 U	< 0.00045 U
PCB-182	60145-23-5	ng/g	< 0.000055 U	< 0.00038 U	< 0.000036 U	0.0020 JN	< 0.00065 U	< 0.0023 U	0.0018 JN	0.0012 JN	< 0.00034 U	< 0.00042 U
PCB-183/185	52663-69-1	ng/g	0.042	0.097	0.073	0.10	0.063	17	0.077	0.081	0.090	0.13
PCB-184	74472-48-3	ng/g	0.00054 J	< 0.00033 U	< 0.000031 U	0.0013 J	< 0.00055 U	< 0.0019 U	< 0.00021 U	< 0.000055 U	< 0.00029 U	< 0.00036 U
PCB-186	74472-49-4	ng/g	< 0.000045 U	< 0.00032 U	< 0.000030 U	< 0.00028 U	< 0.00053 U	< 0.0019 U	< 0.00020 U	< 0.000053 U	< 0.00028 U	< 0.00035 U
PCB-187	52663-68-0	ng/g	0.079	0.20	0.15	0.20	0.12	26	0.16	0.17	0.17	0.25
PCB-188	74487-85-7	ng/g	< 0.000040 U	< 0.00029 U	< 0.000026 U	< 0.00024 U	< 0.00050 U	< 0.0017 U	< 0.00018 U	< 0.000049 U	< 0.00023 U	< 0.00032 U
PCB-189	39635-31-9	ng/g	0.0023 JN	0.0052 J	0.0042 JN	0.0099 J	0.0032 J	0.81	0.0042 JN	0.0047 J	0.0039 JN	0.0068 J
PCB-19	38444-73-4	ng/g	0.0062 JN	0.027 JN	0.010 J	0.016	0.0050 JN	0.18	0.012 JN	0.017	0.019 JN	0.026
PCB-190	41411-64-7	ng/g	0.010 JN	0.032	0.026	0.035	0.014 JN	4.4	0.023	0.023	0.022	0.036
PCB-191	74472-50-7	ng/g	0.0017 JN	0.0029 JN	0.0049 J	0.0070 JN	0.0027 JN	1.2	0.0037 JN	0.0048 J	0.0037 J	0.0086 J
PCB-192	74472-51-8	ng/g	< 0.000046 U	< 0.00032 U	< 0.000030 U	< 0.00028 U	< 0.00054 U	< 0.0019 U	< 0.00020 U	< 0.000054 U	< 0.00029 U	< 0.00036 U
PCB-194	35694-08-7	ng/g	0.029	0.092	0.061	0.16	0.063	11	0.055	0.054 JN	0.067	0.099
PCB-195	52663-78-2	ng/g	0.014	0.033	0.025	0.060	0.021	4.9	0.024 JN	0.025	0.026	0.044
PCB-196	42740-50-1	ng/g	0.011	0.033 JN	0.021 JN	0.040	0.032	5.1	0.025 JN	0.036	0.021	0.046
PCB-197	33091-17-7	ng/g	0.00044 JN	0.0022 JN	0.0017 JN	0.0024 JN	0.0023 JN	0.42	0.0017 JN	0.0016 J	0.0027 J	0.0029 JN
PCB-198/199	68194-17-2	ng/g	0.029	0.097	0.071	0.10	0.086	9.6	0.069	0.080	0.079	0.12
PCB-2	2051-61-8	ng/g	0.0025 JN	0.010 J	0.0052 J	0.011 J	0.0025 JN	0.015 J	0.0077 JN	0.005 J+	0.0064 J	0.011 JN
PCB-20/28	38444-84-7	ng/g	0.054	0.087	0.087	0.10	0.042	0.083 J	0.085	0.10	0.081	0.089
PCB-200	52663-73-7	ng/g	0.0042 J	0.0079 JN	0.0073 J	0.0098 JN	0.0065 JN	1.3	0.0094 J	0.0097 JN	0.0044 JN	0.014
PCB-201	40186-71-8	ng/g	0.0042 J	0.0083 J	0.0062 JN	0.0099 J	0.010	1.3	0.0052 JN	0.0089 J	0.0080 J	0.011 JN
PCB-202	2136-99-4	ng/g	0.0062 JN	0.019	0.016 JN	0.024	0.021	1.6	0.012 JN	0.017	0.014 JN	0.024
PCB-203	52663-76-0	ng/g	0.016 JN	0.057	0.042	0.061	0.050	6.0	0.037 JN	0.051	0.034 JN	0.072
PCB-204	74472-52-9	ng/g	< 0.000054 U	< 0.00028 U	< 0.00028 U	< 0.00036 U	< 0.00045 U	< 0.0042 U	< 0.00021 U	< 0.00022 U	< 0.00012 U	< 0.00033 U
PCB-205	74472-53-0	ng/g	0.0029 J	0.0029 JN	0.0033 J	0.0089 J	0.0026 J	0.62	0.0024 JN	0.0026 JN	0.0040 J	0.0048 JN
PCB-206	40186-72-9	ng/g	0.035	0.20 JN	0.057	0.27 JN	0.18	3.7 JN	0.16 JN	0.065	0.16	0.22 JN
PCB-207	52663-79-3	ng/g	0.0016 J	0.0083 J	0.0063 J	0.0096 J	0.0095 JN	0.25 JN	0.0040 JN	0.0072 J	0.010	0.010 J
PCB-208	52663-77-1	ng/g	0.0092 J	0.053	0.018	0.038	0.058	0.37	0.014	0.020	0.061	0.075
PCB-209	2051-24-3	ng/g	0.037	0.14	0.061	0.10	0.23	0.11	0.045 JN	0.063	0.20	0.19
PCB-21/33	55702-46-0	ng/g	0.024	0.033	0.034	0.037	0.016 J	0.038 J	0.034	0.040	0.033	0.034 JN
PCB-22	38444-85-8	ng/g	0.016	0.026	0.025	0.029	0.013	0.021 J	0.025	0.023	0.021	0.024
PCB-23	55720-44-0	ng/g	< 0.00072 U	< 0.00099 U	< 0.00090 U	< 0.00070 U	< 0.00098 U	< 0.0036 U	< 0.0014 U	< 0.00094 U	< 0.00070 U	< 0.0010 U
PCB-24	55702-45-9	ng/g	< 0.000066 U	0.00064 J	< 0.00020 U	< 0.00022 U	< 0.00014 U	< 0.00042 U	< 0.00041 U	< 0.00029 U	< 0.00041 U	< 0.00022 U
PCB-25	55712-37-3	ng/g	0.0058 J	0.0084 JN	0.0085 J	0.010 J	0.0028 JN	0.012 J	0.0083 J	0.0091 J	0.0075 J	0.0097 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B133	B134	B135	B136	B137	B138	B139	B140	B141	B142
		Sample ID	PDI-SG-B133-BL1	PDI-SG-B134-BL1	PDI-SG-B135-BL1	PDI-SG-B136-BL1	PDI-SG-B137-BL1	PDI-SG-B138-BL1	PDI-SG-B139-BL1	PDI-SG-B140-BL1	PDI-SG-B141-BL1	PDI-SG-B142-BL1
		Sample Date	16 Apr 2018	12 Apr 2018	16 Apr 2018	11 Apr 2018	16 May 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0098 J	0.014 JN	0.016 J	0.018 J	0.0079 J	0.014 J	0.014 JN	0.014 J	0.012 J	0.016 J
PCB-27	38444-76-7	ng/g	0.0018 JN	0.0070 J	0.0032 JN	0.0049 JN	0.0013 JN	0.013 JN	0.0046 J+	0.0050 J	0.0044 J	0.0063 J
PCB-3	2051-62-9	ng/g	0.0023 JN	0.0059 J	0.0031 JN	0.0043 J	< 0.00083 U	0.0075 JN	0.0062 J	0.0029 J	0.0030 J	0.0062 JN
PCB-31	16606-02-3	ng/g	0.041	0.061	0.064	0.071	0.031	0.045 JN	0.064	0.058	0.059	0.061
PCB-32	38444-77-8	ng/g	0.0071 JN	0.016	0.012 J	0.011 J	0.0078 J	0.014 JN	0.017	0.013	0.014	0.014
PCB-34	37680-68-5	ng/g	< 0.00075 U	< 0.0010 U	< 0.00093 U	< 0.00072 U	< 0.0010 U	< 0.0037 U	< 0.0015 U	< 0.00097 U	< 0.00072 U	< 0.0011 U
PCB-35	37680-69-6	ng/g	0.0015 J	0.0029 J+	0.0028 J	0.0031 J	< 0.00097 U	< 0.0036 U	< 0.0014 U	< 0.00092 U	0.0019 J	0.0019 J+
PCB-36	38444-87-0	ng/g	< 0.00065 U	< 0.00089 U	< 0.00081 U	< 0.00063 U	< 0.00088 U	< 0.0032 U	< 0.0013 U	< 0.00084 U	< 0.00068 U	< 0.00093 U
PCB-37	38444-90-5	ng/g	0.014	0.030	0.029	0.032	0.013	0.027 J	0.028	0.031	0.025	0.029
PCB-38	53555-66-1	ng/g	< 0.00070 U	< 0.00096 U	< 0.00088 U	< 0.00068 U	< 0.00096 U	< 0.0035 U	< 0.0014 U	< 0.00091 U	< 0.00073 U	< 0.0010 U
PCB-39	38444-88-1	ng/g	< 0.00064 U	< 0.00088 U	< 0.00080 U	< 0.00062 U	< 0.00087 U	< 0.0032 U	< 0.0013 U	< 0.00083 U	< 0.00065 U	< 0.00092 U
PCB-4	13029-08-8	ng/g	0.0080 JN	0.017 J	0.017 J	0.019 J	0.0035 JN	0.058 JN	0.018 J	0.012 JN	0.017 J	0.020 JN
PCB-40/41/71	38444-93-8	ng/g	0.036	0.052	0.058 JN	0.075	0.026 J	0.11 J	0.051	0.061	0.043	0.054
PCB-42	36559-22-5	ng/g	0.018	0.019 JN	0.027 JN	0.039	0.013	0.033 JN	0.026	0.033 JN	0.020	0.027
PCB-43/73	70362-46-8	ng/g	< 0.00079 U	0.0056 J	< 0.0020 U	0.0072 J	< 0.00070 U	0.025 JN	0.0067 JN	0.0062 J	0.0052 J	0.0056 J
PCB-44/47/65	41464-39-5	ng/g	0.076	0.16	0.15	0.19	0.054	0.90	0.14	0.14	0.15	0.16
PCB-45/51	70362-45-7	ng/g	0.014 J	0.039	0.025 J	0.036	0.010 J	0.21	0.025	0.028	0.026	0.035
PCB-46	41464-47-5	ng/g	0.0033 JN	0.0043 JN	0.0050 JN	0.0070 JN	0.0030 J	< 0.0087 U	0.0073 J	0.0067 J	0.0041 J	0.0037 JN
PCB-48	70362-47-9	ng/g	0.011 JN	0.014	0.018 JN	0.025	0.0083 J	0.024 JN	0.016 JN	0.022	0.012	0.016
PCB-49/69	41464-40-8	ng/g	0.047	0.089	0.090	0.12	0.032	0.40	0.088	0.10	0.076	0.097
PCB-5	16605-91-7	ng/g	< 0.00034 U	< 0.00071 U	< 0.00059 U	0.00052 JN	< 0.00063 U	< 0.0017 U	< 0.00098 U	< 0.0011 U	< 0.0033 U	< 0.00095 U
PCB-50/53	62796-65-0	ng/g	0.011 J	0.025 JN	0.024 J	0.032	0.0077 J	0.11	0.025	0.024	0.018 JN	0.031
PCB-52	35693-99-3	ng/g	0.10	0.16	0.19	0.23	0.072	0.35	0.19	0.16	0.24	0.19
PCB-54	15968-05-5	ng/g	< 0.00011 U	0.010 J	0.0023 JN	0.0031 JN	< 0.000075 U	0.034 JN	0.00070 JN	0.0027 JN	0.0031 JN	0.0066 JN
PCB-55	74338-24-2	ng/g	< 0.00060 U	< 0.0011 U	0.0025 J	0.0020 JN	< 0.00053 U	< 0.0048 U	< 0.0011 U	< 0.0011 U	0.0024 J	0.0029 JN
PCB-56	41464-43-1	ng/g	0.029	0.040	0.054	0.066	0.022	0.054	0.048	0.057	0.037	0.047
PCB-57	70424-67-8	ng/g	< 0.00061 U	< 0.0012 U	< 0.0016 U	< 0.00048 U	< 0.00054 U	< 0.0049 U	< 0.0012 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
PCB-58	41464-49-7	ng/g	0.0015 J	< 0.0011 U	< 0.0015 U	0.00086 JN	< 0.00052 U	< 0.0047 U	< 0.0011 U	0.0052 J	< 0.0011 U	< 0.0011 U
PCB-59/62/75	74472-33-6	ng/g	0.0062 J	0.0090 J	0.013 J	0.014 J	0.0040 J	0.032 J	0.011 J	0.0098 JN	0.0064 JN	0.0087 JN
PCB-6	25569-80-6	ng/g	0.0042 J	0.0060 J	0.0065 J	0.0061 J	0.0024 J+	0.0083 J	0.0062 J	0.0054 J	0.0062 JN	0.0075 JN
PCB-60	33025-41-1	ng/g	0.013	0.014 JN	0.023	0.024	0.0097 J	0.016 JN	0.019	0.014	0.015	0.019 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.12	0.18	0.21	0.27	0.083	0.36	0.22	0.21	0.22	0.21
PCB-63	74472-34-7	ng/g	0.0015 JN	0.0029 JN	0.0041 J	0.0055 JN	0.0018 J	< 0.0043 U	0.0039 J	0.0048 JN	0.0033 J	0.0058 J
PCB-64	52663-58-8	ng/g	0.026	0.039	0.050	0.058	0.020	0.081	0.043	0.051	0.036 JN	0.041
PCB-66	32598-10-0	ng/g	0.068	0.11	0.13	0.16	0.048	0.22	0.13	0.15	0.10	0.13
PCB-67	73575-53-8	ng/g	0.0024 JN	< 0.0011 U	< 0.0014 U	0.0039 JN	0.0012 JN	< 0.0045 U	0.0039 J	0.0031 J	< 0.00092 U	< 0.0010 U
PCB-68	73575-52-7	ng/g	0.0018 J	0.0026 JN	< 0.0014 U	0.0049 J+	< 0.00047 U	0.012 JN	0.0040 J+	< 0.00097 U	< 0.00094 U	0.0031 J
PCB-7	33284-50-3	ng/g	< 0.00032 U	0.0013 JN	0.0020 J	0.0015 JN	< 0.00060 U	< 0.0016 U	< 0.00092 U	< 0.00099 U	< 0.0029 U	< 0.00090 U
PCB-72	41464-42-0	ng/g	0.0016 J	< 0.0011 U	< 0.0015 U	0.0037 J	< 0.00053 U	< 0.0048 U	0.0026 J	0.0042 J	< 0.0010 U	0.0024 J
PCB-77	32598-13-3	ng/g	0.0070 JN	0.013	0.017	0.016	0.0048 JN	< 0.0045 U	0.014	0.015	0.0095 J	0.014
PCB-78	70362-49-1	ng/g	< 0.00059 U	< 0.0011 U	< 0.0015 U	< 0.00046 U	< 0.00052 U	< 0.0047 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0011 U
PCB-79	41464-48-6	ng/g	0.0017 J	0.0015 JN	< 0.0013 U	0.0033 J	< 0.00045 U	0.015 J	< 0.00096 U	0.0016 JN	0.0026 J	0.0014 JN
PCB-8	34883-43-7	ng/g	0.011 J	0.019 JN	0.020 JN	0.020 J	0.0059 JN	0.028 J	0.019 J	0.018 J	0.024 JN	0.022 J
PCB-80	33284-52-5	ng/g	< 0.00052 U	< 0.0010 U	< 0.0013 U	< 0.00041 U	< 0.00046 U	< 0.0042 U	< 0.0010 U	< 0.00095 U	< 0.00092 U	< 0.00094 U
PCB-81	70362-50-4	ng/g	< 0.00055 U	< 0.0011 U	< 0.0015 U	< 0.00044 U	< 0.00050 U	< 0.0044 U	< 0.0011 U	< 0.0010 U	< 0.0010 U	< 0.0010 U
PCB-82	52663-62-4	ng/g	0.010 JN	0.029	0.021 JN	0.025 JN	0.014	0.11 JN	0.031	0.023 JN	0.045	0.030
PCB-83/99	60145-20-2	ng/g	0.078 JN	0.17	0.15	0.17	0.066	2.4	0.18	0.17	0.23	0.18
PCB-84	52663-60-2	ng/g	0.031	0.057	0.060	0.058	0.025	0.28	0.061	0.053	0.097	0.059
PCB-85/116/117	65510-45-4	ng/g	0.026 J	0.042 JN	0.043	0.045	0.020 J	0.16 JN	0.050	0.040	0.069	0.037 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.080	0.15	0.15	0.16	0.068	1.3	0.17	0.13	0.27	0.16
PCB-88/91	55215-17-3	ng/g	0.023	0.047	0.038	0.045	0.017 J	1.1	0.042	0.041	0.059	0.048
PCB-89	73575-57-2	ng/g	0.0020 JN	0.0034 JN	0.0025 J	0.0018 JN	< 0.00088 U	< 0.0020 U	< 0.0021 U	0.0019 J	< 0.00016 U	0.0030 JN
PCB-9	34883-39-1	ng/g	0.0014 JN	0.0017 J	0.0024 JN	0.0015 JN	< 0.00070 U	< 0.0019 U	< 0.0011 U	< 0.0012 U	< 0.0030 U	0.0022 J
PCB-90/101/113	68194-07-0	ng/g	0.13	0.27	0.23	0.27	0.13	8.0	0.30	0.24	0.44	0.31
PCB-92	52663-61-3	ng/g	0.030	0.058	0.047	0.056	0.025	1.1	0.060	0.059	0.075	0.068
PCB-93/100	73575-56-1	ng/g	0.0053 JN	0.026	0.0091 J	0.010 JN	0.0018 J	0.36	0.0054 JN	0.0068 JN	0.0078 JN	0.016 JN
PCB-94	73575-55-0	ng/g	< 0.00055 U	0.0029 JN	< 0.0010 U	0.0028 JN	< 0.00088 U	0.080 JN	0.0036 J	0.0023 J	< 0.00016 U	0.0025 JN
PCB-95	38379-99-6	ng/g	0.095	0.21	0.18	0.20	0.089 JN	3.6	0.22	0.16 JN	0.36	0.24
PCB-96	73575-54-9	ng/g	< 0.00041 U	0.0038 J	< 0.00075 U	0.0031 JN	< 0.00066 U	0.048 J	< 0.0016 U	0.0032 J	< 0.00012 U	0.0023 JN
PCB-98/102	60233-25-2	ng/g	0.0032 JN	0.0086 JN	0.0036 JN	0.0074 JN	0.0037 J	0.24	0.010 J	0.0069 JN	0.0096 JN	0.012 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	3.3	7.3	6.4	8.2	3.9	449	6.7	6.1	9.0	8.8

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B133	B134	B135	B136	B137	B138	B139	B140	B141	B142
		Sample ID	PDI-SG-B133-BL1	PDI-SG-B134-BL1	PDI-SG-B135-BL1	PDI-SG-B136-BL1	PDI-SG-B137-BL1	PDI-SG-B138-BL1	PDI-SG-B139-BL1	PDI-SG-B140-BL1	PDI-SG-B141-BL1	PDI-SG-B142-BL1
		Sample Date	16 Apr 2018	12 Apr 2018	16 Apr 2018	11 Apr 2018	16 May 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 1.1 U	< 0.57 UJ	< 1.3 U	0.94 J	0.25 J	0.37 J	0.94	0.67	< 1.0 U	0.41 J
2,4-DDE	3424-82-6	µg/kg	< 1.1 U	< 0.57 UJ	< 1.3 U	< 0.64 UJ	< 0.34 U	< 0.48 U	< 0.60 U	< 0.42 U	< 1.0 U	< 0.62 U
2,4-DDT	789-02-6	µg/kg	< 1.1 U	< 0.57 UJ	< 1.3 U	< 0.64 UJ	0.56 J	< 0.48 U	< 0.60 U	< 0.47 U	< 1.0 U	< 0.62 U
4,4'-DDD	72-54-8	µg/kg	0.88 J	1.3 J	2.3	3.0 J	0.58	0.82	2.5	2.0	1.2	1.1
4,4'-DDE	72-55-9	µg/kg	1.3	2.2 J	3.0	2.8 J	1.5	1.5	2.7	1.7	1.6	2.2
4,4'-DDT	50-29-3	µg/kg	< 1.1 U	0.29 J	0.78 J	0.55 J	0.60 J	0.24 J	0.44 J	0.36 J	< 1.0 U	< 0.62 U
Total DDx (b)	T_DDx (PDI)	µg/kg	2.7	4.1	6.7	7.6	3.7	3.2	6.9	5.0	3.3	4.0
Aldrin	309-00-2	µg/kg	1.7	< 0.57 UJ	< 1.3 U	< 0.64 UJ	0.39	< 0.48 U	< 0.60 U	< 0.42 U	< 1.0 U	< 0.62 U
alpha-Chlordane	5103-71-9	µg/kg	< 2.1 U	< 1.1 UJ	< 2.7 U	< 1.3 UJ	< 0.68 U	< 0.96 U	< 1.2 U	< 0.84 U	< 2.0 U	< 1.2 U
cis-Nonachlor	5103-73-1	µg/kg	< 1.1 U	< 0.57 UJ	< 1.3 U	< 0.64 UJ	< 0.34 U	< 0.49 U	< 0.60 U	< 0.49 U	< 1.0 U	< 0.62 U
Dieldrin	60-57-1	µg/kg	< 2.1 UJ	< 1.1 UJ	< 2.7 UJ	0.51 J	< 0.68 U	< 1.0 U	< 1.2 U	< 1.0 U	< 2.0 U	< 1.2 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 1.1 U	0.19 J	< 1.3 U	< 0.64 UJ	< 0.34 U	< 0.48 U	< 0.60 U	< 0.42 U	< 1.0 U	< 0.62 U
gamma-Chlordane	5566-34-7	µg/kg	< 2.1 U	< 1.1 UJ	< 2.7 U	< 1.3 UJ	< 0.68 U	< 0.96 U	< 1.2 U	< 0.84 U	< 2.0 U	< 1.2 U
Heptachlor	76-44-8	µg/kg	< 1.1 U	< 0.57 UJ	< 1.3 U	< 0.64 UJ	< 0.34 U	< 0.48 UJ	< 0.60 U	< 0.42 U	< 1.0 U	< 0.62 UJ
Oxychlordane	27304-13-8	µg/kg	< 2.1 U	< 1.1 UJ	< 2.7 U	< 1.3 UJ	< 0.68 U	< 1.0 U	< 1.2 U	< 1.0 U	< 2.0 U	< 1.2 U
trans-Nonachlor	39765-80-5	µg/kg	< 2.1 U	< 1.1 UJ	< 2.7 U	< 1.3 UJ	< 0.68 U	< 0.96 U	< 1.2 U	< 0.84 U	< 2.0 U	< 1.2 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2.1 U	< 1.1 UJ	< 2.7 U	< 1.3 UJ	< 0.68 U	< 1 U	< 1.2 U	< 1 U	< 2 U	< 1.2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	4.5	4.0	5.5	5.2	74	11	14	6.4 J	3.9	5.0
Acenaphthene	83-32-9	µg/kg	9.8	7.5	19	12	170	720	20	510	9.6	6.9
Acenaphthylene	208-96-8	µg/kg	2.6	4.4	4.6	9.5	52	10	12	55	40	3.4
Anthracene	120-12-7	µg/kg	9.3	10	18	27	110	46	30	140	24	9.1
Benz(a)anthracene	56-55-3	µg/kg	35	32	54	78	610	110	100	430	260	32
Benzo(a)pyrene	50-32-8	µg/kg	65	59	140	140	910	130	210	570	420	56
Benzo(b)fluoranthene	205-99-2	µg/kg	44	50	76	100	740	170	140	480	430	49
Benzo(g,h,i)perylene	191-24-2	µg/kg	45	43 J	85	110	550 J	90	160 J	500	440	41
Benzo(k)fluoranthene	207-08-9	µg/kg	15	15	25	39	250	55	49	160	120	17
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	61 J	100 J	81 J	81 J	27 J	63 J	72 J	35 J	84 J	91 J
Chrysene	218-01-9	µg/kg	46	48	78	110	760	210	150	550	310	50
Dibenz(a,h)anthracene	53-70-3	µg/kg	6.1	7.5	13	16	63	24	28	53	67	7.6
Fluoranthene	206-44-0	µg/kg	80	72	170	150	1700	250	200	1300	250	68
Fluorene	86-73-7	µg/kg	7.6	8.9	12	11	92	630	16	220	8.5	6.2
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	38	38	76	100	490	93	140	450	380	37
Naphthalene	91-20-3	µg/kg	8.2	7.5	9.8	13	220	10	29	23	8.5	10
Phenanthrene	85-01-8	µg/kg	53	44	89	79	560	360	110	1900	77	36
Pyrene	129-00-0	µg/kg	99	85	200	200	2400	250	280	2000	410	77
Total PAHs (b)	T_PAH (PDI)	µg/kg	568	536	1075	1200	9751	3169	1688	9347	3259	511
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	83	79	174	184	1160	192	277	761	596	76
Metals												
Arsenic	7440-38-2	mg/kg	4.0	5.5	6.0	5.0	4.3 J	4.0	5.3	4.8	4.1	4.3
Cadmium	7440-43-9	mg/kg	0.095 J	0.21 J	0.16 J	0.24 J	0.20	0.21 J	0.18 J	0.15 J	0.20 J	0.23 J
Copper	7440-50-8	mg/kg	27	41	43	39	31	30	39	27	30	35
Lead	7439-92-1	mg/kg	6.8	12	11	11	8.3 J	8.8	11	8.3	9.3	9.8
Mercury	7439-97-6	mg/kg	0.025 J	0.12	0.052 J	0.057	0.030 J	0.054	0.065	0.040 J	0.046 J	0.062
Tri-n-butyltin	36643-28-4	µg/kg	< 2.1 U	6.4	< 2.7 U	1.9 J	< 1.7 U	7.5	1.8 J	7.6	18	5.9
Zinc	7440-66-6	mg/kg	71	100	100	100	75 J	86	96	78	77	86
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 99 U	57 J	39 J	61 J	130	48 J	55 J	41 J	< 92 U	55 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	120	360	210	350	310	250	330	130	180	310
Other												
Total Solids@104C - D2216 (f)	TSOLID	%					57.8				51.8	
Total Solids@104C - E160.3 (f)	TSOLID	%	48.7	43.6	35.0	40.4		50.4	41.9	59.0		40.1
Total Solids@104C - E160.3M (f)	TSOLID	%	46.3	42.9	37.0	38.9	58.4	51.8	41.4	58.7	48.5	39.8
Total Solids@70C	TSOLID70	%	51	43	38	39	60	53	42	59		41
Gravel	GS-Gravel	%	0	0	0	0	4.0	0	0	2.4	0	0
Sand, Coarse	GS-Csand	%	0.6	0	0	0	0.6	0.1	0	1.4	0.4	0
Sand, Medium	GS-Msand	%	23.7	0.1	0.1	0.6	5.8	11.1	0.3	23.5	15.2	0.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	27.15	16.03	3.925	11.9	26.67	36.1	16.98	33.7	29.16	15.02
Sand, Fine (#230) (d)	GS-Fsand	%	27.8	20.8	5.3	14.4	29.5	40.2	21.9	35.0	32.8	18.7
Silt (#200) (d)	GS-Silt-200	%	38.94	73.16	79.07	75.49	49.72	41.89	70.31	31.59	44.93	67.57

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B133	B134	B135	B136	B137	B138	B139	B140	B141	B142
		Sample ID	PDI-SG-B133-BL1	PDI-SG-B134-BL1	PDI-SG-B135-BL1	PDI-SG-B136-BL1	PDI-SG-B137-BL1	PDI-SG-B138-BL1	PDI-SG-B139-BL1	PDI-SG-B140-BL1	PDI-SG-B141-BL1	PDI-SG-B142-BL1
		Sample Date	16 Apr 2018	12 Apr 2018	16 Apr 2018	11 Apr 2018	16 May 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	11 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	38.3	68.4	77.7	73.0	46.9	37.8	65.4	30.3	41.3	63.9
Clay	GS-Clay	%	9.5	10.6	16.9	12.0	13.2	10.9	12.5	7.5	10.3	16.6
Percent Fines (e)	GS-FINES	%	48.44	83.76	95.97	87.49	62.92	52.79	82.81	39.09	55.23	84.17
Total Organic Carbon	TOC	mg/kg	16000	23000	33000	26000	11000	16000	21000	8300	15000	24000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B143	B144	B145	B146	B147	B148	B149	B150	B151	B152
		Sample ID	PDI-SG-B143-BL1	PDI-SG-B144-BL1	PDI-SG-B145-BL1	PDI-SG-B146-BL1	PDI-SG-B147-BL1	PDI-SG-B148-BL1	PDI-SG-B149-BL1	PDI-SG-B150-BL1	PDI-SG-B151-BL1	PDI-SG-B152-BL1
		Sample Date	14 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	14 Apr 2018	14 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-30 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-21 cm	0-25 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.019	0.034	0.10	0.084	0.081	0.095	0.087	0.030	0.043	0.057
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0037	0.0049 JN	0.014 JN	0.012 J	0.0097 JN	0.013 JN	0.014	0.0049	0.0081	0.0092
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00017 U	0.00057 J	< 0.00067 U	< 0.0011 U	0.0010 JN	< 0.00099 U	0.0014 J	< 0.00020 U	< 0.00024 U	0.0010 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00037 J+	0.00037 J+	0.00097 J+	< 0.00050 U	0.00094 J	0.00094 J+	0.00079 J	0.00034 JN	0.00045 J+	0.00054 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00061 JN	0.0022 J	0.0019 J	< 0.0011 U	0.0053 J	0.0017 J	0.0050 J	0.00056 JN	0.0010 J	0.0035 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00090 J	0.0012 J	0.0035 J	< 0.00057 U	0.0026 J	0.0039 J	0.0031 J	0.0014 J	0.0026 J	0.0026 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.00098 U	0.0021 J	0.0044 J	< 0.0011 U	0.0040 J	< 0.0057 U	0.0038 J	< 0.0013 U	0.0032 J	0.0024 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00055 J	0.00082 J	0.0020 JN	< 0.00048 U	0.0018 J	0.0022 J	0.0018 J	0.00085 J	0.0010 J	0.0011 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.000082 U	0.00029 J	< 0.00029 U	< 0.0011 U	0.00023 J	< 0.00029 U	< 0.00031 U	< 0.00011 U	< 0.00023 U	0.00065 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00013 U	< 0.00016 U	< 0.00033 U	< 0.00060 U	0.00043 JN	< 0.00035 U	< 0.00065 U	< 0.00016 U	< 0.00021 U	< 0.00015 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00032 J	0.0013 J	< 0.00027 U	< 0.00061 U	0.0033 J	0.00088 J	0.0022 J	0.00032 J	< 0.00029 U	0.0019 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.000084 U	< 0.00012 U	< 0.00030 U	< 0.00094 U	0.00051 JN	< 0.00030 U	0.00064 J	< 0.00011 U	< 0.00022 U	0.00039 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00014 JN	0.00047 J	< 0.00029 U	< 0.00067 U	0.0028 J	< 0.00034 U	0.00071 JN	< 0.00012 U	< 0.00032 U	0.00084 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000080 U	0.00013 JN	< 0.00014 U	< 0.0010 U	0.00021 JN	< 0.00019 U	0.00020 JN	< 0.000069 U	< 0.000089 U	< 0.00011 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00039 J	0.00095	0.0010 J	< 0.00081 U	0.0022	0.0011 J	0.0025 J	0.00025 JN	0.00073 J	0.0017
OCDD	3268-87-9	µg/kg	0.18	0.26	0.92	0.61	0.63	1.1	0.63	0.26	0.45	0.50
OCDF	39001-02-0	µg/kg	0.0092	0.015	0.035	0.027 J	0.029	0.038	0.041	0.011	0.015	0.026
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00068	0.0017	0.003	0.0017	0.0045	0.0027	0.0038	0.00086	0.0017	0.0025
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00058	0.0015	0.0028	0.0017	0.004	0.0027	0.0034	0.00074	0.0017	0.0023
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00051	0.0015	0.0026	0.0012	0.0038	0.0024	0.0031	0.00066	0.0015	0.0023
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0025 JN	< 0.00086 U	0.0063 J	0.015 JN	0.0053 J	0.0060 J	0.0026 JN	0.0019 J+	0.0085 J	0.0041 J
PCB-10	33146-45-1	ng/g	< 0.00047 U	< 0.00069 U	0.0022 J	< 0.0015 U	< 0.0012 U	< 0.00077 U	< 0.00062 U	0.0013 JN	< 0.00079 U	< 0.00045 U
PCB-103	60145-21-3	ng/g	0.0025 JN	0.0060 JN	0.0089 JN	< 0.0018 U	0.0058 J	0.024	0.0043 J	0.0061 JN	0.025	0.0081 J
PCB-104	56558-16-8	ng/g	< 0.00042 U	< 0.00077 U	< 0.00088 U	< 0.0014 U	< 0.00074 U	0.0047 JN	< 0.00057 U	< 0.00043 U	< 0.00039 U	< 0.00067 U
PCB-105	32598-14-4	ng/g	0.025	0.055	0.10	0.026 JN	0.12	0.17	0.073	0.039	0.15	0.060
PCB-106	70424-69-0	ng/g	< 0.0012 U	< 0.0017 U	< 0.0021 U	< 0.0018 U	< 0.0020 U	< 0.0018 U	< 0.0023 U	< 0.00095 U	< 0.0016 U	< 0.00089 U
PCB-107	70424-68-9	ng/g	0.0072 J	0.013 JN	0.031	0.0068 JN	0.022	0.054	0.016	0.012	0.060	0.018
PCB-108/124	70362-41-3	ng/g	0.0022 JN	0.0062 J	0.012 J	0.0023 JN	0.011 JN	0.022 J	0.0081 J	0.0039 JN	0.018 J	0.0044 JN
PCB-11	2050-67-1	ng/g	0.022	0.022	0.084	0.019 JN	0.27	0.053	0.035	0.021	0.032	0.033
PCB-110/115	38380-03-9	ng/g	0.10	0.24	0.37	0.11 JN	0.36	0.58	0.26	0.16	0.75	0.24
PCB-111	39635-32-0	ng/g	< 0.00037 U	< 0.00069 U	< 0.00078 U	< 0.0013 U	< 0.00066 U	< 0.00067 U	< 0.00051 U	< 0.00038 U	< 0.00035 U	< 0.00059 U
PCB-112	74472-36-9	ng/g	< 0.00041 U	< 0.00075 U	0.00094 JN	< 0.0014 U	< 0.00072 U	< 0.00074 U	< 0.00056 U	< 0.00042 U	< 0.00038 U	< 0.00065 U
PCB-114	74472-37-0	ng/g	< 0.0011 U	0.0032 JN	< 0.0020 U	< 0.0017 U	< 0.0018 U	0.0087 JN	< 0.0021 U	0.0018 JN	0.0091 J	0.0027 JN
PCB-118	31508-00-6	ng/g	0.078	0.15	0.27	0.071 J	0.29	0.50	0.18	0.12	0.51	0.16
PCB-12/13	2974-92-7	ng/g	0.00076 JN	0.0024 J+	0.0067 J	0.0044 J	0.0088 JN	0.0048 JN	0.0025 JN	< 0.00065 U	0.0058 J	0.0042 J
PCB-120	68194-12-7	ng/g	0.00078 JN	0.0016 JN	< 0.00077 U	< 0.0013 U	< 0.00065 U	0.0055 J	0.0011 JN	< 0.00038 U	0.0047 JN	0.0016 J
PCB-121	56558-18-0	ng/g	0.00083 JN	< 0.00073 U	< 0.00084 U	< 0.0014 U	< 0.00071 U	< 0.00072 U	< 0.00055 U	< 0.00041 U	< 0.00037 U	< 0.00064 U
PCB-122	76842-07-4	ng/g	< 0.0014 U	< 0.0019 U	< 0.0023 U	< 0.0020 U	< 0.0022 U	0.0076 J	< 0.0026 U	0.0018 J	0.0059 JN	0.0023 JN
PCB-123	65510-44-3	ng/g	< 0.0011 U	0.0027 JN	0.0044 JN	< 0.0016 U	0.0054 JN	0.0096 JN	0.0024 JN	0.0023 J	0.0061 JN	0.0017 JN
PCB-126	57465-28-8	ng/g	< 0.0012 U	< 0.0017 U	< 0.0020 U	< 0.0016 U	< 0.0019 U	< 0.0018 U	< 0.0023 U	< 0.00089 U	0.0024 J	< 0.00084 U
PCB-127	39635-33-1	ng/g	< 0.0012 U	< 0.0016 U	< 0.0020 U	< 0.0017 U	< 0.0019 U	< 0.0017 U	< 0.0022 U	< 0.00091 U	< 0.0015 U	< 0.00085 U
PCB-128/166	38380-07-3	ng/g	0.024	0.047	0.10	0.027 J	0.073	0.15	0.058	0.034	0.16	0.050
PCB-129/138/160/163	55215-18-4	ng/g	0.18	0.37	0.70	0.32 J	0.49	1.1	0.38	0.26	1.3	0.37
PCB-130	52663-66-8	ng/g	0.013	0.025	0.041	0.011 JN	0.034	0.063	0.023	0.016 JN	0.10	0.023
PCB-131	61798-70-7	ng/g	< 0.0011 U	0.0025 JN	0.0061 JN	< 0.0031 U	0.0063 J	0.016	0.0030 J	0.0026 JN	0.012 JN	< 0.0013 U
PCB-132	38380-05-1	ng/g	0.052	0.12	0.20	0.11 J	0.14	0.34	0.10	0.078	0.45	0.12
PCB-133	35694-04-3	ng/g	0.0036 JN	0.013	0.012	< 0.0029 U	0.0068 J	0.022	0.0086 J	0.0077 J	0.037	0.0063 J
PCB-134/143	52704-70-8	ng/g	0.011 J	0.019 JN	0.035	0.012 JN	0.020 JN	0.066	0.018 JN	0.015 J	0.078	0.019
PCB-135/151	52744-13-5	ng/g	0.064	0.17	0.23	0.085 JN	0.14	0.33	0.12	0.062 JN	0.45	0.13
PCB-136	38411-22-2	ng/g	0.019 JN	0.053	0.080	0.049 J	0.045	0.11	0.039	0.033	0.16	0.046
PCB-137	35694-06-5	ng/g	0.0060 J	0.012	0.021	0.0028 JN	0.017 JN	0.037	0.016	0.0048 JN	0.037	0.013
PCB-139/140	56030-56-9	ng/g	0.0011 JN	0.0080 J	0.0092 J	< 0.0026 U	0.011 JN	0.016 J	< 0.0019 U	0.0056 J	0.024	0.0055 JN
PCB-14	34883-41-5	ng/g	0.00082 JN	< 0.00054 U	< 0.00076 U	< 0.0012 U	< 0.00097 U	< 0.00060 U	< 0.00048 U	< 0.00060 U	< 0.00061 U	< 0.00035 U
PCB-141	52712-04-6	ng/g	0.030	0.072	0.14	0.090 J	0.088	0.22	0.073	0.051	0.25	0.077
PCB-142	41411-61-4	ng/g	< 0.0011 U	< 0.00098 U	< 0.0028 U	< 0.0029 U	< 0.0014 U	< 0.0029 U	< 0.0021 U	< 0.0015 U	< 0.0027 U	< 0.0013 U
PCB-144	68194-14-9	ng/g	0.0045 JN	0.016	0.026 JN	0.0093 JN	0.015	0.038	0.014	0.0098 JN	0.047	0.013
PCB-145	74472-40-5	ng/g	< 0.000066 U	< 0.000093 U	< 0.00044 U	< 0.00066 U	< 0.00021 U	< 0.0011 U	< 0.00026 U	< 0.00011 U	< 0.00016 U	< 0.000040 U
PCB-146	51908-16-8	ng/g	0.036	0.091	0.12	0.049 J	0.077	0.19	0.067	0.051	0.30	0.064
PCB-147/149	68194-13-8	ng/g	0.16	0.33	0.58	0.31 J	0.35	0.84	0.25	0.23	1.2	0.32
PCB-148	74472-41-6	ng/g	< 0.000088 U	0.0033 JN	0.0034 JN	< 0.00088 U	< 0.00028 U	0.0036 JN	0.00056 JN	0.00023 JN	0.0062 J	0.00054 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B143	B144	B145	B146	B147	B148	B149	B150	B151	B152
		Sample ID	PDI-SG-B143-BL1	PDI-SG-B144-BL1	PDI-SG-B145-BL1	PDI-SG-B146-BL1	PDI-SG-B147-BL1	PDI-SG-B148-BL1	PDI-SG-B149-BL1	PDI-SG-B150-BL1	PDI-SG-B151-BL1	PDI-SG-B152-BL1
		Sample Date	14 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	14 Apr 2018	14 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-30 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-21 cm	0-25 cm	0-26 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0086 J	0.0071 JN	0.022 JN	0.0065 JN	0.047	0.028	0.013	0.0086 J	0.033	0.013 JN
PCB-150	68194-08-1	ng/g	< 0.000059 U	0.0020 JN	0.0017 JN	< 0.00059 U	< 0.00019 U	0.0040 J	< 0.00023 U	0.00068 J	0.0031 JN	0.00033 JN
PCB-152	68194-09-2	ng/g	< 0.000063 U	< 0.000089 U	0.0011 JN	0.0012 JN	< 0.00020 U	0.0024 JN	< 0.00025 U	< 0.00011 U	< 0.00015 U	0.00065 J
PCB-153/168	35065-27-1	ng/g	0.17	0.33	0.63	0.31 J	0.37	0.91	0.33	0.24	1.3	0.35
PCB-154	60145-22-4	ng/g	0.0068 J	0.011 JN	0.015	< 0.00076 U	0.0056 J	0.024	0.0057 JN	0.0067 JN	0.035	0.0070 JN
PCB-155	33979-03-2	ng/g	< 0.000060 U	< 0.000085 U	< 0.00040 U	< 0.00060 U	< 0.00019 U	< 0.0010 U	< 0.00024 U	< 0.00010 U	< 0.00014 U	< 0.000037 U
PCB-156/157	38380-08-4	ng/g	0.012 JN	0.034	0.072	0.022 JN	0.047 JN	0.11	0.037	0.024	0.093	0.031
PCB-158	74472-42-7	ng/g	0.016	0.035	0.066	0.028 J	0.049	0.10	0.034	0.023	0.10	0.033
PCB-159	39635-35-3	ng/g	0.0017 JN	0.0022 JN	0.011 J	< 0.0019 U	0.0027 JN	0.013	0.0043 J	0.0036 J	0.018	0.0062 J
PCB-16	38444-78-9	ng/g	0.0051 J	0.0070 JN	0.021	< 0.0014 UJ	0.030	0.019 JN	0.017	0.0034 JN	0.036	0.011 JN
PCB-161	74472-43-8	ng/g	< 0.00069 U	< 0.00064 U	< 0.0018 U	< 0.0019 U	< 0.00090 U	< 0.0019 U	< 0.0014 U	< 0.00098 U	< 0.0018 U	< 0.00083 U
PCB-162	39635-34-2	ng/g	< 0.00065 U	< 0.00061 U	< 0.0017 U	< 0.0018 U	< 0.00086 U	< 0.0018 U	< 0.0013 U	< 0.00093 U	< 0.0017 U	< 0.00079 U
PCB-164	74472-45-0	ng/g	0.012 JN	0.029	0.050	0.017 JN	0.035	0.080	0.026	0.017	0.10	0.027
PCB-165	74472-46-1	ng/g	< 0.00079 U	< 0.00073 U	< 0.0021 U	< 0.0022 U	< 0.0010 U	< 0.0022 U	< 0.0016 U	< 0.0011 U	< 0.0020 U	< 0.00094 U
PCB-167	52663-72-6	ng/g	0.0052 J	0.012	0.024	0.0078 J	0.017	0.039	0.012 JN	0.0086 JN	0.038	0.012
PCB-169	32774-16-6	ng/g	< 0.00050 U	< 0.00048 U	< 0.0014 U	< 0.0013 U	< 0.00068 U	< 0.0014 U	< 0.0010 U	< 0.00074 U	< 0.0013 U	< 0.00060 U
PCB-17	37680-66-3	ng/g	0.0057 JN	0.0068 JN	0.028	< 0.0011 UJ	0.028 JN	0.034	0.018	0.011	0.046	0.015 JN
PCB-170	35065-30-6	ng/g	0.059	0.099	0.39	0.099 JN	0.11	0.34	0.16	0.086	0.39	0.12
PCB-171/173	52663-71-5	ng/g	0.019 J	0.028 JN	0.11	0.048 J	0.036	0.097	0.045	0.028	0.12	0.037
PCB-172	52663-74-8	ng/g	0.0081 JN	0.019	0.070	0.021 J	0.021	0.052	0.029	0.014	0.060	0.022
PCB-174	38411-25-5	ng/g	0.063	0.11	0.36	0.11 JN	0.12	0.30	0.16	0.089 JN	0.41	0.15
PCB-175	40186-70-7	ng/g	0.0014 J	< 0.00020 U	0.015	< 0.00049 U	0.0016 JN	< 0.0022 U	0.0065 JN	0.0027 JN	0.017	0.0070 J
PCB-176	52663-65-7	ng/g	0.0064 JN	0.013	0.036	0.0091 JN	0.012 JN	0.039	0.017	0.0097	0.053	0.019
PCB-177	52663-70-4	ng/g	0.029 JN	0.071	0.21	0.080 J	0.069	0.20	0.082 JN	0.051	0.25	0.087
PCB-178	52663-67-9	ng/g	0.017	0.026	0.074	0.020 JN	0.025	0.069	0.031	0.018	0.087	0.033
PCB-179	52663-64-6	ng/g	0.028	0.051	0.13	0.062 J	0.053	0.13	0.057	0.039 JN	0.19	0.070
PCB-18/30	37680-65-2	ng/g	0.011 JN	0.017	0.043	< 0.00096 UJ	0.047 JN	0.040	0.034	0.011 JN	0.090	0.028
PCB-180/193	35065-29-3	ng/g	0.13	0.22	0.93	0.28 J	0.23	0.68	0.33	0.18	0.79	0.27
PCB-181	74472-47-2	ng/g	< 0.00012 U	0.0015 JN	< 0.00066 U	< 0.00047 U	0.0014 JN	< 0.0021 U	0.0022 J	0.00072 JN	< 0.000048 U	< 0.000011 U
PCB-182	60145-23-5	ng/g	0.00083 JN	< 0.00018 U	< 0.00063 U	< 0.00045 U	0.0011 JN	< 0.0020 U	< 0.00075 U	< 0.000080 U	< 0.000046 U	< 0.000010 U
PCB-183/185	52663-69-1	ng/g	0.037	0.070	0.25	0.084 JN	0.071	0.20	0.10	0.057	0.25	0.096
PCB-184	74472-48-3	ng/g	< 0.000099 U	< 0.00016 U	< 0.00054 U	< 0.00038 U	0.0013 JN	< 0.0017 U	< 0.00065 U	< 0.000069 U	< 0.000039 U	< 0.0000086 U
PCB-186	74472-49-4	ng/g	< 0.000095 U	< 0.00015 U	< 0.00052 U	< 0.00037 U	< 0.000050 U	< 0.0016 U	< 0.00062 U	< 0.000066 U	< 0.000038 U	< 0.0000083 U
PCB-187	52663-68-0	ng/g	0.078	0.15	0.44	0.16 J	0.14	0.39	0.18	0.12	0.50	0.19
PCB-188	74487-85-7	ng/g	< 0.000088 U	< 0.00014 U	< 0.00047 U	< 0.00033 U	< 0.000045 U	< 0.0015 U	< 0.00057 U	< 0.000060 U	< 0.000034 U	< 0.0000075 U
PCB-189	39635-31-9	ng/g	0.0024 JN	0.0031 JN	0.017	0.0017 JN	0.0044 J	0.013 JN	0.0057 J	0.0032 JN	0.014	0.0041 JN
PCB-19	38444-73-4	ng/g	0.0070 JN	0.0052 JN	0.031	< 0.0013 UJ	0.011 JN	0.059	0.010 J	0.0094 JN	0.022	0.013
PCB-190	41411-64-7	ng/g	0.011	0.019	0.076	0.024 J	0.021	0.062	0.028 JN	0.017	0.070	0.027
PCB-191	74472-50-7	ng/g	0.00098 JN	0.0041 JN	0.011 JN	< 0.00035 U	0.0044 J	0.015 JN	0.0062 J	0.00092 JN	0.014 JN	0.0044 JN
PCB-192	74472-51-8	ng/g	< 0.000097 U	< 0.00015 U	< 0.00053 U	< 0.00037 U	< 0.000051 U	< 0.0017 U	< 0.00063 U	< 0.000067 U	< 0.000038 U	< 0.0000084 U
PCB-194	35694-08-7	ng/g	0.034	0.038	0.27	0.061 J	0.053	0.16	0.080	0.046	0.19	0.053
PCB-195	52663-78-2	ng/g	0.012 JN	0.019	0.11	0.028 JN	0.021	0.068	0.035	0.018	0.084	0.026
PCB-196	42740-50-1	ng/g	0.017	0.022	0.11	0.013 J	0.026	0.075	0.039	0.021	0.095	0.032
PCB-197	33091-17-7	ng/g	0.00035 J	0.0014 J	0.0074 JN	< 0.00077 U	0.0018 JN	0.0047 JN	0.0010 JN	0.00079 JN	0.0022 JN	0.00063 JN
PCB-198/199	68194-17-2	ng/g	0.037	0.050	0.24	0.074 JN	0.051 JN	0.18	0.090	0.049	0.24	0.071
PCB-2	2051-61-8	ng/g	0.0047 JN	0.0026 J+	0.013	< 0.0048 U	0.0093 J	0.016 JN	0.0033 J+	0.0041 JN	0.0068 J	0.0089 J
PCB-20/28	38444-84-7	ng/g	0.033	0.042 JN	0.12	0.040 J	0.20	0.13	0.074	0.043	0.20	0.066
PCB-200	52663-73-7	ng/g	0.0024 JN	0.0049 JN	0.030	< 0.00084 U	0.0091 J	0.017	0.0098 J	0.0036 JN	0.022	0.0080 J
PCB-201	40186-71-8	ng/g	0.0023 JN	0.0051 JN	0.026	0.0028 JN	0.0076 J	0.016 JN	0.0095 J	0.0045 J	0.025	0.0091 J
PCB-202	2136-99-4	ng/g	0.0071 JN	0.0087 JN	0.053	0.0033 JN	0.017	0.043	0.018	0.0087 JN	0.045 JN	0.016
PCB-203	52663-76-0	ng/g	0.024 JN	0.031	0.15	0.059 J	0.038	0.11	0.055	0.025 JN	0.13	0.046
PCB-204	74472-52-9	ng/g	< 0.00010 U	< 0.00017 U	< 0.00085 U	< 0.00084 U	< 0.00011 U	< 0.0012 U	< 0.00021 U	< 0.00015 U	< 0.00043 U	< 0.00015 U
PCB-205	74472-53-0	ng/g	0.0012 J	0.0019 JN	0.015	0.0064 JN	0.0026 JN	0.0078 J	0.0033 JN	0.0026 JN	0.010	0.0028 J
PCB-206	40186-72-9	ng/g	0.042 JN	0.084 JN	0.37	0.064 JN	0.13 JN	0.42	0.11 JN	0.060	0.42	0.039
PCB-207	52663-79-3	ng/g	0.0027 JN	0.0032 J	0.024	< 0.0043 U	0.010 J	0.021	0.0061 J	< 0.0017 U	0.025	0.0045 JN
PCB-208	52663-77-1	ng/g	0.019	0.010	0.14	< 0.0045 U	0.025	0.14	0.014	0.022	0.17	0.014
PCB-209	2051-24-3	ng/g	0.045	0.042	0.33	0.029 JN	0.071	0.39	0.050	0.034	0.35	0.11
PCB-21/33	55702-46-0	ng/g	0.014 J	0.018	0.051	0.014 JN	0.085	0.051 JN	0.028	0.022	0.077	0.027
PCB-22	38444-85-8	ng/g	0.0086 J	0.013	0.036	0.0099 JN	0.067	0.035	0.023	0.0097 JN	0.047	0.019
PCB-23	55720-44-0	ng/g	< 0.00058 U	< 0.00086 U	< 0.0011 U	< 0.0019 UJ	< 0.0014 U	< 0.0011 U	< 0.0011 U	< 0.00057 U	< 0.0019 U	< 0.00067 U
PCB-24	55702-45-9	ng/g	< 0.000095 U	< 0.00020 U	< 0.00023 U	< 0.00082 UJ	0.0011 JN	0.0011 JN	< 0.00026 U	< 0.000055 U	< 0.00040 U	< 0.00017 U
PCB-25	55712-37-3	ng/g	0.0040 J	0.0054 J	0.012	0.0035 J	0.014	0.018	0.0074 J	0.0047 J	0.015	0.0065 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B143	B144	B145	B146	B147	B148	B149	B150	B151	B152
		Sample ID	PDI-SG-B143-BL1	PDI-SG-B144-BL1	PDI-SG-B145-BL1	PDI-SG-B146-BL1	PDI-SG-B147-BL1	PDI-SG-B148-BL1	PDI-SG-B149-BL1	PDI-SG-B150-BL1	PDI-SG-B151-BL1	PDI-SG-B152-BL1
		Sample Date	14 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	14 Apr 2018	14 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-30 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-21 cm	0-25 cm	0-26 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0055 J	0.0095 J	0.018 J	0.0084 J	0.025	0.021 J	0.012 J	0.0064 J	0.029	0.0097 JN
PCB-27	38444-76-7	ng/g	0.00036 JN	0.0014 JN	0.0068 JN	< 0.00081 UJ	0.0031 JN	0.0090 JN	0.0022 JN	0.0021 JN	0.011	0.0016 JN
PCB-3	2051-62-9	ng/g	0.0023 J	0.0013 JN	0.0065 J	< 0.0055 U	0.0094 JN	0.0071 JN	0.0026 J	0.0011 JN	0.0057 J	0.0026 JN
PCB-31	16606-02-3	ng/g	0.021	0.032	0.082	0.025 JN	0.15	0.088	0.054	0.026	0.13	0.046
PCB-32	38444-77-8	ng/g	0.0038 JN	0.0079 JN	0.017	0.0057 J	0.024	0.025	0.014	0.0072 JN	0.030	0.0090 JN
PCB-34	37680-68-5	ng/g	< 0.00060 U	< 0.00090 U	< 0.0012 U	< 0.0020 UJ	< 0.0014 U	< 0.0011 U	< 0.0011 U	< 0.00060 U	< 0.0020 U	< 0.00069 U
PCB-35	37680-69-6	ng/g	< 0.00057 U	< 0.00085 U	0.0023 JN	< 0.0019 UJ	0.014	< 0.0011 U	< 0.0011 U	< 0.00057 U	< 0.0019 U	0.0023 J
PCB-36	38444-87-0	ng/g	< 0.00052 U	< 0.00078 U	< 0.0010 U	< 0.0017 UJ	0.0028 J	< 0.00096 U	< 0.00096 U	< 0.00052 U	< 0.0017 U	< 0.00060 U
PCB-37	38444-90-5	ng/g	0.010	0.012 JN	0.039	0.0080 JN	0.077	0.042	0.024	0.013	0.056	0.020
PCB-38	53555-66-1	ng/g	< 0.00056 U	< 0.00084 U	< 0.0011 U	< 0.0018 UJ	< 0.0013 U	< 0.0010 U	< 0.0010 U	< 0.00056 U	< 0.0019 U	< 0.00065 U
PCB-39	38444-88-1	ng/g	< 0.00051 U	< 0.00077 U	< 0.0010 U	< 0.0017 UJ	0.0016 JN	< 0.00095 U	< 0.00095 U	< 0.00051 U	< 0.0017 U	< 0.00059 U
PCB-4	13029-08-8	ng/g	0.0066 JN	0.0044 JN	0.030	< 0.0019 U	0.014 J	0.027 JN	0.010 J	0.010 J	0.020 JN	0.0089 JN
PCB-40/41/71	38444-93-8	ng/g	0.025 J	0.031	0.064	0.025 JN	0.12	0.11	0.053	0.031	0.15	0.047
PCB-42	36559-22-5	ng/g	0.014	0.016	0.031	0.012 JN	0.064	0.050	0.024	0.014	0.085	0.024
PCB-43/73	70362-46-8	ng/g	0.0017 JN	0.0011 JN	0.0066 JN	< 0.0010 UJ	0.0076 JN	0.018 J	0.0031 J	0.0018 JN	0.0092 JN	0.0031 JN
PCB-44/47/65	41464-39-5	ng/g	0.072	0.081	0.19	0.057 J	0.26	0.39	0.12	0.088	0.36	0.12
PCB-45/51	70362-45-7	ng/g	0.018 J	0.012 J	0.043	< 0.0012 UJ	0.038 JN	0.17	0.021 J	0.026	0.064	0.019 JN
PCB-46	41464-47-5	ng/g	0.0034 J	0.0018 JN	0.0061 J	< 0.0014 UJ	0.0087 JN	0.014	0.0051 J	0.0047 J	0.021	0.0036 JN
PCB-48	70362-47-9	ng/g	0.0048 JN	0.011	0.022	0.0096 JN	0.047	0.027	0.018	0.0098	0.045	0.014
PCB-49/69	41464-40-8	ng/g	0.044	0.051	0.11	0.024 JN	0.15	0.20	0.071	0.053	0.25	0.075
PCB-5	16605-91-7	ng/g	< 0.00044 U	< 0.00065 U	< 0.00091 U	< 0.0014 U	< 0.0012 U	< 0.00072 U	< 0.00058 U	< 0.00071 U	< 0.00074 U	0.00065 JN
PCB-50/53	62796-65-0	ng/g	0.028	0.0098 J	0.034	0.0078 JN	0.035	0.13	0.020 J	0.017 J	0.060	0.018 J
PCB-52	35693-99-3	ng/g	0.089 JN	0.12	0.21	0.073 JN	0.32	0.32	0.15	0.093	0.51	0.16
PCB-54	15968-05-5	ng/g	0.0028 JN	0.0014 JN	0.0079 JN	< 0.0012 UJ	< 0.00017 U	0.048	0.0024 JN	0.0041 J	0.0046 JN	0.0025 JN
PCB-55	74338-24-2	ng/g	< 0.00061 U	< 0.00073 U	< 0.0015 U	0.0032 JN	< 0.0017 U	< 0.00091 U	< 0.00088 U	< 0.00065 U	< 0.0020 U	< 0.00090 U
PCB-56	41464-43-1	ng/g	0.018	0.026	0.050	0.028 J	0.11	0.075	0.039	0.023	0.12	0.042
PCB-57	70424-67-8	ng/g	< 0.00063 U	< 0.00075 U	< 0.0015 U	< 0.00078 UJ	< 0.0017 U	< 0.00094 U	< 0.00090 U	< 0.00067 U	< 0.0020 U	< 0.00092 U
PCB-58	41464-49-7	ng/g	< 0.00060 U	< 0.00072 U	< 0.0015 U	< 0.00075 UJ	< 0.0016 U	< 0.00090 U	< 0.00086 U	< 0.00064 U	0.0049 J	< 0.00089 U
PCB-59/62/75	74472-33-6	ng/g	0.0035 JN	0.0045 JN	0.011 JN	< 0.00076 UJ	0.021 J	0.021 J	0.0092 J	0.0057 JN	0.028 J	0.0080 J
PCB-6	25569-80-6	ng/g	0.0020 JN	0.0017 JN	0.0082 J	0.0065 JN	0.0070 J	0.0071 J	0.0037 JN	0.0021 JN	0.011 JN	0.0037 JN
PCB-60	33025-41-1	ng/g	0.0060 J	0.010 JN	0.020	0.0089 JN	0.060	0.025 JN	0.019	0.0077 J	0.029	0.015
PCB-61/70/74/76	33284-53-6	ng/g	0.077	0.13	0.22	0.092 J	0.39	0.37	0.17	0.095	0.55	0.17
PCB-63	74472-34-7	ng/g	0.0018 J	0.0025 J	0.0049 J	< 0.00068 UJ	0.0061 JN	0.0078 J	0.0036 JN	0.0016 JN	0.014	0.0035 J
PCB-64	52663-58-8	ng/g	0.015	0.023	0.047	0.026 J	0.11	0.075	0.042	0.022	0.12	0.037
PCB-66	32598-10-0	ng/g	0.056	0.068	0.14	0.037 JN	0.23	0.23	0.10	0.063	0.33	0.11
PCB-67	73575-53-8	ng/g	< 0.00058 U	0.00099 JN	0.0025 JN	< 0.00072 UJ	0.0032 JN	0.0053 J	0.0026 JN	< 0.00062 U	0.0072 J	0.0017 JN
PCB-68	73575-52-7	ng/g	0.00062 JN	0.0021 J+	0.0029 J	< 0.00068 UJ	0.0062 J	0.0054 J	0.0036 J+	0.0023 J	0.0052 JN	< 0.00080 U
PCB-7	33284-50-3	ng/g	< 0.00041 U	< 0.00061 U	0.0012 JN	< 0.0013 U	0.0032 JN	0.0017 JN	< 0.00055 U	< 0.00067 U	0.0016 JN	0.0010 JN
PCB-72	41464-42-0	ng/g	0.0018 J	0.0025 J	0.0035 J	< 0.00076 UJ	< 0.0017 U	0.0051 J	0.0014 J+	< 0.00066 U	0.013	0.0018 JN
PCB-77	32598-13-3	ng/g	0.0050 J	0.0070 J	0.016	0.0080 J	0.028	0.018	0.012	0.0064 JN	0.028	0.0095 JN
PCB-78	70362-49-1	ng/g	< 0.00060 U	< 0.00072 U	< 0.0015 U	< 0.00075 UJ	< 0.0016 U	< 0.00090 U	< 0.00086 U	< 0.00064 U	< 0.0020 U	< 0.00089 U
PCB-79	41464-48-6	ng/g	< 0.00052 U	0.0019 JN	0.0039 JN	< 0.00064 UJ	< 0.0014 U	0.0048 J	0.0022 J	0.0011 JN	0.0059 JN	0.0016 JN
PCB-8	34883-43-7	ng/g	0.0095 J	0.0087 J	0.028 JN	0.016 J	0.036	0.030	0.014 J	0.013 J	0.040	0.017 J
PCB-80	33284-52-5	ng/g	< 0.00054 U	< 0.00064 U	< 0.0013 U	< 0.00067 UJ	< 0.0015 U	< 0.00080 U	< 0.00077 U	< 0.00057 U	< 0.0017 U	< 0.00079 U
PCB-81	70362-50-4	ng/g	< 0.00058 U	< 0.00069 U	< 0.0014 U	< 0.00070 U	< 0.0016 U	< 0.00084 U	< 0.00083 U	< 0.00062 U	< 0.0019 U	< 0.00085 U
PCB-82	52663-62-4	ng/g	0.0073 JN	0.027	0.035	< 0.0022 U	0.030 JN	0.059	0.029	0.014 JN	0.072	0.023
PCB-83/99	60145-20-2	ng/g	0.069 JN	0.18	0.22	0.029 JN	0.20	0.36	0.14	0.095	0.47	0.14
PCB-84	52663-60-2	ng/g	0.020 JN	0.051	0.066	0.019 JN	0.084	0.13	0.057	0.027 JN	0.18	0.050
PCB-85/116/117	65510-45-4	ng/g	0.011 JN	0.030 JN	0.057	0.0098 JN	0.068	0.081	0.043	0.022 J	0.094	0.035
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.056 J	0.14	0.19	0.054 J	0.21	0.33	0.14	0.079	0.38	0.12
PCB-88/91	55215-17-3	ng/g	0.018 JN	0.036	0.055	0.0030 JN	0.048 JN	0.094	0.039	0.023 JN	0.11	0.035
PCB-89	73575-57-2	ng/g	< 0.00062 U	< 0.0011 U	0.0033 JN	< 0.0021 U	0.0029 JN	0.0050 JN	< 0.00085 U	< 0.00063 U	< 0.00058 U	0.0022 J
PCB-9	34883-39-1	ng/g	< 0.00048 U	0.0022 JN	0.0021 JN	< 0.0015 U	0.0023 JN	0.0027 J	< 0.00064 U	< 0.00079 U	0.0031 JN	0.0015 JN
PCB-90/101/113	68194-07-0	ng/g	0.11	0.29	0.35	0.13 JN	0.30	0.59	0.24	0.15	0.77	0.22
PCB-92	52663-61-3	ng/g	0.027	0.073	0.073	0.020 J	0.062	0.11 JN	0.048	0.033	0.20	0.044
PCB-93/100	73575-56-1	ng/g	0.0087 JN	0.0073 J	0.023 J	< 0.0020 U	0.0053 JN	0.051 JN	0.0064 JN	0.0097 JN	0.012 JN	0.0063 JN
PCB-94	73575-55-0	ng/g	< 0.00062 U	< 0.0011 U	0.0040 J	< 0.0021 U	< 0.0011 U	0.016 JN	< 0.00085 U	0.0018 JN	< 0.00058 U	< 0.00099 U
PCB-95	38379-99-6	ng/g	0.080	0.20	0.27	0.13 JN	0.26	0.45	0.17	0.12	0.66	0.18
PCB-96	73575-54-9	ng/g	0.0012 JN	< 0.00086 U	0.0025 JN	< 0.0016 U	0.0038 J	0.0084 JN	0.0019 J	0.0022 J	0.0048 JN	0.0018 J
PCB-98/102	60233-25-2	ng/g	0.0038 JN	0.0073 J	0.012 JN	< 0.0020 U	0.014 J	0.036	0.0019 JN	0.0036 JN	0.022	< 0.00093 U
Total PCBs (b)	T_PCBCg (PDI)	ng/g	2.9	5.4	12	4.0	8.7	16	6.1	3.9	20	5.9

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B143	B144	B145	B146	B147	B148	B149	B150	B151	B152
		Sample ID	PDI-SG-B143-BL1	PDI-SG-B144-BL1	PDI-SG-B145-BL1	PDI-SG-B146-BL1	PDI-SG-B147-BL1	PDI-SG-B148-BL1	PDI-SG-B149-BL1	PDI-SG-B150-BL1	PDI-SG-B151-BL1	PDI-SG-B152-BL1
		Sample Date	14 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	14 Apr 2018	14 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-30 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-21 cm	0-25 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.37 U	2.4	0.44 J	< 13 UJ	0.90	1.9	0.90	< 0.39 U	2.1	1.0
2,4-DDE	3424-82-6	µg/kg	< 0.40 U	< 0.45 U	< 0.60 U	< 16 UJ	< 0.62 U	< 0.57 U	< 0.62 U	< 0.40 U	< 0.40 U	< 0.40 U
2,4-DDT	789-02-6	µg/kg	< 0.47 U	< 0.47 U	< 0.60 U	< 19 UJ	< 0.62 U	< 0.57 U	< 0.62 U	< 0.47 U	< 0.47 U	< 0.47 U
4,4'-DDD	72-54-8	µg/kg	0.63	6.4	1.1	< 13 UJ	2.6	3.4	2.7	0.64	4.2	2.2
4,4'-DDE	72-55-9	µg/kg	0.52	1.5	2.2	< 14 UJ	3.2	2.5	3.0	0.71	3.1	1.2
4,4'-DDT	50-29-3	µg/kg	< 0.37 U	0.28 J	0.36 J	< 13 UJ	0.59 J	0.62	0.62	0.76	0.64	0.56
Total DDx (b)	T_DDx (PDI)	µg/kg	1.4	11	4.4	< 19 UJ	7.6	8.7	7.5	2.3	10	5.2
Aldrin	309-00-2	µg/kg	< 0.40 U	< 0.45 U	< 0.60 U	< 16 UJ	< 0.62 U	< 0.57 U	< 0.62 U	< 0.40 U	< 0.40 U	< 0.40 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.73 U	< 0.89 U	< 1.2 U	< 26 UJ	< 1.2 U	0.41 J	< 1.2 U	< 0.78 U	< 0.78 U	< 0.79 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.49 U	< 0.49 U	< 0.60 U	< 20 UJ	< 0.62 U	< 0.57 U	< 0.62 U	< 0.49 U	< 0.49 U	< 0.49 U
Dieldrin	60-57-1	µg/kg	< 1.0 U	< 1.0 U	< 1.2 U	< 40 UJ	0.58 J	< 1.1 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.37 U	< 0.45 U	< 0.60 U	< 13 UJ	< 0.62 U	< 0.57 U	< 0.62 U	< 0.39 U	< 0.39 U	< 0.40 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.73 U	< 0.89 U	< 1.2 U	< 26 UJ	< 1.2 U	< 1.1 U	< 1.2 U	< 0.78 U	< 0.78 U	< 0.79 U
Heptachlor	76-44-8	µg/kg	< 0.37 UJ	< 0.45 U	< 0.60 UJ	< 13 UJ	< 0.62 U	< 0.57 UJ	< 0.62 U	< 0.39 UJ	< 0.39 UJ	< 0.40 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.0 U	< 1.0 U	< 1.2 U	< 40 UJ	< 1.2 U	< 1.1 U	< 1.2 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.73 U	< 0.89 U	< 1.2 U	< 26 UJ	0.39 J	< 1.1 U	< 1.2 U	< 0.78 U	< 0.78 U	< 0.79 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1 U	< 1 U	< 1.2 U	< 40 UJ	0.99	0.96	< 1.2 U	< 1 U	< 1 U	< 1 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	130	26	7.1	550	6.7	30	12	13	66	15
Acenaphthene	83-32-9	µg/kg	46	93	9.3	42000	18	20	41	13	70	45
Acenaphthylene	208-96-8	µg/kg	3.7	22	5.6	4300	11	17	12	6.1	25	19
Anthracene	120-12-7	µg/kg	31	40	15	50000	28	37	39	59	69	40
Benz(a)anthracene	56-55-3	µg/kg	53	140	52	53000	110	190	110	78	260	190
Benzo(a)pyrene	50-32-8	µg/kg	61	230	110	54000	190	270	170	89	320	260
Benzo(b)fluoranthene	205-99-2	µg/kg	55	200	82	45000	140	270	160	100	300	240
Benzo(g,h,i)perylene	191-24-2	µg/kg	55	210	74	37000	140 J	230	160	82	290	270
Benzo(k)fluoranthene	207-08-9	µg/kg	19	65	28	16000	52	90	50	36	99	79
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	19 J	42 J	97 J	< 1600 U	80 J	86 J	94 J	35 J	45 J	38 J
Chrysene	218-01-9	µg/kg	63	190	80	67000	150	260	150	100	330	250
Dibenz(a,h)anthracene	53-70-3	µg/kg	8.3	25	13	5900	21	45	20	17	49	36
Fluoranthene	206-44-0	µg/kg	140	250	130	170000	170	330	260	140	650	400
Fluorene	86-73-7	µg/kg	47	38	9.0	27000	16	23	34	13	52	25
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	49	190	65	35000	120	210	140	76	260	230
Naphthalene	91-20-3	µg/kg	2400	59	14	1600	13	73	22	39	120	32
Phenanthrene	85-01-8	µg/kg	140	230	52	220000	100	180	220	94	430	190
Pyrene	129-00-0	µg/kg	190	360	160	250000	240	410	320	180	900	580
Total PAHs (b)	T_PAH (PDI)	µg/kg	3491	2368	906	1078350	1526	2685	1920	1135	4290	2901
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	85	309	143	73427	249	383	232	132	452	363
Metals												
Arsenic	7440-38-2	mg/kg	4.3	4.2	5.1	4.6	5.2	5.7	5.5	4.9	4.8	4.5
Cadmium	7440-43-9	mg/kg	0.15 J	0.12 J	0.23 J	0.089 J	0.20 J	0.29 J	0.20 J	0.14 J	0.24	0.15 J
Copper	7440-50-8	mg/kg	19	22	35	16	40	42	39	26	32	29
Lead	7439-92-1	mg/kg	5.5	8.1	11	22	11	17	11	8.4	17	9.1
Mercury	7439-97-6	mg/kg	0.026 J	0.042	0.085	0.017 J	0.051 J	0.082	0.055	0.048	0.086	0.042
Tri-n-butyltin	36643-28-4	µg/kg	0.84 J	< 1.8 U	4.0	< 1.3 U	< 2.5 U	17	1.5 J	54	28	2.2
Zinc	7440-66-6	mg/kg	64	72	89	58	94	110	95	76	95	82
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	18 J	41 J	67 J	1200 J	66 J	88 J	73 J	24 J	68 J	45 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	75	210	380	1200 J	420	430	470	100	240	250
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										
Total Solids@104C - E160.3 (f)	TSOLID	%	66.7	59.5	39.8	71.4	41.1	43.1	42.8	65.3	60.6	57.8
Total Solids@104C - E160.3M (f)	TSOLID	%	67.0	55.3	41.3	76.8	40.0	43.5	39.6	63.7	63.0	62.1
Total Solids@70C	TSOLID70	%	68	60	42	76	42	45	41	67	65	65
Gravel	GS-Gravel	%	0.5	0.8	0	12.8	0	0.1	0	0	0.7	0.7
Sand, Coarse	GS-Csand	%	0.1	1.4	0.1	5.1	0	0.1	0	0.1	1.2	1.1
Sand, Medium	GS-Msand	%	29.7	30.7	0.7	42.2	0.3	2.0	1.3	21.2	6.1	22.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	48.07	35.89	18.39	33.65	11.18	32.18	13.88	56.59	36.94	46.78
Sand, Fine (#230) (d)	GS-Fsand	%	48.7	37.5	23.9	33.9	14.1	38.3	16.5	57.8	42.0	48.4
Silt (#200) (d)	GS-Silt-200	%	15.52	25.30	71.40	4.943	75.51	55.31	71.91	17.00	42.65	25.11

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B143	B144	B145	B146	B147	B148	B149	B150	B151	B152
		Sample ID	PDI-SG-B143-BL1	PDI-SG-B144-BL1	PDI-SG-B145-BL1	PDI-SG-B146-BL1	PDI-SG-B147-BL1	PDI-SG-B148-BL1	PDI-SG-B149-BL1	PDI-SG-B150-BL1	PDI-SG-B151-BL1	PDI-SG-B152-BL1
		Sample Date	14 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	12 Apr 2018	13 Apr 2018	12 Apr 2018	14 Apr 2018	14 Apr 2018	13 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-30 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-30 cm	0-21 cm	0-25 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	14.9	23.7	65.9	4.7	72.6	49.2	69.3	15.8	37.6	23.5
Clay	GS-Clay	%	6.2	5.8	9.3	1.4	13.0	10.4	12.9	5.0	12.4	4.1
Percent Fines (e)	GS-FINES	%	21.72	31.1	80.7	6.343	88.51	65.71	84.81	22	55.05	29.21
Total Organic Carbon	TOC	mg/kg	6500	9300	26000	5100	25000	23000	25000	6400	13000	9800

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B154	B155	B156	B157	B158	B158	B159	B160	B162	B163
		Sample ID	PDI-SG-B154-BL1	PDI-SG-B155-BL1	PDI-SG-B156-BL1	PDI-SG-B157-BL1	PDI-SG-B158-BL1	PDI-SG-B158-BL1-D	PDI-SG-B159-BL1	PDI-SG-B160-BL1	PDI-SG-B162-BL1	PDI-SG-B163-BL1
		Sample Date	14 Apr 2018	20 Jun 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	14 Apr 2018	16 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-21 cm	0-25 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.17	0.39	0.0055	0.014	0.25 J	0.10 J	0.12	0.15	0.060	1.7
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.11	0.043 J	0.00064 J+	0.0025 JN	0.063 J	0.020 J	0.027 J	0.013 JN	0.0091	0.28 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0011 U	< 0.00094 UJ	< 0.00013 U	< 0.00016 U	0.012 J	0.0025 J	0.0014 J+	0.0014 J	< 0.0012 U	< 0.034 UJ
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00034 U	0.0023 J	< 0.00015 U	0.00024 JN	0.0018 J	0.0011 J	< 0.00048 U	0.00084 J	0.00073 J+	0.032
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0053	0.0039 J	< 0.000092 U	0.00083 J	0.050 J	0.0091 J	0.0033 J	0.0071	< 0.00054 U	0.0073 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0076	0.015	< 0.00020 U	0.00062 J	0.0079	0.0049 J	0.0044	0.0033 J	0.0022 J+	0.045
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0093	0.0027 J	< 0.00022 U	0.00027 J	0.017	0.0025 J	0.0051	0.0053	0.0048	0.061
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0032 J	0.0050	< 0.00016 U	0.00040 J	0.0045 J	0.0023 JN	0.0013 JN	0.0021 J	0.0014 JN	0.033
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0011 U	< 0.00028 U	< 0.000059 U	< 0.00013 U	< 0.00086 U	< 0.00043 U	< 0.00031 U	< 0.00027 U	< 0.00035 U	< 0.0034 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.0012 U	0.0015 J	< 0.000081 U	< 0.00027 U	< 0.00054 U	< 0.00047 U	< 0.0045 U	< 0.00035 U	< 0.00022 U	< 0.0053 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.0017 U	0.0020 J	< 0.00010 U	< 0.00020 U	0.011	0.0075	0.0011 J+	0.0041 J	< 0.00020 U	< 0.0016 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0012 U	0.0014 J	< 0.000062 U	< 0.00014 U	< 0.00082 U	< 0.00045 U	< 0.00036 U	< 0.00031 U	< 0.00038 U	< 0.0038 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.0020 U	0.0012 J	< 0.000078 U	< 0.00021 U	0.0040 J	0.0028 J	0.00052 JN	0.0019 J	< 0.00021 U	< 0.0018 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00025 U	0.00061 JN	< 0.000064 U	< 0.00011 U	0.00045 JN	< 0.00018 U	< 0.00027 U	0.00021 JN	0.00013 JN	0.00079 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0030	0.0022	< 0.00019 U	0.00045 J	0.0083	0.0079	0.0016	0.0049	0.00077 J+	0.0012 J
OCDD	3268-87-9	µg/kg	2.2	3.7	0.034	0.12	2.1 J	0.91 J	1.3	1.1	0.72	11 J
OCDF	39001-02-0	µg/kg	0.11	0.12	0.0019 J+	0.0076	0.13	0.044	0.10	0.030	0.029	1.4
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0069	0.011	0.00011	0.00062	0.015	0.0056	0.0059	0.0054	0.0021	0.045
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0069	0.011	0.00011	0.00057	0.015	0.0054	0.0056	0.0052	0.0019	0.043
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0063	0.011	0.000072	0.00044	0.014	0.0051	0.0034	0.005	0.0018	0.041
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.019 J	0.030 J	0.00089 J+	0.00099 JN	0.011 JN	0.015	0.072	0.0070 J	0.0026 J	0.022 JN
PCB-10	33146-45-1	ng/g	0.0042 JN	0.010 JN	< 0.00023 U	< 0.00046 U	0.0011 JN	0.0018 JN	0.11	< 0.0033 U	< 0.0033 U	< 0.0051 U
PCB-103	60145-21-3	ng/g	0.071 JN	0.15	< 0.00016 U	0.0021 J	0.032	0.036	0.025 JN	0.0074 J	< 0.00015 U	0.029 JN
PCB-104	56558-16-8	ng/g	< 0.0020 U	< 0.00056 U	< 0.00012 U	< 0.00022 U	< 0.0012 U	< 0.0018 U	< 0.0010 U	< 0.00024 U	< 0.00012 U	< 0.0039 U
PCB-105	32598-14-4	ng/g	0.47	2.5	0.0029 JN	0.072	0.19	0.20	0.32	0.12	1.5	0.61
PCB-106	70424-69-0	ng/g	< 0.0065 U	< 0.0048 U	< 0.00019 U	< 0.00063 U	< 0.0028 U	< 0.0028 U	< 0.0030 U	< 0.0013 U	< 0.0024 U	< 0.0070 U
PCB-107	70424-68-9	ng/g	0.18	0.84	0.00065 J	0.017	0.076 JN	0.082	0.11	0.029	0.24	0.12
PCB-108/124	70362-41-3	ng/g	0.052 J	0.32	< 0.00019 U	0.0064 JN	0.023	0.025	0.033	0.010 J	0.13	0.064 J
PCB-11	2050-67-1	ng/g	0.024 J	0.090 J	0.0024 JN	0.0090 JN	0.090	0.093	0.24	0.12	0.033	0.10 JN
PCB-110/115	38380-03-9	ng/g	2.0	10	0.014	0.25	1.0	0.89	1.0	0.40	3.2	2.2
PCB-111	39635-32-0	ng/g	0.015 J	< 0.00052 U	< 0.00011 U	< 0.00020 U	< 0.0010 U	< 0.0016 U	< 0.00091 U	< 0.00022 U	< 0.00011 U	< 0.0035 U
PCB-112	74472-36-9	ng/g	< 0.0020 U	< 0.00055 U	< 0.00012 U	< 0.00022 U	< 0.0011 U	< 0.0018 U	< 0.0010 U	< 0.00023 U	< 0.00011 U	< 0.0038 U
PCB-114	74472-37-0	ng/g	0.026 JN	0.11	< 0.00017 U	0.0042 J	0.013	0.014	0.025	0.0054 J	0.062	0.035 J
PCB-118	31508-00-6	ng/g	1.5 J+	9.0	0.0096	0.17	0.68	0.69	0.83	0.32	2.8	1.5
PCB-12/13	2974-92-7	ng/g	0.016 J	0.023 JN	< 0.00019 U	0.0013 J	0.013 J	0.018 J	0.026	0.0079 JN	0.0033 JN	0.013 JN
PCB-120	68194-12-7	ng/g	0.040 J	0.071	< 0.00011 U	0.0018 J	< 0.0010 U	0.012	0.017	0.0028 J	< 0.00011 U	0.0088 JN
PCB-121	56558-18-0	ng/g	< 0.0019 U	< 0.00054 U	< 0.00012 U	< 0.00021 U	< 0.0011 U	< 0.0017 U	< 0.00097 U	< 0.00023 U	< 0.00011 U	< 0.0037 U
PCB-122	76842-07-4	ng/g	0.017 JN	0.095	< 0.00021 U	0.0028 J	0.011 J	0.010 J	0.017	0.0037 J	0.043	0.025 JN
PCB-123	65510-44-3	ng/g	0.023 JN	0.11	0.00019 JN	0.0045 J	0.012	0.0090 JN	0.017	0.0036 JN	0.040	0.020 JN
PCB-126	57465-28-8	ng/g	< 0.0066 U	0.049	< 0.00018 U	< 0.00060 U	0.0033 JN	< 0.0028 U	< 0.0030 U	0.0024 J	0.11	0.018 JN
PCB-127	39635-33-1	ng/g	< 0.0062 U	< 0.0048 U	< 0.00018 U	< 0.00060 U	< 0.0027 U	< 0.0027 U	< 0.0029 U	< 0.0013 U	< 0.0024 U	< 0.0067 U
PCB-128/166	38380-07-3	ng/g	0.49	1.3	0.0031 J	0.042	0.20	0.18	0.24	0.077	1.6	0.71
PCB-129/138/160/163	55215-18-4	ng/g	4.1	8.6	0.020 J	0.23	1.4	1.3	1.7	0.57	10	6.4
PCB-130	52663-66-8	ng/g	0.30	0.64	0.0011 J	0.018	0.10	0.098	0.12	0.035	0.50	0.34
PCB-131	61798-70-7	ng/g	0.029 JN	0.11 JN	< 0.00026 U	0.0034 J	< 0.0029 U	0.014 JN	< 0.0059 U	< 0.0030 U	< 0.035 U	0.058
PCB-132	38380-05-1	ng/g	1.4	3.0	0.0067	0.081	0.44	0.44	0.56	0.16	2.9	1.8
PCB-133	35694-04-3	ng/g	0.19	0.17	< 0.00024 U	0.0032 JN	0.040	0.045	0.13	0.011	< 0.031 U	0.077
PCB-134/143	52704-70-8	ng/g	0.23	0.50	0.0012 JN	0.015 J	0.072 JN	0.070 JN	0.096	0.025	0.35	0.30
PCB-135/151	52744-13-5	ng/g	1.7	2.5	0.0039 JN	0.070	0.46	0.45	0.62	0.20	2.4	2.0
PCB-136	38411-22-2	ng/g	0.58	1.0	0.0019 JN	0.025	0.17	0.17	0.16	0.064	0.76	0.59
PCB-137	35694-06-5	ng/g	0.10	0.36	< 0.00021 U	0.011 JN	0.043	0.046	0.049	0.017	0.34	0.13
PCB-139/140	56030-56-9	ng/g	0.088 J	0.19	< 0.00022 U	0.0055 JN	0.033	0.031	0.054	0.0061 JN	< 0.028 U	0.044 JN
PCB-14	34883-41-5	ng/g	< 0.0017 U	< 0.0043 U	< 0.00018 U	< 0.00036 U	< 0.00085 U	< 0.0011 U	< 0.00069 U	< 0.0025 U	< 0.0025 U	< 0.0039 U
PCB-141	52712-04-6	ng/g	0.81	1.2	0.0042 J	0.041	0.25	0.23	0.30	0.092	2.2	1.5
PCB-142	41411-61-4	ng/g	< 0.018 U	< 0.0073 U	< 0.00024 U	< 0.0014 U	< 0.0027 U	< 0.0032 U	< 0.0055 U	< 0.0027 U	< 0.031 U	< 0.011 U
PCB-144	68194-14-9	ng/g	0.19	0.24	0.00017 JN	0.010	0.041 JN	0.045	0.047 JN	0.019	0.30	0.28
PCB-145	74472-40-5	ng/g	< 0.0037 U	< 0.00057 U	< 0.000031 U	< 0.000064 U	< 0.000058 U	< 0.000065 U	0.0011 J	< 0.00017 U	< 0.00013 U	< 0.00066 U
PCB-146	51908-16-8	ng/g	1.3	1.6	0.0043 J	0.038	0.34	0.33	0.83	0.10	1.2	0.81
PCB-147/149	68194-13-8	ng/g	4.4	7.4	0.020	0.18	1.3	1.3	1.6	0.51	7.4	4.8
PCB-148	74472-41-6	ng/g	0.056	0.041 J	< 0.000042 U	< 0.000085 U	0.0031 JN	0.0090 J	0.027	0.0017 JN	< 0.00019 U	0.0054 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B154	B155	B156	B157	B158	B158	B159	B160	B162	B163
		Sample ID	PDI-SG-B154-BL1	PDI-SG-B155-BL1	PDI-SG-B156-BL1	PDI-SG-B157-BL1	PDI-SG-B158-BL1	PDI-SG-B158-BL1-D	PDI-SG-B159-BL1	PDI-SG-B160-BL1	PDI-SG-B162-BL1	PDI-SG-B163-BL1
		Sample Date	14 Apr 2018	20 Jun 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	14 Apr 2018	16 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-21 cm	0-25 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
PCB-15	2050-68-2	ng/g	0.041 JN	0.15	0.0010 JN	0.015 JN	0.064	0.059	0.12	0.038	0.023 JN	0.17
PCB-150	68194-08-1	ng/g	0.032 JN	0.035 J	< 0.000028 U	0.00069 J	0.0064 JN	0.0051 JN	0.0054 JN	0.00044 JN	0.0044 J	0.0073 JN
PCB-152	68194-09-2	ng/g	< 0.0036 U	0.0066 JN	< 0.000030 U	< 0.000061 U	0.0011 JN	0.00069 JN	0.00097 JN	< 0.00017 U	< 0.00014 U	0.0026 JN
PCB-153/168	35065-27-1	ng/g	4.3	7.1	0.020	0.17	1.4	1.3	2.0	0.48	8.1	5.5
PCB-154	60145-22-4	ng/g	0.24	0.20	< 0.000036 U	0.0047 J	0.049	0.045 JN	0.12	0.0093 JN	0.041	0.065 JN
PCB-155	33979-03-2	ng/g	< 0.0034 U	< 0.00054 U	< 0.000028 U	< 0.000058 U	< 0.000053 U	< 0.000060 U	0.0017 JN	< 0.00016 U	< 0.00013 U	< 0.00060 U
PCB-156/157	38380-08-4	ng/g	0.31	0.90	0.0015 JN	0.028	0.11	0.11	0.15	0.049	1.2	0.56
PCB-158	74472-42-7	ng/g	0.31	0.80	0.0016 JN	0.025	0.11	0.10	0.15	0.046	1.0	0.63
PCB-159	39635-35-3	ng/g	0.040 JN	< 0.0049 U	< 0.00015 U	0.0022 J	0.021	0.015	0.031	< 0.0018 U	0.15	0.099
PCB-16	38444-78-9	ng/g	0.073	0.21	< 0.000056 U	0.022	0.057	0.046 JN	0.49	0.019 JN	0.013 JN	0.23 JN
PCB-161	74472-43-8	ng/g	< 0.012 U	< 0.0049 U	< 0.00016 U	< 0.00089 U	< 0.0018 U	< 0.0021 U	< 0.0036 U	< 0.0018 U	< 0.021 U	< 0.0071 U
PCB-162	39635-34-2	ng/g	< 0.011 U	< 0.0048 U	< 0.00015 U	< 0.00084 U	< 0.0017 U	< 0.0020 U	< 0.0034 U	< 0.0018 U	< 0.021 U	< 0.0068 U
PCB-164	74472-45-0	ng/g	0.30	0.58	0.0016 J	0.016	0.11	0.095	0.14	0.038	0.66	0.47
PCB-165	74472-46-1	ng/g	< 0.014 U	< 0.0055 U	< 0.00018 U	< 0.0010 U	< 0.0020 U	< 0.0024 U	< 0.0041 U	< 0.0021 U	< 0.024 U	< 0.0081 U
PCB-167	52663-72-6	ng/g	0.11	0.35	0.00078 JN	0.0095 J	0.042	0.040	0.054	0.018	0.46	0.24
PCB-169	32774-16-6	ng/g	< 0.0086 U	< 0.0033 U	< 0.00012 U	< 0.00067 U	< 0.0013 U	< 0.0015 U	< 0.0027 U	< 0.0014 U	< 0.017 U	< 0.0050 U
PCB-17	37680-66-3	ng/g	0.10	0.27	0.00078 JN	0.019 JN	0.10	0.089	1.0	0.062	0.023	0.30 JN
PCB-170	35065-30-6	ng/g	1.2	1.3	0.0071	0.044 JN	0.40	0.39	0.70	0.16	5.9	2.8
PCB-171/173	52663-71-5	ng/g	0.42	0.41	0.0015 JN	0.015 J	0.12	0.12	0.21	0.050	1.4	0.85
PCB-172	52663-74-8	ng/g	0.24	0.21	0.00083 JN	0.0073 JN	0.076	0.066	0.15	0.025	0.95	0.43
PCB-174	38411-25-5	ng/g	1.3	1.2	0.0070 JN	0.052	0.46	0.40	0.92	0.17	5.9	2.7
PCB-175	40186-70-7	ng/g	0.067	0.047	< 0.000023 U	0.00066 JN	0.017 JN	0.020	0.029 JN	0.0044 JN	0.18	0.099
PCB-176	52663-65-7	ng/g	0.17	0.17	0.00068 J	0.0052 JN	0.050	0.053	0.12	0.016 JN	0.52	0.27
PCB-177	52663-70-4	ng/g	0.90	0.81	0.0047 JN	0.031	0.28	0.25	0.69	0.10	2.9	1.5
PCB-178	52663-67-9	ng/g	0.38	0.29	0.00069 JN	0.012	0.11	0.098	0.31	0.041	1.0	0.46
PCB-179	52663-64-6	ng/g	0.72	0.62	0.0024 JN	0.022	0.21	0.20	0.47	0.076	2.0	0.92
PCB-18/30	37680-65-2	ng/g	0.16	0.54	0.00054 JN	0.046	0.13	0.12	1.1	0.069	0.039	0.52
PCB-180/193	35065-29-3	ng/g	2.6	2.6	0.016	0.097	0.88	0.84	2.1	0.35	14	6.0
PCB-181	74472-47-2	ng/g	< 0.0040 U	< 0.00072 U	< 0.000022 U	0.00062 JN	0.016	< 0.00022 U	< 0.000038 U	0.0033 J	< 0.00029 U	< 0.00022 U
PCB-182	60145-23-5	ng/g	0.023 JN	< 0.00070 U	< 0.000020 U	< 0.000032 U	< 0.00046 U	0.0052 J	0.027 JN	0.0024 JN	< 0.00028 U	< 0.00021 U
PCB-183/185	52663-69-1	ng/g	0.87	0.86	0.0037 JN	0.035	0.28	0.25	0.55	0.11	3.8	1.7
PCB-184	74472-48-3	ng/g	< 0.0033 U	< 0.00059 U	< 0.000018 U	< 0.000027 U	< 0.00040 U	< 0.00018 U	< 0.000031 U	< 0.00039 U	< 0.00024 U	< 0.00018 U
PCB-186	74472-49-4	ng/g	< 0.0031 U	< 0.00058 U	< 0.000017 U	< 0.000026 U	< 0.00038 U	< 0.00018 U	< 0.000030 U	< 0.00038 U	< 0.00023 U	< 0.00018 U
PCB-187	52663-68-0	ng/g	1.8	1.6	0.0093	0.058	0.64	0.55	1.7	0.23	7.0	2.8
PCB-188	74487-85-7	ng/g	0.013 JN	< 0.00052 U	< 0.000015 U	< 0.000024 U	< 0.00035 U	< 0.00016 U	< 0.000027 U	< 0.00034 U	< 0.00020 U	< 0.00016 U
PCB-189	39635-31-9	ng/g	0.045 J	0.044 J	0.00026 JN	< 0.00027 U	0.013 JN	0.014	0.024	0.0060 J	0.19	0.10
PCB-19	38444-73-4	ng/g	0.023 JN	0.085 JN	0.00018 JN	0.0076 J	0.027	0.031	0.81	0.033 JN	0.018	0.087 JN
PCB-190	41411-64-7	ng/g	0.22 JN	0.22	0.0016 J	0.0072 J	0.073	0.071	0.15	0.026	1.1	0.56
PCB-191	74472-50-7	ng/g	0.057	0.059	< 0.000016 U	0.0022 JN	0.017	0.016	0.032	0.0041 JN	0.21	0.13
PCB-192	74472-51-8	ng/g	< 0.0032 U	< 0.00061 U	< 0.000017 U	< 0.000027 U	< 0.00039 U	< 0.00018 U	< 0.000030 U	< 0.00040 U	< 0.00025 U	< 0.00018 U
PCB-194	35694-08-7	ng/g	0.85	0.53	0.0026 J	0.019	0.22	0.21	1.2	0.090	5.2	1.3
PCB-195	52663-78-2	ng/g	0.31	0.20	0.0017 J	0.0071 J	0.094	0.090	0.38	0.039	1.9	0.52
PCB-196	42740-50-1	ng/g	0.66	0.29	0.0019 J	0.0071 JN	0.10	0.11	0.56	0.038	2.0	0.58
PCB-197	33091-17-7	ng/g	0.032 JN	0.024 J	< 0.000046 U	< 0.00010 U	0.0097 J	0.0089 J	0.038	0.0027 JN	0.12	0.031 JN
PCB-198/199	68194-17-2	ng/g	4.0	0.75	0.0032 JN	0.028	0.26	0.25	1.6	0.10	4.4	1.1
PCB-2	2051-61-8	ng/g	0.013 J	0.018 J	0.00041 JN	0.0012 JN	0.028	0.044	0.032	0.015	0.0072 J	0.023 JN
PCB-20/28	38444-84-7	ng/g	0.46	0.89	0.0035 J+	0.087	0.39	0.40	1.2	0.14	0.082	1.2
PCB-200	52663-73-7	ng/g	0.12	0.058	0.00056 JN	0.0022 JN	0.029	0.029	0.14	0.011	0.43	0.14
PCB-201	40186-71-8	ng/g	0.17	0.072	< 0.000049 U	0.0023 JN	0.027	0.022	0.16	0.011	0.43	0.11 JN
PCB-202	2136-99-4	ng/g	1.1	0.17	0.00048 JN	0.0054 J	0.052	0.048 JN	0.34	0.022	0.62	0.17
PCB-203	52663-76-0	ng/g	1.2	0.37	0.0022 J	0.013 JN	0.16	0.14 JN	0.91	0.057	2.5	0.73
PCB-204	74472-52-9	ng/g	< 0.0081 U	< 0.00063 U	< 0.000050 U	< 0.00011 U	< 0.00065 U	< 0.00036 U	< 0.00049 U	< 0.00030 U	< 0.00018 U	< 0.00066 U
PCB-205	74472-53-0	ng/g	0.056	0.028 J	0.00029 J	0.0010 JN	0.011 J	0.0092 JN	0.047 JN	0.0047 J	0.25	0.068
PCB-206	40186-72-9	ng/g	32	1.8	< 0.0018 U	0.047 JN	0.18	0.18	2.1	0.067	1.1	0.30
PCB-207	52663-79-3	ng/g	1.4	0.098	< 0.0011 U	< 0.0021 U	0.025	0.019	0.15	0.0074 J	0.14	0.031 J
PCB-208	52663-77-1	ng/g	13	0.75	< 0.0012 U	0.0095 J	0.058	0.053	0.68	0.020	0.18	0.062
PCB-209	2051-24-3	ng/g	31	2.1	0.0020 JN	0.023	0.20	0.14 JN	0.97	0.089	0.097	0.053
PCB-21/33	55702-46-0	ng/g	0.17	0.38	0.0014 J+	0.052	0.14	0.14	0.60	0.055	0.035	0.59
PCB-22	38444-85-8	ng/g	0.10	0.23	0.00059 JN	0.035	0.075	0.078	0.36	0.039	0.022	0.42
PCB-23	55720-44-0	ng/g	< 0.0039 U	< 0.0028 U	< 0.000094 U	< 0.00086 U	< 0.0025 U	< 0.0025 U	< 0.0033 U	< 0.00077 U	< 0.00058 U	< 0.0071 U
PCB-24	55702-45-9	ng/g	0.0012 JN	0.0094 JN	< 0.000032 U	0.00064 JN	< 0.00067 U	0.0018 JN	0.026 JN	0.0016 JN	< 0.00045 U	0.013 JN
PCB-25	55712-37-3	ng/g	0.037 J	0.068	0.00041 J+	0.0075 J	0.039	0.042	0.11	0.014	0.0056 J	0.096

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B154	B155	B156	B157	B158	B158	B159	B160	B162	B163
		Sample ID	PDI-SG-B154-BL1	PDI-SG-B155-BL1	PDI-SG-B156-BL1	PDI-SG-B157-BL1	PDI-SG-B158-BL1	PDI-SG-B158-BL1-D	PDI-SG-B159-BL1	PDI-SG-B160-BL1	PDI-SG-B162-BL1	PDI-SG-B163-BL1
		Sample Date	14 Apr 2018	20 Jun 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	14 Apr 2018	16 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-21 cm	0-25 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-26 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.064 J	0.14	0.00049 JN	0.014 J	0.056	0.058	0.22	0.021 JN	0.011 J	0.18
PCB-27	38444-76-7	ng/g	0.0087 JN	0.045 J	< 0.000032 U	0.0035 JN	0.016 JN	0.014	0.30	0.014	0.0043 J	0.054
PCB-3	2051-62-9	ng/g	0.012 JN	0.021 JN	0.00024 JN	0.0016 J	0.017	0.024	0.020	0.0052 J	0.0029 JN	0.023 J
PCB-31	16606-02-3	ng/g	0.33	0.71	0.0021 JN	0.071	0.24	0.25	0.99	0.11	0.057	0.89
PCB-32	38444-77-8	ng/g	0.050	0.19	0.00037 JN	0.018	0.043 JN	0.037 JN	0.29 J-	0.040	0.016	0.29
PCB-34	37680-68-5	ng/g	0.0043 J	0.0076 J	< 0.000097 U	< 0.00089 U	< 0.0026 U	0.0047 J	0.0069 JN	< 0.00080 U	< 0.00060 U	< 0.0073 U
PCB-35	37680-69-6	ng/g	0.0086 J	0.023 J	0.00020 JN	< 0.00085 U	0.0057 JN	0.0063 J	0.022 JN	0.0019 JN	< 0.00058 U	0.020 J
PCB-36	38444-87-0	ng/g	< 0.0035 U	< 0.0027 U	< 0.000084 U	< 0.00077 U	< 0.0023 U	< 0.0023 U	< 0.0029 U	< 0.00075 U	< 0.00056 U	< 0.0064 U
PCB-37	38444-90-5	ng/g	0.12	0.26	0.0012 J+	0.026	0.10	0.099	0.24	0.040	0.029	0.30
PCB-38	53555-66-1	ng/g	< 0.0038 U	< 0.0029 U	< 0.000091 U	< 0.00084 U	< 0.0024 U	< 0.0024 U	< 0.0032 U	< 0.00081 U	< 0.00061 U	< 0.0069 U
PCB-39	38444-88-1	ng/g	0.0086 J	0.011 J	< 0.000083 U	< 0.00076 U	0.0049 JN	0.0047 JN	0.013	< 0.00072 U	< 0.00054 U	< 0.0063 U
PCB-4	13029-08-8	ng/g	0.040 JN	0.12	0.00063 JN	0.0068 J	0.040	0.036	1.4	0.075	0.012 JN	0.12 JN
PCB-40/41/71	38444-93-8	ng/g	0.35	0.69	0.0022 JN	0.043	0.28	0.28	1.1	0.084	0.066	0.69
PCB-42	36559-22-5	ng/g	0.20	0.41	0.00075 JN	0.019	0.16	0.15 JN	0.47	0.041	0.030	0.29
PCB-43/73	70362-46-8	ng/g	0.020 JN	0.044 JN	< 0.00012 U	0.065	0.014 J	0.019 J	0.078	0.0034 JN	< 0.0021 U	0.046 J
PCB-44/47/65	41464-39-5	ng/g	0.98	2.7	0.0076 J	0.087	0.62	0.63	2.2	0.20	0.23	1.5
PCB-45/51	70362-45-7	ng/g	0.12	0.25	0.00085 J+	0.015 J	0.057 JN	0.097	0.61	0.035	0.035	0.48
PCB-46	41464-47-5	ng/g	0.033 J	0.075	< 0.00016 U	0.0046 JN	0.023 JN	0.027	0.15	0.0078 J	0.0061 J	0.10
PCB-48	70362-47-9	ng/g	0.12	0.22	< 0.00013 U	0.013 JN	0.085	0.085	0.45	0.024	0.017	0.21
PCB-49/69	41464-40-8	ng/g	0.76	1.9	0.0042 J	< 0.00086 U	0.48	0.47	1.2	0.13	0.12	0.80
PCB-5	16605-91-7	ng/g	< 0.0021 U	< 0.0057 U	< 0.00021 U	< 0.00043 U	0.0013 JN	< 0.0013 U	0.0064 JN	< 0.0034 U	< 0.0033 U	0.0075 JN
PCB-50/53	62796-65-0	ng/g	0.10	0.25	0.0013 JN	0.012 J	0.099	0.093	0.42	0.036	0.027 JN	0.32
PCB-52	35693-99-3	ng/g	1.5	5.7	0.0084	0.18	0.77	0.77	2.2	0.22	0.41	1.3
PCB-54	15968-05-5	ng/g	< 0.00028 U	0.0090 JN	< 0.00022 U	< 0.000070 U	0.0042 JN	0.0050 JN	0.054	0.0035 J	0.0037 JN	0.039 J
PCB-55	74338-24-2	ng/g	< 0.0049 U	0.016 J	< 0.000091 U	0.0025 JN	< 0.0015 U	0.0051 JN	0.033 JN	0.0018 JN	0.0029 J	0.018 J
PCB-56	41464-43-1	ng/g	0.30	0.64	0.0012 JN	0.031	0.21	0.21	0.58	0.063	0.068	0.22
PCB-57	70424-67-8	ng/g	< 0.0050 U	< 0.0053 U	< 0.000093 U	< 0.00074 U	< 0.0015 U	< 0.0017 U	< 0.0021 U	< 0.0012 U	< 0.0017 U	< 0.0062 U
PCB-58	41464-49-7	ng/g	0.0055 JN	0.020 J	< 0.000090 U	< 0.00072 U	0.013 J	0.0043 JN	< 0.0020 U	0.0012 JN	< 0.0017 U	< 0.0060 U
PCB-59/62/75	74472-33-6	ng/g	0.062 J	0.13 J	< 0.00028 U	0.0074 J	0.052	0.048	0.20	0.014 J	0.011 J	0.12
PCB-6	25569-80-6	ng/g	0.017 J	0.047 JN	< 0.00021 U	0.0039 J	0.026	0.028	0.098	0.013 JN	0.0074 J	0.065
PCB-60	33025-41-1	ng/g	0.072	0.21	0.00079 JN	0.019 JN	0.051	0.047	0.34	0.026	0.023 JN	0.12
PCB-61/70/74/76	33284-53-6	ng/g	1.4	5.4	0.0077 J	0.17	0.91	0.88	2.2	0.27	0.44	1.1
PCB-63	74472-34-7	ng/g	0.029 J	0.089	0.00019 JN	0.0023 JN	0.010 JN	0.015 JN	0.059	0.0050 JN	0.0052 J	0.029 J
PCB-64	52663-58-8	ng/g	0.27	0.73	0.0018 J	0.036	0.20	0.20	0.69	0.061	0.059	0.40
PCB-66	32598-10-0	ng/g	0.81	2.1	0.0050 J	0.077	0.66	0.63	1.2	0.17	0.16	0.56
PCB-67	73575-53-8	ng/g	0.015 J	0.031 J	0.00014 JN	< 0.00069 U	0.013	0.013 JN	0.051	0.0038 J	< 0.0014 U	0.022 J
PCB-68	73575-52-7	ng/g	0.051	0.039 J	0.00030 JN	< 0.00065 U	0.014	0.018	0.027	0.0053 J	< 0.0015 U	0.017 J
PCB-7	33284-50-3	ng/g	0.0058 J	0.012 JN	< 0.00020 U	< 0.00041 U	0.0050 J	0.0048 J	0.033	< 0.0030 U	< 0.0030 U	0.0085 JN
PCB-72	41464-42-0	ng/g	0.047 J	0.066 JN	< 0.000091 U	< 0.00073 U	0.021	0.022	0.024	0.0038 J	< 0.0016 U	0.012 J
PCB-77	32598-13-3	ng/g	0.065	0.36	0.00059 J	0.0077 J	0.053	0.053	0.097	0.015 JN	0.12	0.076
PCB-78	70362-49-1	ng/g	< 0.0048 U	< 0.0054 U	< 0.000090 U	< 0.00072 U	< 0.0015 U	< 0.0016 U	< 0.0020 U	< 0.0012 U	< 0.0017 U	< 0.0060 U
PCB-79	41464-48-6	ng/g	0.025 JN	0.093	0.00022 JN	0.0016 JN	0.013	0.013	0.012 JN	0.0018 JN	0.015	0.017 J
PCB-8	34883-43-7	ng/g	0.067 J	0.18	0.00098 JN	0.023 JN	0.070	0.079	0.56	0.046	0.017 J	0.34
PCB-80	33284-52-5	ng/g	< 0.0043 U	< 0.0046 U	< 0.000080 U	< 0.00064 U	< 0.0013 U	< 0.0014 U	< 0.0018 U	< 0.0010 U	< 0.0014 U	< 0.0053 U
PCB-81	70362-50-4	ng/g	< 0.0046 U	< 0.0051 U	< 0.000086 U	< 0.00068 U	< 0.0014 U	< 0.0015 U	< 0.0019 U	< 0.0011 U	0.0029 J	< 0.0058 U
PCB-82	52663-62-4	ng/g	0.18	0.87	0.0014 J	0.020 JN	0.087	0.083	0.13	0.036	0.32	0.18
PCB-83/99	60145-20-2	ng/g	1.5	6.5	0.0068 J	0.12	0.71	0.64	0.73	0.23	1.0	0.91
PCB-84	52663-60-2	ng/g	0.45	2.3	0.0036 J	0.054	0.20 JN	0.20	0.30	0.078	0.59	0.37
PCB-85/116/117	65510-45-4	ng/g	0.24 JN	1.4	0.00082 JN	0.040	0.13	0.12	0.18	0.061	0.36	0.22 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.1	6.1	0.0051 J	0.13	0.49	0.46	0.64	0.20	1.7	1.1
PCB-88/91	55215-17-3	ng/g	0.37	1.4	0.0018 JN	0.030	0.19	0.17	0.21	0.055	0.24	0.25
PCB-89	73575-57-2	ng/g	< 0.0030 U	< 0.00084 U	< 0.00018 U	0.0024 JN	< 0.0017 U	< 0.0027 U	0.019 J-	< 0.00036 U	< 0.00017 U	< 0.0058 U
PCB-9	34883-39-1	ng/g	0.0070 J	0.013 JN	< 0.00024 U	0.00086 JN	0.0043 J	0.0052 J	0.031	< 0.0031 U	< 0.0031 U	0.018 JN
PCB-90/101/113	68194-07-0	ng/g	2.5	11	0.011 J	0.20	0.92	0.86	1.0	0.36	2.4	2.1
PCB-92	52663-61-3	ng/g	0.67	1.9	0.0021 JN	0.038	0.24	0.21	0.20	0.059 JN	0.39	0.41
PCB-93/100	73575-56-1	ng/g	0.063 JN	0.19	0.00088 JN	0.0041 JN	0.035	0.030	0.066	0.0081 JN	0.039	0.10
PCB-94	73575-55-0	ng/g	< 0.0030 U	< 0.00084 U	< 0.00018 U	< 0.00033 U	0.0088 J	0.0073 J	0.013 JN	< 0.00036 U	< 0.00017 U	0.030 J
PCB-95	38379-99-6	ng/g	2.0	8.1	0.0096	0.17	0.75	0.71	0.90	0.29	2.0	1.5
PCB-96	73575-54-9	ng/g	< 0.0022 U	< 0.00063 U	< 0.00014 U	< 0.00025 U	0.0097 JN	0.0097 JN	0.015 JN	0.0034 JN	< 0.00013 U	0.021 J
PCB-98/102	60233-25-2	ng/g	0.068 J	0.23	< 0.00017 U	0.0068 JN	0.041	0.034	0.070 JN	0.011 J	0.046	0.085
Total PCBs (b)	T_PCBCg (PDI)	ng/g	141	147	0.30	4.2	24	23	58	9.2	128	80

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B154	B155	B156	B157	B158	B158	B159	B160	B162	B163
		Sample ID	PDI-SG-B154-BL1	PDI-SG-B155-BL1	PDI-SG-B156-BL1	PDI-SG-B157-BL1	PDI-SG-B158-BL1	PDI-SG-B158-BL1-D	PDI-SG-B159-BL1	PDI-SG-B160-BL1	PDI-SG-B162-BL1	PDI-SG-B163-BL1
		Sample Date	14 Apr 2018	20 Jun 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	14 Apr 2018	16 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-21 cm	0-25 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	6.4	2.3	0.63 J	0.71	4.6	4.7	0.92	1.5	0.48	1.3 J
2,4-DDE	3424-82-6	µg/kg	0.72	< 0.34 U	< 0.63 U	< 0.40 U	< 0.53 U	< 0.52 U	< 0.84 U	< 1.0 U	< 0.40 U	< 1.7 U
2,4-DDT	789-02-6	µg/kg	< 0.47 U	0.37	< 0.63 U	< 0.47 U	< 0.53 U	< 0.52 U	< 0.84 U	< 1.0 U	< 0.47 U	< 1.7 U
4,4'-DDD	72-54-8	µg/kg	12	4.8	2.6	1.7	9.4	10	2.3	3.9	1.2	4.0
4,4'-DDE	72-55-9	µg/kg	6.2	3.0	< 0.63 U	0.57	5.4	5.7	1.2	2.8	1.0	2.9
4,4'-DDT	50-29-3	µg/kg	1.1 J	0.83	0.57 J	0.31 J	1.0	1.0	< 0.84 U	5.6	0.27 J	< 1.7 U
Total DDx (b)	T_DDx (PDI)	µg/kg	27	11	4.1	3.5	21	22	4.8	14	3.2	9.1
Aldrin	309-00-2	µg/kg	0.56	< 0.34 U	< 0.63 U	< 0.40 U	< 0.53 U	< 0.52 U	< 0.84 U	< 1.0 U	< 0.40 U	< 1.7 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.91 U	< 0.68 U	< 1.3 U	< 0.65 U	< 1.1 U	< 1.0 U	< 1.7 U	< 2.1 U	< 0.80 U	< 3.4 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.49 U	< 0.34 U	< 0.63 U	< 0.49 U	< 0.53 U	< 0.52 U	< 0.84 U	< 1.1 UJ	< 0.49 U	< 1.7 U
Dieldrin	60-57-1	µg/kg	< R	< 0.68 U	< 1.3 UJ	< 1.0 U	< 1.1 U	< 1.0 U	< 1.7 UJ	< 2.1 UJ	< 1.0 U	< 3.4 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.46 U	< 0.34 U	< 0.63 U	< 0.33 U	< 0.53 U	< 0.52 U	< 0.84 U	< 1.0 U	< 0.40 U	< 1.7 U
gamma-Chlordane	5566-34-7	µg/kg	0.32 J	0.30 J	< 1.3 U	< 0.65 U	< 1.1 U	< 1.0 U	< 1.7 U	< 2.1 U	< 0.80 U	< 3.4 U
Heptachlor	76-44-8	µg/kg	< 0.46 UJ	< 0.34 U	< 0.63 U	< 0.33 UJ	< 0.53 UJ	< 0.52 UJ	< 0.84 U	< 1.0 U	< 0.40 U	< 1.7 U
Oxychlordane	27304-13-8	µg/kg	< 1.0 U	< 0.68 U	< 1.3 U	< 1.0 U	< 1.1 U	< 1.0 U	< 1.7 U	< 2.1 U	< 1.0 U	< 3.4 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.91 U	< 0.68 U	< 1.3 U	< 0.65 U	< 1.1 U	0.32 J	< 1.7 U	< 2.1 U	< 0.80 U	< 3.4 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	0.82	0.64	< 1.3 U	< 1 U	< 1.1 U	0.82	< 1.7 U	< 2.1 U	< 1 U	< 3.4 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	190	410	1.6	16	43	45	60	11	8.0	75
Acenaphthene	83-32-9	µg/kg	380	640	0.89	10	110 J	200 J	59	28	45	79
Acenaphthylene	208-96-8	µg/kg	63	59	14	21	45	56	120	20	6.5	35
Anthracene	120-12-7	µg/kg	200	350	4.9	22	120	140	150	46	17	90
Benz(a)anthracene	56-55-3	µg/kg	580	790	140	300	630	620	1400	240	79	360
Benzo(a)pyrene	50-32-8	µg/kg	660	810	210	430	860	820	2300	320	120	540
Benzo(b)fluoranthene	205-99-2	µg/kg	660	1100	170	360	810	750	2000	340	120	560
Benzo(g,h,i)perylene	191-24-2	µg/kg	650	380	170	400	870	840	2000	310	110	470
Benzo(k)fluoranthene	207-08-9	µg/kg	190	400	54	120	260	260	660	110	40	200
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	67 J	280	10 J	21 J	190	240 J	66 J	100 J	82	2300
Chrysene	218-01-9	µg/kg	730	880	170	360	740	780	2100	340	110	470
Dibenz(a,h)anthracene	53-70-3	µg/kg	94	93	24	56	130	120	300	48	21	94
Fluoranthene	206-44-0	µg/kg	2100	2500	130	300	1400	2100	1500	500	160	670
Fluorene	86-73-7	µg/kg	230	680	1.1	11	80 J	170 J	54	24	9.1	77
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	530	540	150	350	780	730	1800	270	100	440
Naphthalene	91-20-3	µg/kg	510	990	5.7	46	99	99	120	24	18	170
Phenanthrene	85-01-8	µg/kg	2100	2500	3.7	81	850 J	1900 J	410	180	140	410
Pyrene	129-00-0	µg/kg	2800	2200	300	460	1900	2700	1900	640	210	840
Total PAHs (b)	T_PAH (PDI)	µg/kg	12667	15322	1550	3343	9727	12330	16933	3451	1314	5580
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	934	1151	281	589	1215	1153	3129	454	171	772
Metals												
Arsenic	7440-38-2	mg/kg	6.2	11	3.7	3.4	6.2	5.6	4.7	5.3	4.3	4.7
Cadmium	7440-43-9	mg/kg	0.39	0.40	0.049 J	0.12 J	0.32 J	0.32	0.17 J	0.13 J	0.16 J	0.21 J
Copper	7440-50-8	mg/kg	77 J	230	14	14	56	47	38	44	25	43
Lead	7439-92-1	mg/kg	52 J	36	3.9	7.6	38 J	16 J	22	13	10	33
Mercury	7439-97-6	mg/kg	0.23	0.13	0.012 J	0.013 J	0.077	0.088	0.075	0.059	0.037 J	0.11
Tri-n-butyltin	36643-28-4	µg/kg	6.5	670	< 1.3 U	< 1.3 U	100	140	8.9	2.8	4.3 J	6.3
Zinc	7440-66-6	mg/kg	160	180	55	65	140	130	98	110	86	150
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	500	190	28 J	< 60 U	260	130	72 J	34 J	30 J	130 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	1200 J	620	97	79	810 J	460 J	380	210	140	890
Other												
Total Solids@104C - D2216 (f)	TSOLID	%		53.5 55.6								
Total Solids@104C - E160.3 (f)	TSOLID	%	53.4		78.7	78.3	43.3	45.7	57.8	46.6	62.6	59.0
Total Solids@104C - E160.3M (f)	TSOLID	%	54.5	54.0	78.2	74.8	46.6	46.9	57.4	46.8	61.5	58.9
Total Solids@70C	TSOLID70	%	55	53	81	75	48	50	56	48	64	61
Gravel	GS-Gravel	%	0.2	2.6	0.6	48.5 L	1.6		0.2	0	0	0
Sand, Coarse	GS-Csand	%	0.3	0.4	2.8	11.5	0.1		0.4	0.2	0.7	1.3
Sand, Medium	GS-Msand	%	13.8	5.5	55.2	28.3 L	1.7		24.2	2.4	35.2	13.6
Sand, Fine (#200) (d)	GS-Fsand-200	%	32.76	40.53	37.41	12.98	26.37		48.03	28.94	36.2	63.05
Sand, Fine (#230) (d)	GS-Fsand	%	36.5	45.9	37.6	13.6	29.3		51.3	34.1	37.8	65.8
Silt (#200) (d)	GS-Silt-200	%	42.83	46.96	2.184	0	58.02		21.26	57.65	19.79	17.04

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B154	B155	B156	B157	B158	B158	B159	B160	B162	B163
		Sample ID	PDI-SG-B154-BL1	PDI-SG-B155-BL1	PDI-SG-B156-BL1	PDI-SG-B157-BL1	PDI-SG-B158-BL1	PDI-SG-B158-BL1-D	PDI-SG-B159-BL1	PDI-SG-B160-BL1	PDI-SG-B162-BL1	PDI-SG-B163-BL1
		Sample Date	14 Apr 2018	20 Jun 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	14 Apr 2018	16 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-21 cm	0-25 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	39.1	41.6	2.0	-3.3	55.1		18.0	52.5	18.2	14.3
Clay	GS-Clay	%	10.0	4.0	1.4	1.4	12.2		5.9	10.7	8.1	5.1
Percent Fines (e)	GS-FINES	%	52.83	50.96	3.584	1.4	70.22		27.16	68.35	27.89	22.14
Total Organic Carbon	TOC	mg/kg	21000	16000	< 2000 U	8000	24000	20000	12000	18000	7600	28000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B164	B164	B165	B166	B167	B168	B169	B170	B171	B172
		Sample ID	PDI-SG-B164-BL1	PDI-SG-B164-BL1-D	PDI-SG-B165-BL1	PDI-SG-B166-BL1	PDI-SG-B167-BL1	PDI-SG-B168-BL1	PDI-SG-B169-BL1	PDI-SG-B170-BL1	PDI-SG-B171-BL1	PDI-SG-B172-BL1
		Sample Date	16 Apr 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	17 Apr 2018	14 Apr 2018	17 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-24 cm	0-30 cm	0-30 cm	0-24 cm	0-22 cm	0-22 cm	0-30 cm	0-22 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.021	0.034	2.3	0.058	0.71	0.17	0.018	0.25	0.0069	0.052
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0034 J	0.0060	0.028 J	0.014 JN	0.065 J	0.0070 J	0.0034 J	0.11 J	0.0011 JN	0.011 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00032 U	< 0.00054 U	< 0.00053 U	0.0022 J	< 0.0026 U	< 0.00054 U	< 0.00025 U	0.027	0.00015 J	0.0017 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00033 U	< 0.00043 U	0.0028 JN	0.00070 JN	0.0027 J+	0.00069 J+	< 0.00027 U	0.0020 J+	0.00015 JN	0.00095 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.00044 U	0.0012 J+	0.0056 J	0.010	0.0058 J	0.0041 J	< 0.00034 U	0.16	0.00027 J	0.0057 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00088 J+	0.0015 J+	0.029	0.0025 J	0.017	0.0024 J	0.00068 J+	0.0086	0.00027 J+	0.0024 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0012 U	0.0011 JN	0.0043 J	0.0062 J	< 0.011 U	0.00069 JN	0.00062 J+	0.030	< 0.00012 U	0.0018 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00077 J+	0.00094 J+	0.0068	0.0019 J	0.0080 J	0.0017 J	0.00051 JN	0.0048 J	0.00026 J+	0.0020 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00015 U	< 0.00017 U	< 0.00038 U	< 0.00023 U	< 0.00088 U	< 0.00041 U	< 0.00015 U	0.0040 J	< 0.000062 U	0.0012 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00014 U	< 0.00020 U	0.0010 J	< 0.00025 U	< 0.00074 U	< 0.00057 U	< 0.00013 U	< 0.0011 U	< 0.00018 U	0.00060 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00020 U	0.00045 J+	0.0046 J	0.0044 J	< 0.0012 U	0.0015 J	< 0.000089 U	0.095	< 0.000051 U	0.0035 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00015 U	< 0.00028 U	0.00083 J	< 0.00024 U	0.0026 J	< 0.00042 U	< 0.00016 U	0.0072	< 0.000070 U	0.00065 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00024 U	< 0.00023 U	0.0018 J	0.0016 J	0.0019 JN	0.0011 J	< 0.00011 U	0.035	< 0.000057 U	0.0015 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00014 JN	0.00013 JN	0.00034 JN	0.00026 JN	0.00029 JN	< 0.00059 U	0.00011 JN	0.00059 JN	< 0.000034 U	0.00030 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	< 0.00020 U	0.00058 J+	0.0044	0.0039	0.0025	0.0020 J	0.00026 J+	0.049	0.00013 J+	0.0052
OCDD	3268-87-9	µg/kg	0.19 J	0.33 J	11 J	0.51	5.7	1.1	0.20	3.1	0.063	0.45
OCDF	39001-02-0	µg/kg	0.0087	0.016	0.033	0.035	0.14	0.034 J	0.0079	0.24	0.0037 J	0.035
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00068	0.0013	0.034	0.0044	0.015	0.0039	0.00066	0.046	0.0003	0.0042
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00054	0.001	0.034	0.0041	0.014	0.0039	0.0005	0.045	0.00027	0.0036
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00047	0.00094	0.033	0.004	0.013	0.0036	0.00043	0.045	0.00018	0.0033
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0019 J+	< 0.00024 U	0.0039 JN	0.0061 JN	0.019	< 0.00082 U	0.015	0.020 JN	0.0026 J	< 0.00028 U
PCB-10	33146-45-1	ng/g	< 0.00085 U	< 0.00082 U	< 0.00069 U	0.00097 J	0.0065 JN	< 0.0027 U	0.0012 J	< 0.020 U	< 0.0017 U	< 0.0055 U
PCB-103	60145-21-3	ng/g	0.0044 J	0.0044 JN	0.0057 J	0.0088 J	0.026	< 0.00020 U	0.0061 J	0.084 JN	< 0.00021 U	0.0061 J
PCB-104	56558-16-8	ng/g	0.0011 JN	< 0.00065 U	< 0.00079 U	< 0.0010 U	< 0.0013 U	< 0.00015 U	0.0014 J	< 0.0017 U	< 0.00016 U	< 0.00047 U
PCB-105	32598-14-4	ng/g	0.050	0.033	0.084	0.13	0.39	0.045	0.039	0.81	0.021	0.11
PCB-106	70424-69-0	ng/g	< 0.0013 U	< 0.00062 U	< 0.0016 U	< 0.0019 U	< 0.0052 U	< 0.00069 U	< 0.00080 U	< 0.0062 U	< 0.00052 U	< 0.0020 U
PCB-107	70424-68-9	ng/g	0.0086 JN	0.0082	0.024	0.028 JN	0.080	0.0077 JN	0.011	0.32	0.0046 J	0.019 JN
PCB-108/124	70362-41-3	ng/g	0.0040 JN	0.0040 J	0.0093 J	0.013 JN	0.042	0.0044 JN	0.0038 JN	0.087 JN	0.0017 JN	0.011 JN
PCB-11	2050-67-1	ng/g	0.16	0.16	0.049	0.063	0.39	0.016 JN	0.17	0.075 JN	0.23	0.065
PCB-110/115	38380-03-9	ng/g	0.17	0.13	0.26	0.44	1.6	0.16	0.17	4.0	0.081	0.37
PCB-111	39635-32-0	ng/g	< 0.00056 U	< 0.00058 U	< 0.00070 U	< 0.00090 U	< 0.0011 U	< 0.00014 U	< 0.00048 U	< 0.0015 U	< 0.00015 U	< 0.00044 U
PCB-112	74472-36-9	ng/g	< 0.00061 U	< 0.00063 U	< 0.00077 U	< 0.00098 U	< 0.0013 U	< 0.00015 U	< 0.00052 U	< 0.0016 U	< 0.00015 U	< 0.00046 U
PCB-114	74472-37-0	ng/g	0.0025 JN	0.0022 JN	0.0038 JN	0.0061 JN	0.024	0.0029 J	0.0017 JN	0.047 JN	0.0015 JN	0.0055 JN
PCB-118	31508-00-6	ng/g	0.11	0.091	0.20	0.32	1.0	0.12	0.11	2.7	0.055	0.26
PCB-12/13	2974-92-7	ng/g	0.0036 JN	0.0062 J	0.0024 JN	0.0051 JN	0.033	< 0.0025 U	0.0059 JN	0.029 JN	0.0054 JN	< 0.0050 U
PCB-120	68194-12-7	ng/g	< 0.00055 U	0.0010 JN	0.0012 JN	0.0044 J	0.012	< 0.00014 U	0.0015 JN	0.031 JN	< 0.00015 U	< 0.00044 U
PCB-121	56558-18-0	ng/g	< 0.00060 U	< 0.00062 U	< 0.00075 U	< 0.00096 U	< 0.0012 U	< 0.00015 U	< 0.00051 U	< 0.0016 U	< 0.00015 U	< 0.00046 U
PCB-122	76842-07-4	ng/g	0.0017 J	< 0.00069 U	0.0030 J	0.0043 J	0.015	0.0015 JN	< 0.00088 U	0.038 JN	0.00093 JN	< 0.0023 U
PCB-123	65510-44-3	ng/g	< 0.0012 U	0.0015 J	0.0051 J	0.0082 J	0.015 JN	0.0012 JN	0.0018 JN	0.039 J	0.0014 J	0.0056 JN
PCB-126	57465-28-8	ng/g	< 0.0013 U	< 0.00062 U	< 0.0015 U	< 0.0019 U	0.0057 J	0.0012 JN	< 0.00080 U	< 0.0066 U	< 0.00067 U	< 0.0022 U
PCB-127	39635-33-1	ng/g	< 0.0012 U	< 0.00060 U	< 0.0015 U	< 0.0018 U	< 0.0050 U	< 0.00069 U	< 0.00076 U	< 0.0062 U	< 0.00052 U	< 0.0020 U
PCB-128/166	38380-07-3	ng/g	0.13 J	0.024 J	0.059	0.098	0.78	0.029	0.040	0.66	0.013 J	0.075
PCB-129/138/160/163	55215-18-4	ng/g	1.0 J	0.20 J	0.40	0.64	8.3	0.28	0.37	7.0	0.10	0.60
PCB-130	52663-66-8	ng/g	0.038	0.014	0.026	0.042	0.29	0.011 JN	0.020	0.38	0.0046 JN	0.035
PCB-131	61798-70-7	ng/g	< 0.0040 U	< 0.0014 U	0.0046 J	0.0071 J	< 0.012 U	< 0.0016 U	< 0.0015 U	< 0.022 U	< 0.0013 U	< 0.0037 U
PCB-132	38380-05-1	ng/g	0.14 J	0.068 J	0.11	0.20	2.4	0.089	0.12	2.3	0.032	0.16
PCB-133	35694-04-3	ng/g	0.011 J	0.0034 JN	0.0067 JN	0.012 J	0.099	0.0034 J	0.0057 JN	0.16	0.0026 J	0.0096 JN
PCB-134/143	52704-70-8	ng/g	0.020 JN	0.0091 JN	0.019 J	0.033	0.38	0.012 J	0.019 JN	0.32	0.0050 JN	0.023 JN
PCB-135/151	52744-13-5	ng/g	0.19 J	0.065 J	0.12	0.20	4.1	0.10	0.15	3.0	0.036	0.19
PCB-136	38411-22-2	ng/g	0.036	0.019	0.041	0.071	1.2	0.037	0.053	1.0	0.013	0.059
PCB-137	35694-06-5	ng/g	0.014 JN	0.0059 JN	0.014	0.027	0.079 JN	0.0074 J	0.0092	0.13 JN	0.0041 J	0.023
PCB-139/140	56030-56-9	ng/g	< 0.0033 U	0.0037 JN	0.0047 JN	0.0091 JN	< 0.0095 U	0.0026 JN	0.0045 JN	< 0.018 U	0.0012 JN	0.010 J
PCB-14	34883-41-5	ng/g	< 0.00066 U	< 0.00064 U	< 0.00054 U	< 0.00055 U	< 0.00072 U	< 0.0021 U	< 0.00043 U	< 0.016 U	< 0.0013 U	< 0.0042 U
PCB-141	52712-04-6	ng/g	0.26 J	0.034 JN	0.073	0.11	2.6	0.059	0.081	1.6	0.015 JN	0.11
PCB-142	41411-61-4	ng/g	< 0.0038 U	< 0.0013 U	< 0.0017 U	< 0.0025 U	< 0.011 U	< 0.0015 U	< 0.0014 U	< 0.020 U	< 0.0012 U	< 0.0033 U
PCB-144	68194-14-9	ng/g	0.027 J	0.0075 JN	0.011 JN	0.020 JN	0.53	0.012	0.014 JN	0.35	0.0040 J	0.020
PCB-145	74472-40-5	ng/g	< 0.00015 U	< 0.000061 U	< 0.00023 U	< 0.00036 U	< 0.00012 U	< 0.00015 U	< 0.00035 U	< 0.0025 U	< 0.00011 U	< 0.00053 U
PCB-146	51908-16-8	ng/g	0.16 J	0.035 J	0.068	0.11	1.2	0.041	0.066	1.5	0.016	0.10
PCB-147/149	68194-13-8	ng/g	0.49 J	0.17 J	0.30	0.51	9.1	0.28	0.35	7.9	0.10	0.50
PCB-148	74472-41-6	ng/g	0.0016 J	0.00051 J	< 0.00031 U	0.0042 J	0.0065 JN	< 0.00021 U	0.0018 JN	0.035 J	< 0.00016 U	< 0.00075 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B164	B164	B165	B166	B167	B168	B169	B170	B171	B172
		Sample ID	PDI-SG-B164-BL1	PDI-SG-B164-BL1-D	PDI-SG-B165-BL1	PDI-SG-B166-BL1	PDI-SG-B167-BL1	PDI-SG-B168-BL1	PDI-SG-B169-BL1	PDI-SG-B170-BL1	PDI-SG-B171-BL1	PDI-SG-B172-BL1
		Sample Date	16 Apr 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	17 Apr 2018	14 Apr 2018	17 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-24 cm	0-30 cm	0-30 cm	0-24 cm	0-22 cm	0-22 cm	0-30 cm	0-22 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.025	0.020	0.021	0.022	0.11	0.0051 JN	0.024	0.11 JN	0.019 JN	0.018 JN
PCB-150	68194-08-1	ng/g	0.00083 JN	0.00023 JN	0.00088 JN	0.0011 JN	< 0.00011 U	< 0.00014 U	0.0026 JN	0.020 J	< 0.00011 U	< 0.00051 U
PCB-152	68194-09-2	ng/g	< 0.00014 U	< 0.000059 U	< 0.00022 U	0.0015 J	< 0.00012 U	< 0.00015 U	< 0.00034 U	< 0.0025 U	< 0.00011 U	< 0.00055 U
PCB-153/168	35065-27-1	ng/g	1.2 J	0.18 J	0.33	0.54	9.3	0.25	0.37	7.2	0.089	0.51
PCB-154	60145-22-4	ng/g	0.011	0.0050 JN	0.0084 JN	0.015	0.046 JN	0.0023 JN	0.012	0.16 JN	0.0018 JN	0.0041 JN
PCB-155	33979-03-2	ng/g	0.0015 J	0.00049 JN	0.00034 J	0.0010 J	< 0.00011 U	< 0.00014 U	0.00061 JN	< 0.0024 U	0.00089 JN	< 0.00051 U
PCB-156/157	38380-08-4	ng/g	0.12 J	0.018 J	0.036	0.064	0.52	0.020	0.024	0.55	0.0057 JN	0.049
PCB-158	74472-42-7	ng/g	0.11 J	0.018 J	0.035	0.058	0.76	0.023	0.036	0.47	0.0078 J	0.051
PCB-159	39635-35-3	ng/g	0.047 J	0.0024 J	0.0052 J	0.0065 JN	0.23	0.0017 JN	0.0046 JN	0.060 J	< 0.00080 U	< 0.0022 U
PCB-16	38444-78-9	ng/g	0.014	0.015	0.012	0.021 JN	0.097	0.0043 J	0.019	0.20 JN	0.015	0.020
PCB-161	74472-43-8	ng/g	< 0.0025 U	< 0.00084 U	< 0.0011 U	< 0.0016 U	< 0.0071 U	< 0.00098 U	< 0.00091 U	< 0.013 U	< 0.00079 U	< 0.0022 U
PCB-162	39635-34-2	ng/g	< 0.0023 U	< 0.00080 U	< 0.0011 U	< 0.0015 U	< 0.0067 U	< 0.00097 U	< 0.00086 U	< 0.013 U	< 0.00078 U	< 0.0022 U
PCB-164	74472-45-0	ng/g	0.063 J	0.013 J	0.027	0.045	0.62	0.018	0.027	0.50	0.0054 JN	0.029 JN
PCB-165	74472-46-1	ng/g	< 0.0028 U	< 0.00096 U	< 0.0013 U	< 0.0018 U	< 0.0081 U	< 0.0011 U	< 0.0010 U	< 0.015 U	< 0.00090 U	< 0.0025 U
PCB-167	52663-72-6	ng/g	0.051 J	0.0064 J	0.014	0.022	0.17	0.0063 J	0.010	0.17	0.0022 J+	0.018
PCB-169	32774-16-6	ng/g	< 0.0018 U	< 0.00061 U	< 0.00087 U	< 0.0012 U	< 0.0052 U	< 0.00079 U	< 0.00067 U	< 0.010 U	< 0.00068 U	< 0.0022 U
PCB-17	37680-66-3	ng/g	0.015 JN	0.015 JN	0.017	0.030	0.12	0.0073 J	0.021	0.34 J	0.016	0.021
PCB-170	35065-30-6	ng/g	1.5 J	0.062 J	0.11	0.17	4.5	0.094	0.10	2.7	0.023	0.17
PCB-171/173	52663-71-5	ng/g	0.42 J	0.019 J	0.039	0.052 JN	1.4	0.028	0.037	0.84	0.0081 J	0.044
PCB-172	52663-74-8	ng/g	0.26 J	0.0076 JN	0.016 JN	0.032 JN	0.83	0.015	0.018	0.47	0.0047 J	0.031
PCB-174	38411-25-5	ng/g	1.3 J	0.065 J	0.13 JN	0.20	6.0	0.10	0.13	2.9	0.023	0.17
PCB-175	40186-70-7	ng/g	0.051 J	0.0018 JN	0.0038 JN	0.0065 JN	0.24	0.0025 JN	0.0056 J	0.094 JN	0.0010 JN	< 0.0016 U
PCB-176	52663-65-7	ng/g	0.13 J	0.0077 J	0.013	0.021	0.69	0.013	0.017	0.39	0.0030 J	0.014 JN
PCB-177	52663-70-4	ng/g	0.77 J	0.037 J	0.085	0.13	3.1	0.050	0.076	1.7	0.015	0.099
PCB-178	52663-67-9	ng/g	0.22 J	0.016 J	0.033	0.046	1.1	0.019	0.026	0.61	0.0054 J	0.036 JN
PCB-179	52663-64-6	ng/g	0.39 J	0.030 J	0.050 JN	0.090	2.6	0.046	0.058	1.4	0.013	0.079
PCB-18/30	37680-65-2	ng/g	0.031	0.026	0.031	0.042 JN	0.20	0.015 J	0.036	0.63 J	0.033	0.041
PCB-180/193	35065-29-3	ng/g	3.5 J	0.13 J	0.25	0.37	12	0.20	0.24	6.1	0.043	0.35
PCB-181	74472-47-2	ng/g	< 0.00032 U	< 0.00059 U	0.0021 JN	< 0.00068 U	< 0.000087 U	< 0.00050 U	< 0.00072 U	0.091	< 0.00038 U	< 0.0016 U
PCB-182	60145-23-5	ng/g	< 0.00031 U	< 0.00056 U	0.0010 JN	0.0034 JN	< 0.000083 U	< 0.00048 U	< 0.00068 U	< 0.0056 U	< 0.00036 U	< 0.0015 U
PCB-183/185	52663-69-1	ng/g	0.96 J	0.039 J	0.081	0.12	3.7	0.075	0.088	2.2	0.018 J	0.11
PCB-184	74472-48-3	ng/g	< 0.00026 U	< 0.00048 U	< 0.00068 U	< 0.00056 U	< 0.000071 U	< 0.00041 U	0.0012 JN	< 0.0047 U	0.0016 J	< 0.0013 U
PCB-186	74472-49-4	ng/g	< 0.00025 U	< 0.00046 U	< 0.00065 U	< 0.00054 U	< 0.000068 U	< 0.00040 U	< 0.00056 U	< 0.0046 U	< 0.00030 U	< 0.0013 U
PCB-187	52663-68-0	ng/g	1.5 J	0.078 J	0.17	0.27	6.5	0.12	0.15	3.7	0.039	0.21
PCB-188	74487-85-7	ng/g	< 0.00023 U	< 0.00042 U	< 0.00060 U	0.0022 J	< 0.000062 U	< 0.00034 U	< 0.00052 U	< 0.0041 U	< 0.00026 U	< 0.0010 U
PCB-189	39635-31-9	ng/g	0.057 J	0.0020 J	0.0038 JN	0.0058 JN	0.13	0.0022 JN	0.0034 J	0.093	< 0.00079 U	< 0.0026 U
PCB-19	38444-73-4	ng/g	0.012 JN	0.011	0.014 JN	0.017	0.091	0.0060 J	0.0099 JN	0.043 JN	0.0048 JN	0.013 JN
PCB-190	41411-64-7	ng/g	0.31 J	0.012 J	0.028	0.035	0.97	0.015	0.021	0.51	0.0035 JN	0.034
PCB-191	74472-50-7	ng/g	0.071 J	0.0026 J	0.0043 JN	0.0068 JN	0.21	0.0043 J	0.0042 J	0.098	0.00069 JN	0.0032 JN
PCB-192	74472-51-8	ng/g	< 0.00026 U	< 0.00047 U	< 0.00067 U	< 0.00055 U	< 0.000069 U	< 0.00042 U	< 0.00057 U	< 0.0049 U	< 0.00032 U	< 0.0014 U
PCB-194	35694-08-7	ng/g	0.92 J	0.033 J	0.061	0.095	2.5	0.047	0.040	1.6	0.0089 J	0.089
PCB-195	52663-78-2	ng/g	0.39 J	0.012 J	0.027	0.044	1.2	0.020	0.019	0.61	0.0048 J	0.035
PCB-196	42740-50-1	ng/g	0.42 J	0.016 J	0.025	0.039	1.3	0.018 JN	0.023	0.71	0.0059 J	0.033
PCB-197	33091-17-7	ng/g	0.026 JN	0.00073 JN	0.0019 JN	0.0030 JN	0.097	0.0010 JN	0.0015 JN	0.059 J	0.00043 JN	0.0042 J
PCB-198/199	68194-17-2	ng/g	0.71 J	0.034 J	0.071	0.11	2.6	0.043	0.043	1.6	0.015 J	0.093
PCB-2	2051-61-8	ng/g	0.0075 JN	0.0081	0.0081 JN	0.011 JN	0.059	< 0.00089 U	0.0079	0.014 JN	0.0037 JN	0.0046 J
PCB-20/28	38444-84-7	ng/g	0.094	0.079	0.096	0.13	0.44	0.025	0.10	1.6 J	0.10	0.085
PCB-200	52663-73-7	ng/g	0.087 J	0.0037 J	0.0074 J	0.011 JN	0.36	0.0032 JN	0.0068 J	0.14 JN	0.00072 J	0.0087 JN
PCB-201	40186-71-8	ng/g	0.086 J	0.0019 JN	0.0069 JN	0.011 J	0.33	0.0034 J	0.0069 JN	0.18	0.0015 J	0.012 JN
PCB-202	2136-99-4	ng/g	0.11 J	0.0071 J	0.015	0.025 JN	0.51	0.0069 J	0.011	0.26	0.0019 JN	0.019 JN
PCB-203	52663-76-0	ng/g	0.48 J	0.020 J	0.038	0.066	1.6	0.022 JN	0.027	0.90	0.0069 J	0.015 JN
PCB-204	74472-52-9	ng/g	< 0.00060 U	< 0.00014 U	< 0.00047 U	< 0.00048 U	< 0.00024 U	< 0.00030 U	< 0.00028 U	< 0.0028 U	< 0.00017 U	< 0.00022 U
PCB-205	74472-53-0	ng/g	0.045 J	0.0013 JN	< 0.0013 U	0.0046 JN	0.13	< 0.00085 U	0.0024 J	0.084	< 0.00058 U	0.0034 JN
PCB-206	40186-72-9	ng/g	0.19 J	0.038 J	0.37 JN	0.47 JN	0.76	0.013	0.18 JN	1.4	0.016 JN	0.079
PCB-207	52663-79-3	ng/g	0.022 J	0.0037 J	0.0026 JN	0.0076 J	0.087	< 0.0012 U	< 0.0012 U	0.11	< 0.00085 U	0.0077 JN
PCB-208	52663-77-1	ng/g	0.030	0.013	0.015 JN	0.031	0.20	0.0040 JN	0.0058 J	0.23 JN	0.0072 J	0.027
PCB-209	2051-24-3	ng/g	0.026 JN	0.050 J	0.052	0.081	0.25	0.010 JN	0.012	1.7	0.026	0.073
PCB-21/33	55702-46-0	ng/g	0.041	0.038	0.035	0.040	0.20	0.0091 J	0.045	0.52 J	0.048	0.030
PCB-22	38444-85-8	ng/g	0.033	0.029	0.027	0.034	0.15	0.0070 J	0.034	0.34 J	0.036	0.023
PCB-23	55720-44-0	ng/g	< 0.00070 U	< 0.00073 U	< 0.00092 U	< 0.0013 U	< 0.0029 U	< 0.00076 U	< 0.00087 U	< 0.0046 UJ	< 0.00052 U	< 0.0011 U
PCB-24	55702-45-9	ng/g	< 0.00035 U	< 0.00038 U	0.00028 JN	< 0.00026 U	0.0020 JN	< 0.00035 U	< 0.00023 U	< 0.0031 UJ	0.00059 JN	< 0.00052 U
PCB-25	55712-37-3	ng/g	0.0056 JN	0.0050 JN	0.0087 J	0.011 J	0.042	0.0021 J	0.012	0.091 J	0.0050 J	0.0083 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B164	B164	B165	B166	B167	B168	B169	B170	B171	B172
		Sample ID	PDI-SG-B164-BL1	PDI-SG-B164-BL1-D	PDI-SG-B165-BL1	PDI-SG-B166-BL1	PDI-SG-B167-BL1	PDI-SG-B168-BL1	PDI-SG-B169-BL1	PDI-SG-B170-BL1	PDI-SG-B171-BL1	PDI-SG-B172-BL1
		Sample Date	16 Apr 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	17 Apr 2018	14 Apr 2018	17 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-24 cm	0-30 cm	0-30 cm	0-24 cm	0-22 cm	0-22 cm	0-30 cm	0-22 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.010 J	0.0095 J	0.016 J	0.018 J	0.077	0.0032 JN	0.021	0.18 J	0.0098 J	0.014 J
PCB-27	38444-76-7	ng/g	0.0021 JN	0.0019 JN	0.0047 J	0.0057 JN	0.028	0.0020 J	0.0041 JN	0.027 JN	0.0026 JN	0.0047 JN
PCB-3	2051-62-9	ng/g	0.0042 JN	0.0049 JN	0.0038 JN	0.0060 J	0.030	< 0.00093 U	0.0096	0.019 JN	0.0042 J	< 0.00035 U
PCB-31	16606-02-3	ng/g	0.066	0.057	0.068	0.079	0.34	0.019	0.073	1.2 J	0.080	0.066
PCB-32	38444-77-8	ng/g	0.014	0.011 JN	0.013	0.016 JN	0.058	0.0042 J	0.017	0.13 JN	0.019	0.021
PCB-34	37680-68-5	ng/g	< 0.00073 U	< 0.00075 U	< 0.00095 U	< 0.0013 U	< 0.0030 U	< 0.00079 U	< 0.00090 U	0.017 J	< 0.00054 U	< 0.0011 U
PCB-35	37680-69-6	ng/g	0.0057 JN	0.0057 J	0.0026 J	0.0030 J	0.023	< 0.00077 U	0.0058 JN	0.016 JN	0.0076 J	< 0.0011 U
PCB-36	38444-87-0	ng/g	< 0.00063 U	0.00078 JN	< 0.00083 U	< 0.0012 U	< 0.0026 U	< 0.00074 U	< 0.00078 U	< 0.0045 UJ	0.0014 J	< 0.0010 U
PCB-37	38444-90-5	ng/g	0.040	0.030	0.030	0.035	0.16	0.0068 J	0.039	0.33	0.035	0.031
PCB-38	53555-66-1	ng/g	< 0.00069 U	< 0.00071 U	< 0.00090 U	< 0.0013 U	< 0.0028 U	< 0.00079 U	< 0.00084 U	< 0.0048 UJ	< 0.00055 U	< 0.0011 U
PCB-39	38444-88-1	ng/g	< 0.00063 U	< 0.00065 U	< 0.00082 U	< 0.0011 U	< 0.0026 U	< 0.00071 U	< 0.00077 U	0.011 JN	< 0.00049 U	< 0.0010 U
PCB-4	13029-08-8	ng/g	0.0086 J	0.0091 J	0.013 JN	0.018 J	0.11	0.0061 JN	0.011 J	0.043 JN	0.0034 JN	0.014 JN
PCB-40/41/71	38444-93-8	ng/g	0.060	0.052	0.064	0.099	0.32	0.016 J	0.064	0.98	0.051	0.067 JN
PCB-42	36559-22-5	ng/g	0.029	0.026	0.032	0.048	0.14	0.0081 J	0.028	0.52	0.021	0.031 JN
PCB-43/73	70362-46-8	ng/g	0.0047 J	0.0033 J	0.0037 J	0.0044 JN	0.015 JN	0.00093 JN	0.0046 J	0.049 JN	0.0033 J	0.0047 J
PCB-44/47/65	41464-39-5	ng/g	0.14	0.12	0.13	0.23	0.74	0.047	0.15	2.0	0.099	0.16
PCB-45/51	70362-45-7	ng/g	0.034	0.029	0.025 JN	0.042	0.16	0.0049 JN	0.036	0.29	0.019 J	0.029
PCB-46	41464-47-5	ng/g	0.0071 J	0.0062 J	0.0063 JN	0.0087 JN	0.032	0.0021 JN	0.0062 JN	0.083 JN	0.0059 J	0.0068 JN
PCB-48	70362-47-9	ng/g	0.021	0.015	0.019	0.029	0.099	0.0062 J	0.020	0.36	0.017	0.022 JN
PCB-49/69	41464-40-8	ng/g	0.071	0.060	0.090	0.14	0.40	0.030	0.074	1.5	0.053	0.11
PCB-5	16605-91-7	ng/g	< 0.00079 U	< 0.00077 U	< 0.00065 U	< 0.00065 U	0.0031 JN	< 0.0028 U	< 0.00052 U	< 0.020 U	< 0.0018 U	< 0.0056 U
PCB-50/53	62796-65-0	ng/g	0.023	0.017	0.021 JN	0.037	0.13	0.0069 J	0.024	0.22	0.012 J	0.022 J
PCB-52	35693-99-3	ng/g	0.14	0.12	0.17	0.30	0.92	0.086	0.14	2.7	0.099	0.21
PCB-54	15968-05-5	ng/g	0.0031 JN	0.0017 JN	0.0012 JN	0.0038 J	0.016	< 0.00012 U	0.0013 JN	0.0033 JN	< 0.000051 U	0.00090 JN
PCB-55	74338-24-2	ng/g	0.0044 J	< 0.00064 U	< 0.0012 U	< 0.0017 U	0.0078 JN	< 0.00069 U	< 0.00060 U	< 0.010 U	0.0014 JN	< 0.0014 U
PCB-56	41464-43-1	ng/g	0.056	0.042	0.060	0.086	0.24	0.014	0.050	1.0	0.042	0.062
PCB-57	70424-67-8	ng/g	< 0.00097 U	< 0.00065 U	< 0.0012 U	< 0.0017 U	< 0.0030 U	< 0.00070 U	< 0.00061 U	< 0.011 U	0.00094 J	< 0.0014 U
PCB-58	41464-49-7	ng/g	< 0.00093 U	< 0.00063 U	< 0.0011 U	< 0.0016 U	< 0.0028 U	< 0.00071 U	< 0.00059 U	< 0.011 U	< 0.00090 U	< 0.0015 U
PCB-59/62/75	74472-33-6	ng/g	0.012 JN	0.0094 J	0.011 J	0.016 J	0.050	0.0026 JN	0.011 J	0.14 JN	0.0064 J	0.0093 JN
PCB-6	25569-80-6	ng/g	0.0043 J	0.0020 JN	0.0053 J	0.0080 J	0.027 JN	< 0.0025 U	0.0071 JN	0.038 JN	0.0026 JN	0.0057 JN
PCB-60	33025-41-1	ng/g	0.038	0.022	0.024	0.037	0.13	0.0061 J	0.032	0.21	0.032	0.027
PCB-61/70/74/76	33284-53-6	ng/g	0.19	0.15	0.21	0.34	0.93	0.086	0.17	4.0	0.15	0.24
PCB-63	74472-34-7	ng/g	0.0034 JN	0.0039 J	0.0049 J	0.0055 JN	0.021	< 0.00064 U	0.0029 JN	0.085	0.0036 J	0.0045 JN
PCB-64	52663-58-8	ng/g	0.052	0.039	0.049	0.084	0.22	0.016	0.043	0.80	0.044	0.061
PCB-66	32598-10-0	ng/g	0.12	0.099	0.13	0.22	0.53	0.035	0.11	2.2	0.086	0.16
PCB-67	73575-53-8	ng/g	0.0027 JN	0.0018 JN	0.0025 JN	0.0059 J	0.014 JN	< 0.00060 U	0.0031 JN	< 0.0091 U	0.0021 J	< 0.0012 U
PCB-68	73575-52-7	ng/g	0.0025 J	0.0034 J	0.0016 J	0.0032 J	0.0083 J	< 0.00062 U	< 0.00053 U	< 0.0093 U	0.0024 JN	< 0.0013 U
PCB-7	33284-50-3	ng/g	< 0.00075 U	< 0.00072 U	0.00091 JN	0.0023 JN	0.0078 J	< 0.0025 U	0.0017 JN	< 0.018 U	0.0020 JN	< 0.0051 U
PCB-72	41464-42-0	ng/g	0.0017 J	< 0.00064 U	0.0021 JN	0.0047 J	0.0078 J	< 0.00068 U	0.0013 J	0.055 J	< 0.00087 U	< 0.0014 U
PCB-77	32598-13-3	ng/g	0.013 JN	0.0085	0.016	0.022	0.061	0.0029 J	0.011 JN	0.17	0.0068 J	0.019
PCB-78	70362-49-1	ng/g	< 0.00094 U	< 0.00063 U	< 0.0011 U	< 0.0016 U	< 0.0028 U	< 0.00071 U	< 0.00059 U	< 0.011 U	< 0.00090 U	< 0.0015 U
PCB-79	41464-48-6	ng/g	0.0013 J	0.0015 J	0.0022 J	0.0050 J	0.0086 J	< 0.00061 U	0.0011 JN	0.026 J	0.00078 JN	< 0.0013 U
PCB-8	34883-43-7	ng/g	0.018	0.017	0.021 J	0.024 J	0.14	0.0049 JN	0.032	0.13 JN	0.016 J	0.017 JN
PCB-80	33284-52-5	ng/g	< 0.00083 U	< 0.00056 U	< 0.0010 U	< 0.0014 U	< 0.0025 U	< 0.00060 U	< 0.00052 U	< 0.0091 U	< 0.00076 U	< 0.0012 U
PCB-81	70362-50-4	ng/g	< 0.00088 U	< 0.00060 U	< 0.0011 U	< 0.0016 U	< 0.0028 U	< 0.00063 U	< 0.00056 U	< 0.010 U	< 0.00093 U	< 0.0013 U
PCB-82	52663-62-4	ng/g	0.016 JN	0.011 JN	0.027	0.044 JN	0.12	0.012	0.015	0.36	0.0094 J	0.043
PCB-83/99	60145-20-2	ng/g	0.10	0.075 JN	0.16	0.27	0.62	0.070	0.11	2.4	0.048	0.17 JN
PCB-84	52663-60-2	ng/g	0.039	0.030 JN	0.051	0.10	0.27	0.030	0.040	0.85	0.022	0.073
PCB-85/116/117	65510-45-4	ng/g	0.028	0.022	0.043	0.078	0.16	0.019 J	0.025	0.56	0.015 JN	0.050 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.097	0.074	0.15	0.27	0.66	0.082	0.094	2.1	0.052 J	0.20
PCB-88/91	55215-17-3	ng/g	0.029	0.024	0.036	0.067	0.15	0.013 JN	0.038	0.52	0.016 J	0.057
PCB-89	73575-57-2	ng/g	0.0019 JN	< 0.00096 U	< 0.0012 U	0.0046 JN	< 0.0019 U	< 0.00022 U	0.0023 J	0.035 J	0.0013 J	< 0.00070 U
PCB-9	34883-39-1	ng/g	< 0.00087 U	< 0.00084 U	0.0017 J	< 0.00072 U	0.012	< 0.0026 U	0.0018 JN	< 0.019 U	< 0.0016 U	< 0.0052 U
PCB-90/101/113	68194-07-0	ng/g	0.16	0.13	0.23	0.43	2.4	0.17	0.19	4.5	0.078	0.35
PCB-92	52663-61-3	ng/g	0.027 JN	0.027	0.052	0.087	0.33	0.027	0.040	1.0	0.014	0.054 JN
PCB-93/100	73575-56-1	ng/g	0.0080 JN	0.010 J	0.0078 JN	0.014 JN	0.057	0.0011 JN	0.018 JN	0.041 JN	0.0031 J	0.0066 JN
PCB-94	73575-55-0	ng/g	< 0.00094 U	< 0.00097 U	0.0020 JN	< 0.0015 U	< 0.0019 U	< 0.00022 U	0.0026 JN	< 0.0025 U	< 0.00023 U	< 0.00070 U
PCB-95	38379-99-6	ng/g	0.12	0.11	0.17	0.32	2.1	0.14	0.16	3.6	0.069	0.27
PCB-96	73575-54-9	ng/g	0.0011 JN	< 0.00072 U	0.0023 JN	< 0.0011 U	0.012	< 0.00017 U	< 0.00060 U	< 0.0019 U	< 0.00018 U	0.0036 J
PCB-98/102	60233-25-2	ng/g	0.0058 JN	0.0062 J	0.0077 JN	0.017 J	0.043	0.0028 JN	0.0087 J	0.10 J	0.0035 J	0.012 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	22	3.8	6.5	10	117	3.7	5.9	117	2.7	8.3

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B164	B164	B165	B166	B167	B168	B169	B170	B171	B172
		Sample ID	PDI-SG-B164-BL1	PDI-SG-B164-BL1-D	PDI-SG-B165-BL1	PDI-SG-B166-BL1	PDI-SG-B167-BL1	PDI-SG-B168-BL1	PDI-SG-B169-BL1	PDI-SG-B170-BL1	PDI-SG-B171-BL1	PDI-SG-B172-BL1
		Sample Date	16 Apr 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	17 Apr 2018	14 Apr 2018	17 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-24 cm	0-30 cm	0-30 cm	0-24 cm	0-22 cm	0-22 cm	0-30 cm	0-22 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.74 U	< 0.73 U	1.1	1.7	1.3	30	< 0.68 U	42	< 0.64 U	1.2
2,4-DDE	3424-82-6	µg/kg	< 0.74 U	< 0.73 U	< 0.55 U	< 0.63 U	< 1.1 U	< 0.66 U	< 0.68 U	7.3	< 0.64 U	< 0.49 U
2,4-DDT	789-02-6	µg/kg	< 0.74 U	< 0.73 U	< 0.55 U	< 0.63 U	< 1.1 U	< 0.66 U	< 0.68 U	3.0 J	< 0.64 U	< 0.49 UJ
4,4'-DDD	72-54-8	µg/kg	0.37 J	0.37 J	2.4	4.4	3.6	40	< 0.68 U	200	< 0.64 U	3.6
4,4'-DDE	72-55-9	µg/kg	< 0.74 U	< 0.73 U	2.3	3.6	2.5	3.8	< 0.68 U	36	< 0.64 U	3.6
4,4'-DDT	50-29-3	µg/kg	< 0.74 U	< 0.73 U	0.53 J	1.8	< 1.1 U	1.2	< 0.68 U	13	< 0.64 U	0.46 J
Total DDx (b)	T_DDx (PDI)	µg/kg	0.74	0.74	6.6	12	8.0	75	< 0.68 U	301	< 0.64 U	9.1
Aldrin	309-00-2	µg/kg	< 0.74 U	< 0.73 U	< 0.55 U	< 0.63 U	< 1.1 U	< 0.66 UJ	< 0.68 U	< 1.1 U	< 0.64 U	< 0.49 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.5 U	< 1.5 U	< 1.1 U	< 1.3 U	< 2.1 U	< 1.3 U	< 1.4 U	1.1 J	< 1.3 U	< 0.98 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.74 UJ	< 0.73 UJ	< 0.55 U	< 0.63 U	< 1.1 UJ	< 0.66 UJ	< 0.68 UJ	< 1.2 U	< 0.64 UJ	< 0.49 U
Dieldrin	60-57-1	µg/kg	< 1.5 UJ	< 1.5 UJ	< 1.1 U	< 1.3 U	< 2.1 UJ	0.97 J	< 1.4 UJ	< 2.3 U	< 1.3 UJ	< 0.98 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.74 U	< 0.73 U	< 0.55 U	< 0.63 U	< 1.1 U	< 0.66 U	< 0.68 U	< 1.1 U	< 0.64 U	< 0.49 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.5 U	< 1.5 U	< 1.1 U	< 1.3 U	< 2.1 U	< 1.3 U	< 1.4 U	1.6 J	< 1.3 U	< 0.98 U
Heptachlor	76-44-8	µg/kg	< 0.74 U	< 0.73 U	< 0.55 UJ	< 0.63 UJ	< 1.1 U	< 0.66 UJ	< 0.68 U	< 1.1 U	< 0.64 U	< 0.49 U
Oxychlordane	27304-13-8	µg/kg	< 1.5 U	< 1.5 U	< 1.1 U	< 1.3 U	< 2.1 U	< 1.3 U	< 1.4 U	< 2.3 U	< 1.3 U	< 0.98 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.5 U	< 1.5 U	< 1.1 U	< 1.3 U	< 2.1 U	< 1.3 U	< 1.4 U	< 2.3 U	< 1.3 U	0.36 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.5 U	< 1.5 U	< 1.1 U	< 1.3 U	< 2.1 U	< 1.3 U	< 1.4 U	3.85	< 1.3 U	0.85
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.7	1.8	10	19	26	190	1.3	210	0.38 J	23 J
Acenaphthene	83-32-9	µg/kg	1.8	2.3	23	57	140	6500	3.4	1500	0.54	26
Acenaphthylene	208-96-8	µg/kg	4.8 J	2.2 J	9.8	24	20	2300	1.1	160	0.87	14 J
Anthracene	120-12-7	µg/kg	3.6	5.6	37	77	79	18000	4.2	1900	1.1	55
Benz(a)anthracene	56-55-3	µg/kg	24	40	140	290	400	25000	14	2800	7.4	140
Benzo(a)pyrene	50-32-8	µg/kg	63	58	200	420	550	26000	18	3100	9.9	160
Benzo(b)fluoranthene	205-99-2	µg/kg	55	59	200	360	590	22000	20	2700	10	190
Benzo(g,h,i)perylene	191-24-2	µg/kg	75	58	190	410	410	18000	17	2800	9.3	130
Benzo(k)fluoranthene	207-08-9	µg/kg	19	19	63	130	190	7200	6.8	960	3.6	81
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	31 J	26 J	75 J	82 J	210	< 340 U	17 J	110 J	9.5 J	48 J
Chrysene	218-01-9	µg/kg	35	48	190	370	600	33000	17	3500	9.8	200
Dibenz(a,h)anthracene	53-70-3	µg/kg	10	9.4	31	56	89	2600	2.9	440	1.4	23 J
Fluoranthene	206-44-0	µg/kg	36	59	260	550	1100	74000	19	8400	9.9	330
Fluorene	86-73-7	µg/kg	2.1	2.0	19	39	140	3300	1.6	1300	0.48	25
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	64	52	170	360	400	17000	14	2500	8.2	150 J
Naphthalene	91-20-3	µg/kg	4.9	3.4	20	36	57	690	2.6	310	0.64 J	47
Phenanthrene	85-01-8	µg/kg	12	20	140	330	490	36000	12	12000	3.9	170
Pyrene	129-00-0	µg/kg	47	71	330	780	1100	100000	28	11000	19	350
Total PAHs (b)	T_PAH (PDI)	µg/kg	460	511	2033	4308	6381	391780	183	55580	96	2114
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	88	83	283	579	781	35105	26	4353	14	232
Metals												
Arsenic	7440-38-2	mg/kg	3.9	4.2	4.2	4.8	4.7	3.5	3.2	5.3	4.2	5.1
Cadmium	7440-43-9	mg/kg	0.074 J	0.11 J	0.20 J	0.17 J	0.25 J	0.10 J	0.16 J	0.42	0.042 J	0.27 J
Copper	7440-50-8	mg/kg	23	20	34	40	43	16	25	40	20	42 J
Lead	7439-92-1	mg/kg	8.5	6.3	10	11	22	4.3	14	20	3.8	12
Mercury	7439-97-6	mg/kg	0.029 J	0.026 J	0.061 J	0.062 J	0.15	0.027 J	0.11	0.25	< 0.028 U	0.072
Tri-n-butyltin	36643-28-4	µg/kg	1.1 J	1.1 J	1.7 J	3.1	15	< 1.4 U	1.9	3.2	< 1.3 U	< 190 U
Zinc	7440-66-6	mg/kg	70	63	88	99	130	59	64	140	53	94
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	22 J	< 70 U	72 J	120 J	140 J	1300	110	550	< 61 U	82 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	150	130	460	620	1200	1800	150	1000	57 J	460
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										37.8
Total Solids@104C - E160.3 (f)	TSOLID	%	65.4	68.0	42.0	35.9	45.0	69.9	70.8	40.8	77.2	
Total Solids@104C - E160.3M (f)	TSOLID	%	66.8	66.8	44.7	39.0	45.7	72.7	72.0	43.2	76.0	37.9
Total Solids@70C	TSOLID70	%	68	72	46	41	48	74	74	44	80	38
Gravel	GS-Gravel	%	1.5		0	0	0	1.7	0.1	0	14.9	0
Sand, Coarse	GS-Csand	%	1.1		0.1	0	0.7	1.3	0.5	0	10.5	0.1
Sand, Medium	GS-Msand	%	44.9		0.2	0.5	3.4	41.5	51.9	0.4	51.9	0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	34.1		18.36	14.7	45.71	47.4	36.02	20.86	18.84	8.318
Sand, Fine (#230) (d)	GS-Fsand	%	34.7		23.6	18.1	53.0	47.9	36.7	24.6	19.1	11.0
Silt (#200) (d)	GS-Silt-200	%	12.39		69.03	67.79	44.48	6.297	7.476	64.13	1.553	80.78

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B164	B164	B165	B166	B167	B168	B169	B170	B171	B172
		Sample ID	PDI-SG-B164-BL1	PDI-SG-B164-BL1-D	PDI-SG-B165-BL1	PDI-SG-B166-BL1	PDI-SG-B167-BL1	PDI-SG-B168-BL1	PDI-SG-B169-BL1	PDI-SG-B170-BL1	PDI-SG-B171-BL1	PDI-SG-B172-BL1
		Sample Date	16 Apr 2018	16 Apr 2018	13 Apr 2018	13 Apr 2018	16 Apr 2018	17 Apr 2018	17 Apr 2018	14 Apr 2018	17 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-24 cm	0-30 cm	0-30 cm	0-24 cm	0-22 cm	0-22 cm	0-30 cm	0-22 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	11.8		63.8	64.4	37.2	5.8	6.8	60.4	1.3	78.1
Clay	GS-Clay	%	5.9		12.4	16.9	5.7	1.7	4.0	14.6	2.3	10.3
Percent Fines (e)	GS-FINES	%	18.29		81.43	84.69	50.18	7.997	11.476	78.73	3.853	91.08
Total Organic Carbon	TOC	mg/kg	7600	6600	23000	26000	40000	3800	3100	25000	2200	40000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B173	B174	B175	B176	B177	B178	B179	B180	B181	B182
		Sample ID	PDI-SG-B173-BL1	PDI-SG-B174-BL1	PDI-SG-B175-BL1	PDI-SG-B176-BL1	PDI-SG-B177-BL1	PDI-SG-B178-BL1	PDI-SG-B179-BL1	PDI-SG-B180-BL1	PDI-SG-B181-BL1	PDI-SG-B182-BL1
		Sample Date	17 Apr 2018	20 Jul 2018	17 Apr 2018	14 Apr 2018	18 Apr 2018	14 Apr 2018	01 Jun 2018	18 Apr 2018	02 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-29 cm	0-22 cm	0-24 cm	0-24 cm	0-27 cm	0-23 cm	0-25 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0087	0.15	0.012	0.051	0.0060	0.64	0.63 J	0.028	0.078	1.0
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0017 J	0.022 JN	0.0022 J	0.011 J	0.0013 J	0.36	0.071 J	0.0058	0.017	0.10
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.000087 U	0.0027 J	< 0.000099 U	0.0010 J+	< 0.00012 U	0.074	0.015 J	0.00061 J	0.0047 J	0.030 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00018 J+	0.0013 J	0.00018 JN	0.00077 J+	0.00014 JN	0.0064 J	0.0020 J	0.00055 J	0.00058 J	0.0025 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.00016 U	0.011	0.00040 J	0.0038 J	< 0.00020 U	0.31	0.054 J	0.00093 J	0.021	0.10
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00032 J+	0.0048 J	0.00040 JN	0.0022 J+	0.00038 J	0.020	0.010 J	0.0016 J	0.0021 J	0.015 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00074 J	0.0024 JN	< 0.00015 U	0.0031 J	< 0.00018 U	0.099	0.019 J	0.0014 J	0.0036 J	0.032 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00028 J+	0.0032 J	0.00038 J+	0.0016 J+	0.00030 J	0.0090 J	0.0057 J	0.0011 J	0.0015 J	0.0090 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.000086 U	0.0013 J+	< 0.000079 U	< 0.00025 U	< 0.00013 U	< 0.0045 U	0.0023 J+	0.00039 J	< 0.00080 U	0.0029 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.000077 U	0.00063 J	< 0.000090 U	< 0.00040 U	< 0.000078 U	< 0.0021 U	0.0017 JN	< 0.00016 U	0.00040 J	0.0017 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00010 JN	0.0058 J	< 0.000062 U	0.0026 J	0.00021 JN	0.50	0.032 J	0.00040 JN	0.0047 J	0.083
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00010 U	0.00077 J	< 0.000093 U	< 0.00029 U	< 0.00013 U	0.016	0.0031 J	0.00041 J	0.00050 J	0.0055 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.000060 U	0.0025 J	< 0.000070 U	0.0012 J+	< 0.000087 U	0.081	0.013 J	0.00037 J	0.0020 J	0.038 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000034 U	0.00036 JN	0.000062 JN	< 0.00029 U	< 0.000076 U	0.0011 JN	0.0019 J	0.00032 JN	0.00037 J	0.0039 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00017 J+	0.0059	0.00018 J+	0.0033	0.00019 JN	0.12	0.024	0.00033 J+	0.0061	0.077
OCDD	3268-87-9	µg/kg	0.072	1.3	0.11	0.49	0.051	6.8	4.2 J	0.27	0.65	8.9
OCDF	39001-02-0	µg/kg	0.0041 J	0.066	0.0053 J	0.025	0.0026 JN	0.76	0.21 J	0.011	0.045	0.48
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00034	0.0071	0.00044	0.0029	0.00024	0.11	0.029	0.0016	0.0063	0.058
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00033	0.0067	0.00032	0.0029	0.0002	0.11	0.028	0.0014	0.0063	0.057
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0003	0.0065	0.00027	0.0027	0.00016	0.11	0.027	0.0012	0.0063	0.056
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0012 JN	< 0.00059 U	0.0016 J	< 0.0040 U	0.0015 JN	0.0016 J	< 0.0028 U	0.0014 JN	0.015 JN	0.028 J
PCB-10	33146-45-1	ng/g	< 0.0012 U	< 0.0067 U	< 0.0015 U	< 0.16 U	< 0.0012 U	< 0.0058 U	< 0.015 U	< 0.00021 U	0.0023 J	< 0.012 U
PCB-103	60145-21-3	ng/g	0.0015 J	0.0097 JN	0.0018 JN	< 0.0087 U	< 0.00061 U	0.0044 JN	0.018 J	0.0066 J	0.015	0.026 J
PCB-104	56558-16-8	ng/g	< 0.000088 U	< 0.00053 U	< 0.00014 U	< 0.0066 U	< 0.00048 U	< 0.00028 U	< 0.0047 U	< 0.00087 U	< 0.00041 U	< 0.0048 U
PCB-105	32598-14-4	ng/g	0.033	0.15	0.035	0.13 J	0.011	0.018	0.86	0.033	0.42	0.80
PCB-106	70424-69-0	ng/g	< 0.00054 U	< 0.0019 U	< 0.00048 U	< 0.010 U	< 0.00046 U	< 0.0011 U	< 0.010 U	< 0.0012 U	< 0.0038 U	< 0.0089 U
PCB-107	70424-68-9	ng/g	0.0059 J	0.034	0.0051 JN	< 0.011 U	0.0022 JN	0.0067 J	0.15 J	0.0076 JN	0.077	0.12 J
PCB-108/124	70362-41-3	ng/g	0.0031 J	0.012 JN	0.0023 JN	< 0.010 U	0.00074 JN	< 0.0011 U	0.087 J	0.0038 J	0.046	0.061 JN
PCB-11	2050-67-1	ng/g	0.25	0.087	0.21	< 0.14 U	0.0073 J+	0.011 JN	0.059 JN	0.016 J	0.067	0.12 J
PCB-110/115	38380-03-9	ng/g	0.12	0.50	0.11	0.32 J	0.040	0.11 JN	2.7	0.12	1.4	2.2
PCB-111	39635-32-0	ng/g	< 0.000082 U	< 0.00049 U	< 0.00013 U	< 0.0061 U	< 0.00043 U	< 0.00026 U	< 0.0042 U	< 0.00077 U	< 0.00036 U	< 0.0043 U
PCB-112	74472-36-9	ng/g	< 0.000086 U	< 0.00051 U	< 0.00014 U	< 0.0064 U	< 0.00047 U	< 0.00027 U	< 0.0046 U	< 0.00085 U	< 0.00040 U	0.018 J
PCB-114	74472-37-0	ng/g	0.0020 JN	0.0080 JN	0.0022 J	< 0.0095 U	< 0.00044 U	< 0.0011 U	0.058 J	< 0.0011 U	0.026	0.051 J
PCB-118	31508-00-6	ng/g	0.078	0.36	0.077	0.32	0.025	0.067	1.8	0.087	1.0	1.5
PCB-12/13	2974-92-7	ng/g	0.0057 JN	0.0063 JN	0.0057 JN	< 0.14 U	< 0.00099 U	< 0.0052 U	< 0.013 U	0.00079 JN	0.010 J	0.021 JN
PCB-120	68194-12-7	ng/g	0.00080 J	< 0.00049 U	< 0.00013 U	< 0.0062 U	< 0.00042 U	0.00093 JN	< 0.0042 U	< 0.00076 U	0.0065 J	0.011 J
PCB-121	56558-18-0	ng/g	< 0.000085 U	< 0.00051 U	< 0.00014 U	< 0.0064 U	< 0.00045 U	< 0.00027 U	< 0.0045 U	< 0.00083 U	< 0.00039 U	< 0.0046 U
PCB-122	76842-07-4	ng/g	0.0013 J	< 0.0022 U	0.0012 JN	< 0.012 U	< 0.00051 U	< 0.0013 U	0.074 J	< 0.0013 U	0.016	0.029 JN
PCB-123	65510-44-3	ng/g	0.0015 JN	0.0044 JN	0.0011 JN	< 0.011 U	< 0.00042 U	< 0.0011 U	0.024 JN	0.0012 JN	0.016	0.031 JN
PCB-126	57465-28-8	ng/g	< 0.00053 U	< 0.0021 U	< 0.00051 U	< 0.0083 UJ	< 0.00043 U	< 0.0011 U	< 0.011 U	< 0.0011 U	< 0.0035 U	< 0.0082 U
PCB-127	39635-33-1	ng/g	< 0.00054 U	< 0.0019 U	< 0.00048 U	< 0.010 U	< 0.00045 U	< 0.0011 U	< 0.0098 U	< 0.0011 U	< 0.0037 U	< 0.0085 U
PCB-128/166	38380-07-3	ng/g	0.012 J	0.11	0.015 J	0.071 JN	0.0064 JN	0.021 J	0.39 J	< 0.0014 U	0.23	0.26 J
PCB-129/138/160/163	55215-18-4	ng/g	0.11	0.75	0.12	0.57 J	0.047	0.15	2.1	0.17	1.4	1.9
PCB-130	52663-66-8	ng/g	0.0067 J	0.046	0.0062 J	< 0.032 U	0.0022 JN	0.0096 J	0.18 J	0.014	0.090	0.13 J
PCB-131	61798-70-7	ng/g	0.0012 JN	< 0.0042 U	0.0014 J	< 0.033 U	< 0.000064 U	< 0.0025 U	0.045 JN	< 0.0019 U	0.020	0.037 J
PCB-132	38380-05-1	ng/g	0.038	0.22	0.038	0.15 J	0.014 JN	0.048	0.77	0.050	0.50	0.68
PCB-133	35694-04-3	ng/g	0.0021 J	0.012 J	0.0020 J	< 0.030 U	< 0.000060 U	< 0.0023 U	0.042 J	0.0038 J	0.021	0.039 J
PCB-134/143	52704-70-8	ng/g	0.0052 J	0.030	0.0062 J	< 0.031 U	0.0029 JN	0.0070 JN	0.12 JN	0.014 J	0.089	0.099 JN
PCB-135/151	52744-13-5	ng/g	0.039	0.23	0.040	0.19 JN	0.023 JN	0.071	0.51 J	0.057 JN	0.43	0.76
PCB-136	38411-22-2	ng/g	0.015	0.073	0.014	0.066 J	0.0057 JN	0.022	0.24 J	0.021	0.17	0.27
PCB-137	35694-06-5	ng/g	0.0036 JN	0.025 JN	0.0034 JN	< 0.027 U	0.0016 JN	0.0026 JN	0.12 J	0.0050 JN	0.068	0.079 J
PCB-139/140	56030-56-9	ng/g	0.0017 JN	0.012 J	0.0021 J	< 0.027 U	< 0.000053 U	< 0.0020 U	0.051 J	< 0.0016 U	0.026	0.027 JN
PCB-14	34883-41-5	ng/g	< 0.00089 U	< 0.0051 U	< 0.0012 U	< 0.12 U	< 0.00090 U	< 0.0044 U	< 0.012 U	< 0.00016 U	< 0.00061 U	< 0.0092 U
PCB-141	52712-04-6	ng/g	0.017 JN	0.13	0.021	< 0.028 U	0.0068 JN	0.019 JN	0.39	0.032	0.26	0.45
PCB-142	41411-61-4	ng/g	< 0.00083 U	< 0.0038 U	< 0.00086 U	< 0.030 U	< 0.000060 U	< 0.0023 U	< 0.0059 U	< 0.0018 U	< 0.0026 U	< 0.012 U
PCB-144	68194-14-9	ng/g	0.0047 J	0.025	0.0042 JN	< 0.0033 U	< 0.00019 U	0.0066 JN	0.077 JN	0.0062 J	0.059	0.12 J
PCB-145	74472-40-5	ng/g	< 0.000071 U	< 0.00025 U	< 0.000078 U	< 0.0025 U	< 0.00015 U	< 0.00018 U	< 0.00070 U	< 0.00013 U	< 0.00018 U	< 0.0014 U
PCB-146	51908-16-8	ng/g	0.017	0.13	0.019	0.094 JN	0.0071 JN	0.038	0.24 J	0.034	0.20	0.25 JN
PCB-147/149	68194-13-8	ng/g	0.11	0.64	0.11	0.48 JN	0.044	0.17	1.4	0.15	1.0	1.7
PCB-148	74472-41-6	ng/g	0.00050 J	0.0027 J	0.00031 JN	< 0.0035 U	< 0.00020 U	< 0.00026 U	< 0.00093 U	< 0.00018 U	0.0029 JN	< 0.0018 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B173	B174	B175	B176	B177	B178	B179	B180	B181	B182
		Sample ID	PDI-SG-B173-BL1	PDI-SG-B174-BL1	PDI-SG-B175-BL1	PDI-SG-B176-BL1	PDI-SG-B177-BL1	PDI-SG-B178-BL1	PDI-SG-B179-BL1	PDI-SG-B180-BL1	PDI-SG-B181-BL1	PDI-SG-B182-BL1
		Sample Date	17 Apr 2018	20 Jul 2018	17 Apr 2018	14 Apr 2018	18 Apr 2018	14 Apr 2018	01 Jun 2018	18 Apr 2018	02 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-29 cm	0-22 cm	0-24 cm	0-24 cm	0-27 cm	0-23 cm	0-25 cm	0-30 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.026	0.035 JN	0.026	< 0.14 U	0.0039 JN	0.0072 JN	0.85	0.0067 J	0.041	0.17 JN
PCB-150	68194-08-1	ng/g	0.00045 J	< 0.00024 U	< 0.000075 U	< 0.0024 U	< 0.00013 U	< 0.00018 U	< 0.00063 U	< 0.00012 U	0.0030 JN	< 0.0012 U
PCB-152	68194-09-2	ng/g	< 0.000073 U	< 0.00026 U	< 0.000081 U	< 0.0026 U	0.00027 JN	< 0.00019 U	< 0.00067 U	< 0.00013 U	0.0020 J	< 0.0013 U
PCB-153/168	35065-27-1	ng/g	0.095	0.62	0.098	0.43 JN	0.036	0.15	1.3	0.16	1.0	1.6
PCB-154	60145-22-4	ng/g	0.0019 J	0.010 JN	0.0018 JN	< 0.0028 U	< 0.00017 U	0.0050 JN	0.014 JN	0.0052 J	0.021	0.031 J
PCB-155	33979-03-2	ng/g	0.0016 JN	< 0.00024 U	0.0012 JN	< 0.0024 U	< 0.00014 U	< 0.00018 U	< 0.00064 U	< 0.00012 U	< 0.00017 U	< 0.0013 U
PCB-156/157	38380-08-4	ng/g	0.0076 J	0.069	0.0095 J	0.036 JN	0.0039 J	0.011 J	0.27 J	0.016 J	0.17	0.19 J
PCB-158	74472-42-7	ng/g	0.010	0.070	0.010	0.066 J	0.0051 J	0.012	0.25 J	0.016	0.15	0.20 J
PCB-159	39635-35-3	ng/g	< 0.00055 U	< 0.0026 U	0.0013 J	< 0.020 U	0.0010 JN	< 0.0015 U	0.014 J	0.0014 JN	0.0078 J	0.024 J
PCB-16	38444-78-9	ng/g	0.020	0.028	0.018	< 0.023 U	< 0.00029 U	< 0.0010 U	1.6	0.0013 JN	0.053 JN	0.40 JN
PCB-161	74472-43-8	ng/g	< 0.00055 U	< 0.0025 U	< 0.00057 U	< 0.020 U	< 0.000039 U	< 0.0015 U	< 0.0039 U	< 0.0012 U	< 0.0017 U	< 0.0079 U
PCB-162	39635-34-2	ng/g	< 0.00054 U	< 0.0025 U	< 0.00057 U	< 0.020 U	< 0.000037 U	< 0.0015 U	< 0.0037 U	< 0.0011 U	< 0.0016 U	< 0.0074 U
PCB-164	74472-45-0	ng/g	0.0074 J	0.055	0.0060 JN	< 0.021 U	0.0030 JN	0.011 JN	0.15 J	0.012	0.094	0.14 J
PCB-165	74472-46-1	ng/g	< 0.00062 U	< 0.0029 U	< 0.00065 U	< 0.023 U	< 0.000045 U	< 0.0017 U	< 0.0044 U	< 0.0013 U	< 0.0019 U	< 0.0090 U
PCB-167	52663-72-6	ng/g	0.0024 J+	0.020	0.0035 J	< 0.016 U	0.00091 JN	0.0055 J	0.089 J	0.0043 JN	0.053	0.072 J
PCB-169	32774-16-6	ng/g	< 0.00041 U	< 0.0022 U	< 0.00044 U	< 0.015 U	< 0.000030 U	< 0.0011 U	< 0.0031 U	< 0.00088 U	< 0.0012 U	< 0.0059 U
PCB-17	37680-66-3	ng/g	0.020	0.040	0.015 JN	0.062 JN	0.0061 J	0.0084 J	1.4	0.0054 JN	0.069	0.41
PCB-170	35065-30-6	ng/g	0.022	0.21	0.027	0.16 J	0.014 JN	0.053	0.36	0.057	0.32	0.53
PCB-171/173	52663-71-5	ng/g	0.0079 J	0.056	0.0089 J	< 0.023 U	0.0019 JN	0.018 J	0.10 JN	0.015 JN	0.11	0.18 J
PCB-172	52663-74-8	ng/g	0.0033 JN	0.029 JN	0.0047 J	< 0.023 U	0.0019 JN	0.012 JN	0.061 JN	0.0061 JN	0.064	0.10 J
PCB-174	38411-25-5	ng/g	0.025	0.21	0.030	0.14 JN	0.015 JN	0.053 JN	0.35	0.060	0.33	0.66
PCB-175	40186-70-7	ng/g	0.00084 JN	0.0087 JN	0.0015 J	< 0.021 U	< 0.000050 U	0.0029 J	0.017 J	0.0036 JN	0.019	< 0.0070 U
PCB-176	52663-65-7	ng/g	0.0039 J	0.026	0.0039 J	< 0.016 U	0.00061 JN	0.0091 J	0.033 JN	0.0040 JN	0.041	0.068 JN
PCB-177	52663-70-4	ng/g	0.014	0.12	0.017	0.052 JN	0.0087 JN	0.028 JN	0.22 J	0.036	0.20	0.34 JN
PCB-178	52663-67-9	ng/g	0.0068 J	0.047	0.0059 JN	< 0.022 U	0.0039 J	0.017	0.052 JN	0.015	0.070	0.13 J
PCB-179	52663-64-6	ng/g	0.014	0.095	0.015	0.053 JN	0.0087 J	0.027	0.14 J	0.028	0.12	0.27
PCB-18/30	37680-65-2	ng/g	0.042	0.078	0.033	0.062 J	0.0054 J	0.0084 JN	2.9	0.0084 JN	0.14	1.1
PCB-180/193	35065-29-3	ng/g	0.048	0.42	0.058	0.35 J	0.037	0.12	0.71	0.12	0.62	1.3
PCB-181	74472-47-2	ng/g	< 0.00031 U	< 0.0012 U	< 0.00032 U	< 0.021 U	< 0.000048 U	< 0.00078 U	< 0.0030 U	< 0.00028 U	0.032	0.045 JN
PCB-182	60145-23-5	ng/g	< 0.00030 U	0.0033 JN	< 0.00030 U	< 0.020 U	< 0.000045 U	< 0.00075 U	< 0.0028 U	< 0.00026 U	0.0036 JN	< 0.0063 U
PCB-183/185	52663-69-1	ng/g	0.019	0.14	0.019 J	0.086 JN	0.0094 JN	0.040	0.22 J	0.035	0.21	0.46 J
PCB-184	74472-48-3	ng/g	0.0018 JN	< 0.00095 U	0.0017 J	< 0.017 U	< 0.000039 U	< 0.00064 U	< 0.0024 U	< 0.00023 U	< 0.00038 U	< 0.0054 U
PCB-186	74472-49-4	ng/g	< 0.00025 U	< 0.00093 U	< 0.00025 U	< 0.016 U	< 0.000037 U	< 0.00062 U	< 0.0023 U	< 0.00022 U	< 0.00036 U	< 0.0052 U
PCB-187	52663-68-0	ng/g	0.033	0.28	0.043	0.20 JN	0.022	0.086	0.39	0.082	0.37	0.75
PCB-188	74487-85-7	ng/g	< 0.00022 U	< 0.00076 U	< 0.00022 U	< 0.014 U	< 0.000035 U	< 0.00057 U	< 0.0021 U	< 0.00020 U	< 0.00034 U	< 0.0048 U
PCB-189	39635-31-9	ng/g	0.0011 JN	< 0.0032 U	0.0014 J	< 0.022 U	0.00045 JN	0.0034 JN	0.015 JN	0.0018 J	0.013	0.021 JN
PCB-19	38444-73-4	ng/g	0.0087 J	0.022 JN	0.0061 J	< 0.025 U	0.019	< 0.0011 U	0.31	0.0072 JN	0.035	0.10 J
PCB-190	41411-64-7	ng/g	0.0035 JN	0.040	0.0048 J	< 0.015 U	0.0038 J	0.0097 J	0.065 JN	0.0090 JN	0.070	0.12 JN
PCB-191	74472-50-7	ng/g	0.00075 JN	< 0.00088 U	0.00084 JN	< 0.016 U	< 0.000036 U	0.0024 JN	0.010 JN	< 0.00021 U	0.027	0.026 JN
PCB-192	74472-51-8	ng/g	< 0.00026 U	< 0.00098 U	< 0.00027 U	< 0.017 U	< 0.000038 U	< 0.00066 U	< 0.0024 U	< 0.00022 U	< 0.00037 U	< 0.0053 U
PCB-194	35694-08-7	ng/g	0.019	0.11	0.013	< 0.052 U	0.0060 JN	0.033	0.16 J	0.030	0.12	0.26
PCB-195	52663-78-2	ng/g	0.0047 J	0.052	0.0055 JN	< 0.057 U	0.0024 JN	0.011 JN	0.048 JN	0.011	0.089	0.16 J
PCB-196	42740-50-1	ng/g	0.0061 J	0.040 JN	0.0055 J	0.049 JN	0.0010 JN	0.015 JN	0.058 JN	0.012	0.075	0.13 J
PCB-197	33091-17-7	ng/g	0.00049 JN	0.0029 JN	0.00048 J	< 0.0099 U	< 0.00013 U	0.0021 JN	< 0.00070 U	< 0.00011 U	0.0099	0.0074 J
PCB-198/199	68194-17-2	ng/g	0.015 JN	0.13	0.016 J	0.064 JN	0.0051 JN	0.031 JN	0.18 J	0.025	0.16	0.33 J
PCB-2	2051-61-8	ng/g	0.0045 J	0.0056 JN	0.0043 J	< 0.0045 U	0.0011 JN	0.0016 JN	0.024 J	0.0048 J	0.012 JN	0.035 JN
PCB-20/28	38444-84-7	ng/g	0.11	0.14	0.10	0.15 JN	0.011 J	0.033	5.6	0.031	0.26	1.6
PCB-200	52663-73-7	ng/g	0.0018 J	0.010 JN	0.0019 J	< 0.0088 U	< 0.00014 U	0.0041 JN	0.0075 JN	0.0028 JN	0.030	0.033 JN
PCB-201	40186-71-8	ng/g	0.0013 J	0.010 JN	0.0018 JN	< 0.0090 U	0.00095 JN	0.0037 J	0.015 JN	0.0026 JN	0.025	0.042 J
PCB-202	2136-99-4	ng/g	0.0036 J	0.023 JN	0.0033 J	< 0.010 U	0.00092 JN	0.0057 JN	0.029 JN	0.0081 J	0.031	0.066 J
PCB-203	52663-76-0	ng/g	0.0083 JN	0.057 JN	0.0079 J	0.040 JN	0.0014 JN	0.017 JN	0.10 J	0.013 JN	0.11	0.21 J
PCB-204	74472-52-9	ng/g	< 0.00014 U	< 0.00032 U	< 0.00011 U	< 0.0099 U	< 0.00014 U	0.0024 JN	< 0.00077 U	< 0.00012 U	0.0032 JN	0.0082 J
PCB-205	74472-53-0	ng/g	< 0.00040 U	< 0.0017 U	0.00088 JN	< 0.044 U	0.00037 JN	< 0.0029 U	0.0093 J	0.0023 J	0.025	0.015 JN
PCB-206	40186-72-9	ng/g	0.036	0.066 JN	0.0098 J	< 0.059 U	0.0052 JN	0.016	0.17 JN	0.027 JN	0.16	0.44 JN
PCB-207	52663-79-3	ng/g	0.0020 J	0.0091 J	< 0.00074 U	< 0.044 U	< 0.00086 U	< 0.0026 U	< 0.0084 U	0.0032 JN	0.056	0.021 J
PCB-208	52663-77-1	ng/g	0.0040 J	0.023	0.0027 JN	< 0.047 U	< 0.00094 U	0.0039 JN	0.025 JN	0.0067 J	0.050	0.030 JN
PCB-209	2051-24-3	ng/g	0.0098	0.099	0.0083 JN	0.061 JN	0.0056 J	0.017	0.079 JN	0.018	0.19	0.18 JN
PCB-21/33	55702-46-0	ng/g	0.054	0.051	0.048	0.051 JN	0.0051 JN	0.012 JN	3.3	0.011 J	0.10	0.70
PCB-22	38444-85-8	ng/g	0.040	0.044	0.038	< 0.017 U	0.0022 J+	0.0067 J	2.2	0.0078 J	0.074	0.51
PCB-23	55720-44-0	ng/g	< 0.00038 U	< 0.0014 U	< 0.00040 U	< 0.017 U	< 0.00045 U	< 0.0010 U	< 0.025 U	< 0.00073 U	< 0.0012 U	< 0.019 U
PCB-24	55702-45-9	ng/g	< 0.00027 U	< 0.00068 U	0.00087 JN	< 0.018 U	< 0.00017 U	< 0.00075 U	0.072 JN	< 0.000069 U	0.0020 JN	< 0.0057 U
PCB-25	55712-37-3	ng/g	0.0052 J	0.012 JN	0.0039 J	< 0.016 U	0.00083 JN	0.0019 JN	0.47	0.0029 JN	0.024	0.073 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B173	B174	B175	B176	B177	B178	B179	B180	B181	B182
		Sample ID	PDI-SG-B173-BL1	PDI-SG-B174-BL1	PDI-SG-B175-BL1	PDI-SG-B176-BL1	PDI-SG-B177-BL1	PDI-SG-B178-BL1	PDI-SG-B179-BL1	PDI-SG-B180-BL1	PDI-SG-B181-BL1	PDI-SG-B182-BL1
		Sample Date	17 Apr 2018	20 Jul 2018	17 Apr 2018	14 Apr 2018	18 Apr 2018	14 Apr 2018	01 Jun 2018	18 Apr 2018	02 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-29 cm	0-22 cm	0-24 cm	0-24 cm	0-27 cm	0-23 cm	0-25 cm	0-30 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.011 J	0.025 J	0.0094 J	0.039 JN	0.0022 JN	0.0048 J	0.97	0.0049 J	0.041	0.21 J
PCB-27	38444-76-7	ng/g	0.0038 J	0.0047 JN	0.0024 JN	< 0.015 U	< 0.00017 U	< 0.00065 U	0.28 J	0.0014 JN	0.010 JN	0.054 J
PCB-3	2051-62-9	ng/g	0.0046 J	< 0.00067 U	0.0039 JN	< 0.0050 U	0.0016 JN	0.0017 J	0.029 J	0.0019 JN	0.013	0.027 JN
PCB-31	16606-02-3	ng/g	0.090	0.11	0.080	0.12 J	0.0063 JN	0.022 J	4.5	0.021	0.20	1.5
PCB-32	38444-77-8	ng/g	0.022	0.026	0.017	0.034 JN	0.0042 JN	0.0064 J	1.1	0.0065 J	0.034	0.16 J
PCB-34	37680-68-5	ng/g	< 0.00040 U	< 0.0015 U	< 0.00042 U	< 0.018 U	< 0.00046 U	< 0.0010 U	< 0.026 U	< 0.00075 U	0.0016 J	< 0.020 U
PCB-35	37680-69-6	ng/g	0.0089 J	0.0024 JN	0.0087 J	< 0.017 U	< 0.00044 U	< 0.0010 U	0.079 J	< 0.00072 U	0.0039 J	< 0.019 U
PCB-36	38444-87-0	ng/g	0.0010 JN	< 0.0014 U	0.0010 JN	< 0.017 U	< 0.00040 U	< 0.00098 U	< 0.023 U	< 0.00065 U	< 0.0010 U	< 0.017 U
PCB-37	38444-90-5	ng/g	0.048	0.049	0.046	< 0.017 U	0.0031 J	0.0096 J	1.9	0.0094 J	0.062	0.37
PCB-38	53555-66-1	ng/g	0.00067 J	< 0.0015 U	0.00068 JN	< 0.018 U	< 0.00044 U	< 0.0011 U	< 0.025 U	< 0.00071 U	< 0.0011 U	< 0.019 U
PCB-39	38444-88-1	ng/g	0.00045 JN	< 0.0013 U	0.00050 JN	< 0.016 U	< 0.00040 U	< 0.00094 U	< 0.022 U	< 0.00065 U	0.0023 J	< 0.017 U
PCB-4	13029-08-8	ng/g	0.0066 JN	< 0.0082 U	0.0059 JN	< 0.21 U	0.017 J	< 0.0074 U	0.21 J	0.0065 JN	0.039	0.094 JN
PCB-40/41/71	38444-93-8	ng/g	0.052	0.12	0.052	0.084 J	0.0068 J	0.015 JN	2.3	0.019 JN	0.19	1.5
PCB-42	36559-22-5	ng/g	0.025	0.053	0.024	< 0.028 U	0.0029 JN	0.0063 JN	0.93 JN	0.0096 JN	0.093	0.64
PCB-43/73	70362-46-8	ng/g	0.0019 JN	0.0062 J	0.0026 J	< 0.026 U	< 0.00055 U	< 0.0021 U	0.15 JN	< 0.00092 U	0.014 JN	0.079 JN
PCB-44/47/65	41464-39-5	ng/g	0.10	0.24	0.095	0.18 J	0.028 J	0.035 J	3.2	0.063	0.53	2.6
PCB-45/51	70362-45-7	ng/g	0.021	0.037	0.018 J	< 0.029 U	0.0090 JN	0.0057 JN	0.65 JN	0.015 J	0.075	0.50
PCB-46	41464-47-5	ng/g	0.0058 J	0.0095 J	0.0042 J	< 0.035 U	< 0.00075 U	< 0.0028 U	0.20 JN	< 0.0012 U	0.023	0.18 J
PCB-48	70362-47-9	ng/g	0.017	0.033	0.018	< 0.028 U	0.0022 J	0.0038 JN	0.84	0.0059 J	0.068	0.55
PCB-49/69	41464-40-8	ng/g	0.056	0.15	0.049	0.10 JN	0.015 J	0.032	1.8	0.036	0.28	1.3
PCB-5	16605-91-7	ng/g	< 0.0012 U	< 0.0068 U	< 0.0015 U	< 0.16 U	< 0.0011 U	< 0.0059 U	< 0.014 U	< 0.00019 U	0.0014 JN	< 0.011 U
PCB-50/53	62796-65-0	ng/g	0.013 J	0.030 JN	0.012 J	0.19 JN	0.010 JN	0.0068 JN	0.46 J	0.011 JN	0.067	0.38 J
PCB-52	35693-99-3	ng/g	0.097	0.29	0.092	0.34	0.020 JN	0.049	3.5	0.069	1.0	3.1
PCB-54	15968-05-5	ng/g	0.00079 JN	< 0.00011 U	0.0012 J	< 0.0013 U	0.0043 J	0.00072 JN	0.0088 JN	0.0014 JN	0.0043 JN	0.0054 JN
PCB-55	74338-24-2	ng/g	0.0021 JN	0.0028 JN	0.0013 JN	< 0.020 U	0.00063 JN	< 0.0016 U	0.31	< 0.00069 U	0.0072 J	0.048 J
PCB-56	41464-43-1	ng/g	0.046	0.10	0.044	0.079 J	0.0037 JN	0.012	1.6	0.018	0.16	1.1
PCB-57	70424-67-8	ng/g	< 0.00066 U	< 0.0012 U	< 0.00076 U	< 0.021 U	< 0.00043 U	< 0.0016 U	< 0.016 U	< 0.00071 U	< 0.0012 U	< 0.0072 U
PCB-58	41464-49-7	ng/g	< 0.00067 U	< 0.0012 U	< 0.00077 U	< 0.021 U	< 0.00041 U	< 0.0016 U	< 0.015 U	< 0.00068 U	< 0.0011 U	< 0.0070 U
PCB-59/62/75	74472-33-6	ng/g	0.0061 JN	0.020 J	0.0077 J	< 0.020 U	0.00085 JN	0.0026 JN	0.37 J	0.0030 J	0.033	0.19 JN
PCB-6	25569-80-6	ng/g	0.0032 JN	0.0095 JN	0.0030 JN	< 0.14 U	< 0.0011 U	< 0.0051 U	0.13 JN	0.00056 JN	0.015	0.020 JN
PCB-60	33025-41-1	ng/g	0.033	0.050	0.031	< 0.021 U	0.0015 JN	0.0026 JN	1.0	0.0060 JN	0.068	0.63
PCB-61/70/74/76	33284-53-6	ng/g	0.16	0.34	0.15	0.26 J	0.021 J	0.059	5.0	0.073	0.85	3.9
PCB-63	74472-34-7	ng/g	0.0039 J	0.010 JN	0.0033 JN	< 0.019 U	< 0.00037 U	< 0.0015 U	0.11 J	0.0024 J	0.012	0.090 J
PCB-64	52663-58-8	ng/g	0.046	0.093	0.043	0.063 J	0.0040 JN	0.0096 JN	1.4	0.017	0.16	1.1
PCB-66	32598-10-0	ng/g	0.098	0.23	0.090	0.15 JN	0.012 JN	0.041	2.9	0.042	0.37	2.1
PCB-67	73575-53-8	ng/g	0.0013 JN	< 0.0010 U	0.0017 JN	< 0.018 U	< 0.00039 U	< 0.0014 U	0.12 J	< 0.00065 U	0.0081 J	0.051 J
PCB-68	73575-52-7	ng/g	0.0016 JN	< 0.0011 U	0.0020 JN	< 0.018 U	< 0.00037 U	< 0.0014 U	< 0.014 U	0.0012 J	0.0037 J+	< 0.0063 U
PCB-7	33284-50-3	ng/g	0.0017 JN	< 0.0061 U	< 0.0014 U	< 0.14 U	0.0026 J	< 0.0053 U	0.017 J	0.00055 JN	0.0057 J	< 0.010 U
PCB-72	41464-42-0	ng/g	< 0.00065 U	0.0038 J	< 0.00074 U	< 0.020 U	< 0.00042 U	< 0.0016 U	< 0.015 U	< 0.00069 U	0.0052 J	0.019 J
PCB-77	32598-13-3	ng/g	0.0092 JN	0.029	0.011	< 0.020 U	0.0018 JN	0.0046 J	0.32	0.0059 J	0.027	0.17 JN
PCB-78	70362-49-1	ng/g	< 0.00067 U	< 0.0012 U	< 0.00077 U	< 0.021 U	< 0.00041 U	< 0.0016 U	< 0.015 U	< 0.00068 U	< 0.0011 U	< 0.0070 U
PCB-79	41464-48-6	ng/g	< 0.00058 U	< 0.0010 U	0.00092 JN	< 0.018 U	< 0.00035 U	< 0.0014 U	< 0.013 U	0.00092 JN	0.0094 J	0.013 JN
PCB-8	34883-43-7	ng/g	0.019	0.030 JN	0.017 J	< 0.13 U	0.0018 JN	0.010 JN	0.87	0.0051 JN	0.059	0.20 J
PCB-80	33284-52-5	ng/g	< 0.00057 U	< 0.0010 U	< 0.00065 U	< 0.018 U	< 0.00036 U	< 0.0014 U	< 0.013 U	< 0.00060 U	< 0.0010 U	< 0.0062 U
PCB-81	70362-50-4	ng/g	< 0.00063 U	< 0.0011 U	< 0.00068 U	< 0.018 U	< 0.00038 U	< 0.0015 U	< 0.014 U	< 0.00064 U	< 0.0011 U	< 0.0067 U
PCB-82	52663-62-4	ng/g	0.015	0.048 JN	0.014	< 0.010 U	0.0018 JN	0.0081 J	0.47	0.013	0.17	0.44
PCB-83/99	60145-20-2	ng/g	0.066	0.26	0.058	0.18 J	0.021 JN	0.061	1.4	0.071 JN	0.73	1.2
PCB-84	52663-60-2	ng/g	0.028 JN	0.11	0.025 JN	< 0.010 U	0.0044 JN	0.017 JN	0.73	0.027	0.37	0.67
PCB-85/116/117	65510-45-4	ng/g	0.023 J	0.076	0.022 J	0.082 J	0.0066 J	0.010 J	0.44 J	0.021 J	0.21	0.43 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.072	0.28	0.071	0.21 JN	0.022 J	0.041 JN	1.8	0.068	0.90	1.5
PCB-88/91	55215-17-3	ng/g	0.020	0.069	0.018 J	0.065 JN	0.0086 JN	0.022 J	0.32 J	0.019 JN	0.18	0.34 J
PCB-89	73575-57-2	ng/g	0.0015 J	< 0.00078 U	0.0016 J	< 0.0098 U	< 0.00071 U	< 0.00041 U	0.042 J	< 0.0013 U	0.0091 J	0.029 JN
PCB-9	34883-39-1	ng/g	0.0013 JN	< 0.0063 U	< 0.0014 U	< 0.15 U	< 0.0012 U	< 0.0054 U	0.035 JN	< 0.00021 U	0.0047 J	< 0.012 U
PCB-90/101/113	68194-07-0	ng/g	0.11	0.42	0.099	0.33 JN	0.030 JN	0.089 JN	2.3	0.12	1.4	2.0
PCB-92	52663-61-3	ng/g	0.018	0.074 JN	0.017	0.082 JN	0.0064 JN	0.023	0.38 JN	0.021 JN	0.27	0.39
PCB-93/100	73575-56-1	ng/g	0.0031 J	0.026 JN	0.0030 J	< 0.0087 U	0.0036 JN	0.0018 JN	0.035 JN	0.0062 JN	0.018 JN	0.054 J
PCB-94	73575-55-0	ng/g	< 0.00013 U	< 0.00078 U	< 0.00021 U	< 0.0098 U	< 0.00071 U	< 0.00041 U	0.020 J	< 0.0013 U	< 0.00060 U	< 0.0072 U
PCB-95	38379-99-6	ng/g	0.095	0.35	0.084	0.29	0.028	0.095	1.9	0.097	1.2	1.8
PCB-96	73575-54-9	ng/g	< 0.000099 U	0.0047 J	0.0012 J	< 0.0074 U	< 0.00053 U	< 0.00031 U	< 0.0053 U	0.0011 JN	0.011	0.027 JN
PCB-98/102	60233-25-2	ng/g	0.0036 JN	0.012 JN	0.0038 J	< 0.0084 U	0.0025 J	0.0025 JN	0.085 JN	< 0.0012 U	0.037 JN	0.083 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	3.1	11	3.0	7.5	0.83	2.4	84	2.7	24	58

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B173	B174	B175	B176	B177	B178	B179	B180	B181	B182
		Sample ID	PDI-SG-B173-BL1	PDI-SG-B174-BL1	PDI-SG-B175-BL1	PDI-SG-B176-BL1	PDI-SG-B177-BL1	PDI-SG-B178-BL1	PDI-SG-B179-BL1	PDI-SG-B180-BL1	PDI-SG-B181-BL1	PDI-SG-B182-BL1
		Sample Date	17 Apr 2018	20 Jul 2018	17 Apr 2018	14 Apr 2018	18 Apr 2018	14 Apr 2018	01 Jun 2018	18 Apr 2018	02 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-29 cm	0-22 cm	0-24 cm	0-24 cm	0-27 cm	0-23 cm	0-25 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.67 U	2.0	< 0.73 U	1.0 J	0.25 J	47	31	0.32	15	48
2,4-DDE	3424-82-6	µg/kg	< 0.67 U	< 0.50 U	< 0.73 U	< 1.1 U	< 0.26 U	10	1.5 J	< 0.29 U	< 0.94 U	< 17 U
2,4-DDT	789-02-6	µg/kg	< 0.67 U	0.96 J	< 0.73 U	< 1.1 U	< 0.26 U	3.6 J	< 1.8 U	< 0.29 U	< 0.94 U	< 17 U
4,4'-DDD	72-54-8	µg/kg	< 0.67 U	7.2	< 0.73 U	3.2	0.47	170	73	0.66	23	180
4,4'-DDE	72-55-9	µg/kg	< 0.67 U	4.1	< 0.73 U	2.3	< 0.26 U	61	13	0.53	4.9	< 17 U
4,4'-DDT	50-29-3	µg/kg	< 0.67 U	2.0	< 0.73 U	0.64 J	< 0.26 U	51	2.7	< 0.29 U	0.70 J	< 17 U
Total DDx (b)	T_DDx (PDI)	µg/kg	< 0.67 U	17	< 0.73 U	7.7	0.85	343	122	1.7	44	237
Aldrin	309-00-2	µg/kg	< 0.67 U	< 0.50 U	< 0.73 U	< 1.1 U	< 0.26 U	1.0 J	< 1.8 U	< 0.29 U	< 0.94 U	< 17 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.3 U	0.36 J	< 1.5 U	< 2.1 U	< 0.52 U	< 2.2 U	< 3.6 U	< 0.58 U	< 1.9 U	< 33 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.67 UJ	< 0.50 U	< 0.73 UJ	< 1.1 U	< 0.26 U	< 1.1 U	< 1.8 U	< 0.29 U	< 0.97 U	< 17 U
Dieldrin	60-57-1	µg/kg	< 1.3 UJ	< 1.0 U	< 1.5 UJ	1.8 J	< 0.52 U	< 2.2 U	1.7 J	< 0.58 U	< 2.0 U	< 33 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.67 U	< 0.50 U	< 0.73 U	< 1.1 U	< 0.26 U	0.64 J	< 1.8 U	< 0.29 U	< 0.94 U	< 17 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.3 U	0.38 J	< 1.5 U	< 2.1 U	< 0.52 U	0.94 J	2.7 J	< 0.58 U	< 1.9 U	< 33 U
Heptachlor	76-44-8	µg/kg	< 0.67 U	< 0.50 U	< 0.73 U	< 1.1 U	< 0.26 U	< 1.1 U	< 1.8 U	< 0.29 U	< 0.94 U	< 17 U
Oxychlordane	27304-13-8	µg/kg	< 1.3 U	< 1.0 U	< 1.5 U	< 2.1 U	< 1.0 U	< 2.2 U	< 3.6 U	< 1.0 U	< 2.0 U	< 33 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.3 U	0.39 J	< 1.5 U	< 2.1 U	< 0.52 U	< 2.2 U	< 3.6 U	< 0.58 U	< 1.9 U	< 33 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.3 U	1.63	< 1.5 U	< 2.1 U	< 1 U	2.04	4.5	< 1 U	< 2 U	< 33 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.6	120	0.49 J	77	2.0	770	6200	10	620	960 J
Acenaphthene	83-32-9	µg/kg	2.3	130	0.46	300	2.1	6800	27000	5.3	2000	20000
Acenaphthylene	208-96-8	µg/kg	1.2	68	0.43	93	2.0	470	1500	4.7	300	2600
Anthracene	120-12-7	µg/kg	4.3	250	0.86	210	5.4	5400	30000	9.8 J	900	22000
Benz(a)anthracene	56-55-3	µg/kg	12	640	2.7	670	23	14000	34000	30 J	3000	39000
Benzo(a)pyrene	50-32-8	µg/kg	14	700	3.6	860	28	17000	37000	40 J	4700	42000
Benzo(b)fluoranthene	205-99-2	µg/kg	14	950	4.8	750	27	13000	33000	40 J	3900	38000
Benzo(g,h,i)perylene	191-24-2	µg/kg	12	570	4.1	780	27	13000	24000	43 J	3600	26000
Benzo(k)fluoranthene	207-08-9	µg/kg	4.9	340	1.7	220	9.0	4700	12000	12	1500	14000
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	< 690 U	140 J	13 J	61 J	11 J	< 2800 U	310 J	20 J	100 J	320 J
Chrysene	218-01-9	µg/kg	16	1100	4.5	650	31	16000	41000	39 J	3700	41000
Dibenz(a,h)anthracene	53-70-3	µg/kg	1.8	120	0.69	110	3.3	2300	2900	6.4	410	3600
Fluoranthene	206-44-0	µg/kg	32	1800	6.0	2100	48	25000	120000	63 J	6600	110000
Fluorene	86-73-7	µg/kg	2.1	130	0.62	200	2.0	3900	22000	7.5	920	14000
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	11	660 J	3.4	690	23	12000	23000	38 J	3600	26000
Naphthalene	91-20-3	µg/kg	2.9	250	0.75	140	5.7	1600	4300	19	1200	3100
Phenanthrene	85-01-8	µg/kg	14	840	2.5	1500	10	31000	160000	36 J	5700	100000
Pyrene	129-00-0	µg/kg	50	1800	7.2	2700	100	37000	150000	73 J	8400	140000
Total PAHs (b)	T_PAH (PDI)	µg/kg	196	10468	45	12050	349	203940	727900	477	51050	642260
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	20	1050	5	1184	39	23263	49061	57	6179	56081
Metals												
Arsenic	7440-38-2	mg/kg	3.8	5.7	2.9	4.8	3.7	4.9	4.9	4.9	4.6	4.5
Cadmium	7440-43-9	mg/kg	< 0.19 U	0.32 J	0.048 J	0.28 J	0.085 J	0.42	0.20 J	0.13 J	0.14 J	0.17 J
Copper	7440-50-8	mg/kg	14	46	13	34	14	42	36	20 J	27	33
Lead	7439-92-1	mg/kg	3.7	17	2.8	9.8	4.2	23	18	17 J	10	14
Mercury	7439-97-6	mg/kg	0.013 J	0.078	0.013 J	0.044 J	0.017 J	0.57	0.11	0.12 J	0.039 J	< 0.051 U
Tri-n-butyltin	36643-28-4	µg/kg	< 1.4 U	< 190 U	< 1.5 U	1.8 J	2.0	1.2 J	2.4	1.2 J	23	2.2
Zinc	7440-66-6	mg/kg	55	110	40	94	55	150	110	72	78	98
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 66 U	130	< 66 U	100 J	< 65 U	1900 J	2000 J	24 J	230	2400 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	69	520	89	690	< 65 U	4000 J	2000 J	140	520	3500 J
Other												
Total Solids@104C - D2216 (f)	TSOLID	%		37.9					42.1		51.0	47.6
Total Solids@104C - E160.3 (f)	TSOLID	%	73.6		71.8	42.3	73.6	41.3		65.5		
Total Solids@104C - E160.3M (f)	TSOLID	%	72.3	38.0	67.9	46.5	76.3	44.3	43.2	65.6	52.2	48.6
Total Solids@70C	TSOLID70	%	75	38	74	48	78	46	43	68	52	48
Gravel	GS-Gravel	%	1.6	0	11.4 L	0.1	1.0	0	0.6	1.1	0	0
Sand, Coarse	GS-Csand	%	2.2	0	5.3	0.8	4.0	0	0.7	0.4	0	0.1
Sand, Medium	GS-Msand	%	56.4	0.2	30.7	2.8	51.6	1.3	1.7	4.5	5.1	0.6
Sand, Fine (#200) (d)	GS-Fsand-200	%	31.95	5.765	44.82	41	33.71	12.9	25.94	74.42	45.91	39.01
Sand, Fine (#230) (d)	GS-Fsand	%	32.2	7.6	45.2	45.2	34.0	14.9	30.1	75.6	48.7	44.6
Silt (#200) (d)	GS-Silt-200	%	4.647	83.63	5.978	47.59	7.382	63.99	66.15	14.57	40.48	47.88

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B173	B174	B175	B176	B177	B178	B179	B180	B181	B182
		Sample ID	PDI-SG-B173-BL1	PDI-SG-B174-BL1	PDI-SG-B175-BL1	PDI-SG-B176-BL1	PDI-SG-B177-BL1	PDI-SG-B178-BL1	PDI-SG-B179-BL1	PDI-SG-B180-BL1	PDI-SG-B181-BL1	PDI-SG-B182-BL1
		Sample Date	17 Apr 2018	20 Jul 2018	17 Apr 2018	14 Apr 2018	18 Apr 2018	14 Apr 2018	01 Jun 2018	18 Apr 2018	02 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-29 cm	0-22 cm	0-24 cm	0-24 cm	0-27 cm	0-23 cm	0-25 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	4.4	81.8	5.6	43.4	7.1	62.0	62.0	13.4	37.7	42.3
Clay	GS-Clay	%	3.1	10.4	1.8	7.8	2.3	21.8	4.9	5.1	8.5	12.4
Percent Fines (e)	GS-FINES	%	7.747	94.03	7.778	55.39	9.682	85.79	71.05	19.67	48.98	60.28
Total Organic Carbon	TOC	mg/kg	2900	34000	7600	29000	2000	60000	61000	6800	20000	46000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B183	B184	B185	B186	B187	B188	B189	B189	B190	B191
		Sample ID	PDI-SG-B183-BL1	PDI-SG-B184-BL1	PDI-SG-B185-BL1	PDI-SG-B186-BL1	PDI-SG-B187-BL1	PDI-SG-B188-BL1	PDI-SG-B189-BL1	PDI-SG-B189-BL1-D	PDI-SG-B190-BL1	PDI-SG-B191-BL1
		Sample Date	31 May 2018	18 Apr 2018	18 Apr 2018	01 Jun 2018	01 Jun 2018	31 May 2018	02 Jun 2018	02 Jun 2018	18 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-18 cm	0-25 cm	0-24 cm	0-20 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-24 cm	0-20 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.14	0.029	0.035	0.046	0.12	0.0044	0.24 J	0.10 J	0.0088	0.017
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.043	0.0044	0.0067	0.0066	0.025	0.00071 JN	0.035	0.035	0.0030 J	0.0027 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0020 J	0.00041 JN	< 0.00030 U	0.0014 J+	0.0055 J	< 0.00049 U	0.0063	0.0097	< 0.00018 U	0.00037 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0015 J	0.00044 JN	< 0.000059 U	0.00039 J+	0.0016 J	< 0.00013 U	0.00096 J	0.00093 J	0.00021 JN	0.00030 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0027 J	0.00083 JN	0.00067 J	0.0041	0.025	0.00017 JN	0.031 J	0.060 J	0.00074 JN	0.00087 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0089	0.0017 J	0.0014 JN	0.0013 J	0.0094	0.00020 J+	0.0043 J	0.0033 J	0.00044 J	0.00083 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0035 J	0.00074 J	< 0.0011 U	0.0011 J	0.0071	< 0.000048 U	0.0069	0.013	0.00050 J	0.00034 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0029 JN	0.0011 J	0.00060 JN	0.00079 J	0.0043 J	0.00019 J+	0.0026 J	0.0025 J	0.00037 JN	0.00072 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00084 J+	< 0.00010 U	< 0.00022 U	< 0.00052 U	0.0015 J+	< 0.00062 U	0.0014 J+	0.0013 J+	< 0.00015 U	0.00032 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00073 JN	0.00039 JN	< 0.00015 U	0.00016 J	0.0011 J	< 0.000044 U	0.00050 J	0.00043 J	< 0.00013 U	0.00018 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00035 JN	< 0.00010 U	< 0.00019 U	0.0027 J	0.020	< 0.00011 U	0.014	0.023	0.00026 JN	0.00047 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0014 J	0.00033 JN	< 0.00024 U	0.00028 J	0.0013 J	< 0.000056 U	0.0012 J	0.0020 J	0.00032 J	0.00019 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00082 J	0.00037 J	< 0.00020 U	0.00099 J	0.0073	< 0.000048 U	0.0084	0.0091	0.00029 J	0.00021 JN
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00014 U	0.0014	< 0.000073 U	0.00016 JN	0.00079 J	< 0.000098 U	0.00023 JN	0.00034 JN	< 0.000073 U	< 0.000073 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00036 J	0.00065 J	0.00044 J+	0.0021	0.017	< 0.000085 U	0.027	0.024	0.00033 JN	0.00034 J
OCDD	3268-87-9	µg/kg	2.8	0.28	0.37	0.38	1.0	0.036	1.8 J	0.84 J	0.080	0.16
OCDF	39001-02-0	µg/kg	0.043	0.012	0.013	0.015	0.045	0.0022 J	0.10	0.063	0.0046 J	0.0084
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.006	0.0029	0.00092	0.0024	0.013	0.00017	0.015	0.017	0.00059	0.00094
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0052	0.0025	0.00072	0.0023	0.013	0.00014	0.014	0.016	0.00042	0.00085
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0049	0.0024	0.00064	0.0022	0.013	0.000094	0.014	0.016	0.00036	0.00081
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0059 JN	0.0020 J	0.0023 JN	0.0028 JN	0.0066 JN	0.00052 JN	0.0057 J	0.0050 J	0.0011 JN	< 0.00014 U
PCB-10	33146-45-1	ng/g	< 0.0021 U	< 0.00047 U	0.0023 JN	< 0.0017 U	< 0.0015 U	< 0.00023 U	0.0011 JN	< 0.00099 U	0.00085 JN	< 0.0010 U
PCB-103	60145-21-3	ng/g	< 0.0019 U	0.00068 JN	0.064	0.0018 JN	0.0014 JN	< 0.00024 U	0.0080 JN	0.0089 J	< 0.00042 U	0.0013 JN
PCB-104	56558-16-8	ng/g	< 0.0015 U	< 0.00021 U	< 0.0019 U	< 0.00056 U	< 0.00078 U	< 0.00018 U	< 0.00022 U	< 0.00062 U	< 0.00033 U	< 0.00049 U
PCB-105	32598-14-4	ng/g	0.026 JN	0.016	0.055	0.032 J	0.045 J	0.0047 JN	0.19	0.14	0.0066 J	0.013
PCB-106	70424-69-0	ng/g	< 0.0020 U	< 0.00049 U	< 0.0018 U	< 0.0016 U	< 0.0014 U	< 0.00033 U	< 0.0018 U	< 0.0016 U	< 0.00065 U	< 0.0012 U
PCB-107	70424-68-9	ng/g	0.0093 J	0.0051 J	0.028	< 0.0016 U	0.0077 JN	0.0012 J	0.036	0.029	0.0022 J	0.0037 J
PCB-108/124	70362-41-3	ng/g	< 0.0020 U	0.0016 JN	0.0087 J	0.0029 JN	0.0040 J	0.00058 JN	0.019 J	0.014 J	0.0015 J	< 0.0012 U
PCB-11	2050-67-1	ng/g	0.0093 JN	0.0066 JN	0.011 J+	0.039 JN	0.025 J	0.0098 JN	0.065	0.065	0.0048 JN	0.014 J+
PCB-110/115	38380-03-9	ng/g	0.098 J	0.10	0.47	0.11	0.15	0.020	0.68	0.47	0.024 JN	0.054
PCB-111	39635-32-0	ng/g	< 0.0013 U	< 0.00019 U	< 0.0017 U	< 0.00050 U	< 0.00069 U	< 0.00016 U	< 0.00020 U	< 0.00055 U	< 0.00029 U	< 0.00045 U
PCB-112	74472-36-9	ng/g	< 0.0015 U	0.0010 JN	< 0.0018 U	< 0.00055 U	< 0.00076 U	< 0.00018 U	0.0034 J	0.0027 JN	< 0.00032 U	< 0.00048 U
PCB-114	74472-37-0	ng/g	< 0.0018 U	0.0015 JN	< 0.0016 U	< 0.0015 U	0.0020 JN	< 0.00030 U	0.012	0.0092 J	< 0.00058 U	< 0.0011 U
PCB-118	31508-00-6	ng/g	0.087 J	0.042	0.19	0.072	0.10	0.012 JN	0.43	0.34	0.017 JN	0.040
PCB-12/13	2974-92-7	ng/g	< 0.0018 U	0.00085 JN	0.0024 JN	< 0.0015 U	< 0.0012 U	< 0.0010 U	0.012 J	0.0082 J	< 0.00040 U	0.0012 JN
PCB-120	68194-12-7	ng/g	< 0.0013 U	< 0.00019 U	0.0088 J	< 0.00050 U	< 0.00068 U	< 0.00016 U	0.0026 J	0.0037 JN	< 0.00029 U	< 0.00046 U
PCB-121	56558-18-0	ng/g	< 0.0014 U	< 0.00020 U	< 0.0018 U	< 0.00054 U	< 0.00074 U	< 0.00018 U	< 0.00021 U	< 0.00059 U	< 0.00031 U	< 0.00047 U
PCB-122	76842-07-4	ng/g	< 0.0022 U	< 0.00055 U	< 0.0020 U	< 0.0018 U	< 0.0015 U	< 0.00037 U	0.0072 JN	0.0063 JN	< 0.00072 U	< 0.0014 U
PCB-123	65510-44-3	ng/g	< 0.0018 U	< 0.00044 U	0.0030 JN	< 0.0014 U	0.0020 JN	< 0.00029 U	0.010 J	0.0071 J	< 0.00059 U	< 0.0012 U
PCB-126	57465-28-8	ng/g	< 0.0021 U	< 0.00049 U	< 0.0017 U	< 0.0015 U	< 0.0013 U	< 0.00034 U	< 0.0017 U	< 0.0015 U	< 0.00063 U	< 0.0013 U
PCB-127	39635-33-1	ng/g	< 0.0019 U	< 0.00047 U	< 0.0017 U	< 0.0016 U	< 0.0013 U	< 0.00032 U	< 0.0017 U	< 0.0015 U	< 0.00062 U	< 0.0012 U
PCB-128/166	38380-07-3	ng/g	0.037 J	0.016 J	0.054	0.020 J	0.024 J	0.0039 JN	0.11	0.088	0.0054 JN	0.022
PCB-129/138/160/163	55215-18-4	ng/g	0.19 J	0.11	0.41	0.11 J	0.19 J	0.033 J	0.84	0.61	0.034 J	0.21
PCB-130	52663-66-8	ng/g	0.010 JN	0.0071 JN	0.030	0.0063 JN	0.011 JN	0.0020 JN	0.049	0.044	0.0029 J	0.0099
PCB-131	61798-70-7	ng/g	< 0.0035 U	< 0.0011 U	0.0042 JN	< 0.0029 U	< 0.0027 U	< 0.00051 U	0.0081 JN	0.0094 J	< 0.000063 U	< 0.0030 U
PCB-132	38380-05-1	ng/g	0.056 J	0.037	0.20	0.034 JN	0.058	0.010	0.27	0.19	0.010 JN	0.039
PCB-133	35694-04-3	ng/g	< 0.0032 U	0.0034 J	0.019	< 0.0027 U	0.0042 JN	< 0.00048 U	0.014 JN	0.012	0.00066 JN	< 0.0027 U
PCB-134/143	52704-70-8	ng/g	0.0099 J	0.0095 J	0.041 JN	< 0.0028 U	0.011 J	0.0025 J	0.045	0.035	0.0030 J	0.0071 JN
PCB-135/151	52744-13-5	ng/g	0.078 J	0.053	0.41	0.046 J	0.069 J	0.013 J	0.31	0.21	0.018 JN	0.070
PCB-136	38411-22-2	ng/g	0.017 JN	0.017 JN	0.15	0.017 J	0.023 J	0.0054 J	0.10	0.073	0.0044 JN	0.016 JN
PCB-137	35694-06-5	ng/g	0.0093 J	0.0039 J	0.0053 JN	0.0042 JN	0.0038 JN	0.0011 JN	0.026	0.023 JN	0.00064 JN	0.0040 J
PCB-139/140	56030-56-9	ng/g	< 0.0029 U	0.0014 JN	0.010 JN	< 0.0024 U	< 0.0022 U	0.00058 JN	0.013 J	0.0094 J	0.00034 JN	< 0.0024 U
PCB-14	34883-41-5	ng/g	< 0.0017 U	< 0.00037 U	< 0.00056 U	< 0.0013 U	< 0.0011 U	< 0.00018 U	< 0.00053 U	< 0.00077 U	< 0.00036 U	< 0.00079 U
PCB-141	52712-04-6	ng/g	0.040 J	0.021	0.086	0.020 J	0.038 J	0.0068 J	0.18	0.12	0.0087 J	0.051
PCB-142	41411-61-4	ng/g	< 0.0033 U	< 0.0010 U	< 0.0032 U	< 0.0027 U	< 0.0025 U	< 0.00048 U	< 0.0017 U	0.0017 J	< 0.000060 U	< 0.0027 U
PCB-144	68194-14-9	ng/g	0.0082 JN	0.0045 JN	0.020 JN	0.0053 JN	0.0081 JN	0.0014 JN	0.039	0.026	0.0020 JN	0.0092 J
PCB-145	74472-40-5	ng/g	< 0.00032 U	< 0.000063 U	< 0.00033 U	< 0.00021 U	< 0.00012 U	< 0.000020 U	< 0.00038 U	< 0.00050 U	< 0.00014 U	< 0.00056 U
PCB-146	51908-16-8	ng/g	0.029 JN	0.023	0.11	0.022 J	0.034 J	0.0061 J	0.13	0.11	0.0090 J	0.027 JN
PCB-147/149	68194-13-8	ng/g	0.16 JN	0.11	0.64	0.094 J	0.16	0.031	0.70	0.51	0.036	0.16
PCB-148	74472-41-6	ng/g	< 0.00043 U	< 0.000083 U	0.0037 J	0.00032 JN	< 0.00016 U	< 0.000026 U	0.0028 J	0.0018 JN	< 0.00018 U	< 0.00078 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B183	B184	B185	B186	B187	B188	B189	B189	B190	B191
		Sample ID	PDI-SG-B183-BL1	PDI-SG-B184-BL1	PDI-SG-B185-BL1	PDI-SG-B186-BL1	PDI-SG-B187-BL1	PDI-SG-B188-BL1	PDI-SG-B189-BL1	PDI-SG-B189-BL1-D	PDI-SG-B190-BL1	PDI-SG-B191-BL1
		Sample Date	31 May 2018	18 Apr 2018	18 Apr 2018	01 Jun 2018	01 Jun 2018	31 May 2018	02 Jun 2018	02 Jun 2018	18 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-18 cm	0-25 cm	0-24 cm	0-20 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-24 cm	0-20 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	< 0.0023 U	0.0036 J	0.0074 JN	0.0081 J	0.0068 J	0.0022 JN	0.053	0.037	< 0.00045 U	0.0031 JN
PCB-150	68194-08-1	ng/g	< 0.00029 U	0.00013 JN	0.0028 J	< 0.00019 U	< 0.00011 U	< 0.000018 U	0.0014 JN	0.0021 J	< 0.00012 U	< 0.00053 U
PCB-152	68194-09-2	ng/g	< 0.00031 U	< 0.000060 U	< 0.00032 U	< 0.00020 U	< 0.00012 U	< 0.000034 U	0.00073 JN	< 0.00048 U	< 0.00013 U	< 0.00057 U
PCB-153/168	35065-27-1	ng/g	0.20	0.096	0.41	0.087 J	0.16	0.029	0.74	0.51	0.035	0.22
PCB-154	60145-22-4	ng/g	0.0044 JN	0.0021 JN	0.028	0.0036 J	0.0048 JN	0.00059 JN	0.012	0.013 JN	0.0021 JN	0.0031 J
PCB-155	33979-03-2	ng/g	< 0.00029 U	< 0.000057 U	< 0.00030 U	< 0.00019 U	< 0.00011 U	< 0.000018 U	< 0.00035 U	< 0.00046 U	< 0.00012 U	< 0.00053 U
PCB-156/157	38380-08-4	ng/g	0.019 J	0.0080 JN	0.020 JN	0.011 J	0.016 JN	0.0025 JN	0.071	0.055	0.0033 JN	0.022
PCB-158	74472-42-7	ng/g	0.018 J	0.011	0.034	0.0099 J	0.017 JN	0.0032 J	0.079	0.057	0.0033 JN	0.020
PCB-159	39635-35-3	ng/g	0.0033 JN	0.0019 JN	0.0046 J	< 0.0017 U	0.0026 JN	0.00039 JN	0.0088 JN	0.0079 J	< 0.000038 U	0.0030 JN
PCB-16	38444-78-9	ng/g	< 0.00038 U	0.0020 J	0.0043 JN	0.0097 J	0.0083 JN	0.00095 J	0.056	0.036	0.0016 JN	< 0.00021 U
PCB-161	74472-43-8	ng/g	< 0.0021 U	< 0.00068 U	< 0.0021 U	< 0.0018 U	< 0.0017 U	< 0.00031 U	< 0.0011 U	< 0.0011 U	< 0.000039 U	< 0.0018 U
PCB-162	39635-34-2	ng/g	< 0.0020 U	< 0.00065 U	< 0.0020 U	< 0.0017 U	< 0.0016 U	< 0.00030 U	< 0.0010 U	< 0.0011 U	< 0.000037 U	< 0.0018 U
PCB-164	74472-45-0	ng/g	0.0096 JN	0.010	0.037	0.0096 J	0.013 J	0.0026 J	0.062	0.047	0.0017 JN	0.014
PCB-165	74472-46-1	ng/g	< 0.0024 U	< 0.00078 U	< 0.0024 U	< 0.0020 U	< 0.0019 U	< 0.00036 U	< 0.0012 U	< 0.0013 U	< 0.000044 U	< 0.0021 U
PCB-167	52663-72-6	ng/g	0.0071 J	0.0022 JN	0.011	0.0049 JN	0.0041 JN	0.00093 JN	0.027	0.021	0.00052 JN	0.0051 JN
PCB-169	32774-16-6	ng/g	0.0052 JN	< 0.00049 U	< 0.0015 U	< 0.0013 U	< 0.0012 U	< 0.00024 U	< 0.00077 U	< 0.00081 U	< 0.000028 U	< 0.0013 U
PCB-17	37680-66-3	ng/g	< 0.00029 U	< 0.000092 U	0.013 JN	0.0028 JN	0.010 J	0.0015 JN	0.060	0.038	0.0038 J	0.0034 J
PCB-170	35065-30-6	ng/g	0.080 J	0.031	0.087	0.033 J	0.058	0.011	0.30	0.20	0.013 JN	0.17
PCB-171/173	52663-71-5	ng/g	0.029 JN	0.0096 JN	0.033	0.010 JN	0.017 JN	0.0032 J	0.094	0.066	0.0038 JN	0.053
PCB-172	52663-74-8	ng/g	0.013 JN	0.0055 JN	0.012	0.0055 JN	0.0062 J	0.0019 J	0.053	0.036	0.0022 JN	0.030
PCB-174	38411-25-5	ng/g	0.12	0.033 JN	0.12	0.035 JN	0.076	0.013	0.34	0.23	0.013 JN	0.16
PCB-175	40186-70-7	ng/g	0.0054 JN	0.00066 JN	0.0053 JN	< 0.00043 U	< 0.00014 U	< 0.00023 U	0.013	0.0086 J	< 0.00010 U	0.0071 J
PCB-176	52663-65-7	ng/g	0.011 JN	0.0043 J	0.013	0.0017 JN	0.0075 JN	0.00068 JN	0.037	0.025	< 0.000071 U	0.019
PCB-177	52663-70-4	ng/g	0.065 J	0.024	0.064 JN	0.023 J	0.040 JN	0.0073 J	0.19	0.13	0.0089 J	0.089
PCB-178	52663-67-9	ng/g	0.038 J	0.0094 J	0.019 JN	0.0055 JN	0.013 JN	0.0025 J	0.064	0.047	0.0038 J	0.032
PCB-179	52663-64-6	ng/g	0.050 JN	0.016	0.057	0.016 J	0.033 J	0.0047 JN	0.12	0.087	0.0063 J	0.061
PCB-18/30	37680-65-2	ng/g	< 0.00026 U	0.0028 J	0.016 J	0.015 JN	0.022 JN	0.0023 JN	0.12	0.070	0.0024 JN	0.0045 J
PCB-180/193	35065-29-3	ng/g	0.29	0.076	0.22	0.074 J	0.14	0.020 JN	0.67	0.43	0.034	0.40
PCB-181	74472-47-2	ng/g	< 0.0015 U	< 0.000042 U	< 0.000065 U	< 0.00041 U	0.0022 JN	< 0.00022 U	0.012	0.011	< 0.000096 U	< 0.00091 U
PCB-182	60145-23-5	ng/g	< 0.0014 U	< 0.000040 U	< 0.000062 U	< 0.00039 U	< 0.00013 U	< 0.00021 U	< 0.00050 U	0.0028 JN	< 0.000091 U	0.0032 J
PCB-183/185	52663-69-1	ng/g	0.099 J	0.023 JN	0.070	0.027 J	0.047 J	0.0079 J	0.21	0.14	0.011 J	0.12
PCB-184	74472-48-3	ng/g	< 0.0012 U	< 0.000034 U	< 0.000053 U	< 0.00034 U	< 0.00011 U	< 0.00018 U	< 0.00043 U	< 0.00039 U	< 0.000079 U	< 0.00074 U
PCB-186	74472-49-4	ng/g	< 0.0011 U	< 0.000033 U	< 0.000051 U	< 0.00032 U	< 0.00010 U	< 0.00017 U	< 0.00041 U	< 0.00038 U	< 0.000075 U	< 0.00072 U
PCB-187	52663-68-0	ng/g	0.21	0.042 JN	0.14	0.049	0.086 JN	0.015	0.38	0.27	0.020	0.19
PCB-188	74487-85-7	ng/g	< 0.0011 U	< 0.000031 U	< 0.000048 U	< 0.00030 U	< 0.000096 U	< 0.00016 U	< 0.00039 U	< 0.00035 U	< 0.000070 U	< 0.00064 U
PCB-189	39635-31-9	ng/g	< 0.0026 U	0.0010 J	0.0031 JN	0.0014 J	0.0023 J	0.00022 JN	0.0093 JN	0.0061 J	< 0.00027 U	0.0052 J
PCB-19	38444-73-4	ng/g	< 0.00036 U	< 0.00011 U	0.016	0.0023 JN	0.0046 JN	0.0011 JN	0.029 JN	0.022 JN	0.0011 JN	0.0047 J
PCB-190	41411-64-7	ng/g	0.016 JN	0.0079 J	0.019	0.0064 J	0.012 J	0.0018 JN	0.064	0.041	0.0034 J	0.032
PCB-191	74472-50-7	ng/g	0.0049 JN	< 0.000032 U	0.0036 JN	0.0017 JN	0.0033 JN	< 0.00016 U	0.015	0.0082 J	< 0.000072 U	0.0064 JN
PCB-192	74472-51-8	ng/g	< 0.0012 U	0.00054 JN	< 0.000052 U	< 0.00033 U	< 0.00011 U	< 0.00017 U	< 0.00042 U	< 0.00038 U	< 0.000077 U	< 0.00076 U
PCB-194	35694-08-7	ng/g	0.16	0.019	0.040	0.013 J	0.033 J	0.0048 J	0.16	0.099	0.0070 JN	0.097
PCB-195	52663-78-2	ng/g	0.038 J	0.0064 JN	0.017	0.0086 J	0.014 J	0.0024 J	0.068	0.044	0.0043 JN	0.042
PCB-196	42740-50-1	ng/g	0.11	0.0070 JN	0.021	0.0081 J	0.015 JN	0.0030 J	0.070	0.045	0.0017 JN	0.051
PCB-197	33091-17-7	ng/g	0.0041 J	0.00026 JN	0.0015 J	< 0.00013 U	0.0017 JN	< 0.00023 U	0.0052 JN	0.0048 J	< 0.00011 U	0.0033 JN
PCB-198/199	68194-17-2	ng/g	0.44	0.021	0.057	0.015 JN	0.038 J	0.0067 J	0.17	0.11	0.0093 JN	0.092
PCB-2	2051-61-8	ng/g	< 0.0018 U	0.0018 JN	0.0018 JN	0.0041 JN	0.011 JN	0.0012 JN	0.012	0.013	< 0.00021 U	0.0012 JN
PCB-20/28	38444-84-7	ng/g	0.020 J	0.012 J	0.048	0.049 J	0.049 J	0.0078 J	0.28	0.19	0.012 JN	0.011 J
PCB-200	52663-73-7	ng/g	0.018 JN	0.00065 JN	0.0061 JN	0.00036 JN	0.0024 JN	0.00079 J	0.018	0.012 JN	< 0.00012 U	0.010 JN
PCB-201	40186-71-8	ng/g	0.038 J	0.0028 JN	0.0022 JN	0.00074 JN	0.0076 J	< 0.00025 U	0.016	0.010 JN	< 0.00011 U	0.011
PCB-202	2136-99-4	ng/g	0.14	0.0029 JN	0.011 JN	0.0013 JN	0.0078 JN	0.0012 J	0.030	0.023	0.00054 JN	0.015
PCB-203	52663-76-0	ng/g	0.23	0.0085 JN	0.036	0.012 JN	0.024 J	0.0029 JN	0.10	0.070	0.0051 JN	0.056
PCB-204	74472-52-9	ng/g	< 0.0022 U	< 0.000060 U	< 0.00021 U	< 0.00014 U	< 0.00021 U	< 0.00025 U	< 0.00060 U	< 0.00076 U	< 0.00012 U	< 0.00074 U
PCB-205	74472-53-0	ng/g	0.0065 J	0.0011 J	0.0017 JN	0.00045 JN	0.0015 J	< 0.00031 U	0.0071 JN	0.0060 J	0.00051 JN	0.0048 JN
PCB-206	40186-72-9	ng/g	1.7	0.014 JN	0.049	0.018 J	0.080 JN	0.044 JN	0.12	0.10 JN	0.0078 J	0.022
PCB-207	52663-79-3	ng/g	0.10	0.0010 JN	0.0063 JN	< 0.0017 U	< 0.0015 U	< 0.0016 U	0.011	0.0082 J	< 0.00096 U	< 0.0016 U
PCB-208	52663-77-1	ng/g	0.65	< 0.00096 U	0.018	0.0063 J	0.019 J	< 0.0017 U	0.023	0.022	< 0.0010 U	0.0050 JN
PCB-209	2051-24-3	ng/g	2.7	0.0096 J	0.17	0.015 JN	0.067	0.0032 JN	0.077	0.073	0.0036 JN	0.013
PCB-21/33	55702-46-0	ng/g	0.0089 J	0.0036 J+	0.013 J	0.016 J	0.019 J	0.0025 JN	0.095	0.076	0.0046 J	0.0037 J
PCB-22	38444-85-8	ng/g	< 0.0024 U	0.0028 J	0.0099	0.018 J	0.014 J	0.0020 JN	0.073	0.056	0.0036 J	0.0024 J
PCB-23	55720-44-0	ng/g	< 0.0024 U	< 0.00035 U	< 0.00094 U	< 0.0013 U	< 0.0014 U	< 0.00027 U	< 0.0017 U	< 0.0013 U	< 0.00063 U	< 0.00037 U
PCB-24	55702-45-9	ng/g	< 0.00022 U	< 0.000070 U	< 0.00015 U	< 0.00030 U	< 0.00030 U	< 0.000042 U	0.0024 J	< 0.00037 U	< 0.000082 U	< 0.00016 U
PCB-25	55712-37-3	ng/g	< 0.0022 U	0.0016 J+	0.0099	0.0033 JN	< 0.0014 U	0.00099 J+	0.029	0.016	0.0014 JN	0.0011 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B183	B184	B185	B186	B187	B188	B189	B189	B190	B191
		Sample ID	PDI-SG-B183-BL1	PDI-SG-B184-BL1	PDI-SG-B185-BL1	PDI-SG-B186-BL1	PDI-SG-B187-BL1	PDI-SG-B188-BL1	PDI-SG-B189-BL1	PDI-SG-B189-BL1-D	PDI-SG-B190-BL1	PDI-SG-B191-BL1
		Sample Date	31 May 2018	18 Apr 2018	18 Apr 2018	01 Jun 2018	01 Jun 2018	31 May 2018	02 Jun 2018	02 Jun 2018	18 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-18 cm	0-25 cm	0-24 cm	0-20 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-24 cm	0-20 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0048 J	0.0025 J+	0.014 JN	0.0083 J	0.0086 J	0.0013 J	0.048	0.028	0.0028 J+	0.0014 JN
PCB-27	38444-76-7	ng/g	< 0.00022 U	0.0011 JN	0.0028 JN	0.0022 JN	0.0032 J	< 0.000041 U	0.014 JN	0.0089 JN	0.00021 JN	< 0.00014 U
PCB-3	2051-62-9	ng/g	< 0.0024 U	0.0023 JN	0.0018 JN	0.0054 JN	0.0084 J	0.0013 JN	0.0052 JN	0.0071 J	< 0.00025 U	0.0010 JN
PCB-31	16606-02-3	ng/g	0.010 JN	0.0074 JN	0.023 JN	0.038 J	0.037 J	0.0050 J	0.20	0.13	0.0086 J	0.0075 J
PCB-32	38444-77-8	ng/g	0.00040 JN	0.0011 JN	0.016	0.0083 JN	0.0030 J	0.0013 JN	0.050	0.032	0.00032 JN	0.0017 JN
PCB-34	37680-68-5	ng/g	< 0.0024 U	< 0.00037 U	< 0.00098 U	< 0.0013 U	< 0.0015 U	< 0.00028 U	< 0.0017 U	< 0.0014 U	< 0.00065 U	< 0.00038 U
PCB-35	37680-69-6	ng/g	< 0.0023 U	< 0.00035 U	< 0.00093 U	0.0018 JN	0.0025 J	< 0.00026 U	0.0061 JN	0.0029 JN	< 0.00062 U	< 0.00037 U
PCB-36	38444-87-0	ng/g	< 0.0021 U	< 0.00032 U	< 0.00085 U	< 0.0012 U	< 0.0013 U	< 0.00024 U	< 0.0015 U	< 0.0012 U	< 0.00057 U	< 0.00036 U
PCB-37	38444-90-5	ng/g	0.0089 J	0.0039 JN	0.012	0.015 J	0.015 J	0.0018 JN	0.085	0.062	0.0036 J	0.0046 J
PCB-38	53555-66-1	ng/g	< 0.0023 U	< 0.00034 U	< 0.00092 U	< 0.0013 U	< 0.0014 U	< 0.00026 U	< 0.0016 U	< 0.0013 U	< 0.00062 U	< 0.00038 U
PCB-39	38444-88-1	ng/g	< 0.0021 U	< 0.00031 U	< 0.00084 U	< 0.0012 U	< 0.0013 U	< 0.00024 U	< 0.0015 U	< 0.0012 U	< 0.00056 U	< 0.00034 U
PCB-4	13029-08-8	ng/g	< 0.0025 U	0.0026 JN	0.011 JN	< 0.0023 U	< 0.0017 U	0.0013 J+	0.026	0.017 JN	0.0019 JN	0.0027 JN
PCB-40/41/71	38444-93-8	ng/g	0.0090 J	0.011 J	0.037 JN	0.034 J	0.042 J	0.0038 JN	0.21	0.14	0.0072 JN	0.0072 J
PCB-42	36559-22-5	ng/g	0.0059 J	0.0037 JN	0.015 JN	0.017 J	0.018 J	0.0025 JN	0.10	0.072	0.0044 J	0.0037 J
PCB-43/73	70362-46-8	ng/g	< 0.0012 U	0.0017 JN	< 0.0015 U	< 0.0014 U	0.0027 J	< 0.00029 U	0.016 J	0.0083 JN	< 0.00053 U	< 0.00089 U
PCB-44/47/65	41464-39-5	ng/g	0.029 J	0.030	0.12	0.079 J	0.077 J	0.013 J+	0.42	0.29	0.017 JN	0.021 J
PCB-45/51	70362-45-7	ng/g	< 0.0014 U	0.0066 JN	0.036	0.017 J	0.014 J	0.0027 J	0.080	0.056	0.0049 J	0.0039 JN
PCB-46	41464-47-5	ng/g	< 0.0017 U	0.0010 JN	0.0097 J	< 0.0020 U	0.0040 J	0.00053 J+	0.027	0.018	< 0.00072 U	< 0.0012 U
PCB-48	70362-47-9	ng/g	0.0030 JN	0.0013 JN	0.0058 J	0.0089 J	0.013 JN	< 0.00031 U	0.064	0.045	0.0014 JN	0.0019 J
PCB-49/69	41464-40-8	ng/g	0.021 J	0.015 JN	0.080	0.032 J	0.042 J	0.0077 J	0.23	0.17	0.015 J	0.013 J
PCB-5	16605-91-7	ng/g	< 0.0020 U	< 0.00044 U	< 0.00067 U	< 0.0016 U	< 0.0014 U	< 0.00022 U	< 0.00064 U	< 0.00092 U	< 0.00044 U	< 0.0010 U
PCB-50/53	62796-65-0	ng/g	0.0030 JN	0.0063 J	0.041	0.010 J	0.0084 JN	0.0020 J	0.065	0.045	0.0039 J	0.0030 JN
PCB-52	35693-99-3	ng/g	0.049 J	0.028	0.14	0.077	0.10	0.012 JN	0.58	0.33	0.021 JN	0.021
PCB-54	15968-05-5	ng/g	< 0.00033 U	0.00085 J	0.00099 J	< 0.00020 U	< 0.00027 UJ	0.00035 JN	0.0035 JN	0.0029 JN	0.00052 JN	0.0012 JN
PCB-55	74338-24-2	ng/g	< 0.00092 U	< 0.00029 U	< 0.0011 U	< 0.0011 U	0.0011 JN	< 0.00022 U	0.0056 JN	0.0045 JN	0.00049 JN	< 0.00069 U
PCB-56	41464-43-1	ng/g	0.010 JN	0.0064 J	0.018	0.026 J	0.034 J	0.0036 J	0.15	0.11	0.0048 JN	0.0058 J
PCB-57	70424-67-8	ng/g	< 0.00095 U	< 0.00030 U	< 0.0011 U	< 0.0011 U	< 0.00088 U	< 0.00022 U	< 0.00087 U	< 0.00076 U	< 0.00041 U	< 0.00070 U
PCB-58	41464-49-7	ng/g	< 0.00091 U	0.00055 J	< 0.0011 U	< 0.0011 U	< 0.00085 U	< 0.00021 U	0.0032 J	< 0.00073 U	< 0.00039 U	< 0.00071 U
PCB-59/62/75	74472-33-6	ng/g	0.0018 JN	0.0032 JN	0.0061 JN	0.0048 JN	0.0062 J	0.00074 JN	0.034	0.024 J	0.0012 JN	0.0017 J
PCB-6	25569-80-6	ng/g	< 0.0020 U	< 0.00043 U	< 0.00066 U	< 0.0016 U	0.0039 JN	< 0.00021 U	0.012	0.0096 J	< 0.00043 U	0.0012 JN
PCB-60	33025-41-1	ng/g	0.0059 JN	0.0026 J	0.0078 J	0.015 J	0.017 J	0.0017 J	0.071	0.052	0.0017 JN	0.0026 J
PCB-61/70/74/76	33284-53-6	ng/g	0.059 J	0.027 J	0.10	0.079 J	0.12 J	0.014 J	0.53	0.38	0.021 J	0.028 J
PCB-63	74472-34-7	ng/g	< 0.00082 U	< 0.00026 U	0.0027 J	0.0018 J	0.0027 J	0.00027 JN	0.012	0.0082 J	< 0.00035 U	< 0.00064 U
PCB-64	52663-58-8	ng/g	0.0049 JN	0.0065 J	0.023	0.022 J	0.028 J	0.0035 J	0.15	0.11	0.0050 J	0.0052 JN
PCB-66	32598-10-0	ng/g	0.028 J	0.019	0.066	0.059	0.068	0.010	0.34	0.27	0.015	0.018
PCB-67	73575-53-8	ng/g	< 0.00087 U	0.00091 J	< 0.0010 U	< 0.0010 U	< 0.00081 U	< 0.00021 U	0.0094 J	0.0068 J	< 0.00038 U	< 0.00061 U
PCB-68	73575-52-7	ng/g	< 0.00082 U	0.00066 JN	0.0038 JN	0.0029 JN	0.0019 J+	< 0.00052 U	0.0040 JN	0.0025 J+	0.00094 JN	< 0.00062 U
PCB-7	33284-50-3	ng/g	< 0.0019 U	< 0.00041 U	< 0.00063 U	< 0.0015 U	< 0.0013 U	< 0.00050 U	0.0013 JN	< 0.00087 U	< 0.00041 U	< 0.00094 U
PCB-72	41464-42-0	ng/g	0.0023 JN	0.00093 J	0.0040 J	< 0.0011 U	< 0.00086 U	0.00023 JN	0.0036 J	0.0041 J	< 0.00040 U	< 0.00069 U
PCB-77	32598-13-3	ng/g	0.0012 JN	0.0017 JN	0.0052 JN	0.0072 JN	0.0069 J	0.00076 JN	0.037	0.031	< 0.00037 U	0.0025 JN
PCB-78	70362-49-1	ng/g	< 0.00091 U	< 0.00029 U	< 0.0011 U	< 0.0011 U	< 0.00085 U	< 0.00021 U	< 0.00084 U	< 0.00073 U	< 0.00039 U	< 0.00071 U
PCB-79	41464-48-6	ng/g	< 0.00078 U	0.00080 JN	< 0.00094 U	< 0.00091 U	0.0013 JN	< 0.00018 U	0.0051 J	0.0029 JN	< 0.00034 U	< 0.00061 U
PCB-8	34883-43-7	ng/g	< 0.0019 U	< 0.0019 U	0.0063 JN	0.0091 JN	0.0083 J	0.0020 J+	0.043	0.036	< 0.0031 U	0.0030 JN
PCB-80	33284-52-5	ng/g	< 0.00081 U	< 0.00025 U	< 0.00097 U	< 0.00095 U	< 0.00075 U	< 0.00019 U	< 0.00074 U	< 0.00064 U	< 0.00035 U	< 0.00060 U
PCB-81	70362-50-4	ng/g	< 0.00087 U	0.00074 JN	< 0.0010 U	< 0.0010 U	< 0.00082 U	< 0.00020 U	< 0.00082 U	0.00079 JN	< 0.00037 U	< 0.00064 U
PCB-82	52663-62-4	ng/g	0.0067 JN	0.0060 JN	0.029 JN	0.0028 JN	0.015 JN	0.0017 JN	0.089	0.059	0.0026 J	0.0040 JN
PCB-83/99	60145-20-2	ng/g	0.055 JN	0.057	0.55	0.052 JN	0.076 J	0.014 J	0.36	0.28	0.020	0.030
PCB-84	52663-60-2	ng/g	0.017 JN	0.022	0.091	0.024 J	0.029 JN	0.0044 J	0.18	0.11	0.0050 JN	0.0089 J
PCB-85/116/117	65510-45-4	ng/g	0.019 J	0.012 JN	0.034	0.017 J	0.027 JN	0.0027 JN	0.12	0.079	0.0041 JN	0.0074 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.059 J	0.046 J	0.22	0.058 J	0.075 JN	0.011 J	0.39	0.26	0.012 J	0.029 J
PCB-88/91	55215-17-3	ng/g	0.013 J	0.021 JN	0.12	0.015 J	0.020 J	0.0026 JN	0.10	0.070	0.0039 JN	0.0075 JN
PCB-89	73575-57-2	ng/g	< 0.0022 U	< 0.00032 U	< 0.0028 U	< 0.00084 U	< 0.0012 U	< 0.00027 U	0.0062 JN	0.0064 J	< 0.00049 U	< 0.00073 U
PCB-9	34883-39-1	ng/g	0.0074 J	< 0.00048 U	< 0.00074 U	< 0.0018 U	< 0.0015 U	< 0.00024 U	0.0034 J	0.0030 J	< 0.00048 U	< 0.00096 U
PCB-90/101/113	68194-07-0	ng/g	0.12 J	0.077	0.66	0.082 J	0.14 J	0.020 J	0.61	0.41	0.027 JN	0.055
PCB-92	52663-61-3	ng/g	0.022 J	0.023 JN	0.30	0.017 JN	0.022 JN	0.0037 JN	0.12	0.090	0.0054 JN	0.012
PCB-93/100	73575-56-1	ng/g	0.0039 J	0.0043 JN	0.023	< 0.00079 U	0.0038 JN	< 0.00026 U	0.016 J	0.013 J	< 0.00046 U	0.0029 J
PCB-94	73575-55-0	ng/g	< 0.0022 U	0.0014 J	< 0.0028 U	< 0.00084 U	< 0.0012 U	< 0.00027 U	0.0049 J	0.0039 J	< 0.00049 U	< 0.00073 U
PCB-95	38379-99-6	ng/g	0.077 J	0.084	0.48	0.078	0.11	0.013 JN	0.56	0.35	0.023 JN	0.038
PCB-96	73575-54-9	ng/g	< 0.0017 U	0.00077 JN	0.0044 JN	< 0.00063 U	< 0.00086 U	< 0.00021 U	0.0065 JN	0.0044 JN	< 0.00037 U	< 0.00055 U
PCB-98/102	60233-25-2	ng/g	0.0038 JN	0.0070 JN	0.013 J	0.0039 J	0.0033 JN	0.00038 JN	0.025	0.016 JN	0.0014 JN	0.0019 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	9.2	1.7	8.4	2.2	3.4	0.55	16	11	0.68	3.2

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B183	B184	B185	B186	B187	B188	B189	B189	B190	B191
		Sample ID	PDI-SG-B183-BL1	PDI-SG-B184-BL1	PDI-SG-B185-BL1	PDI-SG-B186-BL1	PDI-SG-B187-BL1	PDI-SG-B188-BL1	PDI-SG-B189-BL1	PDI-SG-B189-BL1-D	PDI-SG-B190-BL1	PDI-SG-B191-BL1
		Sample Date	31 May 2018	18 Apr 2018	18 Apr 2018	01 Jun 2018	01 Jun 2018	31 May 2018	02 Jun 2018	02 Jun 2018	18 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-18 cm	0-25 cm	0-24 cm	0-20 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-24 cm	0-20 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 1.4 U	< 0.35 U	0.28 J	1.5	7.9	< 0.66 U	6.1	5.1	< 0.34 U	< 0.28 U
2,4-DDE	3424-82-6	µg/kg	< 1.4 U	< 0.40 U	< 0.28 U	< 0.79 U	1.1	< 0.79 U	< 1.0 U	< 1.0 U	< 0.40 U	< 0.28 U
2,4-DDT	789-02-6	µg/kg	< 1.4 U	< 0.47 U	< 0.28 U	< 0.94 U	< 1.1 U	< 0.94 U	1.0 J	1.3 J	< 0.47 U	< 0.28 U
4,4'-DDD	72-54-8	µg/kg	< 1.4 U	< 0.35 U	0.51	3.7	21	< 0.66 U	15	16	< 0.34 U	0.18 J
4,4'-DDE	72-55-9	µg/kg	< 1.4 U	< 0.35 U	0.29	1.2	12	< 0.70 U	5.7 J	10 J	< 0.35 U	0.40
4,4'-DDT	50-29-3	µg/kg	< 1.4 U	< 0.35 U	< 0.28 U	8.9	2.9	< 0.66 U	3.0	1.4 J	< 0.34 U	< 0.28 U
Total DDx (b)	T_DDx (PDI)	µg/kg	< 1.4 U	< 0.47 U	1.2	16	45	< 0.94 U	31	34	< 0.47 U	0.72
Aldrin	309-00-2	µg/kg	< 1.4 U	< 0.40 U	< 0.28 U	< 0.79 UJ	< 1.1 U	< 0.79 U	< 1.0 U	< 1.0 U	< 0.40 U	< 0.28 U
alpha-Chlordane	5103-71-9	µg/kg	< 2.8 U	< 0.69 U	< 0.55 U	< 1.4 U	< 2.2 U	< 1.3 U	< 2.1 U	< 2.0 U	< 0.67 U	< 0.56 U
cis-Nonachlor	5103-73-1	µg/kg	< 1.4 U	< 0.49 U	< 0.28 U	< 0.97 U	< 1.1 U	< 0.97 U	< 1.1 U	< 1.0 U	< 0.49 U	< 0.28 U
Dieldrin	60-57-1	µg/kg	< 2.8 U	< 1.0 U	< 0.55 U	< 2.0 U	< 2.2 U	< 2.0 U	< 2.1 U	< 2.0 U	< 1.0 U	< 0.56 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 1.4 U	< 0.35 U	< 0.28 U	< 0.68 U	< 1.1 U	< 0.66 U	< 1.0 U	< 1.0 U	< 0.34 U	< 0.28 U
gamma-Chlordane	5566-34-7	µg/kg	< 2.8 U	< 0.69 U	< 0.55 U	< 1.4 U	< 2.2 U	< 1.3 U	< 2.1 U	< 2.0 U	< 0.67 U	< 0.56 U
Heptachlor	76-44-8	µg/kg	< 1.4 U	< 0.35 U	< 0.28 U	< 0.68 U	< 1.1 U	< 0.66 U	< 1.0 U	< 1.0 U	< 0.34 U	< 0.28 U
Oxychlordane	27304-13-8	µg/kg	< 2.8 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.2 U	< 2.0 U	< 2.1 U	< 3.7 U	< 1.0 U	< 0.56 U
trans-Nonachlor	39765-80-5	µg/kg	< 2.8 U	< 0.69 U	0.20 J	< 1.4 U	< 2.2 U	< 1.3 U	< 2.1 U	< 2.0 U	< 0.67 U	< 0.56 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2.8 U	< 1 U	0.7	< 2 U	< 2.2 U	< 2 U	< 2.1 U	< 3.7 U	< 1 U	< 0.56 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	250	7.5	22	120	210	0.21 J	51	57	0.34 J	1.6 J
Acenaphthene	83-32-9	µg/kg	940	4.2	26	610	2200	< 0.34 U	160	110	0.34	2.7 J
Acenaphthylene	208-96-8	µg/kg	240	23	36	350	340	0.12 J	260	300	0.26 J	1.9 J
Anthracene	120-12-7	µg/kg	480	26	85	710	640	0.33 J	200	200	0.56	5.3 J
Benz(a)anthracene	56-55-3	µg/kg	1700	130	480	2300	3500	0.84	1400	1600	2.1	7.6
Benzo(a)pyrene	50-32-8	µg/kg	2400	190	540	3400	4900	1.1	2500	2800	2.5	6.1
Benzo(b)fluoranthene	205-99-2	µg/kg	2000	160	490	2900	4000	1.5	2100	2400	3.6	11
Benzo(g,h,i)perylene	191-24-2	µg/kg	1700	170	430	2500	3700	1.1	2100	2300	2.8	4.4 J
Benzo(k)fluoranthene	207-08-9	µg/kg	630	53	160	1000	1500	0.73	810	850	1.1	3.1 J
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	14 J	12 J	20 J	100 J	240 J	38 J	180	230	13 J	< 200 U
Chrysene	218-01-9	µg/kg	2200	160	590	2500	4100	1.4	1800	2000	3.4	7.9
Dibenz(a,h)anthracene	53-70-3	µg/kg	190	27	79	330	470	0.17 J	250	270	0.47	< 6.1 U
Fluoranthene	206-44-0	µg/kg	4100	220	750	4800	8500	2.5	2600	2700	5.0	27
Fluorene	86-73-7	µg/kg	410	12	36	410	1400	0.24 J	110	89	0.43	2.6 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	1600	150	390	2400	3600	0.98	2200	2400	2.4	6.1
Naphthalene	91-20-3	µg/kg	1900	12	37	490	650	0.32 J	150	170	1.3	3.0 J
Phenanthrene	85-01-8	µg/kg	2500	200	480	3000	9100	1.2	660	620	1.9	24
Pyrene	129-00-0	µg/kg	5400	350	1100	6500	12000	2.9	3200	3600	6.5	28
Total PAHs (b)	T_PAH (PDI)	µg/kg	28640	1895	5731	34320	60810	16	20551	22466	35	145
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	3129	262	757	4503	6499	2	3330	3721	4	12
Metals												
Arsenic	7440-38-2	mg/kg	4.2	4.3	3.3	1.9	5.0	3.8	4.0	4.1	3.9	5.1
Cadmium	7440-43-9	mg/kg	0.24	0.071 J	0.092 J	0.054 J	0.23 J	0.056 J	0.18 J	0.19 J	0.072 J	0.055 J
Copper	7440-50-8	mg/kg	37	16	21	11	42	15	32	34	14	16
Lead	7439-92-1	mg/kg	14	12	12	4.1	18	3.7	11	11	4.6	5.7
Mercury	7439-97-6	mg/kg	0.20	0.089	0.19	< 0.030 U	0.099 J	< 0.031 U	0.069	0.018 J	< 0.030 U	0.023 J
Tri-n-butyltin	36643-28-4	µg/kg	< 1.5 U	0.59 J	1.4 J	< 1.4 U	120	11	1.7 J	1.1 J	< 1.3 U	< 92 U
Zinc	7440-66-6	mg/kg	82	63	74	41	110	55	89	94	56	66
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	510 J	< 69 U	< 69 U	< 340 U	260	< 66 U	130	110	< 64 U	< 63 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	840	25 J	77	200 J	520	39 J	540	450	< 64 U	39 J
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	66.7			69.9	44.0	72.5	46.2	45.6		74.4 75.0
Total Solids@104C - E160.3 (f)	TSOLID	%		72.4	70.4						73.7	
Total Solids@104C - E160.3M (f)	TSOLID	%	67.5	71.7	70.7	72.6	44.7	74.4	47.5	48.6	74.2	69.1
Total Solids@70C	TSOLID70	%	71	74	72	71	44	74	47	46	81	71
Gravel	GS-Gravel	%	2.4	2.1	0	0.7	0	7.5	0.8		3.5	0
Sand, Coarse	GS-Csand	%	5.0	0.1	0.2	3.0	0.6	1.3	0.1		4.2	1.5
Sand, Medium	GS-Msand	%	39.5	24.8	9.6	18.9	0.5	31.9	1.3		38.7	48.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	28.28	69.16	79.88	62.21	14.85	55.84	26.24		46.52	34.29
Sand, Fine (#230) (d)	GS-Fsand	%	28.6	69.5	80.7	63.3	17.7	56.0	32.0		46.8	34.9
Silt (#200) (d)	GS-Silt-200	%	21.01	1.836	8.518	11.88	68.34	3.558	62.25		3.772	12.90

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B183	B184	B185	B186	B187	B188	B189	B189	B190	B191
		Sample ID	PDI-SG-B183-BL1	PDI-SG-B184-BL1	PDI-SG-B185-BL1	PDI-SG-B186-BL1	PDI-SG-B187-BL1	PDI-SG-B188-BL1	PDI-SG-B189-BL1	PDI-SG-B189-BL1-D	PDI-SG-B190-BL1	PDI-SG-B191-BL1
		Sample Date	31 May 2018	18 Apr 2018	18 Apr 2018	01 Jun 2018	01 Jun 2018	31 May 2018	02 Jun 2018	02 Jun 2018	18 Apr 2018	18 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-18 cm	0-25 cm	0-24 cm	0-20 cm	0-30 cm	0-21 cm	0-30 cm	0-30 cm	0-24 cm	0-20 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	20.7	1.5	7.7	10.8	65.5	3.4	56.5		3.5	12.3
Clay	GS-Clay	%	3.9	1.9	1.8	3.2	15.7	0	9.3		3.3	3.1
Percent Fines (e)	GS-FINES	%	24.91	3.736	10.318	15.08	84.04	3.558	71.55		7.072	16
Total Organic Carbon	TOC	mg/kg	20000	3400	4200	6900	23000	1500 J	26000	27000	2100 J	3900

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B192	B193	B194	B195	B196	B197	B198	B199	B200	B201
		Sample ID	PDI-SG-B192-BL1	PDI-SG-B193-BL1	PDI-SG-B194-BL1	PDI-SG-B195-BL1	PDI-SG-B196-BL1	PDI-SG-B197-BL1	PDI-SG-B198-BL1	PDI-SG-B199-BL1	PDI-SG-B200-BL1	PDI-SG-B201-BL1
		Sample Date	31 May 2018	31 May 2018	01 Jun 2018	19 Apr 2018	14 Apr 2018	19 Apr 2018	14 Apr 2018	14 Apr 2018	19 Apr 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-8 cm	0-30 cm	0-5 cm	0-29 cm	0-30 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.027	0.049	0.0064	0.026	0.23	0.038	0.088	0.066	0.29	0.068
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.015	0.015	0.00091 JN	0.0056	0.062	0.0068	0.024	0.019 JN	0.069 J	0.018
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0056	0.0055	< 0.000052 U	< 0.00045 U	0.0085	< 0.00052 U	0.0048 J	0.0041 J	< 0.0017 U	0.0031 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00041 JN	0.00048 J+	0.00014 JN	0.00034 JN	0.0015 J+	0.00038 JN	0.00095 JN	0.0011 JN	0.0029 JN	0.00056 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.025	0.031	0.00018 J	< 0.00048 U	0.041	< 0.00041 U	0.026	0.014	0.0032 J	0.012
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0010 J	0.0015 JN	0.00024 J	0.00093 JN	0.0088	0.0017 J	0.0049 J	0.0036 J	0.074	0.0025 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0068	0.0053	0.000089 J	0.0011 JN	0.014	0.0017 J	0.0044 J	0.0097	0.0061	0.0035 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00070 JN	0.0011 J	0.00021 J	0.00080 J	0.0029 J	0.00096 J	0.0021 JN	0.0024 J	0.034	0.0014 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00066 J+	0.0011 J+	< 0.000079 U	< 0.00031 U	< 0.0024 U	< 0.00026 U	< 0.00052 U	0.00080 JN	< 0.00068 U	0.00083 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00010 U	0.00032 J+	< 0.000030 U	< 0.00019 U	< 0.0014 U	< 0.00017 U	< 0.00046 U	0.00052 JN	0.0065 JN	0.00029 J+
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.010	0.014	0.00011 JN	< 0.00016 U	0.022	< 0.00017 U	0.012	0.015	< 0.00062 U	0.0058
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00098 JN	0.00086 J	0.000033 JN	< 0.00032 U	< 0.0029 U	< 0.00027 U	0.00078 JN	0.0013 J+	0.0015 J	0.00069 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0038	0.0052	< 0.000027 U	< 0.00017 U	0.0073 JN	< 0.00018 U	0.0050 J	0.0066	< 0.00067 U	0.0023 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00013 U	0.00023 JN	< 0.000061 U	0.00017 JN	0.00064 JN	0.000088 JN	< 0.00088 U	< 0.00034 U	0.00065 JN	0.00039 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0051	0.0088	0.000073 J	0.00042 J	0.015	0.00037 J	0.014	0.028	0.00098 J	0.0057
OCDD	3268-87-9	µg/kg	0.17	0.44	0.062	0.27	2.3	0.39	0.86	0.65	1.9	0.82
OCDF	39001-02-0	µg/kg	0.031	0.039	0.0031 J	0.012	0.16	0.016	0.049	0.039	0.082	0.062
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0061	0.0084	0.00022	0.001	0.016	0.0013	0.0091	0.01	0.024	0.0054
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0059	0.0081	0.00019	0.00062	0.016	0.0011	0.0087	0.0097	0.023	0.0052
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0058	0.008	0.00016	0.00052	0.015	0.001	0.0082	0.0094	0.023	0.005
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0020 J+	0.0038 J	< 0.00031 U	0.0024 JN	0.029 J	0.0022 JN	0.011	0.0067 J	0.0049 JN	0.0048 JN
PCB-10	33146-45-1	ng/g	0.00047 J	0.0012 JN	< 0.0025 U	< 0.00067 U	< 0.034 U	< 0.00066 U	< 0.0036 U	< 0.0034 U	0.0038 J	0.0013 JN
PCB-103	60145-21-3	ng/g	0.0014 JN	0.0041 J	< 0.00062 U	0.0049 JN	0.048 JN	0.0089 J	0.015	0.011 JN	0.043 JN	0.013
PCB-104	56558-16-8	ng/g	< 0.00025 U	< 0.00011 U	< 0.00047 U	< 0.00080 U	< 0.0041 U	< 0.00086 U	< 0.00016 U	< 0.00022 U	0.018	< 0.00025 U
PCB-105	32598-14-4	ng/g	0.056	0.073	0.0052 J	0.034	0.55	0.032	0.22	0.18	0.087	0.086
PCB-106	70424-69-0	ng/g	< 0.00063 U	< 0.00093 U	< 0.0013 U	< 0.0011 U	< 0.0094 U	< 0.0015 U	< 0.0012 U	< 0.0012 U	< 0.0024 U	< 0.0011 U
PCB-107	70424-68-9	ng/g	0.0094 J	0.015	< 0.0013 U	0.0098	0.16	0.0098	0.057	0.053	0.027	0.030
PCB-108/124	70362-41-3	ng/g	0.0052 J	0.0060 JN	< 0.0013 U	0.0033 JN	0.059 JN	0.0040 J	0.019 JN	0.016 J	0.0097 J	0.0091 J
PCB-11	2050-67-1	ng/g	0.017 J	0.031	0.0074 J+	0.026	0.083 JN	0.026	0.13	0.076 JN	0.047	0.037
PCB-110/115	38380-03-9	ng/g	0.14	0.22	0.032	0.14	2.4	0.13 JN	0.79	0.65	0.39	0.39
PCB-111	39635-32-0	ng/g	< 0.00022 U	< 0.000099 U	< 0.00044 U	< 0.00071 U	< 0.0038 U	< 0.00077 U	< 0.00015 U	< 0.00020 U	0.0035 JN	0.0018 JN
PCB-112	74472-36-9	ng/g	< 0.00024 U	< 0.00011 U	< 0.00046 U	< 0.00078 U	< 0.0040 U	< 0.00084 U	< 0.00016 U	< 0.00021 U	0.013	0.0030 JN
PCB-114	74472-37-0	ng/g	0.0037 JN	0.0076 J	< 0.0011 U	< 0.0010 U	0.029 JN	< 0.0014 U	0.011	0.0089 J	0.0045 JN	0.0068 J
PCB-118	31508-00-6	ng/g	0.10	0.17	0.019	0.098	1.8	0.11	0.58	0.47	0.27	0.26
PCB-12/13	2974-92-7	ng/g	0.0013 JN	0.0032 JN	< 0.0022 U	0.0032 JN	< 0.031 U	0.0020 JN	0.0080 JN	0.0059 JN	0.0046 J	0.0097 J
PCB-120	68194-12-7	ng/g	0.00060 JN	0.0015 J	< 0.00045 U	0.0015 JN	< 0.0039 U	0.0025 JN	< 0.00015 U	0.0042 JN	0.0047 JN	0.0068 J
PCB-121	56558-18-0	ng/g	< 0.00024 U	< 0.00011 U	< 0.00046 U	< 0.00076 U	< 0.0040 U	< 0.00082 U	< 0.00016 U	< 0.00021 U	< 0.0011 U	< 0.00023 U
PCB-122	76842-07-4	ng/g	0.0030 J	0.0036 J	< 0.0015 U	0.0015 JN	0.027 J	< 0.0017 U	0.0060 JN	0.0070 J	< 0.0027 U	0.0043 J
PCB-123	65510-44-3	ng/g	0.0021 JN	0.0033 J	< 0.0013 U	0.0016 JN	0.035 JN	0.0016 J	0.0093 J	0.0074 JN	0.0032 JN	0.0043 JN
PCB-126	57465-28-8	ng/g	< 0.00060 U	< 0.00091 U	< 0.0013 U	< 0.0011 U	0.017 J	< 0.0014 U	< 0.0012 U	< 0.0012 U	< 0.0023 U	< 0.0010 U
PCB-127	39635-33-1	ng/g	< 0.00060 U	< 0.00089 U	< 0.0013 U	< 0.0011 U	< 0.0094 U	< 0.0014 U	< 0.0012 U	< 0.0012 U	< 0.0023 U	< 0.0010 U
PCB-128/166	38380-07-3	ng/g	0.024	0.052	0.0052 J	0.027	0.37 JN	0.032	0.16	0.12	0.098	0.065
PCB-129/138/160/163	55215-18-4	ng/g	0.16	0.42	0.068	0.21	3.6	0.23	1.5	1.0	0.83	0.46
PCB-130	52663-66-8	ng/g	0.0089 J	0.025	< 0.0028 U	0.013 JN	0.19 JN	0.015	0.069	0.065	0.051	0.034
PCB-131	61798-70-7	ng/g	0.0012 JN	0.0043 J	< 0.0030 U	< 0.0014 U	< 0.023 U	0.0027 J	< 0.0048 U	< 0.0029 U	< 0.0025 U	0.0056 J
PCB-132	38380-05-1	ng/g	0.049	0.12	0.020	0.060	1.2	0.069	0.37	0.31	0.23	0.16
PCB-133	35694-04-3	ng/g	0.0027 J	0.0069 J	< 0.0027 U	0.0051 JN	0.048 J	0.0054 JN	0.024	0.023	0.024	0.013
PCB-134/143	52704-70-8	ng/g	0.010 J	0.020 JN	< 0.0028 U	0.011 JN	0.11 JN	0.013 J	0.064	0.042	0.044	0.032
PCB-135/151	52744-13-5	ng/g	0.057	0.15	0.030	0.081	1.4	0.11	0.47	0.38	0.39	0.18
PCB-136	38411-22-2	ng/g	0.020	0.051	0.0082 JN	0.027	0.51	0.039	0.14	0.13	0.11	0.068
PCB-137	35694-06-5	ng/g	0.0052 JN	0.011	< 0.0024 U	0.0065 J	0.067 JN	0.0081 J	0.032	0.023 JN	0.022	0.015
PCB-139/140	56030-56-9	ng/g	0.0016 JN	0.0051 JN	< 0.0024 U	0.0040 J	0.051 JN	0.0046 JN	< 0.0038 U	0.016 JN	0.015 J	0.011 J
PCB-14	34883-41-5	ng/g	< 0.00022 U	< 0.00037 U	< 0.0019 U	< 0.00052 U	< 0.026 U	< 0.00051 U	< 0.0028 U	< 0.0026 U	< 0.00073 U	< 0.00034 U
PCB-141	52712-04-6	ng/g	0.033	0.093	0.014	0.040	0.71	0.048	0.28	0.19	0.19	0.085
PCB-142	41411-61-4	ng/g	< 0.00092 U	< 0.0011 U	< 0.0027 U	< 0.0013 U	< 0.021 U	< 0.0018 U	< 0.0043 U	< 0.0026 U	< 0.0024 U	< 0.0015 U
PCB-144	68194-14-9	ng/g	0.0075 J	0.021	0.0034 JN	0.0076 J	0.12 JN	0.0091 JN	0.055	0.039	0.038	0.020
PCB-145	74472-40-5	ng/g	< 0.000046 U	< 0.00018 U	< 0.00045 U	< 0.00010 U	< 0.0037 U	< 0.00018 U	< 0.00020 U	< 0.00018 U	< 0.00064 U	0.00068 JN
PCB-146	51908-16-8	ng/g	0.025	0.071	0.012	0.040	0.68	0.053	0.27	0.23	0.18	0.11
PCB-147/149	68194-13-8	ng/g	0.13	0.35	0.065	0.18	3.7	0.24	1.3	1.0	0.77	0.45
PCB-148	74472-41-6	ng/g	0.00023 JN	< 0.00024 U	< 0.00064 U	< 0.00014 U	< 0.0053 U	0.00058 JN	0.0026 JN	0.0038 J	0.0043 JN	0.0029 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B192	B193	B194	B195	B196	B197	B198	B199	B200	B201
		Sample ID	PDI-SG-B192-BL1	PDI-SG-B193-BL1	PDI-SG-B194-BL1	PDI-SG-B195-BL1	PDI-SG-B196-BL1	PDI-SG-B197-BL1	PDI-SG-B198-BL1	PDI-SG-B199-BL1	PDI-SG-B200-BL1	PDI-SG-B201-BL1
		Sample Date	31 May 2018	31 May 2018	01 Jun 2018	19 Apr 2018	14 Apr 2018	19 Apr 2018	14 Apr 2018	14 Apr 2018	19 Apr 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-8 cm	0-30 cm	0-5 cm	0-29 cm	0-30 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0078 J	0.017	< 0.0023 U	0.013	0.14 JN	0.0089 J	0.059 JN	0.041	0.023 JN	0.019
PCB-150	68194-08-1	ng/g	0.00017 JN	0.00097 JN	< 0.00043 U	0.00071 JN	< 0.0036 U	0.0015 JN	0.0027 J	0.0032 J	0.0034 JN	0.0025 JN
PCB-152	68194-09-2	ng/g	< 0.000045 U	< 0.00017 U	< 0.00047 U	< 0.00010 U	< 0.0038 U	< 0.00017 U	0.00082 JN	< 0.00019 U	0.0037 JN	0.00046 JN
PCB-153/168	35065-27-1	ng/g	0.13	0.38	0.061	0.20	3.4	0.23	1.4	0.99	0.87	0.44
PCB-154	60145-22-4	ng/g	0.0027 J	0.0047 JN	0.0015 JN	0.0046 JN	0.047 JN	0.011 JN	0.023	0.025 JN	0.037	0.021
PCB-155	33979-03-2	ng/g	< 0.000042 U	< 0.00016 U	< 0.00043 U	< 0.000095 U	< 0.0036 U	< 0.00016 U	< 0.00019 U	< 0.00018 U	0.0029 JN	< 0.00024 U
PCB-156/157	38380-08-4	ng/g	0.014 J	0.034	0.0039 JN	0.016 J	0.31	0.018 JN	0.11	0.086	0.055 JN	0.042
PCB-158	74472-42-7	ng/g	0.015	0.040	0.0056 J	0.018	0.22 JN	0.015 JN	0.12	0.081	0.070	0.039
PCB-159	39635-35-3	ng/g	0.0031 J	0.0049 J	< 0.0018 U	0.0030 J	< 0.014 U	0.0023 JN	0.019	0.012	0.014	0.0058 J
PCB-16	38444-78-9	ng/g	0.0085 J	0.019	< 0.00036 U	0.0046 JN	0.14 JN	0.0031 JN	0.055	0.030 JN	0.010 JN	0.031
PCB-161	74472-43-8	ng/g	< 0.00060 U	< 0.00074 U	< 0.0018 U	< 0.00087 U	< 0.014 U	< 0.0012 U	< 0.0029 U	< 0.0017 U	< 0.0015 U	< 0.00096 U
PCB-162	39635-34-2	ng/g	< 0.00057 U	< 0.00071 U	< 0.0018 U	< 0.00083 U	< 0.014 U	< 0.0011 U	< 0.0028 U	< 0.0017 U	< 0.0015 U	< 0.00091 U
PCB-164	74472-45-0	ng/g	0.011	0.031	0.0060 J	0.018	0.25	0.019	0.094	0.073	0.066	0.035
PCB-165	74472-46-1	ng/g	< 0.00069 U	< 0.00085 U	< 0.0020 U	< 0.0010 U	< 0.016 U	< 0.0014 U	< 0.0032 U	< 0.0020 U	< 0.0018 U	< 0.0011 U
PCB-167	52663-72-6	ng/g	0.0049 J	0.012	< 0.0013 U	0.0061 JN	0.095	0.0049 JN	0.040	0.032	0.025	0.015
PCB-169	32774-16-6	ng/g	< 0.00045 U	< 0.00056 U	< 0.0013 U	< 0.00062 U	< 0.011 U	< 0.00091 U	< 0.0022 U	< 0.0013 U	< 0.0011 U	< 0.00070 U
PCB-17	37680-66-3	ng/g	0.0085 J	0.019	0.0016 J	0.0091 JN	0.26	0.012 JN	0.094	0.051	0.051	0.041
PCB-170	35065-30-6	ng/g	0.071	0.15	0.025	0.074	1.2	0.086	0.72	0.43	0.37	0.16
PCB-171/173	52663-71-5	ng/g	0.020	0.047	< 0.0020 U	0.017 JN	0.34	0.019 JN	0.22	0.12	0.11	0.049
PCB-172	52663-74-8	ng/g	0.0099	0.025	< 0.0020 U	0.011 JN	0.20	0.013 JN	0.12	0.067	0.066	0.031
PCB-174	38411-25-5	ng/g	0.064	0.16	0.027	0.088	1.3	0.097	0.73	0.40	0.42	0.18
PCB-175	40186-70-7	ng/g	0.0029 J	0.0059 J	< 0.0018 U	0.0029 J	0.032 JN	0.0028 JN	0.029	0.014	0.014 JN	0.0075 JN
PCB-176	52663-65-7	ng/g	0.0065 J	0.018	< 0.0014 U	0.0088 J	0.16 JN	0.0074 JN	0.087	0.050	0.053	0.023
PCB-177	52663-70-4	ng/g	0.038	0.097	0.018 JN	0.056	0.76	0.059	0.41	0.24	0.24	0.11
PCB-178	52663-67-9	ng/g	0.013	0.033	0.0046 J	0.018	0.24	0.021	0.15	0.089	0.095	0.046
PCB-179	52663-64-6	ng/g	0.023	0.063	0.012	0.039	0.63	0.045	0.30	0.18	0.18	0.079
PCB-18/30	37680-65-2	ng/g	0.014 JN	0.037	0.0034 J	0.021	0.46 JN	0.013 JN	0.19	0.091	0.032 JN	0.071
PCB-180/193	35065-29-3	ng/g	0.14	0.32	0.057	0.17	2.9	0.20	1.6	0.88	0.79	0.36
PCB-181	74472-47-2	ng/g	0.0026 J	0.0056 JN	< 0.0018 U	< 0.000098 U	< 0.0095 U	< 0.00022 U	0.013	0.0086 J	< 0.00075 U	0.0054 J
PCB-182	60145-23-5	ng/g	< 0.000048 U	< 0.00014 U	< 0.0018 U	0.00085 JN	0.018 JN	0.00096 JN	< 0.00039 U	0.0044 J	< 0.00071 U	0.0031 J
PCB-183/185	52663-69-1	ng/g	0.042	0.11	0.020	0.049	1.1	0.057	0.52	0.28	0.26	0.12
PCB-184	74472-48-3	ng/g	< 0.000041 U	< 0.00012 U	< 0.0015 U	< 0.000080 U	< 0.0078 U	< 0.00018 U	< 0.00034 U	< 0.00039 U	< 0.00061 U	< 0.00045 U
PCB-186	74472-49-4	ng/g	< 0.000039 U	< 0.00011 U	< 0.0015 U	< 0.000077 U	< 0.0076 U	< 0.00017 U	< 0.00033 U	< 0.00038 U	< 0.00059 U	< 0.00043 U
PCB-187	52663-68-0	ng/g	0.071	0.20	0.031	0.11	1.8	0.12	0.92	0.52	0.51	0.23
PCB-188	74487-85-7	ng/g	< 0.000037 U	< 0.00010 U	< 0.0013 U	< 0.000072 U	< 0.0065 U	< 0.00016 U	< 0.00028 U	< 0.00033 U	< 0.00053 U	0.0014 J
PCB-189	39635-31-9	ng/g	0.0032 J	0.0050 JN	< 0.0018 U	0.0027 JN	0.043 J	0.0040 J	0.024	0.014	0.013	0.0062 J
PCB-19	38444-73-4	ng/g	0.0059 J	0.0088 J	0.0032 J	0.0087 JN	0.036 JN	0.014 JN	0.031 JN	0.022	0.11	0.012
PCB-190	41411-64-7	ng/g	0.014	0.030	0.0048 JN	0.013	0.20	0.018	0.12	0.069	0.073	0.032 JN
PCB-191	74472-50-7	ng/g	0.0029 JN	0.0072 J	< 0.0014 U	0.0021 JN	0.058	0.0017 JN	0.026	0.014 JN	0.016	0.0067 JN
PCB-192	74472-51-8	ng/g	< 0.000040 U	< 0.00012 U	< 0.0015 U	< 0.000078 U	< 0.0080 U	< 0.00018 U	< 0.00034 U	< 0.00040 U	< 0.00060 U	< 0.00044 U
PCB-194	35694-08-7	ng/g	0.045	0.066	0.0092 JN	0.041	0.89 JN	0.054	0.40	0.22	0.18	0.091
PCB-195	52663-78-2	ng/g	0.019	0.031	< 0.0030 U	0.019	0.26 JN	0.020	0.17	0.097	0.082	0.038
PCB-196	42740-50-1	ng/g	0.019	0.031	0.0072 JN	0.021 JN	0.18 J	0.025	0.17	0.098	0.087	0.045
PCB-197	33091-17-7	ng/g	0.0012 JN	0.0025 JN	< 0.0011 U	0.00067 JN	0.013 JN	0.0011 JN	0.012 JN	0.0068 JN	0.0034 JN	0.0033 JN
PCB-198/199	68194-17-2	ng/g	0.042	0.071	0.016 JN	0.046	0.43 JN	0.058	0.35	0.23	0.18	0.11
PCB-2	2051-61-8	ng/g	< 0.0013 U	0.0066 J	< 0.00037 U	0.0091 J	< 0.0049 U	0.0056 J	0.011 JN	0.010 J	0.017	0.0055 J
PCB-20/28	38444-84-7	ng/g	0.046	0.097	0.0056 JN	0.058	1.0	0.048	0.36	0.23	0.11	0.17
PCB-200	52663-73-7	ng/g	0.0043 JN	0.0089 J	< 0.00099 U	0.0040 JN	0.045 JN	0.0051 J	0.040	0.023	0.016 JN	0.012
PCB-201	40186-71-8	ng/g	0.0045 J	0.0081 J	< 0.0010 U	0.0041 JN	0.039 JN	0.0051 J	0.048	0.026	0.022	0.012
PCB-202	2136-99-4	ng/g	0.0071 JN	0.014	0.041 JN	0.010	0.11 J	0.0087 J	0.063	0.041	0.034	0.022
PCB-203	52663-76-0	ng/g	0.027	0.045	0.0024 JN	0.026	0.27 J	0.026 JN	0.21	0.13	0.11	0.064
PCB-204	74472-52-9	ng/g	< 0.00012 U	< 0.00023 U	< 0.0011 U	< 0.00011 U	< 0.0024 UJ	< 0.00016 U	< 0.00041 U	< 0.00042 U	< 0.00016 U	< 0.00044 U
PCB-205	74472-53-0	ng/g	0.0028 JN	0.0045 J	< 0.0023 U	0.0012 JN	0.042 JN	0.0022 JN	0.023	0.011	0.0090 J	0.0049 J
PCB-206	40186-72-9	ng/g	0.024	0.056	0.0075	0.027 JN	0.81	0.039 JN	0.15	0.16	0.078 JN	0.11 JN
PCB-207	52663-79-3	ng/g	0.0030 J	0.0060 J	< 0.0013 U	< 0.0013 U	0.064 JN	0.0029 JN	0.018	0.011 JN	0.011	0.0077 J
PCB-208	52663-77-1	ng/g	0.0064 J	0.013	< 0.0014 U	0.0085 J	0.37 JN	0.0042 JN	0.036	0.038	0.014 JN	0.019
PCB-209	2051-24-3	ng/g	0.019 JN	0.14	0.0069 J+	0.025	1.2	0.021 JN	0.13	0.33	0.062	0.055
PCB-21/33	55702-46-0	ng/g	0.014 J	0.039	0.0020 JN	0.025	0.37	0.020	0.13	0.085	0.045	0.055
PCB-22	38444-85-8	ng/g	0.013	0.029	< 0.00090 U	0.018	0.25	0.012	0.092	0.058	0.025	0.042
PCB-23	55720-44-0	ng/g	< 0.00035 U	< 0.00078 U	< 0.00089 U	< 0.00065 U	< 0.0063 U	< 0.00061 U	< 0.00094 U	< 0.00080 U	< 0.0010 U	< 0.00099 U
PCB-24	55702-45-9	ng/g	0.00049 JN	< 0.00025 U	< 0.00027 U	< 0.00014 U	0.019 JN	< 0.000065 U	0.0025 J	< 0.00038 U	< 0.00089 U	< 0.00031 U
PCB-25	55712-37-3	ng/g	0.0032 JN	0.0077 J	< 0.00081 U	0.0048 JN	0.080	0.0048 J	0.028	0.023	0.017	0.038

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B192	B193	B194	B195	B196	B197	B198	B199	B200	B201
		Sample ID	PDI-SG-B192-BL1	PDI-SG-B193-BL1	PDI-SG-B194-BL1	PDI-SG-B195-BL1	PDI-SG-B196-BL1	PDI-SG-B197-BL1	PDI-SG-B198-BL1	PDI-SG-B199-BL1	PDI-SG-B200-BL1	PDI-SG-B201-BL1
		Sample Date	31 May 2018	31 May 2018	01 Jun 2018	19 Apr 2018	14 Apr 2018	19 Apr 2018	14 Apr 2018	14 Apr 2018	19 Apr 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-8 cm	0-30 cm	0-5 cm	0-29 cm	0-30 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0054 JN	0.014 J	< 0.00086 U	0.0080 J	0.13 JN	0.0073 J	0.050	0.038	0.020	0.037
PCB-27	38444-76-7	ng/g	0.0021 JN	0.0039 J	< 0.00024 U	0.0024 JN	0.034 JN	0.0014 JN	0.015	0.0086 J	0.017 JN	0.0075 J
PCB-3	2051-62-9	ng/g	0.0024 JN	0.0047 J+	< 0.00044 U	0.0035 J	< 0.0051 U	0.0036 J	0.0094 J	0.0048 JN	0.0053 JN	0.0060 J
PCB-31	16606-02-3	ng/g	0.029	0.074	0.0041 J	0.040	0.74	0.028	0.28	0.17	0.064	0.12
PCB-32	38444-77-8	ng/g	0.010	0.015	0.0017 J	0.0070 JN	0.087 JN	0.0062 JN	0.051 JN	0.030	0.031	0.028
PCB-34	37680-68-5	ng/g	< 0.00037 U	< 0.00080 U	< 0.00092 U	< 0.00067 U	< 0.0065 U	< 0.00063 U	< 0.00097 U	< 0.00083 U	< 0.0011 U	0.0024 J
PCB-35	37680-69-6	ng/g	0.0011 JN	0.0024 J	< 0.00090 U	0.0013 JN	< 0.0064 U	< 0.00060 U	0.0037 J	0.0026 JN	0.0027 J	0.0033 JN
PCB-36	38444-87-0	ng/g	< 0.00032 U	< 0.00070 U	< 0.00086 U	< 0.00058 U	< 0.0061 U	< 0.00055 U	< 0.00091 U	< 0.00077 U	< 0.00093 U	< 0.00089 U
PCB-37	38444-90-5	ng/g	0.014	0.029	< 0.00089 U	0.019	0.27	0.015	0.095	0.064	0.032	0.032
PCB-38	53555-66-1	ng/g	< 0.00035 U	< 0.00076 U	< 0.00093 U	< 0.00063 U	< 0.0066 U	< 0.00059 U	< 0.00098 U	< 0.00083 U	< 0.0010 U	< 0.00096 U
PCB-39	38444-88-1	ng/g	0.00060 J	< 0.00069 U	< 0.00083 U	< 0.00057 U	< 0.0059 U	< 0.00054 U	< 0.00088 U	< 0.00075 U	< 0.00092 U	0.0021 JN
PCB-4	13029-08-8	ng/g	0.0057 J	0.010 J	< 0.0031 U	0.012 J	0.084 JN	0.0058 JN	0.037	0.025 JN	0.045	0.013 J
PCB-40/41/71	38444-93-8	ng/g	0.069	0.078	< 0.0015 U	0.024 J	0.49 J	0.024 JN	0.19	0.13	0.087 JN	0.12
PCB-42	36559-22-5	ng/g	0.031	0.037	< 0.0015 U	< 0.0011 U	0.27 JN	0.014	0.10	0.066	0.040	0.071
PCB-43/73	70362-46-8	ng/g	0.0026 JN	0.0038 J	< 0.0014 U	0.0020 JN	0.053 J	0.0014 JN	0.011 J	0.0085 J	0.026	0.0078 J
PCB-44/47/65	41464-39-5	ng/g	0.12	0.17	0.011 J	0.073	1.0 J	0.093	0.41	0.28	0.51	0.25
PCB-45/51	70362-45-7	ng/g	0.021 JN	0.030	< 0.0015 U	0.017 J	0.17 J	0.019 JN	0.070	0.041	0.24	0.040
PCB-46	41464-47-5	ng/g	0.0069 JN	0.0069 J	< 0.0019 U	0.0019 JN	0.072 J	0.0021 JN	0.022	0.014	0.014	0.013
PCB-48	70362-47-9	ng/g	0.018	0.022	< 0.0015 U	0.0067 JN	0.20 J	0.0075 J	0.062	0.040	0.019 JN	0.031
PCB-49/69	41464-40-8	ng/g	0.065	0.086	0.0061 JN	0.048	0.81 J	0.055	0.27	0.19	0.18	0.19
PCB-5	16605-91-7	ng/g	< 0.00026 U	< 0.00045 U	< 0.0025 U	< 0.00063 U	< 0.035 U	< 0.00062 U	< 0.0037 U	< 0.0034 U	< 0.00088 U	0.0010 JN
PCB-50/53	62796-65-0	ng/g	0.017 J	0.021	< 0.0014 U	0.013 JN	0.12 J	0.017 J	0.064	0.040	0.13	0.037
PCB-52	35693-99-3	ng/g	0.13	0.18	0.015	0.084	1.4 J	0.086	0.51	0.35	0.24	0.33
PCB-54	15968-05-5	ng/g	0.00018 JN	0.0014 JN	< 0.00022 U	0.0028 JN	< 0.00080 UJ	0.0041 JN	0.0044 J	0.0022 JN	0.052 JN	0.0017 JN
PCB-55	74338-24-2	ng/g	0.0030 JN	< 0.00060 U	< 0.0011 U	0.0010 JN	0.014 J	< 0.00075 U	0.0049 J	< 0.0014 U	< 0.0012 U	0.0066 JN
PCB-56	41464-43-1	ng/g	0.059	0.064	0.0039 JN	0.023	0.54 J	0.019	0.17	0.12	0.052	0.087
PCB-57	70424-67-8	ng/g	< 0.00039 U	< 0.00061 U	< 0.0011 U	< 0.00074 U	< 0.011 UJ	< 0.00077 U	< 0.0017 U	< 0.0015 U	< 0.0013 U	0.0023 J
PCB-58	41464-49-7	ng/g	< 0.00038 U	0.00071 JN	< 0.0011 U	< 0.00071 U	< 0.011 UJ	< 0.00074 U	< 0.0017 U	< 0.0015 U	< 0.0012 U	0.0026 JN
PCB-59/62/75	74472-33-6	ng/g	0.0098 J	0.012 J	< 0.0010 U	0.0067 J	0.069 J	< 0.00074 U	0.031 J	0.020 JN	0.029 J	0.021 J
PCB-6	25569-80-6	ng/g	0.0025 J	0.0044 J	< 0.0022 U	0.0035 JN	0.057 JN	0.0016 JN	0.015 JN	0.010 JN	0.0072 J	0.019
PCB-60	33025-41-1	ng/g	0.033	0.031	< 0.0011 U	0.0055 JN	0.12 J	0.0050 JN	0.071	0.049	0.016	0.028
PCB-61/70/74/76	33284-53-6	ng/g	0.12	0.21	0.014 JN	0.094	2.0 J	0.082	0.63	0.48	0.23	0.33
PCB-63	74472-34-7	ng/g	0.0038 JN	0.0045 J	< 0.00099 U	0.0020 JN	0.052 J	0.0024 JN	0.013	0.0094 JN	0.0063 J	0.0076 JN
PCB-64	52663-58-8	ng/g	0.053	0.056	0.0039 JN	0.020	0.42 J	0.018	0.17	0.11	0.050	0.084
PCB-66	32598-10-0	ng/g	0.12	0.14	0.010	0.064	1.2 J	0.058	0.40	0.29	0.16	0.22
PCB-67	73575-53-8	ng/g	< 0.00036 U	0.0032 JN	< 0.00093 U	0.0025 J	0.032 J	< 0.00071 U	0.0076 J	0.0069 J	0.0049 J	0.0076 J
PCB-68	73575-52-7	ng/g	< 0.00034 U	0.0046 J	< 0.00095 U	0.0014 JN	< 0.0099 UJ	0.0024 J	< 0.0015 U	0.0033 JN	0.0085 J	0.0058 J
PCB-7	33284-50-3	ng/g	0.00067 JN	0.0012 JN	< 0.0023 U	< 0.00059 U	< 0.031 U	0.0016 J	< 0.0033 U	0.0033 JN	< 0.00083 U	0.0020 J
PCB-72	41464-42-0	ng/g	0.00082 J	0.0018 J	< 0.0011 U	0.0014 JN	0.015 JN	< 0.00075 U	0.0070 J	0.0075 J	0.0053 J	0.0087 J
PCB-77	32598-13-3	ng/g	0.013	0.016	< 0.0011 U	0.0080 J	0.12	0.0060 J	0.035	0.031	0.014	0.019
PCB-78	70362-49-1	ng/g	< 0.00038 U	< 0.00059 U	< 0.0011 U	< 0.00072 U	< 0.011 UJ	< 0.00074 U	< 0.0017 U	< 0.0015 U	< 0.0012 U	< 0.00078 U
PCB-79	41464-48-6	ng/g	0.0011 JN	0.0016 J	< 0.00095 U	< 0.00061 U	0.018 JN	< 0.00063 U	0.0033 JN	0.0034 JN	0.0031 J	0.0069 J
PCB-8	34883-43-7	ng/g	0.0074 J	0.018 J	< 0.0020 U	0.017 J	0.22	0.011 J	0.069 JN	0.047	0.019 J	0.030
PCB-80	33284-52-5	ng/g	< 0.00034 U	< 0.00052 U	< 0.00093 U	< 0.00063 U	< 0.0096 UJ	< 0.00065 U	< 0.0015 U	< 0.0013 U	< 0.0011 U	< 0.00069 U
PCB-81	70362-50-4	ng/g	< 0.00036 U	< 0.00055 U	< 0.00096 U	< 0.00070 U	< 0.010 U	< 0.00070 U	< 0.0016 U	< 0.0014 U	< 0.0011 U	< 0.00074 U
PCB-82	52663-62-4	ng/g	0.023	0.027	0.0022 J	0.0086 JN	0.18 JN	0.011 JN	0.078	0.061	0.031	0.041
PCB-83/99	60145-20-2	ng/g	0.079	0.12	0.016	0.095	1.3	0.11 JN	0.45	0.38	0.34	0.25
PCB-84	52663-60-2	ng/g	0.037	0.046	0.0077	0.025	0.50	0.028	0.15	0.12	0.075 JN	0.095
PCB-85/116/117	65510-45-4	ng/g	0.028 J	0.037	0.0032 JN	0.015 JN	0.29 JN	0.021 J	0.11 JN	0.094	0.056 JN	0.054
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.086	0.12	0.018 J	0.070	1.2	0.073	0.42	0.34	0.23	0.20
PCB-88/91	55215-17-3	ng/g	0.021	0.032	0.0046 JN	0.027	0.26 JN	0.039	0.11	0.095	0.093	0.070
PCB-89	73575-57-2	ng/g	0.0031 JN	0.0025 J	< 0.00071 U	< 0.0012 U	< 0.0061 U	< 0.0013 U	0.0076 JN	< 0.00032 U	< 0.0016 U	0.0061 J
PCB-9	34883-39-1	ng/g	< 0.00029 U	0.0012 JN	< 0.0023 U	< 0.00069 U	< 0.032 U	0.0015 JN	0.0040 JN	< 0.0032 U	< 0.00096 U	0.0023 JN
PCB-90/101/113	68194-07-0	ng/g	0.11	0.21	0.030 JN	0.14	2.4	0.14	0.72	0.63	0.48	0.35
PCB-92	52663-61-3	ng/g	0.022	0.042	0.0058 J	0.036	0.46	0.036	0.15	0.13	0.14	0.091
PCB-93/100	73575-56-1	ng/g	0.0059 JN	0.0050 JN	< 0.00062 U	0.0076 JN	0.025 JN	0.016 J	0.0074 JN	0.014 J	0.17	0.011 JN
PCB-94	73575-55-0	ng/g	0.0011 JN	< 0.00016 U	< 0.00070 U	0.0028 JN	< 0.0061 U	< 0.0013 U	< 0.00024 U	< 0.00032 U	0.024	0.0027 JN
PCB-95	38379-99-6	ng/g	0.097	0.16	0.034	0.11	1.9	0.11	0.58	0.46	0.35	0.31
PCB-96	73575-54-9	ng/g	0.0012 JN	0.0018 JN	< 0.00053 U	< 0.00089 U	< 0.0046 U	0.0030 J	0.0062 J	0.0056 J	0.011 JN	0.0038 J
PCB-98/102	60233-25-2	ng/g	0.0059 JN	0.0086 J	< 0.00060 U	0.0077 J	0.041 JN	0.0051 JN	0.017 JN	0.014 J	0.045	0.017 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	3.4	6.7	0.9	3.5	60	3.9	24	17	14	9.4

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B192	B193	B194	B195	B196	B197	B198	B199	B200	B201
		Sample ID	PDI-SG-B192-BL1	PDI-SG-B193-BL1	PDI-SG-B194-BL1	PDI-SG-B195-BL1	PDI-SG-B196-BL1	PDI-SG-B197-BL1	PDI-SG-B198-BL1	PDI-SG-B199-BL1	PDI-SG-B200-BL1	PDI-SG-B201-BL1
		Sample Date	31 May 2018	31 May 2018	01 Jun 2018	19 Apr 2018	14 Apr 2018	19 Apr 2018	14 Apr 2018	14 Apr 2018	19 Apr 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-8 cm	0-30 cm	0-5 cm	0-29 cm	0-30 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	3.9	4.1	< 1.2 U	0.27 J	8.5	< 0.40 U	21	19	0.32 J	2.1
2,4-DDE	3424-82-6	µg/kg	< 1.6 U	< 0.85 U	< 1.2 U	< 0.32 U	1.0	< 0.40 U	< 1.1 U	< 1.1 U	< 0.37 U	< 0.83 U
2,4-DDT	789-02-6	µg/kg	< 1.6 U	< 0.94 U	< 1.2 U	< 0.32 U	< 1.0 U	< 0.47 U	3.5 J	1.7 J	< 0.37 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	7.7	11	< 1.2 U	0.49	26	0.39 J	59	57	1.3	9.6
4,4'-DDE	72-55-9	µg/kg	3.8	4.2	< 1.2 U	0.66	8.8	0.69	7.5	5.8	1.7	2.6
4,4'-DDT	50-29-3	µg/kg	7.3	5.9	< 1.2 U	0.30 J	1.5	< 0.40 U	13	4.7	1.0	1.9
Total DDx (b)	T_DDx (PDI)	µg/kg	24	26	< 1.2 U	1.9	46	1.3	105	89	4.5	17
Aldrin	309-00-2	µg/kg	< 1.6 U	< 0.85 U	< 1.2 U	< 0.32 U	< 1.0 U	< 0.40 U	< 1.1 U	< 1.1 U	< 0.37 U	< 0.83 U
alpha-Chlordane	5103-71-9	µg/kg	< 3.2 U	< 1.7 U	< 2.3 U	< 0.65 U	< 2.1 U	< 0.80 U	< 2.2 U	< 2.2 U	< 0.74 U	< 1.7 U
cis-Nonachlor	5103-73-1	µg/kg	< 1.6 U	< 0.97 U	< 1.2 U	< 0.32 U	< 1.1 U	< 0.49 U	< 1.1 U	< 1.1 U	< 0.37 U	< 0.97 U
Dieldrin	60-57-1	µg/kg	< 3.2 U	< 2.0 U	< 2.3 U	< 0.65 U	< 2.1 U	< 1.0 U	< 2.2 U	< 2.2 U	< 0.74 U	< 2.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 1.6 U	< 0.85 U	< 1.2 U	< 0.32 U	< 1.0 U	< 0.40 U	< 1.1 U	< 1.1 U	< 0.37 U	< 0.83 U
gamma-Chlordane	5566-34-7	µg/kg	< 3.2 U	< 1.7 U	< 2.3 U	< 0.65 U	< 2.1 U	< 0.80 U	< 2.2 U	< 2.2 U	< 0.74 U	< 1.7 U
Heptachlor	76-44-8	µg/kg	< 1.6 U	< 0.85 U	< 1.2 U	< 0.32 U	< 1.0 U	< 0.40 U	< 1.1 U	< 1.1 U	< 0.37 U	< 0.83 U
Oxychlordane	27304-13-8	µg/kg	< 3.2 U	< 2.0 U	< 2.3 U	< 1.0 U	< 2.1 U	< 1.0 U	< 2.2 U	< 2.2 U	< 1.0 U	< 2.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 3.2 U	< 1.7 U	< 2.3 U	< 0.65 U	0.78 J	< 0.80 U	< 2.2 U	< 2.2 U	< 0.74 U	< 1.7 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 3.2 U	< 2 U	< 2.3 U	< 1 U	1.83	< 1 U	< 2.2 U	< 2.2 U	< 1 U	< 2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	8.4	6.7 J	0.18 J	3.1	390	11 J	39	54	12	10
Acenaphthene	83-32-9	µg/kg	65	36	0.46	2.0	8800	230 J	150	130	11	24
Acenaphthylene	208-96-8	µg/kg	68	94	0.68	1.3	110	1.9	39	64	2.6	15
Anthracene	120-12-7	µg/kg	72	190	0.95	6.7	5500	24	130	280	16	100
Benz(a)anthracene	56-55-3	µg/kg	530	940	3.8	46	3500	64 J	510	1000	43	100
Benzo(a)pyrene	50-32-8	µg/kg	750	1100	5.2	26	2500	23	730	1500	40	140
Benzo(b)fluoranthene	205-99-2	µg/kg	670	960	8.1	41	2400	41 J	740	1400	54	140
Benzo(g,h,i)perylene	191-24-2	µg/kg	520	740	4.2	17	1800	92 J	660	1200	37	100
Benzo(k)fluoranthene	207-08-9	µg/kg	230	320	2.6	14	870	12	220	480	20	53
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	43 J	64 J	< 67 U	27 J	340 J	28 J	1300	76 J	50 J	43 J
Chrysene	218-01-9	µg/kg	630	1100	6.4	41	3500	76 J	660	1300	52	130
Dibenz(a,h)anthracene	53-70-3	µg/kg	84	110	0.64	3.6 J	250	2.3 J	120	200	8.1 J	19
Fluoranthene	206-44-0	µg/kg	690	2000	12	50	16000	230 J	1100	2100	160	240
Fluorene	86-73-7	µg/kg	23	31	0.41	3.6	8300	34 J	110	130	18	25
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	520	710	4.3	16	1600	13 J	620	1100	32	100
Naphthalene	91-20-3	µg/kg	39	14	0.35 J	2.8	450	12	58	99	21	13
Phenanthrene	85-01-8	µg/kg	210	720	4.2	21	35000	200 J	570	1300	130	97
Pyrene	129-00-0	µg/kg	1100	2700	13	45	16000	200 J	1200	2600	120	340
Total PAHs (b)	T_PAH (PDI)	µg/kg	6209	11772	67	340	106970	1266	7656	14937	777	1646
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	1009	1475	7	40	3512	37	1040	2056	61	194
Metals												
Arsenic	7440-38-2	mg/kg	6.6	6.4	4.5	4.7	4.1	5.0	4.8	5.0	4.6	3.5
Cadmium	7440-43-9	mg/kg	0.097 J	0.11 J	0.11 J	0.11 J	0.23 J	0.15 J	0.24 J	0.21 J	0.23 J	0.15 J
Copper	7440-50-8	mg/kg	17	25	14	25	33	26	36	34	40	25
Lead	7439-92-1	mg/kg	9.9	8.4	6.5	7.1	16	7.6	12	12	14	12
Mercury	7439-97-6	mg/kg	< 0.038 U	0.032 J	0.024 J	0.034	0.093	0.038 J	0.069	0.077	0.12	0.055
Tri-n-butyltin	36643-28-4	µg/kg	< 1.7 U	< 1.7 U	< 1.3 U	1.7	< 2.1 U	3.6	1.9 J	1.3 J	31	3.9
Zinc	7440-66-6	mg/kg	74	83	67	80	99	83	100	99	99	73
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	54 J	150	< 63 U	< 76 U	470	< 75 U	65 J	77 J	38 J	110
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	190	400	29 J	150	670	160	420	530	330	210
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	67.1	57.0	71.5							61.8
Total Solids@104C - E160.3 (f)	TSOLID	%				62.1	46.2	61.2	42.7	45.6	49.7	
Total Solids@104C - E160.3M (f)	TSOLID	%	58.6	57.6	73.8	61.2	47.2	62.0	44.6	45.9	52.5	60.1
Total Solids@70C	TSOLID70	%	69	56	77	63	48	64	46	46	53	62
Gravel	GS-Gravel	%	1.5	0	1.7	0	0	0	0	0.4	0.1	0
Sand, Coarse	GS-Csand	%	2.9	1.7	0.9	0	0	0.2	0.2	0.1	0.2	1.5
Sand, Medium	GS-Msand	%	29.2	14.0	45.5	26.1	5.5	28.3	1.4	2.4	0.6	13.6
Sand, Fine (#200) (d)	GS-Fsand-200	%	34.53	44.72	49.38	42.4	17.51	40.05	29.26	33.01	37.25	46.23
Sand, Fine (#230) (d)	GS-Fsand	%	35.6	49.1	49.5	44.4	19.3	41.7	33.1	36.7	43.8	48.4
Silt (#200) (d)	GS-Silt-200	%	30.26	35.97	1.716	23.69	63.18	23.54	58.83	52.78	54.14	32.26

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B192	B193	B194	B195	B196	B197	B198	B199	B200	B201
		Sample ID	PDI-SG-B192-BL1	PDI-SG-B193-BL1	PDI-SG-B194-BL1	PDI-SG-B195-BL1	PDI-SG-B196-BL1	PDI-SG-B197-BL1	PDI-SG-B198-BL1	PDI-SG-B199-BL1	PDI-SG-B200-BL1	PDI-SG-B201-BL1
		Sample Date	31 May 2018	31 May 2018	01 Jun 2018	19 Apr 2018	14 Apr 2018	19 Apr 2018	14 Apr 2018	14 Apr 2018	19 Apr 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-8 cm	0-30 cm	0-5 cm	0-29 cm	0-30 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	29.2	31.6	1.6	21.7	61.4	21.9	55.0	49.1	47.6	30.1
Clay	GS-Clay	%	1.5	3.7	0.7	7.9	13.8	7.8	10.4	11.3	7.8	6.4
Percent Fines (e)	GS-FINES	%	31.76	39.67	2.416	31.59	76.98	31.34	69.23	64.08	61.94	38.66
Total Organic Carbon	TOC	mg/kg	5500	11000	< 2000 U	7600	19000	11000	32000	26000	20000	8500

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B202	B203	B204	B205	B206	B207	B208	B209	B210	B211
		Sample ID	PDI-SG-B202-BL1	PDI-SG-B203-BL1	PDI-SG-B204-BL1	PDI-SG-B205-BL1	PDI-SG-B206-BL1	PDI-SG-B207-BL1	PDI-SG-B208-BL1	PDI-SG-B209-BL1	PDI-SG-B210-BL1	PDI-SG-B211-BL1
		Sample Date	17 Apr 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018	29 May 2018	20 May 2018	17 May 2018	20 May 2018	20 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22.5 cm	0-27 cm	0-30 cm	0-22 cm	0-24 cm	0-21 cm	0-7 cm	0-17 cm	0-27 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.012	0.068	0.052	0.12	0.026	0.021	0.024	0.029	0.029	0.51
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0023 JN	0.010 JN	0.0099 J	0.027 J	0.0058 JN	0.014	0.0031 JN	0.033	0.0046	0.11
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00011 U	< 0.0011 U	< 0.0033 U	0.0029 J	0.00082 J	0.0040	< 0.00035 U	0.013	0.0015 J+	0.013
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00019 J+	0.00066 JN	0.00071 J	0.0011 JN	0.00046 J+	0.00056 J+	0.00030 JN	< 0.00021 UJ	0.00035 JN	0.0028 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.00015 U	< 0.00067 U	< 0.00082 U	0.0049	0.0018 JN	0.019	0.00048 J	0.079	0.00066 J+	0.058
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00040 J+	0.0035 J	0.0034 J	0.0041	0.0013 J	0.0013 J	0.0016 J	0.0018 J	0.0024 J	0.018
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00064 J	< 0.00058 U	< 0.00055 U	0.010	0.0019 J	0.0046	0.00018 J	0.021	0.00040 J	0.014
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00031 J+	0.0025 J	0.0023 J	0.0023 J	0.0012 J	0.0011 JN	0.0010 J	0.0019 JN	0.0011 JN	0.0063
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.000084 U	< 0.00045 U	< 0.00044 U	< 0.00073 U	< 0.00019 U	0.00083 J+	< 0.00012 U	0.0011 J+	< 0.00060 U	0.0015 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.000086 U	< 0.00042 U	< 0.00063 U	< 0.00039 U	< 0.00015 U	0.00049 J	0.00024 J	0.00043 J+	0.00018 JN	0.0022 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.000066 U	< 0.00034 U	< 0.00042 U	0.0019 JN	0.00096 J	0.0099	0.00016 J+	0.038	0.00033 J+	0.029
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.000095 U	< 0.00046 U	< 0.00046 U	< 0.00081 U	0.00023 JN	0.0014 J	< 0.000061 U	0.0034 J	0.00017 J	0.0030 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.000074 U	< 0.00037 U	< 0.00045 U	0.0017 J	< 0.00021 U	0.0046	< 0.000094 U	0.014	0.00017 J	0.012
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000031 U	0.00023 JN	0.00019 JN	0.00025 JN	0.00013 JN	0.00024 JN	0.000082 JN	< 0.000075 U	0.00014 JN	0.0018
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00017 J+	0.00092 J	0.00087 J	0.0028	0.00093 J	0.0084	0.00022 J+	0.020	0.00064 J+	0.015
OCDD	3268-87-9	µg/kg	0.12	0.69	0.48	1.8	0.24	0.14	0.21	0.17	0.29	5.9 J
OCDF	39001-02-0	µg/kg	0.0059 J	0.018	0.012	0.065	0.014	0.025	0.010	0.047	0.012	0.27
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00039	0.0022	0.002	0.0056	0.0014	0.0066	0.0011	0.019	0.0014	0.029
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00037	0.0019	0.0018	0.0052	0.0011	0.0063	0.00094	0.019	0.001	0.029
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00033	0.0017	0.0015	0.005	0.001	0.0062	0.0009	0.019	0.00093	0.029
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.0087 U	0.0038 JN	0.0067 JN	0.082	0.0053 J	0.0033 JN	< 0.000085 U	0.0047 JN	0.0030 J	0.025 JN
PCB-10	33146-45-1	ng/g	< 0.074 U	0.0080 J	0.0095 J	< 0.016 U	< 0.00042 U	< 0.00046 U	< 0.0039 U	< 0.00068 U	< 0.0050 U	< 0.021 U
PCB-103	60145-21-3	ng/g	0.050 JN	0.032 JN	0.043	0.15	0.0019 JN	< 0.00027 U	0.0020 JN	0.0047 J	0.016	0.15
PCB-104	56558-16-8	ng/g	< 0.0065 U	0.017 JN	0.012 JN	< 0.00096 U	< 0.00052 U	< 0.00021 U	< 0.00037 U	< 0.00044 U	< 0.00025 U	< 0.00079 U
PCB-105	32598-14-4	ng/g	0.76 J-	0.097	0.078	0.39	0.042	0.19	0.016	0.18	0.047	1.5
PCB-106	70424-69-0	ng/g	< 0.022 U	< 0.0026 U	< 0.0026 U	< 0.0039 U	< 0.0020 U	< 0.0015 U	< 0.00091 U	< 0.0024 U	< 0.0013 U	< 0.0063 U
PCB-107	70424-68-9	ng/g	0.22	0.027	0.023 JN	0.27	0.0098 J	0.030	0.0033 JN	0.028	0.025	0.63
PCB-108/124	70362-41-3	ng/g	0.10 J	0.010 JN	0.0091 J	0.055 J	0.0045 JN	0.020	< 0.00093 U	0.019 J	0.0054 JN	0.16
PCB-11	2050-67-1	ng/g	< 0.065 U	0.057	0.041	0.064 JN	0.032 JN	0.026	0.011 JN	0.029	0.043 JN	0.028 JN
PCB-110/115	38380-03-9	ng/g	3.5	0.36	0.32	3.2	0.14	0.66	0.049	0.60	0.37	7.9
PCB-111	39635-32-0	ng/g	< 0.0060 U	< 0.00060 U	< 0.00060 U	< 0.00089 U	< 0.00046 U	< 0.00019 U	< 0.00034 U	< 0.00039 U	< 0.00023 U	< 0.00073 U
PCB-112	74472-36-9	ng/g	< 0.0063 U	0.012	0.0056 JN	< 0.00094 U	< 0.00050 U	< 0.00020 U	< 0.00036 U	0.0034 J	< 0.00024 U	0.024 J
PCB-114	74472-37-0	ng/g	0.048 JN	0.0040 JN	< 0.0023 U	0.026 JN	< 0.0018 U	0.012	< 0.00084 U	0.011	< 0.0012 U	0.086
PCB-118	31508-00-6	ng/g	2.4	0.26	0.23	1.7	0.11	0.37	0.039 JN	0.35	0.21	5.2
PCB-12/13	2974-92-7	ng/g	< 0.067 U	0.0033 JN	0.0033 JN	0.050 JN	0.0020 JN	0.0026 JN	< 0.0035 U	0.0038 J	< 0.0045 U	0.061 J
PCB-120	68194-12-7	ng/g	< 0.0061 U	0.0037 JN	0.0028 JN	0.047 JN	< 0.00046 U	< 0.00018 U	0.00035 JN	< 0.00039 U	0.0045 JN	0.056
PCB-121	56558-18-0	ng/g	< 0.0063 U	0.0025 JN	0.0026 JN	< 0.00093 U	< 0.00049 U	< 0.00020 U	< 0.00036 U	< 0.00042 U	< 0.00024 U	< 0.00076 U
PCB-122	76842-07-4	ng/g	0.042 JN	< 0.0029 U	< 0.0029 U	0.028 JN	< 0.0022 U	0.0092 JN	< 0.0010 U	0.0079 J	< 0.0015 U	0.072
PCB-123	65510-44-3	ng/g	0.028 JN	< 0.0023 U	0.0054 JN	0.027 JN	0.0019 JN	0.012	< 0.00088 U	0.0098	0.0025 JN	0.068
PCB-126	57465-28-8	ng/g	< 0.022 U	< 0.0025 U	< 0.0025 U	0.0046 JN	< 0.0019 U	< 0.0015 U	< 0.00098 U	< 0.0024 U	< 0.0013 U	0.013 JN
PCB-127	39635-33-1	ng/g	< 0.022 U	< 0.0025 U	< 0.0025 U	< 0.0039 U	< 0.0019 U	< 0.0015 U	< 0.00091 U	< 0.0023 U	< 0.0013 U	< 0.0063 U
PCB-128/166	38380-07-3	ng/g	0.46 J	0.097	0.078	0.42	0.035	0.12	0.010 JN	0.13	0.037	1.0
PCB-129/138/160/163	55215-18-4	ng/g	4.1 J	0.80	0.70	4.2	0.23	1.0	0.095	1.1	0.31	8.5
PCB-130	52663-66-8	ng/g	0.17 JN	0.053	0.038 JN	0.29	0.013	0.054	0.0033 JN	0.062	0.020	0.59
PCB-131	61798-70-7	ng/g	< 0.054 UJ	0.0073 J	0.0065 J	0.038 J	< 0.00072 U	0.011	< 0.0010 U	0.0098 JN	< 0.0022 U	0.096
PCB-132	38380-05-1	ng/g	1.2 J	0.22	0.17	1.3	0.072	0.33	0.024	0.34	0.10	2.9
PCB-133	35694-04-3	ng/g	< 0.049 UJ	0.013 JN	0.017	0.13 JN	0.0044 JN	0.014	< 0.00093 U	0.019	0.0069 JN	0.21 JN
PCB-134/143	52704-70-8	ng/g	0.14 JN	0.051	0.039	0.17	0.0050 JN	0.059	0.0020 JN	0.061	0.016 JN	0.46
PCB-135/151	52744-13-5	ng/g	1.8 J	0.37	0.28	2.0	0.073	0.43	0.033	0.41	0.16	3.3
PCB-136	38411-22-2	ng/g	0.67 J	0.11	0.10	0.84	0.024	0.14	0.0084 JN	0.13	0.068	1.2
PCB-137	35694-06-5	ng/g	0.12 J	0.024	0.019	0.091	0.0083 JN	0.029	0.0036 J	0.026 JN	0.0071 JN	0.24
PCB-139/140	56030-56-9	ng/g	< 0.043 UJ	0.0095 JN	0.012 J	0.067 JN	0.0032 J	0.012 J	< 0.00082 U	0.011 JN	0.0060 JN	0.13 JN
PCB-14	34883-41-5	ng/g	< 0.057 U	< 0.00074 U	< 0.0012 U	< 0.012 U	0.0012 JN	< 0.00036 U	< 0.0030 U	< 0.00053 U	< 0.0038 U	< 0.016 U
PCB-141	52712-04-6	ng/g	0.85 J	0.16	0.14 JN	0.76	0.043	0.26	0.014 JN	0.30	0.047	1.5
PCB-142	41411-61-4	ng/g	< 0.048 UJ	< 0.0023 U	< 0.0023 U	< 0.014 U	< 0.00068 U	< 0.0012 U	< 0.00092 U	< 0.0021 U	< 0.0020 U	< 0.021 U
PCB-144	68194-14-9	ng/g	0.19 J	0.038	0.031	0.15 JN	0.0082 J	0.065	0.0035 JN	0.063	0.013	0.23
PCB-145	74472-40-5	ng/g	< 0.0087 UJ	< 0.000084 U	< 0.00090 U	< 0.0018 U	< 0.00011 U	< 0.00022 U	< 0.000043 U	< 0.00017 U	< 0.00025 U	0.0082 JN
PCB-146	51908-16-8	ng/g	0.93 J	0.17	0.13	1.3	0.046	0.15	0.018	0.17	0.084	2.1
PCB-147/149	68194-13-8	ng/g	4.2 J	0.75	0.61	5.9	0.18	0.90	0.075	0.94	0.39	8.8
PCB-148	74472-41-6	ng/g	< 0.012 UJ	0.0068 J	0.0035 JN	0.048	< 0.00014 U	0.0011 JN	< 0.000061 U	0.0015 JN	0.0030 J	0.034 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B202	B203	B204	B205	B206	B207	B208	B209	B210	B211
		Sample ID	PDI-SG-B202-BL1	PDI-SG-B203-BL1	PDI-SG-B204-BL1	PDI-SG-B205-BL1	PDI-SG-B206-BL1	PDI-SG-B207-BL1	PDI-SG-B208-BL1	PDI-SG-B209-BL1	PDI-SG-B210-BL1	PDI-SG-B211-BL1
		Sample Date	17 Apr 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018	29 May 2018	20 May 2018	17 May 2018	20 May 2018	20 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22.5 cm	0-27 cm	0-30 cm	0-22 cm	0-24 cm	0-21 cm	0-7 cm	0-17 cm	0-27 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	< 0.068 U	0.019	0.018	0.11 JN	0.0077 J	0.016	0.0053 JN	0.021	0.014 JN	0.26
PCB-150	68194-08-1	ng/g	< 0.0083 UJ	0.0041 JN	0.0035 J	0.031 JN	0.00028 JN	0.00076 JN	< 0.000041 U	0.0020 J	0.0040 J	0.024 J
PCB-152	68194-09-2	ng/g	< 0.0089 UJ	0.0040 JN	0.0057 J	< 0.0018 U	< 0.00010 U	< 0.00021 U	< 0.000044 U	< 0.00017 U	< 0.00026 U	0.0029 JN
PCB-153/168	35065-27-1	ng/g	3.9 J	0.82	0.69	5.0	0.19	0.91	0.086	1.1	0.32	7.9
PCB-154	60145-22-4	ng/g	0.060 JN	0.036	0.032	0.22	0.0032 JN	0.012 JN	0.0033 J	0.011	0.022	0.24
PCB-155	33979-03-2	ng/g	< 0.0083 U	0.0010 JN	< 0.00082 U	< 0.0017 U	< 0.000097 U	< 0.00020 U	< 0.000041 U	0.00063 JN	< 0.00024 U	< 0.0010 U
PCB-156/157	38380-08-4	ng/g	0.44	0.072	0.045 JN	0.29	0.020 JN	0.076	0.0066 J	0.092	0.025	0.72
PCB-158	74472-42-7	ng/g	0.27 J	0.067	0.066	0.27	0.020	0.11	0.0083 JN	0.12	0.024	0.57
PCB-159	39635-35-3	ng/g	< 0.032 UJ	0.014	0.012	0.042 J	0.0036 J	0.015	< 0.00062 U	0.019	< 0.0014 U	0.074
PCB-16	38444-78-9	ng/g	0.055 JN	0.019	0.013	0.27	0.0013 JN	0.019	0.0026 J	0.027 JN	0.022	0.51
PCB-161	74472-43-8	ng/g	< 0.032 UJ	< 0.0015 U	< 0.0015 U	< 0.0095 U	< 0.00044 U	< 0.00076 U	< 0.00061 U	< 0.0014 U	< 0.0013 U	< 0.014 U
PCB-162	39635-34-2	ng/g	< 0.032 UJ	< 0.0014 U	< 0.0014 U	0.015 J	< 0.00042 U	< 0.00072 U	< 0.00061 U	< 0.0013 U	< 0.0013 U	0.018 J
PCB-164	74472-45-0	ng/g	0.32 J	0.059	0.051	0.34	0.014 JN	0.077	0.0057 J	0.083	0.024	0.61
PCB-165	74472-46-1	ng/g	< 0.037 UJ	< 0.0017 U	< 0.0017 U	< 0.011 U	< 0.00051 U	< 0.00086 U	< 0.00070 U	< 0.0016 U	< 0.0015 U	< 0.016 U
PCB-167	52663-72-6	ng/g	0.13	0.026	0.018 JN	0.11	0.0079 J	0.031	0.0015 JN	0.038	0.0076 J	0.22
PCB-169	32774-16-6	ng/g	< 0.021 UJ	< 0.0011 U	< 0.0011 U	0.021 JN	< 0.00032 U	< 0.00056 U	< 0.00046 U	< 0.0010 U	< 0.00092 U	< 0.010 U
PCB-17	37680-66-3	ng/g	0.064 JN	0.047	0.078 JN	0.42	0.0064 JN	0.019	0.0048 JN	0.034	0.028 JN	0.89
PCB-170	35065-30-6	ng/g	1.8	0.39	0.29	1.6	0.057	0.39	0.036	0.53	0.090	2.6
PCB-171/173	52663-71-5	ng/g	0.46	0.12	0.092	0.49	0.022 J	0.13	0.0098 JN	0.17	0.031	0.77
PCB-172	52663-74-8	ng/g	0.27	0.075	0.045 JN	0.28	0.014	0.070	0.0042 JN	0.099	0.015 JN	0.42
PCB-174	38411-25-5	ng/g	1.9	0.41	0.32	1.8	0.068	0.44	0.031 JN	0.57	0.10	2.6
PCB-175	40186-70-7	ng/g	< 0.046 U	0.013	0.0097 J	< 0.0023 U	0.0025 J	0.018	< 0.00028 U	0.026	0.0046 J	0.087 JN
PCB-176	52663-65-7	ng/g	0.17 JN	0.044	0.031 JN	0.24	0.0068 JN	0.049	0.0025 JN	0.069	0.013 JN	0.38
PCB-177	52663-70-4	ng/g	0.98	0.23	0.20	1.1	0.043	0.24	0.021	0.32	0.060	1.6
PCB-178	52663-67-9	ng/g	0.36	0.079	0.065 JN	0.45	0.012 JN	0.076	0.0075 JN	0.11	0.025 JN	0.66
PCB-179	52663-64-6	ng/g	0.80	0.17	0.13	0.90	0.038	0.17	0.013 JN	0.20	0.055	1.3
PCB-18/30	37680-65-2	ng/g	0.16 JN	0.027	0.040	0.74	0.0092 JN	0.040	0.0044 JN	0.075	0.057	1.5
PCB-180/193	35065-29-3	ng/g	3.9	0.90	0.67	3.9	0.14	0.86	0.067	1.2	0.20	5.7
PCB-181	74472-47-2	ng/g	0.12 JN	< 0.00013 U	< 0.00097 U	< 0.0023 U	< 0.000046 U	0.0066 J	< 0.00028 U	0.017	< 0.00065 U	< 0.0034 U
PCB-182	60145-23-5	ng/g	< 0.044 U	< 0.00013 U	< 0.00092 U	< 0.0022 U	< 0.000044 U	< 0.00015 U	< 0.00027 U	0.0051 JN	< 0.00063 U	< 0.0033 U
PCB-183/185	52663-69-1	ng/g	1.3	0.26	0.20	1.3	0.039	0.29	0.022	0.38	0.070	1.8
PCB-184	74472-48-3	ng/g	< 0.037 U	< 0.00011 U	< 0.00079 U	< 0.0019 U	< 0.000038 U	< 0.00013 U	< 0.00023 U	0.010 JN	< 0.00053 U	< 0.0028 U
PCB-186	74472-49-4	ng/g	< 0.036 U	< 0.00010 U	< 0.00076 U	< 0.0018 U	< 0.000036 U	< 0.00013 U	< 0.00022 U	< 0.00020 U	< 0.00052 U	< 0.0027 U
PCB-187	52663-68-0	ng/g	2.3	0.49	0.41	2.4	0.090	0.46	0.041 JN	0.63	0.15	3.6
PCB-188	74487-85-7	ng/g	< 0.034 U	< 0.000095 U	< 0.00070 U	< 0.0017 U	< 0.000033 U	< 0.00012 U	< 0.00020 U	0.0064 J	< 0.00046 U	< 0.0024 U
PCB-189	39635-31-9	ng/g	0.061 J	0.015	0.0099 J	0.047 JN	0.0026 J	0.014	< 0.00055 U	0.021	< 0.0013 U	0.077
PCB-19	38444-73-4	ng/g	< 0.011 U	0.15	0.22	0.052	0.0048 JN	0.0099	0.0077 JN	0.011 JN	0.015	0.086 JN
PCB-190	41411-64-7	ng/g	0.27 JN	0.078	0.058	0.28	0.012 JN	0.083	0.0065 JN	0.11	0.017	0.37 JN
PCB-191	74472-50-7	ng/g	< 0.034 U	0.015 JN	0.012 JN	0.041 JN	0.0018 JN	0.021	< 0.00021 U	0.031	0.0035 J	0.095
PCB-192	74472-51-8	ng/g	< 0.038 U	< 0.00011 U	< 0.00078 U	< 0.0019 U	< 0.000037 U	< 0.00013 U	< 0.00024 U	< 0.00020 U	< 0.00055 U	< 0.0029 U
PCB-194	35694-08-7	ng/g	1.1	0.20	0.16	0.93	0.036	0.16	0.016	0.30	0.044	1.3
PCB-195	52663-78-2	ng/g	0.31 JN	0.085	0.067	0.35	0.013	0.075	0.0081 JN	0.13	0.016 JN	0.50
PCB-196	42740-50-1	ng/g	0.48	0.089	0.072	0.44	0.014	0.076	0.0079 J	0.13	0.022	0.62
PCB-197	33091-17-7	ng/g	0.031 JN	0.0056 JN	0.0055 JN	0.029 J	0.0012 JN	0.0064 J	< 0.000069 U	0.015	0.0025 JN	0.050
PCB-198/199	68194-17-2	ng/g	1.2 JN	0.19	0.16	0.91	0.045	0.16	0.022	0.36	0.054	1.4
PCB-2	2051-61-8	ng/g	< 0.0094 UJ	0.016	0.013	0.0089 JN	0.0014 JN	0.0032 JN	0.0016 JN	0.0039 JN	0.0045 J	0.017 J
PCB-20/28	38444-84-7	ng/g	0.47	0.085	0.091	1.1	0.042	0.096	0.016 J	0.13	0.068	3.6
PCB-200	52663-73-7	ng/g	0.098 JN	0.018 JN	0.018	0.11	0.0022 JN	0.020	0.0020 JN	0.033	0.0060 JN	0.15
PCB-201	40186-71-8	ng/g	0.11	0.021 JN	0.018	0.11	0.0055 JN	0.017	0.0011 JN	0.043	0.0049 JN	0.14
PCB-202	2136-99-4	ng/g	0.34 JN	0.036	0.029 JN	0.19	0.0035 JN	0.028	0.0016 JN	0.062	0.0088 JN	0.24
PCB-203	52663-76-0	ng/g	0.68 JN	0.12	0.092	0.52	0.023	0.099	0.0097 JN	0.17	0.029	0.81
PCB-204	74472-52-9	ng/g	< 0.026 U	< 0.000084 U	< 0.00056 U	< 0.0018 U	< 0.000096 U	< 0.00018 U	< 0.000069 U	0.0026 JN	< 0.00064 U	< 0.0029 U
PCB-205	74472-53-0	ng/g	< 0.047 U	0.0077 JN	0.0080 J	0.044 J	0.0017 JN	0.0096 J	< 0.00022 U	0.017	< 0.0016 U	0.063
PCB-206	40186-72-9	ng/g	2.4	0.087	0.11	0.40	0.029	0.13	0.011	0.26 JN	0.023	0.48
PCB-207	52663-79-3	ng/g	0.058 JN	0.011 J	0.0097 J	0.10	0.0037 J	0.0099	< 0.0012 U	0.020	< 0.0016 U	0.050
PCB-208	52663-77-1	ng/g	0.39 J-	0.025	0.023 JN	0.18	0.0068 JN	0.022	0.0019 JN	0.050	0.0061 JN	0.15
PCB-209	2051-24-3	ng/g	5.3	0.063	0.079 JN	3.0	0.024	0.29	0.0084 JN	0.17	0.021	0.37
PCB-21/33	55702-46-0	ng/g	0.15 JN	0.036	0.038	0.44	0.012 J	0.031	0.0053 J	0.040	0.032	1.2
PCB-22	38444-85-8	ng/g	0.12	0.018 JN	0.020	0.27	0.011	0.033	0.0028 JN	0.039	0.018	0.70
PCB-23	55720-44-0	ng/g	< 0.019 U	< 0.0013 U	< 0.0015 U	< 0.0036 U	< 0.00073 U	< 0.00074 U	< 0.00040 U	< 0.0011 U	< 0.0010 U	< 0.0063 U
PCB-24	55702-45-9	ng/g	< 0.0077 U	< 0.00048 U	< 0.00079 U	0.0034 JN	< 0.000091 U	0.0010 JN	< 0.00012 U	0.00076 JN	< 0.00059 U	0.017 JN
PCB-25	55712-37-3	ng/g	< 0.017 U	0.015	0.026	0.21	0.0069 JN	0.0059 JN	0.0013 J	0.018	0.0063 J	0.26

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B202	B203	B204	B205	B206	B207	B208	B209	B210	B211
		Sample ID	PDI-SG-B202-BL1	PDI-SG-B203-BL1	PDI-SG-B204-BL1	PDI-SG-B205-BL1	PDI-SG-B206-BL1	PDI-SG-B207-BL1	PDI-SG-B208-BL1	PDI-SG-B209-BL1	PDI-SG-B210-BL1	PDI-SG-B211-BL1
		Sample Date	17 Apr 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018	29 May 2018	20 May 2018	17 May 2018	20 May 2018	20 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22.5 cm	0-27 cm	0-30 cm	0-22 cm	0-24 cm	0-21 cm	0-7 cm	0-17 cm	0-27 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.066 J	0.015 J	0.047	0.33	0.0081 J	0.011 J	0.0032 J	0.027	0.0095 JN	0.46
PCB-27	38444-76-7	ng/g	0.011 JN	0.023	0.053	0.035 JN	0.00067 JN	0.0060 J	0.0012 J	0.0076 J	0.0046 JN	0.091
PCB-3	2051-62-9	ng/g	< 0.0099 UJ	0.0068 J	0.0060 J	0.051	0.0021 JN	0.0033 J	< 0.00011 U	0.0038 J	< 0.00056 U	0.034 J
PCB-31	16606-02-3	ng/g	0.36	0.052	0.058	0.89	0.031	0.060	0.0073 JN	0.097	0.050	2.6
PCB-32	38444-77-8	ng/g	0.045 J	0.022	0.049 JN	0.19	0.0045 JN	0.026	0.0045 JN	0.034	0.024	0.36
PCB-34	37680-68-5	ng/g	< 0.019 U	< 0.0014 U	< 0.0016 U	0.015 J	< 0.00075 U	< 0.00076 U	< 0.00042 U	< 0.0011 U	< 0.0010 U	0.055
PCB-35	37680-69-6	ng/g	< 0.019 U	< 0.0013 U	< 0.0015 U	0.013 JN	< 0.00072 U	< 0.00073 U	< 0.00041 U	0.0029 J	< 0.0010 U	0.028 J
PCB-36	38444-87-0	ng/g	< 0.018 U	< 0.0012 U	< 0.0014 U	0.0073 JN	< 0.00065 U	< 0.00066 U	< 0.00039 U	< 0.00099 U	< 0.00098 U	< 0.0061 U
PCB-37	38444-90-5	ng/g	0.086 JN	0.026	0.023 JN	0.15	0.012	0.027	0.0039 JN	0.035	0.019	0.69
PCB-38	53555-66-1	ng/g	< 0.019 U	< 0.0013 U	< 0.0015 U	< 0.0038 U	< 0.00071 U	< 0.00072 U	< 0.00042 U	< 0.0011 U	< 0.0011 U	< 0.0066 U
PCB-39	38444-88-1	ng/g	< 0.017 U	< 0.0012 U	< 0.0014 U	0.015 JN	< 0.00065 U	< 0.00065 U	< 0.00038 U	< 0.00098 U	< 0.00095 U	0.031 J
PCB-4	13029-08-8	ng/g	< 0.099 U	0.064	0.11 JN	0.13 JN	0.0082 JN	0.0072 JN	0.0051 JN	0.014 JN	0.014 JN	0.11 JN
PCB-40/41/71	38444-93-8	ng/g	0.33	0.076	0.092	0.61	0.024 J	0.12	0.0065 JN	0.16	0.054	2.1
PCB-42	36559-22-5	ng/g	0.15	0.028	0.031	0.41	0.018	0.060	0.0027 JN	0.085	0.032	1.2
PCB-43/73	70362-46-8	ng/g	< 0.036 U	0.019 JN	0.030	0.027 JN	< 0.0017 U	0.0082 J	< 0.00069 U	0.0095 J	0.0056 J	0.12 JN
PCB-44/47/65	41464-39-5	ng/g	0.89	0.60	0.58	1.6	0.070	0.22	0.030	0.31	0.14	4.4
PCB-45/51	70362-45-7	ng/g	0.12 J	0.22	0.22	0.20	0.0099 JN	0.052	0.0081 J	0.059	0.029 JN	0.62
PCB-46	41464-47-5	ng/g	< 0.049 U	< 0.0028 U	0.013	0.080	< 0.0023 U	0.020	< 0.00093 U	0.015 JN	0.0067 JN	0.21
PCB-48	70362-47-9	ng/g	0.12 JN	0.019	0.016 JN	0.16	0.0069 JN	0.029	0.0028 JN	0.038	0.016	0.79
PCB-49/69	41464-40-8	ng/g	0.57	0.18	0.28	1.6	0.047	0.12	0.014 J	0.17	0.13	3.3
PCB-5	16605-91-7	ng/g	< 0.076 U	< 0.00089 U	< 0.0015 U	< 0.016 U	< 0.00039 U	0.00060 JN	< 0.0039 U	< 0.00063 U	< 0.0051 U	< 0.021 U
PCB-50/53	62796-65-0	ng/g	0.078 JN	0.10	0.21	0.17	0.013 J	0.041	0.0044 JN	0.049	0.043	0.47
PCB-52	35693-99-3	ng/g	1.3	0.20	0.39	2.3	0.087	0.32	0.027	0.41	0.21	5.6
PCB-54	15968-05-5	ng/g	< 0.0045 U	0.056	0.070	0.0040 JN	0.00020 JN	0.00030 JN	0.0026 JN	0.00089 JN	0.0033 J	0.0083 J
PCB-55	74338-24-2	ng/g	< 0.028 U	< 0.0016 U	< 0.0011 U	< 0.0087 U	< 0.0013 U	< 0.00077 U	0.0015 JN	0.0047 JN	0.0014 JN	0.046 J
PCB-56	41464-43-1	ng/g	0.44	0.039	0.038	0.45	0.023	0.095	0.0061 JN	0.13	0.036	2.0
PCB-57	70424-67-8	ng/g	< 0.029 U	< 0.0016 U	< 0.0012 U	< 0.0088 U	< 0.0013 U	< 0.00078 U	< 0.00054 U	< 0.00097 U	< 0.00094 U	0.012 JN
PCB-58	41464-49-7	ng/g	< 0.029 U	< 0.0015 U	0.0046 J	0.015 JN	< 0.0013 U	< 0.00075 U	< 0.00055 U	< 0.00093 U	0.0012 JN	0.044 J
PCB-59/62/75	74472-33-6	ng/g	0.049 JN	0.027 J	0.029 J	0.097 J	0.0048 JN	0.023 J	0.0020 J	0.025 J	0.0099 J	0.36
PCB-6	25569-80-6	ng/g	< 0.066 U	0.0067 J	0.0075 JN	0.11 JN	< 0.00039 U	0.0048 J	< 0.0034 U	0.0086 J	0.0069 JN	0.11
PCB-60	33025-41-1	ng/g	0.13	0.015	0.014	0.063	0.010 J	0.046	0.0038 J	0.066	0.0097 J	0.38
PCB-61/70/74/76	33284-53-6	ng/g	1.8	0.17	0.17	2.1	0.11	0.22	0.032 JN	0.33	0.19	8.2
PCB-63	74472-34-7	ng/g	< 0.026 U	< 0.0014 U	0.0045 J	0.034 JN	0.0019 JN	0.0039 JN	< 0.00050 U	0.0072 JN	0.0033 J	0.18
PCB-64	52663-58-8	ng/g	0.28	0.037	0.038	0.41	0.020	0.10	0.0063 J	0.12	0.038	1.7
PCB-66	32598-10-0	ng/g	0.87	0.12	0.12	1.3	0.060	0.19	0.020	0.28	0.13	4.9
PCB-67	73575-53-8	ng/g	< 0.025 U	< 0.0015 U	< 0.0011 U	0.024 J	0.0030 J	0.0030 J	< 0.00047 U	0.0050 JN	0.0024 J	0.084
PCB-68	73575-52-7	ng/g	< 0.025 U	0.0078 J	0.0083 J	0.070	0.0027 J	< 0.00068 U	< 0.00048 U	< 0.00084 U	0.0029 J	0.077
PCB-7	33284-50-3	ng/g	< 0.068 U	< 0.00084 U	0.0023 JN	0.019 JN	< 0.00037 U	0.0013 JN	< 0.0035 U	0.00093 JN	< 0.0046 U	0.025 JN
PCB-72	41464-42-0	ng/g	< 0.028 U	< 0.0016 U	0.0029 JN	0.10	0.0022 J	< 0.00077 U	< 0.00053 U	< 0.00095 U	0.0062 J	0.15
PCB-77	32598-13-3	ng/g	0.097 JN	0.013	0.012	0.056 JN	0.0067 J	0.022	0.0021 JN	0.029	0.011	0.35
PCB-78	70362-49-1	ng/g	< 0.029 U	< 0.0016 U	< 0.0011 U	< 0.0089 U	< 0.0013 U	< 0.00075 U	< 0.00055 U	< 0.00093 U	< 0.00096 U	< 0.012 U
PCB-79	41464-48-6	ng/g	< 0.025 U	0.0026 J	0.0025 J	0.044 JN	< 0.0011 U	0.0040 J	< 0.00048 U	0.0031 JN	0.0023 JN	0.063
PCB-8	34883-43-7	ng/g	0.064 JN	0.014 JN	0.018 JN	0.31 JN	0.0086 JN	0.015 J	0.0050 JN	0.024	0.022 JN	0.37
PCB-80	33284-52-5	ng/g	< 0.025 U	< 0.0014 U	< 0.00099 U	< 0.0076 U	< 0.0011 U	< 0.00067 U	< 0.00047 U	< 0.00083 U	< 0.00081 U	< 0.010 U
PCB-81	70362-50-4	ng/g	< 0.028 U	< 0.0015 U	< 0.0011 U	< 0.0087 U	< 0.0012 U	0.0010 JN	< 0.00049 U	< 0.00087 U	< 0.00088 U	< 0.011 U
PCB-82	52663-62-4	ng/g	0.26 JN	0.028	0.028	0.13 JN	0.012 JN	0.083	0.0051 J	0.086	0.020 JN	0.75
PCB-83/99	60145-20-2	ng/g	1.7	0.33	0.30	2.5	0.084	0.32	0.032	0.31	0.27	4.9
PCB-84	52663-60-2	ng/g	0.61	0.072	0.060	0.60 JN	0.029	0.14	0.0084 JN	0.14	0.079	1.8
PCB-85/116/117	65510-45-4	ng/g	0.44	0.053	0.052	0.27	0.021 J	0.11	0.0077 J	0.11	0.041	1.1
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.9	0.22	0.18	1.3	0.080	0.35	0.030 J	0.34	0.17	4.2
PCB-88/91	55215-17-3	ng/g	0.36	0.089	0.082	0.69	0.017 JN	0.079	0.0075 JN	0.080	0.087	1.2
PCB-89	73575-57-2	ng/g	< 0.0097 U	< 0.00099 U	< 0.0010 U	< 0.0014 U	< 0.00077 U	0.011	< 0.00055 U	0.0075 JN	< 0.00037 U	< 0.0012 U
PCB-9	34883-39-1	ng/g	< 0.070 U	< 0.00097 U	0.0038 JN	0.021 JN	< 0.00043 U	0.0022 J	< 0.0036 U	0.0020 J	< 0.0047 U	0.029 JN
PCB-90/101/113	68194-07-0	ng/g	3.5	0.43	0.39	3.7	0.14	0.54	0.047	0.54	0.37	7.8
PCB-92	52663-61-3	ng/g	0.60	0.093 JN	0.081 JN	0.93	0.028	0.098	0.0079 J	0.10	0.076	1.6
PCB-93/100	73575-56-1	ng/g	< 0.0086 U	0.18	0.14	0.077 JN	0.0054 JN	0.0074 J	0.0059 J	0.013 J	0.020	0.12
PCB-94	73575-55-0	ng/g	< 0.0097 U	0.021 JN	0.017 JN	< 0.0014 U	0.0014 JN	< 0.00031 U	< 0.00055 U	< 0.00066 U	< 0.00037 U	< 0.0012 U
PCB-95	38379-99-6	ng/g	2.6	0.29	0.27	3.1	0.097	0.49	0.033	0.47	0.33	6.0
PCB-96	73575-54-9	ng/g	< 0.0073 U	0.014	0.013 JN	< 0.0011 U	0.0015 JN	0.0049 J	< 0.00041 U	0.0056 J	0.0050 JN	0.062 JN
PCB-98/102	60233-25-2	ng/g	< 0.0083 U	0.045	0.052	0.059 JN	0.0025 JN	0.023	0.0041 J	0.017 JN	0.011 J	0.24
Total PCBs (b)	T_PCBCg (PDI)	ng/g	75	14	12	83	3.3	15	1.3	18	6.5	167

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B202	B203	B204	B205	B206	B207	B208	B209	B210	B211
		Sample ID	PDI-SG-B202-BL1	PDI-SG-B203-BL1	PDI-SG-B204-BL1	PDI-SG-B205-BL1	PDI-SG-B206-BL1	PDI-SG-B207-BL1	PDI-SG-B208-BL1	PDI-SG-B209-BL1	PDI-SG-B210-BL1	PDI-SG-B211-BL1
		Sample Date	17 Apr 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018	29 May 2018	20 May 2018	17 May 2018	20 May 2018	20 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22.5 cm	0-27 cm	0-30 cm	0-22 cm	0-24 cm	0-21 cm	0-7 cm	0-17 cm	0-27 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.67 U	< 0.47 U	< 0.58 U	1.2	0.74	23	< 1.5 U	26	< 1.3 U	1.2 J
2,4-DDE	3424-82-6	µg/kg	< 0.67 U	< 0.47 U	< 0.58 U	< 0.30 U	< 0.38 U	5.0	< 1.5 U	3.1	< 1.3 U	< 1.6 U
2,4-DDT	789-02-6	µg/kg	0.66 J	< 0.47 U	< 0.58 U	< 0.30 U	< 0.38 U	12	< 1.5 U	19 J	< 1.3 UJ	< 1.6 UJ
4,4'-DDD	72-54-8	µg/kg	< 0.67 U	0.79	0.91	3.4	1.7	35	< 1.5 U	46	0.46 J	2.7
4,4'-DDE	72-55-9	µg/kg	< 0.67 U	1.6	1.9	2.7	1.1	30	< 1.5 U	15	< 1.3 U	5.4
4,4'-DDT	50-29-3	µg/kg	1.1	0.24 J	2.3	0.28 J	0.29 J	34	< 1.5 U	30	< 1.3 U	< 1.6 U
Total DDx (b)	T_DDx (PDI)	µg/kg	2.1	2.9	5.4	7.7	4.0	139	< 1.5 U	139	1.1	10
Aldrin	309-00-2	µg/kg	< 0.67 U	< 0.47 U	< 0.58 U	< 0.30 U	< 0.38 U	< 0.79 U	< 1.5 U	< 0.79 U	< 1.3 U	< 1.6 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.3 U	< 0.93 U	< 1.2 U	< 0.60 U	< 0.77 U	< 1.4 U	< 3.0 U	< 1.4 U	< 2.6 U	< 3.3 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.67 UJ	< 0.47 U	< 0.58 U	< 0.30 U	< 0.38 U	< 0.97 U	< 1.5 U	< 0.97 U	< 1.3 U	< 1.6 U
Dieldrin	60-57-1	µg/kg	< 1.3 UJ	< 0.93 U	< 1.2 U	< 0.60 U	< 0.77 U	< 2.0 U	< 3.0 U	< 2.0 U	< 2.6 U	< 3.3 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.67 U	< 0.47 U	< 0.58 U	< 0.30 U	< 0.38 U	< 0.68 U	< 1.5 U	< 0.68 U	< 1.3 U	< 1.6 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.3 U	< 0.93 U	< 1.2 U	< 0.60 U	< 0.77 U	< 1.4 U	< 3.0 U	< 1.4 U	< 2.6 U	< 3.3 U
Heptachlor	76-44-8	µg/kg	< 0.67 U	< 0.47 U	< 0.58 U	< 0.30 U	< 0.38 U	< 0.68 U	< 1.5 UJ	< 0.68 U	< 1.3 U	< 1.6 U
Oxychlordane	27304-13-8	µg/kg	< 1.3 U	< 1.2 U	< 1.2 U	< 1.0 U	< 1.0 U	< 2.0 U	< 2.9 U	< 2.6 U	< 2.6 U	< 3.3 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.3 U	0.30 J	< 1.2 U	< 0.60 U	< 0.77 U	< 1.4 U	< 3.0 U	< 1.4 U	< 2.6 U	< 3.3 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.3 U	0.9	< 1.2 U	< 1 U	< 1 U	< 2 U	< 3 U	< 2.6 U	< 2.6 U	< 3.3 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.4	5.4	3.6	43	1.9 J	0.61 J	1.6	4.2	5.5	69
Acenaphthene	83-32-9	µg/kg	1.1	6.1	10	230	2.9	0.56 J	1.1	5.3	8.9	270
Acenaphthylene	208-96-8	µg/kg	0.54	2.1	2.4	12	1.2	2.1	0.74	4.1	2.9	14
Anthracene	120-12-7	µg/kg	1.6	6.0	6.1	66	6.6	4.8	3.4	7.2	6.2	160
Benz(a)anthracene	56-55-3	µg/kg	5.3	20	19	160	18	37	12	30	12	300
Benzo(a)pyrene	50-32-8	µg/kg	4.8	22	22	110	17	35	11	40	15	130
Benzo(b)fluoranthene	205-99-2	µg/kg	7.4	36	30	130	22	38	19	49	17	190
Benzo(g,h,i)perylene	191-24-2	µg/kg	4.7	27	27	98	17	24	6.5	24 J	8.6	55
Benzo(k)fluoranthene	207-08-9	µg/kg	2.3	12	8.6	47	7.1	14	6.7	17	6.1	70
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	11 J	70 J	70 J	26 J	43 J	18 J	27 J	24 J	64 J	42 J
Chrysene	218-01-9	µg/kg	7.3	35	31	190	21	41	20	46	15	300
Dibenz(a,h)anthracene	53-70-3	µg/kg	0.84	5.1 J	5.2 J	15	2.5	6.2	1.4	4.8	2.0	15
Fluoranthene	206-44-0	µg/kg	14	47	48	720	47	51	15	50	33	1500
Fluorene	86-73-7	µg/kg	1.2	7.0	5.7	84	4.8	0.81	1.7	3.9	6.2	150
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	4.2	22	23	86	15	21	6.6	23	8.0	63
Naphthalene	91-20-3	µg/kg	7.7	6.0	4.6	36	4.2	1.3 J	2.6	11	18	86
Phenanthrene	85-01-8	µg/kg	7.4	21	24	770	39	6.7	7.1	28	33	1400
Pyrene	129-00-0	µg/kg	15	44	47	720	54	67	15	81	32	1100
Total PAHs (b)	T_PAH (PDI)	µg/kg	88	324	317	3517	281	351	131	429	229	5872
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	7	35	35	163	25	51	16	109	21	201
Metals												
Arsenic	7440-38-2	mg/kg	3.2	5.0	5.0	4.1	5.8	3.9	3.1	5.4	3.6	5.3
Cadmium	7440-43-9	mg/kg	0.054 J	0.28 J	0.29 J	0.52	0.27 J	0.077 J	0.090 J	0.12 J	0.12 J	0.29
Copper	7440-50-8	mg/kg	16	44	47	39	35	15	14	17	20	35
Lead	7439-92-1	mg/kg	4.9	12	12	39	10	18	13	21	6.5	23
Mercury	7439-97-6	mg/kg	0.012 J	0.072	0.090	0.13	0.024 J	< 0.037 U	< 0.033 UJ	0.032	0.040	0.11
Tri-n-butyltin	36643-28-4	µg/kg	< 1.4 U	3.6	4.8	< 1.5 U	2.3	< 1.4 U	4.7	< 1.4 U	80	2.8
Zinc	7440-66-6	mg/kg	59	110	110	190	100	68	61	79	70	170
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 72 U	40 J	< 120 U	100	< 110 U	< 180 U	20 J	< 64 U	39 J	330
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	34 J	360	190	300	160	250	88	200	160	770
Other												
Total Solids@104C - D2216 (f)	TSOLID	%						70.9	70.2	72.7	68.0	52.8
Total Solids@104C - E160.3 (f)	TSOLID	%	68.2	42.5	41.7	67.3	43.4					
Total Solids@104C - E160.3M (f)	TSOLID	%	73.1	42.8	42.8	65.8	51.5	73.0	65.0	73.5	67.1	53.7
Total Solids@70C	TSOLID70	%	75	44	46	69	54	73	70	72	69	54
Gravel	GS-Gravel	%	0.5	0	0	6.2	0	5.9	0.6	1.1	0	0
Sand, Coarse	GS-Csand	%	1.1	0.2	0	1.7	0.1	1.5	0.9	1.3	0.9	0.4
Sand, Medium	GS-Msand	%	36.0	0.2	0.1	9.8	0.5	31.9	13.5	18.0	24.1	8.0
Sand, Fine (#200) (d)	GS-Fsand-200	%	53.5	15.36	16.52	53.25	30.16	56.83	55.54	67.91	58.09	26.72
Sand, Fine (#230) (d)	GS-Fsand	%	53.8	19.9	21.7	55.4	37.1	57.0	56.9	69.3	59.7	29.3
Silt (#200) (d)	GS-Silt-200	%	7.299	71.63	71.77	22.14	60.33	3.065	25.95	7.689	13.00	49.67

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B202	B203	B204	B205	B206	B207	B208	B209	B210	B211
		Sample ID	PDI-SG-B202-BL1	PDI-SG-B203-BL1	PDI-SG-B204-BL1	PDI-SG-B205-BL1	PDI-SG-B206-BL1	PDI-SG-B207-BL1	PDI-SG-B208-BL1	PDI-SG-B209-BL1	PDI-SG-B210-BL1	PDI-SG-B211-BL1
		Sample Date	17 Apr 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018	29 May 2018	20 May 2018	17 May 2018	20 May 2018	20 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-22.5 cm	0-27 cm	0-30 cm	0-22 cm	0-24 cm	0-21 cm	0-7 cm	0-17 cm	0-27 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	7.0	67.1	66.6	20.0	53.4	2.9	24.6	6.3	11.4	47.1
Clay	GS-Clay	%	1.6	12.6	11.6	6.9	8.9	0.7	3.5	4.0	4.0	15.1
Percent Fines (e)	GS-FINES	%	8.899	84.23	83.37	29.04	69.23	3.765	29.45	11.689	17	64.77
Total Organic Carbon	TOC	mg/kg	2600	21000	22000	15000	11000	1800 J	5900	4700	5900	20000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B212	B213	B214	B215	B216	B217	B218	B219	B219	B220
		Sample ID	PDI-SG-B212-BL1	PDI-SG-B213-BL1	PDI-SG-B214-BL1	PDI-SG-B215-BL1	PDI-SG-B216-BL1	PDI-SG-B217-BL1	PDI-SG-B218-BL1	PDI-SG-B219-BL1	PDI-SG-B219-BL1-D	PDI-SG-B220-BL1
		Sample Date	18 Apr 2018	19 Apr 2018	21 May 2018	20 May 2018	19 Apr 2018	20 May 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-17 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.050	0.073	0.065	0.055	0.089	0.11	0.14	0.24 J	0.14 J	0.016
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.013	0.099 J	0.0083	0.011	0.23	0.020	0.32	2.0	1.7	0.0033 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0021 J	0.038	0.00087 J+	0.0011 JN	0.083	0.0016 JN	0.14	0.83	0.58	< 0.00051 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00066 JN	0.0010 JN	0.00059 J	0.00088 JN	0.0016 JN	0.0014 J	0.0045 J	< 0.0035 U	< 0.0029 U	0.00028 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0095	0.19	0.00097 J	0.0013 J+	0.72	0.0028 J	0.82	7.1 J	5.4 J	0.0011 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0022 J	0.0031 JN	0.0030 J	0.0024 J	0.0052	0.0051 J	0.0045 J	< 0.0060 U	< 0.0059 U	0.00067 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0067	0.051	0.00045 J	0.00058 J+	0.16	0.0012 JN	0.19	1.6	1.4	0.0017 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0018 J	0.0019 JN	0.0013 J	0.0019 JN	0.0024 JN	0.0050 J	0.0046 JN	< 0.0036 U	< 0.0042 U	0.00062 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00028 U	< 0.0022 U	0.0010 J+	0.0010 J+	< 0.0043 U	0.0015 J+	0.011 JN	0.078	0.054	< 0.00014 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00030 JN	< 0.00081 U	0.00041 JN	0.00050 JN	< 0.0013 U	0.00048 JN	0.0017 J	< 0.0028 U	< 0.0034 U	< 0.00013 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0075	0.077	0.00044 J	0.00046 JN	0.67	0.00053 JN	0.55	3.6 J	3.3 J	0.00045 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0011 J	0.0038 JN	< 0.00012 U	< 0.00031 U	0.042	0.00060 JN	0.049 J	0.23	0.27	< 0.00015 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0021 J	0.027	0.00026 JN	0.00041 JN	0.49	0.00060 JN	0.29	1.2	1.5	< 0.00017 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00022 JN	0.00029 JN	< 0.00011 U	< 0.00015 U	0.00034 JN	< 0.00018 U	< 0.00035 U	< 0.00052 U	0.00064 JN	0.00017 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0022	0.078	0.00026 J	0.00060 J+	1.0 J	0.0011	0.55	1.3 J	1.9 J	0.00048 J+
OCDD	3268-87-9	µg/kg	0.45	0.60	0.61	0.38	0.85	0.84	1.5	1.8 J	0.97 J	0.15
OCDF	39001-02-0	µg/kg	0.030	0.12	0.024	0.034	0.32	0.054	0.60	2.6 J	1.5 J	0.011
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0046	0.046	0.0022	0.0024	0.37	0.0042	0.28	1.5	1.5	0.00097
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0042	0.045	0.0019	0.0016	0.36	0.0035	0.27	1.5	1.5	0.00065
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.004	0.045	0.0017	0.0014	0.36	0.0033	0.27	1.5	1.5	0.00057
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0030 JN	< 0.0024 U	< 0.00076 U	< 0.00040 U	0.0070 JN	< 0.00042 U	0.012 JN	0.033 JN	0.036 JN	0.0029 J
PCB-10	33146-45-1	ng/g	< 0.00074 U	< 0.091 U	< 0.00025 U	< 0.0092 U	0.0081 JN	< 0.0072 U	< 0.0025 U	< 0.0045 U	< 0.0070 U	< 0.00045 U
PCB-103	60145-21-3	ng/g	0.0046 JN	0.015 J	< 0.00016 U	0.0057 JN	0.039	0.0045 JN	< 0.0030 U	0.027 JN	< 0.010 U	0.0058 J
PCB-104	56558-16-8	ng/g	< 0.0010 U	< 0.0045 U	< 0.00013 U	< 0.00052 U	< 0.00079 U	< 0.00049 U	< 0.0024 U	< 0.0087 U	< 0.0078 U	< 0.00033 U
PCB-105	32598-14-4	ng/g	0.080	0.31	0.0057 J	0.037	0.81	0.064	0.44	1.7 J	5.0 J	0.041
PCB-106	70424-69-0	ng/g	< 0.0024 U	< 0.013 U	< 0.00031 U	< 0.0019 U	< 0.0050 U	< 0.0022 U	< 0.0066 U	< 0.019 U	< 0.024 U	< 0.00090 U
PCB-107	70424-68-9	ng/g	0.021	0.033 JN	0.00091 JN	0.0070 JN	0.17	0.017 JN	0.086 JN	0.26 JN	0.56 JN	0.010
PCB-108/124	70362-41-3	ng/g	0.0078 J	< 0.013 U	< 0.00032 U	< 0.0019 U	0.065	0.0089 J	0.030 JN	0.12 JN	0.34	0.0053 J
PCB-11	2050-67-1	ng/g	0.045	< 0.079 U	0.0074 J+	0.044	0.046	0.066	0.058 JN	0.060 JN	0.078 JN	0.030
PCB-110/115	38380-03-9	ng/g	0.29	0.82	0.017 J	0.24	2.5	0.37	1.1 JN	3.9 J	8.6 J	0.15
PCB-111	39635-32-0	ng/g	< 0.00093 U	< 0.0042 U	< 0.00011 U	< 0.00048 U	< 0.00070 U	< 0.00046 U	< 0.0021 U	< 0.0078 U	< 0.0070 U	< 0.00029 U
PCB-112	74472-36-9	ng/g	< 0.0010 U	< 0.0044 U	< 0.00012 U	0.0019 JN	0.014 JN	0.0035 JN	< 0.0023 U	< 0.0085 U	< 0.0076 U	< 0.00032 U
PCB-114	74472-37-0	ng/g	0.0059 J	< 0.011 U	< 0.00028 U	< 0.0017 U	0.052	< 0.0021 U	0.021 JN	0.12 J	0.34 J	0.0028 J
PCB-118	31508-00-6	ng/g	0.21	0.66	0.013	0.10 JN	1.5	0.20	0.85	3.3 J	7.4 J	0.11
PCB-12/13	2974-92-7	ng/g	< 0.00063 U	< 0.082 U	0.00053 J	< 0.0084 U	0.024 JN	< 0.0065 U	0.013 JN	0.031 JN	0.036 JN	0.0017 JN
PCB-120	68194-12-7	ng/g	0.0015 JN	< 0.0042 U	< 0.00015 U	< 0.00049 U	0.014	0.0023 JN	< 0.0021 U	< 0.0077 UJ	0.052 JN	0.00097 JN
PCB-121	56558-18-0	ng/g	< 0.00099 U	< 0.0043 U	< 0.00012 U	< 0.00050 U	< 0.00075 U	< 0.00048 U	< 0.0023 U	< 0.0083 U	< 0.0074 U	< 0.00031 U
PCB-122	76842-07-4	ng/g	< 0.0026 U	< 0.015 U	< 0.00035 U	< 0.0021 U	0.040	< 0.0025 U	< 0.0073 U	0.071 JN	< 0.026 UJ	0.0015 JN
PCB-123	65510-44-3	ng/g	< 0.0022 U	< 0.013 U	< 0.00028 U	0.0044 JN	0.042	< 0.0022 U	0.013 JN	0.093	0.20 JN	0.0033 J
PCB-126	57465-28-8	ng/g	< 0.0023 U	< 0.013 U	< 0.00031 U	< 0.0020 U	0.0063 JN	< 0.0022 U	< 0.0064 U	< 0.017 U	0.026 JN	< 0.00085 U
PCB-127	39635-33-1	ng/g	< 0.0023 U	< 0.013 U	< 0.00030 U	< 0.0018 U	< 0.0048 U	< 0.0022 U	< 0.0063 U	< 0.018 U	< 0.023 U	< 0.00086 U
PCB-128/166	38380-07-3	ng/g	0.061	0.095 JN	0.0044 J	0.036 JN	0.42	0.067	0.20	0.38	0.58	0.033
PCB-129/138/160/163	55215-18-4	ng/g	0.40	1.0 J	0.033 J	0.35	4.0	0.51	1.5	2.9	3.8	0.24
PCB-130	52663-66-8	ng/g	0.024	0.075 J	0.0024 J	0.015 JN	0.24	0.029 JN	0.092	0.17	0.23	0.019
PCB-131	61798-70-7	ng/g	< 0.0018 U	< 0.033 U	< 0.00042 U	< 0.0043 U	< 0.0066 U	< 0.0037 U	< 0.022 U	< 0.046 U	< 0.060 U	0.0021 JN
PCB-132	38380-05-1	ng/g	0.12	0.25 JN	0.0088 J	0.095	1.2	0.15	0.44	0.86	1.2	0.065
PCB-133	35694-04-3	ng/g	0.0083 J	< 0.030 U	0.00053 JN	0.0060 J	0.079	0.0090 JN	< 0.020 U	< 0.043 U	< 0.056 U	0.0059 J
PCB-134/143	52704-70-8	ng/g	0.023 J	< 0.031 U	0.00075 JN	0.016 J	0.20	0.020 JN	0.067 J	0.11	0.13	0.013 J
PCB-135/151	52744-13-5	ng/g	0.12	0.21 JN	0.0054 JN	0.18	1.5	0.21	0.64	0.98	1.2	0.076
PCB-136	38411-22-2	ng/g	0.045	0.12 J	0.0028 J	0.064	0.50	0.074	0.21	0.33 JN	0.46	0.026 JN
PCB-137	35694-06-5	ng/g	0.011 JN	< 0.027 U	0.0014 J	0.0088 JN	0.080	0.014	0.050 JN	0.10	0.21	0.0080 J
PCB-139/140	56030-56-9	ng/g	0.0035 JN	< 0.026 U	< 0.00035 U	< 0.0035 U	0.052	0.0069 J	< 0.018 U	< 0.038 U	< 0.050 U	0.0051 J
PCB-14	34883-41-5	ng/g	< 0.00058 U	< 0.070 U	< 0.00019 U	< 0.0071 U	0.0045 JN	< 0.0055 U	< 0.0020 U	< 0.0035 U	< 0.0055 U	< 0.00035 U
PCB-141	52712-04-6	ng/g	0.073	0.19 J	0.0058 J	0.078	0.89	0.093	0.37	0.62	0.84	0.046
PCB-142	41411-61-4	ng/g	< 0.0017 U	< 0.030 U	< 0.00040 U	< 0.0039 U	< 0.0062 U	< 0.0034 U	< 0.020 U	< 0.043 U	< 0.057 U	< 0.00085 U
PCB-144	68194-14-9	ng/g	0.013 JN	0.018 JN	0.00089 JN	0.013 JN	0.21	0.020	0.075	0.13 JN	0.19 JN	0.0091 J
PCB-145	74472-40-5	ng/g	< 0.00010 U	< 0.0036 U	< 0.000030 U	< 0.00033 U	< 0.00051 U	< 0.00028 U	< 0.00077 U	0.0086 JN	< 0.0034 U	< 0.000058 U
PCB-146	51908-16-8	ng/g	0.072	0.17 J	0.0051 J	0.062	0.77	0.10	0.25	0.49	0.55	0.048
PCB-147/149	68194-13-8	ng/g	0.31	0.76	0.022	0.41	3.3	0.45	1.4	2.2	2.7	0.19
PCB-148	74472-41-6	ng/g	0.00035 JN	< 0.0051 U	0.00015 JN	0.0014 JN	0.0094 JN	< 0.00039 U	< 0.0010 U	< 0.0045 U	< 0.0046 U	0.00035 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B212	B213	B214	B215	B216	B217	B218	B219	B219	B220
		Sample ID	PDI-SG-B212-BL1	PDI-SG-B213-BL1	PDI-SG-B214-BL1	PDI-SG-B215-BL1	PDI-SG-B216-BL1	PDI-SG-B217-BL1	PDI-SG-B218-BL1	PDI-SG-B219-BL1	PDI-SG-B219-BL1-D	PDI-SG-B220-BL1
		Sample Date	18 Apr 2018	19 Apr 2018	21 May 2018	20 May 2018	19 Apr 2018	20 May 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-17 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm
Chemical	**CAS_RN**	**Units**										
PCB-15	2050-68-2	ng/g	0.020	< 0.084 U	0.0022 J	0.014 JN	0.13	0.014	0.048 J	0.12 JN	0.17	0.0097 JN
PCB-150	68194-08-1	ng/g	0.00097 JN	< 0.0035 U	< 0.000077 U	0.0015 JN	0.0035 JN	0.0025 JN	< 0.00069 U	< 0.0031 U	0.0068 JN	0.0013 J
PCB-152	68194-09-2	ng/g	< 0.00010 U	< 0.0037 U	< 0.000029 U	< 0.00034 U	0.0022 JN	< 0.00029 U	< 0.00074 U	0.0053 JN	< 0.0033 U	< 0.000055 U
PCB-153/168	35065-27-1	ng/g	0.33	0.73	0.024	0.34	3.6	0.45	1.6	2.3	3.0	0.22
PCB-154	60145-22-4	ng/g	0.0072 JN	< 0.0041 U	< 0.000034 U	0.0066 JN	0.066 JN	0.014 JN	0.026 JN	< 0.0039 U	< 0.0040 U	0.0064 J
PCB-155	33979-03-2	ng/g	< 0.000096 U	< 0.0035 U	< 0.000027 U	< 0.00031 U	< 0.00047 U	< 0.00027 U	< 0.00071 U	< 0.0031 U	< 0.0031 U	0.00026 JN
PCB-156/157	38380-08-4	ng/g	0.044	0.093 J	0.0028 J	0.026 JN	0.28	0.050	0.12 J-	0.30 JN	0.43	0.018 JN
PCB-158	74472-42-7	ng/g	0.035 JN	0.092 J	0.0027 JN	0.031	0.37	0.041	0.14	0.27	0.40	0.019
PCB-159	39635-35-3	ng/g	0.0044 J	< 0.020 U	0.00026 JN	< 0.0026 U	0.066	< 0.0022 U	0.032 JN	< 0.027 U	< 0.036 U	0.0033 JN
PCB-16	38444-78-9	ng/g	0.0084 JN	< 0.013 U	0.0011 J	< 0.0010 U	0.78	0.0078 JN	0.077 J	0.18 JN	0.73 JN	0.0050 JN
PCB-161	74472-43-8	ng/g	< 0.0011 U	< 0.020 U	< 0.00026 U	< 0.0026 U	< 0.0040 U	< 0.0022 U	< 0.013 U	< 0.028 U	< 0.037 U	< 0.00055 U
PCB-162	39635-34-2	ng/g	0.0019 J	< 0.019 U	< 0.00025 U	< 0.0026 U	< 0.0038 U	< 0.0022 U	< 0.013 U	< 0.027 U	< 0.035 U	< 0.00053 U
PCB-164	74472-45-0	ng/g	0.029	0.076 J	0.0019 JN	0.024 JN	0.29	0.034 JN	0.10	0.16 JN	0.25 JN	0.017
PCB-165	74472-46-1	ng/g	< 0.0013 U	< 0.022 U	< 0.00030 U	< 0.0029 U	< 0.0046 U	< 0.0025 U	< 0.015 U	< 0.032 U	< 0.042 U	< 0.00063 U
PCB-167	52663-72-6	ng/g	0.014	< 0.015 U	0.0012 J+	0.0085 JN	0.12	0.017	0.043 J	0.10	0.14	0.0067 JN
PCB-169	32774-16-6	ng/g	< 0.00081 U	< 0.016 U	< 0.00019 U	< 0.0021 U	< 0.0030 U	< 0.0017 U	< 0.0093 U	< 0.020 U	< 0.027 U	< 0.00039 U
PCB-17	37680-66-3	ng/g	0.0092 JN	0.046 JN	0.0011 JN	0.015	0.69	0.017	0.098 J	0.16 JN	0.64 J	0.0082 JN
PCB-170	35065-30-6	ng/g	0.12	0.25 JN	0.0099 J	0.12	1.8	0.18	0.79	2.1	1.5	0.070
PCB-171/173	52663-71-5	ng/g	0.035 JN	0.091 J	0.0033 JN	0.033 JN	0.57	0.048 JN	0.28	0.71	0.59	0.021
PCB-172	52663-74-8	ng/g	0.019	0.068 J	0.0023 JN	0.021	0.28	0.033	0.17	0.34 JN	0.37	0.011 JN
PCB-174	38411-25-5	ng/g	0.13	0.29 JN	0.012	0.14	2.0	0.18	1.1	1.9	1.7	0.071
PCB-175	40186-70-7	ng/g	0.0039 JN	< 0.0082 U	0.00040 JN	0.0047 J	0.083	0.0073 JN	0.047 J	0.13	0.13 JN	0.0023 J
PCB-176	52663-65-7	ng/g	0.014	< 0.0062 U	0.00082 JN	0.019	0.23	0.020	0.14	0.23 JN	0.20	0.0079 J
PCB-177	52663-70-4	ng/g	0.077	0.16 J	0.0078 J	0.067	1.1	0.11	0.60	1.2	1.1	0.044
PCB-178	52663-67-9	ng/g	0.028	0.045 JN	0.0021 JN	0.025 JN	0.36	0.050	0.25	0.35	0.35	0.016
PCB-179	52663-64-6	ng/g	0.049 JN	0.12 J	0.0039 J	0.072	0.71	0.085	0.49	0.68	0.63	0.035
PCB-18/30	37680-65-2	ng/g	0.015 JN	0.069 JN	0.0023 J	0.018 J	1.7	0.024 JN	0.20 J	0.46 J	1.7 J	0.015 JN
PCB-180/193	35065-29-3	ng/g	0.25	0.65	0.023	0.26	3.6	0.38	2.1	3.8	3.1	0.15
PCB-181	74472-47-2	ng/g	< 0.00012 U	0.044 JN	< 0.00021 U	< 0.0012 U	0.084	< 0.00098 U	0.14	0.36	0.42	< 0.00027 U
PCB-182	60145-23-5	ng/g	< 0.00012 U	< 0.0079 U	< 0.00020 U	< 0.0012 U	< 0.00072 U	< 0.00095 U	< 0.0013 U	< 0.013 U	< 0.014 U	0.0016 J
PCB-183/185	52663-69-1	ng/g	0.075	0.12 JN	0.0071 J	0.085	1.2	0.13	0.72	1.3	1.2	0.044
PCB-184	74472-48-3	ng/g	< 0.00010 U	< 0.0067 U	< 0.00017 U	< 0.0010 U	< 0.00062 U	< 0.00081 U	< 0.0011 U	< 0.011 U	< 0.012 U	< 0.00022 U
PCB-186	74472-49-4	ng/g	< 0.000097 U	< 0.0065 U	< 0.00016 U	< 0.00097 U	< 0.00059 U	< 0.00078 U	< 0.0010 U	< 0.011 U	< 0.012 U	< 0.00021 U
PCB-187	52663-68-0	ng/g	0.16	0.32 JN	0.014	0.18	2.0	0.24	1.4	1.9	1.9	0.086 JN
PCB-188	74487-85-7	ng/g	< 0.000088 U	< 0.0061 U	< 0.00015 U	< 0.00082 U	< 0.00055 U	< 0.00068 U	< 0.00095 U	< 0.010 U	< 0.011 U	< 0.00020 U
PCB-189	39635-31-9	ng/g	0.0045 J	< 0.019 U	< 0.00030 U	< 0.0030 U	0.064	< 0.0022 U	0.024 JN	0.12	0.076	0.0023 JN
PCB-19	38444-73-4	ng/g	0.0086 JN	< 0.014 U	0.00070 JN	0.023 JN	0.16	0.032 JN	0.0049 JN	0.052	0.14 JN	0.011
PCB-190	41411-64-7	ng/g	0.019	0.060 J	0.0023 JN	0.021	0.36	0.033	0.21	0.51 JN	0.52	0.012 JN
PCB-191	74472-50-7	ng/g	0.0035 JN	< 0.0062 U	0.00094 J	0.0041 JN	0.088	0.0074 JN	0.031 JN	0.12 JN	0.14 JN	0.0015 JN
PCB-192	74472-51-8	ng/g	< 0.000099 U	< 0.0069 U	< 0.00017 U	< 0.0010 U	< 0.00061 U	< 0.00083 U	< 0.0011 U	0.023 JN	0.026 JN	< 0.00022 U
PCB-194	35694-08-7	ng/g	0.065	0.20 JN	0.0057 J	0.052 JN	0.80	0.085	0.76	1.2	0.79	0.037
PCB-195	52663-78-2	ng/g	0.026	< 0.049 U	0.0031 J	0.024 JN	0.42	0.033	0.41	0.85	0.70	0.016
PCB-196	42740-50-1	ng/g	0.023 JN	0.13 J	0.0028 JN	0.025	0.38	0.043	0.37 JN	0.73	0.68	0.019
PCB-197	33091-17-7	ng/g	0.0019 J	< 0.0055 U	0.00029 JN	0.0023 J	0.029 JN	< 0.00057 U	0.041 J	0.088	0.089 JN	0.0011 JN
PCB-198/199	68194-17-2	ng/g	0.069 JN	0.55 JN	0.0088 J	0.065	0.80	0.10	0.98	1.4	1.3	0.041
PCB-2	2051-61-8	ng/g	0.011 J	0.015 JN	< 0.00084 U	0.0053 JN	0.0075 JN	0.011	0.022 J	0.036 JN	0.033 JN	0.0069 J
PCB-20/28	38444-84-7	ng/g	0.068	0.28 J	0.0045 J	0.033	1.9	0.044	0.62	1.9 J	5.1 J	0.045 JN
PCB-200	52663-73-7	ng/g	0.0060 JN	< 0.0049 U	0.00095 J+	0.0053 JN	0.099	0.0080 J	0.14	0.20	0.24	0.0037 JN
PCB-201	40186-71-8	ng/g	0.0054 J	< 0.0050 U	0.00076 JN	0.0088 J	0.10	0.011	0.10 JN	0.21	0.23	0.0050 J
PCB-202	2136-99-4	ng/g	0.017 JN	0.058 J	0.00078 JN	0.012 JN	0.13	0.019 JN	0.21	0.23	0.32	0.0094 J
PCB-203	52663-76-0	ng/g	0.043	0.078 JN	0.0041 J	0.036	0.49	0.061	0.66	0.94	0.94	0.025 JN
PCB-204	74472-52-9	ng/g	< 0.00012 U	< 0.0055 U	< 0.00021 U	< 0.00052 U	0.0024 JN	< 0.00057 U	< 0.0044 U	< 0.013 U	< 0.013 U	< 0.000089 U
PCB-205	74472-53-0	ng/g	0.0019 JN	< 0.038 U	< 0.00033 U	< 0.0021 U	0.061	0.0040 JN	0.089	0.27	0.30	0.0018 JN
PCB-206	40186-72-9	ng/g	0.088	13	0.099 JN	0.026 JN	0.84	0.042	0.56	1.6 JN	1.3	0.024 JN
PCB-207	52663-79-3	ng/g	0.0073 JN	< 0.063 U	< 0.00050 U	< 0.0028 U	0.080	< 0.0018 U	0.13	0.38	0.52	0.0029 J
PCB-208	52663-77-1	ng/g	0.028	1.3	0.00088 J	< 0.0026 U	0.14	0.015	0.16	0.45	0.62	0.0076 J
PCB-209	2051-24-3	ng/g	0.057	57	0.0027 JN	0.036	0.81	0.048	0.46	2.1	1.9	0.022 JN
PCB-21/33	55702-46-0	ng/g	0.018 JN	0.069 J	0.0015 J+	0.013 J	0.87	0.015 J	0.18	0.46 J	1.7 J	0.020
PCB-22	38444-85-8	ng/g	0.020	0.050 JN	0.0013 JN	0.0097 J	0.73	0.011	0.15	0.48 J	1.6 J	0.013
PCB-23	55720-44-0	ng/g	< 0.0010 U	< 0.014 U	< 0.00023 U	< 0.0015 U	< 0.017 U	< 0.0012 U	< 0.0063 U	< 0.011 U	< 0.050 U	< 0.00054 U
PCB-24	55702-45-9	ng/g	< 0.000095 U	< 0.0095 U	< 0.000060 U	< 0.00079 U	0.020 JN	< 0.00080 U	< 0.00068 UJ	< 0.0040 U	< 0.0075 U	< 0.000057 U
PCB-25	55712-37-3	ng/g	0.0077 JN	< 0.013 U	0.00029 J	< 0.0014 U	0.16	0.0052 J	0.056	0.076 JN	< 0.048 UJ	0.0049 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B212	B213	B214	B215	B216	B217	B218	B219	B219	B220
		Sample ID	PDI-SG-B212-BL1	PDI-SG-B213-BL1	PDI-SG-B214-BL1	PDI-SG-B215-BL1	PDI-SG-B216-BL1	PDI-SG-B217-BL1	PDI-SG-B218-BL1	PDI-SG-B219-BL1	PDI-SG-B219-BL1-D	PDI-SG-B220-BL1
		Sample Date	18 Apr 2018	19 Apr 2018	21 May 2018	20 May 2018	19 Apr 2018	20 May 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-17 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.010 JN	< 0.014 U	0.00078 J	0.0051 J	0.32	0.0055 J	0.078 J	0.14	0.42	0.0073 JN
PCB-27	38444-76-7	ng/g	0.00098 JN	< 0.0082 U	0.00023 JN	0.0047 J	0.12	0.0050 JN	0.019 J	0.052	0.087 JN	0.0022 JN
PCB-3	2051-62-9	ng/g	0.0083 J	< 0.0034 U	< 0.0011 U	< 0.00046 U	0.013	< 0.00053 U	0.024 J	0.074	0.067	0.0031 JN
PCB-31	16606-02-3	ng/g	0.048	0.20 J	0.0033 J+	0.021	1.8	0.031	0.44	0.98 J	4.2 J	0.033 JN
PCB-32	38444-77-8	ng/g	0.0084 JN	0.040 JN	0.00094 J+	0.010	0.49	0.011 JN	0.041 JN	0.27 J	0.82 J	0.0072 J
PCB-34	37680-68-5	ng/g	< 0.0011 U	< 0.015 U	< 0.00024 U	< 0.0016 U	< 0.018 U	< 0.0012 U	< 0.0065 U	0.015 J	< 0.052 U	< 0.00056 U
PCB-35	37680-69-6	ng/g	< 0.0010 U	< 0.014 U	< 0.00022 U	< 0.0015 U	< 0.017 U	< 0.0012 U	0.013 J	< 0.010 U	< 0.049 U	0.00087 JN
PCB-36	38444-87-0	ng/g	< 0.00092 U	< 0.014 U	< 0.00020 U	< 0.0015 U	< 0.015 U	< 0.0012 U	< 0.0057 U	< 0.0095 U	< 0.045 U	< 0.00048 U
PCB-37	38444-90-5	ng/g	0.021	0.084 J	0.0019 J	0.0096 J	0.34	0.017	0.14	0.41 J	1.5 J	0.014
PCB-38	53555-66-1	ng/g	< 0.0010 U	< 0.015 U	< 0.00022 U	< 0.0016 U	< 0.017 U	< 0.0012 U	< 0.0062 U	< 0.010 U	< 0.049 U	< 0.00052 U
PCB-39	38444-88-1	ng/g	< 0.00091 U	< 0.013 U	< 0.00020 U	< 0.0014 U	< 0.015 U	< 0.0011 U	0.0059 J	0.014 JN	< 0.044 U	< 0.00048 U
PCB-4	13029-08-8	ng/g	0.013 JN	< 0.12 U	0.0011 J	0.020 JN	0.23	0.021 JN	0.018 JN	0.061 J	0.037 JN	0.0081 JN
PCB-40/41/71	38444-93-8	ng/g	0.041 JN	0.18 JN	0.0020 J	0.021 J	1.9	0.028 J	0.60	2.6 J	8.5 J	0.031
PCB-42	36559-22-5	ng/g	0.020 JN	0.12 J	0.0012 J	0.0094 J	0.85	0.013	0.30	1.2 J	3.5 J	0.019
PCB-43/73	70362-46-8	ng/g	< 0.0020 U	< 0.027 U	< 0.00019 U	0.0023 JN	0.13	< 0.0012 U	0.042 J	0.18	0.42 JN	0.0016 JN
PCB-44/47/65	41464-39-5	ng/g	0.12	0.45 JN	0.0067 J+	0.087	3.0	0.11	1.1	4.3 J	13 J	0.081
PCB-45/51	70362-45-7	ng/g	0.027	< 0.030 U	0.0014 J+	0.018 JN	0.67	0.019 J	0.20	0.70 J	2.0 J	0.015 J
PCB-46	41464-47-5	ng/g	< 0.0027 U	< 0.037 U	< 0.00026 U	< 0.0018 U	0.24	< 0.0016 U	0.069	0.20 J	0.62 JN	0.0042 J
PCB-48	70362-47-9	ng/g	0.012	0.066 JN	0.00089 J	0.0047 J	0.74	0.0060 JN	0.18	0.70 J	2.6 J	0.0085 J
PCB-49/69	41464-40-8	ng/g	0.080	0.23 JN	0.0034 J	0.046	1.7	0.071	0.65	2.4 J	6.8 J	0.051 JN
PCB-5	16605-91-7	ng/g	< 0.00070 U	< 0.092 U	< 0.00023 U	< 0.0094 U	0.0035 J	< 0.0073 U	< 0.0023 U	0.013 J	< 0.0066 U	< 0.00042 U
PCB-50/53	62796-65-0	ng/g	0.019 JN	< 0.028 U	0.00091 J+	0.016 JN	0.51	0.020 J	0.13	0.50 J	1.5 J	0.014 J
PCB-52	35693-99-3	ng/g	0.17	0.60	0.0077 J	0.080	3.4	0.13	1.2	4.3 J	13 J	0.11
PCB-54	15968-05-5	ng/g	0.0025 JN	< 0.0031 U	< 0.000023 U	0.0066 J	0.0076 J	0.0054 J	0.0011 JN	< 0.00099 U	0.020 J	0.0012 JN
PCB-55	74338-24-2	ng/g	< 0.0015 U	< 0.021 U	< 0.00015 U	< 0.0011 U	0.075	< 0.00091 U	0.012 JN	0.17	0.19 JN	< 0.00054 U
PCB-56	41464-43-1	ng/g	0.041	0.26 J	0.0019 J	0.020	1.4	0.029	0.59	2.6 J	7.5 J	0.027
PCB-57	70424-67-8	ng/g	< 0.0015 U	< 0.021 U	< 0.00015 U	< 0.0011 U	< 0.0033 U	< 0.00093 U	< 0.0044 U	< 0.011 U	< 0.017 U	< 0.00055 U
PCB-58	41464-49-7	ng/g	< 0.0015 U	< 0.022 U	< 0.00014 U	< 0.0011 U	0.0063 JN	< 0.00094 U	0.012 J	0.011 J	< 0.016 U	0.00069 JN
PCB-59/62/75	74472-33-6	ng/g	0.0076 JN	< 0.020 U	0.00058 J	< 0.0010 U	0.27	0.0046 JN	0.091 J	0.36 J	1.0 J	0.0054 J
PCB-6	25569-80-6	ng/g	0.0041 JN	< 0.081 U	< 0.00023 U	< 0.0083 U	0.064	0.0064 JN	0.018 JN	0.031 J	0.036 JN	0.0032 J
PCB-60	33025-41-1	ng/g	0.013 JN	0.15 J	0.0010 J+	0.0063 JN	0.69	0.011	0.24 JN	1.4 J	4.3 J	0.0099
PCB-61/70/74/76	33284-53-6	ng/g	0.17	0.82 J	0.0085 J	0.098	4.2	0.14	1.7	5.7 J	22 J	0.12
PCB-63	74472-34-7	ng/g	0.0027 JN	< 0.020 U	< 0.00013 U	< 0.00098 U	0.10 JN	0.0025 J	0.048 J	0.19 J	0.50 J	0.0026 J
PCB-64	52663-58-8	ng/g	0.031 JN	0.19 J	0.0021 J	0.017 JN	1.3	0.027	0.47	1.9 J	5.9 J	0.025
PCB-66	32598-10-0	ng/g	0.11	0.59	0.0054 J	0.060	2.4	0.078	1.3	5.6 J	14 J	0.075
PCB-67	73575-53-8	ng/g	0.0018 JN	< 0.019 U	< 0.00014 U	< 0.00093 U	0.068	< 0.00080 U	0.027 JN	0.099 J	0.28 J	0.0023 J
PCB-68	73575-52-7	ng/g	< 0.0013 U	< 0.019 U	< 0.00025 U	< 0.00095 U	< 0.0029 U	0.0024 J	0.016 J	< 0.0096 U	< 0.015 U	0.0012 J
PCB-7	33284-50-3	ng/g	0.0027 J	< 0.083 U	0.00085 J	< 0.0085 U	0.0058 JN	< 0.0066 U	0.0055 J	< 0.0039 U	< 0.0062 U	0.00096 J
PCB-72	41464-42-0	ng/g	0.0016 JN	< 0.021 U	< 0.00015 U	< 0.0011 U	< 0.0032 U	< 0.00091 U	0.0091 JN	< 0.011 U	< 0.017 U	0.0023 J
PCB-77	32598-13-3	ng/g	0.012 JN	0.055 J	0.00081 J+	0.0046 JN	0.16	0.0085 J	0.11	0.54 J	1.5 J	0.0070 JN
PCB-78	70362-49-1	ng/g	< 0.0015 U	< 0.022 U	< 0.00014 U	< 0.0011 U	< 0.0032 U	< 0.00094 U	< 0.0043 U	< 0.011 U	< 0.016 U	< 0.00053 U
PCB-79	41464-48-6	ng/g	< 0.0013 U	< 0.019 U	< 0.00012 U	< 0.00094 U	0.0090 JN	< 0.00081 U	0.011 J	< 0.0091 UJ	0.11 J	0.0020 J
PCB-8	34883-43-7	ng/g	0.018 JN	< 0.075 U	0.0019 JN	0.011 JN	0.34	0.018 JN	0.062 J	0.11	0.12	0.012 J+
PCB-80	33284-52-5	ng/g	< 0.0013 U	< 0.018 U	< 0.00013 U	< 0.00092 U	< 0.0028 U	< 0.00080 U	< 0.0038 U	< 0.0094 U	< 0.014 U	< 0.00047 U
PCB-81	70362-50-4	ng/g	< 0.0014 U	< 0.019 U	< 0.00014 U	< 0.0010 U	< 0.0030 U	< 0.00085 U	< 0.0043 U	< 0.0098 U	< 0.016 U	< 0.00051 U
PCB-82	52663-62-4	ng/g	0.026	0.087 JN	0.0014 JN	0.017	0.43	0.029	0.19	0.85 J	2.2 J	0.012 JN
PCB-83/99	60145-20-2	ng/g	0.16	0.40 JN	0.0073 JN	0.13	1.6	0.20	0.75	2.9 J	5.4 J	0.093
PCB-84	52663-60-2	ng/g	0.050	0.16 JN	0.0033 J	0.040	0.78	0.058 JN	0.33	1.1 J	2.7 J	0.027
PCB-85/116/117	65510-45-4	ng/g	0.051	0.17 J	0.0030 J	0.029 J	0.52	0.054	0.26	1.1 J	2.3 J	0.025 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.16	0.47 J	0.010 J	0.11	1.6	0.18 JN	0.76	3.0 J	6.3 J	0.073
PCB-88/91	55215-17-3	ng/g	0.044	0.098 J	0.0023 J	0.037	0.44	0.044 JN	0.16 JN	0.80 J	1.4 J	0.023 JN
PCB-89	73575-57-2	ng/g	< 0.0015 U	< 0.0067 U	< 0.00019 U	< 0.00077 U	0.079	< 0.00073 U	< 0.0035 U	0.062 JN	0.29 JN	< 0.00049 U
PCB-9	34883-39-1	ng/g	0.0018 JN	< 0.085 U	< 0.00026 U	< 0.0087 U	0.021	< 0.0067 U	0.0068 JN	< 0.0046 U	0.024 J	< 0.00046 U
PCB-90/101/113	68194-07-0	ng/g	0.26	0.63 J	0.014 J	0.27	2.5	0.36	1.1	3.5 J	6.1 J	0.15
PCB-92	52663-61-3	ng/g	0.057	0.11 JN	0.0028 J	0.044 JN	0.53	0.063	0.21	0.64 J	1.1 J	0.035
PCB-93/100	73575-56-1	ng/g	0.0040 JN	< 0.0059 U	0.00087 JN	0.014 J	0.026 JN	0.016 J	0.043 J	0.053 JN	0.16 J	0.0052 JN
PCB-94	73575-55-0	ng/g	< 0.0015 U	< 0.0067 U	< 0.00019 U	0.0027 JN	< 0.0012 U	< 0.00073 U	0.010 J	0.051	0.094	0.0012 JN
PCB-95	38379-99-6	ng/g	0.20	0.42	0.0080 JN	0.21	2.2	0.26 JN	0.85	2.6 J	5.3 J	0.13
PCB-96	73575-54-9	ng/g	0.0040 J	< 0.0050 U	< 0.00014 U	0.0034 J	0.038 JN	0.0029 J	0.014 J	0.034 JN	0.15 J	0.0022 J
PCB-98/102	60233-25-2	ng/g	0.0094 J	< 0.0057 U	0.00059 JN	0.0076 JN	0.16	0.0096 JN	0.056 J	0.29 J	0.50 JN	0.0051 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	6.1	87	0.5	5.2	89	7.4	40	107	225	3.7

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B212	B213	B214	B215	B216	B217	B218	B219	B219	B220
		Sample ID	PDI-SG-B212-BL1	PDI-SG-B213-BL1	PDI-SG-B214-BL1	PDI-SG-B215-BL1	PDI-SG-B216-BL1	PDI-SG-B217-BL1	PDI-SG-B218-BL1	PDI-SG-B219-BL1	PDI-SG-B219-BL1-D	PDI-SG-B220-BL1
		Sample Date	18 Apr 2018	19 Apr 2018	21 May 2018	20 May 2018	19 Apr 2018	20 May 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-17 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.2	38	< 0.66 U	< 1.6 U	200	< 1.1 U	37	100 J	1200 J	0.31 J
2,4-DDE	3424-82-6	µg/kg	< 0.46 U	2.6	< 0.79 U	< 1.6 U	18	< 1.1 U	9.5	14 J	320 J	< 0.35 U
2,4-DDT	789-02-6	µg/kg	< 0.46 U	7.1 J	< 0.94 U	< 1.6 UJ	< 1.4 U	< 1.1 U	39 J	180 J	13000 J	< 0.35 U
4,4'-DDD	72-54-8	µg/kg	3.3	97	< 0.66 U	0.64 J	460	< 1.1 U	110	380 J	2500 J	0.77
4,4'-DDE	72-55-9	µg/kg	2.3	26	< 0.70 U	1.4 J	170	1.4	100	97 J	870 J	1.0
4,4'-DDT	50-29-3	µg/kg	0.51	18 J	< 0.66 U	< 1.6 U	46 J	< 1.1 U	90 J	17000 J	22000 J	0.46
Total DDx (b)	T_DDx (PDI)	µg/kg	7.5	189	< 0.94 U	2.8	895	2.0	386	17771	39890	2.7
Aldrin	309-00-2	µg/kg	< 0.46 U	< 1.7 U	< 0.79 U	< 1.6 U	< 1.4 U	< 1.1 U	< 1.9 U	< 1.8 U	< 1.8 U	< 0.35 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.93 U	< 3.5 U	< 1.3 U	< 3.1 U	< 2.8 U	< 2.3 U	< 3.9 U	< 3.5 U	< 3.5 U	< 0.71 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.46 U	< 1.7 U	< 0.97 UJ	< 1.6 U	< 1.4 U	< 1.1 U	< 1.9 U	< 1.8 UJ	68 J	< 0.35 U
Dieldrin	60-57-1	µg/kg	< 0.93 U	< 3.5 U	< 2.0 U	< 3.1 U	1.7 J	< 2.3 U	< 3.9 U	< 3.5 UJ	21 J	< 0.71 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.46 U	< 1.7 U	< 0.66 U	< 1.6 U	< 1.4 U	< 1.1 U	0.79 J	2.8	1.6 J	< 0.35 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.93 U	< 3.5 U	< 1.3 U	< 3.1 U	1.2 J	< 2.3 U	< 3.9 U	< 3.5 U	< 3.5 U	< 0.71 U
Heptachlor	76-44-8	µg/kg	< 0.46 U	< 1.7 U	< 0.66 U	< 1.6 U	< 1.4 U	< 1.1 U	< 1.9 U	< 1.8 U	< 1.8 U	< 0.35 U
Oxychlordane	27304-13-8	µg/kg	< 1.2 U	< 1.1 U	< 2.0 U	< 3.1 U	< 1.0 U	< 2.3 U	< 3.9 U	< 1.0 U	< 1.0 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.93 U	< 3.5 U	< 1.3 U	< 3.1 U	< 2.8 U	< 2.3 U	< 3.9 U	< 3.5 U	< 3.5 U	< 0.71 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.2 U	< 3.5 U	< 2 U	< 3.1 U	2.6	< 2.3 U	< 3.9 U	< 3.5 U	69.8	< 1 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.1	7.7	0.38 J	2.1	4.1	6.0	150	5.9	5.2	1.0
Acenaphthene	83-32-9	µg/kg	2.9	10	0.41	4.1	4.5	4.4	410	16	10	1.1
Acenaphthylene	208-96-8	µg/kg	2.4	6.7	0.22 J	2.4	3.9	2.8	36	15 J	5.3 J	0.77
Anthracene	120-12-7	µg/kg	6.4	19	0.62	5.4	7.4	8.9	300	34 J	19 J	2.3
Benz(a)anthracene	56-55-3	µg/kg	23	66	2.5	14	38	18	1500	270 J	120 J	9.0
Benzo(a)pyrene	50-32-8	µg/kg	43	79	2.4	22	50	26	890	250 J	120 J	11
Benzo(b)fluoranthene	205-99-2	µg/kg	36	100	5.1	22	71	30	1700	400 J	230 J	14
Benzo(g,h,i)perylene	191-24-2	µg/kg	32	75	1.2	14	54	16	400	170 J	93 J	12
Benzo(k)fluoranthene	207-08-9	µg/kg	13	31	1.5	7.9	24	10	660	140 J	70 J	4.3
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	79 J	140	15 J	48 J	86	65 J	230	210	150	57 J
Chrysene	218-01-9	µg/kg	39	130	2.6	19	61	27	2100	420 J	200 J	12
Dibenz(a,h)anthracene	53-70-3	µg/kg	5.5	14	0.33 J	2.2	11	3.3	100	46 J	23 J	2.0
Fluoranthene	206-44-0	µg/kg	56	220	6.4	38	100	50	9500	770 J	350 J	18
Fluorene	86-73-7	µg/kg	3.5	11	0.52	3.2	4.4	6.4	690	25	16	1.3
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	28	69	1.3	12	50	15	520	200 J	100 J	10
Naphthalene	91-20-3	µg/kg	3.6	15	0.56 J	4.8	12	9.4	55	8.0	11	1.6
Phenanthrene	85-01-8	µg/kg	22	200	3.1	19	36	22	3000	180	120	7.8
Pyrene	129-00-0	µg/kg	61	190	5.1	36	110	42	6500	620 J	290 J	20
Total PAHs (b)	T_PAH (PDI)	µg/kg	379	1243	34	228	641	297	28511	3570	1783	128
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	57	117	4	29	77	36	1371	385	189	16
Metals												
Arsenic	7440-38-2	mg/kg	4.9	4.6	2.2	4.8	5.7	4.9	5.2	5.8	4.9	4.0
Cadmium	7440-43-9	mg/kg	0.22 J	0.22 J	0.050 J	0.18 J	0.28	0.27	0.38	0.27 J	0.22 J	0.16 J
Copper	7440-50-8	mg/kg	39	37	12	40	37	44	44	42 J	38 J	30
Lead	7439-92-1	mg/kg	10	15	3.8	11	19	11	32	29	24	7.7
Mercury	7439-97-6	mg/kg	0.053 J	0.075	< 0.036 U	0.036 J	0.20	0.053	0.27	0.099	0.089	0.034 J
Tri-n-butyltin	36643-28-4	µg/kg	1.6 J	1.2 J	< 1.3 U	6.4	3.1	6.3	2.1 J	3.8	2.9	2.0
Zinc	7440-66-6	mg/kg	97	99	46	99	83	100	130	110	93	81
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 120 U	54 J	< 74 U	61 J	36 J	< 110 U	74 J	46 J	31 J	< 84 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	170	400	64 J	340	220	110	250	290	160	140
Other												
Total Solids@104C - D2216 (f)	TSOLID	%			66.1	48.9		43.0				
Total Solids@104C - E160.3 (f)	TSOLID	%	41.5	45.0			59.8		43.0	50.0	52.2	55.1
Total Solids@104C - E160.3M (f)	TSOLID	%	42.2	44.8	73.8	49.7	60.4	43.8	43.5	51.6	51.8	55.1
Total Solids@70C	TSOLID70	%	44	46	77	49	63	43	45	54	53	56
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0		0
Sand, Coarse	GS-Csand	%	0	0	1.3	0	0.1	0	0.4	0.1		0.1
Sand, Medium	GS-Msand	%	0.2	0.3	24.0	0.1	0.2	0	0.7	0.3		9.9
Sand, Fine (#200) (d)	GS-Fsand-200	%	16.53	21.28	71.1	30.05	50.99	9.648	22.94	40.04		39.06
Sand, Fine (#230) (d)	GS-Fsand	%	20.4	27.3	71.3	37.0	54.9	13.3	28.6	46.0		42.9
Silt (#200) (d)	GS-Silt-200	%	73.26	69.51	3.590	60.74	41.60	78.35	67.15	53.25		43.63

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B212	B213	B214	B215	B216	B217	B218	B219	B219	B220
		Sample ID	PDI-SG-B212-BL1	PDI-SG-B213-BL1	PDI-SG-B214-BL1	PDI-SG-B215-BL1	PDI-SG-B216-BL1	PDI-SG-B217-BL1	PDI-SG-B218-BL1	PDI-SG-B219-BL1	PDI-SG-B219-BL1-D	PDI-SG-B220-BL1
		Sample Date	18 Apr 2018	19 Apr 2018	21 May 2018	20 May 2018	19 Apr 2018	20 May 2018	19 Apr 2018	19 Apr 2018	19 Apr 2018	18 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-17 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	69.4	63.5	3.4	53.8	37.7	74.7	61.5	47.3		39.8
Clay	GS-Clay	%	10.0	8.9	0	9.0	7.2	11.9	8.7	6.4		7.3
Percent Fines (e)	GS-FINES	%	83.26	78.41	3.59	69.74	48.8	90.25	75.85	59.65		50.93
Total Organic Carbon	TOC	mg/kg	20000	20000	1800 J	18000	11000	23000	25000	15000	16000	12000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B221	B222	B223	B224	B225	B225	B226	B227	B228	B229
		Sample ID	PDI-SG-B221-BL1	PDI-SG-B222-BL1	PDI-SG-B223-BL1	PDI-SG-B224-BL1	PDI-SG-B225-BL1	PDI-SG-B225-BL1-D	PDI-SG-B226-BL1	PDI-SG-B227-BL1	PDI-SG-B228-BL1	PDI-SG-B229-BL1
		Sample Date	19 Apr 2018	21 Apr 2018	19 Apr 2018	19 Apr 2018	17 May 2018	17 May 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.041	0.063	0.45	0.045	0.25	0.37	0.082	0.043	0.051	0.036
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0087 JN	0.011	4.0 J	0.0080 JN	0.092	0.11	0.010 JN	0.0067	0.010 J	0.0058 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00042 U	0.0011 J	1.4	< 0.0014 U	0.040	0.040	0.00098 J+	0.00061 J+	< 0.00057 U	0.00066 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00063 J	0.00075 JN	0.0037 J	0.00079 J	0.0016 JN	0.0020 J	0.00081 J	0.00066 J	0.00058 JN	0.00062 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0016 J	0.0035 J	11 J	< 0.00063 U	0.25	0.24	0.0013 JN	0.0012 J	0.00083 JN	< 0.00037 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0021 JN	0.0026 J	0.0081 JN	0.0018 JN	0.0056 JN	0.0096	0.0027 JN	0.0017 J	0.0019 J	0.0017 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0027 J	0.0012 J	3.1	0.0023 J	0.050	0.063	< 0.00049 U	0.00050 J	0.0028 J	< 0.00033 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0012 JN	0.0018 J	0.0039 J	0.0015 J	0.0061 J	0.0056 J	0.0018 J	0.0014 J	0.0012 JN	0.0014 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00020 U	< 0.00016 U	0.16	< 0.00039 U	0.0038 J+	0.0048 J	0.0011 J+	< 0.00055 U	< 0.00027 U	0.00092 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00026 U	0.00044 JN	< 0.0027 U	< 0.00025 U	0.00067 J+	0.0011 J+	0.00052 J	0.00031 J	< 0.00021 U	< 0.00022 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00098 J	0.0017 J	6.3 J	< 0.00027 U	0.13	0.13	0.00063 J	0.00053 J	< 0.00028 U	0.00031 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00020 U	0.00044 J	0.41	< 0.00042 U	0.0099	0.010	< 0.00031 U	0.00022 JN	< 0.00029 U	< 0.00027 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00044 J	0.00083 J	2.4	< 0.00029 U	0.052	0.077	0.00050 J	0.00029 J	< 0.00032 U	< 0.00012 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00021 JN	0.00020 JN	0.0013 J	0.00017 JN	< 0.00012 U	< 0.00024 U	0.00026 JN	0.00024 J	0.00013 JN	0.00024 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00077 J	0.0017	7.6 J	0.00057 J	0.090 J	0.17 J	0.00068 J	0.00060 J	0.00060 J	0.00045 JN
OCDD	3268-87-9	µg/kg	0.39	0.57	2.8	0.38	1.6	2.4	0.58	0.40	0.62	0.28
OCDF	39001-02-0	µg/kg	0.031	0.040	3.8	0.026	0.15	0.16	0.025	0.032	0.028	0.018
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.002	0.0031	3.2	0.0016	0.066	0.085	0.0029	0.0019	0.0018	0.0014
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0015	0.0026	3.2	0.0013	0.066	0.085	0.0024	0.0019	0.0014	0.00094
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0014	0.0024	3.2	0.0012	0.065	0.085	0.0022	0.0019	0.0013	0.00082
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0070 JN	0.0028 J	0.078	0.0051 J	0.0093 J	0.0065 J	0.0099 J	0.0021 J+	0.0066 JN	0.0065 JN
PCB-10	33146-45-1	ng/g	0.0025 JN	< 0.0038 U	< 0.0093 U	< 0.00088 U	< 0.00083 U	< 0.00075 U	< 0.0011 U	< 0.0041 U	< 0.00065 U	0.0053 JN
PCB-103	60145-21-3	ng/g	0.013	0.0051 J	0.063 JN	< 0.0016 U	0.0074 JN	0.0076 J	0.0093 JN	0.0078 J	0.037 JN	0.0066 JN
PCB-104	56558-16-8	ng/g	0.0016 J	< 0.00039 U	< 0.0078 U	< 0.0013 U	< 0.00019 U	< 0.00037 U	< 0.00052 U	< 0.00043 U	< 0.00063 U	< 0.0019 U
PCB-105	32598-14-4	ng/g	0.080	0.089	1.5	0.17	0.23	0.20	0.093	0.062	0.27	0.13
PCB-106	70424-69-0	ng/g	< 0.0030 U	< 0.0015 U	< 0.023 U	< 0.0032 U	< 0.0020 U	< 0.0024 U	< 0.0023 U	< 0.0014 U	< 0.0027 U	< 0.0050 U
PCB-107	70424-68-9	ng/g	0.025	0.020	0.29 JN	0.035	0.042	0.037	0.023	0.015	0.066	0.033 J
PCB-108/124	70362-41-3	ng/g	0.0074 JN	0.0073 JN	0.15	0.020 J	0.021 J	0.018 J	0.0075 JN	0.0074 J	0.033	0.016 JN
PCB-11	2050-67-1	ng/g	0.046 JN	0.061	0.10 J	0.043	0.074	0.090	0.052	0.041	0.022	0.030 JN
PCB-110/115	38380-03-9	ng/g	0.32	0.27	4.3	0.93	0.64	0.50	0.34	0.22	0.98	0.46
PCB-111	39635-32-0	ng/g	< 0.00069 U	< 0.00036 U	< 0.0069 U	< 0.0011 U	< 0.00017 U	< 0.00033 U	< 0.00046 U	< 0.00040 U	< 0.00056 U	< 0.0017 U
PCB-112	74472-36-9	ng/g	< 0.00076 U	< 0.00038 U	< 0.0076 U	< 0.0012 U	< 0.00019 U	0.0028 J	< 0.00050 U	< 0.00042 U	< 0.00061 U	< 0.0019 U
PCB-114	74472-37-0	ng/g	< 0.0027 U	0.0045 JN	0.17 JN	0.011 J	0.014	0.013	0.0054 J	0.0022 JN	0.018	0.0077 J
PCB-118	31508-00-6	ng/g	0.23	0.24	3.2	0.59	0.50	0.43	0.26	0.17	0.73	0.32
PCB-12/13	2974-92-7	ng/g	0.0067 J	< 0.0034 U	0.098 J	0.0025 J	0.011 J	0.010 JN	0.0081 J	0.0042 JN	0.0035 JN	< 0.0015 U
PCB-120	68194-12-7	ng/g	0.0014 JN	< 0.00037 U	0.020 JN	0.0046 JN	< 0.00017 U	0.0019 JN	< 0.00046 U	0.0018 JN	0.0067 JN	< 0.0017 U
PCB-121	56558-18-0	ng/g	< 0.00074 U	< 0.00038 U	< 0.0074 U	< 0.0012 U	< 0.00018 U	< 0.00036 U	< 0.00049 U	< 0.00041 U	< 0.00060 U	< 0.0018 U
PCB-122	76842-07-4	ng/g	< 0.0033 U	0.0025 JN	0.10	< 0.0036 U	< 0.0022 U	0.0088 J	0.0042 J	0.0029 JN	< 0.0030 U	< 0.0056 U
PCB-123	65510-44-3	ng/g	0.0044 J	0.0039 JN	0.067 JN	0.0054 JN	0.012	0.0098 JN	0.0042 JN	0.0035 J	0.010 JN	< 0.0044 U
PCB-126	57465-28-8	ng/g	< 0.0030 U	< 0.0016 U	< 0.021 U	< 0.0031 U	< 0.0019 U	< 0.0023 U	< 0.0022 U	0.0028 J	< 0.0026 U	< 0.0051 U
PCB-127	39635-33-1	ng/g	< 0.0028 U	< 0.0015 U	< 0.022 U	< 0.0031 U	< 0.0019 U	< 0.0023 U	< 0.0022 U	< 0.0014 U	< 0.0026 U	< 0.0048 U
PCB-128/166	38380-07-3	ng/g	0.055	0.060	0.81	0.44	0.11	0.098	0.072	0.046	0.18	0.12 J
PCB-129/138/160/163	55215-18-4	ng/g	0.44	0.45	2.4	5.3	0.70	0.61	0.54	0.40	1.1	0.72
PCB-130	52663-66-8	ng/g	0.029	0.028	0.18	0.19	0.042 JN	0.041	0.027 JN	0.026	0.087	0.059 J
PCB-131	61798-70-7	ng/g	< 0.0034 U	< 0.0033 U	< 0.048 U	< 0.0076 U	0.0056 JN	0.0064 JN	< 0.0014 U	< 0.0034 U	0.017	0.0098 JN
PCB-132	38380-05-1	ng/g	0.14	0.11 JN	0.73	1.4	0.22	0.19	0.17	0.11	0.39	0.27
PCB-133	35694-04-3	ng/g	0.012	0.0085 JN	< 0.045 U	0.058	0.014	0.0096 J	0.015	0.0076 J	0.032	0.0070 JN
PCB-134/143	52704-70-8	ng/g	0.027	0.020 J	0.13	0.25	0.043	0.026 JN	0.021 JN	0.018 J	0.080	0.044 J
PCB-135/151	52744-13-5	ng/g	0.17	0.14	0.76	2.2	0.24	0.21	0.23	0.14	0.47	0.23
PCB-136	38411-22-2	ng/g	0.058	< 0.00030 U	0.19 JN	0.71	0.077	0.069	0.077	0.048	0.21	0.099 J
PCB-137	35694-06-5	ng/g	0.0086 JN	0.014	0.49 JN	0.036 JN	0.028 JN	0.025 JN	0.014	0.010 J	0.060	0.027 JN
PCB-139/140	56030-56-9	ng/g	0.0075 J	0.0074 J	0.15	< 0.0063 U	0.0092 JN	0.011 J	0.0089 J	0.0063 J	0.030	0.0059 JN
PCB-14	34883-41-5	ng/g	< 0.00065 U	< 0.0029 U	< 0.0072 U	< 0.00069 U	< 0.00064 U	< 0.00059 U	< 0.00084 U	< 0.0031 U	< 0.00051 U	< 0.0013 U
PCB-141	52712-04-6	ng/g	0.084	0.072	0.54	1.6	0.14	0.12	0.11	0.075	0.20	0.13
PCB-142	41411-61-4	ng/g	< 0.0032 U	< 0.0030 U	0.40	< 0.0071 U	0.0027 JN	< 0.0029 U	< 0.0013 U	< 0.0030 U	< 0.0026 U	< 0.00042 U
PCB-144	68194-14-9	ng/g	0.012 JN	0.0096 JN	0.15 JN	0.33	0.030	0.025	0.021 JN	0.014	0.054	0.0039 JN
PCB-145	74472-40-5	ng/g	< 0.00027 U	< 0.00029 U	0.0082 JN	< 0.0019 U	< 0.00043 U	0.0011 JN	0.00050 J	< 0.00032 U	0.0013 JN	< 0.00037 U
PCB-146	51908-16-8	ng/g	0.080	0.081	0.34	0.70	0.11	0.10	0.11	0.073	0.22	0.099 JN
PCB-147/149	68194-13-8	ng/g	0.38	0.36	1.8	4.8	0.54	0.47	0.47	0.43	1.0	0.56
PCB-148	74472-41-6	ng/g	0.0013 JN	< 0.00041 U	< 0.0031 U	< 0.0025 U	< 0.00058 U	< 0.00047 U	< 0.00016 U	< 0.00046 U	0.0049 JN	< 0.00050 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B221	B222	B223	B224	B225	B225	B226	B227	B228	B229
		Sample ID	PDI-SG-B221-BL1	PDI-SG-B222-BL1	PDI-SG-B223-BL1	PDI-SG-B224-BL1	PDI-SG-B225-BL1	PDI-SG-B225-BL1-D	PDI-SG-B226-BL1	PDI-SG-B227-BL1	PDI-SG-B228-BL1	PDI-SG-B229-BL1
		Sample Date	19 Apr 2018	21 Apr 2018	19 Apr 2018	19 Apr 2018	17 May 2018	17 May 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.020	0.017	0.54	0.0080 JN	0.037	0.031 JN	0.029	0.013 JN	0.015	0.018 J
PCB-150	68194-08-1	ng/g	0.0020 J	0.00051 JN	0.0043 JN	0.0026 JN	< 0.00039 U	< 0.00032 U	0.00097 JN	< 0.00031 U	0.0072 JN	< 0.00033 U
PCB-152	68194-09-2	ng/g	0.00081 JN	< 0.00030 U	0.0088 J	< 0.0018 U	0.0013 J	< 0.00034 U	0.0013 JN	< 0.00033 U	0.0025 JN	< 0.00036 U
PCB-153/168	35065-27-1	ng/g	0.39	0.36	1.7	5.5	0.59	0.52	0.51	0.38	0.87	0.53
PCB-154	60145-22-4	ng/g	0.0083 JN	0.0053 JN	0.045 JN	0.015	0.012	0.011 J	0.017	0.0057 JN	0.045	0.0064 JN
PCB-155	33979-03-2	ng/g	< 0.00025 U	< 0.00028 U	< 0.0021 U	< 0.0017 U	< 0.00039 U	< 0.00032 U	< 0.00011 U	< 0.00031 U	< 0.00018 U	< 0.00034 U
PCB-156/157	38380-08-4	ng/g	0.038	0.040	0.29	0.35	0.073	0.065	0.053	0.032 JN	0.13	0.079 JN
PCB-158	74472-42-7	ng/g	0.036	0.031 JN	0.22	0.53	0.070	0.057	0.047	0.026 JN	0.11	0.074 J
PCB-159	39635-35-3	ng/g	0.0049 J	0.0035 JN	< 0.029 U	0.11	0.0080 JN	0.0072 J	0.0063 JN	0.0030 JN	0.012	0.0072 JN
PCB-16	38444-78-9	ng/g	0.016	0.011 J	0.52 JN	0.0093 JN	0.067 J	0.037 J	0.015 JN	0.0082 J	0.022 JN	0.010 JN
PCB-161	74472-43-8	ng/g	< 0.0021 U	< 0.0020 U	< 0.030 U	< 0.0046 U	< 0.0017 U	< 0.0019 U	< 0.00088 U	< 0.0020 U	< 0.0017 U	< 0.00028 U
PCB-162	39635-34-2	ng/g	< 0.0020 U	< 0.0020 U	< 0.028 U	< 0.0044 U	0.0029 J	< 0.0018 U	< 0.00083 U	< 0.0020 U	< 0.0016 U	< 0.00026 U
PCB-164	74472-45-0	ng/g	0.030	0.030	0.12	0.39	0.049	0.040	0.044	0.029	0.077	0.045 JN
PCB-165	74472-46-1	ng/g	< 0.0024 U	< 0.0022 U	< 0.034 U	< 0.0053 U	< 0.0019 U	< 0.0021 U	< 0.0010 U	< 0.0023 U	< 0.0019 U	< 0.00032 U
PCB-167	52663-72-6	ng/g	0.015	0.015	0.16	0.12	0.027	0.023	0.019	0.011	0.016 JN	0.024 J
PCB-169	32774-16-6	ng/g	< 0.0015 U	0.0017 J+	< 0.022 U	< 0.0035 U	< 0.0012 U	< 0.0014 U	< 0.00065 U	< 0.0016 U	< 0.0013 U	< 0.00021 U
PCB-17	37680-66-3	ng/g	0.032	0.020	0.88	0.014 JN	0.067 JN	0.047	0.032	0.011 JN	0.038 JN	0.018 JN
PCB-170	35065-30-6	ng/g	0.14	0.12	1.2	2.8	0.24	0.20	0.21	0.10	0.19	0.16 JN
PCB-171/173	52663-71-5	ng/g	0.031 JN	0.036	0.86 JN	0.91	0.080	0.071	0.065	0.038	0.073	0.049 JN
PCB-172	52663-74-8	ng/g	0.025	0.023	0.29	0.49	0.043	0.037	0.034 JN	0.019	0.030 JN	0.022 JN
PCB-174	38411-25-5	ng/g	0.14	0.13	1.1	3.3	0.26	0.22	0.24	0.12	0.23	0.16
PCB-175	40186-70-7	ng/g	0.0030 JN	0.0052 J	0.068 JN	0.13	0.0099 JN	0.0093 J	0.011 J	0.0043 JN	0.0090 JN	0.0021 JN
PCB-176	52663-65-7	ng/g	0.017	0.012 JN	0.13	0.37	0.028	0.025	0.026	0.011 JN	0.028	0.010 JN
PCB-177	52663-70-4	ng/g	0.083	0.075	0.61	1.7	0.15	0.13	0.14	0.071	0.14	0.12
PCB-178	52663-67-9	ng/g	0.023 JN	0.030	0.18 JN	0.56	0.047	0.039	0.052	0.024 JN	0.051	0.030 JN
PCB-179	52663-64-6	ng/g	0.067	0.059	0.32	1.3	0.097	0.081	0.11	0.065	0.11	0.059 JN
PCB-18/30	37680-65-2	ng/g	0.038	0.033	1.6	0.029	0.16 J	0.085 J	0.044	0.027	0.073	0.024 JN
PCB-180/193	35065-29-3	ng/g	0.27	0.28	1.6	6.4	0.48	0.42	0.50	0.24	0.41	0.31
PCB-181	74472-47-2	ng/g	< 0.00075 U	< 0.0010 U	2.1	< 0.0027 U	0.049	0.046	< 0.00097 U	< 0.0011 U	< 0.00013 U	0.0026 JN
PCB-182	60145-23-5	ng/g	< 0.00071 U	< 0.00098 U	0.026 JN	< 0.0026 U	< 0.00044 U	< 0.00096 U	0.0015 JN	< 0.0011 U	< 0.00012 U	< 0.00015 U
PCB-183/185	52663-69-1	ng/g	0.088	0.078	1.6	2.1	0.16	0.14	0.15	0.082	0.14	0.089 J
PCB-184	74472-48-3	ng/g	< 0.00061 U	< 0.00083 U	0.017 JN	< 0.0022 U	< 0.00038 U	< 0.00083 U	< 0.00079 U	< 0.00093 U	< 0.00011 U	< 0.00013 U
PCB-186	74472-49-4	ng/g	< 0.00059 U	< 0.00081 U	0.044 JN	< 0.0021 U	< 0.00037 U	< 0.00079 U	< 0.00076 U	< 0.00091 U	< 0.00010 U	< 0.00013 U
PCB-187	52663-68-0	ng/g	0.18	0.18	0.82	3.5	0.30	0.25	0.33	0.17	0.29	0.18
PCB-188	74487-85-7	ng/g	< 0.00054 U	< 0.00070 U	< 0.0096 U	< 0.0019 U	< 0.00034 U	< 0.00075 U	< 0.00071 U	< 0.00078 U	< 0.000095 U	< 0.00012 U
PCB-189	39635-31-9	ng/g	0.0042 J	0.0055 JN	0.022 JN	0.087	0.0079 JN	0.0093 J	0.0064 J	0.0036 JN	0.0062 JN	0.0066 JN
PCB-19	38444-73-4	ng/g	0.049	0.016 JN	0.18	0.017 JN	0.032	0.023	0.024 JN	0.017	0.016 JN	0.031 JN
PCB-190	41411-64-7	ng/g	0.023 JN	0.022 JN	0.53	0.58	0.049	0.045	0.042	0.014 JN	0.036	0.031 J
PCB-191	74472-50-7	ng/g	< 0.00056 U	0.0053 JN	0.18 JN	0.12 JN	0.011 J	0.0092 JN	0.0087 JN	0.0042 JN	0.0058 JN	0.0046 JN
PCB-192	74472-51-8	ng/g	< 0.00060 U	< 0.00085 U	0.028 JN	< 0.0021 U	< 0.00037 U	< 0.00081 U	< 0.00078 U	< 0.00096 U	< 0.00010 U	< 0.00013 U
PCB-194	35694-08-7	ng/g	0.064	0.079	0.65	1.3	0.13	0.14	0.12	0.059	0.088	0.061 J
PCB-195	52663-78-2	ng/g	0.021 JN	0.035	3.6	0.61	0.078	0.078	0.045	0.026	0.034	0.017 JN
PCB-196	42740-50-1	ng/g	0.021 JN	0.029 JN	0.50	0.66	0.064	0.062	0.047	0.021	0.034 JN	0.019 JN
PCB-197	33091-17-7	ng/g	0.0029 JN	0.0034 J	0.10 JN	0.053	0.0078 J	0.0051 JN	0.0014 JN	0.0012 JN	0.0034 J	< 0.00040 U
PCB-198/199	68194-17-2	ng/g	0.077	0.072	1.2 JN	1.2	0.17	0.14	0.12	0.067	0.083	0.066 J
PCB-2	2051-61-8	ng/g	0.0096 JN	0.0064 JN	0.027 J	0.0073 J	0.0078 JN	0.0083 J	0.020	0.0065 J	0.0065 JN	0.017 J
PCB-20/28	38444-84-7	ng/g	0.096	0.088	4.2	0.063	0.29	0.23	0.13	0.061	0.16	0.096 J
PCB-200	52663-73-7	ng/g	0.0066 JN	0.0063 JN	0.46	0.15	0.024	0.019	0.014 JN	0.0063 JN	0.0081 JN	0.0038 JN
PCB-201	40186-71-8	ng/g	0.0086 J	0.0097 J	0.21	0.15	0.018 JN	0.016	0.015	0.0078 JN	0.013	0.010 J
PCB-202	2136-99-4	ng/g	0.014 JN	0.017	0.24	0.20	0.032	0.026	0.026 JN	0.013	0.017	0.014 J
PCB-203	52663-76-0	ng/g	0.039	0.047	1.9	0.74	0.11	0.11	0.082	0.038	0.046 JN	0.045 J
PCB-204	74472-52-9	ng/g	< 0.00036 U	< 0.00056 U	0.089 JN	< 0.0022 U	0.0020 JN	0.0018 J	< 0.00046 U	< 0.00065 U	< 0.00020 U	< 0.00044 U
PCB-205	74472-53-0	ng/g	0.0032 J	< 0.0013 U	0.19 JN	0.074	0.010 JN	0.0094 JN	0.0057 J	0.0030 JN	0.0045 J	0.0022 JN
PCB-206	40186-72-9	ng/g	0.044 JN	0.054	2.9	0.25	0.16	0.18 JN	0.075	0.026 JN	0.050 JN	0.056 J
PCB-207	52663-79-3	ng/g	0.0045 JN	0.0046 J	0.82	0.028 JN	0.037	0.025	0.0076 J	0.0063 J	0.0059 J	< 0.0070 U
PCB-208	52663-77-1	ng/g	0.013 JN	0.014	0.94	0.042	0.043 JN	0.039	0.018	0.010 J	0.014 JN	0.020 JN
PCB-209	2051-24-3	ng/g	0.038	0.058	5.8	0.045	0.22	0.18	0.069	0.041 JN	0.086	0.17
PCB-21/33	55702-46-0	ng/g	0.036	0.027	1.3	0.021 JN	0.12 J	0.067 J	0.052	0.023	0.074	0.030 J
PCB-22	38444-85-8	ng/g	0.027	0.023	1.1	0.016	0.087	0.057	0.040	0.015	0.037	0.019 JN
PCB-23	55720-44-0	ng/g	< 0.0012 U	< 0.00087 U	< 0.026 U	< 0.0013 U	< 0.0022 U	< 0.0014 U	< 0.00090 U	< 0.00075 U	< 0.0017 U	< 0.0016 U
PCB-24	55702-45-9	ng/g	0.00053 JN	< 0.00053 U	< 0.0061 U	< 0.00032 U	0.0018 JN	0.0013 J	0.00079 JN	< 0.00050 U	0.00057 JN	< 0.00038 U
PCB-25	55712-37-3	ng/g	0.011 JN	0.0065 JN	0.49	0.0084 JN	0.036	0.029	0.012	0.0067 J	0.034	0.013 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B221	B222	B223	B224	B225	B225	B226	B227	B228	B229
		Sample ID	PDI-SG-B221-BL1	PDI-SG-B222-BL1	PDI-SG-B223-BL1	PDI-SG-B224-BL1	PDI-SG-B225-BL1	PDI-SG-B225-BL1-D	PDI-SG-B226-BL1	PDI-SG-B227-BL1	PDI-SG-B228-BL1	PDI-SG-B229-BL1
		Sample Date	19 Apr 2018	21 Apr 2018	19 Apr 2018	19 Apr 2018	17 May 2018	17 May 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.017 JN	0.015 J	0.67	0.014 J	0.055	0.039	0.020 J	0.0080 JN	0.040	0.022 J
PCB-27	38444-76-7	ng/g	0.0093 J	0.0035 JN	0.12	0.0044 JN	0.015	0.0092 J	0.0073 J	0.0040 J	0.0072 J	0.0047 JN
PCB-3	2051-62-9	ng/g	0.0065 JN	0.0033 J	0.044 J	0.0050 JN	0.0083 J	0.0073 J	0.017	0.0018 JN	0.0086 J	0.0052 JN
PCB-31	16606-02-3	ng/g	0.070	0.063	3.0	0.050	0.24	0.16	0.088	0.043	0.11	0.069 J
PCB-32	38444-77-8	ng/g	0.024	0.011 JN	0.55	0.013 JN	0.060	0.037	0.023	0.0086 J	0.045	0.025 J
PCB-34	37680-68-5	ng/g	< 0.0013 U	< 0.00090 U	0.039 J	< 0.0014 U	< 0.0023 U	< 0.0015 U	< 0.00094 U	< 0.00078 U	0.0024 JN	< 0.0017 U
PCB-35	37680-69-6	ng/g	0.0031 J	< 0.00088 U	0.032 JN	< 0.0013 U	0.0051 J	0.0057 J	0.0027 J	< 0.00076 U	0.0025 J	< 0.0016 U
PCB-36	38444-87-0	ng/g	< 0.0011 U	< 0.00084 U	< 0.023 U	< 0.0012 U	< 0.0020 U	< 0.0013 U	< 0.00081 U	< 0.00073 U	< 0.0015 U	< 0.0015 U
PCB-37	38444-90-5	ng/g	0.025	0.021 JN	0.79	0.018 JN	0.066	0.051	0.039	0.019	0.025 JN	0.024 J
PCB-38	53555-66-1	ng/g	< 0.0012 U	< 0.00091 U	< 0.025 U	< 0.0013 U	< 0.0021 U	< 0.0014 U	< 0.00088 U	< 0.00078 U	< 0.0016 U	< 0.0016 U
PCB-39	38444-88-1	ng/g	< 0.0011 U	0.00098 JN	0.058	< 0.0012 U	< 0.0019 U	< 0.0012 U	< 0.00080 U	< 0.00070 U	< 0.0015 U	< 0.0015 U
PCB-4	13029-08-8	ng/g	0.066	< 0.0049 U	0.32	0.021 JN	0.031	0.028	0.030 JN	< 0.0052 U	0.020 JN	0.041 J
PCB-40/41/71	38444-93-8	ng/g	0.058 JN	0.048	2.9	0.033 JN	0.30	0.20	0.064	0.033	0.17	0.053 J
PCB-42	36559-22-5	ng/g	0.027 JN	0.015 JN	1.7	0.017 JN	0.15	0.11	0.034	0.017	0.065	0.023 J
PCB-43/73	70362-46-8	ng/g	0.0068 J	0.0028 JN	0.25	0.0059 JN	0.021 J	0.014 J	0.0054 J	< 0.0024 U	0.027 JN	< 0.0034 U
PCB-44/47/65	41464-39-5	ng/g	0.21	0.11	5.7	0.13	0.58	0.40	0.17	0.084	0.50	0.16 J
PCB-45/51	70362-45-7	ng/g	0.062	0.018 J	0.97	0.030 JN	0.10	0.069	0.036 JN	0.014 J	0.22	0.044 JN
PCB-46	41464-47-5	ng/g	0.0070 JN	0.0042 JN	0.29 JN	< 0.0044 U	0.032	0.019 JN	0.0077 J	< 0.0032 U	0.023 JN	0.010 JN
PCB-48	70362-47-9	ng/g	0.017	0.014	1.1	0.011 JN	0.097	0.062	0.020	0.0097 J	0.032	0.011 JN
PCB-49/69	41464-40-8	ng/g	0.12 JN	0.081	3.6	0.082	0.34	0.24	0.11	0.064	0.41	0.12 J
PCB-5	16605-91-7	ng/g	< 0.00078 U	< 0.0038 U	< 0.0087 U	< 0.00082 U	< 0.00077 U	< 0.00071 U	< 0.0010 U	< 0.0042 U	< 0.00061 U	< 0.0016 U
PCB-50/53	62796-65-0	ng/g	0.056	0.018 J	0.71	0.030	0.083	0.055	0.034	0.015 J	0.19	0.062 J
PCB-52	35693-99-3	ng/g	0.23	0.14	6.2	0.20	0.70	0.48	0.19	0.10	0.78	0.22
PCB-54	15968-05-5	ng/g	0.0087 JN	0.0020 J	< 0.00082 U	0.0033 JN	0.0037 JN	0.0022 JN	0.0053 JN	0.0023 JN	0.023	0.0098 JN
PCB-55	74338-24-2	ng/g	0.0027 JN	< 0.0017 U	0.10	< 0.0025 U	0.013 JN	0.0080 JN	0.0031 JN	< 0.0018 U	< 0.0023 U	< 0.0026 U
PCB-56	41464-43-1	ng/g	0.043	0.048	2.4	0.038	0.23	0.18	0.056	0.030	0.088	0.039 JN
PCB-57	70424-67-8	ng/g	< 0.00096 U	< 0.0017 U	< 0.012 U	< 0.0025 U	< 0.0014 U	< 0.0015 U	< 0.00083 U	< 0.0019 U	< 0.0024 U	< 0.0026 U
PCB-58	41464-49-7	ng/g	< 0.00092 U	< 0.0018 U	< 0.012 U	< 0.0024 U	< 0.0013 U	< 0.0014 U	< 0.00080 U	< 0.0019 U	< 0.0023 U	< 0.0025 U
PCB-59/62/75	74472-33-6	ng/g	0.011 JN	0.0079 J	0.47	0.0054 JN	0.048	0.029 JN	0.014 J	0.0057 J	0.029 J	0.010 JN
PCB-6	25569-80-6	ng/g	0.0096 J	0.0044 JN	0.20	0.0029 JN	0.017	0.016	0.011 J	0.0039 JN	0.012	0.010 JN
PCB-60	33025-41-1	ng/g	0.014 JN	0.015 JN	0.87	0.015 JN	0.11	0.077	0.022	0.012	0.020 JN	0.015 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.20	0.18	7.5	0.20	0.76	0.55	0.22	0.13	0.45	0.19 J
PCB-63	74472-34-7	ng/g	0.0041 J	0.0040 JN	0.18	0.0039 J	0.020	0.014 JN	0.0046 J	0.0032 JN	0.012	< 0.0023 U
PCB-64	52663-58-8	ng/g	0.040 JN	0.037	2.3	0.029	0.23	0.16	0.045	0.025	0.083	0.038 J
PCB-66	32598-10-0	ng/g	0.12	0.12	5.4	0.11	0.50	0.40	0.14	0.078	0.22	0.12
PCB-67	73575-53-8	ng/g	0.0023 J	0.0027 J	0.10 JN	< 0.0023 U	0.012 JN	0.0074 JN	0.0019 JN	0.0018 JN	< 0.0022 U	< 0.0024 U
PCB-68	73575-52-7	ng/g	0.0029 J	< 0.0015 U	< 0.011 U	< 0.0022 U	0.0044 J	0.0048 J	0.0032 J	0.0023 JN	0.017	< 0.0023 U
PCB-7	33284-50-3	ng/g	< 0.00073 U	< 0.0034 U	0.035 JN	< 0.00077 U	0.0024 JN	0.0025 J	< 0.00094 U	< 0.0038 U	0.0025 J	< 0.0015 U
PCB-72	41464-42-0	ng/g	0.0040 J	0.0018 JN	0.050 J	< 0.0025 U	0.0056 J	0.0040 JN	0.0037 J	< 0.0018 U	0.014 JN	0.0057 J
PCB-77	32598-13-3	ng/g	0.013	0.014	0.48	0.0098 J	0.045	0.038	0.015	0.0078 JN	0.014	0.0091 JN
PCB-78	70362-49-1	ng/g	< 0.00092 U	< 0.0018 U	< 0.012 U	< 0.0024 U	< 0.0013 U	< 0.0014 U	< 0.00080 U	< 0.0019 U	< 0.0023 U	< 0.0025 U
PCB-79	41464-48-6	ng/g	< 0.00079 U	< 0.0015 U	0.053 J	0.0026 J	0.0034 JN	0.0040 JN	0.0034 J	< 0.0016 U	0.011	0.0025 JN
PCB-8	34883-43-7	ng/g	0.024 JN	0.017 JN	0.57 JN	0.014 J	0.044	0.034 JN	0.035	0.011 JN	0.035	0.021 JN
PCB-80	33284-52-5	ng/g	< 0.00082 U	< 0.0015 U	< 0.011 U	< 0.0021 U	< 0.0012 U	< 0.0013 U	< 0.00071 U	< 0.0016 U	< 0.0021 U	< 0.0023 U
PCB-81	70362-50-4	ng/g	< 0.00089 U	< 0.0016 U	< 0.011 U	< 0.0023 U	0.0018 J	< 0.0013 U	< 0.00078 U	< 0.0017 U	< 0.0022 U	< 0.0022 U
PCB-82	52663-62-4	ng/g	0.032 JN	0.025	0.93	0.042 JN	0.098	0.072	0.032	0.017	0.095	0.054 JN
PCB-83/99	60145-20-2	ng/g	0.19	0.16	3.2	0.28	0.41	0.32	0.20	0.12 JN	0.61	0.21
PCB-84	52663-60-2	ng/g	0.065	0.044 JN	1.3	0.12	0.17	0.13	0.061	0.035 JN	0.23	0.084 JN
PCB-85/116/117	65510-45-4	ng/g	0.043 JN	0.040	1.0	0.063	0.13	0.10	0.053	0.036	0.14 JN	0.053 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.16	0.15	3.2	0.38	0.42	0.31	0.16	0.11	0.57	0.24 J
PCB-88/91	55215-17-3	ng/g	0.057	0.034	0.86	0.056 JN	0.10	0.083	0.053	0.032	0.19	0.067 JN
PCB-89	73575-57-2	ng/g	< 0.0011 U	< 0.00058 U	0.13	< 0.0019 U	0.013	0.0082 J	0.0020 JN	< 0.00064 U	< 0.00093 U	< 0.0029 U
PCB-9	34883-39-1	ng/g	< 0.00085 U	< 0.0035 U	0.044 JN	0.0022 JN	0.0037 JN	< 0.00078 U	0.0034 J+	< 0.0038 U	0.0030 JN	0.0020 JN
PCB-90/101/113	68194-07-0	ng/g	0.30	0.24	3.5	1.7	0.55	0.44	0.30	0.22	1.0	0.41
PCB-92	52663-61-3	ng/g	0.063 J-	0.030	0.56 JN	0.21	0.11	0.093	0.061 JN	0.035 JN	0.31	0.094 J
PCB-93/100	73575-56-1	ng/g	0.019 JN	0.0063 JN	0.14 JN	0.014 JN	0.014 JN	0.017 J	0.019 J	0.0073 J	0.055	0.018 J
PCB-94	73575-55-0	ng/g	0.0034 JN	< 0.00058 U	< 0.012 U	< 0.0019 U	0.0047 JN	0.0035 JN	< 0.00077 U	< 0.00064 U	0.040	< 0.0029 U
PCB-95	38379-99-6	ng/g	0.25	0.17	2.8	1.1	0.46	0.35	0.23	0.17	0.90	0.35
PCB-96	73575-54-9	ng/g	0.0030 JN	< 0.00044 U	0.075	< 0.0014 U	0.0071 JN	0.0059 J	0.0032 JN	< 0.00048 U	0.026	< 0.0022 U
PCB-98/102	60233-25-2	ng/g	0.014 J	0.0052 J	0.31	0.019 J	0.030	0.020 J	0.011 JN	0.0066 J	0.078 JN	0.012 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	7.3	6.2	132	62	16	13	9.0	5.4	18	9.1

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B221	B222	B223	B224	B225	B225	B226	B227	B228	B229
		Sample ID	PDI-SG-B221-BL1	PDI-SG-B222-BL1	PDI-SG-B223-BL1	PDI-SG-B224-BL1	PDI-SG-B225-BL1	PDI-SG-B225-BL1-D	PDI-SG-B226-BL1	PDI-SG-B227-BL1	PDI-SG-B228-BL1	PDI-SG-B229-BL1
		Sample Date	19 Apr 2018	21 Apr 2018	19 Apr 2018	19 Apr 2018	17 May 2018	17 May 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.41 J	0.59 J	130	< 0.46 U	26	19	< 0.57 U	< 0.53 U	0.44	0.49
2,4-DDE	3424-82-6	µg/kg	< 0.47 U	< 0.60 U	10	< 0.46 U	2.0	2.4	< 0.57 U	< 0.53 U	< 0.37 U	< 0.48 U
2,4-DDT	789-02-6	µg/kg	< 0.47 U	< 0.60 U	69 J	< 0.46 U	36 J	12 J	< 0.57 U	< 0.53 U	< 0.37 U	< 0.48 U
4,4'-DDD	72-54-8	µg/kg	1.5	1.5	320	0.73	120 J	48 J	0.76	0.74	1.3	1.1
4,4'-DDE	72-55-9	µg/kg	2.1	2.1	130	1.7	55 J	22 J	2.0	1.5	1.3	1.5
4,4'-DDT	50-29-3	µg/kg	0.41 J	0.94	610 J	0.37 J	20000 J	1600 J	0.31 J	0.34 J	0.23 J	0.38 J
Total DDx (b)	T_DDx (PDI)	µg/kg	4.7	5.4	1269	3.0	20239	1703	3.4	2.8	3.5	3.7
Aldrin	309-00-2	µg/kg	< 0.47 U	< 0.60 U	< 2.1 U	< 0.46 U	< 1.2 UJ	< 0.47 U	< 0.57 U	< 0.53 U	< 0.37 U	< 0.48 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.93 U	< 1.2 U	< 4.3 U	< 0.92 U	< 2.4 U	< 0.95 U	< 1.1 U	< 1.1 U	< 0.75 U	< 0.96 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.47 U	< 0.60 U	< 2.1 U	< 0.46 U	< 1.2 U	< 0.47 U	< 0.57 U	< 0.53 U	< 0.37 U	< 0.49 U
Dieldrin	60-57-1	µg/kg	< 0.93 U	< 1.2 U	< 4.3 U	< 0.92 U	< 2.4 U	< 0.95 U	< 1.1 U	< 1.1 U	< 0.75 U	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.47 U	< 0.60 U	< 2.1 U	< 0.46 U	< 1.2 U	< 0.47 U	< 0.57 U	< 0.53 U	< 0.37 U	0.23 J
gamma-Chlordane	5566-34-7	µg/kg	< 0.93 U	< 1.2 U	< 4.3 U	< 0.92 U	< 2.4 U	0.34 J	< 1.1 U	< 1.1 U	< 0.75 U	< 0.96 U
Heptachlor	76-44-8	µg/kg	< 0.47 U	< 0.60 U	< 2.1 U	< 0.46 U	< 1.2 U	< 0.47 U	< 0.57 U	< 0.53 U	< 0.37 U	< 0.48 U
Oxychlordane	27304-13-8	µg/kg	< 1.2 U	< 1.2 U	< 1.1 U	< 1.2 U	< 2.4 U	< 0.95 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.93 U	< 1.2 U	< 4.3 U	< 0.92 U	< 2.4 U	< 0.95 U	< 1.1 U	< 1.1 U	< 0.75 U	0.30 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.2 U	< 1.2 U	< 4.3 U	< 1.2 U	< 2.4 U	0.815	< 1.1 U	< 1.1 U	< 1 U	0.8
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.5	2.0	4.2 J	1.5	5.7	6.2	1.9	1.2	6.8	1.6
Acenaphthene	83-32-9	µg/kg	3.0	1.9	6.7	1.3	10	11	2.0	1.1	11	1.9
Acenaphthylene	208-96-8	µg/kg	1.9	1.9	7.6	0.92	9.0	7.3	1.8	1.1	3.0	1.3
Anthracene	120-12-7	µg/kg	6.8	5.2	46	2.4	37	34	5.1	3.2	15	2.7
Benz(a)anthracene	56-55-3	µg/kg	22	18	340	7.5	200	170	25	11	54	8.6
Benzo(a)pyrene	50-32-8	µg/kg	20	21	390	8.7	220	170	23	13	51	9.4
Benzo(b)fluoranthene	205-99-2	µg/kg	27	27	780	13	380	340	39	17	45	12
Benzo(g,h,i)perylene	191-24-2	µg/kg	21	19	280	12	97 J	71 J	18	13	29	8.7
Benzo(k)fluoranthene	207-08-9	µg/kg	9.9	7.9	250	4.0	110	97	12	5.4	18	3.7
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	59 J	85 J	370	70 J	220	180	61 J	57 J	52 J	42 J
Chrysene	218-01-9	µg/kg	30	25	660	14	340	290	40	16	51	14
Dibenz(a,h)anthracene	53-70-3	µg/kg	4.6 J	3.2	97	2.2 J	34	26	4.2	2.3	6.3	1.5
Fluoranthene	206-44-0	µg/kg	58	44	470	16	320	330	75	28	110	24
Fluorene	86-73-7	µg/kg	4.1	3.2	17	1.8	23	26	3.9	1.8	8.1	2.4
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	20	16	350	9.5	120	85	18	12	29	7.5
Naphthalene	91-20-3	µg/kg	4.4	2.7	7.4	2.2	7.2	7.6	4.5	2.1	14	4.1
Phenanthrene	85-01-8	µg/kg	27	19	140	9.3	110	120	22	11	53	12
Pyrene	129-00-0	µg/kg	53	46	360	17	300	270	71	29	110	25
Total PAHs (b)	T_PAH (PDI)	µg/kg	315	263	4206	123	2323	2061	366	168	614	140
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	32	30	637	14	325	257	36	19	70	14
Metals												
Arsenic	7440-38-2	mg/kg	5.2	5.1	7.7	4.9	6.7	5.9	4.5	4.6	5.0	3.9
Cadmium	7440-43-9	mg/kg	0.24 J	0.20 J	0.16 J	0.23 J	0.28 J	0.25 J	0.22 J	0.14 J	0.18 J	0.15 J
Copper	7440-50-8	mg/kg	40	41	61	40	53	49	45	36	35	30
Lead	7439-92-1	mg/kg	9.8	11	46	9.7	18	15	11	9.5	9.7	8.0
Mercury	7439-97-6	mg/kg	0.053 J	0.063 J	0.069	0.040 J	0.064	0.070	0.066	0.049 J	0.066	0.042 J
Tri-n-butyltin	36643-28-4	µg/kg	4.5	1.5 J	69	4.5	1.7 J	2.0 J	8.0	2.5	1.4 J	2.4
Zinc	7440-66-6	mg/kg	110	100	120	94	130	120	100	94	99	84
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	42 J	57 J	61 J	40 J	90 J	110 J	41 J	44 J	35 J	88 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	270	390	330	230	650	790	360	310	250	560
Other												
Total Solids@104C - D2216 (f)	TSOLID	%					39.6	39.3				
Total Solids@104C - E160.3 (f)	TSOLID	%	41.5	39.1	44.3	42.4			42.2	45.1	48.6	48.3
Total Solids@104C - E160.3M (f)	TSOLID	%	41.7	41.2	45.9	42.5	40.4	41.0	43.5	46.6	53.1	52.1
Total Solids@70C	TSOLID70	%	51	41	47	44	40	40	44	47	55	51
Gravel	GS-Gravel	%	0.5	0	0	0	0		0	0	0	0
Sand, Coarse	GS-Csand	%	0.4	0	0.1	0	0.2		0	0	0.1	0.5
Sand, Medium	GS-Msand	%	1.6	0.1	0.5	0.2	0.2		0.1	0.3	2.2	1.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	37.83	12.13	20.05	17.72	11.47		10.39	27.2	40	49.32
Sand, Fine (#230) (d)	GS-Fsand	%	43.2	15.7	23.1	22.6	15.1		14.1	31.9	45.0	54.7
Silt (#200) (d)	GS-Silt-200	%	48.46	71.76	70.44	67.57	77.32		77.50	63.19	48.49	40.57

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B221	B222	B223	B224	B225	B225	B226	B227	B228	B229
		Sample ID	PDI-SG-B221-BL1	PDI-SG-B222-BL1	PDI-SG-B223-BL1	PDI-SG-B224-BL1	PDI-SG-B225-BL1	PDI-SG-B225-BL1-D	PDI-SG-B226-BL1	PDI-SG-B227-BL1	PDI-SG-B228-BL1	PDI-SG-B229-BL1
		Sample Date	19 Apr 2018	21 Apr 2018	19 Apr 2018	19 Apr 2018	17 May 2018	17 May 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-29 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	43.1	68.2	67.4	62.7	73.7		73.8	58.5	43.5	35.2
Clay	GS-Clay	%	11.2	16.0	8.9	14.6	10.8		12.1	9.3	9.2	7.8
Percent Fines (e)	GS-FINES	%	59.66	87.76	79.34	82.17	88.12		89.6	72.49	57.69	48.37
Total Organic Carbon	TOC	mg/kg	39000	24000	24000	22000	31000	31000	22000	17000	14000	29000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B230	B231	B232	B233	B234	B234	B235	B236	B237	B238
		Sample ID	PDI-SG-B230-BL1	PDI-SG-B231-BL1	PDI-SG-B232-BL1	PDI-SG-B233-BL1	PDI-SG-B234-BL1	PDI-SG-B234-BL1-D	PDI-SG-B235-BL1	PDI-SG-B236-BL1	PDI-SG-B237-BL1	PDI-SG-B238-BL1
		Sample Date	20 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018	22 May 2018	22 May 2018	21 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-24 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.083	0.036	0.14	0.038	0.058	0.060	0.052	0.064	0.060	0.087
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.016 JN	0.0064 JN	0.020	0.0035 JN	0.015	0.015	0.0067	0.011	0.0097 JN	0.015 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0035 J	0.00076 J+	0.0025 J	< 0.00024 U	0.0021 J+	0.0013 J+	0.00096 J+	0.0024 J	0.0012 J	0.00087 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00085 J	0.00046 J	0.00057 J	0.00041 J+	0.00092 JN	0.00098 JN	0.00083 J	0.00077 J	0.00064 J+	0.00089 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.012	< 0.00036 U	0.0058	0.00035 J	0.0027 J	0.0020 J	0.0018 J	0.0057 J	0.0042 J	0.0014 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0021 J	0.0013 JN	0.0025 J	0.0011 J	0.0035 JN	0.0033 J	0.0022 J	0.0028 J	0.0021 J	0.0029 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0041 JN	< 0.00035 U	0.0020 J	0.00018 JN	0.00078 JN	0.00095 J	0.00083 J	0.0026 J	0.0017 J	0.00084 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0019 J	0.00086 J	0.0015 J	0.0012 J	0.0020 J	0.0026 J	0.0017 J	0.0016 J	0.0016 J	0.0017 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00089 J+	0.00092 J+	< 0.00052 U	< 0.00019 U	0.0021 JN	0.0014 J+	0.00072 J+	0.00090 J+	0.00025 J+	0.00058 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00050 J	< 0.00016 U	0.00032 J	0.00023 J	0.00050 JN	0.00049 JN	0.00045 J	0.00036 JN	0.00035 JN	0.00041 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0082	0.00027 JN	0.0027 J	0.00012 J	0.00062 J	0.00061 JN	0.00090 J	0.0027 J	0.0025 J	< 0.00024 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00073 J	0.00030 J	0.00046 J	0.00012 J	< 0.00020 U	0.00076 J+	0.00038 J	0.00061 J	0.00040 J	< 0.00032 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0030 J	< 0.000099 U	0.0012 J	0.00011 J	< 0.00022 U	< 0.00023 U	0.00049 J	0.0012 J	0.0010 J	< 0.00030 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00015 JN	0.00034 JN	0.00013 JN	< 0.000081 U	< 0.00018 U	0.0013 JN	0.00025 JN	0.00018 JN	0.00015 JN	0.00040 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.013	0.00050 J	0.0030	0.00024 J	0.0010 J	0.0011 J	0.0010 J	0.0024	0.0025	0.00068 J
OCDD	3268-87-9	µg/kg	0.58	0.29	1.1	0.24	0.40	0.43	0.45	0.57	0.47	0.62
OCDF	39001-02-0	µg/kg	0.036	0.018	0.095	0.011	0.039	0.043	0.036	0.044	0.030	0.035
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0066	0.0014	0.0045	0.0012	0.0028	0.0041	0.0026	0.0037	0.0031	0.003
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0062	0.001	0.0044	0.0011	0.0017	0.0037	0.0024	0.0033	0.0027	0.0024
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.006	0.00083	0.0043	0.0011	0.0015	0.0034	0.0023	0.0031	0.0026	0.0022
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.010 J	0.0057 J	< 0.00040 U	< 0.00014 U	< 0.0021 U	< 0.0024 U	0.0027 J	0.0028 JN	< 0.00040 U	0.0069 JN
PCB-10	33146-45-1	ng/g	< 0.0034 U	0.0027 J	< 0.0044 U	< 0.0025 U	< 0.00041 U	< 0.00058 U	< 0.0038 U	< 0.0038 U	< 0.0024 U	< 0.0029 U
PCB-103	60145-21-3	ng/g	0.0047 JN	0.013	0.0055 JN	0.0021 JN	0.0056 JN	0.0075 J	0.0081 J	0.0052 JN	0.0069 J	0.0078 J
PCB-104	56558-16-8	ng/g	< 0.00038 U	< 0.00088 U	< 0.00041 U	< 0.00031 U	< 0.00018 U	0.00097 J	< 0.00046 U	< 0.00036 U	< 0.00064 U	< 0.00031 U
PCB-105	32598-14-4	ng/g	0.16	0.10	0.11	0.038	0.061	0.069	0.088	0.12	0.14	0.093
PCB-106	70424-69-0	ng/g	< 0.0015 U	< 0.0016 U	< 0.0015 U	< 0.00075 U	< 0.0013 U	< 0.0017 U	< 0.0015 U	< 0.0015 U	< 0.0019 U	< 0.0015 U
PCB-107	70424-68-9	ng/g	0.035	0.024	0.026	0.0088 J	0.014	0.017	0.022	0.024 JN	0.042	0.028
PCB-108/124	70362-41-3	ng/g	0.018 J	0.010 JN	0.0084 J	0.0034 JN	0.0059 J	0.0079 J	0.0062 JN	0.010 JN	0.014 J	0.010 J
PCB-11	2050-67-1	ng/g	0.049	0.046	0.017 JN	0.026 JN	0.036	0.039	0.047	0.17	0.047	0.041
PCB-110/115	38380-03-9	ng/g	0.51	0.38	0.37	0.16	0.21	0.24	0.30	0.37	0.43	0.47
PCB-111	39635-32-0	ng/g	< 0.00035 U	< 0.00079 U	< 0.00038 U	< 0.00029 U	< 0.00016 U	< 0.00019 U	< 0.00042 U	< 0.00033 U	< 0.00060 U	< 0.00029 U
PCB-112	74472-36-9	ng/g	< 0.00037 U	< 0.00086 U	< 0.00040 U	< 0.00030 U	< 0.00018 U	< 0.00021 U	< 0.00045 U	< 0.00035 U	< 0.00063 U	< 0.00031 U
PCB-114	74472-37-0	ng/g	0.0090 J	0.0055 JN	0.0035 JN	0.0011 JN	0.0028 J	0.0034 JN	0.0035 JN	0.0057 JN	0.0079 J	0.0035 JN
PCB-118	31508-00-6	ng/g	0.40	0.26	0.25	0.092	0.17	0.18	0.24	0.30	0.36	0.27
PCB-12/13	2974-92-7	ng/g	0.0041 JN	0.0033 JN	< 0.0039 U	< 0.0022 U	0.0027 J	0.0034 J	0.0088 JN	0.0053 JN	0.0063 JN	0.0031 JN
PCB-120	68194-12-7	ng/g	< 0.00035 U	0.0021 JN	< 0.00039 U	< 0.00029 U	0.0018 J	0.0021 JN	< 0.00043 U	0.0015 JN	0.0027 J	< 0.00030 U
PCB-121	56558-18-0	ng/g	< 0.00036 U	< 0.00084 U	< 0.00040 U	< 0.00030 U	< 0.00017 U	< 0.00021 U	< 0.00044 U	< 0.00035 U	< 0.00062 U	< 0.00030 U
PCB-122	76842-07-4	ng/g	0.0061 J	0.0041 JN	< 0.0017 U	< 0.00086 U	< 0.0014 U	< 0.0019 U	0.0030 JN	0.0041 J	0.0048 JN	< 0.0017 U
PCB-123	65510-44-3	ng/g	0.0059 JN	0.0056 J	< 0.0016 U	< 0.00070 U	0.0027 JN	0.0032 JN	0.0036 JN	0.0065 J	0.0054 JN	0.0051 JN
PCB-126	57465-28-8	ng/g	< 0.0015 U	< 0.0016 U	< 0.0016 U	< 0.00092 U	< 0.0013 U	< 0.0016 U	< 0.0016 U	< 0.0016 U	< 0.0020 U	< 0.0016 U
PCB-127	39635-33-1	ng/g	< 0.0015 U	< 0.0015 U	< 0.0015 U	< 0.00075 U	< 0.0012 U	< 0.0016 U	< 0.0015 U	< 0.0015 U	< 0.0019 U	< 0.0015 U
PCB-128/166	38380-07-3	ng/g	0.086	0.065	0.061	0.043	0.046	0.052	0.056	0.062	0.083	0.10
PCB-129/138/160/163	55215-18-4	ng/g	0.63	0.50	0.41	0.43	0.33	0.36	0.48	0.48	0.60	0.79
PCB-130	52663-66-8	ng/g	0.037	0.028	0.026 JN	0.018	0.018 JN	0.025	0.023	0.027	0.038	0.043
PCB-131	61798-70-7	ng/g	< 0.0031 U	0.0046 JN	< 0.0038 U	< 0.0024 U	0.0027 JN	0.0031 JN	< 0.0029 U	0.0064 J	< 0.0051 U	< 0.0034 U
PCB-132	38380-05-1	ng/g	0.19	0.15	0.15	0.13	0.096	0.10	0.14	0.14	0.17	0.21
PCB-133	35694-04-3	ng/g	0.0084 J	0.010	0.0089 J	0.0063 J	0.0067 J	0.0073 J	0.0069 JN	0.0083 J	0.0090 J	0.011
PCB-134/143	52704-70-8	ng/g	0.027	0.029	0.029	0.023	0.018 J	0.018 J	0.011 JN	0.023 J	0.022 JN	0.032
PCB-135/151	52744-13-5	ng/g	0.17	0.18	0.17	0.12	0.11	0.12	0.15	0.14	0.17	0.26
PCB-136	38411-22-2	ng/g	0.064	0.069	0.049 JN	0.038	0.041	0.045	0.055	0.039 JN	0.059	0.082
PCB-137	35694-06-5	ng/g	0.024 JN	0.020	0.013	0.0093 JN	0.0096 JN	0.013	0.014	0.018	0.018 JN	0.027
PCB-139/140	56030-56-9	ng/g	0.0091 J	0.0080 J	0.0075 JN	0.0042 JN	0.0057 J	0.0057 J	0.0071 J	0.0064 JN	0.010 J	0.013 J
PCB-14	34883-41-5	ng/g	< 0.0026 U	< 0.00054 U	< 0.0034 U	< 0.0019 U	< 0.00032 U	< 0.00045 U	< 0.0029 U	< 0.0029 U	< 0.0018 U	< 0.0022 U
PCB-141	52712-04-6	ng/g	0.10	0.10	0.074	0.081	0.059	0.066	0.082	0.084	0.11	0.13
PCB-142	41411-61-4	ng/g	< 0.0028 U	< 0.0016 U	< 0.0034 U	< 0.0022 U	< 0.00099 U	< 0.0013 U	< 0.0026 U	< 0.0030 U	< 0.0046 U	< 0.0031 U
PCB-144	68194-14-9	ng/g	0.016 JN	0.024	0.014	0.011 JN	0.012 J	0.014	0.016	0.013 JN	0.018	0.025
PCB-145	74472-40-5	ng/g	< 0.00034 U	< 0.00010 U	< 0.00036 U	< 0.00031 U	< 0.00015 U	0.00046 JN	< 0.00030 U	< 0.00021 U	< 0.0011 U	0.00073 JN
PCB-146	51908-16-8	ng/g	0.10	0.086	0.079	0.077	0.058	0.060	0.085	0.078	0.10	0.13
PCB-147/149	68194-13-8	ng/g	0.50	0.39	0.44	0.50	0.26	0.28	0.43	0.40	0.49	0.72
PCB-148	74472-41-6	ng/g	< 0.00049 U	0.00072 JN	< 0.00051 U	< 0.00044 U	0.0013 JN	0.0012 JN	< 0.00042 U	< 0.00030 U	< 0.0015 U	0.00080 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B230	B231	B232	B233	B234	B234	B235	B236	B237	B238
		Sample ID	PDI-SG-B230-BL1	PDI-SG-B231-BL1	PDI-SG-B232-BL1	PDI-SG-B233-BL1	PDI-SG-B234-BL1	PDI-SG-B234-BL1-D	PDI-SG-B235-BL1	PDI-SG-B236-BL1	PDI-SG-B237-BL1	PDI-SG-B238-BL1
		Sample Date	20 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018	22 May 2018	22 May 2018	21 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-24 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.021 JN	0.011 JN	0.014	0.0079 JN	0.010 J	0.012 J	0.13	0.023	0.029	0.016 JN
PCB-150	68194-08-1	ng/g	0.0013 J	0.0015 J	< 0.00034 U	< 0.00030 U	0.0010 JN	0.0015 J	0.0017 J	< 0.00020 U	< 0.0010 U	0.00095 JN
PCB-152	68194-09-2	ng/g	< 0.00036 U	< 0.00010 U	< 0.00037 U	< 0.00032 U	0.00050 J	0.00042 J	< 0.00031 U	< 0.00022 U	< 0.0011 U	< 0.00028 U
PCB-153/168	35065-27-1	ng/g	0.49	0.42	0.34	0.37	0.28	0.30	0.43	0.40	0.50	0.68
PCB-154	60145-22-4	ng/g	0.0071 JN	0.0085 JN	0.0090 JN	0.0030 JN	0.0065 JN	0.0073 J	0.0085 JN	0.0057 JN	0.0093 J	0.010 JN
PCB-155	33979-03-2	ng/g	< 0.00033 U	< 0.000095 U	< 0.00035 U	< 0.00030 U	0.00031 JN	0.00046 J+	< 0.00029 U	< 0.00020 U	< 0.0010 U	< 0.00026 U
PCB-156/157	38380-08-4	ng/g	0.071	0.052	0.039	0.024	0.030	0.034	0.036	0.046 JN	0.059	0.061
PCB-158	74472-42-7	ng/g	0.060	0.045	0.032 JN	0.042	0.028	0.032	0.034	0.040	0.054	0.061
PCB-159	39635-35-3	ng/g	< 0.0019 U	0.0030 JN	< 0.0023 U	0.0040 J	0.0034 J	0.0021 JN	< 0.0018 U	< 0.0020 U	< 0.0031 U	< 0.0021 U
PCB-16	38444-78-9	ng/g	0.016	0.0038 JN	0.022 JN	0.0044 J	0.0075 J	0.0080 J	0.030	0.021 JN	0.028	0.010 J
PCB-161	74472-43-8	ng/g	< 0.0019 U	< 0.0011 U	< 0.0023 U	< 0.0014 U	< 0.00064 U	< 0.00086 U	< 0.0017 U	< 0.0020 U	< 0.0030 U	< 0.0021 U
PCB-162	39635-34-2	ng/g	< 0.0018 U	< 0.0010 U	< 0.0022 U	< 0.0014 U	< 0.00061 U	< 0.00082 U	< 0.0017 U	< 0.0020 U	< 0.0030 U	< 0.0020 U
PCB-164	74472-45-0	ng/g	0.040	0.036	0.031	0.028	0.023	0.025	0.031	0.034	0.043 JN	0.054
PCB-165	74472-46-1	ng/g	< 0.0021 U	< 0.0012 U	< 0.0026 U	< 0.0016 U	< 0.00074 U	< 0.00099 U	< 0.0020 U	< 0.0023 U	< 0.0034 U	< 0.0024 U
PCB-167	52663-72-6	ng/g	0.022	0.014	0.013	0.0099	0.012 J	0.013	0.015	0.016	0.024	0.025
PCB-169	32774-16-6	ng/g	< 0.0015 U	< 0.00079 U	< 0.0017 U	< 0.00097 U	< 0.00050 U	< 0.00066 U	< 0.0014 U	< 0.0016 U	0.0053 J+	< 0.0016 U
PCB-17	37680-66-3	ng/g	0.024	0.021 JN	0.033	0.0070 J	0.016	0.018	0.044	0.029 JN	0.044	0.020
PCB-170	35065-30-6	ng/g	0.14	0.13	0.12	0.12	0.094	0.11	0.14	0.14	0.17	0.21
PCB-171/173	52663-71-5	ng/g	0.048	0.033 JN	0.038	0.028 J	0.028	0.031	0.040	0.042	0.047	0.063
PCB-172	52663-74-8	ng/g	0.025	0.025	0.023	0.017 J	0.018	0.021	0.018 JN	0.023	0.027 JN	0.039
PCB-174	38411-25-5	ng/g	0.15	0.15	0.14	0.11 J	0.11	0.11	0.14	0.14	0.17	0.25
PCB-175	40186-70-7	ng/g	0.0058 J	0.0075 J	0.0069 J	0.0039 J	0.0034 JN	0.0039 JN	0.0057 J	0.0050 JN	0.0062 JN	0.0081 JN
PCB-176	52663-65-7	ng/g	0.015	0.015	0.015	0.014 J	0.011 J	0.012 J	0.016	0.012	0.020 JN	0.028
PCB-177	52663-70-4	ng/g	0.085	0.090	0.076	0.055 J	0.065	0.071	0.086	0.072	0.10	0.14
PCB-178	52663-67-9	ng/g	0.035	0.031	0.030	0.025 JN	0.025	0.027	0.034	0.033	0.041	0.057
PCB-179	52663-64-6	ng/g	0.063	0.062	0.070	0.086 J	0.042	0.045	0.065	0.061	0.078	0.12
PCB-18/30	37680-65-2	ng/g	0.050	0.027 JN	0.077	0.013 J	0.018 J	0.020 J	0.084	0.068	0.085	0.033
PCB-180/193	35065-29-3	ng/g	0.32	0.27	0.28	0.22 J	0.21	0.22	0.29	0.28	0.36	0.53
PCB-181	74472-47-2	ng/g	0.0040 JN	< 0.000076 U	0.0036 J	< 0.00072 UJ	< 0.00023 U	0.0017 J	< 0.00064 U	< 0.0013 U	< 0.0022 U	< 0.00041 U
PCB-182	60145-23-5	ng/g	< 0.00086 U	< 0.000072 U	< 0.00086 U	0.0014 JN	< 0.00022 U	< 0.00060 U	< 0.00062 U	< 0.0013 U	< 0.0022 U	< 0.00040 U
PCB-183/185	52663-69-1	ng/g	0.098	0.091	0.095	0.079 J	0.064	0.069	0.093	0.092	0.12	0.17
PCB-184	74472-48-3	ng/g	< 0.00073 U	< 0.000062 U	< 0.00073 U	< 0.00059 UJ	0.00091 J	< 0.00052 U	< 0.00053 U	< 0.0011 U	< 0.0018 U	< 0.00034 U
PCB-186	74472-49-4	ng/g	< 0.00071 U	< 0.000059 U	< 0.00071 U	< 0.00057 UJ	< 0.00018 U	< 0.00050 U	< 0.00051 U	< 0.0011 U	< 0.0018 U	< 0.00033 U
PCB-187	52663-68-0	ng/g	0.19	0.18	0.18	0.17 J	0.14	0.15	0.19	0.19	0.22	0.37
PCB-188	74487-85-7	ng/g	< 0.00062 U	< 0.000055 U	< 0.00063 U	< 0.00044 UJ	< 0.00017 U	< 0.00046 U	< 0.00044 U	< 0.00091 U	< 0.0015 U	< 0.00029 U
PCB-189	39635-31-9	ng/g	< 0.0019 U	0.0040 JN	< 0.0019 U	0.0033 J	0.0037 J	0.0045 J	0.0048 JN	0.0064 J	< 0.0025 U	0.0077 J
PCB-19	38444-73-4	ng/g	0.013 JN	0.038	0.010	0.0095 J	0.029	0.028	0.023	0.011 JN	0.015	0.020 JN
PCB-190	41411-64-7	ng/g	0.030	0.025 JN	0.023	0.018 J	0.019	0.021	0.020 JN	0.024	0.031	0.036
PCB-191	74472-50-7	ng/g	0.0062 J	0.0030 JN	0.0056 J	0.0020 JN	0.0044 J	0.0057 J	0.0045 JN	0.0035 J	0.0057 JN	0.0081 J
PCB-192	74472-51-8	ng/g	< 0.00075 U	< 0.000060 U	< 0.00075 U	< 0.00061 UJ	< 0.00019 U	< 0.00051 U	< 0.00054 U	< 0.0011 U	< 0.0019 U	< 0.00035 U
PCB-194	35694-08-7	ng/g	0.075	0.061	0.080	0.091	0.052	0.052	0.072	0.081	0.089	0.15
PCB-195	52663-78-2	ng/g	0.034	0.025	0.031	0.044	0.023	0.025	0.030	0.030	0.039	0.058
PCB-196	42740-50-1	ng/g	0.035	0.024 JN	0.038	0.042 JN	0.021	0.023	0.031	0.030	0.037 JN	0.068
PCB-197	33091-17-7	ng/g	0.0023 JN	< 0.000089 U	0.0025 JN	< 0.0012 U	0.0014 JN	0.0013 J	0.0028 JN	0.0011 JN	0.0043 J	0.0025 JN
PCB-198/199	68194-17-2	ng/g	0.091	0.067	0.10	0.12	0.059	0.062	0.082	0.074 JN	0.13	0.21
PCB-2	2051-61-8	ng/g	0.0067 JN	0.0078 J	0.0028 JN	0.0030 J+	0.0031 J+	< 0.0029 U	0.0046 JN	0.0057 J	0.0046 J+	0.0090 J
PCB-20/28	38444-84-7	ng/g	0.11	0.078	0.13	0.024	0.050	0.051	0.32	0.13	0.16	0.066
PCB-200	52663-73-7	ng/g	0.0065 J	0.0053 JN	0.0084 JN	0.011 JN	0.0051 JN	0.0067 JN	0.0055 JN	0.0077 J	0.012	0.018
PCB-201	40186-71-8	ng/g	0.0099 J	0.0048 JN	0.0072 JN	0.013	0.0056 J	0.0059 JN	0.0065 JN	0.0091 J	0.010 JN	0.019
PCB-202	2136-99-4	ng/g	0.019	0.012 JN	0.021	0.031	0.012 J	0.013	0.013 JN	0.016	0.028	0.051
PCB-203	52663-76-0	ng/g	0.054	0.042	0.059	0.076	0.035	0.039	0.046	0.042 JN	0.073	0.12
PCB-204	74472-52-9	ng/g	< 0.00051 U	< 0.000098 U	< 0.00063 U	< 0.0012 U	< 0.00031 U	< 0.00036 U	< 0.00054 U	< 0.00038 U	< 0.0018 U	< 0.00039 U
PCB-205	74472-53-0	ng/g	0.0045 J	0.0032 J	0.0047 J	< 0.0027 U	0.0024 J	0.0027 J	< 0.0017 U	< 0.0013 U	< 0.0047 U	0.0059 J
PCB-206	40186-72-9	ng/g	0.055	0.032	0.10	0.079	0.041 JN	0.057 JN	0.043 JN	0.056	0.21	0.25
PCB-207	52663-79-3	ng/g	0.0064 JN	0.0032 JN	0.0092 J	< 0.0024 U	0.0033 J	0.0031 J	0.0057 J	0.0050 J	0.017	0.020
PCB-208	52663-77-1	ng/g	0.021	0.0075 J	0.025	< 0.0024 U	0.011 J	0.013	0.014	0.015	0.069	0.088
PCB-209	2051-24-3	ng/g	0.067	0.032 JN	0.25	0.051	0.047	0.056	0.050	0.060	0.16	0.35
PCB-21/33	55702-46-0	ng/g	0.038	0.028	0.048	0.0088 J	0.015 J	0.018 J	0.14	0.050	0.066	0.024
PCB-22	38444-85-8	ng/g	0.028	0.021	0.036	0.0058 J	0.012 J	0.013	0.13	0.035	0.044	0.018
PCB-23	55720-44-0	ng/g	< 0.00085 U	< 0.0014 U	< 0.0011 U	< 0.00039 U	< 0.00054 U	< 0.00071 U	< 0.00084 U	< 0.00083 U	< 0.00094 U	< 0.00066 U
PCB-24	55702-45-9	ng/g	< 0.00049 U	0.00053 JN	0.0010 JN	< 0.00041 U	< 0.00023 U	< 0.00037 U	0.0017 JN	0.0016 JN	< 0.00058 U	< 0.00044 U
PCB-25	55712-37-3	ng/g	0.012	0.012	0.014	0.0018 JN	0.0049 JN	0.0061 J	0.023	0.010 JN	0.011 JN	0.0068 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B230	B231	B232	B233	B234	B234	B235	B236	B237	B238
		Sample ID	PDI-SG-B230-BL1	PDI-SG-B231-BL1	PDI-SG-B232-BL1	PDI-SG-B233-BL1	PDI-SG-B234-BL1	PDI-SG-B234-BL1-D	PDI-SG-B235-BL1	PDI-SG-B236-BL1	PDI-SG-B237-BL1	PDI-SG-B238-BL1
		Sample Date	20 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018	22 May 2018	22 May 2018	21 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-24 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.021 J	0.016 J	0.025	0.0034 J	0.0083 J	0.010 J	0.045	0.023 J	0.024	0.010 J
PCB-27	38444-76-7	ng/g	0.0041 JN	0.0052 JN	0.0037 JN	0.0017 JN	0.0048 J	0.0045 JN	0.0098 J	0.0055 JN	0.0073 J	0.0047 JN
PCB-3	2051-62-9	ng/g	0.0073 J	0.0041 J	0.0028 JN	0.0018 J+	0.0031 JN	0.0034 J+	0.0020 JN	0.0042 J	0.0045 JN	0.0037 JN
PCB-31	16606-02-3	ng/g	0.086	0.054	0.11	0.018 J	0.033	0.037	0.26	0.10	0.13	0.047
PCB-32	38444-77-8	ng/g	0.018 JN	0.015 JN	0.020 JN	0.0054 J	0.011 J	0.012 J	0.033	0.021	0.025	0.014
PCB-34	37680-68-5	ng/g	< 0.00088 U	< 0.0015 U	< 0.0011 U	< 0.00040 U	< 0.00056 U	< 0.00074 U	< 0.00087 U	< 0.00086 U	< 0.00098 U	< 0.00068 U
PCB-35	37680-69-6	ng/g	< 0.00086 U	< 0.0014 U	< 0.0011 U	< 0.00039 U	0.0018 J	0.0018 J	0.0028 J	0.0021 J	0.0025 J	< 0.00067 U
PCB-36	38444-87-0	ng/g	< 0.00083 U	< 0.0013 U	< 0.0010 U	< 0.00038 U	0.00065 J	< 0.00064 U	< 0.00082 U	0.0012 JN	< 0.00091 U	< 0.00064 U
PCB-37	38444-90-5	ng/g	0.032	0.022	0.031	0.0072 J	0.014	0.016	0.12	0.035	0.044	0.020
PCB-38	53555-66-1	ng/g	< 0.00089 U	< 0.0014 U	< 0.0011 U	< 0.00041 U	< 0.00053 U	< 0.00070 U	< 0.00088 U	< 0.00087 U	< 0.00098 U	< 0.00069 U
PCB-39	38444-88-1	ng/g	< 0.00080 U	< 0.0013 U	< 0.0010 U	< 0.00036 U	< 0.00048 U	0.00067 JN	< 0.00079 U	< 0.00078 U	< 0.00088 U	< 0.00062 U
PCB-4	13029-08-8	ng/g	0.013 JN	0.032	0.0085 JN	0.0098 JN	0.014 J	0.016 JN	0.017 J	0.0086 JN	0.012 JN	0.021 JN
PCB-40/41/71	38444-93-8	ng/g	0.082	0.052	0.099	0.018 J	0.031 J	0.037 J	0.063	0.076	0.11	0.041
PCB-42	36559-22-5	ng/g	0.042	0.021 JN	0.051	0.0077 J	0.018	0.019 JN	0.033	0.038	0.056	0.019 JN
PCB-43/73	70362-46-8	ng/g	0.0053 J	0.0047 J	0.0058 JN	< 0.00082 U	0.0021 J	0.0025 JN	0.0037 JN	0.0045 JN	0.0045 JN	< 0.0019 U
PCB-44/47/65	41464-39-5	ng/g	0.20	0.17	0.19	0.047	0.10	0.11	0.15	0.17	0.23	0.14
PCB-45/51	70362-45-7	ng/g	0.024 JN	0.042	0.031	0.0094 J	0.024 J	0.026	0.030	0.028	0.040	0.026
PCB-46	41464-47-5	ng/g	0.0062 JN	0.0062 JN	0.015	< 0.0011 U	0.0034 J	0.0045 J	0.0063 J	0.0086 J	0.0081 JN	0.0033 JN
PCB-48	70362-47-9	ng/g	0.025	0.012	0.037	0.0055 J	0.0086 J	0.0093 J	0.025	0.019 JN	0.037	0.011
PCB-49/69	41464-40-8	ng/g	0.12	0.11	0.14	0.032	0.068	0.074	0.11	0.12	0.15	0.089
PCB-5	16605-91-7	ng/g	< 0.0034 U	< 0.00064 U	< 0.0044 U	< 0.0025 U	< 0.00039 U	< 0.00054 U	< 0.0038 U	< 0.0038 U	< 0.0024 U	< 0.0029 U
PCB-50/53	62796-65-0	ng/g	0.026	0.039	0.032	0.0090 J	0.024 J	0.026	0.028	0.024	0.034	0.025
PCB-52	35693-99-3	ng/g	0.27	0.24	0.26	0.055	0.13	0.15	0.18	0.21	0.31	0.17
PCB-54	15968-05-5	ng/g	0.0021 J	0.0036 JN	< 0.00011 U	0.0011 JN	0.0084 J	0.0093 J	0.0046 J	0.00051 JN	< 0.00022 U	0.0058 J
PCB-55	74338-24-2	ng/g	< 0.0012 U	< 0.00091 U	< 0.0021 U	< 0.00063 U	< 0.00049 U	< 0.00063 U	< 0.0016 U	< 0.0016 U	0.0029 J	< 0.0015 U
PCB-56	41464-43-1	ng/g	0.072	0.038	0.082	0.016	0.026	0.030	0.066	0.068	0.091	0.036
PCB-57	70424-67-8	ng/g	< 0.0012 U	< 0.00093 U	< 0.0021 U	< 0.00064 U	< 0.00050 U	< 0.00064 U	< 0.0016 U	< 0.0016 U	< 0.0013 U	< 0.0015 U
PCB-58	41464-49-7	ng/g	< 0.0012 U	< 0.00090 U	< 0.0021 U	< 0.00065 U	0.00071 J	0.00072 JN	0.0018 JN	< 0.0016 U	0.0024 J	< 0.0015 U
PCB-59/62/75	74472-33-6	ng/g	0.012 JN	0.0084 JN	0.014 JN	0.0027 J	0.0068 J	0.0063 JN	0.012 J	0.013 J	0.016 J	0.0079 J
PCB-6	25569-80-6	ng/g	0.0059 JN	0.0067 J	< 0.0039 U	0.0026 J	0.0031 J	0.0038 J	0.013 JN	0.0069 JN	0.0085 JN	0.0056 JN
PCB-60	33025-41-1	ng/g	0.029	0.013 JN	0.034	0.0071 J	0.0098 J	0.010 JN	0.016	0.026	0.031 JN	0.013
PCB-61/70/74/76	33284-53-6	ng/g	0.31	0.20	0.31	0.071	0.13	0.14	0.26	0.27	0.38	0.17
PCB-63	74472-34-7	ng/g	0.0064 JN	0.0050 J	0.0063 J	< 0.00059 U	0.0026 J	0.0029 J	0.0047 JN	0.0058 JN	0.0082 J	0.0026 JN
PCB-64	52663-58-8	ng/g	0.070	0.041	0.077	0.015	0.026	0.028	0.057	0.063	0.084	0.037
PCB-66	32598-10-0	ng/g	0.18	0.10	0.19	0.042	0.079	0.085	0.16	0.16	0.22	0.096
PCB-67	73575-53-8	ng/g	0.0029 JN	0.0027 J	0.0050 J	< 0.00056 U	0.0014 JN	0.0015 JN	0.0038 JN	0.0030 JN	0.0051 J	< 0.0013 U
PCB-68	73575-52-7	ng/g	< 0.0011 U	0.0042 JN	< 0.0018 U	< 0.00057 U	0.0024 J+	0.0024 JN	0.0028 J	0.0033 JN	< 0.0012 U	< 0.0013 U
PCB-7	33284-50-3	ng/g	< 0.0031 U	< 0.00061 U	< 0.0040 U	< 0.0023 U	0.0010 JN	< 0.00051 U	< 0.0034 U	< 0.0034 U	0.0022 JN	0.0036 JN
PCB-72	41464-42-0	ng/g	< 0.0012 U	< 0.00091 U	< 0.0020 U	< 0.00063 U	0.0018 JN	0.0023 J	0.0029 J	0.0023 JN	< 0.0013 U	< 0.0015 U
PCB-77	32598-13-3	ng/g	0.018	0.010	0.014	0.0061 J	0.0085 J	0.0094 J	0.012	0.016 JN	0.021	0.010 J
PCB-78	70362-49-1	ng/g	< 0.0012 U	< 0.00090 U	< 0.0021 U	< 0.00065 U	< 0.00049 U	< 0.00062 U	< 0.0016 U	< 0.0016 U	< 0.0014 U	< 0.0015 U
PCB-79	41464-48-6	ng/g	0.0058 J	0.0021 JN	< 0.0018 U	< 0.00057 U	0.0012 JN	0.0018 J	0.0020 J	0.0016 JN	0.0028 J	< 0.0013 U
PCB-8	34883-43-7	ng/g	0.024 J	0.018 JN	0.019	0.0063 JN	0.0085 J	0.011 J	0.084	0.024 JN	0.032	0.018 JN
PCB-80	33284-52-5	ng/g	< 0.0011 U	< 0.00080 U	< 0.0018 U	< 0.00056 U	< 0.00043 U	< 0.00055 U	< 0.0014 U	< 0.0014 U	< 0.0012 U	< 0.0013 U
PCB-81	70362-50-4	ng/g	< 0.0011 U	< 0.00084 U	< 0.0018 U	< 0.00059 U	< 0.00046 U	< 0.00059 U	< 0.0014 U	< 0.0015 U	< 0.0013 U	< 0.0014 U
PCB-82	52663-62-4	ng/g	0.053	0.031 JN	0.036 JN	0.012	0.019	0.025	0.021 JN	0.034 JN	0.048	0.027 JN
PCB-83/99	60145-20-2	ng/g	0.27	0.22	0.21	0.074	0.13	0.14	0.16 JN	0.20	0.24	0.24
PCB-84	52663-60-2	ng/g	0.11	0.072 JN	0.088	0.025	0.042	0.047	0.048 JN	0.071	0.091	0.066
PCB-85/116/117	65510-45-4	ng/g	0.072 JN	0.053	0.049	0.027 J	0.032 J	0.036 J	0.039 JN	0.054	0.065	0.061
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.29	0.21	0.18	0.069	0.11	0.13	0.14 JN	0.20	0.23	0.19
PCB-88/91	55215-17-3	ng/g	0.065	0.055 JN	0.058	0.018 JN	0.033	0.039	0.047	0.042 JN	0.056 JN	0.069
PCB-89	73575-57-2	ng/g	< 0.00056 U	< 0.0013 U	0.0046 JN	< 0.00046 U	0.0020 J	0.0014 JN	< 0.00068 U	0.0040 J	0.0045 J	< 0.00047 U
PCB-9	34883-39-1	ng/g	< 0.0032 U	0.0014 JN	< 0.0041 U	< 0.0023 U	< 0.00042 U	< 0.00060 U	< 0.0035 U	< 0.0035 U	< 0.0022 U	< 0.0027 U
PCB-90/101/113	68194-07-0	ng/g	0.45	0.38	0.28	0.12	0.20	0.23	0.31	0.33	0.38	0.38
PCB-92	52663-61-3	ng/g	0.085	0.086	0.073	0.024	0.042	0.049	0.054	0.065	0.074	0.069
PCB-93/100	73575-56-1	ng/g	0.0081 J	0.017 JN	0.0055 J	0.0036 J	0.010 J	0.0081 JN	0.0067 JN	0.0073 J	0.0082 JN	0.0098 JN
PCB-94	73575-55-0	ng/g	< 0.00056 U	0.0038 JN	< 0.00061 U	< 0.00046 U	0.0023 JN	0.0034 J	0.0043 J	0.0024 JN	< 0.00096 U	< 0.00047 U
PCB-95	38379-99-6	ng/g	0.35	0.33	0.30	0.10	0.16	0.18	0.22	0.25	0.31	0.31
PCB-96	73575-54-9	ng/g	< 0.00042 U	0.0023 JN	0.0040 JN	0.0018 J	0.0023 JN	0.0013 JN	0.0026 JN	< 0.00040 U	< 0.00072 U	0.0039 J
PCB-98/102	60233-25-2	ng/g	0.014 JN	0.0097 J	0.012 J	0.0025 JN	0.0070 JN	0.0088 JN	0.0087 J	0.0070 JN	0.011 JN	0.0087 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	9.4	7.6	8.1	4.8	4.9	5.4	8.2	7.9	10	11

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B230	B231	B232	B233	B234	B234	B235	B236	B237	B238
		Sample ID	PDI-SG-B230-BL1	PDI-SG-B231-BL1	PDI-SG-B232-BL1	PDI-SG-B233-BL1	PDI-SG-B234-BL1	PDI-SG-B234-BL1-D	PDI-SG-B235-BL1	PDI-SG-B236-BL1	PDI-SG-B237-BL1	PDI-SG-B238-BL1
		Sample Date	20 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018	22 May 2018	22 May 2018	21 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-24 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	2.3 J	< 0.48 U	4.8	< 0.37 UJ	< 1.3 U	< 1.3 U	< 0.55 U	0.71	0.98 J	0.46 J
2,4-DDE	3424-82-6	µg/kg	< 2.3 U	< 0.48 U	< 1.5 U	< 0.40 UJ	< 1.3 U	< 1.3 U	< 0.55 U	< 0.59 U	< 0.57 UJ	< 0.51 U
2,4-DDT	789-02-6	µg/kg	< 2.3 U	< 0.48 U	< 1.5 U	< 0.47 UJ	< 1.3 U	< 1.3 U	< 0.55 U	< 0.59 U	< 0.57 UJ	< 0.51 U
4,4'-DDD	72-54-8	µg/kg	5.4	0.60	10	0.38 J	0.88 J	0.84 J	0.85	2.0	3.5 J	1.5
4,4'-DDE	72-55-9	µg/kg	4.9	1.3	3.5	0.88 J	2.3	2.2	1.7	2.2	3.8 J	2.0
4,4'-DDT	50-29-3	µg/kg	1.5 J	0.31 J	0.77 J	0.56 J	0.71 J	< 1.3 U	0.31 J	0.67	1.0 J	1.0
Total DDx (b)	T_DDx (PDI)	µg/kg	15	2.5	20	2.1	4.5	3.7	3.1	5.9	9.6	5.2
Aldrin	309-00-2	µg/kg	< 2.3 U	< 0.48 U	< 1.5 U	< 0.40 UJ	< 1.3 U	< 1.3 U	< 0.55 U	< 0.59 U	< 0.57 UJ	< 0.51 U
alpha-Chlordane	5103-71-9	µg/kg	< 4.7 U	< 0.96 U	< 3.0 U	< 0.75 UJ	< 2.5 U	< 2.6 U	< 1.1 U	0.38 J	< 1.1 UJ	< 1.0 U
cis-Nonachlor	5103-73-1	µg/kg	< 2.3 U	< 0.49 U	< 1.5 U	< 0.49 UJ	< 1.3 UJ	< 1.3 UJ	< 0.55 U	< 0.59 U	< 0.57 UJ	< 0.51 U
Dieldrin	60-57-1	µg/kg	< 4.7 U	< 1.0 U	< 3.0 U	< 1.0 UJ	< 2.5 U	< 2.6 U	< 1.1 U	< 1.2 U	< 1.1 UJ	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 2.3 U	< 0.48 U	< 1.5 U	< 0.37 UJ	< 1.3 U	< 1.3 U	< 0.55 U	< 0.59 U	< 0.57 UJ	< 0.51 U
gamma-Chlordane	5566-34-7	µg/kg	< 4.7 U	< 0.96 U	< 3.0 U	0.45 J	< 2.5 U	< 2.6 U	< 1.1 U	< 1.2 U	< 1.1 UJ	0.39 J
Heptachlor	76-44-8	µg/kg	< 2.3 U	< 0.48 U	< 1.5 U	< 0.37 UJ	< 1.3 U	< 1.3 U	< 0.55 U	< 0.59 U	< 0.57 UJ	< 0.51 U
Oxychlordane	27304-13-8	µg/kg	< 4.7 U	< 1.0 U	< 3.0 U	< 1.0 UJ	< 2.5 U	< 2.6 U	< 1.1 U	< 1.2 U	< 1.1 UJ	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 4.7 U	< 0.96 U	< 3.0 U	0.32 J	< 2.5 U	< 2.6 U	< 1.1 U	< 1.2 U	0.40 J	< 1.0 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 4.7 U	< 1 U	< 3 U	1.27	< 2.5 U	< 2.6 U	< 1.1 U	0.98	0.95	0.89
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.1	2.0	1.3	5.0	3.2	2.2	3.7	2.7	6.8	3.6
Acenaphthene	83-32-9	µg/kg	4.2	2.5	2.6	7.0	1.9	1.3	2.0	3.8	6.5	2.4
Acenaphthylene	208-96-8	µg/kg	2.9	1.2	1.2	12	1.5	1.4	4.1	2.5	3.2	4.7
Anthracene	120-12-7	µg/kg	8.6	3.1	7.4	37	3.9	4.1	5.8	7.5	8.5	12
Benz(a)anthracene	56-55-3	µg/kg	36	7.9	19	110	10	12	26	31	30	48
Benzo(a)pyrene	50-32-8	µg/kg	33	7.9	21	78	22	28	29	27	33	54
Benzo(b)fluoranthene	205-99-2	µg/kg	49	11	26	88	21	22	36	40	52	62
Benzo(g,h,i)perylene	191-24-2	µg/kg	27	7.6	16	45	11	11	23	22	32	41
Benzo(k)fluoranthene	207-08-9	µg/kg	15	3.2	7.9	33	6.5	8.4	11	12	17	22
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	89 J	72 J	52 J	25 J	130	130 J	75 J	91 J	92 J	69 J
Chrysene	218-01-9	µg/kg	52	12	26	150	17	20	34	47	60	64
Dibenz(a,h)anthracene	53-70-3	µg/kg	5.0	1.4	3.4	14	2.1	2.0	4.5	4.3	6.0	8.8
Fluoranthene	206-44-0	µg/kg	100	22	51	190	27	26	49	89	160	96
Fluorene	86-73-7	µg/kg	7.2	3.3	3.3	16	3.2	2.3	3.3	6.4	9.2	4.9
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	26	6.2	15	47	9.2	9.8	22	21	31	43
Naphthalene	91-20-3	µg/kg	3.5	4.4	2.5	3.8	5.9	2.8	12	3.2	5.2	6.8
Phenanthrene	85-01-8	µg/kg	42	15	24	300	16	13	18	38	57	44
Pyrene	129-00-0	µg/kg	96	25	50	260	29	28	51	84	130	110
Total PAHs (b)	T_PAH (PDI)	µg/kg	511	136	278	1396	190	194	334	441	647	627
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	49	12	31	117	28	34	42	41	51	78
Metals												
Arsenic	7440-38-2	mg/kg	4.7	4.3	3.5	3.6	5.8	6.4	4.1	4.7	4.3	4.8
Cadmium	7440-43-9	mg/kg	0.24 J	0.18 J	0.15 J	0.097 J	0.20 J	0.17 J	0.19 J	0.16 J	0.18 J	0.18 J
Copper	7440-50-8	mg/kg	39	33	19	22	46	52	32	36	33	48
Lead	7439-92-1	mg/kg	11	8.5	10	8.2	12	12	8.4	9.9	11	30
Mercury	7439-97-6	mg/kg	0.059 J	0.048 J	0.034	0.10	0.053	0.21	0.051 J	0.065	0.049 J	0.87
Tri-n-butyltin	36643-28-4	µg/kg	1.1 J	4.3	1.1 J	2.6	5.4	5.4	1.2 J	1.1 J	1.7 J	13
Zinc	7440-66-6	mg/kg	97	89	70	68	100	110	82	91	83	100
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	98 J	48 J	83	< 74 U	66 J	57 J	66 J	80 J	52 J	56 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	640	330	280	140	450	410	390	510	280	430
Other												
Total Solids@104C - D2216 (f)	TSOLID	%					38.5	38.5				
Total Solids@104C - E160.3 (f)	TSOLID	%	39.4	50.0	62.9	64.4			43.2	42.0	48.0	47.6
Total Solids@104C - E160.3M (f)	TSOLID	%	40.0	50.8	63.3	65.7	39.5	38.8	45.1	42.4	43.0	48.2
Total Solids@70C	TSOLID70	%	40	52	65	70	39	39	45	44	42	49
Gravel	GS-Gravel	%	0.5	0	0.1	0.6	0		0	0	0	1.2
Sand, Coarse	GS-Csand	%	0.1	0.3	0.1	2.1	0		0	0	0	1.0
Sand, Medium	GS-Msand	%	0.2	1.0	12.5	23.0	0.6		0.2	2.1	0.1	2.0
Sand, Fine (#200) (d)	GS-Fsand-200	%	8.212	43	56.47	52.91	9.893		23.27	18.82	9.02	32.35
Sand, Fine (#230) (d)	GS-Fsand	%	11.0	48.0	59.1	55.2	13.1		27.6	20.4	10.8	36.9
Silt (#200) (d)	GS-Silt-200	%	77.08	47.59	24.02	17.98	76.60		65.02	68.97	79.37	55.64

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B230	B231	B232	B233	B234	B234	B235	B236	B237	B238
		Sample ID	PDI-SG-B230-BL1	PDI-SG-B231-BL1	PDI-SG-B232-BL1	PDI-SG-B233-BL1	PDI-SG-B234-BL1	PDI-SG-B234-BL1-D	PDI-SG-B235-BL1	PDI-SG-B236-BL1	PDI-SG-B237-BL1	PDI-SG-B238-BL1
		Sample Date	20 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018	22 May 2018	22 May 2018	21 Apr 2018	20 Apr 2018	20 Apr 2018	20 Apr 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-24 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	74.3	42.6	21.4	15.7	73.4		60.7	67.4	77.6	51.1
Clay	GS-Clay	%	13.9	8.2	6.8	3.4	12.9		11.4	10.1	11.5	8.0
Percent Fines (e)	GS-FINES	%	90.98	55.79	30.82	21.38	89.5		76.42	79.07	90.87	63.64
Total Organic Carbon	TOC	mg/kg	28000	17000	8900	8000	28000	26000	20000	23000	23000	29000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B239	B240	B240	B241	B242	B243	B244	B245	B246	B247
		Sample ID	PDI-SG-B239-BL1	PDI-SG-B240-BL1	PDI-SG-B240-BL1-D	PDI-SG-B241-BL1	PDI-SG-B242-BL1	PDI-SG-B243-BL1	PDI-SG-B244-BL1	PDI-SG-B245-BL1	PDI-SG-B246-BL1	PDI-SG-B247-BL1
		Sample Date	21 Apr 2018	20 Apr 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018	22 Apr 2018	21 Apr 2018	22 May 2018	22 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.075	0.074	0.065	0.20	0.039	0.22	0.18	0.013	0.078	0.081
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.011	0.015	0.013	0.014	0.0082 J	0.021	0.027	0.0029 J	0.010 JN	0.0092
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0026 J	0.0012 J	0.0011 J	0.0021 J	< 0.00052 U	0.0012 J	0.0016 J	0.00057 JN	0.0016 JN	0.00093 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00088 J	0.00048 J	0.00069 JN	0.0012 J	0.00061 J	0.00091 J	0.0012 J	< 0.000040 U	0.00081 J	0.00094 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.029	0.0023 J	0.0020 J	0.0034 J	0.00071 JN	0.0020 J	0.0024 J	0.00099 J	0.0016 JN	0.0014 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0029 J	0.0024 JN	0.0027 J	0.0043 J	0.0018 J	0.0040 J	0.0045 J	0.00053 J	0.0027 JN	0.0030 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0094	0.00096 J	0.00085 J	0.0015 J	0.0020 J	0.0013 J	0.0016 J	0.00042 J	0.00082 JN	0.00081 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0019 J	0.0011 J	0.0017 J	0.0028 J	0.0014 J	0.0026 J	0.0028 J	0.00038 JN	0.0019 JN	0.0022 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0015 J+	0.0012 J+	< 0.000076 U	0.0012 J+	< 0.00024 U	< 0.00021 U	0.00063 J+	0.00081 J+	0.0018 J+	0.00057 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00053 J	0.00027 JN	0.00042 J	0.00060 JN	< 0.00016 U	0.00054 J	0.00054 J	0.00012 J	0.00040 J+	0.00065 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.12	0.00053 J	0.00039 J	0.0020 J	< 0.00017 U	0.00061 J	0.00072 J	0.00047 J	0.00085 JN	0.00058 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0036 J	0.00050 J	0.00038 J	0.00064 J	< 0.00025 U	0.00048 J	0.00065 JN	0.00014 J	0.0015 JN	0.00042 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.070	0.00042 J	0.00047 J	0.00087 J	< 0.00019 U	0.00045 JN	0.00070 J	0.00019 JN	0.00052 JN	0.00046 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00035 JN	0.00021 JN	0.00036 J	0.00031 JN	0.00011 JN	0.00021 JN	0.00027 JN	< 0.000059 U	< 0.00015 U	0.00030 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.16	0.00075 J	0.00069 J	0.0021	0.00022 JN	0.00070 J	0.00096 J	0.00033 J	0.00090	0.00080 J
OCDD	3268-87-9	µg/kg	0.66	0.65	0.64	1.7	0.35	1.8	1.7	0.13	0.51	0.68
OCDF	39001-02-0	µg/kg	0.045	0.046	0.060	0.080	0.023	0.056	0.083	0.0080	0.022	0.047
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.047	0.0027	0.0028	0.0056	0.0014	0.0051	0.0051	0.00079	0.0029	0.0032
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.047	0.0021	0.0028	0.005	0.0012	0.0048	0.0049	0.00069	0.0019	0.0031
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.047	0.002	0.0028	0.0047	0.0012	0.0047	0.0048	0.00066	0.0018	0.0029
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0051 J	< 0.00020 U	0.0027 J	0.0049 J	0.0020 JN	0.011 J+	0.010	0.0026 J	< 0.0023 U	0.0056 J
PCB-10	33146-45-1	ng/g	< 0.0040 U	< 0.0028 U	< 0.0025 U	< 0.0036 U	< 0.00092 U	< 0.0023 U	< 0.0032 U	< 0.0033 U	< 0.00050 U	< 0.0013 U
PCB-103	60145-21-3	ng/g	0.0097 J	0.013 JN	0.018	0.014 JN	0.0038 JN	0.0023 JN	0.016 JN	0.0012 JN	0.0044 JN	0.017
PCB-104	56558-16-8	ng/g	< 0.00054 U	< 0.00032 U	< 0.00021 U	< 0.00046 U	< 0.00076 U	< 0.00027 U	< 0.00046 U	< 0.00033 U	< 0.00027 U	< 0.00074 U
PCB-105	32598-14-4	ng/g	0.21	0.077	0.081	0.21	0.046	0.14	0.18	0.032	0.12	0.19 J
PCB-106	70424-69-0	ng/g	< 0.0020 U	< 0.0012 U	< 0.00097 U	< 0.0021 U	< 0.0016 U	< 0.0016 U	< 0.0018 U	< 0.00075 U	< 0.0012 U	< 0.0030 U
PCB-107	70424-68-9	ng/g	0.051	0.029	0.030	0.059	0.013	0.040	0.062	0.0080 J	0.024	0.048
PCB-108/124	70362-41-3	ng/g	0.018 JN	0.0093 J	0.0091 J	0.021 JN	0.0065 J	0.016 J	0.019 JN	0.0028 JN	0.012 J	0.020 J
PCB-11	2050-67-1	ng/g	0.11	0.030	0.031	0.054	0.090	0.063	0.055	0.0062 JN	0.025	0.083
PCB-110/115	38380-03-9	ng/g	0.68	0.41	0.55	0.71	0.16	0.62	0.95	0.12	0.38	0.76
PCB-111	39635-32-0	ng/g	< 0.00050 U	< 0.00030 U	< 0.00019 U	< 0.00042 U	< 0.00068 U	< 0.00025 U	< 0.00042 U	< 0.00031 U	0.0017 J	< 0.00066 U
PCB-112	74472-36-9	ng/g	0.0013 JN	< 0.00032 U	< 0.00020 U	< 0.00044 U	< 0.00074 U	< 0.00027 U	< 0.00044 U	< 0.00032 U	< 0.00027 U	0.0061 J
PCB-114	74472-37-0	ng/g	0.0088 J	0.0039 J	0.0030 JN	0.015	0.0034 J	0.0065 J	0.010	0.0024 J	0.0078 J	< 0.0027 U
PCB-118	31508-00-6	ng/g	0.57	0.25	0.25	0.59	0.12	0.42	0.57	0.081	0.31	0.55 J
PCB-12/13	2974-92-7	ng/g	0.0064 JN	0.0041 JN	0.0032 JN	0.0068 JN	< 0.00078 U	0.0041 JN	0.0071 JN	< 0.0030 U	< 0.00042 U	0.0052 JN
PCB-120	68194-12-7	ng/g	0.0034 JN	0.0044 J	0.0052 J	0.0047 JN	< 0.00067 U	0.0045 J	0.0044 JN	< 0.00031 U	0.0018 JN	0.0062 JN
PCB-121	56558-18-0	ng/g	< 0.00052 U	< 0.00031 U	< 0.00020 U	< 0.00044 U	< 0.00073 U	< 0.00026 U	< 0.00044 U	< 0.00032 U	< 0.00026 U	< 0.00070 U
PCB-122	76842-07-4	ng/g	0.0060 J	< 0.0014 U	0.0022 JN	0.011 J	< 0.0017 U	0.0058 J	0.0075 J	0.0014 JN	0.0051 J	< 0.0033 U
PCB-123	65510-44-3	ng/g	0.0055 JN	0.0046 J	0.0045 J+	0.011 JN	< 0.0014 U	0.0086 J	0.0099	0.0014 JN	0.0070 J	0.010 J
PCB-126	57465-28-8	ng/g	0.0022 JN	< 0.0013 U	< 0.0010 U	0.0045 JN	< 0.0015 U	< 0.0019 U	0.0031 J	< 0.00078 U	0.0016 J	< 0.0029 U
PCB-127	39635-33-1	ng/g	< 0.0020 U	< 0.0012 U	< 0.00097 U	< 0.0021 U	< 0.0015 U	< 0.0016 U	< 0.0018 U	< 0.00075 U	< 0.0012 U	< 0.0028 U
PCB-128/166	38380-07-3	ng/g	0.12	0.090	0.10	0.098	0.034	0.14	0.18	0.017 J	0.070	0.16
PCB-129/138/160/163	55215-18-4	ng/g	0.85	0.70	0.77	0.89	0.27	1.1	1.4	0.13	0.44	1.0
PCB-130	52663-66-8	ng/g	0.050	0.045	0.045	0.047	0.017	0.069	0.086	0.0088 J	0.032	0.060 JN
PCB-131	61798-70-7	ng/g	0.0092 JN	< 0.0032 U	< 0.0055 U	0.0092 J	0.0035 JN	0.010	0.016 JN	< 0.0020 U	0.0044 JN	0.013
PCB-132	38380-05-1	ng/g	0.26	0.20	0.20	0.26	0.065	0.36	0.46	0.039	0.14	0.33
PCB-133	35694-04-3	ng/g	0.012 J	0.014 JN	0.020	0.014	0.0059 J	0.021	0.034	< 0.0018 U	0.0079 J	0.027
PCB-134/143	52704-70-8	ng/g	0.045	0.031	0.030	0.028 JN	0.011 JN	0.046 JN	0.066	0.0045 JN	0.025	0.057 JN
PCB-135/151	52744-13-5	ng/g	0.27	0.24	0.29	0.31	0.079	0.36	0.44	0.049	0.14	0.33
PCB-136	38411-22-2	ng/g	0.092	0.075	0.089	0.11	0.032 JN	0.12	0.15	0.016	0.051	0.12
PCB-137	35694-06-5	ng/g	0.035	0.021	0.016 JN	0.022 JN	0.0076 JN	0.041	0.051	0.0047 JN	0.023	0.042
PCB-139/140	56030-56-9	ng/g	0.013 J	0.0084 JN	< 0.0045 U	0.013 J	0.0033 JN	0.016 J	0.024	< 0.0016 U	0.0076 J	0.015 JN
PCB-14	34883-41-5	ng/g	< 0.0031 U	< 0.0022 U	< 0.0019 U	< 0.0027 U	< 0.00071 U	< 0.0018 U	< 0.0025 U	< 0.0025 U	< 0.00039 U	< 0.0010 U
PCB-141	52712-04-6	ng/g	0.14	0.11	0.12	0.16	0.050	0.19	0.23	0.024	0.077	0.19
PCB-142	41411-61-4	ng/g	< 0.0043 U	< 0.0029 U	< 0.0050 U	< 0.0047 U	< 0.0012 U	< 0.0038 U	< 0.0052 U	< 0.0018 U	< 0.00090 U	< 0.0036 U
PCB-144	68194-14-9	ng/g	0.017 JN	0.021	0.029	0.034	0.0082 JN	0.030 JN	0.039 JN	0.0047 JN	0.017	0.042
PCB-145	74472-40-5	ng/g	< 0.00033 U	< 0.00032 U	< 0.00014 U	< 0.00053 U	< 0.000085 U	< 0.00021 U	< 0.00047 U	< 0.00017 U	< 0.000098 U	< 0.00014 U
PCB-146	51908-16-8	ng/g	0.14	0.16	0.17	0.17	0.041	0.20	0.29	0.025	0.066	0.18
PCB-147/149	68194-13-8	ng/g	0.76	0.76	0.83	0.83	0.20	1.0	1.4	0.13	0.32	0.79
PCB-148	74472-41-6	ng/g	0.0034 J	0.0028 JN	0.0033 JN	< 0.00074 U	< 0.00011 U	0.0034 J	0.0071 JN	< 0.00023 U	0.0014 J	0.0029 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B239	B240	B240	B241	B242	B243	B244	B245	B246	B247
		Sample ID	PDI-SG-B239-BL1	PDI-SG-B240-BL1	PDI-SG-B240-BL1-D	PDI-SG-B241-BL1	PDI-SG-B242-BL1	PDI-SG-B243-BL1	PDI-SG-B244-BL1	PDI-SG-B245-BL1	PDI-SG-B246-BL1	PDI-SG-B247-BL1
		Sample Date	21 Apr 2018	20 Apr 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018	22 Apr 2018	21 Apr 2018	22 May 2018	22 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.036	0.012 JN	0.013 JN	0.061	0.011	0.020 JN	0.033	0.014	0.020	0.028
PCB-150	68194-08-1	ng/g	0.0015 JN	0.0016 JN	0.0026 JN	< 0.00050 U	< 0.000077 U	0.0022 J	0.0042 J	< 0.00016 U	0.00090 JN	0.0035 J
PCB-152	68194-09-2	ng/g	0.00091 JN	< 0.00033 U	0.00073 JN	< 0.00054 U	< 0.000082 U	0.00088 JN	0.0022 J	< 0.00017 U	0.00068 JN	0.0024 J
PCB-153/168	35065-27-1	ng/g	0.72	0.68	0.76	0.78	0.24	0.95	1.2	0.12	0.33	0.86
PCB-154	60145-22-4	ng/g	0.011 JN	0.018	0.020	0.019	0.0032 JN	0.019	0.030	0.0032 J	0.0064 J	0.023
PCB-155	33979-03-2	ng/g	< 0.00031 U	< 0.00031 U	< 0.00013 U	< 0.00050 U	< 0.000078 U	< 0.00020 U	< 0.00045 U	< 0.00016 U	< 0.00019 U	< 0.00013 U
PCB-156/157	38380-08-4	ng/g	0.084	0.047	0.050	0.084	0.023 JN	0.084	0.11	0.014 J	0.048	0.096 J
PCB-158	74472-42-7	ng/g	0.074	0.053	0.054	0.068	0.023	0.090	0.11	0.012	0.043	0.10
PCB-159	39635-35-3	ng/g	< 0.0029 U	< 0.0019 U	< 0.0034 U	< 0.0031 U	0.0023 JN	0.0080 J	0.010 JN	< 0.0012 U	0.0019 JN	0.0097 JN
PCB-16	38444-78-9	ng/g	0.050	0.0099	0.014	0.084	0.0061 J	0.013 JN	0.021	0.013	0.021	0.012 JN
PCB-161	74472-43-8	ng/g	< 0.0029 U	< 0.0019 U	< 0.0033 U	< 0.0031 U	< 0.00076 U	< 0.0025 U	< 0.0035 U	< 0.0012 U	< 0.00059 U	< 0.0024 U
PCB-162	39635-34-2	ng/g	< 0.0028 U	< 0.0019 U	< 0.0033 U	< 0.0031 U	< 0.00072 U	< 0.0025 U	0.0055 JN	< 0.0012 U	< 0.00056 U	< 0.0022 U
PCB-164	74472-45-0	ng/g	0.052 JN	0.051	0.051	0.063	0.021	0.080	0.11	0.0066 JN	0.028	0.075
PCB-165	74472-46-1	ng/g	< 0.0032 U	< 0.0022 U	< 0.0038 U	< 0.0035 U	< 0.00086 U	< 0.0029 U	< 0.0039 U	< 0.0013 U	< 0.00067 U	< 0.0027 U
PCB-167	52663-72-6	ng/g	0.028	0.023	0.021	0.024	0.0084 J	0.033	0.040	0.0035 JN	0.016	0.034
PCB-169	32774-16-6	ng/g	< 0.0023 U	< 0.0014 U	< 0.0025 U	< 0.0024 U	< 0.00055 U	< 0.0019 U	< 0.0028 U	< 0.00092 U	< 0.00043 U	< 0.0018 U
PCB-17	37680-66-3	ng/g	0.065	0.021	0.026	0.11 JN	0.0098 JN	0.030	0.031 JN	0.018	0.023 JN	0.018
PCB-170	35065-30-6	ng/g	0.22	0.25	0.27	0.27	0.071	0.28	0.39	0.047	0.10	0.27
PCB-171/173	52663-71-5	ng/g	0.069	0.074	0.084	0.080	0.017 JN	0.081	0.11	0.014 J	0.032	0.090
PCB-172	52663-74-8	ng/g	0.040	0.035 JN	0.052	0.040	0.012	0.044	0.067	0.0099	0.019	0.050
PCB-174	38411-25-5	ng/g	0.24	0.27	0.35	0.27	0.084	0.27	0.42	0.046	0.11	0.31
PCB-175	40186-70-7	ng/g	0.0066 JN	0.0080 JN	0.012	0.0082 JN	0.0026 J	0.0087 J	0.014 JN	0.0032 J	0.0044 J	0.012 JN
PCB-176	52663-65-7	ng/g	0.025	0.031	0.039	0.036	0.0055 JN	0.036	0.048	0.0064 J	0.013	0.033
PCB-177	52663-70-4	ng/g	0.13	0.16	0.19	0.17	0.048 JN	0.16	0.25	0.025	0.069	0.18
PCB-178	52663-67-9	ng/g	0.056	0.064	0.092	0.058 JN	0.020	0.074	0.12	0.014	0.025	0.063
PCB-179	52663-64-6	ng/g	0.11	0.13	0.19	0.13	0.040	0.16	0.21	0.024	0.043	0.14
PCB-18/30	37680-65-2	ng/g	0.14	0.032	0.041	0.25	0.010 JN	0.050	0.052 JN	0.040	0.050	0.035
PCB-180/193	35065-29-3	ng/g	0.46	0.56	0.79	0.61	0.14 JN	0.57	0.87	0.10	0.22	0.61
PCB-181	74472-47-2	ng/g	< 0.0014 U	< 0.0012 U	< 0.00028 U	< 0.00092 U	< 0.00073 U	< 0.00054 U	< 0.00071 U	< 0.0012 U	0.0014 JN	< 0.00030 U
PCB-182	60145-23-5	ng/g	< 0.0014 U	< 0.0012 U	< 0.00027 U	0.0043 J	< 0.00069 U	0.0040 JN	0.0061 JN	< 0.0011 U	< 0.00036 U	< 0.00029 U
PCB-183/185	52663-69-1	ng/g	0.15	0.18	0.25	0.19	0.049	0.19	0.28	0.032 JN	0.075	0.20
PCB-184	74472-48-3	ng/g	< 0.0012 U	< 0.00098 U	< 0.00023 U	< 0.00076 U	0.0012 JN	< 0.00044 U	< 0.00058 U	< 0.00097 U	< 0.00031 U	< 0.00025 U
PCB-186	74472-49-4	ng/g	< 0.0011 U	< 0.00096 U	< 0.00023 U	< 0.00074 U	< 0.00057 U	< 0.00043 U	< 0.00056 U	< 0.00095 U	< 0.00030 U	< 0.00024 U
PCB-187	52663-68-0	ng/g	0.29	0.41	0.60	0.37	0.098	0.40	0.61	0.062	0.14	0.38
PCB-188	74487-85-7	ng/g	< 0.00099 U	< 0.00083 U	< 0.00020 U	< 0.00064 U	< 0.00052 U	< 0.00036 U	< 0.00049 U	< 0.00083 U	< 0.00028 U	< 0.00022 U
PCB-189	39635-31-9	ng/g	< 0.0029 U	0.0056 J	0.0090 JN	0.0093 J	0.0018 JN	0.0072 J	0.012 JN	< 0.00095 U	0.0041 J	0.0093 JN
PCB-19	38444-73-4	ng/g	0.028	0.012 JN	0.011 JN	0.034 JN	0.012 JN	0.027 JN	0.027	0.0036 JN	0.0079 J	0.028
PCB-190	41411-64-7	ng/g	0.037	0.039	0.052	0.046	0.012 JN	0.045	0.069	0.011	0.021	0.053
PCB-191	74472-50-7	ng/g	0.0070 JN	0.0096 J	0.010	0.010 J	< 0.00055 U	0.0079 JN	0.013	0.0018 JN	0.0049 J	0.013
PCB-192	74472-51-8	ng/g	< 0.0012 U	< 0.0010 U	< 0.00024 U	< 0.00078 U	< 0.00058 U	< 0.00045 U	< 0.00060 U	< 0.0010 U	< 0.00030 U	< 0.00024 U
PCB-194	35694-08-7	ng/g	0.11	0.15 J	0.31 J	0.16	0.034	0.16	0.26	0.020 JN	0.056	0.15
PCB-195	52663-78-2	ng/g	0.047	0.059 J	0.10 J	0.071	0.014	0.069	0.10	0.012	0.023	0.061
PCB-196	42740-50-1	ng/g	0.051	0.067 J	0.14 J	0.069	0.017	0.067	0.11	0.011	0.025	0.063
PCB-197	33091-17-7	ng/g	0.0034 JN	0.0035 JN	0.0097	0.0041 JN	< 0.00014 U	0.0025 JN	0.0058 JN	0.00064 JN	0.0016 JN	0.0044 JN
PCB-198/199	68194-17-2	ng/g	0.13	0.18 J	0.37 J	0.15 JN	0.051	0.18	0.30	0.025	0.067	0.19
PCB-2	2051-61-8	ng/g	0.0075 J	0.0049 J	0.0052 JN	0.012	0.0055 J	0.014 J+	0.0079 JN	0.0020 JN	0.0056 J+	0.016
PCB-20/28	38444-84-7	ng/g	0.28	0.078	0.080	0.49	0.043 JN	0.091	0.12	0.087	0.12	0.11
PCB-200	52663-73-7	ng/g	0.011 JN	0.018	0.036	0.018	0.0028 JN	0.017	0.027	0.0036 JN	0.0079 J	0.017 JN
PCB-201	40186-71-8	ng/g	0.0099 JN	0.017 J	0.042 J	0.017 JN	0.0023 JN	0.013	0.030 JN	0.0045 J	0.0066 J	0.014 JN
PCB-202	2136-99-4	ng/g	0.025	0.036 JN	0.078 J	0.028 JN	0.0093 J	0.036	0.068	0.0052 J	0.013	0.043
PCB-203	52663-76-0	ng/g	0.071	0.10 J	0.23 J	0.093 JN	0.025 JN	0.10	0.16	0.018	0.041	0.12
PCB-204	74472-52-9	ng/g	< 0.00060 U	< 0.00050 U	< 0.00018 U	< 0.00051 U	< 0.00015 U	< 0.00033 U	< 0.00061 U	< 0.00042 U	< 0.00038 U	< 0.000084 U
PCB-205	74472-53-0	ng/g	0.0038 JN	0.0065 JN	0.013	0.0097 J	0.0015 JN	0.0079 J	0.013	< 0.0014 U	0.0033 J	0.0082 J
PCB-206	40186-72-9	ng/g	0.072	0.12 J	0.21 J	0.11	0.046	0.14	0.23	0.024	0.074 JN	0.15
PCB-207	52663-79-3	ng/g	0.0075 J	0.0094 J	0.023	0.010 J	< 0.0017 U	0.012 JN	0.025	< 0.00096 U	0.0050 J	0.012 JN
PCB-208	52663-77-1	ng/g	0.026	0.032 J	0.054 J	0.032	0.0090 J	0.046	0.081	0.0043 J	0.019	0.040
PCB-209	2051-24-3	ng/g	0.097 J+	0.10	0.11	0.11	0.025	0.15	0.36	0.019	0.11	0.088
PCB-21/33	55702-46-0	ng/g	0.10	0.030	0.031	0.21	0.015 JN	0.033	0.044	0.041	0.050	0.039
PCB-22	38444-85-8	ng/g	0.073	0.018	0.019	0.12	0.014	0.023	0.032	0.022	0.035	0.028
PCB-23	55720-44-0	ng/g	< 0.0012 U	< 0.00071 U	< 0.00061 U	< 0.0012 U	< 0.00061 U	< 0.0011 U	< 0.00073 U	< 0.00058 U	< 0.00066 U	< 0.0015 U
PCB-24	55702-45-9	ng/g	0.0028 J	< 0.00044 U	< 0.00028 U	0.0022 JN	< 0.00012 U	0.0012 JN	0.0010 JN	< 0.00048 U	0.00084 JN	< 0.00032 U
PCB-25	55712-37-3	ng/g	0.021	0.0074 J	0.0075 J	0.032	0.0058 J	0.0077 JN	0.018	0.0046 J	0.0080 J	0.012 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B239	B240	B240	B241	B242	B243	B244	B245	B246	B247
		Sample ID	PDI-SG-B239-BL1	PDI-SG-B240-BL1	PDI-SG-B240-BL1-D	PDI-SG-B241-BL1	PDI-SG-B242-BL1	PDI-SG-B243-BL1	PDI-SG-B244-BL1	PDI-SG-B245-BL1	PDI-SG-B246-BL1	PDI-SG-B247-BL1
		Sample Date	21 Apr 2018	20 Apr 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018	22 Apr 2018	21 Apr 2018	22 May 2018	22 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.040	0.011 JN	0.012 J	0.062	0.0088 J	0.016 J	0.027	0.0096 J	0.016 J	0.018 J
PCB-27	38444-76-7	ng/g	0.0090 JN	0.0047 JN	0.0035 JN	0.018	0.0015 JN	0.0064 J	0.0068 J	0.0026 JN	0.0041 JN	0.0048 JN
PCB-3	2051-62-9	ng/g	0.0050 JN	0.0028 J+	0.0030 J	0.0055 JN	0.0034 JN	0.0097 J+	0.011 JN	0.0021 JN	0.0035 JN	0.0064 J
PCB-31	16606-02-3	ng/g	0.22	0.055	0.060	0.40	0.033	0.067	0.094	0.069	0.086	0.073
PCB-32	38444-77-8	ng/g	0.043	0.013 JN	0.017 JN	0.075	0.0071 J	0.018	0.019 JN	0.012	0.017	0.017 JN
PCB-34	37680-68-5	ng/g	< 0.0013 U	< 0.00074 U	< 0.00063 U	< 0.0013 U	< 0.00063 U	< 0.0011 U	< 0.00076 U	< 0.00061 U	< 0.00068 U	< 0.0016 U
PCB-35	37680-69-6	ng/g	0.0038 J	0.0017 J	0.0013 J	0.0063 J	0.0014 J	0.0022 JN	0.0024 JN	< 0.00059 U	0.0013 JN	< 0.0015 U
PCB-36	38444-87-0	ng/g	< 0.0012 U	< 0.00069 U	< 0.00059 U	0.0014 J	< 0.00054 U	< 0.0010 U	< 0.00071 U	< 0.00057 U	< 0.00059 U	< 0.0014 U
PCB-37	38444-90-5	ng/g	0.069	0.022	0.021	0.15	0.010 JN	0.026	0.039	0.025	0.033	0.034
PCB-38	53555-66-1	ng/g	< 0.0013 U	< 0.00074 U	< 0.00064 U	< 0.0013 U	< 0.00059 U	< 0.0011 U	0.00077 JN	< 0.00061 U	< 0.00064 U	< 0.0015 U
PCB-39	38444-88-1	ng/g	0.0017 JN	< 0.00066 U	< 0.00057 U	0.0034 JN	< 0.00054 U	< 0.0010 U	0.0015 JN	< 0.00055 U	< 0.00059 U	< 0.0013 U
PCB-4	13029-08-8	ng/g	0.026	0.0096 JN	0.013 JN	0.026 JN	0.0054 JN	0.030	0.026	< 0.0044 U	0.010 J	0.024 J
PCB-40/41/71	38444-93-8	ng/g	0.16	0.055	0.056	0.28	0.021 JN	0.077	0.11	0.045	0.062	0.069 JN
PCB-42	36559-22-5	ng/g	0.074	0.030 J	< 0.0013 UJ	0.13	0.012 JN	0.033	0.058	0.020	0.033	0.041 JN
PCB-43/73	70362-46-8	ng/g	0.010 J	0.0037 JN	< 0.0012 U	0.014 J	< 0.0021 U	< 0.0018 U	0.0048 JN	0.0022 J	0.0039 J	0.0078 JN
PCB-44/47/65	41464-39-5	ng/g	0.33	0.15	0.14	0.51	0.083	0.21	0.29	0.076	0.15	0.26
PCB-45/51	70362-45-7	ng/g	0.053	0.028	0.026	0.085	0.023	0.031 JN	0.052	0.014 J	0.022	0.049
PCB-46	41464-47-5	ng/g	0.017	< 0.0025 U	0.0056 J	0.029	< 0.0029 U	0.0056 JN	0.013 JN	0.0069 J	0.0071 J	0.0065 JN
PCB-48	70362-47-9	ng/g	0.057	0.014 JN	0.015	0.10	0.0075 JN	0.014 JN	0.021 JN	0.016	0.024	0.021
PCB-49/69	41464-40-8	ng/g	0.22	0.11	0.11	0.35	0.061	0.14	0.22	0.049	0.096	0.18
PCB-5	16605-91-7	ng/g	< 0.0041 U	< 0.0029 U	< 0.0025 U	< 0.0036 U	< 0.00086 U	< 0.0023 U	< 0.0032 U	< 0.0033 U	< 0.00047 U	< 0.0012 U
PCB-50/53	62796-65-0	ng/g	0.048	0.028	0.023	0.072	0.020 JN	0.047	0.059	0.012 J	0.019	0.048
PCB-52	35693-99-3	ng/g	0.47	0.19	0.17	0.60	0.10	0.30	0.39	0.095	0.23	0.37
PCB-54	15968-05-5	ng/g	0.0019 JN	0.0033 J	0.0022 JN	0.0055 J	0.0035 JN	0.0068 J	0.0036 JN	0.00093 J	0.0017 JN	0.0062 JN
PCB-55	74338-24-2	ng/g	0.0046 JN	< 0.0014 U	0.0017 JN	0.0063 J	< 0.0016 U	< 0.0014 U	< 0.0024 U	0.0022 J	< 0.00048 U	0.0058 JN
PCB-56	41464-43-1	ng/g	0.13	0.044	0.058	0.25	0.025	0.059	0.079	0.042	0.057	0.060
PCB-57	70424-67-8	ng/g	< 0.0018 U	< 0.0014 U	< 0.00096 U	0.0026 JN	< 0.0017 U	< 0.0014 U	< 0.0024 U	< 0.00095 U	< 0.00049 U	< 0.0019 U
PCB-58	41464-49-7	ng/g	< 0.0018 U	< 0.0015 U	0.0012 JN	0.0042 JN	< 0.0016 U	< 0.0014 U	< 0.0025 U	< 0.00096 U	0.00067 JN	< 0.0019 U
PCB-59/62/75	74472-33-6	ng/g	0.025 J	0.0090 J	0.0086 J	0.046	0.0055 J	0.0073 JN	0.018 J	0.0077 J	0.011 J	0.016 J
PCB-6	25569-80-6	ng/g	0.011 JN	0.0047 JN	0.0050 JN	0.015 JN	0.0034 J	0.0056 JN	0.0095 JN	0.0031 JN	0.0063 J	0.0066 JN
PCB-60	33025-41-1	ng/g	0.041	0.012	0.020	0.075	0.0073 JN	0.015 JN	0.026	0.014	0.022	0.020
PCB-61/70/74/76	33284-53-6	ng/g	0.56	0.20	0.25	0.92	0.11	0.30	0.39	0.14	0.25	0.34
PCB-63	74472-34-7	ng/g	0.013	0.0039 J	0.0056 J	0.016	0.0020 JN	0.0067 J	0.0096 J	0.0030 JN	0.0043 JN	0.0065 J
PCB-64	52663-58-8	ng/g	0.12	0.041	0.044	0.21	0.022 JN	0.055	0.077	0.034	0.055	0.058
PCB-66	32598-10-0	ng/g	0.31	0.13	0.15	0.55	0.064	0.16	0.22	0.085	0.14	0.20
PCB-67	73575-53-8	ng/g	0.0048 JN	< 0.0012 U	0.0019 JN	0.012	< 0.0015 U	0.0025 JN	0.0036 JN	0.0023 JN	0.0036 J	0.0037 J
PCB-68	73575-52-7	ng/g	0.0045 J	0.0038 J	0.0037 J	0.0053 JN	< 0.0014 U	< 0.0012 U	0.0059 JN	< 0.00084 U	0.0019 J+	0.0054 J
PCB-7	33284-50-3	ng/g	< 0.0037 U	< 0.0026 U	< 0.0023 U	< 0.0033 U	< 0.00081 U	0.0022 JN	< 0.0029 U	< 0.0030 U	< 0.00044 U	< 0.0011 U
PCB-72	41464-42-0	ng/g	0.0043 JN	0.0047 JN	0.0047 J	0.0043 JN	< 0.0016 U	< 0.0014 U	0.012	< 0.00093 U	0.0020 JN	0.0056 JN
PCB-77	32598-13-3	ng/g	0.030	0.010	0.010 JN	0.053	0.0064 JN	0.014	0.021	0.0082 J	0.014	0.017
PCB-78	70362-49-1	ng/g	< 0.0018 U	< 0.0015 U	< 0.00097 U	< 0.0021 U	< 0.0016 U	< 0.0014 U	< 0.0025 U	< 0.00096 U	< 0.00047 U	< 0.0019 U
PCB-79	41464-48-6	ng/g	0.0035 JN	0.0025 JN	0.0022 JN	0.0039 J	< 0.0014 U	0.0031 J	0.0058 JN	< 0.00083 U	0.0027 J	0.0049 JN
PCB-8	34883-43-7	ng/g	0.054	0.016 JN	0.017	0.075	0.012 JN	0.025 JN	0.036	0.016 JN	0.023	0.020 JN
PCB-80	33284-52-5	ng/g	< 0.0016 U	< 0.0012 U	< 0.00082 U	< 0.0018 U	< 0.0014 U	< 0.0012 U	< 0.0021 U	< 0.00082 U	< 0.00042 U	< 0.0016 U
PCB-81	70362-50-4	ng/g	< 0.0017 U	< 0.0013 U	< 0.00088 U	< 0.0018 U	< 0.0015 U	< 0.0013 U	< 0.0022 U	< 0.00089 U	0.0011 JN	< 0.0017 U
PCB-82	52663-62-4	ng/g	0.066	0.021 JN	0.040	0.079	0.016 JN	0.046	0.064	0.014 JN	0.045	0.075
PCB-83/99	60145-20-2	ng/g	0.37	0.25	0.34	0.42	0.099	0.33	0.46	0.063	0.22	0.45
PCB-84	52663-60-2	ng/g	0.14	0.070	0.099	0.15	0.029 JN	0.13	0.19	0.027	0.089	0.18
PCB-85/116/117	65510-45-4	ng/g	0.11	0.052	0.069	0.12	0.025 J	0.077	0.11	0.019 J	0.063	0.10
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.38	0.18	0.23	0.39	0.078	0.30	0.37	0.059	0.23	0.41
PCB-88/91	55215-17-3	ng/g	0.096	0.069	0.096	0.11	0.030	0.093	0.14	0.016 JN	0.056	0.11 JN
PCB-89	73575-57-2	ng/g	0.0064 J	< 0.00048 U	< 0.00031 U	0.0081 J	< 0.0011 U	< 0.00040 U	< 0.00068 U	0.0023 J	0.0036 J	< 0.0011 U
PCB-9	34883-39-1	ng/g	0.0042 JN	< 0.0026 U	< 0.0023 U	< 0.0034 U	< 0.00094 U	0.0024 JN	< 0.0030 U	< 0.0031 U	0.0011 JN	< 0.0013 U
PCB-90/101/113	68194-07-0	ng/g	0.63	0.33	0.46	0.64	0.15	0.56	0.74	0.094	0.35	0.75
PCB-92	52663-61-3	ng/g	0.12	0.079	0.10	0.13	0.032	0.089	0.14	0.018	0.071	0.16
PCB-93/100	73575-56-1	ng/g	0.0095 JN	0.012 JN	0.018	0.015 J	0.0033 JN	0.012 JN	0.023	0.0025 JN	0.0042 JN	0.031
PCB-94	73575-55-0	ng/g	< 0.00080 U	< 0.00048 U	< 0.00031 U	0.0057 JN	< 0.0011 U	0.011 JN	< 0.00068 U	< 0.00049 U	< 0.00041 U	< 0.0011 U
PCB-95	38379-99-6	ng/g	0.51	0.29	0.36	0.45 JN	0.12	0.34	0.67	0.087	0.28	0.58
PCB-96	73575-54-9	ng/g	0.0054 J	0.0038 JN	< 0.00023 U	0.0072 J	< 0.00085 U	< 0.00031 U	0.0073 J	< 0.00037 U	0.0032 J	0.0073 J
PCB-98/102	60233-25-2	ng/g	0.010 JN	0.010 J	0.015 J	0.021 J	0.0060 J	0.017 J	0.021	0.0025 JN	0.013 J	0.024 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	14	10	13	18	3.8	14	19	2.9	7.3	15

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B239	B240	B240	B241	B242	B243	B244	B245	B246	B247
		Sample ID	PDI-SG-B239-BL1	PDI-SG-B240-BL1	PDI-SG-B240-BL1-D	PDI-SG-B241-BL1	PDI-SG-B242-BL1	PDI-SG-B243-BL1	PDI-SG-B244-BL1	PDI-SG-B245-BL1	PDI-SG-B246-BL1	PDI-SG-B247-BL1
		Sample Date	21 Apr 2018	20 Apr 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018	22 Apr 2018	21 Apr 2018	22 May 2018	22 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.1	0.33 J	0.40 J	0.90	< 0.41 U	0.65 J	< 2.3 U	< 0.36 U	< 0.92 U	< 0.63 UJ
2,4-DDE	3424-82-6	µg/kg	< 0.61 U	< 0.42 U	< 0.41 UJ	< 0.58 U	< 0.41 U	< 0.51 UJ	< 2.3 U	< 0.40 U	< 0.92 U	< 0.63 UJ
2,4-DDT	789-02-6	µg/kg	< 0.61 U	< 0.47 U	< 0.47 UJ	< 0.58 U	< 0.41 U	< 0.51 UJ	< 2.3 U	< 0.47 U	< 0.94 U	< 0.63 UJ
4,4'-DDD	72-54-8	µg/kg	3.0	1.2	1.7 J	2.2	0.78	2.6 J	3.0	0.47	0.91 J	0.91 J
4,4'-DDE	72-55-9	µg/kg	2.9	2.0	2.7 J	2.6	1.5	2.7 J	3.6	0.38	1.3	2.0 J
4,4'-DDT	50-29-3	µg/kg	0.96	0.81	0.49 J	0.46 J	0.29 J	1.4 J	< 2.3 U	0.71	0.62 J	0.34 J
Total DDx (b)	T_DDx (PDI)	µg/kg	8.3	4.6	5.5	6.5	2.8	7.6	7.8	1.8	3.3	3.6
Aldrin	309-00-2	µg/kg	< 0.61 U	< 0.42 U	< 0.41 UJ	< 0.58 U	< 0.41 U	< 0.51 UJ	< 2.3 U	< 0.40 U	< 0.92 U	< 0.63 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 1.2 U	< 0.84 U	< 0.83 UJ	< 1.2 U	< 0.83 U	< 1.0 UJ	< 4.5 U	< 0.71 U	< 1.8 U	< 1.3 UJ
cis-Nonachlor	5103-73-1	µg/kg	< 0.61 U	< 0.49 U	< 0.49 UJ	< 0.58 U	< 0.41 U	< 0.51 UJ	< 2.3 U	< 0.49 U	< 0.97 UJ	< 0.63 UJ
Dieldrin	60-57-1	µg/kg	< 1.2 U	0.44 J	< 1.0 UJ	< 1.2 U	< 0.83 U	< 1.0 UJ	< 4.5 U	< 1.0 U	< 2.0 U	< 1.3 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.61 U	< 0.42 U	< 0.41 UJ	< 0.58 U	< 0.41 U	< 0.51 UJ	< 2.3 U	< 0.36 U	< 0.92 U	< 0.63 UJ
gamma-Chlordane	5566-34-7	µg/kg	< 1.2 U	< 0.84 U	< 0.83 UJ	0.42 J	< 0.83 U	< 1.0 UJ	< 4.5 U	< 0.71 U	< 1.8 U	< 1.3 UJ
Heptachlor	76-44-8	µg/kg	< 0.61 U	< 0.42 U	< 0.41 UJ	< 0.58 U	< 0.41 U	< 0.51 UJ	< 2.3 U	< 0.36 U	< 0.92 U	< 0.63 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.2 UJ	< 1.0 U	< 1.0 UJ	< 1.2 U	< 1.0 U	< 1.0 UJ	< 4.5 U	< 1.0 U	< 2.0 U	< 1.3 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 1.2 U	< 0.84 U	< 0.83 UJ	< 1.2 U	< 0.83 U	< 1.0 UJ	< 4.5 U	< 0.71 U	< 1.8 U	< 1.3 UJ
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.2 U	< 1 U	< 1 UJ	1.02	< 1 U	< 1 UJ	< 4.5 U	< 1 U	< 2 U	< 1.3 UJ
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	6.6	2.3	3.3	11	2.1	21	14	1.1	7.5	2.7
Acenaphthene	83-32-9	µg/kg	13	1.9	2.2	18	2.4	7.5	13	0.81	6.1	2.3
Acenaphthylene	208-96-8	µg/kg	5.2	3.1	2.7	6.1	0.79	6.9	13	2.6	3.4	2.0
Anthracene	120-12-7	µg/kg	17	5.8	4.1	30	2.0	19	28	5.1	11	4.5
Benz(a)anthracene	56-55-3	µg/kg	68	36 J	21 J	86	5.9	94	170	35	38	18
Benzo(a)pyrene	50-32-8	µg/kg	53	48 J	26 J	60	3.8	100	180	32	45	21
Benzo(b)fluoranthene	205-99-2	µg/kg	81	53	33	91	9.8	150	290	33	61	31
Benzo(g,h,i)perylene	191-24-2	µg/kg	34	39	27	40	8.7	85	130	15	17	29 J
Benzo(k)fluoranthene	207-08-9	µg/kg	27	17	12	33	3.0	50	91	13	21	10
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	100 J	39 J	30 J	63 J	97 J	160	130	15 J	86 J	130 J
Chrysene	218-01-9	µg/kg	91	49	31	240	11	140	350	34	70	30
Dibenz(a,h)anthracene	53-70-3	µg/kg	7.8	7.3	4.8	9.5	1.3	19	29	4.3	4.0	5.6 J
Fluoranthene	206-44-0	µg/kg	180	64	61	290	15	200	630	42	150	45
Fluorene	86-73-7	µg/kg	17	2.9	2.7	28	2.1	7.9	16	1.1	9.9	3.5
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	35	39	25	43	7.2	82	140	17	18	24 J
Naphthalene	91-20-3	µg/kg	7.5	6.8	7.3	12	3.4	36	21	2.4	7.2	3.7
Phenanthrene	85-01-8	µg/kg	87	27	23	130	12	170	230	9.1	63	19
Pyrene	129-00-0	µg/kg	180 J	78	52	250	15	190	560	60	140	44
Total PAHs (b)	T_PAH (PDI)	µg/kg	910	480	338	1378	105	1378	2905	308	672	295
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	80	68	39	92	7	152	270	45	61	34
Metals												
Arsenic	7440-38-2	mg/kg	5.1	3.9	3.9	5.3	5.1	4.7	4.5	4.6	6.7	4.9
Cadmium	7440-43-9	mg/kg	0.24 J	0.21	0.18 J	0.19 J	0.18 J	0.22 J	0.26 J	0.098 J	0.16 J	0.25 J
Copper	7440-50-8	mg/kg	41	34	36	42	38	52	55	16	27	64 J
Lead	7439-92-1	mg/kg	14	19	17	13	11	16	17	5.5	8.0	11 J
Mercury	7439-97-6	mg/kg	0.056 J	0.13	0.093	0.075	0.044 J	0.085	0.095	0.019 J	0.040	0.069
Tri-n-butyltin	36643-28-4	µg/kg	3.0	19 J	37 J	4.4	1.1 J	130	53	2.1	19	77
Zinc	7440-66-6	mg/kg	100	95	94	120	93	110	110	64	83	110 J
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	83 J	32 J	34 J	82 J	38 J	60 J	120	< 69 U	38 J	35 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	470	290	260	460	340	410	510	85	230	250
Other												
Total Solids@104C - D2216 (f)	TSOLID	%									54.4	
Total Solids@104C - E160.3 (f)	TSOLID	%	38.7	60.0	60.6	40.3	45.8	49.0	49.8	67.6		38.4
Total Solids@104C - E160.3M (f)	TSOLID	%	39.9	59.0	59.6	42.3	47.9	47.8	43.7	69.4	53.5	39.5
Total Solids@70C	TSOLID70	%	41	59	60	43	50	48	46	71	54	41
Gravel	GS-Gravel	%	0	0		0	0	0.1	0.4	0.1	0	0
Sand, Coarse	GS-Csand	%	0	1.7		0	0	0.4	0.6	0	1.6	0
Sand, Medium	GS-Msand	%	0.1	20.4		0.1	0.3	3.8	1.3	6.3	7.7	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	9.16	40.69		11.71	27.16	35.54	35.62	85.65	49.4	8.654
Sand, Fine (#230) (d)	GS-Fsand	%	11.3	43.6		14.7	33.5	39.7	39.9	86.2	51.5	11.2
Silt (#200) (d)	GS-Silt-200	%	78.23	28.60		77.78	63.03	51.95	51.87	4.248	37.19	77.44

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B239	B240	B240	B241	B242	B243	B244	B245	B246	B247
		Sample ID	PDI-SG-B239-BL1	PDI-SG-B240-BL1	PDI-SG-B240-BL1-D	PDI-SG-B241-BL1	PDI-SG-B242-BL1	PDI-SG-B243-BL1	PDI-SG-B244-BL1	PDI-SG-B245-BL1	PDI-SG-B246-BL1	PDI-SG-B247-BL1
		Sample Date	21 Apr 2018	20 Apr 2018	20 Apr 2018	21 Apr 2018	18 Apr 2018	20 Apr 2018	22 Apr 2018	21 Apr 2018	22 May 2018	22 Apr 2018
		Sample Type Code	N	N	FD	N	N	N	N	N	N	N
		Depth	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-22 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	76.1	25.7		74.8	56.7	47.8	47.6	3.7	35.1	74.9
Clay	GS-Clay	%	12.6	8.6		10.4	9.5	8.2	10.1	3.6	4.2	13.7
Percent Fines (e)	GS-FINES	%	90.83	37.2		88.18	72.53	60.15	61.97	7.848	41.39	91.14
Total Organic Carbon	TOC	mg/kg	26000	13000	11000	25000	20000	25000	30000	2700	11000	25000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B248	B249	B250	B251	B252	B253	B254	B255	B256	B257
		Sample ID	PDI-SG-B248-BL1	PDI-SG-B249-BL1	PDI-SG-B250-BL1	PDI-SG-B251-BL1	PDI-SG-B252-BL1	PDI-SG-B253-BL1	PDI-SG-B254-BL1	PDI-SG-B255-BL1	PDI-SG-B256-BL1	PDI-SG-B257-BL1
		Sample Date	22 Apr 2018	22 Apr 2018	18 Apr 2018	22 May 2018	22 Apr 2018	23 May 2018	22 Apr 2018	03 Jun 2018	18 Apr 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-30 cm	0-24 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.13	0.086	0.045	0.11	0.10	0.041	0.61	0.23	0.035	0.00078 J+
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.021	0.014	0.0083	0.017	0.012	0.0048	0.050	0.036	0.0064 JN	0.00035 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0017 J	0.00084 J+	0.00054 J	0.0016 J+	0.00078 J+	0.00060 J+	0.0020 JN	0.0034 J	< 0.00048 U	< 0.00019 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0012 JN	0.00071 J	0.00063 J	0.0012 J	0.00078 J	0.00043 J+	0.0030 J	0.0019 J	0.00072 J	< 0.000049 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0021 J	0.0011 J	0.00072 JN	0.0028 J	0.0012 J	0.00079 J+	0.0050 J	0.0031 J	0.00069 J	0.00015 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0078	0.0030 J	0.0020 JN	0.0038 J	0.0031 JN	0.0017 J	0.020	0.0071	0.0017 J	< 0.000050 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0015 J	0.00061 J	0.0020 J	0.0012 JN	0.00068 J	0.00038 J+	0.0022 J	0.0017 J	0.0016 J	< 0.000058 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0034 J	0.0017 J	0.0016 J	0.0028 J	0.0016 J	0.0011 J	0.0074	0.0047 J	0.0014 J	< 0.000043 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00078 J+	< 0.00014 U	< 0.00019 U	0.0015 JN	< 0.00039 U	< 0.00035 U	< 0.00030 U	0.0013 J+	< 0.00021 U	< 0.00050 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0019 J	0.00032 JN	< 0.00021 U	0.00049 J+	0.00044 J	0.00024 J+	0.0017 J	0.0012 J	0.00037 JN	< 0.000053 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00073 JN	0.00027 JN	< 0.00018 U	0.00081 JN	0.00024 JN	0.00044 J+	0.0015 JN	0.00076 JN	< 0.00019 U	< 0.000064 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00074 J	0.00038 J	0.00030 JN	0.00058 J+	0.00039 J	0.00019 JN	0.0017 J	0.00075 JN	0.00038 J	< 0.000050 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00064 JN	0.00031 J	< 0.00020 U	0.00064 J	0.00038 J	0.00030 J+	0.0016 J	0.00066 JN	< 0.00022 U	< 0.000074 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00076 JN	0.00026 JN	0.00018 JN	< 0.00023 U	0.00035 J	< 0.000056 U	0.00059 JN	0.00062 JN	0.00022 JN	< 0.000077 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0040	0.00052 J	0.00031 JN	0.0015	0.00073 J	< 0.00063 U	0.0014	0.0032	0.00030 JN	< 0.000044 U
OCDD	3268-87-9	µg/kg	1.3	0.76	0.37	0.74	0.98	0.31	4.0	2.1	0.29	0.0052 J+
OCDF	39001-02-0	µg/kg	0.064	0.048	0.022	0.054	0.044	0.011	0.16	0.16	0.018	< 0.00011 U
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.007	0.0027	0.0017	0.0039	0.0032	0.0014	0.015	0.0078	0.0018	0.000066
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0062	0.0023	0.0012	0.0036	0.003	0.0014	0.014	0.0072	0.0013	0.000066
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0059	0.0021	0.0011	0.0035	0.0029	0.0013	0.014	0.0069	0.0012	0.000028
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.036	0.46	0.0019 JN	0.0043 J	0.012	0.0065 JN	0.22	0.042	0.0018 JN	0.00034 J
PCB-10	33146-45-1	ng/g	< 0.0056 U	0.0084 JN	< 0.00062 U	< 0.00080 U	< 0.00087 U	< 0.0029 U	0.0048 JN	0.0028 J	< 0.00072 U	< 0.00043 U
PCB-103	60145-21-3	ng/g	0.057 JN	< 0.00097 U	0.0022 JN	0.0090 J	0.017 JN	< 0.00043 U	0.083	0.080	0.0038 J	< 0.000071 U
PCB-104	56558-16-8	ng/g	< 0.00056 U	< 0.00076 U	< 0.00082 U	< 0.00044 U	< 0.00064 U	< 0.00033 U	< 0.00029 U	< 0.00037 U	< 0.0011 U	< 0.000055 U
PCB-105	32598-14-4	ng/g	0.84	3.0	0.057 JN	0.23	0.34	0.29	0.56	0.99	0.060	0.00086 JN
PCB-106	70424-69-0	ng/g	< 0.0041 U	< 0.016 U	< 0.0019 U	< 0.0016 U	< 0.0030 U	< 0.0020 U	< 0.0039 U	< 0.0068 U	< 0.0019 U	< 0.00028 U
PCB-107	70424-68-9	ng/g	0.29	0.54	0.015	0.041	0.076	0.074	0.18	0.31	0.013 JN	< 0.00027 U
PCB-108/124	70362-41-3	ng/g	0.10	0.36	0.0061 JN	0.020 J	0.038	0.029	0.063	0.14	0.0057 JN	< 0.00028 U
PCB-11	2050-67-1	ng/g	0.18	0.059	0.035	0.071	0.041	0.020 JN	0.14	0.11	0.038	0.0098 J+
PCB-110/115	38380-03-9	ng/g	3.9	10	0.20	0.53	1.3	1.2	2.5	4.5	0.20	0.0031 JN
PCB-111	39635-32-0	ng/g	< 0.00052 U	< 0.00068 U	< 0.00073 U	< 0.00039 U	0.0050 J	< 0.00030 U	< 0.00026 U	< 0.00033 U	< 0.0010 U	< 0.000049 U
PCB-112	74472-36-9	ng/g	< 0.00054 U	< 0.00074 U	< 0.00080 U	0.0035 JN	0.0035 J	< 0.00032 U	< 0.00028 U	< 0.00036 U	< 0.0011 U	< 0.000054 U
PCB-114	74472-37-0	ng/g	0.040 JN	0.17 JN	< 0.0017 U	0.013	0.025	0.014	0.039	0.070	0.0039 J	< 0.00024 U
PCB-118	31508-00-6	ng/g	2.7	7.2	0.16	0.53	0.91	0.74	1.7	3.0	0.16	0.0022 JN
PCB-12/13	2974-92-7	ng/g	0.022 JN	0.031	0.0011 JN	< 0.00068 U	0.0032 JN	< 0.0027 U	0.026 J	0.028	< 0.00061 U	0.0015 J
PCB-120	68194-12-7	ng/g	0.020 JN	< 0.00067 U	0.0014 JN	0.0021 JN	0.0062 JN	< 0.00031 U	0.028	0.038	< 0.00099 U	< 0.000048 U
PCB-121	56558-18-0	ng/g	< 0.00054 U	< 0.00072 U	0.0018 JN	< 0.00042 U	< 0.00061 U	< 0.00032 U	< 0.00028 U	< 0.00035 U	< 0.0011 U	< 0.000052 U
PCB-122	76842-07-4	ng/g	0.035	0.14	< 0.0021 U	0.0059 JN	0.015 JN	0.010	0.028 JN	0.053	< 0.0021 U	< 0.00031 U
PCB-123	65510-44-3	ng/g	0.039	0.12	0.0030 J	0.0094 J	0.015	0.012	0.027	0.047	0.0029 J	< 0.00025 U
PCB-126	57465-28-8	ng/g	< 0.0047 U	0.075	< 0.0018 U	< 0.0015 U	< 0.0029 U	0.0029 J	< 0.0041 U	0.015	< 0.0018 U	< 0.00028 U
PCB-127	39635-33-1	ng/g	< 0.0041 U	< 0.016 U	< 0.0018 U	< 0.0015 U	< 0.0028 U	< 0.0020 U	< 0.0037 U	< 0.0065 U	< 0.0018 U	< 0.00027 U
PCB-128/166	38380-07-3	ng/g	0.61	1.5	0.042	0.18	0.24	0.23	0.51	0.85	0.046	0.00072 J
PCB-129/138/160/163	55215-18-4	ng/g	4.5	7.6	0.28	1.0	1.4	1.2	3.8	4.9	0.36	0.0038 J
PCB-130	52663-66-8	ng/g	0.32	0.58	0.013 JN	0.069	0.10	0.083	0.28	0.39	0.028	< 0.000078 U
PCB-131	61798-70-7	ng/g	< 0.011 U	0.16	0.0040 J	0.010 J	0.024	< 0.0048 U	0.047	0.088	< 0.0020 U	< 0.000079 U
PCB-132	38380-05-1	ng/g	1.4	2.9	0.087	0.28	0.52	0.46	1.3	1.9	0.10	0.0014 J
PCB-133	35694-04-3	ng/g	0.095	0.095 JN	0.0051 JN	0.017	0.032	0.016 JN	0.10	0.11	0.0088 J	< 0.000073 U
PCB-134/143	52704-70-8	ng/g	0.23	0.53	0.016 JN	0.048	0.097	0.080	0.24	0.34	0.016 J	< 0.000077 U
PCB-135/151	52744-13-5	ng/g	1.4	1.8	0.094	0.21	0.51	0.26	1.3	1.5	0.13	0.00085 JN
PCB-136	38411-22-2	ng/g	0.55	0.89	0.031	0.080	0.18	0.11	0.47	0.66	0.037 JN	0.00022 JN
PCB-137	35694-06-5	ng/g	0.18	0.47	0.0079 JN	0.054	0.069	0.077	0.14	0.26	0.0085 JN	0.00028 JN
PCB-139/140	56030-56-9	ng/g	0.050 JN	0.18	0.0022 JN	0.017 JN	0.033	0.025 JN	0.081	0.12	< 0.0017 U	< 0.000065 U
PCB-14	34883-41-5	ng/g	< 0.0043 U	< 0.0012 U	< 0.00048 U	< 0.00063 U	< 0.00068 U	< 0.0023 U	< 0.00086 U	< 0.00088 U	< 0.00056 U	< 0.00033 U
PCB-141	52712-04-6	ng/g	0.75	1.3	0.052	0.16	0.28	0.18	0.70	0.83	0.068	< 0.00028 U
PCB-142	41411-61-4	ng/g	< 0.010 U	< 0.0060 U	< 0.00088 U	< 0.0013 U	< 0.0029 U	< 0.0043 U	< 0.0037 U	< 0.0036 U	< 0.0019 U	< 0.000074 U
PCB-144	68194-14-9	ng/g	0.16	0.32	0.0085 JN	0.030	0.065	0.034	0.14	0.15	0.0091 JN	< 0.000064 U
PCB-145	74472-40-5	ng/g	< 0.00068 U	0.0051 JN	< 0.00015 U	0.00028 JN	0.00075 JN	< 0.00051 U	< 0.00063 U	0.0016 JN	< 0.00018 U	< 0.000049 U
PCB-146	51908-16-8	ng/g	0.84	0.91	0.047	0.14	0.24	0.16	0.84	0.86	0.052	0.00052 JN
PCB-147/149	68194-13-8	ng/g	4.0	5.0	0.23	0.59	1.2	0.95	3.4	3.8	0.27	0.0022 JN
PCB-148	74472-41-6	ng/g	0.020	0.0075 JN	< 0.00020 U	0.0020 JN	0.0037 J	< 0.00072 U	0.021	0.019	< 0.00024 U	< 0.000066 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B248	B249	B250	B251	B252	B253	B254	B255	B256	B257
		Sample ID	PDI-SG-B248-BL1	PDI-SG-B249-BL1	PDI-SG-B250-BL1	PDI-SG-B251-BL1	PDI-SG-B252-BL1	PDI-SG-B253-BL1	PDI-SG-B254-BL1	PDI-SG-B255-BL1	PDI-SG-B256-BL1	PDI-SG-B257-BL1
		Sample Date	22 Apr 2018	22 Apr 2018	18 Apr 2018	22 May 2018	22 Apr 2018	23 May 2018	22 Apr 2018	03 Jun 2018	18 Apr 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-30 cm	0-24 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.084	0.094	0.010 J	0.028	0.026	0.058	0.085	0.069	0.0065 JN	< 0.00046 U
PCB-150	68194-08-1	ng/g	0.011 JN	0.0088 JN	0.0012 JN	0.00098 JN	0.0051 J	< 0.00049 U	0.021	0.013	< 0.00016 U	< 0.000044 U
PCB-152	68194-09-2	ng/g	0.0032 JN	0.0040 JN	< 0.00014 U	0.0017 J	0.0014 J	< 0.00052 U	0.0068 JN	0.0065 JN	< 0.00017 U	< 0.000047 U
PCB-153/168	35065-27-1	ng/g	3.6	4.9	0.26	0.68	1.1	0.81	3.5	3.6	0.29	0.0031 JN
PCB-154	60145-22-4	ng/g	0.099	0.10	0.0046 J	0.016 JN	0.024 JN	0.0095 JN	0.13	0.10 JN	0.0046 J	< 0.000057 U
PCB-155	33979-03-2	ng/g	< 0.00065 U	< 0.00031 U	< 0.00014 U	< 0.000028 U	< 0.000090 U	< 0.00049 U	< 0.00058 U	< 0.00026 U	< 0.00016 U	< 0.000045 U
PCB-156/157	38380-08-4	ng/g	0.48	1.0	0.026 JN	0.15	0.16	0.12 JN	0.34	0.58	0.032	0.00048 JN
PCB-158	74472-42-7	ng/g	0.39	0.93	0.031	0.11	0.15	0.12	0.34	0.47	0.034	< 0.000045 U
PCB-159	39635-35-3	ng/g	< 0.0069 U	0.038	0.0031 JN	0.0072 J	0.017	< 0.0029 U	0.042	0.031	0.0041 J	< 0.000047 U
PCB-16	38444-78-9	ng/g	0.067	0.12	0.0080 J	0.022 JN	0.073	0.036	0.049	0.054	0.0022 JN	< 0.000039 U
PCB-161	74472-43-8	ng/g	< 0.0068 U	< 0.0039 U	< 0.00058 U	0.0010 JN	< 0.0019 U	< 0.0029 U	< 0.0024 U	< 0.0024 U	< 0.0012 U	< 0.000048 U
PCB-162	39635-34-2	ng/g	< 0.0068 U	0.033	< 0.00055 U	< 0.00082 U	< 0.0018 U	< 0.0028 U	< 0.0023 U	< 0.0023 U	< 0.0012 U	< 0.000046 U
PCB-164	74472-45-0	ng/g	0.31	0.52	0.018 JN	0.062	0.11	0.089	0.29	0.36	0.023	< 0.000049 U
PCB-165	74472-46-1	ng/g	< 0.0078 U	< 0.0045 U	< 0.00066 U	< 0.00099 U	< 0.0022 U	< 0.0032 U	< 0.0028 U	< 0.0027 U	< 0.0014 U	< 0.000055 U
PCB-167	52663-72-6	ng/g	0.17	0.33	0.0086 JN	0.042	0.055	0.043	0.12	0.17	0.0094 JN	0.00020 JN
PCB-169	32774-16-6	ng/g	< 0.0053 U	< 0.0030 U	< 0.00041 U	< 0.00065 U	< 0.0015 U	< 0.0022 U	< 0.0019 U	< 0.0017 U	< 0.00091 U	< 0.000036 U
PCB-17	37680-66-3	ng/g	0.098	0.11	0.011 JN	0.027	0.077 JN	0.035 JN	0.068	0.090	0.011 JN	< 0.000030 U
PCB-170	35065-30-6	ng/g	1.2	0.98	0.088	0.21	0.46	0.17	1.1	0.96	0.13	0.00056 JN
PCB-171/173	52663-71-5	ng/g	0.35	0.34	0.019 JN	0.068	0.15	0.046	0.32	0.32	0.026 JN	0.00034 JN
PCB-172	52663-74-8	ng/g	0.20	0.15	0.011 JN	0.030 JN	0.073	0.018 JN	0.17	0.17	0.024	0.00030 JN
PCB-174	38411-25-5	ng/g	1.1	0.88	0.084 JN	0.20	0.48	0.14	1.1	0.98	0.22 JN	< 0.000079 U
PCB-175	40186-70-7	ng/g	0.037 JN	0.038	0.0040 JN	0.0084 J	0.017	0.0066 JN	0.049	0.040	0.0039 JN	< 0.000071 U
PCB-176	52663-65-7	ng/g	0.14	0.11	0.0073 JN	0.022	0.052	0.018 JN	0.14	0.12	0.011 JN	0.00020 JN
PCB-177	52663-70-4	ng/g	0.69	0.53	0.053 JN	0.13	0.29	0.088	0.69	0.63	0.079	0.00078 JN
PCB-178	52663-67-9	ng/g	0.26	0.16	0.021	0.044	0.085	0.028	0.25	0.20	0.027 JN	< 0.000074 U
PCB-179	52663-64-6	ng/g	0.48	0.31	0.046	0.078	0.19	0.063	0.51	0.38	0.057	< 0.000055 U
PCB-18/30	37680-65-2	ng/g	0.17	0.29	0.015 JN	0.052	0.19	0.089	0.11	0.13	0.014 JN	0.00067 JN
PCB-180/193	35065-29-3	ng/g	2.6	1.7	0.19	0.40	0.92	0.29	2.2	1.8	0.27	0.0023 JN
PCB-181	74472-47-2	ng/g	< 0.00067 U	0.019 JN	< 0.00079 U	0.0041 J	< 0.000035 U	< 0.0024 U	< 0.00087 U	0.015	< 0.000052 U	< 0.000068 U
PCB-182	60145-23-5	ng/g	< 0.00065 U	0.010	0.0018 J	0.0030 J	< 0.000033 U	< 0.0023 U	0.011 J	0.015	< 0.000049 U	< 0.000065 U
PCB-183/185	52663-69-1	ng/g	0.80	0.61	0.053	0.12	0.30	0.095	0.71	0.61	0.080	0.0011 JN
PCB-184	74472-48-3	ng/g	< 0.00055 U	< 0.000063 U	< 0.00064 U	< 0.000071 U	< 0.000028 U	< 0.0020 U	< 0.00071 U	< 0.00035 U	< 0.000042 U	< 0.000056 U
PCB-186	74472-49-4	ng/g	< 0.00054 U	< 0.000060 U	< 0.00062 U	< 0.000068 U	< 0.000027 U	< 0.0019 U	< 0.00068 U	< 0.00033 U	< 0.000041 U	< 0.000053 U
PCB-187	52663-68-0	ng/g	1.4	0.86	0.12	0.25	0.54	0.16	1.4	1.2	0.16	0.0011 JN
PCB-188	74487-85-7	ng/g	< 0.00048 U	< 0.000056 U	< 0.00058 U	< 0.000063 U	< 0.000024 U	< 0.0017 U	< 0.00060 U	< 0.00031 U	< 0.000038 U	< 0.000050 U
PCB-189	39635-31-9	ng/g	0.045	0.041	0.0042 J	0.0085 J	0.018	0.0049 JN	0.041	0.036	0.0051 J	< 0.00019 U
PCB-19	38444-73-4	ng/g	0.076	0.044	0.014 JN	0.017	0.025	0.023	0.047 JN	0.045	0.012	0.00033 JN
PCB-190	41411-64-7	ng/g	0.21	0.18	0.013 JN	0.039	0.085	0.030	0.21	0.17	0.025	0.00031 JN
PCB-191	74472-50-7	ng/g	0.048	0.045	0.0022 JN	0.0093 J	0.017 JN	0.0037 JN	0.042	0.042	0.0031 J	< 0.000051 U
PCB-192	74472-51-8	ng/g	< 0.00057 U	< 0.000061 U	< 0.00063 U	< 0.000070 U	< 0.000028 U	< 0.0020 U	< 0.00069 U	< 0.00034 U	< 0.000041 U	< 0.000054 U
PCB-194	35694-08-7	ng/g	0.64	0.27	0.048	0.091	0.24	0.066	0.57	0.37	0.071	0.00032 JN
PCB-195	52663-78-2	ng/g	0.26	0.11	0.018	0.039	0.11	0.025	0.25	0.15	0.029	< 0.00022 U
PCB-196	42740-50-1	ng/g	0.30	0.14	0.019	0.041	0.10	0.021 JN	0.27	0.19	0.028 JN	< 0.000045 U
PCB-197	33091-17-7	ng/g	0.019 JN	0.0092 JN	0.0011 JN	0.0026 JN	0.010	0.0020 JN	0.020	0.013 JN	0.0018 JN	< 0.000031 U
PCB-198/199	68194-17-2	ng/g	0.64	0.25	0.055	0.11	0.21	0.092	0.57	0.42	0.068 JN	0.00022 JN
PCB-2	2051-61-8	ng/g	0.053	0.057	0.0060 J	0.0099 J	0.0070 J	< 0.00040 U	0.047	0.072	0.0050 JN	0.00023 JN
PCB-20/28	38444-84-7	ng/g	0.39	0.37	0.058	0.13	0.37	0.15	< 0.0022 U	0.38	0.051	0.0014 JN
PCB-200	52663-73-7	ng/g	0.060 JN	0.034	0.0049 J	0.012	0.028	0.0063 JN	0.060 JN	0.043	0.0081 JN	< 0.000034 U
PCB-201	40186-71-8	ng/g	0.068	0.034	0.0050 J	0.010 J	0.028	0.011	0.070	0.048	0.0052 JN	< 0.000033 U
PCB-202	2136-99-4	ng/g	0.12	0.055	0.010 JN	0.023	0.037 JN	0.019 JN	0.12	0.084	0.013 JN	< 0.000037 U
PCB-203	52663-76-0	ng/g	0.41	0.16	0.031	0.057	0.13	0.043	0.37	0.25	0.038 JN	< 0.000042 U
PCB-204	74472-52-9	ng/g	< 0.00049 U	< 0.00018 U	< 0.00016 U	< 0.000050 U	< 0.00029 U	< 0.0012 U	< 0.00060 U	< 0.00079 U	< 0.00025 U	< 0.000034 U
PCB-205	74472-53-0	ng/g	0.029	0.016	0.0021 JN	0.0044 J	0.013	< 0.0034 U	0.027 JN	0.018	0.0030 JN	< 0.00015 U
PCB-206	40186-72-9	ng/g	0.30	0.12	0.037	0.089	0.11	0.14	0.41	0.22 JN	0.037 JN	0.067 JN
PCB-207	52663-79-3	ng/g	0.033	0.013 JN	< 0.0027 U	0.0085 JN	0.010	< 0.0021 U	0.037 JN	0.021	0.0052 J	< 0.00095 U
PCB-208	52663-77-1	ng/g	0.090	0.031	0.0093 JN	0.029	0.023	0.030	0.11	0.058	0.0092 JN	< 0.0010 U
PCB-209	2051-24-3	ng/g	0.15 JN	0.050	0.040	0.075	0.049 JN	0.15	0.18	0.14	0.035	0.00045 JN
PCB-21/33	55702-46-0	ng/g	0.17	0.21	0.026	0.051	0.20	0.042	0.14	0.19	0.018 J	0.00067 JN
PCB-22	38444-85-8	ng/g	0.081	0.13	0.019	0.037	0.12	0.038	0.075	0.077	0.012	< 0.00015 U
PCB-23	55720-44-0	ng/g	< 0.0022 U	< 0.0040 U	< 0.0012 U	< 0.00085 U	< 0.0022 U	< 0.0011 U	< 0.0022 U	< 0.0017 U	< 0.0012 U	< 0.00015 U
PCB-24	55702-45-9	ng/g	< 0.0010 U	0.0036 JN	< 0.00024 U	0.0013 JN	0.0035 JN	< 0.00046 U	0.0011 JN	0.0024 J	0.00067 JN	< 0.000023 U
PCB-25	55712-37-3	ng/g	0.032	0.031	0.0064 JN	0.011 J	0.026	0.0082 J	0.032	0.034	0.0060 J	0.00018 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B248	B249	B250	B251	B252	B253	B254	B255	B256	B257
		Sample ID	PDI-SG-B248-BL1	PDI-SG-B249-BL1	PDI-SG-B250-BL1	PDI-SG-B251-BL1	PDI-SG-B252-BL1	PDI-SG-B253-BL1	PDI-SG-B254-BL1	PDI-SG-B255-BL1	PDI-SG-B256-BL1	PDI-SG-B257-BL1
		Sample Date	22 Apr 2018	22 Apr 2018	18 Apr 2018	22 May 2018	22 Apr 2018	23 May 2018	22 Apr 2018	03 Jun 2018	18 Apr 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-30 cm	0-24 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.048	0.063	0.011 J	0.020 J	0.053	0.018 J	0.047	0.056	0.0065 JN	< 0.00015 U
PCB-27	38444-76-7	ng/g	0.021	0.022	0.0035 JN	0.0058 J	0.012	0.0085 JN	0.014	0.017	0.0023 J	< 0.000022 U
PCB-3	2051-62-9	ng/g	0.031	0.19	0.0029 J+	0.0046 JN	0.0061 J	0.0052 J	0.12	0.062	0.0027 JN	< 0.00038 U
PCB-31	16606-02-3	ng/g	0.25	0.40	0.043	0.094	0.30	0.076	0.20	0.22	0.040	0.0011 JN
PCB-32	38444-77-8	ng/g	0.074	0.090	0.0088 JN	0.019	0.071	0.046	0.056	0.061	0.0026 JN	< 0.00020 U
PCB-34	37680-68-5	ng/g	< 0.0023 U	< 0.0042 U	< 0.0013 U	0.0012 J	< 0.0023 U	< 0.0012 U	0.0027 J	0.0053 J	< 0.0013 U	< 0.00016 U
PCB-35	37680-69-6	ng/g	0.0067 J	0.021 JN	0.0014 JN	< 0.00084 U	0.0032 JN	0.0021 J	0.0060 J	0.0095 J	< 0.0012 U	0.00069 J
PCB-36	38444-87-0	ng/g	< 0.0021 U	< 0.0036 U	< 0.0011 U	< 0.00076 U	< 0.0020 U	< 0.0011 U	< 0.0020 U	< 0.0015 U	< 0.0011 U	< 0.00013 U
PCB-37	38444-90-5	ng/g	0.12	0.21	0.016	0.039	0.099	0.058	0.10	0.11	0.016	0.00020 JN
PCB-38	53555-66-1	ng/g	< 0.0023 U	< 0.0039 U	< 0.0012 U	< 0.00083 U	< 0.0021 U	< 0.0012 U	< 0.0022 U	< 0.0017 U	< 0.0012 U	< 0.00015 U
PCB-39	38444-88-1	ng/g	< 0.0020 U	0.0047 JN	< 0.0011 U	< 0.00076 U	0.0037 J	< 0.0010 U	0.0041 J	< 0.0015 U	< 0.0011 U	< 0.00013 U
PCB-4	13029-08-8	ng/g	0.068 JN	0.14	0.0097 JN	0.015 J	0.021	0.028 JN	0.080	0.041 JN	0.018 J	< 0.00049 U
PCB-40/41/71	38444-93-8	ng/g	0.29	0.45	0.028 J	0.073	0.28	0.091	0.24	0.31	0.021 JN	0.00072 JN
PCB-42	36559-22-5	ng/g	0.17	0.23	0.016	0.038	0.13	0.040 JN	0.12	0.19	0.015	0.000074 JN
PCB-43/73	70362-46-8	ng/g	0.051	0.11 JN	< 0.0013 U	0.0055 JN	0.024 JN	0.022	0.035	0.061	0.0029 JN	< 0.000059 U
PCB-44/47/65	41464-39-5	ng/g	0.98	2.4	0.099	0.19	0.57	0.22	0.90	1.1	0.088	0.0018 J+
PCB-45/51	70362-45-7	ng/g	0.14	0.13	0.030	0.033	0.11	0.029 JN	0.16	0.12	0.023 J	0.00035 JN
PCB-46	41464-47-5	ng/g	0.025 JN	0.047	< 0.0018 U	0.0070 J	0.033	0.012 JN	0.024 JN	0.031	< 0.0019 U	< 0.000080 U
PCB-48	70362-47-9	ng/g	0.078	0.15	0.0089 JN	0.025	0.10	0.024	0.060	0.088	0.0082 J	< 0.000062 U
PCB-49/69	41464-40-8	ng/g	0.73	1.2	0.060	0.12	0.38	0.15	0.59	0.80	0.062	< 0.00017 U
PCB-5	16605-91-7	ng/g	< 0.0057 U	0.013	< 0.00058 U	< 0.00075 U	< 0.00081 U	< 0.0030 U	0.0036 J	< 0.0011 U	< 0.00068 U	< 0.00040 U
PCB-50/53	62796-65-0	ng/g	0.15	0.19	0.023	0.028	0.083	0.032	0.14	0.15	0.021 J	< 0.00015 U
PCB-52	35693-99-3	ng/g	1.8	6.7	0.11	0.26	0.90	0.44	1.3	2.1	0.12	0.0021 J+
PCB-54	15968-05-5	ng/g	0.0076 JN	0.0024 JN	0.0037 JN	0.0030 JN	0.0026 JN	0.0010 J	0.018	0.010 J	0.0017 JN	< 0.000038 U
PCB-55	74338-24-2	ng/g	0.012 JN	< 0.0045 U	0.0023 J	< 0.00084 U	0.0073 JN	0.0041 J	0.016	0.020	0.0025 JN	0.00014 JN
PCB-56	41464-43-1	ng/g	0.25	0.49	0.031	0.066	0.21	0.068	0.19	0.26	0.029	0.00027 JN
PCB-57	70424-67-8	ng/g	< 0.0038 U	< 0.0046 U	< 0.0010 U	< 0.00086 U	< 0.0021 U	< 0.0015 U	< 0.0024 U	< 0.0051 U	< 0.0011 U	< 0.000045 U
PCB-58	41464-49-7	ng/g	0.015 JN	< 0.0044 U	< 0.00097 U	0.00084 J	< 0.0020 U	0.0047 J	0.0079 J	0.0088 JN	< 0.0011 U	< 0.000044 U
PCB-59/62/75	74472-33-6	ng/g	0.056	0.061	0.0065 J	0.013 J	0.045	0.018 J	0.050	0.057 JN	0.0064 J	< 0.000044 U
PCB-6	25569-80-6	ng/g	0.034 JN	0.066	0.0031 JN	0.0068 J	0.0085 JN	0.010 JN	0.038	0.044	0.0031 J	< 0.00040 U
PCB-60	33025-41-1	ng/g	0.066	0.22	0.0099 JN	0.024 JN	0.12	0.024 JN	0.062	0.049	0.0093 J	< 0.000044 U
PCB-61/70/74/76	33284-53-6	ng/g	1.6	4.6	0.12	0.29	0.89	0.33	1.1	1.6	0.12	0.0026 J+
PCB-63	74472-34-7	ng/g	0.028	0.040	0.0017 JN	0.0062 J	0.014 JN	0.0061 J	0.023	0.030	0.0030 J	< 0.000039 U
PCB-64	52663-58-8	ng/g	0.26	0.65	0.023 JN	0.060	0.20	0.069 JN	0.19	0.27	0.022	0.00047 JN
PCB-66	32598-10-0	ng/g	0.79	1.3	0.076	0.18	0.49	0.21	0.65	0.84	0.074	0.0017 J
PCB-67	73575-53-8	ng/g	0.015	< 0.0042 U	< 0.00093 U	0.0038 J	0.012	< 0.0013 U	0.013 J	0.027	0.0015 JN	< 0.000042 U
PCB-68	73575-52-7	ng/g	0.021	< 0.0040 U	< 0.00088 U	0.0027 J	0.0052 J	0.0031 JN	0.021	0.021	0.0012 JN	< 0.000039 U
PCB-7	33284-50-3	ng/g	< 0.0052 U	0.024	< 0.00054 U	0.0018 JN	< 0.00077 U	< 0.0027 U	0.011 JN	0.0049 J	0.0015 JN	< 0.00038 U
PCB-72	41464-42-0	ng/g	0.026 JN	< 0.0045 U	0.0015 J	0.0024 JN	0.0081 J	0.0048 J	0.025	0.039	0.0027 J	< 0.000044 U
PCB-77	32598-13-3	ng/g	0.064	0.54	0.0079 J	0.018	0.041	0.022	0.056	0.087	0.0093 J	< 0.000042 U
PCB-78	70362-49-1	ng/g	< 0.0039 U	< 0.0044 U	< 0.00097 U	< 0.00083 U	< 0.0020 U	< 0.0015 U	< 0.0023 U	< 0.0049 U	< 0.0011 U	< 0.000044 U
PCB-79	41464-48-6	ng/g	0.021 JN	0.074	0.0023 J	0.0021 JN	0.0070 JN	0.0038 JN	0.019	0.034	0.0017 JN	< 0.000037 U
PCB-8	34883-43-7	ng/g	0.095	0.24	0.011 JN	0.027	0.040	0.024 JN	0.15	0.099	0.0099 JN	< 0.00039 U
PCB-80	33284-52-5	ng/g	< 0.0033 U	< 0.0039 U	< 0.00086 U	< 0.00074 U	< 0.0018 U	< 0.0013 U	< 0.0020 U	< 0.0043 U	< 0.00094 U	< 0.000039 U
PCB-81	70362-50-4	ng/g	< 0.0034 U	0.0089 JN	< 0.00091 U	< 0.00078 U	< 0.0018 U	< 0.0013 U	< 0.0021 U	< 0.0047 U	< 0.00098 U	< 0.000040 U
PCB-82	52663-62-4	ng/g	0.33	1.2	0.019 JN	0.059	0.13	0.11	0.21	0.45	0.018	0.00032 JN
PCB-83/99	60145-20-2	ng/g	2.0	4.8	0.10	0.28	0.67	0.57	1.5	2.6	0.10 JN	0.0017 J
PCB-84	52663-60-2	ng/g	0.87	2.6	0.029	0.097	0.29	0.26	0.58	1.2	0.033 JN	< 0.000087 U
PCB-85/116/117	65510-45-4	ng/g	0.46	1.4	0.026 JN	0.089	0.18	0.17	0.30	0.58	0.021 J	0.00068 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	2.0	6.5	0.10	0.29	0.72	0.61	1.3	2.7	0.11	0.00099 JN
PCB-88/91	55215-17-3	ng/g	0.52	1.1	0.028	0.072	0.16	0.13	0.45	0.66	0.029 JN	0.00025 JN
PCB-89	73575-57-2	ng/g	< 0.00083 U	0.063 JN	< 0.0012 U	0.0038 JN	0.014	< 0.00049 U	0.017 JN	0.042	< 0.0017 U	< 0.000081 U
PCB-9	34883-39-1	ng/g	< 0.0053 U	0.031	< 0.00063 U	0.0018 JN	0.0030 J	< 0.0028 U	0.014	0.0050 JN	0.0017 J	< 0.00044 U
PCB-90/101/113	68194-07-0	ng/g	3.6	9.2	0.16 JN	0.44	1.1	0.94	2.5	4.4	0.20	0.0028 J
PCB-92	52663-61-3	ng/g	0.71	1.7	0.036	0.091	0.23	0.16	0.58	0.99	0.039	0.00023 JN
PCB-93/100	73575-56-1	ng/g	0.078	0.14	0.0074 JN	0.012 JN	0.032	0.048	0.13	0.11 JN	0.0094 JN	< 0.000077 U
PCB-94	73575-55-0	ng/g	< 0.00083 U	< 0.0011 U	< 0.0012 U	0.0040 JN	< 0.00096 U	< 0.00049 U	0.029	< 0.00055 U	0.0040 J	< 0.000082 U
PCB-95	38379-99-6	ng/g	3.0	7.7	0.13	0.30	0.96	0.80	2.0	3.8	0.15	0.00088 JN
PCB-96	73575-54-9	ng/g	0.026	0.051	< 0.00091 U	0.0042 J	0.0098	< 0.00037 U	0.026	0.035	< 0.0013 U	< 0.00011 U
PCB-98/102	60233-25-2	ng/g	0.088	0.26	0.0038 JN	0.0089 JN	0.044	0.025	0.093	0.15	0.0066 JN	0.00018 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	64	122	4.3	11	25	16	53	69	5.1	0.13

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B248	B249	B250	B251	B252	B253	B254	B255	B256	B257
		Sample ID	PDI-SG-B248-BL1	PDI-SG-B249-BL1	PDI-SG-B250-BL1	PDI-SG-B251-BL1	PDI-SG-B252-BL1	PDI-SG-B253-BL1	PDI-SG-B254-BL1	PDI-SG-B255-BL1	PDI-SG-B256-BL1	PDI-SG-B257-BL1
		Sample Date	22 Apr 2018	22 Apr 2018	18 Apr 2018	22 May 2018	22 Apr 2018	23 May 2018	22 Apr 2018	03 Jun 2018	18 Apr 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-30 cm	0-24 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.69	< 0.48 U	< 0.44 U	< 1.2 U	0.33 J	< 0.71 U	0.45 J	< 1.7 U	< 0.43 U	< 0.63 U
2,4-DDE	3424-82-6	µg/kg	< 0.57 U	< 0.48 U	< 0.44 U	< 1.2 U	< 0.40 U	< 0.79 U	< 0.69 U	< 1.7 U	< 0.43 U	< 0.79 U
2,4-DDT	789-02-6	µg/kg	< 0.57 U	< 0.48 U	< 0.44 U	< 1.2 U	< 0.47 U	< 0.94 U	< 0.69 U	< 1.7 U	< 0.43 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	1.4	0.60	0.67	1.5	1.3	< 0.71 U	1.2	1.5 J	0.60	< 0.58 U
4,4'-DDE	72-55-9	µg/kg	3.0	1.1	1.4	2.5	1.6	< 0.71 U	2.4	3.5	1.3	< 0.70 U
4,4'-DDT	50-29-3	µg/kg	0.88	0.44 J	0.42 J	0.83 J	0.74	< 0.71 U	0.97	< 1.7 U	0.29 J	< 0.58 U
Total DDx (b)	T_DDx (PDI)	µg/kg	6.3	2.4	2.7	5.4	4.2	< 0.94 U	5.4	5.9	2.4	< 0.94 U
Aldrin	309-00-2	µg/kg	< 0.57 U	< 0.48 U	< 0.44 U	< 1.2 U	< 0.40 U	< 0.79 U	< 0.69 U	< 1.7 U	< 0.43 U	< 0.79 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.1 U	< 0.95 U	< 0.88 U	< 2.5 U	< 0.78 U	< 1.4 U	< 1.4 U	< 3.5 U	< 0.87 U	< 1.2 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.57 U	< 0.49 U	< 0.44 U	< 1.2 UJ	< 0.49 U	< 0.97 U	< 0.69 U	< 1.7 U	< 0.43 U	< 0.97 UJ
Dieldrin	60-57-1	µg/kg	< 1.1 U	< 1.0 U	< 0.88 U	< 2.5 U	< 1.0 U	< 2.0 U	< 1.4 U	< 3.5 U	< 0.87 U	< 2.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	0.43 J	< 0.48 U	< 0.44 U	< 1.2 U	< 0.39 U	< 0.71 U	< 0.69 U	< 1.7 U	< 0.43 U	< 0.58 U
gamma-Chlordane	5566-34-7	µg/kg	0.41 J	< 0.95 U	< 0.88 U	< 2.5 U	< 0.78 U	< 1.4 U	< 1.4 U	< 3.5 U	< 0.87 U	< 1.2 U
Heptachlor	76-44-8	µg/kg	< 0.57 U	< 0.48 U	< 0.44 U	< 1.2 U	< 0.39 U	< 0.71 U	< 0.69 U	< 1.7 U	< 0.43 U	< 0.58 U
Oxychlordane	27304-13-8	µg/kg	< 1.1 U	< 1.0 U	< 1.1 U	< 2.5 U	< 1.0 U	< 2.0 U	< 1.4 U	< 3.5 U	< 1.1 U	< 2.0 U
trans-Nonachlor	39765-80-5	µg/kg	0.35 J	< 0.95 U	< 0.88 U	< 2.5 U	< 0.78 U	< 1.4 U	0.50 J	< 3.5 U	< 0.87 U	< 1.2 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	1.31	< 1 U	< 1.1 U	< 2.5 U	< 1 U	< 2 U	1.2	< 3.5 U	< 1.1 U	< 2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	9.7	2.0	1.1 J	5.3	6.3	1.1	12	7.8	1.3	0.13 J
Acenaphthene	83-32-9	µg/kg	22	2.6	0.81	8.1	3.3	2.8	11	25	1.6	0.095 J
Acenaphthylene	208-96-8	µg/kg	16	1.6	0.84	3.2	2.6	2.2	12	7.7	0.83	< 0.30 U
Anthracene	120-12-7	µg/kg	39	5.2	2.3	13	6.1	10	24	35	4.9	0.068 J
Benz(a)anthracene	56-55-3	µg/kg	150	19	8.9	39	40	34	96	150	43	0.17 J
Benzo(a)pyrene	50-32-8	µg/kg	160	22	21 J	53	49	40	100	150	56	0.29 J
Benzo(b)fluoranthene	205-99-2	µg/kg	200	34	14	66	69	62	230	200	53	0.29 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	110	23	12	24	30	31	90	96	31	0.13 J
Benzo(k)fluoranthene	207-08-9	µg/kg	71	9.7	4.9	23	22	23	70	74	18	0.082 J
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	870	120	71 J	140	73 J	75	300	750	72 J	< 59 U
Chrysene	218-01-9	µg/kg	180	29	13	74	65	64	270	180	49	0.22 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	32	4.9	1.9	5.5	8.8	9.0	23	26	8.8	< 0.30 U
Fluoranthene	206-44-0	µg/kg	310	44	19	160	71	53	390	310	64	0.39
Fluorene	86-73-7	µg/kg	21	2.9	1.5	14	2.8	3.7	17	16	1.9	0.080 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	120	23	10	23	32	32	97	100	33	0.11 J
Naphthalene	91-20-3	µg/kg	31	2.9	1.8	7.2	6.6	1.7	38	15	2.1	< 0.59 U
Phenanthrene	85-01-8	µg/kg	170	19	8.9	86	25	11	140	170	19	0.34
Pyrene	129-00-0	µg/kg	330	46	19	130	72	55	330	330	60	0.39
Total PAHs (b)	T_PAH (PDI)	µg/kg	1972	291	141	734	512	436	1950	1893	447	3
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	240	35	26	72	72	62	166	222	78	0
Metals												
Arsenic	7440-38-2	mg/kg	6.8	4.6	4.9	5.7	4.1	3.9	6.8	6.4	5.3	1.1
Cadmium	7440-43-9	mg/kg	0.33 J	0.23 J	0.16 J	0.28 J	0.30	0.27	0.31 J	0.27	0.22 J	0.054 J
Copper	7440-50-8	mg/kg	140	63	39	48	54	25	100	210	40	10
Lead	7439-92-1	mg/kg	25	12	9.9	14	19	13	23	24	10	1.7
Mercury	7439-97-6	mg/kg	0.099	0.053	0.047	0.070	0.059	0.022 J	0.11	0.13	0.043 J	< 0.022 U
Tri-n-butyltin	36643-28-4	µg/kg	3300	67	< 2.2 U	< 2.4 U	47	16	160	2300	< 2.1 U	< 1.2 U
Zinc	7440-66-6	mg/kg	200	110	96	120	130	140	170	210	100	24
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	110	29 J	39 J	55 J	35 J	27 J	49 J	170	40 J	< 54 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	500	200	280	410	180	120	240	650	270	31 J
Other												
Total Solids@104C - D2216 (f)	TSOLID	%				39.8		69.4		42.2		87.5
Total Solids@104C - E160.3 (f)	TSOLID	%	42.0	48.7	44.2		62.5		34.8		41.7	
Total Solids@104C - E160.3M (f)	TSOLID	%	43.7	51.8	45.1	40.2	64.2	70.3	36.2	43.0	45.8	84.3
Total Solids@70C	TSOLID70	%	44	54	47	40	63	70	36	43	47	88
Gravel	GS-Gravel	%	0.4	1.4	0	0	0	0	0	0	0	28.8
Sand, Coarse	GS-Csand	%	0.3	6.3	0	0	2.8	3.6	0.1	0.1	0	32.8
Sand, Medium	GS-Msand	%	2.7	27.7	0.2	0.3	42.4	28.1	2.6	0.2	0.1	25.7
Sand, Fine (#200) (d)	GS-Fsand-200	%	19.36	14.95	23.59	10.24	27.9	56.42	14.13	6.948	26.21	11.55
Sand, Fine (#230) (d)	GS-Fsand	%	21.7	16.0	29.2	13.2	28.5	56.9	15.4	8.9	31.8	11.6
Silt (#200) (d)	GS-Silt-200	%	61.03	40.74	65.30	75.35	20.69	11.17	66.66	72.25	63.88	1.246

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B248	B249	B250	B251	B252	B253	B254	B255	B256	B257
		Sample ID	PDI-SG-B248-BL1	PDI-SG-B249-BL1	PDI-SG-B250-BL1	PDI-SG-B251-BL1	PDI-SG-B252-BL1	PDI-SG-B253-BL1	PDI-SG-B254-BL1	PDI-SG-B255-BL1	PDI-SG-B256-BL1	PDI-SG-B257-BL1
		Sample Date	22 Apr 2018	22 Apr 2018	18 Apr 2018	22 May 2018	22 Apr 2018	23 May 2018	22 Apr 2018	03 Jun 2018	18 Apr 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-30 cm	0-24 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	58.7	39.7	59.7	72.4	20.1	10.7	65.4	70.3	58.3	1.2
Clay	GS-Clay	%	16.2	8.9	11.0	14.2	6.3	0.8	16.6	20.6	9.8	0
Percent Fines (e)	GS-FINES	%	77.23	49.64	76.3	89.55	26.99	11.97	83.26	92.85	73.68	1.246
Total Organic Carbon	TOC	mg/kg	26000	13000	20000	27000	10000	4700	24000	25000	18000	590 J

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B258	B258	B259	B260	B262	B262	B263	B264	B265	B266
		Sample ID	PDI-SG-B258-BL1	PDI-SG-B258-BL1-D	PDI-SG-B259-BL1	PDI-SG-B260-BL1	PDI-SG-B262-BL1	PDI-SG-B262-BL1-D	PDI-SG-B263-BL1	PDI-SG-B264-BL1	PDI-SG-B265-BL1	PDI-SG-B266-BL1
		Sample Date	20 Jul 2018	20 Jul 2018	22 Jun 2018	23 Apr 2018	22 Apr 2018	22 Apr 2018	22 Apr 2018	25 Jun 2018	23 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	FD	N	N	N	N
		Depth	0-28 cm	0-28 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-28 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.030	0.042	0.097	0.24	0.071	0.061	0.99	0.067	0.50	0.041
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0054 JN	0.0071 JN	0.015 J	0.044	0.015	0.011 JN	0.054	0.011 JN	0.081	0.010 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0015 J+	0.0016 J+	0.0012 J	0.0024 J+	0.00093 J	0.00070 J	0.0030 J	0.00070 J	0.0051 J	0.0020 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00046 J+	0.00063 J+	0.00095 J	0.0017 J+	0.00084 JN	0.00093 J	0.0034 J	0.00084 J	0.0027 JN	0.00048 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00070 J	0.00070 J	0.0017 J	0.0036 J	0.0014 J	0.0015 J	0.0058 J	0.00098 J	0.0063	0.0017 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0014 J	0.0021 J	0.0051	0.0074	0.0028 J	0.0027 JN	0.019	0.0027 J	0.021	0.0015 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00045 J	0.00049 J	0.0011 J	0.0037 J	0.00084 J	0.00063 JN	0.0024 J	0.00056 JN	0.0041 J	0.00099 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0011 J	0.0014 J	0.0029 J	0.0044 J	0.0023 J	0.0022 J	0.0081	0.0018 J	0.0059	0.0010 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0015 J+	0.0016 J+	0.00023 J+	< 0.00027 U	< 0.00015 U	< 0.00011 U	< 0.00031 U	0.00018 J+	< 0.00035 U	0.00080 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00027 J	0.00038 J	0.00073 J	0.0011 J+	0.00050 J	0.00050 J	0.0018 J	0.00063 J	0.0020 J	0.00021 J+
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00030 J+	0.00032 J+	0.00078 J	0.0016 J	0.00050 JN	0.00059 J	0.0017 J	0.00040 J+	0.0018 J	0.00072 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00022 J	0.00025 J	0.00052 J	0.0011 J+	0.00055 J	0.00045 J	0.0015 J	0.00036 J	0.0018 J+	0.00059 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.000049 U	0.00021 JN	0.00063 J	0.00099 JN	0.00049 J	0.00044 J	0.0016 J	0.00030 J	0.0019 J	0.00039 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00016 JN	0.00024 JN	0.00046 JN	0.00054 JN	0.00034 JN	0.00026 JN	0.00070 J	0.00030 JN	0.0017	0.00012 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00040 J	0.00050 J	0.0048	0.0023	0.00083 J	0.00085 J	0.0023	0.00058 J	0.0037	0.00052 J
OCDD	3268-87-9	µg/kg	0.30	0.39	0.97	2.3	0.65	0.51	7.2 J	0.58	4.4	0.42
OCDF	39001-02-0	µg/kg	0.018	0.025	0.045	0.13	0.050	0.040	0.23	0.038	0.29	0.036
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0015	0.0021	0.0046	0.008	0.003	0.0027	0.02	0.0028	0.016	0.0019
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0014	0.0019	0.0043	0.0074	0.0028	0.0023	0.02	0.0026	0.016	0.0018
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0014	0.0018	0.0041	0.0072	0.0026	0.0021	0.02	0.0024	0.016	0.0018
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0041 JN	0.0033 JN	0.31	0.40	0.0078 J	0.0053 JN	0.10	0.0070 J	2.4	< 0.00088 U
PCB-10	33146-45-1	ng/g	< 0.0027 U	< 0.0036 U	0.013	< 0.024 UJ	0.0015 JN	< 0.0020 U	0.0056 JN	< 0.0040 U	0.066 JN	< 0.013 U
PCB-103	60145-21-3	ng/g	0.038	0.015	0.20	0.20	0.011 JN	0.0067 JN	0.28	0.027 JN	1.1	0.029 JN
PCB-104	56558-16-8	ng/g	< 0.00023 U	< 0.00027 U	< 0.00034 U	< 0.0029 U	< 0.00052 U	< 0.0011 U	0.061 J	< 0.00053 U	< 0.0029 U	< 0.00081 U
PCB-105	32598-14-4	ng/g	0.069	0.066	1.9	1.8	0.30	0.31	1.3	0.87	18	0.28
PCB-106	70424-69-0	ng/g	< 0.0015 U	< 0.0014 U	< 0.0046 U	< 0.013 U	< 0.0020 U	< 0.0031 U	< 0.012 U	< 0.0035 U	< 0.042 U	< 0.0030 U
PCB-107	70424-68-9	ng/g	0.030 JN	0.023 JN	0.64	0.62	0.055	0.059	0.40	0.21	5.4 JN	0.055
PCB-108/124	70362-41-3	ng/g	0.0082 JN	0.0078 JN	0.25	0.19 JN	0.031	0.034	0.18	0.11	2.3	0.031 J
PCB-11	2050-67-1	ng/g	0.035	0.028 JN	0.22	0.071 JN	0.091	0.089	0.28	0.065	0.32 JN	0.041 JN
PCB-110/115	38380-03-9	ng/g	0.38	0.31	9.7	11	0.91	0.96	6.3	3.5	92	1.0
PCB-111	39635-32-0	ng/g	< 0.00021 U	< 0.00025 U	< 0.00032 U	< 0.0026 U	< 0.00046 U	< 0.00098 U	< 0.0028 U	< 0.00049 U	< 0.0027 U	< 0.00075 U
PCB-112	74472-36-9	ng/g	0.0034 J	< 0.00027 U	< 0.00034 U	0.020 JN	< 0.00050 U	< 0.0011 U	< 0.0031 U	< 0.00052 U	< 0.0029 U	< 0.00079 U
PCB-114	74472-37-0	ng/g	0.0030 JN	0.0032 JN	0.12	0.080 JN	0.018 JN	0.019	0.099	0.059	1.2	< 0.0029 U
PCB-118	31508-00-6	ng/g	0.25	0.23	6.5	6.4	0.74	0.78	4.0	2.4	61	0.78
PCB-12/13	2974-92-7	ng/g	0.0032 JN	0.0037 JN	0.073 JN	0.049 JN	0.0078 JN	0.0069 J	0.018 JN	0.0079 JN	0.30 JN	< 0.012 U
PCB-120	68194-12-7	ng/g	0.0068 JN	0.0032 J	0.077	0.076 J	< 0.00046 U	0.0069 J	0.071 JN	< 0.00050 U	0.53	< 0.00076 U
PCB-121	56558-18-0	ng/g	< 0.00022 U	< 0.00027 U	< 0.00033 U	< 0.0028 U	< 0.00049 U	< 0.0011 U	< 0.0030 U	< 0.00052 U	< 0.0029 U	< 0.00078 U
PCB-122	76842-07-4	ng/g	0.0021 JN	0.0028 J	0.092 JN	0.069 JN	< 0.0022 UJ	0.015 J	0.059 JN	0.034	0.76	< 0.0035 U
PCB-123	65510-44-3	ng/g	0.0041 JN	0.0031 JN	0.094 JN	0.068 JN	0.014 JN	0.015	0.075 JN	0.033	0.77	0.013 JN
PCB-126	57465-28-8	ng/g	< 0.0016 U	< 0.0015 U	0.0091 JN	0.022 JN	< 0.0020 U	< 0.0031 U	0.014 J	0.010 J	0.20 J	< 0.0031 U
PCB-127	39635-33-1	ng/g	< 0.0015 U	< 0.0014 U	< 0.0046 U	< 0.013 U	< 0.0019 U	< 0.0030 U	< 0.011 U	< 0.0034 U	< 0.042 U	< 0.0030 U
PCB-128/166	38380-07-3	ng/g	0.054	0.055	1.5	1.4	0.17	0.17	1.2	0.57	13	0.16
PCB-129/138/160/163	55215-18-4	ng/g	0.53	0.41	9.7	10	1.1	1.0	9.1	3.6	80	1.2
PCB-130	52663-66-8	ng/g	0.032	0.028	0.72	0.71	0.077	0.069	0.58	0.26	5.8	0.073
PCB-131	61798-70-7	ng/g	< 0.0029 U	0.0061 J	0.13	0.14 JN	0.013 JN	0.014	0.11 JN	0.070	1.3	< 0.0050 U
PCB-132	38380-05-1	ng/g	0.14	0.13	3.4	3.4	0.34	0.32	2.9	1.3	31	0.37
PCB-133	35694-04-3	ng/g	0.017	0.0089 JN	0.21	0.24	0.023	0.022	0.27	0.056	1.5	< 0.0046 U
PCB-134/143	52704-70-8	ng/g	0.036 JN	0.023	0.58	0.58	0.062	0.067	0.56 JN	0.24	5.1	0.060 J
PCB-135/151	52744-13-5	ng/g	0.34 J	0.15 JN	3.0	3.6	0.28	0.30	3.9	0.97	22	0.39
PCB-136	38411-22-2	ng/g	0.12 J	0.059 J	1.4	1.6	0.10	0.093 JN	1.4	0.45	10	0.17
PCB-137	35694-06-5	ng/g	0.015	0.013 JN	0.44	0.43	0.051	0.051	0.29	0.21	4.2	0.049 JN
PCB-139/140	56030-56-9	ng/g	0.012 J	0.0073 J	0.18	0.20	0.021 J	0.020 J	0.21	0.083	1.6	0.021 J
PCB-14	34883-41-5	ng/g	< 0.0021 U	< 0.0028 U	< 0.0026 U	< 0.019 UJ	< 0.00081 U	< 0.0015 U	< 0.0039 U	< 0.0031 U	< 0.038 U	< 0.010 U
PCB-141	52712-04-6	ng/g	0.085	0.066	1.6	1.6	0.20	0.17	1.8	0.61	13	0.21
PCB-142	41411-61-4	ng/g	< 0.0027 U	< 0.0028 U	< 0.010 U	< 0.024 U	< 0.0028 U	< 0.0029 U	< 0.013 U	< 0.0048 U	< 0.070 U	< 0.0045 U
PCB-144	68194-14-9	ng/g	0.016	0.012	0.37	0.35	0.031 JN	0.030 JN	0.37	0.13	2.7	0.037 JN
PCB-145	74472-40-5	ng/g	0.0011 J	0.00042 JN	< 0.00040 U	< 0.0036 U	0.00066 JN	0.00047 JN	0.0051 JN	< 0.00040 U	< 0.0057 U	< 0.00063 U
PCB-146	51908-16-8	ng/g	0.18 J	0.091 J	1.9	2.2	0.17	0.15	2.1	0.50	13	0.19
PCB-147/149	68194-13-8	ng/g	1.0 J	0.45 J	8.8	10	0.77	0.71	8.8	2.8	68	1.2
PCB-148	74472-41-6	ng/g	0.0056 JN	0.0048 JN	0.044	0.045 JN	0.0013 JN	0.0055 JN	0.079	0.0049 JN	0.19 JN	< 0.00089 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B258	B258	B259	B260	B262	B262	B263	B264	B265	B266
		Sample ID	PDI-SG-B258-BL1	PDI-SG-B258-BL1-D	PDI-SG-B259-BL1	PDI-SG-B260-BL1	PDI-SG-B262-BL1	PDI-SG-B262-BL1-D	PDI-SG-B263-BL1	PDI-SG-B264-BL1	PDI-SG-B265-BL1	PDI-SG-B266-BL1
		Sample Date	20 Jul 2018	20 Jul 2018	22 Jun 2018	23 Apr 2018	22 Apr 2018	22 Apr 2018	22 Apr 2018	25 Jun 2018	23 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	FD	N	N	N	N
		Depth	0-28 cm	0-28 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-28 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.014 JN	0.011 JN	0.19	0.12 JN	0.038	0.033	0.12	0.023	0.82 JN	0.029 JN
PCB-150	68194-08-1	ng/g	0.017	0.0033 JN	0.027 JN	0.029 JN	0.0034 J	0.0016 JN	0.058 JN	0.0061 J	0.18 JN	< 0.00061 U
PCB-152	68194-09-2	ng/g	0.0011 JN	0.00057 JN	0.012	< 0.0037 U	0.00091 JN	< 0.00025 U	0.044 J	0.0029 JN	0.053 JN	< 0.00065 U
PCB-153/168	35065-27-1	ng/g	0.77 J	0.39 J	7.9	8.9	0.83	0.73	8.7	2.4	58	1.0
PCB-154	60145-22-4	ng/g	0.064 J	0.021 J	0.19 JN	0.30	0.020	0.017	0.43 JN	0.040	1.3 JN	0.022 JN
PCB-155	33979-03-2	ng/g	0.00078 JN	0.00072 JN	< 0.00039 U	< 0.0034 U	< 0.00016 U	< 0.00024 U	0.013 J	< 0.00039 U	< 0.0055 U	< 0.00061 U
PCB-156/157	38380-08-4	ng/g	0.036	0.035	1.2	1.1	0.13	0.12	0.78	0.47	11	0.13
PCB-158	74472-42-7	ng/g	0.040	0.031	0.91	0.78	0.11	0.10	0.77	0.40	7.9	0.11
PCB-159	39635-35-3	ng/g	< 0.0018 U	< 0.0019 U	0.060 JN	< 0.016 U	0.0083 JN	0.0087 J	0.11 JN	< 0.0032 U	< 0.047 U	< 0.0030 U
PCB-16	38444-78-9	ng/g	0.014 JN	0.010	0.28	0.11 JN	0.027	0.022 JN	0.064 JN	0.020	0.55 JN	0.042 J
PCB-161	74472-43-8	ng/g	< 0.0018 U	< 0.0019 U	< 0.0067 U	< 0.016 U	< 0.0018 U	< 0.0019 U	< 0.0086 U	< 0.0032 U	< 0.047 U	< 0.0030 U
PCB-162	39635-34-2	ng/g	< 0.0017 U	< 0.0019 U	0.028	< 0.016 U	< 0.0017 U	< 0.0018 U	< 0.0082 U	< 0.0032 U	< 0.046 U	< 0.0030 U
PCB-164	74472-45-0	ng/g	0.046	0.031	0.72	0.68	0.066 JN	0.068	0.71	0.25	5.5	0.074
PCB-165	74472-46-1	ng/g	< 0.0020 U	< 0.0022 U	< 0.0076 U	< 0.018 U	< 0.0021 U	< 0.0022 U	< 0.0098 U	< 0.0036 U	< 0.053 U	< 0.0034 U
PCB-167	52663-72-6	ng/g	0.014	0.012	0.37	0.33	0.037 JN	0.036	0.27	0.13	3.1	0.033 JN
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.0015 U	< 0.0050 U	< 0.012 U	< 0.0014 U	< 0.0015 U	< 0.0067 U	< 0.0024 U	< 0.033 U	< 0.0022 U
PCB-17	37680-66-3	ng/g	0.037	0.031	0.46	0.24 JN	0.035	0.027 JN	0.36	0.041	0.93	0.051
PCB-170	35065-30-6	ng/g	0.14	0.11	2.5	2.7	0.24	0.21	3.1	0.52	14	0.30
PCB-171/173	52663-71-5	ng/g	0.034	0.036	0.78	0.80	0.065 JN	0.076	1.1	0.18	4.4	0.090 J
PCB-172	52663-74-8	ng/g	0.024	0.017 JN	0.44	0.43	0.040	0.043	0.53	0.088	1.8 JN	0.035 JN
PCB-174	38411-25-5	ng/g	0.15	0.11	2.3	2.4	0.26	0.23	3.8	0.44	11	0.26
PCB-175	40186-70-7	ng/g	0.0072 J	< 0.00078 U	0.12	0.10	0.0096 J	0.0050 JN	0.17	0.017 JN	0.46	< 0.0014 U
PCB-176	52663-65-7	ng/g	0.019	0.014	0.32	0.34	0.023 JN	0.025 JN	0.47	0.055 JN	1.6	0.027 JN
PCB-177	52663-70-4	ng/g	0.092	0.069	1.4	1.5	0.14	0.15	2.4	0.27	6.9	0.16
PCB-178	52663-67-9	ng/g	0.052	0.032	0.52	0.58	0.055	0.048	0.85	0.080 JN	2.3	0.058
PCB-179	52663-64-6	ng/g	0.13 J	0.064 J	1.0	1.1	0.11	0.10	1.7	0.19	4.7	0.13
PCB-18/30	37680-65-2	ng/g	0.044	0.031 JN	0.76	0.38	0.070	0.067	0.11 JN	0.066	1.7	0.077 JN
PCB-180/193	35065-29-3	ng/g	0.31	0.23	5.1	5.5	0.49	0.47	7.4	0.94	24	0.63
PCB-181	74472-47-2	ng/g	< 0.00049 U	< 0.00078 U	0.031	< 0.0099 U	< 0.00020 U	< 0.00073 U	< 0.00026 U	0.0076 JN	< 0.0091 U	< 0.0014 U
PCB-182	60145-23-5	ng/g	< 0.00048 U	< 0.00075 U	0.029 JN	0.045 J	< 0.00019 U	0.0044 JN	0.042 JN	0.0069 J	0.16 J	< 0.0013 U
PCB-183/185	52663-69-1	ng/g	0.10	0.080	1.8	1.8	0.17	0.14	2.5	0.31	8.0	0.19
PCB-184	74472-48-3	ng/g	< 0.00041 U	< 0.00064 U	< 0.00044 U	< 0.0081 U	< 0.00016 U	< 0.00059 U	< 0.00022 U	< 0.00087 U	< 0.0075 U	< 0.0011 U
PCB-186	74472-49-4	ng/g	< 0.00039 U	< 0.00062 U	< 0.00042 U	< 0.0079 U	< 0.00015 U	< 0.00057 U	< 0.00021 U	< 0.00084 U	< 0.0073 U	< 0.0011 U
PCB-187	52663-68-0	ng/g	0.29 J	0.17 J	3.1	3.1	0.33	0.29	4.8	0.52	13	0.37
PCB-188	74487-85-7	ng/g	< 0.00034 U	< 0.00053 U	< 0.00038 U	< 0.0067 U	< 0.00014 U	< 0.00052 U	< 0.00019 U	< 0.00074 U	< 0.0067 U	< 0.00099 U
PCB-189	39635-31-9	ng/g	0.0038 JN	< 0.0028 U	0.089	0.078 J	0.0079 JN	0.0081 JN	0.11	0.021	0.52	< 0.0028 U
PCB-19	38444-73-4	ng/g	0.031	0.026	0.080 JN	0.048 JN	0.016	0.010 JN	0.19	0.033 JN	0.19 JN	0.026 JN
PCB-190	41411-64-7	ng/g	0.025 JN	0.016 JN	0.44	0.45	0.044	0.040 JN	0.67	0.096	2.2	0.050
PCB-191	74472-50-7	ng/g	0.0062 J+	0.0034 JN	0.12	0.067 JN	0.0088 JN	0.0094 JN	0.15 JN	0.021 JN	0.53	0.011 J
PCB-192	74472-51-8	ng/g	< 0.00042 U	< 0.00066 U	< 0.00045 U	< 0.0083 U	< 0.00016 U	< 0.00058 U	< 0.00021 U	< 0.00089 U	< 0.0077 U	< 0.0012 U
PCB-194	35694-08-7	ng/g	0.071	0.064	1.4	1.2	0.11 JN	0.12	1.6	0.19	4.4	0.18
PCB-195	52663-78-2	ng/g	0.027 JN	0.026 JN	0.51	0.49	0.048	0.045	0.74	0.065 JN	1.8	0.046 JN
PCB-196	42740-50-1	ng/g	0.034	0.026 JN	0.81	0.69	0.045 JN	0.041	0.76	0.086	2.3	0.079
PCB-197	33091-17-7	ng/g	0.0024 JN	0.0020 JN	0.065	0.061 J	0.0029 JN	0.0033 JN	0.059 JN	0.0079 J	0.17 JN	0.0060 J
PCB-198/199	68194-17-2	ng/g	0.077	0.067	1.7	1.4	0.12	0.12	1.6	0.22	4.7	0.22
PCB-2	2051-61-8	ng/g	0.0092	0.0070 J	0.12	0.057 J	0.0081 J	0.0073 JN	0.047 J	0.013 JN	0.23 J	0.018 J
PCB-20/28	38444-84-7	ng/g	0.086	0.073	1.3	0.79	0.18	0.18	0.56	0.11	3.0	0.13
PCB-200	52663-73-7	ng/g	0.0080 JN	0.0065 J	0.17	0.15	0.014	0.0099 JN	0.17 JN	0.021	0.49	0.012 JN
PCB-201	40186-71-8	ng/g	0.0048 J	0.0075 J	0.21	0.15	0.016	0.011 JN	0.20 JN	0.023	0.52	0.016 JN
PCB-202	2136-99-4	ng/g	0.017	0.015	0.35	0.25	0.033 JN	0.026 JN	0.28	0.050	0.87	0.046 J
PCB-203	52663-76-0	ng/g	0.040	0.033	1.1	0.85	0.080	0.074	0.96	0.14	2.8	0.11 JN
PCB-204	74472-52-9	ng/g	< 0.00028 U	< 0.00040 U	< 0.00031 U	< 0.0058 U	< 0.00070 U	< 0.00041 U	< 0.00055 U	< 0.00066 U	< 0.0052 U	< 0.00037 U
PCB-205	74472-53-0	ng/g	0.0036 J+	0.0046 JN	0.071	0.068 J	0.0055 JN	0.0049 JN	0.078	0.013	0.22 JN	0.0064 JN
PCB-206	40186-72-9	ng/g	0.033 JN	0.033	0.77	0.71	0.086	0.10 JN	0.61	0.13	1.8	0.14
PCB-207	52663-79-3	ng/g	0.0036 J	< 0.0022 U	0.095	0.089 J	0.0094 J	0.011 J	0.080	0.016	0.24 J	0.013 JN
PCB-208	52663-77-1	ng/g	0.0076 JN	0.011	0.19	0.23	0.023	0.032	0.17	0.037	0.47 JN	0.039 J
PCB-209	2051-24-3	ng/g	0.037	0.032	0.19	0.87	0.085	0.084	0.29	0.075	0.86	0.037 JN
PCB-21/33	55702-46-0	ng/g	0.035	0.028	0.61	0.35	0.066	0.076	0.32	0.040	1.5	0.053 J
PCB-22	38444-85-8	ng/g	0.020	0.017	0.25	0.15	0.054	0.061	0.11	0.025	0.63	0.034 J
PCB-23	55720-44-0	ng/g	< 0.00070 U	< 0.00081 U	0.018	< 0.0060 U	< 0.0020 U	< 0.0025 U	< 0.010 U	< 0.0016 U	< 0.014 U	< 0.0019 U
PCB-24	55702-45-9	ng/g	0.00078 JN	0.00085 J	0.011	< 0.0023 U	< 0.00036 U	< 0.00058 U	< 0.0039 U	< 0.00046 U	0.024 JN	< 0.0013 U
PCB-25	55712-37-3	ng/g	0.0099	0.0081 J	0.097	0.056 JN	0.014 JN	0.012 JN	0.061 JN	0.013	0.33	0.0084 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B258	B258	B259	B260	B262	B262	B263	B264	B265	B266
		Sample ID	PDI-SG-B258-BL1	PDI-SG-B258-BL1-D	PDI-SG-B259-BL1	PDI-SG-B260-BL1	PDI-SG-B262-BL1	PDI-SG-B262-BL1-D	PDI-SG-B263-BL1	PDI-SG-B264-BL1	PDI-SG-B265-BL1	PDI-SG-B266-BL1
		Sample Date	20 Jul 2018	20 Jul 2018	22 Jun 2018	23 Apr 2018	22 Apr 2018	22 Apr 2018	22 Apr 2018	25 Jun 2018	23 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	FD	N	N	N	N
		Depth	0-28 cm	0-28 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-28 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.015 J	0.014 J	0.14	0.11 J	0.024 JN	0.027	0.074 J	0.020 J	0.43 J	0.015 J
PCB-27	38444-76-7	ng/g	0.0061 J	0.0048 JN	0.061	0.028 JN	0.0072 JN	0.0077 JN	0.027 JN	0.0077 J	0.14 J	0.0097 J
PCB-3	2051-62-9	ng/g	0.0021 JN	0.0031 J	0.16	0.17	0.0052 JN	0.0048 J	0.067	0.0073 JN	1.1	< 0.0011 U
PCB-31	16606-02-3	ng/g	0.058	0.051	0.92	0.53	0.12	0.12	0.32	0.083	2.3	0.097 J
PCB-32	38444-77-8	ng/g	0.022	0.018	< 0.00043 U	0.15 JN	0.026 JN	0.032	0.18	0.026 JN	0.59	0.047 J
PCB-34	37680-68-5	ng/g	< 0.00073 U	< 0.00084 U	< 0.0033 U	< 0.0062 U	< 0.0021 U	< 0.0026 U	< 0.011 U	< 0.0016 U	< 0.014 U	< 0.0020 U
PCB-35	37680-69-6	ng/g	0.0022 J+	0.0022 J+	0.015	0.011 J	0.0040 J	0.0027 JN	< 0.010 U	< 0.0016 U	0.075 JN	< 0.0019 U
PCB-36	38444-87-0	ng/g	< 0.00068 U	< 0.00079 U	< 0.0031 U	< 0.0058 U	< 0.0018 U	< 0.0023 U	< 0.0092 U	< 0.0015 U	< 0.013 U	< 0.0018 U
PCB-37	38444-90-5	ng/g	0.022	0.019	0.28	0.15	0.053	0.058	0.15	0.034	0.81	0.040 J
PCB-38	53555-66-1	ng/g	< 0.00073 U	< 0.00085 U	< 0.0033 U	< 0.0063 U	< 0.0020 U	< 0.0025 U	< 0.010 U	< 0.0017 U	< 0.014 U	< 0.0020 U
PCB-39	38444-88-1	ng/g	< 0.00066 U	< 0.00076 U	0.021	< 0.0056 U	< 0.0018 U	< 0.0022 U	< 0.0091 U	< 0.0015 U	0.087 JN	< 0.0018 U
PCB-4	13029-08-8	ng/g	0.021 JN	0.018 JN	0.14 JN	0.17 JN	0.014 JN	0.022 J	0.10 J	0.033	0.93 JN	0.029 JN
PCB-40/41/71	38444-93-8	ng/g	0.062	0.048	1.1	0.73	0.099	0.077 J	0.54	0.13	3.5	0.16
PCB-42	36559-22-5	ng/g	0.032	0.026	0.70	0.44	0.046 JN	0.039 J	0.28	0.073	2.7	0.082
PCB-43/73	70362-46-8	ng/g	0.0091 J	0.0050 J	0.070 JN	< 0.020 U	0.0087 JN	0.0083 J	0.20	0.040	< 0.11 U	0.012 J
PCB-44/47/65	41464-39-5	ng/g	0.24	0.17	3.3	2.7	0.27	0.26 J	4.1	0.65	19	0.46
PCB-45/51	70362-45-7	ng/g	0.046	0.035	0.36	0.23	0.044	0.041 J	1.6	0.053	0.93	0.15
PCB-46	41464-47-5	ng/g	0.0054 JN	0.0066 J	0.095	< 0.028 U	0.010 JN	0.0082 J	0.055 JN	< 0.0053 U	< 0.15 U	0.017 JN
PCB-48	70362-47-9	ng/g	0.016	0.016	0.35	0.11 JN	0.033	0.026 J	0.14	0.035	0.85	0.044 J
PCB-49/69	41464-40-8	ng/g	0.16	0.11	2.7	2.2	0.17	0.16 J	1.5	0.41	15	0.27
PCB-5	16605-91-7	ng/g	< 0.0028 U	< 0.0036 U	0.011 JN	< 0.025 UJ	< 0.00098 U	< 0.0018 U	< 0.0047 U	< 0.0041 U	0.098 JN	< 0.014 U
PCB-50/53	62796-65-0	ng/g	0.053	0.034	0.34	0.27	0.035	0.031 J	0.51	0.070	1.2	0.077 J
PCB-52	35693-99-3	ng/g	0.21	0.18	5.5	5.0	0.44	0.43 J	3.1	1.6	42	0.51
PCB-54	15968-05-5	ng/g	0.0055 JN	0.0051 JN	0.013 JN	0.0075 JN	0.0025 JN	0.0035 JN	0.17	0.012	< 0.00098 U	0.023 JN
PCB-55	74338-24-2	ng/g	< 0.0011 U	< 0.0020 U	0.025 JN	0.034 J	0.0037 JN	< 0.0024 UJ	< 0.010 U	< 0.0031 U	< 0.086 U	< 0.00061 U
PCB-56	41464-43-1	ng/g	0.040	0.035	0.90	0.60	0.094	0.087 J	0.34	0.13	3.4	0.12 JN
PCB-57	70424-67-8	ng/g	< 0.0011 U	< 0.0020 U	< 0.0079 U	< 0.016 U	< 0.0014 U	< 0.0025 UJ	< 0.010 U	< 0.0031 U	< 0.087 U	< 0.00062 U
PCB-58	41464-49-7	ng/g	< 0.0011 U	< 0.0021 U	0.050	0.023 JN	0.0020 J	< 0.0024 UJ	0.026 J	0.028	0.26 JN	< 0.00063 U
PCB-59/62/75	74472-33-6	ng/g	0.0098 J	0.0098 J	0.21	0.11 J	0.020 J	0.012 JN	0.20	0.023 J	0.68 J	0.030 J
PCB-6	25569-80-6	ng/g	0.0064 JN	0.0057 JN	0.14	0.094 JN	0.0084 J	0.0056 J	0.044 J	0.010 J	0.63	< 0.012 U
PCB-60	33025-41-1	ng/g	0.0098	0.0094	0.16	0.13 JN	0.038	0.038 J	0.11	0.040 JN	0.81	0.052
PCB-61/70/74/76	33284-53-6	ng/g	0.19	0.17	5.5	4.3	0.43	0.40 J	2.3	1.2	32	0.53
PCB-63	74472-34-7	ng/g	0.0037 JN	0.0051 J	0.095	0.055 J	0.0080 J	0.0087 J	0.066	0.013 JN	0.50	0.010 J
PCB-64	52663-58-8	ng/g	0.038	0.032	0.95	0.64	0.084	0.080 J	0.37 JN	0.17	4.2	0.12
PCB-66	32598-10-0	ng/g	0.13	0.11	3.1	2.1	0.24	0.22 J	1.2	0.40	14	0.31
PCB-67	73575-53-8	ng/g	0.0019 J	0.0022 J	0.036	0.034 J	0.0042 JN	0.0028 JN	0.021 JN	< 0.0027 U	< 0.076 U	< 0.00054 U
PCB-68	73575-52-7	ng/g	0.0073 J	0.0053 JN	0.068	0.048 JN	0.0030 JN	< 0.0021 UJ	0.068	0.0086 J	0.53	0.0056 J
PCB-7	33284-50-3	ng/g	< 0.0025 U	< 0.0033 U	0.030	0.030 JN	0.0017 JN	< 0.0017 U	0.013 JN	0.0051 J	0.23 JN	< 0.012 U
PCB-72	41464-42-0	ng/g	0.0069 JN	0.0057 JN	0.13	0.066 JN	0.0045 J	0.0047 J	0.038 JN	0.010 J	0.89	0.0062 J
PCB-77	32598-13-3	ng/g	0.011	0.0093 JN	0.17	0.12	0.022	0.023	0.080	0.049 JN	0.97	0.030 J
PCB-78	70362-49-1	ng/g	< 0.0011 U	< 0.0020 U	< 0.0080 U	< 0.016 U	< 0.0013 U	< 0.0024 UJ	< 0.010 U	< 0.0032 U	< 0.089 U	< 0.00063 U
PCB-79	41464-48-6	ng/g	0.0036 JN	0.0023 JN	0.070	0.056 JN	0.0061 J	< 0.0020 UJ	0.040 J	0.016	0.68	< 0.00054 U
PCB-8	34883-43-7	ng/g	0.023	0.019 JN	0.36	0.33 J	0.033 JN	0.032	0.13 JN	0.023 JN	1.8	< 0.011 U
PCB-80	33284-52-5	ng/g	< 0.00096 U	< 0.0017 U	< 0.0068 U	< 0.014 U	< 0.0012 U	< 0.0021 UJ	< 0.0089 U	< 0.0027 U	< 0.075 U	< 0.00053 U
PCB-81	70362-50-4	ng/g	< 0.0010 U	< 0.0019 U	< 0.0071 U	< 0.014 U	< 0.0012 U	< 0.0022 U	< 0.0092 U	< 0.0029 U	< 0.083 U	< 0.00060 U
PCB-82	52663-62-4	ng/g	0.025	0.025	0.85	0.65 JN	0.086 JN	0.10 JN	0.52 JN	0.33	7.6	0.11
PCB-83/99	60145-20-2	ng/g	0.43 J	0.21 J	6.1	5.7	0.51	0.53	4.3	1.7	48	0.62
PCB-84	52663-60-2	ng/g	0.067	0.063	2.7	2.2	0.18 JN	0.19	1.3	0.93	23	0.23
PCB-85/116/117	65510-45-4	ng/g	0.043	0.044	1.3	1.2	0.14	0.13 JN	0.84	0.46	10	0.16
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.18	0.16	5.8	5.2	0.50	0.55	3.4	2.2	52	0.60
PCB-88/91	55215-17-3	ng/g	0.17 J	0.073 J	1.6	1.5	0.13	0.12	1.4	0.43	12	0.15
PCB-89	73575-57-2	ng/g	< 0.00034 U	< 0.00041 U	< 0.00051 U	< 0.0043 U	< 0.00077 U	< 0.0016 U	< 0.0047 U	< 0.00080 U	< 0.0044 U	< 0.0012 U
PCB-9	34883-39-1	ng/g	< 0.0025 U	< 0.0034 U	0.033	0.040 JN	0.0025 JN	< 0.0020 U	< 0.0051 U	< 0.0038 U	0.17 JN	< 0.013 U
PCB-90/101/113	68194-07-0	ng/g	0.47	0.32	10	10	0.81	0.83	7.3	3.4	87	1.0
PCB-92	52663-61-3	ng/g	0.099	0.062	2.0	1.9	0.16	0.17	1.6	0.60	16	0.18
PCB-93/100	73575-56-1	ng/g	0.047	0.018	0.17 JN	0.14 JN	0.029	0.023 JN	0.79	0.25 JN	1.1	0.039 J
PCB-94	73575-55-0	ng/g	0.012	0.0039 JN	< 0.00051 U	< 0.0043 U	< 0.00077 U	< 0.0016 U	0.16	< 0.00079 U	< 0.0044 U	< 0.0012 U
PCB-95	38379-99-6	ng/g	0.30	0.25	8.7	8.2	0.58	0.59	5.3	3.0	76	0.79
PCB-96	73575-54-9	ng/g	0.0056 J	0.0032 JN	0.072	< 0.0032 U	0.0052 J	0.0068 JN	0.091 JN	< 0.00060 U	< 0.0033 U	0.0075 JN
PCB-98/102	60233-25-2	ng/g	0.029	0.014 J	0.27	0.20 JN	0.019 JN	0.026 JN	0.27 JN	0.083	1.8	0.030 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	9.8	6.7	165	159	16	15	144	47	1161	19

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B258	B258	B259	B260	B262	B262	B263	B264	B265	B266
		Sample ID	PDI-SG-B258-BL1	PDI-SG-B258-BL1-D	PDI-SG-B259-BL1	PDI-SG-B260-BL1	PDI-SG-B262-BL1	PDI-SG-B262-BL1-D	PDI-SG-B263-BL1	PDI-SG-B264-BL1	PDI-SG-B265-BL1	PDI-SG-B266-BL1
		Sample Date	20 Jul 2018	20 Jul 2018	22 Jun 2018	23 Apr 2018	22 Apr 2018	22 Apr 2018	22 Apr 2018	25 Jun 2018	23 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	FD	N	N	N	N
		Depth	0-28 cm	0-28 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-28 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.35 U	< 0.35 U	0.52	2.3 J	< 0.61 UJ	< 0.61 UJ	0.61 J	< 0.47 U	1.1 J	< 0.31 U
2,4-DDE	3424-82-6	µg/kg	< 0.35 U	< 0.35 U	< 0.36 U	< 1.0 UJ	< 0.61 UJ	< 0.61 UJ	< 0.64 UJ	< 0.47 U	< 1.1 UJ	< 0.31 U
2,4-DDT	789-02-6	µg/kg	< 0.35 U	< 0.35 U	< 0.36 U	< 1.0 UJ	< 0.61 UJ	< 0.61 UJ	< 0.64 UJ	< 0.47 U	< 1.1 UJ	< 0.31 UJ
4,4'-DDD	72-54-8	µg/kg	0.80	0.73	1.1	4.0 J	1.3 J	1.4 J	2.3 J	0.86	2.9 J	0.52
4,4'-DDE	72-55-9	µg/kg	1.3	1.4	3.1	6.0 J	2.5 J	2.6 J	3.4 J	1.9	7.5 J	1.1
4,4'-DDT	50-29-3	µg/kg	0.18 J	0.20 J	0.66	1.5 J	1.6 J	0.90 J	1.0 J	0.52	2.8 J	< 0.31 U
Total DDx (b)	T_DDx (PDI)	µg/kg	2.5	2.5	5.6	14	5.7	5.2	7.6	3.5	15	1.8
Aldrin	309-00-2	µg/kg	< 0.35 U	< 0.35 U	< 0.36 U	< 1.0 UJ	< 0.61 UJ	< 0.61 UJ	< 0.64 UJ	< 0.47 U	< 1.1 UJ	< 0.31 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.71 U	< 0.70 U	< 0.72 U	< 2.1 UJ	< 1.2 UJ	< 1.2 UJ	< 1.3 UJ	< 0.94 U	< 2.1 UJ	< 0.63 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.35 U	< 0.35 U	< 0.36 U	< 1.1 UJ	< 0.61 UJ	< 0.61 UJ	< 0.64 UJ	< 0.47 U	< 1.1 UJ	< 0.31 U
Dieldrin	60-57-1	µg/kg	< 0.71 U	< 0.70 U	< 0.72 U	< 2.1 UJ	< 1.2 UJ	0.61 J	< 1.3 UJ	< 0.94 U	< 2.1 UJ	< 0.63 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.35 U	< 0.35 U	< 0.36 U	< 1.0 UJ	< 0.61 UJ	< 0.61 UJ	< 0.64 UJ	< 0.47 U	< 1.1 UJ	< 0.31 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.71 U	< 0.70 U	0.26 J	< 2.1 UJ	0.45 J	0.42 J	< 1.3 UJ	< 0.94 U	< 2.1 UJ	< 0.63 U
Heptachlor	76-44-8	µg/kg	< 0.35 U	< 0.35 U	< 0.36 U	< 1.0 UJ	< 0.61 UJ	< 0.61 UJ	< 0.64 UJ	< 0.47 U	< 1.1 UJ	< 0.31 U
Oxychlordane	27304-13-8	µg/kg	< 0.71 U	< 0.70 U	< 0.72 U	< 2.1 UJ	< 1.2 UJ	< 1.2 UJ	< 1.3 UJ	< 0.94 U	< 2.1 UJ	< 0.63 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.71 U	< 0.70 U	< 0.72 U	< 2.1 UJ	0.62 J	< 1.2 UJ	< 1.3 UJ	< 0.94 U	< 2.1 UJ	< 0.63 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 0.71 U	< 0.7 U	0.62	< 2.1 UJ	1.67	1.02	< 1.3 UJ	< 0.94 U	< 2.1 UJ	< 0.63 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.0 J	< 16 U	49	19	3.1	3.6	13	12	31	6.4 J
Acenaphthene	83-32-9	µg/kg	7.5 J	< 16 U	140	17	2.7	2.8	21	16	32	8.9 J
Acenaphthylene	208-96-8	µg/kg	2.7 J	< 16 U	36	19	2.1	2.3	16	5.5 J	22	3.6 J
Anthracene	120-12-7	µg/kg	< 16 UJ	< 16 UJ	230	34	5.4	4.9	46	30	59	16
Benz(a)anthracene	56-55-3	µg/kg	37	5.1 J	510	110	16	16	150	77	210	24
Benzo(a)pyrene	50-32-8	µg/kg	35	3.5 J	460	130	15	17	190	57	230	19
Benzo(b)fluoranthene	205-99-2	µg/kg	48	7.6 J	650	160	26	28	310	98	270	35
Benzo(g,h,i)perylene	191-24-2	µg/kg	20	4.2 J	220	110	29	32	250	29	160	17
Benzo(k)fluoranthene	207-08-9	µg/kg	19	2.4 J	240	54	8.6	9.3	85	30	91	14 J
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	100 J	150 J	840	320	110 J	46 J	340	230 J	860	200
Chrysene	218-01-9	µg/kg	38	< 16 U	540	160	41	30	350	85	280	32
Dibenz(a,h)anthracene	53-70-3	µg/kg	4.3 J	< 16 U	58	20	4.6 J	5.2 J	57	8.9 J	38	6.3 J
Fluoranthene	206-44-0	µg/kg	76	< 16 U	1300	260	49	51	470	160	410	74
Fluorene	86-73-7	µg/kg	7.7 J	< 16 U	150	20	4.3	4.5	21	19	30	9.8 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	24	4.1 J	350	98	21	23	230	46	160	22 J
Naphthalene	91-20-3	µg/kg	8.1 J	< 16 U	130	45	4.3	5.5	31	19	54	11 J
Phenanthrene	85-01-8	µg/kg	53	7.3 J	1100	160	23	24	180	110	280	69
Pyrene	129-00-0	µg/kg	62	< 16 U	1100	320	45	45	450	150	520	55
Total PAHs (b)	T_PAH (PDI)	µg/kg	452	50	7263	1736	300	304	2870	952	2877	423
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	50	13	672	188	26	29	317	88	333	34
Metals												
Arsenic	7440-38-2	mg/kg	6.8	6.6	11	7.1	4.9	5.1	6.8	5.7	8.1	6.2
Cadmium	7440-43-9	mg/kg	0.23 J	0.26 J	0.30	0.38	0.27 J	0.30	0.41 J	0.17 J	0.61	0.22
Copper	7440-50-8	mg/kg	58	54	510	190	43	44	94	130	130	150
Lead	7439-92-1	mg/kg	13	12	38	31	13	14	26	13	79	14
Mercury	7439-97-6	mg/kg	0.067 J	0.063 J	0.13	0.30	0.079	0.071	0.13	0.078	0.31	0.056
Tri-n-butyltin	36643-28-4	µg/kg	49 J	48 J	7500	1100	1.9 J	1.4 J	200	270	960	200
Zinc	7440-66-6	mg/kg	120	110	340	190	120	120	180	130	270	170
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	64 J	67 J	310	180	96 J	69 J	65 J	110	350	85
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	270	320	940	460	580	430	320	480	1100	490
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	60.8	59.9	54.4 52.9					43.7 41.2		57.0
Total Solids@104C - E160.3 (f)	TSOLID	%				48.0	39.3	39.0	37.7		43.1	
Total Solids@104C - E160.3M (f)	TSOLID	%	52.2	53.2	53.5	48.1	40.3	40.2	38.9	41.0	46.4	58.3
Total Solids@70C	TSOLID70	%	63	59	53	52	41	40	39	41	47	59
Gravel	GS-Gravel	%	0		0	0.5	0		0	0	0	0
Sand, Coarse	GS-Csand	%	0.2		0.1	2.1	0.1		0.1	0	0.1	0.2
Sand, Medium	GS-Msand	%	0.4		14.5	11.6	0.2		0.4	2.2	0.4	6.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	31.45		27.13	7.068	8.588		14.53	10.35	21.93	49.94
Sand, Fine (#230) (d)	GS-Fsand	%	36.5		29.3	8.3	11.3		15.9	12.7	25.8	54.8
Silt (#200) (d)	GS-Silt-200	%	61.84		48.56	64.13	76.31		63.16	74.74	57.56	38.45

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B258	B258	B259	B260	B262	B262	B263	B264	B265	B266
		Sample ID	PDI-SG-B258-BL1	PDI-SG-B258-BL1-D	PDI-SG-B259-BL1	PDI-SG-B260-BL1	PDI-SG-B262-BL1	PDI-SG-B262-BL1-D	PDI-SG-B263-BL1	PDI-SG-B264-BL1	PDI-SG-B265-BL1	PDI-SG-B266-BL1
		Sample Date	20 Jul 2018	20 Jul 2018	22 Jun 2018	23 Apr 2018	22 Apr 2018	22 Apr 2018	22 Apr 2018	25 Jun 2018	23 Apr 2018	20 Jul 2018
		Sample Type Code	N	FD	N	N	N	FD	N	N	N	N
		Depth	0-28 cm	0-28 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-28 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	56.8		46.4	62.9	73.6		61.8	72.4	53.7	33.6
Clay	GS-Clay	%	6.1		9.7	14.5	14.8		21.8	12.8	20.0	4.5
Percent Fines (e)	GS-FINES	%	67.94		58.26	78.63	91.11		84.96	87.54	77.56	42.95
Total Organic Carbon	TOC	mg/kg	21000	18000	16000	19000	29000	28000	22000	26000	18000	10000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B267	B268	B269	B270	B271	B272	B273	B274	B275	B276
		Sample ID	PDI-SG-B267-BL1	PDI-SG-B268-BL1	PDI-SG-B269-BL1	PDI-SG-B270-BL1	PDI-SG-B271-BL1	PDI-SG-B272-BL1	PDI-SG-B273-BL1	PDI-SG-B274-BL1	PDI-SG-B275-BL1	PDI-SG-B276-BL1
		Sample Date	18 Apr 2018	22 Apr 2018	22 Apr 2018	26 Apr 2018	23 Apr 2018	24 Jun 2018	23 Apr 2018	24 Jun 2018	22 Apr 2018	26 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.049	0.13	0.087	0.020	0.53	0.037	0.65	0.036	0.15	0.030
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0088 JN	0.031	0.018 JN	0.0032 JN	0.077	0.0075	0.13	0.0066 J	0.055	0.0054 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00071 J	0.0015 J	0.0010 J	< 0.00049 U	0.0041 J	0.0013 J	0.0067	0.00052 J+	0.0018 JN	< 0.00041 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00059 JN	0.0011 J	0.0012 J	0.00047 J+	0.0020 J+	0.00041 JN	0.0027 JN	0.00053 J	0.0013 J	0.00065 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00071 JN	0.0020 J	0.0019 J	0.00042 J+	0.0060 J	0.0010 J	0.0070	0.00060 J	0.0034 J	0.00067 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0021 J	0.0045 J	0.0033 J	0.0011 J	0.012	0.0013 J	0.015	0.0013 J	0.0054	0.0018 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0019 JN	0.0014 J	0.0013 J	< 0.0014 U	0.0021 J	0.00035 J	0.0031 J	0.00031 JN	0.0046 J	< 0.0019 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0018 J	0.0026 J	0.0022 JN	0.00066 J+	0.0059 J	0.0011 J	0.0055 J	0.0011 J	0.0033 J	0.0012 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00034 U	< 0.00013 U	< 0.00010 U	< 0.00016 U	< 0.00027 U	< 0.000098 U	< 0.00040 U	0.00017 J+	< 0.00021 U	< 0.00018 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00023 U	0.00067 J	0.00051 JN	< 0.00016 U	0.0011 JN	0.00027 J	0.0014 J+	0.00023 JN	0.00092 J	0.00021 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00026 U	0.00067 J	0.00060 J	< 0.00014 U	0.00075 J+	0.00023 J+	0.00086 J+	0.00036 J+	0.0011 J	< 0.00012 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00031 U	0.00067 J	0.00072 J	< 0.00016 U	0.0011 J+	0.00018 JN	0.0012 JN	0.00022 J	0.0013 J	< 0.00018 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00029 U	0.00081 J	0.00066 J	< 0.00014 U	0.0013 J+	0.00017 JN	0.0015 J+	0.00018 J	0.0011 J	0.00016 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00042 JN	0.00030 JN	0.00025 JN	0.000099 JN	0.00082 J+	0.00017 JN	0.00068 J+	0.00023 JN	0.00058 J	0.00016 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00030 JN	0.0010 J	0.00082 J	0.00017 JN	0.0014 J	0.00042 J	0.0019	0.00042 J	0.00092 J	0.00034 J
OCDD	3268-87-9	µg/kg	0.52	1.2	0.85	0.18	4.1	0.32	5.1	0.31	2.0	0.28
OCDF	39001-02-0	µg/kg	0.026	0.19	0.058	0.011	0.39	0.030	0.65	0.020	0.12	0.021
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.002	0.0046	0.0035	0.00075	0.013	0.0015	0.016	0.0015	0.0066	0.0014
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0013	0.0045	0.0027	0.0006	0.012	0.0013	0.016	0.0011	0.0066	0.001
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0011	0.0043	0.0025	0.00052	0.012	0.0013	0.015	0.001	0.0066	0.00089
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0017 J	0.019	0.016 JN	0.0049 JN	0.11	0.0030 JN	0.12 J	0.0034 JN	0.028	0.0056 J+
PCB-10	33146-45-1	ng/g	< 0.00061 U	< 0.0023 U	< 0.0028 U	< 0.0020 U	< 0.020 U	< 0.0017 U	< 0.017 U	< 0.0037 U	< 0.0025 U	< 0.0028 U
PCB-103	60145-21-3	ng/g	0.0040 JN	0.053	0.038 JN	0.016	0.23	0.016	0.93	0.027	0.068	0.0057 J
PCB-104	56558-16-8	ng/g	< 0.00079 U	< 0.00078 U	< 0.0018 U	0.0019 J	< 0.0025 U	< 0.00023 U	< 0.0024 U	< 0.00055 U	< 0.00074 U	< 0.00060 U
PCB-105	32598-14-4	ng/g	0.059	0.65	0.37	0.056	2.1	0.11	2.5	0.57	0.42	0.051
PCB-106	70424-69-0	ng/g	< 0.0025 U	< 0.0041 U	< 0.0034 U	< 0.00089 U	< 0.013 U	< 0.0011 U	< 0.015 U	< 0.0029 U	< 0.0057 U	< 0.00099 U
PCB-107	70424-68-9	ng/g	0.012 JN	0.14	0.093	0.017	0.72	0.028 JN	0.92	0.12	0.17	0.013
PCB-108/124	70362-41-3	ng/g	0.0086 J	0.067	0.037	0.0060 J	0.25	0.012 JN	0.29	0.064	0.048	0.0059 JN
PCB-11	2050-67-1	ng/g	0.026 JN	0.15	0.16	0.041	0.12 JN	0.030 JN	0.16 J	0.051	0.22	0.033 JN
PCB-110/115	38380-03-9	ng/g	0.18	1.7	1.2	0.25	9.5	0.50	12	1.9	1.9	0.18
PCB-111	39635-32-0	ng/g	< 0.00070 U	< 0.00069 U	< 0.0016 U	< 0.00022 U	< 0.0023 U	< 0.00021 U	0.051 J	< 0.00051 U	< 0.00066 U	< 0.00056 U
PCB-112	74472-36-9	ng/g	< 0.00077 U	0.0059 JN	0.0031 JN	< 0.00023 U	< 0.0025 U	< 0.00022 U	< 0.0024 U	< 0.00054 U	0.0099	0.0012 JN
PCB-114	74472-37-0	ng/g	< 0.0023 U	0.039	0.023 JN	0.0023 J	0.11	0.0062 J	0.16	0.027 JN	0.028	0.0025 JN
PCB-118	31508-00-6	ng/g	0.14	1.6	0.96	0.17	6.4	0.32	8.1	1.5	1.4	0.14
PCB-12/13	2974-92-7	ng/g	< 0.00052 U	0.015 J	0.019 J	0.0033 JN	0.042 JN	0.0037 JN	0.035 JN	0.0047 JN	0.019 J	< 0.0025 U
PCB-120	68194-12-7	ng/g	< 0.00069 U	0.011 J	0.011 JN	0.0020 J	0.070 J	0.0070 J	0.10 JN	< 0.00052 U	0.026 JN	0.0024 J
PCB-121	56558-18-0	ng/g	< 0.00075 U	< 0.00074 U	< 0.0017 U	< 0.00023 U	< 0.0024 U	< 0.00022 U	< 0.0024 U	< 0.00053 U	< 0.00071 U	< 0.00058 U
PCB-122	76842-07-4	ng/g	< 0.0028 U	0.029	0.017	0.0019 JN	0.080	0.0043 JN	0.082 JN	0.020 JN	0.022	0.0026 JN
PCB-123	65510-44-3	ng/g	0.0036 J	0.030	0.018	0.0028 J	0.069 JN	0.0072 J	0.11 J	0.019 JN	0.022	0.0025 JN
PCB-126	57465-28-8	ng/g	< 0.0025 U	< 0.0044 U	< 0.0036 U	0.0014 JN	< 0.014 U	0.0013 J	0.041 J	0.0047 JN	< 0.0060 U	< 0.0010 U
PCB-127	39635-33-1	ng/g	< 0.0024 U	< 0.0039 U	< 0.0032 U	< 0.00089 U	< 0.013 U	< 0.0011 U	< 0.014 U	< 0.0028 U	< 0.0055 U	< 0.00098 U
PCB-128/166	38380-07-3	ng/g	0.041 JN	0.41	0.26	0.041	1.5	0.080	2.4	0.34	0.48	0.048
PCB-129/138/160/163	55215-18-4	ng/g	0.31	2.7	1.9	0.40	11	0.68	22	2.2	4.2	0.42
PCB-130	52663-66-8	ng/g	0.020 JN	0.19	0.14	0.021	0.74	0.037 JN	1.3	0.16	0.29	0.018 JN
PCB-131	61798-70-7	ng/g	< 0.0014 U	0.036	0.022	0.0038 J	0.14 JN	0.0075 JN	0.20	0.028	< 0.011 U	< 0.0036 U
PCB-132	38380-05-1	ng/g	0.082	0.84	0.60	0.14	3.9	0.23	7.0	0.78	1.3	0.11
PCB-133	35694-04-3	ng/g	0.0067 J	0.077	0.059	0.010	0.23	0.015	0.81	0.033 JN	0.13	0.0079 JN
PCB-134/143	52704-70-8	ng/g	0.012 J	0.18	0.12	0.025	0.63	0.039	1.3	0.14	0.23	0.018 JN
PCB-135/151	52744-13-5	ng/g	0.11	0.88	0.72	0.19	3.8	0.26	11	0.58	1.5	0.15
PCB-136	38411-22-2	ng/g	0.038	0.29	0.23	0.060	1.4	0.10	3.8	0.27	0.51	0.055
PCB-137	35694-06-5	ng/g	0.0089 JN	0.13	0.081	0.010	0.45	0.021	0.63	0.11	0.097	0.010
PCB-139/140	56030-56-9	ng/g	0.0035 JN	0.059	0.042	0.0073 J	0.21	0.011 JN	0.49	0.042	0.082	0.0052 J
PCB-14	34883-41-5	ng/g	< 0.00048 U	< 0.0018 U	< 0.0022 U	< 0.0015 U	< 0.016 U	< 0.0013 U	< 0.013 U	< 0.0028 U	< 0.0020 U	< 0.0022 U
PCB-141	52712-04-6	ng/g	0.057	0.48	0.38	0.080	1.9	0.12	3.7	0.39	0.85	0.090
PCB-142	41411-61-4	ng/g	< 0.0013 U	< 0.0065 U	< 0.0058 U	< 0.0016 U	< 0.020 U	< 0.0019 U	< 0.037 U	< 0.0045 U	< 0.010 U	< 0.0033 U
PCB-144	68194-14-9	ng/g	0.0086 J	0.081	0.078	0.013	0.41	0.025 JN	0.82	0.076	0.16	0.019
PCB-145	74472-40-5	ng/g	< 0.00012 U	< 0.00029 U	< 0.00061 U	< 0.00032 U	< 0.0032 U	< 0.00014 U	< 0.0028 U	0.0013 JN	< 0.00098 U	< 0.0016 U
PCB-146	51908-16-8	ng/g	0.050	0.48	0.42	0.088	2.1	0.14	5.7	0.30	1.1	0.078
PCB-147/149	68194-13-8	ng/g	0.22	2.4	1.8	0.58	11	0.78	26	1.9	4.1	0.38
PCB-148	74472-41-6	ng/g	0.00088 J	0.017 JN	0.0051 JN	0.0018 J	0.050 J	0.0039 JN	0.26	0.0059 J	0.032	< 0.0023 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B267	B268	B269	B270	B271	B272	B273	B274	B275	B276
		Sample ID	PDI-SG-B267-BL1	PDI-SG-B268-BL1	PDI-SG-B269-BL1	PDI-SG-B270-BL1	PDI-SG-B271-BL1	PDI-SG-B272-BL1	PDI-SG-B273-BL1	PDI-SG-B274-BL1	PDI-SG-B275-BL1	PDI-SG-B276-BL1
		Sample Date	18 Apr 2018	22 Apr 2018	22 Apr 2018	26 Apr 2018	23 Apr 2018	24 Jun 2018	23 Apr 2018	24 Jun 2018	22 Apr 2018	26 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0060 JN	0.099	0.082	0.011 JN	0.11 JN	0.013 JN	0.18	0.024 JN	0.059	0.010 JN
PCB-150	68194-08-1	ng/g	< 0.00010 U	0.026	0.016	0.0032 J	0.062 J	0.0034 J	0.25 JN	0.0042 JN	0.021	< 0.0015 U
PCB-152	68194-09-2	ng/g	< 0.00011 U	0.019 JN	0.0065 JN	< 0.00033 U	0.018 JN	< 0.00014 U	0.16	0.0020 J	0.0064 JN	< 0.0016 U
PCB-153/168	35065-27-1	ng/g	0.28	2.2	1.8	0.39	9.7	0.65	22	1.6	4.4	0.39
PCB-154	60145-22-4	ng/g	0.0018 JN	0.11	0.066 JN	0.012	0.31	0.024	1.3	0.032	0.12	0.0090 JN
PCB-155	33979-03-2	ng/g	< 0.00011 U	0.00093 JN	< 0.00056 U	< 0.00031 U	< 0.0031 U	< 0.00013 U	0.018 JN	< 0.00017 U	< 0.00090 U	< 0.0015 U
PCB-156/157	38380-08-4	ng/g	0.033	0.31	0.20	0.027	1.2	0.052	1.9	0.27	0.29	0.043
PCB-158	74472-42-7	ng/g	0.027	0.27	0.18	0.030	1.1	0.059	1.7	0.23	0.32	0.034
PCB-159	39635-35-3	ng/g	0.0067 J	0.021 JN	0.017 JN	0.0026 J	0.067 J	0.0046 JN	0.14	0.011	0.055	0.0060 JN
PCB-16	38444-78-9	ng/g	0.0027 JN	0.067 JN	0.081	0.013	0.052 JN	0.014	0.083 J	0.042	0.071 JN	0.010
PCB-161	74472-43-8	ng/g	< 0.00084 U	< 0.0043 U	< 0.0038 U	< 0.0010 U	< 0.013 U	< 0.0013 U	< 0.025 U	< 0.0030 U	< 0.0065 U	< 0.0022 U
PCB-162	39635-34-2	ng/g	< 0.00080 U	< 0.0041 U	< 0.0036 U	0.0014 J	< 0.013 U	0.0027 J	0.050 JN	0.0051 JN	< 0.0062 U	0.0032 JN
PCB-164	74472-45-0	ng/g	0.021	0.19	0.14	0.030	0.83	0.048	1.6	0.16	0.32	0.029
PCB-165	74472-46-1	ng/g	< 0.00096 U	< 0.0049 U	< 0.0043 U	< 0.0012 U	< 0.015 U	< 0.0015 U	< 0.028 U	< 0.0034 U	< 0.0074 U	< 0.0025 U
PCB-167	52663-72-6	ng/g	0.012	0.095	0.063	0.010	0.36 JN	0.018	0.64	0.080	0.11	0.015
PCB-169	32774-16-6	ng/g	< 0.00062 U	< 0.0033 U	< 0.0027 U	< 0.0011 U	< 0.011 U	< 0.00099 U	< 0.018 U	< 0.0022 U	< 0.0050 U	< 0.0017 U
PCB-17	37680-66-3	ng/g	0.0078 JN	0.091	0.094	0.052	0.16	0.031	0.63	0.069	0.10 JN	0.023
PCB-170	35065-30-6	ng/g	0.13	0.59	0.53	0.089	3.0	0.14	7.2	0.38	1.4	0.24
PCB-171/173	52663-71-5	ng/g	0.039	0.19	0.16	0.031	0.98	0.049	2.2	0.11	0.44	0.056
PCB-172	52663-74-8	ng/g	0.023	0.11	0.099	0.021	0.44 JN	0.024	1.1	0.058	0.26	0.040
PCB-174	38411-25-5	ng/g	0.14	0.66	0.63	0.098	2.6	0.16	6.4	0.36	1.6	0.20
PCB-175	40186-70-7	ng/g	0.0047 JN	0.026	0.027	0.0050 JN	0.12	0.0062 JN	0.26	0.013 JN	0.072	0.0095 JN
PCB-176	52663-65-7	ng/g	0.015	0.077	0.079	0.013	0.39	0.023	0.89	0.046 JN	0.20	0.022
PCB-177	52663-70-4	ng/g	0.088	0.39	0.36	0.066	1.7	0.097	4.3	0.21	0.97	0.11
PCB-178	52663-67-9	ng/g	0.022 JN	0.17	0.13	0.026	0.59	0.040	1.8	0.081	0.36	0.049
PCB-179	52663-64-6	ng/g	0.056	0.35	0.29	0.069	1.2	0.091	3.5	0.15	0.72	0.088
PCB-18/30	37680-65-2	ng/g	0.013 JN	0.15	0.18	0.052	0.22	0.045	0.20 JN	0.11 JN	0.17	0.029
PCB-180/193	35065-29-3	ng/g	0.31	1.3	1.3	0.24	5.8	0.33	15	0.69	3.1	0.52
PCB-181	74472-47-2	ng/g	< 0.00010 U	< 0.00036 U	< 0.0012 U	< 0.0012 U	< 0.0058 U	< 0.00013 U	< 0.0063 U	0.0055 JN	< 0.00037 U	< 0.0024 U
PCB-182	60145-23-5	ng/g	< 0.000099 U	0.0079 J	0.0067 JN	0.0027 JN	0.045 J	< 0.00012 U	0.12 JN	0.0060 JN	0.021	0.0035 JN
PCB-183/185	52663-69-1	ng/g	0.095	0.41	0.35	0.077	1.9	0.12	4.6	0.25	1.1	0.14
PCB-184	74472-48-3	ng/g	< 0.000085 U	< 0.00030 U	< 0.00095 U	< 0.00095 U	< 0.0048 U	< 0.00010 U	< 0.0051 U	< 0.0033 U	< 0.00030 U	< 0.0020 U
PCB-186	74472-49-4	ng/g	< 0.000081 U	< 0.00028 U	< 0.00091 U	< 0.00093 U	< 0.0046 U	< 0.00010 U	< 0.0050 U	< 0.0033 U	< 0.00029 U	< 0.0019 U
PCB-187	52663-68-0	ng/g	0.17	0.88	0.81	0.17	3.4	0.22	9.4	0.41	2.0	0.25
PCB-188	74487-85-7	ng/g	< 0.000074 U	0.0074 J	0.0059 J	< 0.00071 U	< 0.0041 U	< 0.000088 U	< 0.0043 U	< 0.0028 U	< 0.00026 U	< 0.0017 U
PCB-189	39635-31-9	ng/g	0.0054 JN	0.023	0.017	0.0026 JN	0.11	0.0046 J	0.26	0.018	0.051	0.011 JN
PCB-19	38444-73-4	ng/g	0.0081 J	0.028	0.031 JN	0.11	0.11	0.029	0.63	0.039	0.025 JN	0.023
PCB-190	41411-64-7	ng/g	0.025 JN	0.11	0.10	0.012	0.59	0.024	1.3	0.058	0.25	0.043
PCB-191	74472-50-7	ng/g	0.0078 J	0.024 JN	0.026	0.0038 J	0.13	0.0065 J	0.26 JN	0.016	0.062	0.011
PCB-192	74472-51-8	ng/g	< 0.000083 U	< 0.00029 U	< 0.00093 U	< 0.00098 U	< 0.0049 U	< 0.00011 U	< 0.0053 U	< 0.0034 U	< 0.00029 U	< 0.0020 U
PCB-194	35694-08-7	ng/g	0.091	0.34	0.33	0.046	1.2	0.075	3.9	0.17	0.86	0.17
PCB-195	52663-78-2	ng/g	0.037	0.14	0.13	0.012 JN	0.49	0.033	1.5	0.068	0.37	0.065
PCB-196	42740-50-1	ng/g	0.033 JN	0.15	0.14	0.014	0.68	0.033	1.8	0.069	0.34	0.059
PCB-197	33091-17-7	ng/g	< 0.00041 U	0.010 JN	0.0089 JN	0.0021 JN	0.042 JN	0.0031 JN	0.16 JN	0.0050 J	0.024	0.0045 J
PCB-198/199	68194-17-2	ng/g	0.094	0.32	0.34	0.036	1.3	0.090	3.6	0.18	0.77	0.13
PCB-2	2051-61-8	ng/g	0.0031 JN	0.021	0.019	0.0070 J+	0.031 JN	0.011	0.054 J	0.012	0.041	0.0034 JN
PCB-20/28	38444-84-7	ng/g	0.046	0.41	0.41	0.072	0.47	0.096	0.69	0.23	0.41	0.044
PCB-200	52663-73-7	ng/g	0.0041 JN	0.041	0.038	0.0071 J	0.12	0.0090	0.37	0.017	0.10	0.010 JN
PCB-201	40186-71-8	ng/g	0.013	0.044	0.035 JN	0.0028 JN	0.15	0.010	0.40	0.018	0.099	0.013
PCB-202	2136-99-4	ng/g	0.017 JN	0.076	0.065	0.013	0.22	0.017	0.68	0.043	0.17	0.024
PCB-203	52663-76-0	ng/g	0.059	0.19	0.19	0.017	0.82	0.046	2.4	0.11	0.46	0.075
PCB-204	74472-52-9	ng/g	< 0.00045 U	< 0.00068 U	< 0.0018 U	< 0.00098 U	< 0.0032 U	< 0.00016 U	< 0.0052 U	< 0.00020 U	< 0.0011 U	< 0.00079 U
PCB-205	74472-53-0	ng/g	0.0038 J	0.015 JN	0.016 JN	< 0.0021 U	0.067 J	0.0020 JN	0.19	0.0073 J	0.039	0.0093 J
PCB-206	40186-72-9	ng/g	0.040 JN	0.18 JN	0.22 JN	0.021 JN	0.49	0.047	2.0	0.14	0.56	0.063
PCB-207	52663-79-3	ng/g	0.0041 JN	0.017	0.019	< 0.0025 U	0.050 JN	0.0056 J	0.17 JN	0.011 JN	0.058	0.0041 JN
PCB-208	52663-77-1	ng/g	0.0095 JN	0.047	0.038 JN	0.0092 J	0.13	0.013	0.57	0.041	0.16	0.015
PCB-209	2051-24-3	ng/g	0.036 JN	0.12	0.093	0.030	0.24	0.040	0.54	0.054	0.70	0.045
PCB-21/33	55702-46-0	ng/g	0.016 JN	0.18	0.19	0.028	0.21 JN	0.035	0.30	0.095	0.18	0.017 J
PCB-22	38444-85-8	ng/g	0.011 J	0.12	0.13	0.016	0.091	0.021	0.11 J	0.053	0.10	0.012
PCB-23	55720-44-0	ng/g	< 0.00098 U	< 0.0030 U	< 0.0030 U	< 0.00049 U	< 0.0043 U	< 0.00067 U	< 0.0049 U	< 0.0014 U	< 0.0035 U	< 0.00049 U
PCB-24	55702-45-9	ng/g	0.0014 JN	0.0018 JN	0.0021 JN	0.00059 JN	< 0.0025 U	0.00070 JN	0.0097 JN	< 0.00041 U	0.0020 JN	< 0.00037 U
PCB-25	55712-37-3	ng/g	0.0051 JN	0.035	0.035	0.017	0.048 J	0.0098	0.096 J	0.013	0.036	0.0044 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B267	B268	B269	B270	B271	B272	B273	B274	B275	B276
		Sample ID	PDI-SG-B267-BL1	PDI-SG-B268-BL1	PDI-SG-B269-BL1	PDI-SG-B270-BL1	PDI-SG-B271-BL1	PDI-SG-B272-BL1	PDI-SG-B273-BL1	PDI-SG-B274-BL1	PDI-SG-B275-BL1	PDI-SG-B276-BL1
		Sample Date	18 Apr 2018	22 Apr 2018	22 Apr 2018	26 Apr 2018	23 Apr 2018	24 Jun 2018	23 Apr 2018	24 Jun 2018	22 Apr 2018	26 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0066 JN	0.061	0.066	0.020	0.079 J	0.014 J	0.062 JN	0.024	0.065	0.0077 J
PCB-27	38444-76-7	ng/g	0.00029 JN	0.016	0.016	0.025	0.026 JN	0.0062 JN	0.12 J	0.0094 JN	0.019	0.0033 JN
PCB-3	2051-62-9	ng/g	0.0026 JN	0.018 JN	0.013	0.0049 J+	0.060 J	0.0038 JN	0.096 J	0.0037 JN	0.016 JN	< 0.0021 U
PCB-31	16606-02-3	ng/g	0.031	0.28	0.30	0.054	0.31	0.069	0.36	0.18	0.29	0.035
PCB-32	38444-77-8	ng/g	0.0011 JN	0.063	0.073	0.037	0.14	0.025	0.50	0.045 JN	0.071 J-	0.012
PCB-34	37680-68-5	ng/g	< 0.0010 U	< 0.0031 U	< 0.0031 U	< 0.00051 U	< 0.0045 U	< 0.00069 U	< 0.0051 U	< 0.0015 U	< 0.0036 U	< 0.00050 U
PCB-35	37680-69-6	ng/g	0.0011 JN	0.0062 J	0.0087 J	0.0016 J	0.012 J	0.0020 J	0.015 J	0.0027 JN	0.010	< 0.00049 U
PCB-36	38444-87-0	ng/g	< 0.00088 U	< 0.0027 U	< 0.0027 U	0.00086 J	< 0.0042 U	< 0.00065 U	< 0.0048 U	< 0.0014 U	< 0.0031 U	< 0.00047 U
PCB-37	38444-90-5	ng/g	0.012	0.12	0.11	0.014	0.14	0.023	0.18	0.051	0.093	0.013
PCB-38	53555-66-1	ng/g	< 0.00095 U	< 0.0030 U	< 0.0029 U	< 0.00052 U	< 0.0045 U	< 0.00070 U	0.0055 JN	< 0.0015 U	< 0.0034 U	< 0.00051 U
PCB-39	38444-88-1	ng/g	< 0.00087 U	< 0.0027 U	< 0.0027 U	0.00087 JN	< 0.0041 U	0.0011 JN	0.0065 JN	< 0.0013 U	< 0.0031 U	< 0.00046 U
PCB-4	13029-08-8	ng/g	0.0074 JN	0.042	0.040 JN	0.023 JN	0.14 J	0.021	0.20 J	0.025 JN	0.036 JN	0.023 JN
PCB-40/41/71	38444-93-8	ng/g	0.027 J	0.26	0.26	0.099	0.54	0.073	1.4 J	0.17	0.28	0.026 J
PCB-42	36559-22-5	ng/g	0.012 JN	0.13	0.13	0.029	0.31	0.042	0.43 J	0.094	0.14 JN	0.011 JN
PCB-43/73	70362-46-8	ng/g	0.0013 JN	0.031	0.030	0.016 JN	0.039 JN	0.0053 J	0.27 J	0.010 JN	0.012 JN	0.0025 JN
PCB-44/47/65	41464-39-5	ng/g	0.067 JN	0.97	0.88	0.29	2.7	0.23	9.9 J	0.54	0.94	0.079
PCB-45/51	70362-45-7	ng/g	0.011 JN	0.18	0.21	0.13	0.46	0.046	3.7 J	0.083	0.16	0.019 J
PCB-46	41464-47-5	ng/g	< 0.0013 U	0.017	0.026	0.021	0.068 J	0.0086 JN	0.20 J	0.020	0.021 JN	0.0026 JN
PCB-48	70362-47-9	ng/g	0.0093 J	0.092	0.088	0.014	0.11	0.023	0.14 JN	0.060	0.091 JN	0.0079 J
PCB-49/69	41464-40-8	ng/g	0.052	0.52	0.48	0.22	1.7	0.17	4.5 J	0.35	0.64	0.056
PCB-5	16605-91-7	ng/g	< 0.00057 U	< 0.0021 U	< 0.0026 U	< 0.0020 U	< 0.021 U	< 0.0018 U	< 0.017 U	< 0.0037 U	< 0.0024 U	< 0.0029 U
PCB-50/53	62796-65-0	ng/g	0.016 J	0.094 JN	0.12	0.24	0.35	0.047	2.0 J	0.075	0.11	0.020
PCB-52	35693-99-3	ng/g	0.094	1.2	0.87	0.38	4.4	0.29	5.7 J	0.95	1.2	0.098
PCB-54	15968-05-5	ng/g	< 0.00014 U	0.0058 JN	0.012	0.061	0.044 J	0.0069 J	0.42 J	0.0064 J	0.0039 JN	0.0031 JN
PCB-55	74338-24-2	ng/g	0.0019 JN	0.013 JN	< 0.0037 U	0.0017 J	< 0.015 U	0.0039 JN	0.026 JN	< 0.0029 U	0.011 JN	< 0.00092 U
PCB-56	41464-43-1	ng/g	0.024	0.21	0.19	0.036	0.39	0.056	0.43 J	0.17	0.27	0.020 JN
PCB-57	70424-67-8	ng/g	< 0.00073 U	< 0.0042 U	< 0.0038 U	< 0.00087 U	< 0.015 U	< 0.0013 U	< 0.023 UJ	< 0.0030 U	< 0.0051 U	< 0.00094 U
PCB-58	41464-49-7	ng/g	< 0.00071 U	< 0.0040 U	< 0.0036 U	< 0.00088 U	< 0.016 U	0.0016 JN	0.028 JN	< 0.0030 U	0.0075 JN	0.0012 JN
PCB-59/62/75	74472-33-6	ng/g	0.0050 J	0.045	0.043 JN	0.010 J	0.11 J	0.015 J	0.24 J	0.026	0.047 JN	0.0051 J
PCB-6	25569-80-6	ng/g	0.0013 JN	0.027 JN	0.025	0.0059 JN	0.069 JN	0.0054 JN	0.062 JN	0.0091 JN	0.026	0.0047 JN
PCB-60	33025-41-1	ng/g	0.0067 JN	0.083	0.078	0.011	0.12	0.016 JN	0.12 JN	0.060	0.062 JN	0.0080 J
PCB-61/70/74/76	33284-53-6	ng/g	0.11	1.0	0.89	0.17	3.4	0.26	3.6 J	0.96	1.3	0.10
PCB-63	74472-34-7	ng/g	0.0017 JN	0.020	0.016	0.0039 J	0.030 JN	0.0054 J	0.096 J	0.013	0.028	0.0017 JN
PCB-64	52663-58-8	ng/g	0.021	0.21	0.19	0.035	0.52	0.056	0.63 J	0.16	0.22	0.021
PCB-66	32598-10-0	ng/g	0.059	0.58	0.50	0.10	1.5	0.17	1.8 J	0.48	0.70	0.058
PCB-67	73575-53-8	ng/g	< 0.00068 U	0.013	0.010 J	0.0023 J	< 0.013 U	0.0026 JN	< 0.020 UJ	< 0.0026 U	0.016	0.0013 JN
PCB-68	73575-52-7	ng/g	< 0.00064 U	0.0077 JN	0.0073 JN	0.0027 J	0.052 J	0.0067 JN	0.12 J	< 0.0026 U	0.026	0.0013 JN
PCB-7	33284-50-3	ng/g	0.0015 JN	0.0072 JN	0.0063 JN	< 0.0018 U	< 0.019 U	0.0017 JN	0.021 JN	< 0.0034 U	0.0052 JN	< 0.0026 U
PCB-72	41464-42-0	ng/g	0.0011 JN	0.014	0.012	0.0034 J	0.071 J	0.0058 J	0.061 JN	< 0.0029 U	0.038	0.0016 JN
PCB-77	32598-13-3	ng/g	0.0070 JN	0.042	0.035 JN	0.0071 J	0.11	0.010 JN	0.12 JN	0.034	0.045	0.0065 J
PCB-78	70362-49-1	ng/g	< 0.00071 U	< 0.0040 U	< 0.0036 U	< 0.00088 U	< 0.016 U	< 0.0013 U	< 0.023 UJ	< 0.0030 U	< 0.0049 U	< 0.00095 U
PCB-79	41464-48-6	ng/g	0.0020 JN	0.011 J	0.0075 J	< 0.00077 U	< 0.013 U	0.0042 J	0.053 JN	0.010	0.016 JN	0.0010 JN
PCB-8	34883-43-7	ng/g	0.0087 J+	0.14	0.12 JN	0.020 JN	0.19 JN	0.019	0.23 J	0.031	0.094 J-	0.013 JN
PCB-80	33284-52-5	ng/g	< 0.00063 U	< 0.0036 U	< 0.0032 U	< 0.00075 U	< 0.013 U	< 0.0011 U	< 0.020 UJ	< 0.0025 U	< 0.0044 U	< 0.00081 U
PCB-81	70362-50-4	ng/g	< 0.00066 U	< 0.0038 U	< 0.0035 U	< 0.00083 U	< 0.014 U	< 0.0012 U	< 0.021 U	< 0.0027 U	< 0.0047 U	< 0.00086 U
PCB-82	52663-62-4	ng/g	0.017 JN	0.17 JN	0.10 JN	0.014 JN	0.72	0.042	0.90	0.18	0.15	0.013
PCB-83/99	60145-20-2	ng/g	0.10	1.1	0.81	0.11	5.3	0.30	9.7	0.93	1.4	0.10
PCB-84	52663-60-2	ng/g	0.030	0.32 JN	0.24	0.052	2.2	0.097	2.6	0.46	0.39	0.026 JN
PCB-85/116/117	65510-45-4	ng/g	0.034 J	0.27	0.19	0.028 J	1.2	0.063	1.6	0.26	0.25	0.024 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.098	1.0	0.71	0.12	5.0	0.24	6.8	1.1	1.0	0.089
PCB-88/91	55215-17-3	ng/g	0.022 JN	0.41	0.32	0.072	1.5	0.093	4.2	0.24	0.36	0.031
PCB-89	73575-57-2	ng/g	< 0.0012 U	< 0.0011 U	0.011 J	0.0029 J	< 0.0037 U	< 0.00034 U	< 0.0036 U	0.017 JN	0.015	0.0026 J
PCB-9	34883-39-1	ng/g	< 0.00063 U	0.0066 J	0.0076 JN	< 0.0018 U	< 0.019 U	< 0.0016 U	0.023 JN	< 0.0034 U	0.0041 JN	< 0.0026 U
PCB-90/101/113	68194-07-0	ng/g	0.16	1.7	1.3	0.32	9.4	0.52	16	1.8	2.3	0.20
PCB-92	52663-61-3	ng/g	0.025	0.36	0.29	0.053	1.8	0.096	3.5	0.32	0.57	0.038
PCB-93/100	73575-56-1	ng/g	0.0043 JN	0.13	0.083	0.016 JN	0.36	0.023	1.7	0.025 JN	0.074 JN	0.0072 J
PCB-94	73575-55-0	ng/g	< 0.0012 U	0.039	0.035	0.0092 J	0.093	< 0.00034 U	0.54	< 0.00082 U	0.017 JN	0.0037 JN
PCB-95	38379-99-6	ng/g	0.12	1.1	0.93	0.32	7.4	0.41	12	1.5	1.7	0.15
PCB-96	73575-54-9	ng/g	0.0015 JN	0.027	0.027	0.012	0.068 J	0.0055 JN	0.36	< 0.00062 U	0.021	0.0025 JN
PCB-98/102	60233-25-2	ng/g	0.0083 J	0.049 JN	0.058	0.013 J	0.29	0.016 J	0.94	0.049	0.053 JN	0.0060 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	4.7	38	31	7.5	157	10	321	30	59	6.4

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B267	B268	B269	B270	B271	B272	B273	B274	B275	B276
		Sample ID	PDI-SG-B267-BL1	PDI-SG-B268-BL1	PDI-SG-B269-BL1	PDI-SG-B270-BL1	PDI-SG-B271-BL1	PDI-SG-B272-BL1	PDI-SG-B273-BL1	PDI-SG-B274-BL1	PDI-SG-B275-BL1	PDI-SG-B276-BL1
		Sample Date	18 Apr 2018	22 Apr 2018	22 Apr 2018	26 Apr 2018	23 Apr 2018	24 Jun 2018	23 Apr 2018	24 Jun 2018	22 Apr 2018	26 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.47 U	0.45 J	0.57 J	< 0.51 UJ	< 1.4 UJ	< 0.34 U	< 1.3 UJ	0.36	1.7 J	< 0.50 UJ
2,4-DDE	3424-82-6	µg/kg	< 0.47 U	< 0.56 UJ	< 0.57 UJ	< 0.51 UJ	< 1.4 UJ	< 0.34 U	< 1.3 UJ	< 0.35 U	0.50 J	< 0.50 UJ
2,4-DDT	789-02-6	µg/kg	< 0.47 U	< 0.56 UJ	< 0.57 UJ	< 0.51 UJ	1.8 J	< 0.34 U	< 1.3 UJ	< 0.35 U	< 0.47 UJ	< 0.50 UJ
4,4'-DDD	72-54-8	µg/kg	0.81	1.7 J	1.9 J	0.83 J	1.8 J	0.59	1.9 J	1.1	5.6 J	0.86 J
4,4'-DDE	72-55-9	µg/kg	1.8	2.4 J	2.9 J	1.7 J	5.0 J	1.7	5.0 J	1.4	7.1 J	1.8 J
4,4'-DDT	50-29-3	µg/kg	0.39 J	0.45 J	0.29 J	< 0.51 UJ	5.1 J	0.20 J	< 1.3 UJ	0.25 J	0.84 J	0.25 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.2	5.3	5.9	2.8	14	2.7	7.6	3.3	16	3.2
Aldrin	309-00-2	µg/kg	< 0.47 U	< 0.56 UJ	< 0.57 UJ	< 0.51 UJ	< 1.4 UJ	< 0.34 U	< 1.3 UJ	< 0.35 U	< 0.46 UJ	< 0.50 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 0.94 U	< 1.1 UJ	< 1.1 UJ	< 1.0 UJ	< 2.8 UJ	< 0.67 U	< 2.7 UJ	< 0.70 U	< 0.92 UJ	< 1.0 UJ
cis-Nonachlor	5103-73-1	µg/kg	< 0.47 U	< 0.56 UJ	< 0.57 UJ	< 0.51 UJ	< 1.4 UJ	< 0.34 U	< 1.3 UJ	< 0.35 U	< 0.49 UJ	< 0.50 UJ
Dieldrin	60-57-1	µg/kg	0.39 J	< 1.1 UJ	0.69 J	< 1.0 UJ	< 2.8 UJ	< 0.67 U	< 2.7 UJ	< 0.70 U	< 1.0 UJ	< 1.0 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.47 U	< 0.56 UJ	< 0.57 UJ	< 0.51 UJ	< 1.4 UJ	< 0.34 U	< 1.3 UJ	< 0.35 U	< 0.46 UJ	< 0.50 UJ
gamma-Chlordane	5566-34-7	µg/kg	0.33 J	< 1.1 UJ	< 1.1 UJ	< 1.0 UJ	< 2.8 UJ	0.24 J	< 2.7 UJ	0.24 J	< 0.92 UJ	< 1.0 UJ
Heptachlor	76-44-8	µg/kg	< 0.47 U	< 0.56 UJ	< 0.57 UJ	< 0.51 UJ	< 1.4 UJ	< 0.34 U	< 1.3 UJ	< 0.35 U	< 0.46 UJ	< 0.50 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.2 U	< 1.1 UJ	< 1.1 UJ	< 1.0 UJ	< 2.8 UJ	< 0.67 U	< 2.7 UJ	< 0.70 U	< 1.0 UJ	< 1.0 UJ
trans-Nonachlor	39765-80-5	µg/kg	0.33 J	< 1.1 UJ	< 1.1 UJ	< 1.0 UJ	< 2.8 UJ	0.27 J	< 2.7 UJ	< 0.70 U	< 0.92 UJ	< 1.0 UJ
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	1.26	< 1.1 UJ	< 1.1 UJ	< 1 UJ	< 2.8 UJ	0.845	< 2.7 UJ	0.59	< 1 UJ	< 1 UJ
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.4	9.7	10	1.3	7.6	6.5 J	9.5	7.9 J	38	1.1 J
Acenaphthene	83-32-9	µg/kg	0.81	6.4	9.5	2.5	8.0	4.6 J	13	3.9 J	64	3.8
Acenaphthylene	208-96-8	µg/kg	0.93	4.5	6.3	0.95	11	4.0 J	14	4.4 J	12	1.1
Anthracene	120-12-7	µg/kg	2.2	12	18	2.1	24	11	30	13	58	5.9
Benz(a)anthracene	56-55-3	µg/kg	7.1	27	57	5.9	110	20	130	39	200	30
Benzo(a)pyrene	50-32-8	µg/kg	7.7	32	59	5.9	110	15	140	42	170	25
Benzo(b)fluoranthene	205-99-2	µg/kg	11	41	88	9.0	180	30	210	62	230	37
Benzo(g,h,i)perylene	191-24-2	µg/kg	9.3	55	99	8.2	93	9.6	120	23	180	25
Benzo(k)fluoranthene	207-08-9	µg/kg	4.0	14	29	2.9	60	8.5	74	21	83	11
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	85 J	160	190	41 J	390	140 J	750	< 270 U	32 J	65 J
Chrysene	218-01-9	µg/kg	11	42	87	6.7	210	30	240	53	260	34
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.0	8.0 J	19	1.8	21	3.5 J	25	7.8 J	54	6.0
Fluoranthene	206-44-0	µg/kg	16	99	190	16	230	48	350	69	440	55
Fluorene	86-73-7	µg/kg	1.3	9.8	13	2.3	12	6.6 J	17	6.5 J	80	2.3
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	7.8	39	82	6.2	90	15	110	29	180	25
Naphthalene	91-20-3	µg/kg	1.7	13	15	3.8	14	12	27	14	62	1.8
Phenanthrene	85-01-8	µg/kg	8.3	61	95	10	82	32	110	36	360	25
Pyrene	129-00-0	µg/kg	18	91	160	17	240	46	380	63	400	49
Total PAHs (b)	T_PAH (PDI)	µg/kg	111	564	1037	103	1503	302	2000	495	2871	338
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	12	51	101	10	170	25	211	63	286	40
Metals												
Arsenic	7440-38-2	mg/kg	5.6	5.2	4.7	4.5	8.2	4.4	7.9	5.4	4.6	4.7
Cadmium	7440-43-9	mg/kg	0.19 J	0.58	0.40	0.17 J	0.31 J	0.15 J	0.36	0.16 J	0.38	0.17 J
Copper	7440-50-8	mg/kg	44	49	48	34	120	72	100	75	41	36
Lead	7439-92-1	mg/kg	11	23	19	11	27	10	28	13	23	9.2
Mercury	7439-97-6	mg/kg	0.041 J	0.089	0.088	0.050	0.15	0.053	0.15	0.092	0.31	0.039
Tri-n-butyltin	36643-28-4	µg/kg	< 2.3 U	1.7 J	2.1 J	1.9 J	230	< 120 U	300	< 130 U	5.3	27
Zinc	7440-66-6	mg/kg	100	180	150	93	220	110	210	100	120	94
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	41 J	56 J	55 J	56 J	81 J	76	< 400 U	44 J	200	38 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	310	350	350	350	410	240	560	220	640	230
Other												
Total Solids@104C - D2216 (f)	TSOLID	%						57.9 55.2		54.7 59.0		
Total Solids@104C - E160.3 (f)	TSOLID	%	39.7	42.1	41.9	59.0	33.9		36.5		51.6	53.0
Total Solids@104C - E160.3M (f)	TSOLID	%	42.4	43.7	43.5	48.4	35.1	59.2	37.4	55.2	52.9	48.7
Total Solids@70C	TSOLID70	%	43	44	44	48	35	58	38	55	52	49
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0.6	0
Sand, Coarse	GS-Csand	%	0	0	0	0.6	0	0.2	0	0.2	1.2	0
Sand, Medium	GS-Msand	%	0.2	0.1	0.2	1.4	0.5	15.1	0.3	2.8	2.1	0.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	16.23	20.84	22.92	59.75	7.368	39.94	11.41	40.63	31.43	34.75
Sand, Fine (#230) (d)	GS-Fsand	%	21.4	26.2	28.2	64.7	8.1	43.3	12.7	45.7	34.4	40.7
Silt (#200) (d)	GS-Silt-200	%	72.56	62.45	61.87	32.14	68.93	39.25	61.38	47.96	50.36	55.34

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B267	B268	B269	B270	B271	B272	B273	B274	B275	B276
		Sample ID	PDI-SG-B267-BL1	PDI-SG-B268-BL1	PDI-SG-B269-BL1	PDI-SG-B270-BL1	PDI-SG-B271-BL1	PDI-SG-B272-BL1	PDI-SG-B273-BL1	PDI-SG-B274-BL1	PDI-SG-B275-BL1	PDI-SG-B276-BL1
		Sample Date	18 Apr 2018	22 Apr 2018	22 Apr 2018	26 Apr 2018	23 Apr 2018	24 Jun 2018	23 Apr 2018	24 Jun 2018	22 Apr 2018	26 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	67.4	57.1	56.6	27.2	68.2	35.9	60.1	42.9	47.4	49.4
Clay	GS-Clay	%	11.1	16.6	14.9	6.1	23.3	5.5	26.9	8.5	14.3	9.7
Percent Fines (e)	GS-FINES	%	83.66	79.05	76.77	38.24	92.23	44.75	88.28	56.46	64.66	65.04
Total Organic Carbon	TOC	mg/kg	24000	25000	26000	18000	25000	13000	25000	13000	27000	16000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B277	B278	B279	B280	B281	B282	B283	B284	B285	B286
		Sample ID	PDI-SG-B277-BL1	PDI-SG-B278-BL1	PDI-SG-B279-BL1	PDI-SG-B280-BL1	PDI-SG-B281-BL1	PDI-SG-B282-BL1	PDI-SG-B283-BL1	PDI-SG-B284-BL1	PDI-SG-B285-BL1	PDI-SG-B286-BL1
		Sample Date	22 Apr 2018	24 Jun 2018	23 Apr 2018	23 Apr 2018	24 Jun 2018	21 Apr 2018	22 Apr 2018	24 Apr 2018	24 Jun 2018	22 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-28 cm	0-30 cm	0-29 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.082	0.044	0.49	0.64	0.041	0.048	0.17	0.76	0.033	0.15
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.028	0.0078 JN	0.12	0.18	0.0068	0.0072	0.024	0.19	0.0052 JN	0.019
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0016 J	0.00060 J	0.0072	0.011	0.00042 J+	0.0010 J+	0.0016 J	0.011	0.00034 JN	0.0012 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0010 J	0.00057 J	0.0026 J+	0.0033 J	0.00059 J	0.00079 J	0.0012 J	0.0032 J	0.00043 JN	0.0012 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0026 J	0.00085 J	0.012	0.017	0.00061 J	0.0011 J	0.0022 J	0.023	0.00050 J	0.0021 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0033 J	0.0018 J	0.014	0.020	0.0017 J	0.0022 JN	0.0047 J	0.019	0.0014 J	0.0041 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0025 J	0.00048 J	0.0060 J	0.0059 J	0.00044 J	0.00055 J	0.0015 J	0.0058 J	0.00040 J	0.0011 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0023 J	0.0014 J	0.0061 J	0.0074 J	0.0015 J	0.0015 J	0.0029 J	0.0060 J	0.0012 J	0.0030 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00019 U	< 0.00014 U	< 0.00050 U	< 0.00049 U	< 0.00014 U	0.00090 J+	< 0.00014 U	< 0.00079 U	< 0.000084 U	< 0.00015 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00065 J	0.00026 JN	0.0011 JN	0.0018 J	0.00037 JN	0.00038 J	0.00069 JN	0.0018 J	0.00025 J	0.00081 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00073 J	0.00031 J+	0.0015 J+	0.0019 J	0.00028 J+	0.00045 JN	0.00048 J	0.0011 J	0.00024 J+	0.00044 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00075 J	0.00028 J	0.0015 JN	0.0031 J	0.00028 J	0.00035 J	0.00071 J	0.0025 J	0.00018 J	0.00063 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00063 J	0.00019 JN	0.0018 J	0.0037 J	0.00020 J	0.00028 JN	0.00057 J	0.0025 J	0.00017 J	0.00053 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00046 JN	< 0.00019 U	0.00053 J+	0.00051 JN	0.00024 JN	0.00019 JN	0.00044 J	0.00070 J	0.00025 JN	0.00037 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00089 J	0.00047 J	0.0016	0.0016	0.00051 J	0.00047 J	0.00087 J	0.0016	0.00038 J	0.00092 J
OCDD	3268-87-9	µg/kg	1.1	0.38	3.8	4.8	0.36	0.41	2.7	5.7	0.31	1.4
OCDF	39001-02-0	µg/kg	0.089	0.027	0.50	0.72	0.021	0.035	0.12	0.79	0.020	0.067
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0041	0.0017	0.014	0.019	0.0018	0.0021	0.0055	0.021	0.0015	0.0048
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0039	0.0014	0.013	0.019	0.0014	0.0018	0.0052	0.021	0.0013	0.0046
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0037	0.0012	0.013	0.019	0.0012	0.0016	0.0048	0.021	0.0012	0.0044
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.014 JN	0.0033 JN	0.088 JN	0.13 JN	0.0054 J	0.0060 JN	0.0072 JN	0.076	0.0031 J	0.0069 JN
PCB-10	33146-45-1	ng/g	< 0.0020 U	< 0.0026 U	< 0.026 U	< 0.033 U	0.0023 JN	< 0.0049 U	< 0.0016 U	0.013 JN	< 0.0037 U	< 0.0015 U
PCB-103	60145-21-3	ng/g	0.025	0.022	1.1	0.70 JN	0.026 JN	0.0032 JN	0.061	1.3	0.022	0.040
PCB-104	56558-16-8	ng/g	< 0.00092 U	< 0.00023 U	0.23	0.13 J	< 0.00026 U	< 0.00044 U	< 0.00071 U	0.19	< 0.00020 U	0.0044 JN
PCB-105	32598-14-4	ng/g	0.19	0.12	1.3	1.4	0.097	0.080	0.30	1.7	0.062	0.19
PCB-106	70424-69-0	ng/g	< 0.0028 U	< 0.0016 U	< 0.016 U	< 0.023 U	< 0.0013 U	< 0.0017 U	< 0.0022 U	< 0.0068 U	< 0.0016 U	< 0.0030 U
PCB-107	70424-68-9	ng/g	0.065	0.043	0.62	0.51	0.034 JN	0.017	0.076	0.98	0.027	0.048
PCB-108/124	70362-41-3	ng/g	0.022	0.014 J	0.16 J	0.17 J	0.0098 JN	0.0087 JN	0.030	0.21	0.0066 J	0.018 J
PCB-11	2050-67-1	ng/g	0.072	0.046	0.11 JN	0.20 J	0.043	0.046	0.22	0.12	0.037 JN	0.11
PCB-110/115	38380-03-9	ng/g	0.74	0.60	8.2	7.5	0.58	0.23	1.1	9.2	0.34	0.67
PCB-111	39635-32-0	ng/g	0.0036 JN	< 0.00021 U	0.064 J	0.066 J	0.0043 J	< 0.00041 U	0.0044 JN	0.079	< 0.00019 U	< 0.00060 U
PCB-112	74472-36-9	ng/g	0.0043 JN	0.0086 J	< 0.0039 U	0.041 JN	< 0.00026 U	< 0.00043 U	< 0.00070 U	0.041	0.0027 JN	< 0.00065 U
PCB-114	74472-37-0	ng/g	0.010 JN	0.0063 JN	0.065 J	0.097 J	0.0052 JN	0.0036 J	0.019	0.11	0.0032 J	0.010 JN
PCB-118	31508-00-6	ng/g	0.58	0.37	4.6	4.4	0.33	0.20	0.79	6.6	0.20	0.50
PCB-12/13	2974-92-7	ng/g	0.0060 JN	0.0044 JN	0.028 JN	0.036 JN	0.0054 JN	< 0.0044 U	0.0097 J	0.034	0.0034 JN	0.0095 J
PCB-120	68194-12-7	ng/g	0.0079 J	< 0.00022 U	0.14	0.18	0.011 JN	< 0.00041 U	0.011	0.20	0.0057 J	0.0092 J
PCB-121	56558-18-0	ng/g	< 0.00088 U	< 0.00022 U	0.058 JN	0.075 JN	< 0.00025 U	< 0.00043 U	< 0.00068 U	0.078	< 0.00019 U	< 0.00064 U
PCB-122	76842-07-4	ng/g	0.0081 JN	0.0089 J	0.063 J	0.054 JN	0.0047 JN	0.0022 JN	0.014	0.057 JN	0.0031 JN	0.0078 JN
PCB-123	65510-44-3	ng/g	0.0075 JN	0.0078 J	0.052 JN	0.080 J	0.0056 JN	0.0032 JN	0.013	0.075 JN	0.0035 JN	0.0093 J
PCB-126	57465-28-8	ng/g	< 0.0029 U	< 0.0018 U	0.022 JN	< 0.024 U	< 0.0015 U	< 0.0018 U	< 0.0022 U	0.027	< 0.0017 U	< 0.0031 U
PCB-127	39635-33-1	ng/g	< 0.0026 U	< 0.0016 U	< 0.016 U	< 0.023 U	< 0.0013 U	< 0.0017 U	< 0.0021 U	0.011 JN	< 0.0016 U	< 0.0029 U
PCB-128/166	38380-07-3	ng/g	0.16	0.089	1.6	1.8	0.078	0.045	0.20	2.8	0.061	0.17
PCB-129/138/160/163	55215-18-4	ng/g	1.4	0.74	17	16	0.67	0.34	1.4	35	0.48	1.5
PCB-130	52663-66-8	ng/g	0.11	0.045	0.94	0.76	0.047	0.018	0.098	1.6	0.033	0.088
PCB-131	61798-70-7	ng/g	< 0.0035 U	< 0.0031 U	0.13	0.16	< 0.0031 U	< 0.0034 U	0.017	0.20 JN	< 0.0031 U	< 0.0029 U
PCB-132	38380-05-1	ng/g	0.44	0.24	5.3	4.9	0.22	0.086	0.44	8.3	0.14	0.43
PCB-133	35694-04-3	ng/g	0.047	0.015 JN	0.64	0.36	0.025	0.0065 J	0.042 JN	1.1	0.012 JN	0.041
PCB-134/143	52704-70-8	ng/g	0.081	0.044	1.0	1.1	0.041	0.012 JN	0.079	1.9	0.018 JN	0.086
PCB-135/151	52744-13-5	ng/g	0.51	0.31	9.4	6.3	0.28	0.083	0.51	15	0.20	0.60
PCB-136	38411-22-2	ng/g	0.17	0.11	3.2	3.1	0.11	0.031	0.21	4.2	0.076	0.18
PCB-137	35694-06-5	ng/g	0.042	0.025	0.35	0.56	0.020	0.011 JN	0.054	0.89	0.016	0.041
PCB-139/140	56030-56-9	ng/g	0.021 JN	0.011 J	0.41	0.34 JN	0.018 J	0.0040 JN	0.014 JN	0.71	0.011 J	0.019 JN
PCB-14	34883-41-5	ng/g	< 0.0016 U	< 0.0020 U	< 0.020 U	< 0.026 U	< 0.0017 U	< 0.0038 U	< 0.0012 U	< 0.0038 U	< 0.0028 U	< 0.0011 U
PCB-141	52712-04-6	ng/g	0.26	0.15	3.1	2.9	0.11	0.050 JN	0.25	7.1	0.076	0.34
PCB-142	41411-61-4	ng/g	< 0.0033 U	< 0.0028 U	< 0.039 U	< 0.086 U	< 0.0028 U	< 0.0031 U	< 0.0033 U	< 0.087 U	< 0.0028 U	< 0.0027 U
PCB-144	68194-14-9	ng/g	0.053	0.031	0.79	0.71	0.020 JN	0.0069 JN	0.049	1.3	0.014 JN	0.069
PCB-145	74472-40-5	ng/g	< 0.00018 U	< 0.00026 U	< 0.0049 U	0.024 JN	< 0.00017 U	< 0.00018 U	0.0012 JN	0.022	< 0.00017 U	< 0.00018 U
PCB-146	51908-16-8	ng/g	0.36	0.14	5.2	3.4	0.19	0.049	0.34	8.8	0.11	0.31
PCB-147/149	68194-13-8	ng/g	1.3	0.81	22	22	0.83	0.26	1.2	38	0.52	1.4
PCB-148	74472-41-6	ng/g	0.0041 JN	0.0039 J	0.24	0.28	0.0077 J	0.0015 JN	0.011 JN	0.36	0.0022 JN	0.0095 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B277	B278	B279	B280	B281	B282	B283	B284	B285	B286
		Sample ID	PDI-SG-B277-BL1	PDI-SG-B278-BL1	PDI-SG-B279-BL1	PDI-SG-B280-BL1	PDI-SG-B281-BL1	PDI-SG-B282-BL1	PDI-SG-B283-BL1	PDI-SG-B284-BL1	PDI-SG-B285-BL1	PDI-SG-B286-BL1
		Sample Date	22 Apr 2018	24 Jun 2018	23 Apr 2018	23 Apr 2018	24 Jun 2018	21 Apr 2018	22 Apr 2018	24 Apr 2018	24 Jun 2018	22 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-28 cm	0-30 cm	0-29 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.031	0.018 JN	0.12 JN	0.17 JN	0.017	0.011 JN	0.044	0.14	0.012 JN	0.062
PCB-150	68194-08-1	ng/g	0.0069 JN	0.0049 JN	0.21 JN	0.47	0.0084 J	0.0010 J	0.013 JN	0.38	0.0040 J	0.014 JN
PCB-152	68194-09-2	ng/g	0.0019 J	< 0.00026 U	0.13	0.076 JN	0.0017 JN	< 0.00019 U	0.0039 J	0.31	< 0.00018 U	0.0078 JN
PCB-153/168	35065-27-1	ng/g	1.3	0.70	19	21	0.69	0.27	1.2	39	0.48	1.5
PCB-154	60145-22-4	ng/g	0.042 JN	0.020	1.2	2.6	0.034	0.0031 JN	0.057	1.9	0.018 JN	0.048 JN
PCB-155	33979-03-2	ng/g	< 0.00017 U	< 0.00025 U	0.017 JN	0.060 J	< 0.00016 U	< 0.00017 U	0.0011 JN	0.024 JN	0.00062 JN	0.0013 JN
PCB-156/157	38380-08-4	ng/g	0.11	0.060	1.2	1.2	0.047	0.034	0.13	3.0	0.037	0.12
PCB-158	74472-42-7	ng/g	0.11	0.061	1.3	1.3	0.047 JN	0.031	0.13	3.0	0.039	0.14
PCB-159	39635-35-3	ng/g	0.014 JN	0.0073 JN	0.15	0.19	< 0.0019 U	< 0.0021 U	0.010 JN	0.37	0.0042 J	0.017 JN
PCB-16	38444-78-9	ng/g	0.018	0.019 JN	0.061 JN	0.093 J	0.019	0.0078 J	0.031	0.066	0.010	0.035
PCB-161	74472-43-8	ng/g	< 0.0022 U	< 0.0019 U	< 0.026 U	< 0.057 U	< 0.0019 U	< 0.0021 U	< 0.0021 U	< 0.058 U	< 0.0018 U	< 0.0018 U
PCB-162	39635-34-2	ng/g	< 0.0021 U	< 0.0019 U	0.026 JN	< 0.057 U	< 0.0018 U	< 0.0020 U	< 0.0020 U	< 0.057 U	0.0020 J	< 0.0017 U
PCB-164	74472-45-0	ng/g	0.098	0.050	1.2	1.1	0.054	0.025	0.095	2.5	0.030 JN	0.11
PCB-165	74472-46-1	ng/g	< 0.0025 U	< 0.0021 U	< 0.029 U	< 0.065 U	< 0.0021 U	< 0.0023 U	< 0.0024 U	0.083	< 0.0021 U	< 0.0020 U
PCB-167	52663-72-6	ng/g	0.037	0.021	0.47	0.59	0.018	0.012 J	0.044	1.2	0.012	0.042
PCB-169	32774-16-6	ng/g	< 0.0016 U	< 0.0015 U	< 0.021 U	< 0.047 U	< 0.0014 U	< 0.0017 U	< 0.0017 U	0.24 JN	< 0.0013 U	< 0.0013 U
PCB-17	37680-66-3	ng/g	0.030	0.047	0.51 JN	0.57	0.057	0.014	0.045	1.2	0.043	0.055
PCB-170	35065-30-6	ng/g	0.41	0.20	6.4	8.0	0.17	0.075	0.41	22	0.13	0.57
PCB-171/173	52663-71-5	ng/g	0.12	0.072	2.0	2.6	0.052	0.024 J	0.14	6.5	0.036	0.17
PCB-172	52663-74-8	ng/g	0.076	0.034	0.98	1.3	0.028	0.014 JN	0.069	3.3	0.020	0.10
PCB-174	38411-25-5	ng/g	0.46	0.23	6.0	7.0	0.19	0.087	0.48	18	0.14	0.62
PCB-175	40186-70-7	ng/g	0.017	0.0087 J	0.24	0.31	0.0050 J	< 0.00097 U	0.017 JN	0.79	0.0052 J	0.023
PCB-176	52663-65-7	ng/g	0.054	0.032	0.91	1.0	0.025	0.0096 JN	0.056	2.5	0.016 JN	0.074
PCB-177	52663-70-4	ng/g	0.28	0.14	4.1	5.7	0.12	0.050	0.31	11	0.084	0.35
PCB-178	52663-67-9	ng/g	0.11	0.055	1.6	1.9	0.053	0.020	0.12	4.2	0.039	0.13
PCB-179	52663-64-6	ng/g	0.22	0.12	3.4	3.6	0.10	0.035 JN	0.23	8.4	0.072	0.29
PCB-18/30	37680-65-2	ng/g	0.041 JN	0.067	0.25	0.18 J	0.067	0.020 J	0.076	0.18	0.037	0.069 JN
PCB-180/193	35065-29-3	ng/g	0.93	0.48	14	20	0.35	0.17	0.88	46	0.27	1.2
PCB-181	74472-47-2	ng/g	< 0.000064 U	< 0.00084 U	< 0.0094 U	0.091 JN	< 0.00054 U	< 0.00097 U	< 0.00065 U	0.16	< 0.00068 U	< 0.00062 U
PCB-182	60145-23-5	ng/g	0.0043 J	0.0024 JN	< 0.0090 U	0.49	0.0021 JN	< 0.00094 U	0.0074 JN	0.18	0.0020 JN	0.0055 JN
PCB-183/185	52663-69-1	ng/g	0.30	0.17	4.4	6.1	0.12	0.055	0.30	15	0.094	0.38
PCB-184	74472-48-3	ng/g	< 0.000052 U	< 0.00069 U	< 0.0077 U	< 0.014 U	< 0.00045 U	< 0.00080 U	< 0.00053 U	< 0.0012 U	< 0.00056 U	< 0.00050 U
PCB-186	74472-49-4	ng/g	< 0.000050 U	< 0.00067 U	< 0.0075 U	< 0.013 U	< 0.00043 U	< 0.00078 U	< 0.00051 U	< 0.0011 U	< 0.00054 U	< 0.00048 U
PCB-187	52663-68-0	ng/g	0.61	0.32	8.5	15	0.27	0.12	0.66	23	0.20	0.73
PCB-188	74487-85-7	ng/g	< 0.000045 U	< 0.00057 U	< 0.0067 U	0.20	< 0.00036 U	< 0.00067 U	< 0.00046 U	< 0.00098 U	< 0.00047 U	< 0.00043 U
PCB-189	39635-31-9	ng/g	0.015	0.0058 JN	0.20	0.42	0.0072 J	< 0.0020 U	0.015	0.81	0.0041 J	0.017 JN
PCB-19	38444-73-4	ng/g	0.011 JN	0.049 JN	0.74	0.47 JN	0.053	0.0052 JN	0.016	1.1	0.055	0.026
PCB-190	41411-64-7	ng/g	0.075	0.028 JN	1.2	1.9	0.029	0.015	0.074	4.2	0.021	0.11
PCB-191	74472-50-7	ng/g	0.018	0.0067 JN	0.28	0.49	0.0056 J	0.0026 J+	0.017	0.93	0.0043 JN	0.028
PCB-192	74472-51-8	ng/g	< 0.000051 U	< 0.00070 U	< 0.0079 U	< 0.014 U	< 0.00046 U	< 0.00082 U	< 0.00052 U	< 0.0012 U	< 0.00057 U	< 0.00049 U
PCB-194	35694-08-7	ng/g	0.27	0.13	3.1	8.0	0.099	0.043	0.23	11	0.079	0.31
PCB-195	52663-78-2	ng/g	0.11	0.060	1.5	3.5	0.043	0.015 JN	0.086	5.0	0.030	0.13
PCB-196	42740-50-1	ng/g	0.11	0.054	1.5	4.3	0.039	0.020	0.088 JN	4.9	0.033 JN	0.14
PCB-197	33091-17-7	ng/g	0.0090 J	0.0054 J	0.11 J	0.33 JN	0.0034 JN	0.0016 JN	0.0045 JN	0.37	0.0020 JN	0.0091 J
PCB-198/199	68194-17-2	ng/g	0.28	0.13	2.7	7.2	0.094	0.049 JN	0.23	8.3	0.079	0.33
PCB-2	2051-61-8	ng/g	0.0061 JN	0.010	0.037 JN	0.054 JN	0.0079 J	0.0069 J	0.016	0.055	0.0072 J	0.017 JN
PCB-20/28	38444-84-7	ng/g	0.14	0.16	0.75	0.51	< 0.00088 U	0.054	0.24	0.82	0.079	0.25
PCB-200	52663-73-7	ng/g	0.028	0.014	0.29	0.90	0.0098 J	0.0038 JN	0.024 JN	0.96	0.0073 J	0.029 JN
PCB-201	40186-71-8	ng/g	0.029	0.016	0.30	0.93	0.011	0.0048 JN	0.026 JN	1.0	0.0070 JN	0.031 JN
PCB-202	2136-99-4	ng/g	0.057	0.032	0.50	1.2	0.024	0.0090 JN	0.057	1.4	0.018	0.063
PCB-203	52663-76-0	ng/g	0.14 JN	0.081	1.8	4.9	0.054	0.030	0.15	5.6	0.046	0.21
PCB-204	74472-52-9	ng/g	< 0.00031 U	< 0.00039 U	< 0.0096 U	< 0.017 U	< 0.00029 U	< 0.00043 U	< 0.00053 U	< 0.0012 U	< 0.00025 U	< 0.0010 U
PCB-205	74472-53-0	ng/g	0.012	0.0056 JN	0.17	0.57	0.0043 JN	< 0.0018 U	0.012	0.58	0.0048 J	0.017
PCB-206	40186-72-9	ng/g	0.18	0.082	0.80	2.0	0.049	0.035	0.22 JN	2.0	0.040	0.17
PCB-207	52663-79-3	ng/g	0.020	0.011	0.087 J	0.33	0.0058 J	0.0043 JN	0.020	0.23	0.0061 J	0.017
PCB-208	52663-77-1	ng/g	0.054	0.018	0.19	0.46	0.014	0.014	0.060	0.41	0.0099	0.041
PCB-209	2051-24-3	ng/g	0.21	0.060	0.23 JN	0.36 J	0.050	0.061 JN	0.21	0.39	0.058	0.13
PCB-21/33	55702-46-0	ng/g	0.057	0.046	0.15 JN	0.25 J	0.052	0.018 J	0.10	0.31	0.032	0.11
PCB-22	38444-85-8	ng/g	0.039	0.027	0.090 J	0.11 J	0.028	0.016	0.069	0.075	0.016	0.075
PCB-23	55720-44-0	ng/g	< 0.0012 U	< 0.00087 U	< 0.0065 U	< 0.0097 U	< 0.00089 U	< 0.0010 U	< 0.0022 U	< 0.0028 U	< 0.00099 U	< 0.0028 U
PCB-24	55702-45-9	ng/g	0.0018 JN	0.00090 JN	< 0.0036 U	< 0.012 U	0.0010 JN	0.0010 JN	0.00060 JN	0.0056 JN	0.0022 JN	0.0015 JN
PCB-25	55712-37-3	ng/g	0.014	0.010	0.13	0.078 JN	0.016	0.0063 J	0.022	0.12	0.0082 J	0.025

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B277	B278	B279	B280	B281	B282	B283	B284	B285	B286
		Sample ID	PDI-SG-B277-BL1	PDI-SG-B278-BL1	PDI-SG-B279-BL1	PDI-SG-B280-BL1	PDI-SG-B281-BL1	PDI-SG-B282-BL1	PDI-SG-B283-BL1	PDI-SG-B284-BL1	PDI-SG-B285-BL1	PDI-SG-B286-BL1
		Sample Date	22 Apr 2018	24 Jun 2018	23 Apr 2018	23 Apr 2018	24 Jun 2018	21 Apr 2018	22 Apr 2018	24 Apr 2018	24 Jun 2018	22 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-28 cm	0-30 cm	0-29 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.026	0.018 J	0.088 JN	0.069 J	0.023	0.0099 J	0.037	0.081	0.011 J	0.037
PCB-27	38444-76-7	ng/g	0.0075 J	0.0098 JN	0.11 J	0.098 J	0.0092 JN	0.0033 JN	0.0066 J	0.21	0.010 JN	0.0070 JN
PCB-3	2051-62-9	ng/g	0.0080 JN	0.0037 JN	0.065 J	0.096 J	0.0038 JN	0.0037 JN	0.0086 JN	0.067	0.0022 JN	0.010 J
PCB-31	16606-02-3	ng/g	0.10	0.11	0.32	0.32	0.097	0.037	0.17	0.32	0.048	0.17
PCB-32	38444-77-8	ng/g	0.017 JN	0.034 JN	1.0	0.34	0.049	0.0067 JN	0.026 JN	0.65	0.022	0.055
PCB-34	37680-68-5	ng/g	< 0.0013 U	< 0.00090 U	< 0.0067 U	< 0.010 U	< 0.00093 U	< 0.0010 U	< 0.0023 U	0.0082 J	< 0.0010 U	< 0.0029 U
PCB-35	37680-69-6	ng/g	0.0036 JN	0.0024 J	< 0.0066 U	< 0.0098 U	< 0.00090 U	< 0.0010 U	0.0054 J	0.0098 J	< 0.0010 U	0.0056 J
PCB-36	38444-87-0	ng/g	< 0.0011 U	< 0.00085 U	< 0.0063 U	< 0.0095 U	< 0.00087 U	< 0.00097 U	< 0.0020 U	< 0.0027 U	< 0.00096 U	< 0.0026 U
PCB-37	38444-90-5	ng/g	0.037	0.035	0.14	0.13 J	0.030	0.018	0.074	0.14	0.019	0.091
PCB-38	53555-66-1	ng/g	< 0.0012 U	< 0.00091 U	< 0.0068 U	< 0.010 U	< 0.00094 U	< 0.0010 U	< 0.0021 U	0.0050 JN	< 0.0010 U	< 0.0028 U
PCB-39	38444-88-1	ng/g	< 0.0011 U	< 0.00082 U	< 0.0061 U	< 0.0091 U	0.0020 JN	< 0.00094 U	< 0.0020 U	0.0083 J	< 0.00092 U	< 0.0025 U
PCB-4	13029-08-8	ng/g	0.015 JN	0.043	0.27	0.22 JN	0.040	< 0.0063 U	0.019 J	0.23	0.047	0.027 JN
PCB-40/41/71	38444-93-8	ng/g	0.11	0.11	1.6	0.97	0.11	0.035 J	0.13	1.8	0.054	0.14
PCB-42	36559-22-5	ng/g	0.056	0.052	0.34	0.25 JN	0.058	0.014	0.067	0.38	0.025	0.068
PCB-43/73	70362-46-8	ng/g	0.0071 JN	0.016 J	0.35 JN	0.29 J	0.020	< 0.0023 U	0.012 J	0.54	0.0095 J	0.015 JN
PCB-44/47/65	41464-39-5	ng/g	0.33	0.31	14	7.5	0.40	0.085	0.38	17	0.21	0.69
PCB-45/51	70362-45-7	ng/g	0.042	0.061	8.1	3.5	0.11	0.012 J	0.072	8.0	0.055	0.25
PCB-46	41464-47-5	ng/g	0.0093 J	< 0.0029 U	0.22	0.15 JN	0.019	0.0043 J	0.014 JN	0.23	0.0058 JN	0.016 JN
PCB-48	70362-47-9	ng/g	0.033	0.035	0.12 JN	0.056 JN	0.028 JN	0.0091 JN	0.041	0.22	0.016	0.043
PCB-49/69	41464-40-8	ng/g	0.23	0.22	5.2	2.7	0.28	0.056	0.27	5.2	0.15	0.31
PCB-5	16605-91-7	ng/g	< 0.0019 U	< 0.0027 U	< 0.026 U	< 0.034 U	< 0.0022 U	< 0.0050 U	< 0.0015 U	< 0.0050 U	< 0.0037 U	< 0.0014 U
PCB-50/53	62796-65-0	ng/g	0.036	0.055	3.4	1.6	0.10	0.012 J	0.076	2.8	0.051	0.13
PCB-52	35693-99-3	ng/g	0.50	0.43	3.9	3.3	0.45	0.12	0.61	4.0	0.20	0.37
PCB-54	15968-05-5	ng/g	0.0011 JN	0.0098 J	0.99 JN	0.48	0.012 JN	< 0.00016 U	0.0046 J	0.85	0.0095 JN	0.022
PCB-55	74338-24-2	ng/g	0.0047 JN	0.0091 JN	< 0.026 U	< 0.038 U	0.0050 JN	0.0027 JN	0.0075 JN	< 0.019 U	< 0.0017 U	< 0.0030 U
PCB-56	41464-43-1	ng/g	0.10	0.076	0.33	0.30	0.065	0.033	0.12	0.30	0.036 JN	0.11
PCB-57	70424-67-8	ng/g	< 0.0029 U	< 0.0017 U	< 0.026 U	< 0.038 U	< 0.0014 U	< 0.0018 U	< 0.0014 U	< 0.020 U	< 0.0018 U	< 0.0031 U
PCB-58	41464-49-7	ng/g	0.0045 JN	0.0041 JN	0.030 JN	0.043 J	0.0029 JN	< 0.0018 U	0.0017 JN	0.032 JN	< 0.0018 U	< 0.0030 U
PCB-59/62/75	74472-33-6	ng/g	0.018 JN	0.018 J	0.42	0.23 JN	0.024 J	0.0042 JN	0.026 J	0.48	0.011 J	0.033 J
PCB-6	25569-80-6	ng/g	0.0099 J	0.0074 JN	0.050 J	0.049 JN	0.0076 JN	< 0.0044 U	0.011 JN	0.040	0.0060 JN	0.011 J
PCB-60	33025-41-1	ng/g	0.030	0.022	0.10 J	0.096 J	0.024	0.010 JN	0.039	0.075	0.0091 JN	0.039 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.49	0.38	2.2	2.0	0.33	0.16	0.55	2.4	0.19	0.46
PCB-63	74472-34-7	ng/g	0.0077 JN	0.0061 J	0.085 JN	0.097 J	0.0066 JN	0.0035 J	0.012	0.14	0.0049 JN	0.014
PCB-64	52663-58-8	ng/g	0.093	0.083	0.37	0.36	0.078	0.027	0.11	0.41	0.038	0.091
PCB-66	32598-10-0	ng/g	0.27	0.24	1.3	1.1	0.22	0.090	0.30	1.5	0.13	0.30
PCB-67	73575-53-8	ng/g	0.0059 J	< 0.0015 U	< 0.023 U	< 0.033 U	< 0.0012 U	0.0029 J	0.0086 J	< 0.017 U	< 0.0015 U	0.0071 J
PCB-68	73575-52-7	ng/g	0.0078 J	0.0051 J	0.13	0.12 J	0.013 JN	< 0.0016 U	0.0064 J	0.19	0.0039 JN	0.011 J
PCB-7	33284-50-3	ng/g	< 0.0018 U	< 0.0024 U	< 0.023 U	< 0.031 U	< 0.0020 U	< 0.0045 U	< 0.0014 U	0.010 JN	< 0.0034 U	< 0.0013 U
PCB-72	41464-42-0	ng/g	0.0093 JN	0.0053 J	0.058 JN	0.040 JN	0.016	< 0.0018 U	0.0091 J	0.10	0.0072 JN	0.0056 JN
PCB-77	32598-13-3	ng/g	0.018	0.017	0.088 JN	0.093 JN	0.016	0.010 JN	0.029	0.12	0.011	0.031
PCB-78	70362-49-1	ng/g	< 0.0028 U	< 0.0017 U	< 0.027 U	< 0.039 U	< 0.0014 U	< 0.0018 U	< 0.0014 U	< 0.020 U	< 0.0018 U	< 0.0030 U
PCB-79	41464-48-6	ng/g	0.0051 JN	0.0052 JN	0.046 J	0.068 J	0.0073 J	< 0.0016 U	0.0070 JN	0.055	0.0033 JN	0.0049 J
PCB-8	34883-43-7	ng/g	0.033	0.025	0.15 J	0.17 JN	0.027 JN	0.0070 JN	0.045	0.13	0.018 J	0.049
PCB-80	33284-52-5	ng/g	< 0.0025 U	< 0.0015 U	< 0.023 U	< 0.033 U	< 0.0012 U	< 0.0016 U	< 0.0012 U	< 0.017 U	< 0.0015 U	< 0.0026 U
PCB-81	70362-50-4	ng/g	< 0.0025 U	< 0.0015 U	< 0.025 U	< 0.034 U	< 0.0013 U	< 0.0016 U	< 0.0013 U	< 0.017 U	< 0.0016 U	< 0.0028 U
PCB-82	52663-62-4	ng/g	0.061 JN	0.051	0.42 JN	0.59	0.043	0.021	0.11	0.59	0.020 JN	0.056
PCB-83/99	60145-20-2	ng/g	0.51	0.35	7.3	6.5	0.39	0.12	0.63	11	0.23	0.44
PCB-84	52663-60-2	ng/g	0.16	0.13	1.7	1.6	0.13	0.028 JN	0.22	1.6	0.057 JN	0.13
PCB-85/116/117	65510-45-4	ng/g	0.098	0.076	1.1	1.0	0.073	0.030 JN	0.15	1.4	0.044	0.10
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.40	0.31	4.6	4.6	0.28	0.12	0.57	5.9	0.16	0.35
PCB-88/91	55215-17-3	ng/g	0.12	0.10	3.8	2.5	0.14	0.025 JN	0.19	5.2	0.095	0.23
PCB-89	73575-57-2	ng/g	0.0073 J	0.0051 J	< 0.0060 U	< 0.013 U	< 0.00039 U	< 0.00066 U	0.0086 JN	0.072 JN	< 0.00030 U	< 0.00099 U
PCB-9	34883-39-1	ng/g	< 0.0021 U	0.0025 JN	< 0.024 U	< 0.031 U	< 0.0020 U	< 0.0046 U	< 0.0016 U	0.014 JN	< 0.0034 U	0.0055 J
PCB-90/101/113	68194-07-0	ng/g	0.84	0.59	12	10	0.62	0.19	1.1	15	0.33	0.79
PCB-92	52663-61-3	ng/g	0.19	0.11	2.7	2.1	0.13	0.031	0.24	3.7	0.069	0.17
PCB-93/100	73575-56-1	ng/g	0.033	0.036	2.6	1.7	0.058	0.0038 JN	0.047	2.8	0.024 JN	0.10
PCB-94	73575-55-0	ng/g	0.0071 JN	< 0.00034 U	0.62	0.41	0.0083 JN	< 0.00066 U	0.0094 JN	1.1	0.0057 JN	0.023
PCB-95	38379-99-6	ng/g	0.58	0.54	8.1	7.5	0.55	0.14	0.92	9.0	0.28	0.55
PCB-96	73575-54-9	ng/g	0.0052 JN	0.0092 J	0.37 JN	0.28	0.011	< 0.00049 U	0.016 JN	0.53	0.0062 JN	0.016 JN
PCB-98/102	60233-25-2	ng/g	0.025	0.016 JN	0.85	0.82	0.021	0.0045 JN	0.031 JN	1.5	0.017 J	0.033
Total PCBs (b)	T_PCBCg (PDI)	ng/g	20	13	275	289	12	4.6	23	522	7.7	23

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B277	B278	B279	B280	B281	B282	B283	B284	B285	B286
		Sample ID	PDI-SG-B277-BL1	PDI-SG-B278-BL1	PDI-SG-B279-BL1	PDI-SG-B280-BL1	PDI-SG-B281-BL1	PDI-SG-B282-BL1	PDI-SG-B283-BL1	PDI-SG-B284-BL1	PDI-SG-B285-BL1	PDI-SG-B286-BL1
		Sample Date	22 Apr 2018	24 Jun 2018	23 Apr 2018	23 Apr 2018	24 Jun 2018	21 Apr 2018	22 Apr 2018	24 Apr 2018	24 Jun 2018	22 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-28 cm	0-30 cm	0-29 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.55 J	< 0.39 U	0.95 J	< 1.5 UJ	0.28 J	< 0.66 U	0.40 J	0.82	0.71	< 0.57 UJ
2,4-DDE	3424-82-6	µg/kg	< 0.50 UJ	< 0.39 U	< 1.3 UJ	< 1.5 UJ	< 0.38 U	< 0.66 U	< 0.55 UJ	< 0.58 U	< 0.37 U	< 0.57 UJ
2,4-DDT	789-02-6	µg/kg	< 0.50 UJ	< 0.39 U	< 1.3 UJ	< 1.5 UJ	< 0.38 U	< 0.66 U	< 0.55 UJ	< 0.58 U	< 0.37 U	< 0.57 UJ
4,4'-DDD	72-54-8	µg/kg	2.4 J	0.75	2.6 J	1.8 J	0.96	0.82	1.6 J	2.5	0.94	1.3 J
4,4'-DDE	72-55-9	µg/kg	2.8 J	1.5	4.4 J	5.3 J	1.8	1.9	2.4 J	5.9	1.6	2.3 J
4,4'-DDT	50-29-3	µg/kg	0.30 J	< 0.39 U	< 1.3 UJ	0.74 J	0.20 J	0.55 J	0.39 J	0.58 J	0.72	0.46 J
Total DDx (b)	T_DDx (PDI)	µg/kg	6.3	2.4	8.6	8.6	3.4	3.6	5.1	10	4.2	4.3
Aldrin	309-00-2	µg/kg	< 0.50 UJ	< 0.39 U	< 1.3 UJ	< 1.5 UJ	< 0.38 U	< 0.66 U	< 0.55 UJ	< 0.58 U	< 0.37 U	< 0.57 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 1.0 UJ	< 0.78 U	< 2.6 UJ	< 3.0 UJ	0.31 J	< 1.3 U	< 1.1 UJ	< 1.2 U	< 0.73 U	< 1.1 UJ
cis-Nonachlor	5103-73-1	µg/kg	< 0.50 UJ	< 0.39 U	< 1.3 UJ	< 1.5 UJ	< 0.38 U	< 0.66 U	< 0.55 UJ	< 0.58 U	< 0.37 U	< 0.57 UJ
Dieldrin	60-57-1	µg/kg	< 1.0 UJ	< 0.78 U	< 2.6 UJ	< 3.0 UJ	< 0.76 U	< 1.3 U	< 1.1 UJ	< 1.2 U	< 0.73 U	< 1.1 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.50 UJ	0.13 J	< 1.3 UJ	< 1.5 UJ	< 0.38 U	< 0.66 U	< 0.55 UJ	< 0.58 U	< 0.37 U	< 0.57 UJ
gamma-Chlordane	5566-34-7	µg/kg	< 1.0 UJ	< 0.78 U	< 2.6 UJ	< 3.0 UJ	0.26 J	< 1.3 U	< 1.1 UJ	0.42 J	< 0.73 U	< 1.1 UJ
Heptachlor	76-44-8	µg/kg	< 0.50 UJ	< 0.39 U	< 1.3 UJ	< 1.5 UJ	< 0.38 U	< 0.66 U	< 0.55 UJ	< 0.58 U	< 0.37 U	< 0.57 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.0 UJ	< 0.78 U	< 2.6 UJ	< 3.0 UJ	< 0.76 U	< 1.3 U	< 1.1 UJ	< 1.2 U	< 0.73 U	< 1.1 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 1.0 UJ	< 0.78 U	< 2.6 UJ	< 3.0 UJ	0.26 J	< 1.3 U	< 1.1 UJ	< 1.2 U	< 0.73 U	< 1.1 UJ
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1 UJ	< 0.78 U	< 2.6 UJ	< 3 UJ	1.21	< 1.3 U	< 1.1 UJ	1.02	< 0.73 U	< 1.1 UJ
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	14	15	19	9.0	7.8 J	1.4	8.6	10	20	5.3
Acenaphthene	83-32-9	µg/kg	15	12	16	8.6	4.8 J	1.1	14	13	3.0 J	6.0
Acenaphthylene	208-96-8	µg/kg	6.9	3.8 J	18	15	4.2 J	1.2	8.8	15	6.3 J	4.1
Anthracene	120-12-7	µg/kg	16	16	40	30	7.9 J	3.6	24	42	7.9 J	12
Benz(a)anthracene	56-55-3	µg/kg	31	16	220	130	13	14	130	240	21	41
Benzo(a)pyrene	50-32-8	µg/kg	31	14	210	130	9.2	14	96	190	18	39
Benzo(b)fluoranthene	205-99-2	µg/kg	43	27	360	210	24	20	220	290	30	74
Benzo(g,h,i)perylene	191-24-2	µg/kg	28	11	160	120	7.9 J	12	96	150	10	48
Benzo(k)fluoranthene	207-08-9	µg/kg	13	9.4	120	72	6.8 J	6.0	76	110	13	21
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	70 J	1100	1600	720	180 J	100 J	92 J	1100	< 280 U	100 J
Chrysene	218-01-9	µg/kg	52	21	350	230	18	20	280	310	27	82
Dibenz(a,h)anthracene	53-70-3	µg/kg	4.0	3.5 J	37	25	3.3 J	2.5	21	34	3.6 J	9.8 J
Fluoranthene	206-44-0	µg/kg	120	54	520	320	38	28	610	440	46	180
Fluorene	86-73-7	µg/kg	15	11	21	17	4.5 J	1.6	24	20	5.1 J	12
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	24	12	160	110	11	11	96	150	16	42
Naphthalene	91-20-3	µg/kg	31	26	21	16	14	2.1	14	25	24	7.6
Phenanthrene	85-01-8	µg/kg	99	55	160	120	28	12	180	150	29	83
Pyrene	129-00-0	µg/kg	140	49	540	340	36	30	510	460	49	130
Total PAHs (b)	T_PAH (PDI)	µg/kg	683	356	2972	1903	238	181	2408	2649	329	797
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	45	23	323	201	17	21	163	293	28	65
Metals												
Arsenic	7440-38-2	mg/kg	5.3	5.1	7.9	8.7	6.1	5.1	4.2	8.8	4.1	5.4
Cadmium	7440-43-9	mg/kg	0.30 J	0.16 J	0.51	0.39 J	0.17 J	0.18 J	0.28 J	0.37 J	0.14 J	0.35
Copper	7440-50-8	mg/kg	47	58	89	100	65	40	40	110	36	47
Lead	7439-92-1	mg/kg	15	12	31	32	13	9.8	15	31	10	17
Mercury	7439-97-6	mg/kg	0.14	0.065	0.15	0.16	0.063	0.072	0.10	0.16	0.051	0.10
Tri-n-butyltin	36643-28-4	µg/kg	< 2.0 U	< 140 U	120	130	< 130 U	< 2.6 U	1.8 J	220	< 130 U	1.1 J
Zinc	7440-66-6	mg/kg	100	110	230	240	110	94	100	260	82	130
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	80 J	65 J	110 J	87 J	52 J	95 J	44 J	110 J	49 J	71 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	360	440	480	430	250	600	260	500	210	280
Other												
Total Solids@104C - D2216 (f)	TSOLID	%		51.1 47.9			52.3 50.1				52.0 52.3	
Total Solids@104C - E160.3 (f)	TSOLID	%	47.8		38.1	32.5		36.4	43.6	32.8		41.4
Total Solids@104C - E160.3M (f)	TSOLID	%	49.6	50.5	38.0	32.8	52.5	37.7	44.9	33.9	52.2	43.3
Total Solids@70C	TSOLID70	%	50	49	39	33	52	38	45	34	53	43
Gravel	GS-Gravel	%	0	0	0.1	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0.1	0.2	0.1	0	0	0	0	0.1	0	0
Sand, Medium	GS-Msand	%	0.6	1.3	2.5	0.2	1.5	0.2	0.3	0.4	0.1	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	15.05	33.02	25.22	5.664	34.45	10.07	13.79	7.444	9.05	8.773
Sand, Fine (#230) (d)	GS-Fsand	%	18.5	37.5	26.3	6.6	39.9	13.5	17.1	8.6	12.1	11.4
Silt (#200) (d)	GS-Silt-200	%	73.64	56.57	51.87	63.73	55.54	77.12	74.60	67.35	82.94	77.32

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B277	B278	B279	B280	B281	B282	B283	B284	B285	B286
		Sample ID	PDI-SG-B277-BL1	PDI-SG-B278-BL1	PDI-SG-B279-BL1	PDI-SG-B280-BL1	PDI-SG-B281-BL1	PDI-SG-B282-BL1	PDI-SG-B283-BL1	PDI-SG-B284-BL1	PDI-SG-B285-BL1	PDI-SG-B286-BL1
		Sample Date	22 Apr 2018	24 Jun 2018	23 Apr 2018	23 Apr 2018	24 Jun 2018	21 Apr 2018	22 Apr 2018	24 Apr 2018	24 Jun 2018	22 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-28 cm	0-30 cm	0-29 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	70.2	52.1	50.8	62.8	50.1	73.7	71.3	66.2	79.9	74.7
Clay	GS-Clay	%	10.7	8.8	20.3	30.4	8.5	12.6	11.3	24.9	7.9	13.8
Percent Fines (e)	GS-FINES	%	84.34	65.37	72.17	94.13	64.04	89.72	85.9	92.25	90.84	91.12
Total Organic Carbon	TOC	mg/kg	16000	17000	22000	30000	16000	32000	21000	29000	15000	21000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B287	B288	B289	B290	B291	B292	B293	B294	B295	B296
		Sample ID	PDI-SG-B287-BL1	PDI-SG-B288-BL1	PDI-SG-B289-BL1	PDI-SG-B290-BL1	PDI-SG-B291-BL1	PDI-SG-B292-BL1	PDI-SG-B293-BL1	PDI-SG-B294-BL1	PDI-SG-B295-BL1	PDI-SG-B296-BL1
		Sample Date	26 Apr 2018	24 Apr 2018	14 Jun 2018	29 May 2018	23 Apr 2018	23 Apr 2018	15 Jun 2018	24 Apr 2018	26 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-28 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.031	0.68	0.059	0.099	0.063	0.035	0.048	0.36	0.029	0.58
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0073 JN	0.15	0.0092 JN	0.016	0.011 JN	0.0068 JN	0.0069 JN	0.071	0.0064 J	0.12
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0027 J	0.010	0.00084 J+	0.0015 J+	0.00075 J+	< 0.00047 U	0.00042 JN	0.0049 J	0.0016 J	0.0083
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0015 J	0.0032 J	0.00067 J+	0.00098 J	0.00076 J+	0.00063 J+	0.00078 J	0.0027 J	0.00091 J+	0.0037 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0012 JN	0.025	0.00097 J	0.0014 J	0.0010 J+	0.00059 J+	0.00069 J	0.0083	0.00086 J+	0.022
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0024 J	0.017	0.0022 J	0.0037 J	0.0023 J	0.0016 J+	0.0020 J	0.011	0.0017 JN	0.016
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0025 J	0.0071 J	0.00059 J	0.00097 J	0.00060 JN	0.00041 J+	0.00055 J	0.0029 J	0.0018 JN	0.0050 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0021 J	0.0059 J	0.0016 J	0.0026 J	0.0017 J+	0.0012 J+	0.0016 J	0.0057 J	0.0015 J	0.0067 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0011 J	< 0.00079 U	0.00047 JN	0.00085 J+	< 0.00016 U	< 0.00012 U	0.00021 J+	0.00056 J+	0.00062 J+	< 0.00046 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00050 JN	0.0015 JN	0.00050 J	0.00061 J	0.00039 J+	0.00037 J+	0.00038 JN	0.0017 J	0.00019 JN	0.0021 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00059 J+	0.0012 J	0.00030 J+	0.00057 J+	0.00035 J+	< 0.00021 U	0.00030 J+	0.0011 J	< 0.00012 U	0.0017 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0011 JN	0.0026 J	0.00033 J+	0.00048 J	< 0.00040 U	< 0.00024 U	0.00035 J	0.0015 J	0.00063 J+	0.0024 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00061 J+	0.0032 J	0.00030 J+	0.00053 J	0.00042 J+	< 0.00016 U	0.00027 J	0.0017 J	< 0.00012 U	0.0032 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00020 JN	0.00058 J	0.00024 JN	0.0015	0.00047 J+	0.00024 JN	0.00026 JN	0.00051 J	0.00013 JN	0.00059 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00043 J	0.0017	0.00062 J	0.00089 JN	0.00072 J	0.00031 JN	0.00042 JN	0.0015	0.00037 J	0.0020
OCDD	3268-87-9	µg/kg	0.25	5.5	0.55	0.99	0.63	0.29	0.40	2.6	0.25	4.4
OCDF	39001-02-0	µg/kg	0.023	0.53	0.031	0.059	0.040	0.022	0.023	0.23	0.019	0.40
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0026	0.02	0.0024	0.005	0.0027	0.0016	0.0021	0.011	0.0016	0.018
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0019	0.019	0.0023	0.0049	0.0026	0.0014	0.0016	0.011	0.001	0.018
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0017	0.018	0.0022	0.0049	0.0026	0.0013	0.0014	0.011	0.00094	0.017
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0015 JN	0.067	0.0041 J	0.017	0.0055 JN	< 0.0013 U	0.0024 JN	0.034	0.0016 JN	0.048
PCB-10	33146-45-1	ng/g	< 0.00084 U	0.0072 JN	0.0015 JN	0.0030 J	< 0.0028 U	< 0.045 U	0.0028 JN	< 0.0030 U	< 0.00096 U	0.0044 JN
PCB-103	60145-21-3	ng/g	< 0.00081 U	0.38	0.024	0.018	0.011 JN	0.0046 JN	0.014	0.15	0.00091 JN	0.25
PCB-104	56558-16-8	ng/g	< 0.00063 U	0.050	< 0.00018 U	< 0.00018 U	< 0.00035 U	< 0.0011 U	0.0012 J	< 0.00073 U	< 0.00050 U	< 0.00057 U
PCB-105	32598-14-4	ng/g	0.037	1.0 J+	0.10	0.20	0.23	0.058 JN	0.063	0.67	0.035	1.4
PCB-106	70424-69-0	ng/g	< 0.0019 U	< 0.0058 U	< 0.0011 U	< 0.0024 U	< 0.0017 U	< 0.0029 U	< 0.0018 U	< 0.0040 U	< 0.0013 U	< 0.0058 U
PCB-107	70424-68-9	ng/g	< 0.0019 U	0.42	0.028	0.056	0.051	< 0.0031 U	0.015	0.27	0.0066 JN	0.55
PCB-108/124	70362-41-3	ng/g	0.0041 JN	0.13	0.011 J	0.022	0.021 J	< 0.0030 U	0.0049 JN	0.067	0.0048 J	0.17
PCB-11	2050-67-1	ng/g	0.030 JN	0.12	0.046	0.062	0.086	< 0.039 U	0.053	0.095	0.027 JN	0.11
PCB-110/115	38380-03-9	ng/g	0.12	5.0	0.41	0.78	0.76	0.16 JN	0.24	3.2	0.14	4.8
PCB-111	39635-32-0	ng/g	< 0.00056 U	< 0.0011 U	0.0020 J	< 0.00016 U	< 0.00032 U	< 0.0011 U	< 0.00044 U	< 0.00068 U	< 0.00044 U	< 0.00053 U
PCB-112	74472-36-9	ng/g	< 0.00062 U	< 0.0011 U	< 0.00017 U	0.0049 J	< 0.00034 U	< 0.0011 U	< 0.00048 U	< 0.00071 U	< 0.00048 U	2.2
PCB-114	74472-37-0	ng/g	< 0.0018 U	0.062	0.0061 J	0.011 JN	0.012 JN	< 0.0026 U	0.0034 J	0.035	< 0.0011 U	0.075
PCB-118	31508-00-6	ng/g	0.092	3.5	0.29	0.57	0.59	0.15	0.17	2.3	0.096	4.4
PCB-12/13	2974-92-7	ng/g	< 0.00072 U	0.028 J	0.0036 JN	0.011 J	0.011 JN	< 0.041 U	0.0027 JN	0.022 J	< 0.00082 U	0.030 JN
PCB-120	68194-12-7	ng/g	< 0.00056 U	0.061	0.0063 J	0.0085 J	0.0042 JN	< 0.0011 U	0.0033 J	0.038 JN	< 0.00044 U	0.035 JN
PCB-121	56558-18-0	ng/g	< 0.00060 U	< 0.0011 U	< 0.00017 U	< 0.00017 U	< 0.00034 U	< 0.0011 U	< 0.00047 U	< 0.00071 U	< 0.00047 U	< 0.00055 U
PCB-122	76842-07-4	ng/g	< 0.0022 U	0.041 JN	0.0052 J	0.011 JN	0.0088 J	< 0.0034 U	< 0.0020 U	0.023 JN	< 0.0014 U	0.045 JN
PCB-123	65510-44-3	ng/g	< 0.0018 U	0.055	0.0053 J	0.011	0.011	< 0.0029 U	0.0022 JN	0.032 JN	< 0.0012 U	0.073
PCB-126	57465-28-8	ng/g	< 0.0019 U	< 0.0072 U	< 0.0011 U	0.0025 J	< 0.0018 U	< 0.0033 U	< 0.0017 U	0.0092 J	< 0.0012 U	0.018 JN
PCB-127	39635-33-1	ng/g	< 0.0019 U	< 0.0057 U	< 0.0011 U	< 0.0023 U	< 0.0017 U	< 0.0029 U	< 0.0017 U	< 0.0040 U	< 0.0012 U	< 0.0057 U
PCB-128/166	38380-07-3	ng/g	0.025	1.1	0.10	0.16	0.13	0.045 J	0.056	0.74	0.024	1.3
PCB-129/138/160/163	55215-18-4	ng/g	0.16	13	0.71	0.99	0.95	0.30 J	0.46	7.0	0.16	14
PCB-130	52663-66-8	ng/g	0.011	0.73	0.051	0.076	0.060	< 0.0079 U	0.028	0.42	0.011	0.80
PCB-131	61798-70-7	ng/g	< 0.00076 U	< 0.026 U	0.0067 JN	0.0090 JN	< 0.0046 U	< 0.0082 U	0.0052 J	< 0.017 U	< 0.0012 U	< 0.032 U
PCB-132	38380-05-1	ng/g	0.042	4.4	0.22	0.33	0.28	0.072 JN	0.14	2.3	0.039	4.2
PCB-133	35694-04-3	ng/g	0.0027 JN	0.39	0.021	0.025	0.012 JN	< 0.0074 U	0.015	0.17	0.0032 J	0.34
PCB-134/143	52704-70-8	ng/g	0.0081 JN	0.79	0.045	0.060	0.043	< 0.0078 U	0.028	0.38	0.0075 JN	0.73
PCB-135/151	52744-13-5	ng/g	0.059 JN	4.4	0.32	0.34	0.32	0.062 J	0.21	2.5	0.047 JN	4.9
PCB-136	38411-22-2	ng/g	0.021	1.6	0.12	0.12	0.10	0.027 JN	0.074	0.86	0.020 JN	1.7
PCB-137	35694-06-5	ng/g	0.0059 J	0.24 JN	0.024	0.037 JN	0.031 JN	0.014 J	0.012	0.15 JN	0.0050 JN	0.32
PCB-139/140	56030-56-9	ng/g	0.0031 J	0.23	0.013 JN	0.015 JN	0.012 JN	< 0.0066 U	0.0081 JN	0.11 JN	0.0014 JN	0.24
PCB-14	34883-41-5	ng/g	< 0.00066 U	< 0.0037 U	< 0.00028 U	< 0.00034 U	< 0.0021 U	< 0.035 U	< 0.00059 U	< 0.0023 U	< 0.00075 U	< 0.0020 U
PCB-141	52712-04-6	ng/g	0.028	2.7	0.14	0.18	0.16	0.038 J	0.096	1.3	0.027 JN	2.7
PCB-142	41411-61-4	ng/g	< 0.00071 U	< 0.024 U	< 0.0014 U	< 0.0021 U	< 0.0041 U	< 0.0074 U	< 0.0026 U	< 0.015 U	< 0.0011 U	< 0.029 U
PCB-144	68194-14-9	ng/g	0.0084 JN	0.42	0.030	0.035	0.032	< 0.00053 U	0.020	0.23	0.0063 JN	0.45
PCB-145	74472-40-5	ng/g	< 0.000049 U	< 0.0017 U	< 0.00013 U	< 0.00032 U	< 0.00030 U	< 0.00040 U	< 0.00042 U	< 0.0012 U	< 0.000086 U	< 0.00049 U
PCB-146	51908-16-8	ng/g	0.026	3.1	0.17	0.20	0.17	0.042 JN	0.10	1.6	0.026	3.2
PCB-147/149	68194-13-8	ng/g	0.12	16	0.77	0.86	0.84	0.20 J	0.43	7.6	0.11	15
PCB-148	74472-41-6	ng/g	< 0.000065 U	0.076	0.0059 J	0.0051 J	0.0035 J	< 0.00056 U	0.0041 JN	0.033 JN	< 0.00011 U	0.064

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B287	B288	B289	B290	B291	B292	B293	B294	B295	B296
		Sample ID	PDI-SG-B287-BL1	PDI-SG-B288-BL1	PDI-SG-B289-BL1	PDI-SG-B290-BL1	PDI-SG-B291-BL1	PDI-SG-B292-BL1	PDI-SG-B293-BL1	PDI-SG-B294-BL1	PDI-SG-B295-BL1	PDI-SG-B296-BL1
		Sample Date	26 Apr 2018	24 Apr 2018	14 Jun 2018	29 May 2018	23 Apr 2018	23 Apr 2018	15 Jun 2018	24 Apr 2018	26 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-28 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0077 J	0.11	0.014	0.077	0.097	< 0.047 U	0.012	0.083	0.0051 JN	0.13
PCB-150	68194-08-1	ng/g	0.00061 JN	0.079	0.0073 J	0.0042 J	0.0025 JN	< 0.00038 U	0.0024 JN	0.032 JN	0.00033 JN	0.067
PCB-152	68194-09-2	ng/g	< 0.000047 U	0.043 JN	0.0012 JN	0.0015 J	0.0012 JN	< 0.00041 U	0.00088 JN	0.016	< 0.000082 U	0.031
PCB-153/168	35065-27-1	ng/g	0.13	14	0.72	0.88	0.82	0.22 J	0.44	6.9	0.13	14
PCB-154	60145-22-4	ng/g	0.0042 J	0.39	0.042	0.027 JN	0.015 JN	0.0049 JN	0.020	0.20	0.0027 JN	0.33
PCB-155	33979-03-2	ng/g	0.00032 J	0.0083 J	< 0.00012 U	< 0.00030 U	< 0.00029 U	< 0.00038 U	0.00057 J	< 0.0011 U	< 0.000078 U	< 0.00047 U
PCB-156/157	38380-08-4	ng/g	0.014 JN	0.88 J	0.060	0.087	0.093	0.033 JN	0.037	0.57	0.015 J	1.0
PCB-158	74472-42-7	ng/g	0.015	1.1	0.062	0.086	0.080	0.023 JN	0.043	0.58	0.015	1.1
PCB-159	39635-35-3	ng/g	0.0018 JN	< 0.016 U	0.0099 J	0.011	0.0076 JN	< 0.0050 U	0.0060 J	0.057	0.0011 JN	< 0.020 U
PCB-16	38444-78-9	ng/g	0.0031 JN	0.047	0.012 JN	0.090	0.075	< 0.0041 U	0.0061 JN	0.039	0.0044 JN	0.070
PCB-161	74472-43-8	ng/g	< 0.00047 U	< 0.016 U	< 0.00090 U	< 0.0014 U	< 0.0027 U	< 0.0049 U	< 0.0017 U	< 0.010 U	< 0.00074 U	< 0.019 U
PCB-162	39635-34-2	ng/g	< 0.00044 U	< 0.015 U	< 0.00086 U	< 0.0013 U	< 0.0027 U	< 0.0049 U	< 0.0016 U	< 0.0099 U	< 0.00071 U	0.11
PCB-164	74472-45-0	ng/g	0.012	0.96	0.056	0.073	0.065	0.019 J	0.033	0.54	0.012	1.0
PCB-165	74472-46-1	ng/g	< 0.00053 U	< 0.018 U	< 0.0010 U	< 0.0016 U	< 0.0031 U	< 0.0056 U	< 0.0019 U	< 0.011 U	< 0.00085 U	< 0.022 U
PCB-167	52663-72-6	ng/g	0.0049 JN	0.33 J	0.022	0.032	0.033	0.014 J	0.014	0.22	0.0069 J	0.36
PCB-169	32774-16-6	ng/g	< 0.00032 U	< 0.014 U	< 0.00066 U	< 0.0010 U	< 0.0020 U	< 0.0039 U	< 0.0012 U	< 0.0083 U	< 0.00055 U	< 0.018 U
PCB-17	37680-66-3	ng/g	0.0071 J	0.16	0.030	0.11	0.12	< 0.0037 U	0.024	0.091	0.0087 JN	0.14
PCB-170	35065-30-6	ng/g	0.046	4.1	0.24	0.28	0.30	0.068 J	0.15	2.5	0.048 JN	4.9
PCB-171/173	52663-71-5	ng/g	0.015 J	1.1	0.069	0.081	0.085	0.025 JN	0.050	0.70	0.017 JN	1.4
PCB-172	52663-74-8	ng/g	0.0092 J	0.56	0.038 JN	0.054	0.054	0.0095 JN	0.030	0.36	0.0076 J	0.67
PCB-174	38411-25-5	ng/g	0.052	3.7	0.27	0.34	0.30	0.053 JN	0.18	2.3	0.059	4.4
PCB-175	40186-70-7	ng/g	< 0.000031 U	0.15	0.010	0.013	0.0095 JN	< 0.0027 U	0.0065 J	0.091 JN	0.0013 JN	0.17
PCB-176	52663-65-7	ng/g	0.0045 JN	0.52	0.030	0.038	0.035	< 0.0021 U	0.019	0.29	0.0045 JN	0.57
PCB-177	52663-70-4	ng/g	0.032	2.4	0.16	0.19	0.18	0.042 JN	0.11	1.4	0.035	2.8
PCB-178	52663-67-9	ng/g	0.011	0.87	0.062	0.073	0.075	< 0.0030 U	0.042	0.52	0.014	1.0
PCB-179	52663-64-6	ng/g	0.023	2.0	0.12	0.14	0.14	0.027 J	0.083	1.1	0.025	2.2
PCB-18/30	37680-65-2	ng/g	0.0079 JN	0.14	0.031	0.20	0.17	0.020 JN	0.017 J	0.11	0.0089 JN	0.20
PCB-180/193	35065-29-3	ng/g	0.11	7.6	0.52	0.64	0.68	0.14 J	0.35	4.9	0.12	9.6
PCB-181	74472-47-2	ng/g	< 0.000029 U	< 0.0055 U	< 0.00031 U	< 0.00019 U	< 0.00075 U	< 0.0027 U	< 0.00048 U	< 0.0026 U	< 0.00012 U	< 0.00087 U
PCB-182	60145-23-5	ng/g	0.00046 JN	< 0.0054 U	0.0038 JN	0.0042 JN	0.0030 JN	< 0.0026 U	0.0029 JN	0.029	< 0.00011 U	< 0.00084 U
PCB-183/185	52663-69-1	ng/g	0.029	2.6	0.16	0.21	0.21	0.043 JN	0.11	1.6	0.036	3.2
PCB-184	74472-48-3	ng/g	< 0.000024 U	< 0.0046 U	< 0.00025 U	< 0.00015 U	< 0.00061 U	< 0.0022 U	< 0.00039 U	< 0.0021 U	< 0.000097 U	< 0.00072 U
PCB-186	74472-49-4	ng/g	< 0.000023 U	< 0.0044 U	< 0.00024 U	< 0.00015 U	< 0.00060 U	< 0.0022 U	< 0.00037 U	< 0.0020 U	< 0.000093 U	< 0.00070 U
PCB-187	52663-68-0	ng/g	0.069	4.5	0.35	0.44	0.42	0.080 J	0.24	2.9	0.073	5.5
PCB-188	74487-85-7	ng/g	< 0.000022 U	< 0.0037 U	< 0.00023 U	< 0.00014 U	< 0.00053 U	< 0.0019 U	< 0.00036 U	< 0.0017 U	< 0.000088 U	< 0.00059 U
PCB-189	39635-31-9	ng/g	0.0021 JN	0.16 J	0.0072 JN	0.010 J	0.011	< 0.0041 U	0.0057 J	0.088	0.0034 J	0.17
PCB-19	38444-73-4	ng/g	0.0095 JN	0.19	0.046	0.026 JN	0.025 JN	< 0.0045 U	0.064	0.082	0.0085 J	0.14
PCB-190	41411-64-7	ng/g	0.012	0.65	0.046	0.049	0.057	< 0.0020 U	0.032	0.43	0.011	0.87
PCB-191	74472-50-7	ng/g	0.0010 J	0.13	0.012	0.014	0.0092 JN	< 0.0021 U	0.0084 J	0.094	0.0017 J	0.18
PCB-192	74472-51-8	ng/g	< 0.000023 U	< 0.0047 U	< 0.00024 U	< 0.00015 U	< 0.00063 U	< 0.0023 U	< 0.00038 U	< 0.0022 U	< 0.000095 U	< 0.00074 U
PCB-194	35694-08-7	ng/g	0.029	1.7	0.13	0.20	0.18	0.027 JN	0.082	1.2	0.027 JN	2.3
PCB-195	52663-78-2	ng/g	0.0087 J	0.96	0.053	0.075	0.065	0.013 JN	0.035	0.54	0.011	1.0
PCB-196	42740-50-1	ng/g	0.014	0.79	0.059	0.090	0.084	0.0096 JN	0.042	0.50	0.0078 JN	1.0
PCB-197	33091-17-7	ng/g	0.00075 J	0.061	0.0039 JN	0.0067 J	0.0044 J	< 0.00072 U	0.0019 JN	0.041	0.00097 J	0.072
PCB-198/199	68194-17-2	ng/g	0.039	1.5	0.13	0.24	0.21	0.048 J	0.10	1.0	0.030 JN	2.0
PCB-2	2051-61-8	ng/g	0.0014 JN	0.044	0.014	0.016	0.013 JN	< 0.0014 U	0.0090 J+	0.036	0.0020 JN	0.054
PCB-20/28	38444-84-7	ng/g	0.034	0.41	0.096	0.48	0.49	0.028 J	0.058	0.32	0.030	0.55
PCB-200	52663-73-7	ng/g	0.0029 J	0.17	0.014	0.024	0.019	< 0.00064 U	0.011	0.11	0.0046 J	0.20
PCB-201	40186-71-8	ng/g	0.0041 J	0.18	0.014	0.026	0.020	< 0.00066 U	0.011	0.12	0.0032 J	0.22
PCB-202	2136-99-4	ng/g	0.0086 J	0.50 JN	0.028	0.056	0.039 JN	0.0050 JN	0.020	0.20	0.0078 J	0.36
PCB-203	52663-76-0	ng/g	0.018 JN	0.96	0.073 JN	0.16	0.13	0.021 J	0.059	0.63	0.022	1.3
PCB-204	74472-52-9	ng/g	< 0.000077 U	< 0.0045 U	< 0.00029 U	< 0.00021 U	< 0.00053 U	< 0.00072 U	< 0.00062 U	< 0.0017 U	< 0.00019 U	< 0.00055 U
PCB-205	74472-53-0	ng/g	0.0018 JN	0.10 J+	0.0061 J	0.0074 JN	0.0087 J	< 0.0019 U	0.0033 JN	0.058	0.0018 J	0.11
PCB-206	40186-72-9	ng/g	0.025	0.61 J	0.081	0.22	0.15	0.045 JN	0.073 JN	0.45	0.019 JN	0.82
PCB-207	52663-79-3	ng/g	0.0023 JN	0.066	0.0082 J	0.019	0.015	< 0.0072 U	0.0024 JN	0.048	< 0.00099 U	0.083
PCB-208	52663-77-1	ng/g	0.0084 J	0.15 JN	0.026	0.059	0.051	< 0.0073 U	0.015	0.14	0.0059 JN	0.25
PCB-209	2051-24-3	ng/g	0.022 JN	0.30	0.066	0.18	0.17	0.046 J	0.062	0.28	0.022 JN	0.34
PCB-21/33	55702-46-0	ng/g	0.012 J	0.16	0.040	0.22	0.20	0.011 JN	0.023	0.12	0.012 J	0.20
PCB-22	38444-85-8	ng/g	0.0089 J	0.069	0.023	0.14	0.13	0.011 J	0.016	0.060	0.0077 JN	0.093
PCB-23	55720-44-0	ng/g	< 0.00095 U	< 0.0019 U	< 0.00095 U	< 0.0016 U	< 0.00095 U	< 0.0028 U	< 0.00075 U	< 0.0016 U	< 0.00072 U	< 0.0018 U
PCB-24	55702-45-9	ng/g	0.00047 J	0.0018 JN	< 0.00017 U	0.0033 J	0.0029 JN	< 0.0031 U	< 0.00041 U	< 0.00059 U	< 0.000097 U	0.0034 J
PCB-25	55712-37-3	ng/g	0.0038 J	0.056	0.011	0.039	0.034	< 0.0026 U	0.0079 J	0.030	0.0032 JN	0.053

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B287	B288	B289	B290	B291	B292	B293	B294	B295	B296
		Sample ID	PDI-SG-B287-BL1	PDI-SG-B288-BL1	PDI-SG-B289-BL1	PDI-SG-B290-BL1	PDI-SG-B291-BL1	PDI-SG-B292-BL1	PDI-SG-B293-BL1	PDI-SG-B294-BL1	PDI-SG-B295-BL1	PDI-SG-B296-BL1
		Sample Date	26 Apr 2018	24 Apr 2018	14 Jun 2018	29 May 2018	23 Apr 2018	23 Apr 2018	15 Jun 2018	24 Apr 2018	26 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-28 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0062 J	0.072	0.016 J	0.067	0.061	< 0.0027 U	0.011 J	0.046	0.0063 J	0.067
PCB-27	38444-76-7	ng/g	0.0023 JN	0.045	0.0082 J	0.020	0.017	< 0.0027 U	0.0072 J	0.022	0.0016 JN	0.043
PCB-3	2051-62-9	ng/g	0.0016 JN	0.050	0.0046 JN	0.017	0.0083 JN	< 0.0015 U	0.0038 J+	0.031	< 0.00049 U	0.049
PCB-31	16606-02-3	ng/g	0.024	0.22	0.059	0.32	0.34	0.020 JN	0.040	0.20	0.022	0.32
PCB-32	38444-77-8	ng/g	0.0055 J	0.16	0.018	0.078	0.077	< 0.0026 U	0.012 JN	0.078	0.0040 JN	0.11
PCB-34	37680-68-5	ng/g	< 0.00099 U	< 0.0020 U	< 0.00099 U	0.0042 J	< 0.00099 U	< 0.0029 U	< 0.00078 U	0.0047 J	< 0.00075 U	0.0046 JN
PCB-35	37680-69-6	ng/g	< 0.00094 U	0.0066 J	0.0017 JN	0.0060 J	0.0045 J	< 0.0028 U	0.0020 J	0.0066 JN	< 0.00071 U	0.0077 JN
PCB-36	38444-87-0	ng/g	< 0.00086 U	< 0.0018 U	< 0.00086 U	< 0.0014 U	< 0.00092 U	< 0.0027 U	< 0.00067 U	< 0.0015 U	< 0.00065 U	< 0.0017 U
PCB-37	38444-90-5	ng/g	0.011	0.11	0.023	0.13	0.15	0.0082 J	0.018	0.11	0.0079 JN	0.17
PCB-38	53555-66-1	ng/g	< 0.00093 U	< 0.0020 U	< 0.00093 U	< 0.0016 U	< 0.0010 U	< 0.0029 U	< 0.00073 U	< 0.0016 U	< 0.00070 U	< 0.0019 U
PCB-39	38444-88-1	ng/g	< 0.00085 U	< 0.0018 U	< 0.00085 U	0.0027 J	< 0.00089 U	< 0.0026 U	< 0.00067 U	0.0028 J	< 0.00064 U	0.0034 J
PCB-4	13029-08-8	ng/g	0.0068 JN	0.085 JN	0.037	0.049	0.033	< 0.050 U	0.057	0.051 JN	0.0075 JN	0.076
PCB-40/41/71	38444-93-8	ng/g	0.017 J	0.72	0.066	0.25	0.21	0.016 JN	0.038	0.45	0.010 JN	0.96
PCB-42	36559-22-5	ng/g	0.0081 J	0.20	0.036	0.14	< 0.0020 U	< 0.0074 U	0.017	0.18	0.0069 JN	0.36
PCB-43/73	70362-46-8	ng/g	0.0020 J	0.13	0.0057 J	0.018 J	0.013 J	< 0.0069 U	0.0048 JN	0.056	0.0024 JN	0.093
PCB-44/47/65	41464-39-5	ng/g	0.047	4.3	0.20	0.51	0.41	0.064 J	0.13	1.6	0.051	3.3
PCB-45/51	70362-45-7	ng/g	0.0090 JN	1.9	0.044	0.094	0.074	< 0.0077 U	0.040	0.52	0.0067 JN	1.1
PCB-46	41464-47-5	ng/g	0.00097 JN	0.090	0.0067 J	0.031	0.022	< 0.0094 U	0.0055 J	0.050	< 0.0018 U	0.10 JN
PCB-48	70362-47-9	ng/g	0.0047 JN	0.088	0.021	0.089	0.079	< 0.0074 U	0.0091 JN	0.096	0.0049 J	0.19
PCB-49/69	41464-40-8	ng/g	0.030	2.0	0.15	0.35	0.26	0.045 JN	0.094	0.87	0.035	1.8
PCB-5	16605-91-7	ng/g	< 0.00079 U	< 0.0048 U	< 0.00034 U	0.0011 JN	< 0.0028 U	< 0.046 U	< 0.00071 U	< 0.0031 U	< 0.00090 U	0.0028 JN
PCB-50/53	62796-65-0	ng/g	0.010 J	0.93	0.053	0.071	0.058	< 0.0072 U	0.047	0.30	0.0089 J	0.69
PCB-52	35693-99-3	ng/g	0.062	2.5	0.27	0.63	0.46	0.071 JN	0.16	1.4	0.078	3.7
PCB-54	15968-05-5	ng/g	0.0025 J	0.19	0.011	0.0036 J	0.0034 J	< 0.00049 U	0.011	0.043 JN	0.0030 J	0.066
PCB-55	74338-24-2	ng/g	0.0019 J	< 0.0069 U	< 0.00074 U	0.020	0.0040 JN	< 0.0054 U	0.0025 JN	0.0093 JN	< 0.0010 U	< 0.0084 U
PCB-56	41464-43-1	ng/g	0.016	0.26	0.046	0.18	0.20	0.021 JN	0.027	0.26	0.016	0.50
PCB-57	70424-67-8	ng/g	< 0.00050 U	< 0.0070 U	< 0.00076 U	< 0.00094 U	< 0.0015 U	< 0.0054 U	< 0.0011 U	< 0.0055 U	< 0.0010 U	< 0.0085 U
PCB-58	41464-49-7	ng/g	< 0.00048 U	< 0.0071 U	0.0012 JN	0.0033 J	< 0.0015 U	< 0.0055 U	< 0.0011 U	0.012 J	< 0.0010 U	0.0095 JN
PCB-59/62/75	74472-33-6	ng/g	0.0037 J	0.14	0.014 J	0.046	0.035	< 0.0052 U	0.0078 J	0.077	0.0022 JN	0.16
PCB-6	25569-80-6	ng/g	0.0015 JN	0.038	0.0056 J	0.026	0.021 JN	< 0.040 U	0.0032 J	0.019 JN	< 0.00089 U	0.036
PCB-60	33025-41-1	ng/g	0.0045 JN	0.071	0.015	0.064	0.071	< 0.0055 U	0.010 J	0.11	0.0055 J	0.16
PCB-61/70/74/76	33284-53-6	ng/g	0.063	1.7	0.22	0.70	0.74	0.10 J	0.12	1.3	0.070	2.8
PCB-63	74472-34-7	ng/g	0.00083 JN	< 0.0065 U	0.0048 J	0.016	0.016	< 0.0050 U	0.0021 JN	0.029	< 0.00090 U	0.049
PCB-64	52663-58-8	ng/g	0.013	0.30	0.056	0.18	0.16	0.024 J	0.026	0.28	0.022	0.63
PCB-66	32598-10-0	ng/g	0.038	1.0	0.14	0.46	0.46	0.049 J	0.078	0.86	0.044	1.8
PCB-67	73575-53-8	ng/g	< 0.00046 U	< 0.0061 U	0.0045 J	0.013	0.012	< 0.0047 U	< 0.0010 U	< 0.0047 U	< 0.00096 U	0.023 JN
PCB-68	73575-52-7	ng/g	0.00094 J	0.053	0.0076 J	0.0057 J	< 0.0013 U	< 0.0048 U	0.0011 JN	0.020 JN	< 0.00090 U	0.058
PCB-7	33284-50-3	ng/g	0.0015 JN	0.0089 JN	0.0014 J	0.0034 JN	< 0.0025 U	< 0.041 U	< 0.00067 U	0.0055 JN	< 0.00085 U	0.0088 JN
PCB-72	41464-42-0	ng/g	< 0.00049 U	0.039 JN	0.0057 JN	0.010 J	0.0063 J	< 0.0053 U	< 0.0011 U	0.022 JN	< 0.0010 U	0.051
PCB-77	32598-13-3	ng/g	0.0062 J	0.083	0.013	0.041	0.046	0.0097 J	0.0094 J	0.082	0.0061 J	0.11
PCB-78	70362-49-1	ng/g	< 0.00048 U	< 0.0071 U	< 0.00073 U	< 0.00090 U	< 0.0015 U	< 0.0055 U	< 0.0011 U	< 0.0056 U	< 0.0010 U	< 0.0086 U
PCB-79	41464-48-6	ng/g	< 0.00041 U	0.020 JN	0.0034 JN	0.0072 J	< 0.0013 U	< 0.0048 U	0.0018 J	0.020	0.0017 J	0.022 JN
PCB-8	34883-43-7	ng/g	0.0078 JN	0.12	0.017 J	0.10	0.098	< 0.037 U	0.015 J	0.066	0.0084 J	0.12
PCB-80	33284-52-5	ng/g	< 0.00042 U	< 0.0061 U	< 0.00065 U	< 0.00080 U	< 0.0013 U	< 0.0047 U	< 0.00095 U	< 0.0047 U	< 0.00089 U	< 0.0073 U
PCB-81	70362-50-4	ng/g	< 0.00046 U	< 0.0064 U	< 0.00069 U	< 0.00084 U	< 0.0014 U	< 0.0048 U	< 0.0010 U	< 0.0049 U	< 0.00093 U	< 0.0074 U
PCB-82	52663-62-4	ng/g	0.012 JN	0.34	0.037 JN	0.089	0.077 JN	0.013 JN	0.021	0.25	0.015	0.36
PCB-83/99	60145-20-2	ng/g	0.070	3.7	0.33	0.52	0.44	0.094 JN	0.14	2.1	0.079	< 0.00079 U
PCB-84	52663-60-2	ng/g	0.022	1.0	0.089	0.19	0.15	0.039 J	0.041 JN	0.61	0.037	1.1
PCB-85/116/117	65510-45-4	ng/g	0.019 JN	0.56	0.064	0.12	0.13	0.044 J	0.034	0.39	0.022 J	0.53
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.064	2.7	0.23	0.43	0.41	0.10 J	0.12	1.6	0.078	2.4
PCB-88/91	55215-17-3	ng/g	0.020	1.4	0.11	0.13	0.11	0.022 JN	0.049	0.69	0.025	1.2
PCB-89	73575-57-2	ng/g	< 0.00093 U	< 0.0017 U	0.0032 JN	0.0081 JN	0.0092 JN	< 0.0017 U	< 0.00073 U	< 0.0011 U	< 0.00073 U	< 0.00085 U
PCB-9	34883-39-1	ng/g	< 0.00087 U	0.012 JN	< 0.00070 U	0.0047 J	0.0038 JN	< 0.042 U	< 0.00078 U	0.0045 JN	< 0.00099 U	0.0086 JN
PCB-90/101/113	68194-07-0	ng/g	0.10	6.5	0.48	0.73	0.67	0.17 J	0.25	3.4	0.13	5.7
PCB-92	52663-61-3	ng/g	0.021 JN	1.4	0.10	0.16	0.12	0.014 JN	0.055	0.73	0.030	1.3
PCB-93/100	73575-56-1	ng/g	< 0.00088 U	0.71	0.032	0.022	0.016 J	< 0.0015 U	0.018 JN	0.23 JN	0.0038 JN	0.33
PCB-94	73575-55-0	ng/g	< 0.00094 U	0.19	0.0056 J	< 0.00026 U	< 0.00052 U	< 0.0017 U	0.0041 J	0.064	< 0.00074 U	0.098
PCB-95	38379-99-6	ng/g	0.077	5.0	0.38	0.58	0.49	0.12 JN	0.21	2.7	0.12	5.0
PCB-96	73575-54-9	ng/g	0.0018 JN	0.14	0.0062 JN	0.0075 J	0.0066 J	< 0.0013 U	0.0045 J	0.046 JN	0.0014 JN	0.096
PCB-98/102	60233-25-2	ng/g	< 0.00088 U	0.34 JN	0.021	0.028	0.022	< 0.0015 U	0.013 J	0.17	< 0.00069 U	0.24
Total PCBs (b)	T_PCBCg (PDI)	ng/g	2.5	160	11	20	18	3.3	7.0	89	2.7	170

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B287	B288	B289	B290	B291	B292	B293	B294	B295	B296
		Sample ID	PDI-SG-B287-BL1	PDI-SG-B288-BL1	PDI-SG-B289-BL1	PDI-SG-B290-BL1	PDI-SG-B291-BL1	PDI-SG-B292-BL1	PDI-SG-B293-BL1	PDI-SG-B294-BL1	PDI-SG-B295-BL1	PDI-SG-B296-BL1
		Sample Date	26 Apr 2018	24 Apr 2018	14 Jun 2018	29 May 2018	23 Apr 2018	23 Apr 2018	15 Jun 2018	24 Apr 2018	26 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-28 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.55 UJ	0.55 J	< 2.0 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 0.42 U	0.96 J	< 0.55 UJ	0.57 J
2,4-DDE	3424-82-6	µg/kg	< 0.55 UJ	< 0.77 UJ	< 2.0 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 0.42 U	< 0.70 UJ	< 0.55 UJ	< 0.70 UJ
2,4-DDT	789-02-6	µg/kg	< 0.55 UJ	< 0.77 UJ	< 2.0 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 0.42 U	< 0.70 UJ	< 0.55 UJ	< 0.70 UJ
4,4'-DDD	72-54-8	µg/kg	0.72 J	2.0 J	0.97 J	1.7	2.0 J	0.80 J	0.79	2.8 J	0.77 J	2.4 J
4,4'-DDE	72-55-9	µg/kg	1.6 J	5.2 J	3.3	3.8	4.2 J	2.5 J	1.5	4.4 J	1.9 J	6.3 J
4,4'-DDT	50-29-3	µg/kg	0.36 J	0.69 J	< 2.0 U	< 1.0 U	10 J	0.86 J	0.39 J	0.59 J	0.43 J	0.69 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.0	8.8	5.3	6.0	17	4.8	2.9	9.1	3.4	10
Aldrin	309-00-2	µg/kg	< 0.55 UJ	< 0.77 UJ	< 2.0 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 0.42 U	< 0.70 UJ	< 0.55 UJ	< 0.70 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 1.1 UJ	< 1.5 UJ	< 3.9 U	< 2.1 U	< 2.3 UJ	< 2.5 UJ	< 0.84 U	< 1.4 UJ	< 1.1 UJ	0.60 J
cis-Nonachlor	5103-73-1	µg/kg	< 0.55 UJ	< 0.77 UJ	< 2.0 U	< 1.1 U	< 1.2 UJ	< 1.3 UJ	< 0.42 U	< 0.70 UJ	< 0.55 UJ	< 0.70 UJ
Dieldrin	60-57-1	µg/kg	< 1.1 UJ	< 1.5 UJ	< 3.9 U	< 2.1 U	< 2.3 UJ	< 2.5 UJ	< 0.84 U	< 1.4 UJ	< 1.1 UJ	< 1.4 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.55 UJ	< 0.77 UJ	< 2.0 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 0.42 U	< 0.70 UJ	< 0.55 UJ	0.24 J
gamma-Chlordane	5566-34-7	µg/kg	< 1.1 UJ	< 1.5 UJ	< 3.9 U	< 2.1 U	< 2.3 UJ	< 2.5 UJ	< 0.84 U	< 1.4 UJ	< 1.1 UJ	0.72 J
Heptachlor	76-44-8	µg/kg	< 0.55 UJ	< 0.77 UJ	< 2.0 U	< 1.0 U	< 1.2 UJ	< 1.2 UJ	< 0.42 U	< 0.70 UJ	< 0.55 UJ	< 0.70 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.1 UJ	< 1.5 UJ	< 3.9 U	< 2.1 U	< 2.3 UJ	< 2.5 UJ	< 0.84 U	< 1.4 UJ	< 1.1 UJ	< 1.4 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 1.1 UJ	< 1.5 UJ	< 3.9 U	< 2.1 U	< 2.3 UJ	< 2.5 UJ	0.30 J	< 1.4 UJ	< 1.1 UJ	0.45 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.1 UJ	< 1.5 UJ	< 3.9 U	< 2.1 U	< 2.3 UJ	< 2.5 UJ	0.72	< 1.4 UJ	< 1.1 UJ	2.47
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.4	9.0	5.1 J	2.7	5.1	1.3 J	4.0 J	6.3 J	1.3	13
Acenaphthene	83-32-9	µg/kg	0.94	8.9	11	3.0	8.9	0.64	1.9 J	7.4	0.93	13
Acenaphthylene	208-96-8	µg/kg	1.6	11	3.9 J	3.3	6.7	0.97	3.2 J	8.8	1.1	14
Anthracene	120-12-7	µg/kg	2.7	19	10	7.0	22	2.7	9.3	17	3.0	38
Benz(a)anthracene	56-55-3	µg/kg	11	95	16	25	85	8.3	11	88	8.9	210
Benzo(a)pyrene	50-32-8	µg/kg	15	100	15	24	59	10	9.3	93	9.2	210
Benzo(b)fluoranthene	205-99-2	µg/kg	18	170	30	39	110	13	19	170	14	360
Benzo(g,h,i)perylene	191-24-2	µg/kg	23	110	16	20	36	11	11	100	13	210
Benzo(k)fluoranthene	207-08-9	µg/kg	5.0	64	9.4	14	38	4.0	4.6 J	61	4.8	130
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	310	620	< 300 U	120	170	93 J	< 280 U	450	64 J	720
Chrysene	218-01-9	µg/kg	17	160	23	46	170	13	15	130	16	360
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.9	25	4.6 J	3.8	9.5	1.8	3.6 J	21	2.5	48
Fluoranthene	206-44-0	µg/kg	24	230	48	85	260	19	32	280	26	730
Fluorene	86-73-7	µg/kg	1.4	13	8.2 J	3.9	12	1.1	3.7 J	10	1.5	19
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	18	100	18	18	37	8.9	13	91	9.8	200
Naphthalene	91-20-3	µg/kg	1.5	11	14	4.5	7.8	1.8	15	11	1.4	23
Phenanthrene	85-01-8	µg/kg	13	80	39	37	77	8.3	18	81	17	180
Pyrene	129-00-0	µg/kg	29	240	48	81	220	22	30	290	25	620
Total PAHs (b)	T_PAH (PDI)	µg/kg	185	1446	319	417	1164	128	204	1466	155	3378
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	23	162	26	36	92	15	17	150	15	337
Metals												
Arsenic	7440-38-2	mg/kg	4.7	8.5	4.8	6.9	5.0	4.6	4.3	7.1	4.6	8.9
Cadmium	7440-43-9	mg/kg	0.13 J	0.45	0.22 J	0.24	0.23 J	0.14 J	0.22 J	0.32 J	0.13 J	0.39
Copper	7440-50-8	mg/kg	34	100 J	41	47	37 J	34	44	76	34	110
Lead	7439-92-1	mg/kg	8.2	35	12	17	13	8.2	12	24	8.3	33
Mercury	7439-97-6	mg/kg	0.045	0.12 J	0.066	0.067	0.064	0.050 J	0.068	0.13	0.044	0.21
Tri-n-butyltin	36643-28-4	µg/kg	< 2.2 U	86 J	< 140 U	2.6	1.5 J	< 2.5 U	< 140 U	35	< 2.2 U	190
Zinc	7440-66-6	mg/kg	86	250	99	120	100	81	95	190	85	250
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	51 J	130 J	63 J	73 J	56 J	70 J	48 J	54 J	44 J	110 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	230	540	360	290	370	410	290	250	220	540
Other												
Total Solids@104C - D2216 (f)	TSOLID	%			50.2	47.1			44.6 52.7			
Total Solids@104C - E160.3 (f)	TSOLID	%	50.2	30.4	46.9		45.1	43.8		34.7	52.2	33.8
Total Solids@104C - E160.3M (f)	TSOLID	%	44.5	32.1	47.8	46.9	42.4	39.8	46.5	35.6	44.2	35.8
Total Solids@70C	TSOLID70	%	43	33	47	47	43	41	85	36	45	36
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0.2	0	0	0.1	0	0	0.2	0	0
Sand, Medium	GS-Msand	%	0.2	0.3	0.2	0.3	0.3	0.1	0.1	0.6	0.1	0.5
Sand, Fine (#200) (d)	GS-Fsand-200	%	26.09	6.133	23.98	16.69	13.21	14.91	14.58	11.03	22.78	9.116
Sand, Fine (#230) (d)	GS-Fsand	%	32.1	7.4	29.3	20.8	15.9	19.2	17.4	13.3	28.7	10.6
Silt (#200) (d)	GS-Silt-200	%	65.50	68.56	66.11	72.20	72.58	74.18	80.41	67.56	66.21	64.28

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B287	B288	B289	B290	B291	B292	B293	B294	B295	B296
		Sample ID	PDI-SG-B287-BL1	PDI-SG-B288-BL1	PDI-SG-B289-BL1	PDI-SG-B290-BL1	PDI-SG-B291-BL1	PDI-SG-B292-BL1	PDI-SG-B293-BL1	PDI-SG-B294-BL1	PDI-SG-B295-BL1	PDI-SG-B296-BL1
		Sample Date	26 Apr 2018	24 Apr 2018	14 Jun 2018	29 May 2018	23 Apr 2018	23 Apr 2018	15 Jun 2018	24 Apr 2018	26 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-28 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-29 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	59.5	67.3	60.8	68.1	69.9	69.9	77.6	65.3	60.3	62.8
Clay	GS-Clay	%	8.2	24.8	9.7	10.8	13.8	10.8	5.0	20.6	10.9	26.0
Percent Fines (e)	GS-FINES	%	73.7	93.36	75.81	83	86.38	84.98	85.41	88.16	77.11	90.28
Total Organic Carbon	TOC	mg/kg	19000	27000	17000	20000	21000	24000	18000	24000	17000	28000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B297	B298	B299	B300	B301	B302	B303	B304	B305	B306
		Sample ID	PDI-SG-B297-BL1	PDI-SG-B298-BL1	PDI-SG-B299-BL1	PDI-SG-B300-BL1	PDI-SG-B301-BL1	PDI-SG-B302-BL1	PDI-SG-B303-BL1	PDI-SG-B304-BL1	PDI-SG-B305-BL1	PDI-SG-B306-BL1
		Sample Date	15 Jun 2018	21 May 2018	21 May 2018	22 Apr 2018	15 Jun 2018	24 Apr 2018	24 Apr 2018	14 Jun 2018	21 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-23 cm	0-30 cm	0-30 cm	0-25 cm	0-27 cm	0-28 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.048	0.11	0.20	0.056	0.054	0.43	0.45	0.037	0.060	0.031
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.010 JN	0.022	0.048	0.012 JN	0.012 JN	0.072	0.070	0.0068 JN	0.0081 JN	0.0060 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00087 J	0.0014 J+	0.0039 J+	0.00082 J	0.0012 J+	0.0052 J	0.0047 J	0.00064 J+	0.0013 J+	< 0.00049 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00019 U	0.0012 J	0.0028 J	0.00085 JN	0.00094 J	0.0027 JN	0.0034 J	0.00058 J+	0.00059 JN	0.00066 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0016 J	0.0014 JN	0.0036 J	0.0012 J	0.0015 J	0.0094	0.0070 J	0.00070 J	0.0012 J	0.00058 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0028 J	0.0045	0.0069	0.0025 J	0.0038 J	0.014	0.017	0.0016 JN	0.0023 J	0.0014 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00072 JN	0.00067 JN	0.0022 J	0.00055 J	0.00062 JN	0.0056 J	0.010	0.00039 J	0.00060 J	< 0.00032 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0022 J	0.0029 J	0.0054 J	0.0022 J	0.0022 J	0.0065 J	0.0078	0.0011 J	0.0011 J	0.0012 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00060 J	< 0.00043 U	0.0019 JN	< 0.00011 U	0.00075 J+	< 0.00055 U	< 0.00052 U	< 0.00019 U	0.0017 J+	< 0.000097 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00073 J	0.00056 JN	0.0011 JN	0.00053 J	0.00032 JN	0.0020 J	0.0020 JN	< 0.000075 U	0.00031 JN	0.00036 J+
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00027 JN	0.00055 J	0.00089 J	0.00023 JN	0.00032 JN	0.0021 J	< 0.00074 U	< 0.000069 U	0.00051 J	< 0.00015 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00055 JN	0.00057 J+	0.0013 J+	0.00034 JN	0.00045 J	0.0019 J	0.0021 J	0.00026 J+	< 0.00015 U	< 0.00025 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00063 J	0.00053 J	0.00099 J	0.00039 J	0.00037 JN	0.0024 J	0.0020 J	0.00029 J+	0.00042 JN	< 0.00017 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00010 U	0.00071 JN	0.00096 J	0.00015 JN	0.00029 J	0.00080 J	0.00096 J	< 0.000058 U	< 0.00014 U	0.00027 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00061 JN	0.00053 J	0.0011 J	0.00054 J	0.00071 JN	0.0033	0.0037	0.00040 J+	0.00072 J	0.00033 J+
OCDD	3268-87-9	µg/kg	0.37	< 0.0050 U	1.7	0.45	0.44	3.6	4.0	0.50	0.45	0.26
OCDF	39001-02-0	µg/kg	0.033	0.11	0.22	0.048	0.036	0.23	0.22	0.036	0.027	0.019
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0026	0.004	0.008	0.0025	0.0026	0.014	0.015	0.0012	0.0022	0.0015
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0024	0.0035	0.0073	0.0023	0.0022	0.014	0.014	0.0011	0.0018	0.0014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0023	0.0032	0.0067	0.0022	0.0021	0.014	0.013	0.001	0.0016	0.0012
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0048 J+	0.033	0.037	< 0.00091 U	0.0040 JN	0.077	0.063	0.0019 JN	0.0077 J+	0.0011 JN
PCB-10	33146-45-1	ng/g	0.0032 J	0.013	0.0074 J	< 0.0015 U	0.0014 JN	< 0.0052 U	< 0.0063 U	0.00089 JN	0.0030 JN	< 0.0028 U
PCB-103	60145-21-3	ng/g	0.091	0.015	0.013 JN	< 0.0011 U	0.035	0.24	0.20	0.012	0.0066 J	0.0023 J
PCB-104	56558-16-8	ng/g	0.0034 J	< 0.000094 U	< 0.00051 U	< 0.00083 U	0.0025 J	< 0.0010 U	< 0.0012 U	< 0.00055 U	< 0.00030 U	< 0.00022 U
PCB-105	32598-14-4	ng/g	0.094	0.61	0.46	0.055 JN	0.11	2.4	1.1	0.12	0.12	0.051
PCB-106	70424-69-0	ng/g	< 0.0016 U	< 0.0040 U	< 0.0028 U	< 0.0016 U	< 0.0013 U	< 0.0085 U	< 0.0064 U	< 0.0017 U	< 0.0012 U	< 0.00085 U
PCB-107	70424-68-9	ng/g	0.036	0.10	0.075 JN	0.010 JN	0.035	0.83	0.51	0.025	0.028	0.011
PCB-108/124	70362-41-3	ng/g	0.010 JN	0.056	0.044	0.0053 JN	0.013 J	0.29	0.15	0.010 JN	0.013 J	0.0047 J
PCB-11	2050-67-1	ng/g	0.054	0.069	0.071	0.096	0.057	0.13	0.14	0.028	0.034	0.033 JN
PCB-110/115	38380-03-9	ng/g	0.65	1.7	1.3	0.19	0.48	8.1	5.3	0.36	0.43	0.16
PCB-111	39635-32-0	ng/g	0.0042 JN	< 0.000084 U	< 0.00046 U	< 0.00074 U	0.0024 JN	< 0.00095 U	< 0.0011 U	0.0021 J	< 0.00027 U	< 0.00020 U
PCB-112	74472-36-9	ng/g	0.0098 J	0.015	0.0055 JN	< 0.00081 U	0.0039 JN	< 0.0010 U	< 0.0012 U	0.0035 JN	0.0025 JN	< 0.00021 U
PCB-114	74472-37-0	ng/g	0.0088 JN	0.046	0.031	0.0035 JN	0.0068 J	0.13	0.070	0.0066 JN	0.0065 J	< 0.00078 U
PCB-118	31508-00-6	ng/g	0.26	1.2	0.98	0.15	0.33	7.1	4.3	0.29	0.28	0.12
PCB-12/13	2974-92-7	ng/g	0.0036 JN	0.031	0.028	0.0073 J	0.0036 JN	0.035 JN	0.043	0.0019 JN	0.0074 J	< 0.0025 U
PCB-120	68194-12-7	ng/g	0.011	< 0.000083 U	0.0074 J	< 0.00073 U	0.0084 J	0.050	0.049	0.0019 JN	0.0017 JN	0.0013 J
PCB-121	56558-18-0	ng/g	0.0079 JN	< 0.000089 U	< 0.00049 U	< 0.00079 U	0.0025 JN	< 0.00099 U	< 0.0012 U	< 0.00053 U	< 0.00029 U	< 0.00021 U
PCB-122	76842-07-4	ng/g	0.0037 J	0.032	0.019 JN	0.0039 JN	0.0042 JN	0.11	0.058	0.0055 J	0.0073 J	< 0.00099 U
PCB-123	65510-44-3	ng/g	0.0042 JN	0.034	0.021	0.0033 JN	0.0053 JN	0.10	0.058 JN	0.0051 JN	0.0064 J	0.0020 JN
PCB-126	57465-28-8	ng/g	< 0.0015 U	0.0043 JN	0.0046 J	< 0.0017 U	< 0.0013 U	< 0.011 U	0.021	< 0.0018 U	< 0.0014 U	< 0.00084 U
PCB-127	39635-33-1	ng/g	< 0.0015 U	< 0.0038 U	< 0.0027 U	< 0.0015 U	< 0.0013 U	< 0.0085 U	< 0.0064 U	< 0.0017 U	< 0.0012 U	< 0.00085 U
PCB-128/166	38380-07-3	ng/g	0.14	0.23	0.21	0.039	0.10	1.7	1.1	0.14	0.097	0.033
PCB-129/138/160/163	55215-18-4	ng/g	1.5	1.4	1.4	0.26	0.87	14	9.2	0.99	0.63	0.22
PCB-130	52663-66-8	ng/g	0.081	0.097	0.087	0.019	0.058	0.94	0.63	0.063	0.042	0.011
PCB-131	61798-70-7	ng/g	< 0.0030 U	0.022	0.015	< 0.0018 U	< 0.0065 U	0.18	< 0.024 U	0.0092 JN	0.0066 JN	< 0.0021 U
PCB-132	38380-05-1	ng/g	0.57	0.54	0.46	0.074	0.29	4.6	3.1	0.29	0.23	0.055
PCB-133	35694-04-3	ng/g	0.064	0.022	0.022	0.0055 J	0.031	0.33	0.27	0.018	0.013	< 0.0019 U
PCB-134/143	52704-70-8	ng/g	0.10	0.092	0.076	0.012 J	0.053	0.85	0.54	0.057	0.042	0.0076 JN
PCB-135/151	52744-13-5	ng/g	0.97	0.49	0.49	0.082	0.41	4.0	3.0	0.32	0.19	0.061
PCB-136	38411-22-2	ng/g	0.41	0.19	0.17	0.027	0.15	1.7	1.1	0.11	0.071	0.016 JN
PCB-137	35694-06-5	ng/g	0.022	0.065	0.054	0.0093 JN	0.024	0.44	0.26	0.038	0.030	0.0077 J
PCB-139/140	56030-56-9	ng/g	0.044	0.025	0.018 JN	0.0036 JN	0.019	0.28	0.19	0.016	0.013 J	0.0026 JN
PCB-14	34883-41-5	ng/g	< 0.00035 U	< 0.00028 U	< 0.0011 U	< 0.0012 U	< 0.00040 U	< 0.0040 U	< 0.0048 U	< 0.00052 U	< 0.00045 U	< 0.0021 U
PCB-141	52712-04-6	ng/g	0.40	0.30	0.28	0.040 JN	0.18	2.4	1.5	0.20	0.12	0.036
PCB-142	41411-61-4	ng/g	< 0.0028 U	< 0.0013 U	< 0.0028 U	< 0.0017 U	< 0.0061 U	< 0.022 U	< 0.022 U	< 0.0015 U	< 0.0017 U	< 0.0019 U
PCB-144	68194-14-9	ng/g	0.092	0.068	0.057 JN	0.0076 J	0.042	0.40	0.28	0.041	0.026	0.0055 JN
PCB-145	74472-40-5	ng/g	0.0020 JN	0.00070 JN	0.00063 JN	< 0.00015 U	0.00048 JN	< 0.0019 U	< 0.0025 U	< 0.00040 U	< 0.00028 U	< 0.00016 U
PCB-146	51908-16-8	ng/g	0.41	0.20	0.21	0.037 JN	0.23	2.8	2.4	0.15	0.11	0.033
PCB-147/149	68194-13-8	ng/g	2.1	1.2	1.1	0.18	0.93	14	11	0.77	0.56	0.16
PCB-148	74472-41-6	ng/g	0.023	0.0017 J	0.0025 JN	< 0.00021 U	0.0094 JN	0.051	0.046	0.0022 JN	0.0021 J	< 0.00023 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B297	B298	B299	B300	B301	B302	B303	B304	B305	B306
		Sample ID	PDI-SG-B297-BL1	PDI-SG-B298-BL1	PDI-SG-B299-BL1	PDI-SG-B300-BL1	PDI-SG-B301-BL1	PDI-SG-B302-BL1	PDI-SG-B303-BL1	PDI-SG-B304-BL1	PDI-SG-B305-BL1	PDI-SG-B306-BL1
		Sample Date	15 Jun 2018	21 May 2018	21 May 2018	22 Apr 2018	15 Jun 2018	24 Apr 2018	24 Apr 2018	14 Jun 2018	21 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-23 cm	0-30 cm	0-30 cm	0-25 cm	0-27 cm	0-28 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.014	0.35	0.26	0.0098 JN	0.015 JN	0.18	0.20	0.0090 JN	0.042	0.0069 JN
PCB-150	68194-08-1	ng/g	0.022	0.0016 J	0.0032 J	< 0.00014 U	0.0095 J	0.051	0.043	0.0022 JN	0.0018 JN	0.00049 JN
PCB-152	68194-09-2	ng/g	0.0011 JN	0.0011 JN	0.00040 JN	< 0.00015 U	0.0017 J	0.022	0.011 JN	0.0011 J+	< 0.00027 U	< 0.00017 U
PCB-153/168	35065-27-1	ng/g	1.7	1.0	1.1	0.20	0.86	12	9.1	0.82	0.52	0.18
PCB-154	60145-22-4	ng/g	0.13	0.011	0.021	0.0037 JN	0.046	0.30	0.25	0.019	0.011	0.0016 JN
PCB-155	33979-03-2	ng/g	0.0011 J	< 0.000080 U	< 0.00025 U	< 0.00014 U	0.00068 JN	< 0.0019 U	< 0.0024 U	< 0.00037 U	0.00050 J+	< 0.00015 U
PCB-156/157	38380-08-4	ng/g	0.082	0.14	0.14	0.028	0.064	1.2	0.69	0.11	0.047	0.021 J
PCB-158	74472-42-7	ng/g	0.14	0.14	0.13	0.027	0.077	1.1	0.62	0.10	0.060	0.020
PCB-159	39635-35-3	ng/g	0.029 JN	0.014	0.013 JN	0.0031 J	0.0098	< 0.015 U	< 0.015 U	0.012	0.0069 J	< 0.0013 U
PCB-16	38444-78-9	ng/g	0.0097 JN	1.1	0.55	0.0075 JN	0.014	0.12	0.19	0.0088 JN	0.075	0.0046 J
PCB-161	74472-43-8	ng/g	< 0.0018 U	< 0.00085 U	< 0.0018 U	< 0.0011 U	< 0.0040 U	< 0.014 U	< 0.015 U	< 0.0010 U	< 0.0011 U	< 0.0013 U
PCB-162	39635-34-2	ng/g	< 0.0018 U	< 0.00081 U	< 0.0017 U	< 0.0011 U	< 0.0038 U	< 0.014 U	< 0.014 U	< 0.00095 U	< 0.0011 U	< 0.0013 U
PCB-164	74472-45-0	ng/g	0.12	0.11	0.099	0.018	0.065	1.0	0.71	0.071	0.045	0.014
PCB-165	74472-46-1	ng/g	< 0.0021 U	< 0.00097 U	< 0.0021 U	< 0.0013 U	< 0.0045 U	< 0.016 U	< 0.017 U	< 0.0011 U	< 0.0013 U	< 0.0015 U
PCB-167	52663-72-6	ng/g	0.036	0.050	0.045	0.0079 J	0.024	0.43	0.26	0.038	0.017	0.0085 J
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.00063 U	< 0.0013 U	< 0.00083 U	< 0.0028 U	< 0.012 U	< 0.013 U	< 0.00076 U	< 0.00095 U	< 0.00096 U
PCB-17	37680-66-3	ng/g	0.060	1.1	0.59	0.010 JN	0.031	0.23	0.33	0.016	0.094	0.0056 JN
PCB-170	35065-30-6	ng/g	0.67	0.45	0.44	0.071	0.28	3.7	2.7	0.29	0.15	0.063
PCB-171/173	52663-71-5	ng/g	0.22	0.15	0.14	0.018 JN	0.090	1.1	0.78	0.099	0.047	0.017 J
PCB-172	52663-74-8	ng/g	0.13	0.082	0.086	0.013 JN	0.051	0.54	0.44	0.044 JN	0.025	0.0078 JN
PCB-174	38411-25-5	ng/g	0.85	0.51	0.53	0.075	0.32	3.4	2.8	0.33	0.18	0.059
PCB-175	40186-70-7	ng/g	0.034	0.019	0.019	0.0029 JN	0.012 JN	0.13	0.10	0.013	0.0062 JN	0.0021 JN
PCB-176	52663-65-7	ng/g	0.10	0.055	0.055	0.0061 JN	0.037	0.44	0.37	0.037	0.020	0.0049 J
PCB-177	52663-70-4	ng/g	0.51	0.28	0.29	0.045	0.20	2.1	1.7	0.18	0.10	0.034
PCB-178	52663-67-9	ng/g	0.18	0.092	0.11	0.017 JN	0.077	0.78	0.64	0.060	0.031 JN	0.014
PCB-179	52663-64-6	ng/g	0.38	0.20	0.21	0.032	0.14	1.7	1.4	0.12	0.073	0.027
PCB-18/30	37680-65-2	ng/g	0.030	2.4	1.2	0.023 JN	0.030	0.37	0.52	0.019 JN	0.17	0.0097 JN
PCB-180/193	35065-29-3	ng/g	1.6	0.96	1.0	0.16	0.61	7.3	5.5	0.59	0.33	0.13
PCB-181	74472-47-2	ng/g	< 0.00042 U	< 0.000081 U	< 0.000068 U	< 0.00022 U	< 0.00036 U	< 0.0068 U	< 0.0048 U	0.0044 J	< 0.00034 U	0.0012 JN
PCB-182	60145-23-5	ng/g	0.012	< 0.000077 U	0.0058 JN	< 0.00021 U	0.0037 JN	< 0.0065 U	< 0.0046 U	< 0.00035 U	0.0019 JN	< 0.00063 U
PCB-183/185	52663-69-1	ng/g	0.53	0.31	0.32	0.042 JN	0.19	2.3	1.9	0.20	0.11	0.039
PCB-184	74472-48-3	ng/g	< 0.00034 U	< 0.000066 U	< 0.000056 U	0.00064 JN	< 0.00029 U	< 0.0056 U	< 0.0039 U	< 0.00030 U	< 0.00027 U	< 0.00054 U
PCB-186	74472-49-4	ng/g	< 0.00033 U	< 0.000064 U	< 0.000053 U	< 0.00017 U	< 0.00028 U	< 0.0054 U	< 0.0038 U	< 0.00029 U	< 0.00026 U	< 0.00052 U
PCB-187	52663-68-0	ng/g	1.0	0.56	0.60	0.10	0.41	4.2	3.6	0.36	0.21	0.082
PCB-188	74487-85-7	ng/g	< 0.00031 U	< 0.000059 U	< 0.000050 U	< 0.00016 U	< 0.00026 U	< 0.0047 U	< 0.0031 U	< 0.00027 U	< 0.00024 U	< 0.00046 U
PCB-189	39635-31-9	ng/g	0.024	0.016	0.013 JN	0.0034 J	0.0090 J	0.14	0.098	0.011	0.0053 J	< 0.0016 U
PCB-19	38444-73-4	ng/g	0.11	0.27	0.12	0.0055 J	0.052	0.10	0.10	0.021	0.036	0.0061 J
PCB-190	41411-64-7	ng/g	0.14	0.081	0.089	0.015	0.053	0.61	0.43	0.060	0.026	0.011 JN
PCB-191	74472-50-7	ng/g	0.036	0.020	0.023	0.0025 J	0.015	0.13	0.091	0.015	0.0070 J	0.0021 J
PCB-192	74472-51-8	ng/g	< 0.00034 U	< 0.000065 U	< 0.000054 U	< 0.00018 U	< 0.00029 U	< 0.0057 U	< 0.0040 U	< 0.00030 U	< 0.00027 U	< 0.00055 U
PCB-194	35694-08-7	ng/g	0.38	0.25	0.25	0.045	0.14	1.9	1.4	0.10	0.088	0.029
PCB-195	52663-78-2	ng/g	0.17	0.10	0.10	0.017	0.063	0.90	0.67	0.048	0.035	0.012
PCB-196	42740-50-1	ng/g	0.20	0.12	0.13	0.010 JN	0.071	0.84	0.65	0.049	0.040	0.012
PCB-197	33091-17-7	ng/g	0.014	0.0077 J	0.0064 JN	0.0011 JN	0.0052 J	0.071	0.049 JN	0.0031 JN	0.0029 J	< 0.00046 U
PCB-198/199	68194-17-2	ng/g	0.41	0.26	0.35	0.049	0.16	1.7	1.4	0.11	0.10	0.036
PCB-2	2051-61-8	ng/g	0.015	0.0047 J+	0.014 J+	< 0.00075 U	0.016	0.054	0.040	0.0090	0.0049 JN	< 0.00029 U
PCB-20/28	38444-84-7	ng/g	0.088	3.2	1.9	0.047	0.094	0.94	1.3	0.061	0.36	0.027
PCB-200	52663-73-7	ng/g	0.051	0.030	0.033	0.0058 JN	0.018	0.17	0.13	0.014	0.012	0.0035 JN
PCB-201	40186-71-8	ng/g	0.049	0.032	0.034	0.0040 JN	0.018	0.20	0.16	0.012 JN	0.012	0.0039 J
PCB-202	2136-99-4	ng/g	0.075	0.053	0.072	0.0088 J	0.034	0.44 JN	0.29	0.022	0.023	0.0077 J
PCB-203	52663-76-0	ng/g	0.24	0.16	0.21	0.025 JN	0.087	0.99	0.87	0.069	0.058	0.021
PCB-204	74472-52-9	ng/g	< 0.00082 U	< 0.000065 U	< 0.00034 U	< 0.00022 U	< 0.00048 U	< 0.0055 U	< 0.0048 U	< 0.0010 U	< 0.00047 U	< 0.00046 U
PCB-205	74472-53-0	ng/g	0.018	0.012	0.012	0.0027 JN	0.0067 J	0.084	0.082	0.0054 J	0.0033 J	< 0.0011 U
PCB-206	40186-72-9	ng/g	0.13 JN	0.20	0.37	0.045 JN	0.091 JN	0.66	0.58	0.22 JN	0.45 JN	0.023
PCB-207	52663-79-3	ng/g	0.011	0.019	0.034	< 0.0031 U	0.0060 J	0.075	0.056	< 0.0046 U	0.0052 JN	< 0.0015 U
PCB-208	52663-77-1	ng/g	0.023	0.064	0.12	0.010 J	0.018	0.21	0.17	0.021	0.019	0.0074 J
PCB-209	2051-24-3	ng/g	0.050	0.21	0.48	0.054	0.071	0.38	0.46	0.064	0.051	0.045
PCB-21/33	55702-46-0	ng/g	0.035	1.7	0.98	0.015 J	0.038	0.43	0.56	0.025	0.15	0.0083 J
PCB-22	38444-85-8	ng/g	0.021	1.1	0.65	0.014	0.022	0.16 JN	0.28	0.017	0.12	0.0085 J
PCB-23	55720-44-0	ng/g	< 0.00069 U	< 0.0054 U	< 0.0058 U	< 0.0015 U	< 0.00067 U	< 0.0030 U	< 0.0040 U	< 0.0012 U	< 0.0013 U	< 0.00058 U
PCB-24	55702-45-9	ng/g	< 0.00037 U	0.036	0.022	< 0.00022 U	< 0.00028 U	0.0042 JN	< 0.0012 U	< 0.00041 U	< 0.00028 U	< 0.00030 U
PCB-25	55712-37-3	ng/g	0.017	0.23	0.14	0.0057 J	0.013	0.072	0.10	0.0064 J	0.032	0.0030 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B297	B298	B299	B300	B301	B302	B303	B304	B305	B306
		Sample ID	PDI-SG-B297-BL1	PDI-SG-B298-BL1	PDI-SG-B299-BL1	PDI-SG-B300-BL1	PDI-SG-B301-BL1	PDI-SG-B302-BL1	PDI-SG-B303-BL1	PDI-SG-B304-BL1	PDI-SG-B305-BL1	PDI-SG-B306-BL1
		Sample Date	15 Jun 2018	21 May 2018	21 May 2018	22 Apr 2018	15 Jun 2018	24 Apr 2018	24 Apr 2018	14 Jun 2018	21 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-23 cm	0-30 cm	0-30 cm	0-25 cm	0-27 cm	0-28 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.025	0.50	0.30	0.0074 J	0.017 J	0.11	0.17	0.0091 J	0.060	0.0046 JN
PCB-27	38444-76-7	ng/g	0.016	0.17	0.090	0.00091 JN	0.0077 JN	0.042	0.056 JN	0.0037 JN	0.017	0.0017 JN
PCB-3	2051-62-9	ng/g	0.0037 J+	0.022	0.051	0.0030 JN	0.0050 JN	0.061	0.058	0.0028 JN	0.0067 JN	< 0.00032 U
PCB-31	16606-02-3	ng/g	0.060	2.8	1.5	0.029 JN	0.059	0.60	0.88	0.037	0.28	0.021 J
PCB-32	38444-77-8	ng/g	0.024 JN	0.73	0.38	0.0087 JN	0.022	0.14	0.20	0.012	0.066	0.0050 JN
PCB-34	37680-68-5	ng/g	< 0.00071 U	0.018	0.011 J	< 0.0015 U	< 0.00069 U	0.014	0.019	< 0.0012 U	0.0026 J	< 0.00060 U
PCB-35	37680-69-6	ng/g	0.0021 JN	0.038	0.024	0.0016 JN	0.0023 J	0.014	0.017	< 0.0012 U	0.0041 J	< 0.00059 U
PCB-36	38444-87-0	ng/g	< 0.00062 U	< 0.0049 U	< 0.0052 U	< 0.0013 U	< 0.00060 U	< 0.0029 U	< 0.0039 U	< 0.0011 U	< 0.0012 U	< 0.00057 U
PCB-37	38444-90-5	ng/g	0.024	0.72	0.50	0.013 J	0.024	0.27	0.35	0.017	0.061	0.0091 J
PCB-38	53555-66-1	ng/g	< 0.00067 U	< 0.0053 U	< 0.0056 U	< 0.0014 U	< 0.00065 U	< 0.0031 U	< 0.0042 U	< 0.0012 U	< 0.0013 U	< 0.00061 U
PCB-39	38444-88-1	ng/g	< 0.00061 U	0.014	0.0079 J	< 0.0013 U	0.0012 J	0.0092 J	0.011 J	< 0.0011 U	0.0016 JN	< 0.00055 U
PCB-4	13029-08-8	ng/g	0.097	0.32	0.14	0.0067 JN	0.036	0.10	0.10 JN	0.017	0.042	0.0067 JN
PCB-40/41/71	38444-93-8	ng/g	0.097	1.8	0.93	0.025 J	0.071	1.0	1.0	0.036	0.26	0.015 J
PCB-42	36559-22-5	ng/g	0.032	0.87	0.46	0.013 J	0.032	0.52	0.59	0.022	0.13	0.0079 JN
PCB-43/73	70362-46-8	ng/g	0.028	0.14	0.072	0.0036 J	0.016 J	0.088	0.057 JN	0.0044 JN	0.018 J	< 0.0011 U
PCB-44/47/65	41464-39-5	ng/g	0.33	2.9	1.6	0.065	0.24	3.4	2.7	0.14	0.50	0.049
PCB-45/51	70362-45-7	ng/g	0.14	0.72	0.35	0.011 J	0.089	0.62	0.53	0.044	0.12	0.0081 J
PCB-46	41464-47-5	ng/g	0.010	0.27	0.13	< 0.0018 U	0.0094 J	0.084	0.12	0.0054 J	0.039	< 0.0014 U
PCB-48	70362-47-9	ng/g	0.023	0.74	0.40	0.0069 JN	0.016	0.24	0.33	0.013	0.093	0.0045 JN
PCB-49/69	41464-40-8	ng/g	0.39	1.7	0.96	0.045	0.19	2.3	2.1	0.084	0.30	0.035
PCB-5	16605-91-7	ng/g	< 0.00042 U	0.0069 JN	0.0042 JN	< 0.0014 U	< 0.00048 U	< 0.0053 U	< 0.0064 U	< 0.00062 U	0.0016 J	< 0.0028 U
PCB-50/53	62796-65-0	ng/g	0.17	0.53	0.25	0.011 J	0.093	0.54	0.43	0.032	0.094	0.0086 J
PCB-52	35693-99-3	ng/g	0.79	3.3	1.8	0.098	0.31	5.9	3.5	0.16	0.62	0.068
PCB-54	15968-05-5	ng/g	0.029	0.0092 J	0.0069 JN	< 0.00017 U	0.016	0.034	0.031	0.0074 J	0.0043 J	0.0012 J
PCB-55	74338-24-2	ng/g	0.0024 JN	0.090	0.035	0.0030 J	0.0026 JN	< 0.011 U	< 0.0088 U	< 0.00083 U	0.010	< 0.00083 U
PCB-56	41464-43-1	ng/g	0.040	1.2	0.72	0.023	0.040	0.75	0.85	0.026	0.14	0.016
PCB-57	70424-67-8	ng/g	< 0.0014 U	< 0.0017 U	< 0.0022 U	< 0.0010 U	< 0.0011 U	< 0.011 U	< 0.0089 U	< 0.00085 U	< 0.0014 U	< 0.00084 U
PCB-58	41464-49-7	ng/g	0.0025 JN	< 0.0017 U	0.0026 J	0.0022 JN	< 0.0010 U	0.025	0.025 JN	0.0014 J+	< 0.0013 U	< 0.00085 U
PCB-59/62/75	74472-33-6	ng/g	0.017 JN	0.28	0.16	0.0044 JN	0.013 J	0.19	0.20	0.0098 J	0.042	0.0024 JN
PCB-6	25569-80-6	ng/g	0.0051 J	0.15	0.081	0.0068 JN	0.0057 J	0.083 JN	0.081 JN	0.0033 J+	0.018	< 0.0025 U
PCB-60	33025-41-1	ng/g	0.014	0.61	0.32	0.011 JN	0.010 JN	0.19	0.17	0.010 JN	0.060	0.0073 J
PCB-61/70/74/76	33284-53-6	ng/g	0.21	4.1	2.4	0.11	0.21	4.9	4.0	0.12	0.47	0.079
PCB-63	74472-34-7	ng/g	0.0027 JN	0.050 JN	0.054	0.0020 JN	0.0042 J	0.076	0.067 JN	0.0030 J	0.011	< 0.00077 U
PCB-64	52663-58-8	ng/g	0.046	1.2	0.65	0.023	0.043	0.88	0.83	0.029	0.17	0.016
PCB-66	32598-10-0	ng/g	0.12	2.4	1.4	0.060	0.13	2.5	2.6	0.078	0.28	0.044
PCB-67	73575-53-8	ng/g	0.0039 JN	0.090	0.049	< 0.00094 U	< 0.00099 U	< 0.0099 U	0.033 JN	0.0019 J	0.0091 J	< 0.00073 U
PCB-68	73575-52-7	ng/g	0.0052 JN	< 0.0015 U	< 0.0019 U	0.0022 J	0.0059 J	0.046	0.062	< 0.00074 U	0.0042 J+	< 0.00074 U
PCB-7	33284-50-3	ng/g	0.0012 J	0.015	0.012	< 0.0013 U	0.00098 JN	0.012 JN	< 0.0058 U	< 0.00059 U	0.0036 J	< 0.0025 U
PCB-72	41464-42-0	ng/g	0.0071 JN	< 0.0017 U	0.012	< 0.0010 U	0.0070 J	0.076	0.10	0.0015 JN	0.0043 J	< 0.00082 U
PCB-77	32598-13-3	ng/g	0.010	0.22	0.15	0.0079 JN	0.011	0.19	0.18	0.0065 J	0.023	0.0060 J
PCB-78	70362-49-1	ng/g	< 0.0013 U	< 0.0017 U	< 0.0021 U	< 0.00099 U	< 0.0010 U	< 0.012 U	< 0.0090 U	< 0.00082 U	< 0.0013 U	< 0.00085 U
PCB-79	41464-48-6	ng/g	0.0043 J	< 0.0014 U	0.010 JN	< 0.00084 U	0.0042 J	0.067 JN	0.040	0.0022 J	0.0034 JN	< 0.00074 U
PCB-8	34883-43-7	ng/g	0.017 J	0.79	0.42	0.023 J	0.018 J	0.23	0.27	0.014 J	0.072	0.0071 JN
PCB-80	33284-52-5	ng/g	< 0.0012 U	< 0.0015 U	< 0.0018 U	< 0.00087 U	< 0.00092 U	< 0.0099 U	< 0.0077 U	< 0.00072 U	< 0.0012 U	< 0.00072 U
PCB-81	70362-50-4	ng/g	< 0.0013 U	< 0.0016 U	0.0045 JN	< 0.00092 U	< 0.0010 U	< 0.010 U	< 0.0081 U	< 0.00075 U	< 0.0012 U	< 0.00081 U
PCB-82	52663-62-4	ng/g	0.038	0.31	0.19	0.016 JN	0.040	0.66	0.41	0.036	0.059	0.014
PCB-83/99	60145-20-2	ng/g	0.45	1.0	0.76	0.10	0.35	4.9	3.5	0.18	0.25	0.080
PCB-84	52663-60-2	ng/g	0.11	0.61	0.36	0.036	0.087	2.0	1.2	0.061	0.12	0.020 JN
PCB-85/116/117	65510-45-4	ng/g	0.052	0.38	0.25	0.030 J	0.058	1.0	0.62	0.045	0.075	0.026 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.29	1.2	0.83	0.093	0.25	4.4	2.6	0.17	0.26	0.080
PCB-88/91	55215-17-3	ng/g	0.22	0.34	0.21	0.021 J	0.11	1.4	1.0	0.061	0.072	0.018 JN
PCB-89	73575-57-2	ng/g	0.0040 J	0.060	0.031 JN	< 0.0012 U	0.0039 J	< 0.0015 U	< 0.0018 U	0.0027 JN	0.0071 JN	< 0.00033 U
PCB-9	34883-39-1	ng/g	0.0012 JN	0.034	0.022	< 0.0015 U	0.00090 JN	0.018 JN	< 0.0059 U	< 0.00068 U	0.0043 J	< 0.0026 U
PCB-90/101/113	68194-07-0	ng/g	0.90	1.4	1.1	0.15	0.57	8.4	5.5	0.35	0.39	0.13
PCB-92	52663-61-3	ng/g	0.27	0.29	0.23	0.028	0.13	1.7	1.2	0.070	0.084	0.022 JN
PCB-93/100	73575-56-1	ng/g	0.067	0.047	0.036	0.0029 JN	0.043	0.24 JN	0.18	0.019 JN	0.012 J	0.0027 JN
PCB-94	73575-55-0	ng/g	0.013	0.017	0.0086 JN	< 0.0012 U	0.0089 J	< 0.0015 U	0.043 JN	0.0039 JN	0.0030 JN	< 0.00033 U
PCB-95	38379-99-6	ng/g	1.1	1.4	0.98	0.11	0.46	7.2	4.5	0.29	0.36	0.096
PCB-96	73575-54-9	ng/g	0.015	0.032	0.018	< 0.00093 U	0.011	0.081	0.056	0.0044 JN	0.0048 JN	< 0.00025 U
PCB-98/102	60233-25-2	ng/g	0.034 JN	0.11	0.066	0.0044 JN	0.026	0.25	0.17 JN	0.016	0.019 J	0.0027 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	25	64	43	3.8	13	183	135	11	13	3.0

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B297	B298	B299	B300	B301	B302	B303	B304	B305	B306
		Sample ID	PDI-SG-B297-BL1	PDI-SG-B298-BL1	PDI-SG-B299-BL1	PDI-SG-B300-BL1	PDI-SG-B301-BL1	PDI-SG-B302-BL1	PDI-SG-B303-BL1	PDI-SG-B304-BL1	PDI-SG-B305-BL1	PDI-SG-B306-BL1
		Sample Date	15 Jun 2018	21 May 2018	21 May 2018	22 Apr 2018	15 Jun 2018	24 Apr 2018	24 Apr 2018	14 Jun 2018	21 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-23 cm	0-30 cm	0-30 cm	0-25 cm	0-27 cm	0-28 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.26 J	3.4	< 1.2 U	< 0.67 UJ	0.28 J	0.62 J	0.95 J	< 1.6 U	< 0.88 U	< 1.2 UJ
2,4-DDE	3424-82-6	µg/kg	< 0.36 U	0.83	< 1.2 U	< 0.67 UJ	< 0.38 U	< 0.66 UJ	< 0.71 UJ	< 1.6 U	< 0.88 U	< 1.2 UJ
2,4-DDT	789-02-6	µg/kg	< 0.36 U	< 0.94 U	< 1.2 U	< 0.67 UJ	< 0.38 U	< 0.66 UJ	< 0.71 UJ	< 1.6 U	< 0.94 U	< 1.2 UJ
4,4'-DDD	72-54-8	µg/kg	0.80	10	2.4	0.95 J	0.84	2.1 J	2.8 J	0.88 J	0.80 J	0.78 J
4,4'-DDE	72-55-9	µg/kg	1.4	13	7.1	2.2 J	1.6	6.4 J	7.7 J	1.4 J	1.7	2.2 J
4,4'-DDT	50-29-3	µg/kg	0.32 J	< 0.67 U	1.0 J	0.54 J	3.9	0.67 J	0.52 J	< 1.6 U	< 0.88 U	1.2 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.0	28	11	4.0	6.8	10	12	3.1	3.0	4.8
Aldrin	309-00-2	µg/kg	< 0.36 U	< 0.79 U	< 1.2 U	< 0.67 UJ	< 0.38 U	< 0.66 UJ	< 0.71 UJ	< 1.6 U	< 0.88 U	< 1.2 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 0.71 U	2.0	< 2.4 U	< 1.3 UJ	< 0.76 U	0.41 J	< 1.4 UJ	< 3.2 U	< 1.8 U	< 2.4 UJ
cis-Nonachlor	5103-73-1	µg/kg	< 0.36 U	< 0.97 UJ	< 1.2 UJ	< 0.67 UJ	< 0.38 U	< 0.66 UJ	< 0.71 UJ	< 1.6 U	< 0.97 UJ	< 1.2 UJ
Dieldrin	60-57-1	µg/kg	< 0.71 U	1.6 J	< 2.4 U	< 1.3 UJ	< 0.76 U	< 1.3 UJ	< 1.4 UJ	< 3.2 U	< 2.0 U	< 2.4 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.36 U	< 0.67 U	< 1.2 U	< 0.67 UJ	< 0.38 U	< 0.66 UJ	0.30 J	< 1.6 U	< 0.88 U	< 1.2 UJ
gamma-Chlordane	5566-34-7	µg/kg	< 0.71 U	3.6	< 2.4 U	< 1.3 UJ	< 0.76 U	0.48 J	0.90 J	< 3.2 U	< 1.8 U	< 2.4 UJ
Heptachlor	76-44-8	µg/kg	< 0.36 U	< 0.67 U	< 1.2 U	< 0.67 UJ	< 0.38 U	< 0.66 UJ	< 0.71 UJ	< 1.6 U	< 0.88 U	< 1.2 UJ
Oxychlordane	27304-13-8	µg/kg	< 0.71 U	< 2.0 U	< 2.4 U	< 1.3 UJ	< 0.76 U	< 1.3 UJ	< 1.4 UJ	< 3.2 U	< 2.0 U	< 2.4 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 0.71 U	0.95 J	< 2.4 U	< 1.3 UJ	< 0.76 U	< 1.3 UJ	< 1.4 UJ	< 3.2 U	< 1.8 U	< 2.4 UJ
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 0.71 U	7.55	< 2.4 U	< 1.3 UJ	< 0.76 U	1.54	1.6	< 3.2 U	< 2 U	< 2.4 UJ
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	4.8 J	2.8	5.0	1.2 J	6.3 J	19	15	2.6 J	20 J	1.3 J
Acenaphthene	83-32-9	µg/kg	3.5 J	7.2	5.8	0.98	6.6 J	13	15	2.6 J	49 J	0.49 J
Acenaphthylene	208-96-8	µg/kg	4.0 J	2.2	2.7	0.84	6.7 J	14	15	1.9 J	5.6 J	0.75
Anthracene	120-12-7	µg/kg	6.9 J	9.1	10	2.6	13	30	34	18	8.5 J	2.8
Benz(a)anthracene	56-55-3	µg/kg	14	21	27	6.4	19	140	110	10	6.0 J	6.8
Benzo(a)pyrene	50-32-8	µg/kg	14	20	41	6.9	19	150	140	9.8	6.6 J	7.6
Benzo(b)fluoranthene	205-99-2	µg/kg	22	37	52	12	33	240	220	20	8.0 J	11
Benzo(g,h,i)perylene	191-24-2	µg/kg	15	16 J	29 J	13	18	170	150	11	1.9 J	7.9
Benzo(k)fluoranthene	207-08-9	µg/kg	6.3 J	12	17	3.5	9.7	85	61	5.9 J	2.4 J	3.1
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	< 260 U	260	460	120 J	< 270 U	640	430	< 230 U	210 J	80 J
Chrysene	218-01-9	µg/kg	22	33	47	11	28	170	180	22	9.0 J	11
Dibenz(a,h)anthracene	53-70-3	µg/kg	3.6 J	3.5 J	4.1 J	2.5 J	4.4 J	33	30	4.0 J	0.45 J	1.6
Fluoranthene	206-44-0	µg/kg	42	59	90	15	55	340	320	26	33 J	16
Fluorene	86-73-7	µg/kg	4.7 J	9.9	8.8	1.4	6.8 J	17	20	4.3 J	25 J	0.91
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	18	16	22	10	24	150	130	14	1.6 J	6.5
Naphthalene	91-20-3	µg/kg	14	2.8	4.5	1.4 J	24	32	37	6.5 J	38 J	1.6
Phenanthrene	85-01-8	µg/kg	23	46	53	8.7	36	110	160	17	47 J	8.1
Pyrene	129-00-0	µg/kg	38	56	78	15	56	400	350	26	27 J	18
Total PAHs (b)	T_PAH (PDI)	µg/kg	256	354	497	112	366	2113	1987	202	289	105
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	23	31	55	12	31	237	217	18	9	12
Metals												
Arsenic	7440-38-2	mg/kg	3.8	22	4.2	5.8	4.5	9.3	8.6	4.0	4.3	4.9
Cadmium	7440-43-9	mg/kg	0.21 J	0.25	0.17 J	0.16 J	0.22 J	0.58	0.28 J	0.21 J	0.090 J	0.21 J
Copper	7440-50-8	mg/kg	31	62	36 J	46	38	100	95	28	130	34
Lead	7439-92-1	mg/kg	9.4	73	12 J	11	13	39	33	9.3	8.0	8.4
Mercury	7439-97-6	mg/kg	0.060	0.041	0.068	0.052 J	0.071	0.45	0.18	0.074	0.015 J	0.032 J
Tri-n-butyltin	36643-28-4	µg/kg	< 130 U	2.2	< 2.4 U	< 2.7 U	< 130 U	400	220	< 120 U	< 1.7 U	< 2.4 U
Zinc	7440-66-6	mg/kg	86	270	94 J	100	100	280	240	85	81	83
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	51 J	51 J	84 J	120 J	70 J	150	120 J	48 J	45 J	79 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	340	290	570	550	350	580	420	290	200	390
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	50.7 56.8	72.2	40.7		50.7 55.3			62.6	59.5	
Total Solids@104C - E160.3 (f)	TSOLID	%				35.2		36.0	33.8	61.1		45.0
Total Solids@104C - E160.3M (f)	TSOLID	%	52.8	73.1	40.8	36.5	51.7	37.4	34.8	59.0	56.6	41.1
Total Solids@70C	TSOLID70	%	81	74	41	37	35	39	35	57	56	42
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	2.2	0	0	0.2	0	0	0.1	6.7	0
Sand, Medium	GS-Msand	%	0.8	31.1	0.2	0.2	4.4	0.5	0.4	5.3	27.0	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	23.57	61.48	6.077	8.107	51.93	7.603	6.35	57.02	33.47	17.85
Sand, Fine (#230) (d)	GS-Fsand	%	26.9	62.1	8.5	11.0	60.0	8.8	7.3	61.7	34.8	22.9
Silt (#200) (d)	GS-Silt-200	%	71.72	5.316	81.42	74.09	34.36	67.89	70.64	30.87	28.92	74.44

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B297	B298	B299	B300	B301	B302	B303	B304	B305	B306
		Sample ID	PDI-SG-B297-BL1	PDI-SG-B298-BL1	PDI-SG-B299-BL1	PDI-SG-B300-BL1	PDI-SG-B301-BL1	PDI-SG-B302-BL1	PDI-SG-B303-BL1	PDI-SG-B304-BL1	PDI-SG-B305-BL1	PDI-SG-B306-BL1
		Sample Date	15 Jun 2018	21 May 2018	21 May 2018	22 Apr 2018	15 Jun 2018	24 Apr 2018	24 Apr 2018	14 Jun 2018	21 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-23 cm	0-30 cm	0-30 cm	0-25 cm	0-27 cm	0-28 cm	0-27 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	68.4	4.7	79.0	71.2	26.3	66.7	69.7	26.2	27.6	69.4
Clay	GS-Clay	%	3.9	0	12.2	17.6	9.2	23.9	22.6	6.7	3.9	7.6
Percent Fines (e)	GS-FINES	%	75.62	5.316	93.62	91.69	43.56	91.79	93.24	37.57	32.82	82.04
Total Organic Carbon	TOC	mg/kg	15000	2400	30000	33000	14000	24000	29000	11000	75000	24000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B307	B308	B309	B310	B311	B312	B313	B313	B314	B315
		Sample ID	PDI-SG-B307-BL1	PDI-SG-B308-BL1	PDI-SG-B309-BL1	PDI-SG-B310-BL1	PDI-SG-B311-BL1	PDI-SG-B312-BL1	PDI-SG-B313-BL1	PDI-SG-B313-BL1-D	PDI-SG-B314-BL1	PDI-SG-B315-BL1
		Sample Date	16 Aug 2018	26 Apr 2018	15 Jun 2018	15 Jun 2018	26 Apr 2018	27 Apr 2018	26 Apr 2018	26 Apr 2018	16 Jun 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-28 cm	0-20 cm	0-25 cm	0-27 cm	0-27 cm	0-20 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.054	0.66 J	0.17	0.19	0.035	0.018	0.93	0.80	0.011	0.081
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.010 JN	0.13 J	0.019 JN	0.021 JN	0.023	0.0030 JN	0.099	0.094	0.0027 J	0.015
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0011 J+	0.0067 J	0.0022 J	0.0014 J	< 0.00064 U	< 0.00022 U	0.0081	0.0072	0.0016 J	0.0014 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00059 J+	0.0062 J	0.0016 J	0.0021 J	0.00037 J+	< 0.00027 U	0.011	0.0093	0.00053 JN	0.0010 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0013 J	0.013 J	0.0024 J	0.0031 J	0.00073 J+	< 0.00010 U	0.011	0.012	0.00040 JN	0.0021 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0021 J	0.022 J	0.0042 J	0.0056 J	0.0011 J	0.00092 J+	0.028	0.025	0.00076 JN	0.0047
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00065 J	0.023 J	0.0011 JN	0.0016 J	< 0.0044 U	< 0.000092 U	0.0039 J	< 0.0030 U	0.00041 J	0.0011 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0015 J	0.0096 J	0.0035 J	0.0044 J	0.00052 J+	0.00065 J+	0.011	0.011	0.00088 J	0.0025 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0019 J+	< 0.0011 UJ	0.00075 J+	0.00028 JN	< 0.00018 U	< 0.000072 U	< 0.0018 U	< 0.0025 U	0.00082 J+	0.0012 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00031 J	< 0.0013 UJ	0.00080 J	0.00091 J	< 0.000093 U	< 0.000075 U	< 0.0024 U	< 0.0019 U	0.00023 J	0.00049 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00051 J+	< 0.0012 UJ	0.00044 JN	0.00084 J	< 0.000095 U	< 0.000049 U	< 0.0013 U	< 0.0013 U	0.00013 J	0.00046 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00036 J	0.0034 J	0.00094 J	0.0011 J	< 0.00018 U	< 0.00016 U	< 0.0018 U	< 0.0025 U	0.00048 J	< 0.00019 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00038 J	0.0029 J	0.00065 JN	0.0011 J	< 0.00010 U	< 0.000093 U	< 0.0014 U	0.0029 J	0.00015 J	0.00058 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00016 JN	0.0011 J	0.00032 JN	< 0.00016 U	< 0.000078 U	< 0.000052 U	0.0017	0.0010 J	0.00010 JN	< 0.00013 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00078 J	0.0027 J	0.0011 J	0.00058 J	< 0.000078 U	0.00043 J+	0.0029	0.0028	0.00017 JN	0.00075
OCDD	3268-87-9	µg/kg	0.55	5.5 J	1.4	1.4	0.49	0.16	7.6 J	6.7 J	0.079	0.74
OCDF	39001-02-0	µg/kg	0.052	0.42 J	0.065	0.068	0.096	0.010	0.29	0.26	0.0089	0.038
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0023	0.02	0.0052	0.0058	0.0012	0.0005	0.022	0.02	0.001	0.0033
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0023	0.02	0.0048	0.0058	0.0012	0.00047	0.022	0.02	0.00077	0.0029
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0022	0.02	0.0046	0.0057	0.001	0.00043	0.021	0.019	0.00072	0.0026
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0074 JN	0.10	0.0077 JN	0.0085 J	0.0017 JN	0.0091 J	0.053	0.039 J	< 0.0010 U	0.018
PCB-10	33146-45-1	ng/g	< 0.0020 U	< 0.0058 U	< 0.0020 U	0.0020 JN	0.0027 J	< 0.00083 U	0.0074 JN	< 0.010 U	0.00037 JN	0.0043 JN
PCB-103	60145-21-3	ng/g	0.021	0.12	0.0099 JN	0.0087 JN	0.0034 JN	0.011	0.13	0.14	0.0018 JN	0.038
PCB-104	56558-16-8	ng/g	< 0.00044 U	< 0.00069 U	< 0.00036 U	< 0.00026 U	< 0.00051 U	< 0.00034 U	< 0.0012 U	< 0.0017 U	< 0.000091 U	< 0.00035 U
PCB-105	32598-14-4	ng/g	0.39	0.58	0.23	0.25	0.014	0.20	0.88 J	1.6 J	0.061	0.19
PCB-106	70424-69-0	ng/g	< 0.0043 U	< 0.0050 U	< 0.0025 U	< 0.0021 U	< 0.00080 U	< 0.0019 U	< 0.0067 U	< 0.0065 U	< 0.00047 U	< 0.0026 U
PCB-107	70424-68-9	ng/g	0.075	0.21	0.047	0.051	0.0033 J	0.032	0.34	0.37	0.010	0.072
PCB-108/124	70362-41-3	ng/g	0.057	0.063 JN	0.023 JN	0.026	< 0.00081 U	0.014 JN	0.12	0.17	0.0063 J	0.024
PCB-11	2050-67-1	ng/g	0.050	0.12	0.059	0.061	0.023	0.048	0.12	0.12 JN	0.016 J+	0.040
PCB-110/115	38380-03-9	ng/g	1.5	2.4	0.82	0.90	0.065	0.63	2.6 J	6.1 J	0.17	0.95
PCB-111	39635-32-0	ng/g	< 0.00041 U	< 0.00064 U	0.0031 J	< 0.00024 U	< 0.00045 U	< 0.00031 U	< 0.0012 U	< 0.0016 U	< 0.000081 U	0.0039 JN
PCB-112	74472-36-9	ng/g	< 0.00043 U	0.011 J	0.0034 JN	0.0068 JN	< 0.00050 U	0.0039 JN	< 0.0012 U	0.0095 JN	0.00072 JN	0.0054 J
PCB-114	74472-37-0	ng/g	0.018 JN	0.030	0.014	0.012 JN	< 0.00076 U	0.013 JN	0.033 JN	0.093	0.0034 JN	0.012
PCB-118	31508-00-6	ng/g	1.1	1.9	0.56	0.59	0.043	0.41	2.6 J	4.5 J	0.14	0.61
PCB-12/13	2974-92-7	ng/g	0.0044 J	0.023 J	0.011 JN	0.016 J	0.0014 JN	0.0042 JN	0.019 JN	0.021 JN	0.0011 J	0.010 J
PCB-120	68194-12-7	ng/g	0.0059 JN	0.021	< 0.00032 U	0.0056 J	< 0.00045 U	0.0038 JN	0.017	0.031 JN	< 0.000080 U	0.014
PCB-121	56558-18-0	ng/g	< 0.00043 U	< 0.00067 U	< 0.00034 U	< 0.00025 U	< 0.00049 U	< 0.00033 U	< 0.0012 U	< 0.0017 U	< 0.000086 U	< 0.00034 U
PCB-122	76842-07-4	ng/g	0.013 JN	0.023 JN	0.0092 JN	0.013	< 0.00089 U	0.011	0.030 JN	0.053 JN	0.0035 JN	0.011 JN
PCB-123	65510-44-3	ng/g	0.011 JN	0.025 JN	0.013	0.010 JN	< 0.00072 U	0.011	0.034	0.078	0.0033 JN	0.0092 J
PCB-126	57465-28-8	ng/g	0.032	0.012 JN	< 0.0025 U	0.0029 J	< 0.00075 U	< 0.0018 U	0.016 JN	< 0.0070 U	0.00054 J	< 0.0025 U
PCB-127	39635-33-1	ng/g	< 0.0043 U	< 0.0050 U	< 0.0024 U	< 0.0020 U	< 0.00077 U	< 0.0018 U	< 0.0067 U	< 0.0065 U	< 0.00045 U	< 0.0025 U
PCB-128/166	38380-07-3	ng/g	0.49	0.75	0.19	0.20	0.0087 J	0.072	0.94	1.2	0.049	0.20
PCB-129/138/160/163	55215-18-4	ng/g	3.6	7.1	1.1	1.2	0.077	0.64	9.7	8.7	0.27	1.4
PCB-130	52663-66-8	ng/g	0.20	0.42	0.071	0.082	0.0049 JN	0.039	0.61	0.50	0.018	0.11
PCB-131	61798-70-7	ng/g	0.028 JN	0.072	0.016	0.012 JN	0.0014 J	0.0076 J	0.11	0.11	0.0034 J	0.019
PCB-132	38380-05-1	ng/g	1.3	2.3	0.35	0.39	0.022	0.21	3.4	2.8	0.083	0.49
PCB-133	35694-04-3	ng/g	0.051	0.18	0.014 JN	0.020	0.00040 JN	0.014	0.20	0.17	0.0044 J	0.051
PCB-134/143	52704-70-8	ng/g	0.22	0.46	0.066	0.069	0.0049 JN	0.034	0.71	0.46	0.015 J	0.093
PCB-135/151	52744-13-5	ng/g	0.92	2.1	0.37	0.37	0.047	0.30	2.5	3.0	0.066	0.61
PCB-136	38411-22-2	ng/g	0.40	0.86	0.12	0.12	0.018	0.11	1.1	1.2	0.026	0.23
PCB-137	35694-06-5	ng/g	0.13	0.16	0.046	0.055	0.0021 JN	0.016	0.24	0.31	0.013	0.047
PCB-139/140	56030-56-9	ng/g	0.037 JN	0.12	0.017 JN	0.017 JN	0.00062 JN	0.011 J	0.20	0.16	0.0047 J	0.035
PCB-14	34883-41-5	ng/g	< 0.0016 U	< 0.0045 U	< 0.0015 U	< 0.00059 U	< 0.00072 U	< 0.00065 U	< 0.0045 U	< 0.0077 U	< 0.00015 U	< 0.00045 U
PCB-141	52712-04-6	ng/g	0.66	1.3	0.21	0.23	0.015	0.14	2.0	1.5	0.048	0.27
PCB-142	41411-61-4	ng/g	< 0.0090 U	< 0.013 U	< 0.0033 U	< 0.0044 U	< 0.00038 U	< 0.0015 U	< 0.024 U	< 0.017 U	< 0.00070 U	< 0.0026 U
PCB-144	68194-14-9	ng/g	0.11	0.21	0.046	0.045	0.0039 JN	0.041	0.29	0.30	0.0093 J	0.066
PCB-145	74472-40-5	ng/g	0.0031 JN	< 0.00067 U	< 0.00065 U	< 0.00011 U	< 0.00012 U	< 0.000057 U	< 0.0016 U	< 0.0014 U	0.00012 JN	0.0011 JN
PCB-146	51908-16-8	ng/g	0.55	1.6	0.18	0.18	0.017	0.12	1.9	1.6	0.035	0.38
PCB-147/149	68194-13-8	ng/g	3.8	8.9	0.83	0.89	0.083	0.55	15 J	7.9 J	0.17	1.4
PCB-148	74472-41-6	ng/g	0.0058 JN	0.034	0.0022 JN	0.0030 J	< 0.00015 U	0.0024 JN	0.024	0.027 JN	0.00022 JN	0.014

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B307	B308	B309	B310	B311	B312	B313	B313	B314	B315
		Sample ID	PDI-SG-B307-BL1	PDI-SG-B308-BL1	PDI-SG-B309-BL1	PDI-SG-B310-BL1	PDI-SG-B311-BL1	PDI-SG-B312-BL1	PDI-SG-B313-BL1	PDI-SG-B313-BL1-D	PDI-SG-B314-BL1	PDI-SG-B315-BL1
		Sample Date	16 Aug 2018	26 Apr 2018	15 Jun 2018	15 Jun 2018	26 Apr 2018	27 Apr 2018	26 Apr 2018	26 Apr 2018	16 Jun 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-28 cm	0-20 cm	0-25 cm	0-27 cm	0-27 cm	0-20 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.024	0.11 JN	0.081	0.076	0.0078 JN	0.015 JN	0.12	0.12 JN	0.0024 JN	0.046
PCB-150	68194-08-1	ng/g	0.0052 JN	0.031 JN	0.0021 J	0.0024 JN	0.00050 JN	0.0024 J	0.027 JN	0.034 J	0.00086 J	0.013
PCB-152	68194-09-2	ng/g	0.0037 JN	0.014 JN	0.0017 J	0.0011 JN	< 0.00011 U	0.00066 JN	0.011 J	0.016 J	< 0.000033 U	0.0013 JN
PCB-153/168	35065-27-1	ng/g	2.7	7.1	0.83	0.91	0.080	0.58	11	7.5	0.19	1.3
PCB-154	60145-22-4	ng/g	0.025 JN	0.17	0.024	0.021	0.0027 JN	0.016 JN	0.14 JN	0.20	0.0030 J	0.069 JN
PCB-155	33979-03-2	ng/g	< 0.00064 U	0.0038 J	< 0.00059 U	< 0.000097 U	< 0.00011 U	< 0.000052 U	< 0.0016 U	< 0.0013 U	< 0.000032 U	0.00090 JN
PCB-156/157	38380-08-4	ng/g	0.31	0.50	0.11	0.12	0.0046 JN	0.052	0.64	0.90	0.034	0.12
PCB-158	74472-42-7	ng/g	0.35	0.56	0.11	0.12	0.0077 J	0.064	0.76	0.76	0.027	0.12
PCB-159	39635-35-3	ng/g	0.029	0.058	0.015	0.015	< 0.00024 U	< 0.00092 U	0.084	0.062 J	0.0023 J	0.015
PCB-16	38444-78-9	ng/g	0.029	0.032	0.052	0.053	0.0066 JN	0.049 JN	0.065	0.067 J	0.00067 JN	0.052
PCB-161	74472-43-8	ng/g	< 0.0059 U	< 0.0085 U	< 0.0021 U	< 0.0029 U	< 0.00025 U	< 0.00095 U	< 0.016 U	< 0.012 U	< 0.00046 U	< 0.0017 U
PCB-162	39635-34-2	ng/g	0.013 JN	< 0.0084 U	< 0.0020 U	< 0.0027 U	< 0.00024 U	< 0.00090 U	0.023 JN	< 0.011 U	< 0.00043 U	< 0.0016 U
PCB-164	74472-45-0	ng/g	0.26	0.55	0.075	0.086	0.0059 JN	0.047	0.73	0.62	0.018	0.11
PCB-165	74472-46-1	ng/g	< 0.0068 U	< 0.0096 U	< 0.0024 U	< 0.0033 U	< 0.00029 U	< 0.0011 U	< 0.018 U	< 0.013 U	< 0.00052 U	< 0.0019 U
PCB-167	52663-72-6	ng/g	0.10	0.20	0.040	0.041	0.0013 JN	0.020	0.25	0.29	0.011	0.043
PCB-169	32774-16-6	ng/g	< 0.0046 U	< 0.0082 U	< 0.0016 U	< 0.0021 U	< 0.00018 U	< 0.00066 U	0.068	< 0.010 U	< 0.00034 U	< 0.0012 U
PCB-17	37680-66-3	ng/g	0.052	0.076	0.073	0.074	0.025	0.050	0.11	0.10	0.0025 J	0.092
PCB-170	35065-30-6	ng/g	0.89	2.6	0.32	0.35	0.023	0.18	3.0	2.7	0.055	0.46
PCB-171/173	52663-71-5	ng/g	0.26	0.69	0.099	0.11	0.0078 J	0.067	0.81	0.89	0.017 J	0.15
PCB-172	52663-74-8	ng/g	0.14	0.35	0.063	0.067	< 0.00023 U	0.033	0.46	0.46	0.0089 JN	0.090
PCB-174	38411-25-5	ng/g	0.86	2.2	0.39	0.43	0.032	0.21	3.3	2.8	0.057	0.56
PCB-175	40186-70-7	ng/g	0.033	0.086	0.015	0.017	0.0011 JN	0.0080 J	0.096 JN	0.11	0.0020 JN	0.023
PCB-176	52663-65-7	ng/g	0.11	0.30	0.041	0.042	0.0017 JN	0.026	0.45	0.32	0.0062 J	0.068
PCB-177	52663-70-4	ng/g	0.49	1.4	0.22	0.22	0.018	0.12	1.7	1.7	0.032	0.34
PCB-178	52663-67-9	ng/g	0.17	0.54	0.076	0.084	0.0056 JN	0.043	0.70	0.57	0.011	0.13
PCB-179	52663-64-6	ng/g	0.39	1.2	0.15	0.16	0.013	0.10	1.6	1.2	0.021	0.24
PCB-18/30	37680-65-2	ng/g	0.086	0.097	0.12	0.11	0.022	0.14	0.18	0.17	0.0030 J+	0.11
PCB-180/193	35065-29-3	ng/g	1.7	4.8	0.77	0.85	0.045	0.39	5.9	6.0	0.11	1.0
PCB-181	74472-47-2	ng/g	0.0073 JN	< 0.0017 U	0.0047 JN	< 0.00030 U	< 0.00021 U	< 0.00022 U	< 0.0069 U	< 0.0038 U	< 0.000013 U	< 0.000037 U
PCB-182	60145-23-5	ng/g	0.011	0.023	< 0.0010 U	0.0044 JN	< 0.00020 U	< 0.00021 U	0.037	< 0.0037 U	< 0.000012 U	0.0084 J
PCB-183/185	52663-69-1	ng/g	0.63	1.6	0.23	0.25	0.015 JN	0.13	2.3	1.9	0.036	0.34
PCB-184	74472-48-3	ng/g	< 0.0015 U	< 0.0014 U	< 0.00088 U	< 0.00025 U	< 0.00017 U	< 0.00018 U	< 0.0057 U	< 0.0032 U	< 0.000010 U	< 0.000030 U
PCB-186	74472-49-4	ng/g	< 0.0015 U	< 0.0013 U	< 0.00085 U	< 0.00024 U	< 0.00016 U	< 0.00017 U	< 0.0055 U	< 0.0031 U	< 0.0000099 U	< 0.000029 U
PCB-187	52663-68-0	ng/g	1.0	3.0	0.48	0.52	0.039	0.25	3.8	3.4	0.064	0.70
PCB-188	74487-85-7	ng/g	< 0.0012 U	< 0.0010 U	< 0.00079 U	< 0.00022 U	< 0.00015 U	< 0.00016 U	< 0.0043 U	< 0.0026 U	< 0.0000092 U	< 0.000027 U
PCB-189	39635-31-9	ng/g	0.029 JN	0.079	0.012	0.015	0.0014 JN	0.0069 J	0.11	0.091	0.0017 JN	0.017
PCB-19	38444-73-4	ng/g	0.050	0.078	0.028 JN	0.023 JN	0.025	0.024	0.10	0.082	0.0032 JN	0.057
PCB-190	41411-64-7	ng/g	0.13	0.34	0.067	0.069	0.0032 JN	0.037	0.46	0.46	0.011	0.097
PCB-191	74472-50-7	ng/g	0.028 JN	0.076	0.017	0.016	< 0.00016 U	0.0094 J	0.10	0.11	0.0022 JN	0.018 JN
PCB-192	74472-51-8	ng/g	< 0.0016 U	< 0.0014 U	< 0.00086 U	< 0.00024 U	< 0.00017 U	< 0.00017 U	< 0.0058 U	< 0.0032 U	< 0.000010 U	< 0.000029 U
PCB-194	35694-08-7	ng/g	0.44	1.2	0.24	0.29	0.0097	0.073	1.7	1.4	0.024	0.27
PCB-195	52663-78-2	ng/g	0.17	0.54	0.088	0.10	0.0047 JN	0.031	0.84	0.56	0.010	0.11
PCB-196	42740-50-1	ng/g	0.17	0.46	0.12	0.14	0.0052 JN	0.037	0.74	0.61	0.012	0.13
PCB-197	33091-17-7	ng/g	0.016	0.030	0.0074 JN	0.010 J	< 0.000067 U	0.0032 J	0.040	0.035 JN	0.00087 J	0.0095 J
PCB-198/199	68194-17-2	ng/g	0.36	0.85	0.31	0.36	0.015 J	0.090	1.3	1.2	0.026	0.27
PCB-2	2051-61-8	ng/g	0.012	0.039	0.0052 JN	0.0062 JN	0.0018 JN	0.032	0.055	0.060 J	0.0019 J+	0.0067 JN
PCB-20/28	38444-84-7	ng/g	0.13	0.29	0.35	0.31	0.043 JN	0.21	0.45	0.42	0.013 J	0.28
PCB-200	52663-73-7	ng/g	0.036	0.12	0.030	0.038	0.00087 JN	0.010	0.17	0.14	0.0029 J	0.032
PCB-201	40186-71-8	ng/g	0.037	0.10	0.027 JN	0.038	0.00098 JN	0.011 JN	0.14	0.15	0.0031 JN	0.031
PCB-202	2136-99-4	ng/g	0.087	0.22	0.063	0.073	0.00079 JN	0.016	0.33	0.25	0.0054 JN	0.053
PCB-203	52663-76-0	ng/g	0.22	0.57	0.20	0.23	0.0086 J	0.053	0.80	0.79	0.016	0.16
PCB-204	74472-52-9	ng/g	< 0.0016 U	< 0.0017 U	< 0.0015 U	< 0.0010 U	< 0.000073 U	< 0.00020 U	< 0.0040 U	< 0.0030 U	< 0.000059 U	< 0.00037 U
PCB-205	74472-53-0	ng/g	< 0.0084 U	0.052 JN	0.0084 JN	0.012	0.00032 JN	0.0045 J	0.071 JN	0.059 JN	0.0013 J	0.014
PCB-206	40186-72-9	ng/g	0.63	0.44	0.23 JN	0.24	0.015	0.036 JN	0.69	0.58	0.010	0.11
PCB-207	52663-79-3	ng/g	0.048	0.035	0.015	0.021	< 0.00053 U	0.0042 J	0.053 JN	0.067 J	0.0010 J	0.014
PCB-208	52663-77-1	ng/g	0.25	0.13	0.041	0.050	0.0023 J	0.011	0.16	0.17	0.0027 J	0.031
PCB-209	2051-24-3	ng/g	1.5	0.57	0.11	0.13	0.0058 J	0.019	0.33 J	1.1 J	0.0085 J	0.093
PCB-21/33	55702-46-0	ng/g	0.051	0.11	0.14	0.13	0.018 J	0.11	0.18	0.17	0.0098 J	0.12
PCB-22	38444-85-8	ng/g	0.033	0.050	0.11	0.098	0.010 JN	0.074	0.087	0.083	0.0030 J	0.063
PCB-23	55720-44-0	ng/g	< 0.0014 U	< 0.0014 U	< 0.0034 U	< 0.0020 U	< 0.00081 U	< 0.0016 U	< 0.0017 U	< 0.0024 U	< 0.00032 U	< 0.0018 U
PCB-24	55702-45-9	ng/g	0.0027 JN	< 0.00082 U	< 0.0010 U	0.0018 J	< 0.00021 U	< 0.00062 U	0.0027 JN	0.0039 JN	< 0.000050 U	0.0023 JN
PCB-25	55712-37-3	ng/g	0.0094 J	0.024	0.036	0.035	0.0071 J	0.0095 J	0.036	0.035 J	0.0015 J	0.026

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B307	B308	B309	B310	B311	B312	B313	B313	B314	B315
		Sample ID	PDI-SG-B307-BL1	PDI-SG-B308-BL1	PDI-SG-B309-BL1	PDI-SG-B310-BL1	PDI-SG-B311-BL1	PDI-SG-B312-BL1	PDI-SG-B313-BL1	PDI-SG-B313-BL1-D	PDI-SG-B314-BL1	PDI-SG-B315-BL1
		Sample Date	16 Aug 2018	26 Apr 2018	15 Jun 2018	15 Jun 2018	26 Apr 2018	27 Apr 2018	26 Apr 2018	26 Apr 2018	16 Jun 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-28 cm	0-20 cm	0-25 cm	0-27 cm	0-27 cm	0-20 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.016 J	0.034 J	0.056	0.057	0.012 JN	0.023	0.059	0.052 J	0.0019 J	0.038
PCB-27	38444-76-7	ng/g	0.012	0.023	0.017 JN	0.017	0.0097	0.0082 J	0.029 JN	0.030 J	0.00067 JN	0.026
PCB-3	2051-62-9	ng/g	0.0031 JN	0.042 JN	0.0096 J	0.011 J	0.0035 JN	0.020	0.043 JN	0.032 JN	0.0016 JN	0.013
PCB-31	16606-02-3	ng/g	0.094	0.17	0.24	0.23	0.034	0.23	0.28	0.26	0.0076 J	0.17
PCB-32	38444-77-8	ng/g	0.040	0.058	0.052	0.050	0.014	0.046	0.072	0.078	0.0025 J	0.054
PCB-34	37680-68-5	ng/g	< 0.0015 U	< 0.0015 U	< 0.0035 U	< 0.0021 U	< 0.00083 U	< 0.0016 U	0.0051 J	< 0.0025 U	< 0.00034 U	0.0035 J
PCB-35	37680-69-6	ng/g	< 0.0015 U	0.0057 J	0.0061 JN	0.0066 J	< 0.00079 U	0.0055 J	0.0086 J	0.011 JN	< 0.00032 U	0.0058 J
PCB-36	38444-87-0	ng/g	< 0.0014 U	< 0.0014 U	< 0.0030 U	< 0.0018 U	< 0.00072 U	< 0.0014 U	< 0.0017 U	< 0.0023 U	< 0.00029 U	< 0.0016 U
PCB-37	38444-90-5	ng/g	0.044	0.11	0.11	0.098	0.0096 JN	0.060	0.15	0.16	0.0058 J	0.064
PCB-38	53555-66-1	ng/g	< 0.0015 U	< 0.0015 U	< 0.0033 U	< 0.0020 U	< 0.00078 U	< 0.0015 U	< 0.0018 U	< 0.0025 U	< 0.00032 U	< 0.0017 U
PCB-39	38444-88-1	ng/g	< 0.0014 U	< 0.0013 U	< 0.0030 U	< 0.0018 U	< 0.00071 U	< 0.0014 U	< 0.0016 U	< 0.0023 U	< 0.00029 U	< 0.0016 U
PCB-4	13029-08-8	ng/g	0.042	0.065	0.031 JN	0.039	0.038	0.012 JN	0.072	0.062 JN	0.0025 JN	0.044 JN
PCB-40/41/71	38444-93-8	ng/g	0.17	0.41	0.17	0.16	0.023 J	0.25	0.56	0.44	0.0091 JN	0.18
PCB-42	36559-22-5	ng/g	0.078	0.17	0.084	0.077	0.0085 J	0.11	0.25	0.18	0.0067 J	0.097
PCB-43/73	70362-46-8	ng/g	0.019 JN	0.042	0.014 JN	0.0095 JN	0.0036 J	0.018 J	0.027 J	< 0.0098 U	0.00079 JN	0.011 JN
PCB-44/47/65	41464-39-5	ng/g	0.53	1.4	0.37	0.33	0.078	0.46	1.8	1.6	0.035	0.53
PCB-45/51	70362-45-7	ng/g	0.11	0.52	0.075	0.062	0.025 JN	0.090	0.50	0.37	0.0057 JN	0.13
PCB-46	41464-47-5	ng/g	0.028	0.045	0.020 JN	0.016 JN	0.0029 J	0.028	0.068	0.048 J	0.0014 J	0.021
PCB-48	70362-47-9	ng/g	0.054	0.081	0.058	0.050	0.0050 JN	0.086	0.12	0.096	0.0024 J	0.045 JN
PCB-49/69	41464-40-8	ng/g	0.30	0.80	0.22	0.20	0.043	0.26	1.1	0.98	0.029	0.34
PCB-5	16605-91-7	ng/g	< 0.0021 U	< 0.0059 U	< 0.0018 U	0.0013 J	< 0.00086 U	< 0.00078 U	< 0.0060 U	< 0.010 U	< 0.00018 U	< 0.00054 U
PCB-50/53	62796-65-0	ng/g	0.098	0.35	0.057	0.045 JN	0.031	0.074	0.41	0.29	0.0084 J	0.091
PCB-52	35693-99-3	ng/g	0.95	1.4	0.44	0.44	0.064	0.57	2.2	2.7	0.050	0.61
PCB-54	15968-05-5	ng/g	0.0067 JN	0.037 JN	0.0024 J	0.0037 J	0.0048 JN	0.0047 JN	0.030	0.026 JN	0.0010 J	0.011
PCB-55	74338-24-2	ng/g	0.0084 JN	0.0056 JN	< 0.0016 U	< 0.0013 U	< 0.00042 U	0.012	< 0.0050 U	0.010 J	< 0.00031 U	0.0083 JN
PCB-56	41464-43-1	ng/g	0.11	0.23	0.14	0.12	0.011 JN	0.22	0.32	0.35	0.014 JN	0.12
PCB-57	70424-67-8	ng/g	< 0.00042 U	< 0.0037 U	< 0.0017 U	< 0.0013 U	< 0.00043 U	< 0.0013 U	< 0.0050 U	< 0.0077 U	< 0.00031 U	< 0.00095 U
PCB-58	41464-49-7	ng/g	< 0.00042 U	0.0069 JN	< 0.0016 U	< 0.0013 U	< 0.00042 U	< 0.0013 U	0.012 J	< 0.0078 U	< 0.00030 U	0.0044 J
PCB-59/62/75	74472-33-6	ng/g	0.032	0.080	0.029 J	0.027 J	0.0028 JN	0.038	0.11	0.072 J	0.0020 JN	0.038
PCB-6	25569-80-6	ng/g	0.0056 JN	0.029 JN	0.020	0.021	0.0063 JN	0.0042 JN	0.036 JN	0.020 JN	0.00074 J	0.023
PCB-60	33025-41-1	ng/g	0.044 JN	0.062	0.061	0.052	0.0048 JN	0.13	0.094 JN	0.12	0.0036 J	0.032
PCB-61/70/74/76	33284-53-6	ng/g	0.64	1.1	0.50	0.48	0.049	0.78	1.8	2.3	0.052	0.55
PCB-63	74472-34-7	ng/g	0.012	0.024	0.0084 JN	0.010 J	0.0017 J	0.015	0.035	0.028 JN	0.00082 J	0.013
PCB-64	52663-58-8	ng/g	0.15	0.25	0.12	0.11	0.011	0.20	0.40	0.39	0.0093 J	0.12
PCB-66	32598-10-0	ng/g	0.27	0.77	0.33	0.31	0.025 JN	0.41	1.2	1.0	0.031	0.35
PCB-67	73575-53-8	ng/g	0.0077 J	0.015 J	0.0093 JN	0.0048 JN	0.00074 J	0.0091 J	0.014 JN	< 0.0067 U	< 0.00029 U	0.0081 J
PCB-68	73575-52-7	ng/g	0.0058 J	0.020 JN	0.0095 J	0.0045 J	0.0028 JN	0.0039 J	0.027 JN	< 0.0068 U	0.00066 J	0.014
PCB-7	33284-50-3	ng/g	< 0.0019 U	0.0092 JN	0.0035 JN	0.0033 J	< 0.00081 U	< 0.00073 U	0.012 J	0.012 JN	0.00059 J	0.0040 JN
PCB-72	41464-42-0	ng/g	0.0057 JN	0.026	0.0047 JN	0.0066 J	< 0.00042 U	0.0041 J	0.036	0.026 J	0.00072 J	0.015
PCB-77	32598-13-3	ng/g	0.023 JN	0.067	0.037	0.030	0.0025 J	0.041	0.11	0.11	0.0054 JN	0.029
PCB-78	70362-49-1	ng/g	< 0.00042 U	< 0.0038 U	< 0.0016 U	< 0.0013 U	< 0.00042 U	< 0.0013 U	< 0.0051 U	< 0.0078 U	< 0.00030 U	< 0.00092 U
PCB-79	41464-48-6	ng/g	0.0097	0.013 J	0.0055 JN	0.0062 J	< 0.00036 U	0.0049 J	0.017 JN	0.031 JN	0.0012 J	0.0084 J
PCB-8	34883-43-7	ng/g	0.021	0.12 JN	0.072	0.070	0.021 JN	0.023	0.12	0.12 J	0.0029 JN	0.086
PCB-80	33284-52-5	ng/g	0.0021 JN	< 0.0032 U	< 0.0014 U	< 0.0011 U	< 0.00037 U	< 0.0011 U	< 0.0043 U	< 0.0066 U	< 0.00027 U	< 0.00081 U
PCB-81	70362-50-4	ng/g	0.0024 JN	< 0.0036 U	< 0.0015 U	< 0.0012 U	< 0.00039 U	< 0.0012 U	< 0.0048 U	< 0.0071 U	< 0.00028 U	< 0.00088 U
PCB-82	52663-62-4	ng/g	0.13	0.16	0.095	0.088 JN	0.0034 JN	0.089	0.16 J	0.53 J	0.016	0.092
PCB-83/99	60145-20-2	ng/g	0.63	1.5	0.41	0.45	0.040	0.37	1.7 J	3.2 J	0.082	0.64
PCB-84	52663-60-2	ng/g	0.37	0.49	0.17	0.19	0.013	0.16	0.68 J	1.3 J	0.032	0.23
PCB-85/116/117	65510-45-4	ng/g	0.18	0.26	0.12	0.13	0.0056 JN	0.12	0.30 J	0.75 J	0.023 J	0.12
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.76	1.1	0.42	0.46	0.033 J	0.39	1.3 J	3.2 J	0.088	0.48
PCB-88/91	55215-17-3	ng/g	0.21	0.53	0.11	0.12	0.020	0.11	0.61	0.90	0.022	0.19
PCB-89	73575-57-2	ng/g	0.0092 JN	< 0.0010 U	0.0074 JN	0.0058 JN	< 0.00075 U	0.011 JN	< 0.0019 U	< 0.0026 U	< 0.00013 U	0.0093 J
PCB-9	34883-39-1	ng/g	< 0.0019 U	0.011 JN	0.0033 JN	0.0041 J	0.0033 J	0.0019 JN	0.014 JN	0.011 JN	< 0.00020 U	0.0050 J
PCB-90/101/113	68194-07-0	ng/g	1.4	2.6	0.65	0.71	0.077	0.60	3.0 J	5.7 J	0.14	0.97
PCB-92	52663-61-3	ng/g	0.27	0.59	0.14	0.15	0.018	0.11	0.64 J	1.1 J	0.027	0.24
PCB-93/100	73575-56-1	ng/g	0.021	0.19	0.025	0.021 J	0.0040 JN	0.021	0.17	0.16 JN	0.00090 JN	0.046
PCB-94	73575-55-0	ng/g	< 0.00065 U	0.055	< 0.00054 U	0.0051 JN	0.0022 JN	0.0050 J	0.040 JN	< 0.0026 U	0.0012 J	0.010
PCB-95	38379-99-6	ng/g	1.6	2.2	0.55	0.60	0.062	0.50	3.0	4.6	0.11	0.84
PCB-96	73575-54-9	ng/g	0.013	0.041	0.0057 J	0.0066 J	< 0.00057 U	0.0074 JN	0.042	0.047 J	0.0012 J	0.013
PCB-98/102	60233-25-2	ng/g	0.034 JN	0.13	0.026 JN	0.033 JN	0.0034 JN	0.027 JN	0.13	0.18	0.0048 J	0.040
Total PCBs (b)	T_PCBCg (PDI)	ng/g	40	85	18	19	1.8	14	117	118	3.0	23

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B307	B308	B309	B310	B311	B312	B313	B313	B314	B315
		Sample ID	PDI-SG-B307-BL1	PDI-SG-B308-BL1	PDI-SG-B309-BL1	PDI-SG-B310-BL1	PDI-SG-B311-BL1	PDI-SG-B312-BL1	PDI-SG-B313-BL1	PDI-SG-B313-BL1-D	PDI-SG-B314-BL1	PDI-SG-B315-BL1
		Sample Date	16 Aug 2018	26 Apr 2018	15 Jun 2018	15 Jun 2018	26 Apr 2018	27 Apr 2018	26 Apr 2018	26 Apr 2018	16 Jun 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-28 cm	0-20 cm	0-25 cm	0-27 cm	0-27 cm	0-20 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.0	< 0.88 UJ	< 0.47 U	0.33 J	< 0.35 UJ	< 0.36 U	0.64 J	0.64 J	< 0.30 U	< 0.70 U
2,4-DDE	3424-82-6	µg/kg	< 0.32 U	< 0.88 UJ	< 0.47 U	< 0.46 U	< 0.40 UJ	< 0.40 U	< 0.75 UJ	< 0.75 UJ	< 0.30 U	< 0.79 U
2,4-DDT	789-02-6	µg/kg	0.41 J	< 0.88 UJ	< 0.47 U	< 0.46 U	< 0.47 UJ	0.96	< 0.75 UJ	< 0.75 UJ	< 0.30 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	3.2	1.8 J	0.98	1.2	0.27 J	0.40	2.3 J	2.4 J	0.13 J	0.52 J
4,4'-DDE	72-55-9	µg/kg	2.2	4.2 J	2.1	2.6	0.36 J	0.59	4.5 J	4.5 J	0.27 J	0.81
4,4'-DDT	50-29-3	µg/kg	1.0	0.45 J	0.34 J	0.46 J	< 0.35 UJ	< 0.36 U	0.81 J	0.53 J	< 0.30 U	< 0.70 U
Total DDx (b)	T_DDx (PDI)	µg/kg	8.0	6.9	3.7	4.8	0.9	2.2	8.6	8.4	0.55	1.8
Aldrin	309-00-2	µg/kg	< 0.32 U	< 0.88 UJ	< 0.47 U	< 0.46 U	< 0.40 UJ	< 0.40 U	< 0.75 UJ	< 0.75 UJ	< 0.30 U	< 0.79 U
alpha-Chlordane	5103-71-9	µg/kg	0.22 J	< 1.8 UJ	< 0.93 U	0.39 J	< 0.70 UJ	< 0.71 U	< 1.5 UJ	< 1.5 UJ	< 0.59 U	< 1.4 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.32 U	< 0.88 UJ	< 0.47 U	< 0.46 U	< 0.49 UJ	< 0.49 U	< 0.75 UJ	< 0.75 UJ	< 0.30 U	< 0.97 UJ
Dieldrin	60-57-1	µg/kg	< 0.64 U	< 1.8 UJ	< 0.93 U	< 0.93 U	< 1.0 UJ	< 1.0 U	< 1.5 UJ	< 1.5 UJ	< 0.59 U	< 2.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.32 U	< 0.88 UJ	< 0.47 U	< 0.46 U	< 0.35 UJ	< 0.36 U	< 0.75 UJ	0.30 J	< 0.30 U	< 0.70 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.64 U	< 1.8 UJ	< 0.93 U	0.35 J	< 0.70 UJ	< 0.71 U	< 1.5 UJ	0.56 J	< 0.59 U	< 1.4 U
Heptachlor	76-44-8	µg/kg	< 0.32 U	< 0.88 UJ	< 0.47 U	< 0.46 U	< 0.35 UJ	< 0.36 U	< 0.75 UJ	< 0.75 UJ	< 0.30 U	< 0.70 U
Oxychlordane	27304-13-8	µg/kg	< 0.64 U	< 1.8 UJ	< 0.93 U	< 0.93 U	< 1.0 UJ	< 1.0 U	< 1.5 UJ	< 1.5 UJ	< 0.59 U	< 2.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.64 U	< 1.8 UJ	< 0.93 U	< 0.93 U	< 0.70 UJ	< 0.71 U	0.52 J	0.47 J	< 0.59 U	< 1.4 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	0.54	< 1.8 UJ	< 0.93 U	1.21	< 1 UJ	< 1 U	1.27	1.78	< 0.59 U	< 2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	15	5.8 J	6.6 J	7.3 J	3.1	1.3	11 J	11 J	0.78 J	7.9
Acenaphthene	83-32-9	µg/kg	21	6.7	11	12	18	1.4	17	14	< 6.5 U	12
Acenaphthylene	208-96-8	µg/kg	5.2 J	13	7.0 J	6.6 J	1.4	0.96	28	25	1.2 J	5.9
Anthracene	120-12-7	µg/kg	53	28	26	27	4.9	3.4	57	44	2.2 J	13
Benz(a)anthracene	56-55-3	µg/kg	83	110	56	43	13	8.3	240	170	11	37
Benzo(a)pyrene	50-32-8	µg/kg	73	120	28	23	13	11	260	210	9.7	53
Benzo(b)fluoranthene	205-99-2	µg/kg	85	220	92	59	15	15	420	340	17	64
Benzo(g,h,i)perylene	191-24-2	µg/kg	57	130	24	21	12	11	220	190	7.4	35 J
Benzo(k)fluoranthene	207-08-9	µg/kg	25	75	21	18	4.7	4.8	140	120	5.2 J	26
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	57 J	640	76 J	78 J	13 J	38 J	1300 J	2500 J	< 210 U	230
Chrysene	218-01-9	µg/kg	93	200	96	64	14	12	390	280	11	55
Dibenz(a,h)anthracene	53-70-3	µg/kg	13 J	24	7.0 J	4.9 J	2.8	2.1	47	38	2.7 J	6.4 J
Fluoranthene	206-44-0	µg/kg	130	290	200	180	25	20	600	430	18	97
Fluorene	86-73-7	µg/kg	20	11	18	16	6.2	1.7	26	22	0.80 J	7.1
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	53	110	34	29	11	10	210	170	11	34
Naphthalene	91-20-3	µg/kg	14 J	14	11	13	23	3.9	26	25	1.6 J	16
Phenanthrene	85-01-8	µg/kg	180	77	84	90	35	9.4	210	140	5.3 J	61
Pyrene	129-00-0	µg/kg	200	340	160	130	27	22	640	480	22	110
Total PAHs (b)	T_PAH (PDI)	µg/kg	1120	1775	882	744	229	138	3542	2709	130	640
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	108	189	54	41	20	16	396	317	16	73
Metals												
Arsenic	7440-38-2	mg/kg	3.8	9.2	5.3	4.8	0.21	3.1	9.4	8.8	9.9	5.4
Cadmium	7440-43-9	mg/kg	0.15 J	0.40 J	0.28 J	0.28 J	< 0.15 U	0.10 J	0.62	0.62	0.072 J	0.21
Copper	7440-50-8	mg/kg	31	100	48	42	2.2	25	110	100	16	30
Lead	7439-92-1	mg/kg	15	30	15	12	0.13 J	6.8	42	43	6.4	14
Mercury	7439-97-6	mg/kg	0.061	0.17	0.064	0.077	0.023 J	0.024 J	0.21	0.20	0.039	0.039
Tri-n-butyltin	36643-28-4	µg/kg	< 120 U	120	< 150 U	< 150 U	< 1.4 U	48	210	180	< 100 U	50
Zinc	7440-66-6	mg/kg	88	250	120	100	2.3	61	270	270	58	110
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	76 J	44 J	73 J	82 J	< 61 U	17 J	66 J	69 J	19 J	40 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	530	240	530	560	110	120	370	320	150	180
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	61.6		40.7 47.6	39.5 46.6					68.8 69.9	69.8
Total Solids@104C - E160.3 (f)	TSOLID	%		28.0			75.5	75.1	33.3	35.2		
Total Solids@104C - E160.3M (f)	TSOLID	%	58.4	28.1	42.4	40.2	70.4	69.9	32.8	33.0	67.5	70.7
Total Solids@70C	TSOLID70	%	59	30	42	41	72	78	35	35	71	73
Gravel	GS-Gravel	%	0	0	0	0	0	23.1	0.6		3.8	0
Sand, Coarse	GS-Csand	%	0.9	0.1	0	0	0.9	11.3	0.1		2.8	2.3
Sand, Medium	GS-Msand	%	11.3	0.2	0.3	0.2	32.1	21.8	1.5		30.5	51.0
Sand, Fine (#200) (d)	GS-Fsand-200	%	46.94	3.551	8.159	5.633	52.75	22.65	14.45		51.69	27.52
Sand, Fine (#230) (d)	GS-Fsand	%	53.4	4.3	11.2	7.5	53.9	24.2	17.2		52.6	29.2
Silt (#200) (d)	GS-Silt-200	%	36.45	67.14	83.64	83.66	10.34	16.34	65.84		9.604	17.67

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B307	B308	B309	B310	B311	B312	B313	B313	B314	B315
		Sample ID	PDI-SG-B307-BL1	PDI-SG-B308-BL1	PDI-SG-B309-BL1	PDI-SG-B310-BL1	PDI-SG-B311-BL1	PDI-SG-B312-BL1	PDI-SG-B313-BL1	PDI-SG-B313-BL1-D	PDI-SG-B314-BL1	PDI-SG-B315-BL1
		Sample Date	16 Aµg 2018	26 Apr 2018	15 Jun 2018	15 Jun 2018	26 Apr 2018	27 Apr 2018	26 Apr 2018	26 Apr 2018	16 Jun 2018	22 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-28 cm	0-20 cm	0-25 cm	0-27 cm	0-27 cm	0-20 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	30.0	66.4	80.6	81.8	9.2	14.8	63.1		8.7	16.0
Clay	GS-Clay	%	4.4	29.0	7.9	10.5	4.0	4.8	17.4		1.6	1.6
Percent Fines (e)	GS-FINES	%	40.85	96.14	91.54	94.16	14.34	21.14	83.24		11.204	19.27
Total Organic Carbon	TOC	mg/kg	42000	27000	29000	30000	5400	6800	37000	40000	4000	6700

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B315	B316	B317	B318	B319	B320	B321	B322	B323	B324
		Sample ID	PDI-SG-B315-BL1-D	PDI-SG-B316-BL1	PDI-SG-B317-BL1	PDI-SG-B318-BL1	PDI-SG-B319-BL1	PDI-SG-B320-BL1	PDI-SG-B321-BL1	PDI-SG-B322-BL1	PDI-SG-B323-BL1	PDI-SG-B324-BL1
		Sample Date	22 May 2018	02 Jun 2018	03 Jun 2018	23 May 2018	23 May 2018	23 May 2018	26 Apr 2018	26 Apr 2018	23 Apr 2018	23 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.076	0.10	0.16	0.082	0.026	0.014	0.042	0.048	0.030	0.073
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.015	0.011 JN	0.015	0.059	0.0059	0.0034 J	0.0083	0.0086 JN	0.0061 JN	0.014
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0011 JN	0.0014 J+	0.0016 J+	0.0022 J+	0.00073 J+	< 0.00026 U	< 0.00042 U	< 0.00049 U	< 0.00045 U	0.0012 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0011 J	0.00087 J	0.0011 JN	0.00076 J+	0.00033 J+	0.00033 JN	0.00059 JN	0.00085 J+	0.00058 J+	0.00083 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0021 J	0.0013 J	0.0016 J	0.0022 J	0.0013 J	0.00040 JN	0.00081 JN	< 0.00032 U	0.00050 J+	0.0010 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0035 J	0.0024 J	0.0036 JN	0.0039 J	0.0012 J	0.00073 J	0.0021 JN	0.0022 J	0.0015 J+	0.0039 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0012 J	0.00060 J	0.00072 J	0.0094	0.00035 JN	0.00037 J	< 0.0021 U	< 0.0024 U	< 0.00030 U	0.00066 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0021 JN	0.0019 J	0.0028 J	0.0019 J	0.00064 J	0.00061 J	0.0014 J	0.0013 JN	0.00094 JN	0.0022 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00017 U	0.0011 J+	0.00064 J+	0.00067 J+	< 0.00048 U	< 0.000091 U	< 0.00017 U	< 0.00021 U	< 0.00017 U	< 0.00051 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00060 JN	0.00049 J	0.00050 J	0.00058 J	0.00016 J+	< 0.00012 U	< 0.00028 U	< 0.00024 U	0.00029 J+	0.00044 J+
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00046 JN	0.00054 J	0.00066 J	0.00095 J	0.00020 JN	< 0.000096 U	< 0.00021 U	< 0.00018 U	< 0.00014 U	0.00041 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00054 JN	0.00039 JN	0.00056 J	0.00095 J	0.00021 J+	< 0.000096 U	0.00031 JN	< 0.00022 U	< 0.00022 U	0.00033 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00018 U	0.00045 J	0.00086 J	0.00087 J	0.00038 J+	< 0.00011 U	< 0.00022 U	< 0.00019 U	< 0.00015 U	0.00038 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00075 JN	0.00030 JN	0.00046 J+	0.00032 JN	< 0.00017 U	0.00033 JN	0.00017 JN	< 0.00014 U	< 0.00012 U	0.00037 J+
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00084	0.00089 J+	0.0013	< 0.00076 U	0.00030 JN	0.00035 J	0.00068 J	0.00025 JN	0.00035 J+	0.0015
OCDD	3268-87-9	µg/kg	0.66	0.74	1.1	1.8	0.19	0.12	0.35	0.41	0.25	0.64
OCDF	39001-02-0	µg/kg	0.047	0.047	0.037	0.069	0.017	0.0084	0.024	0.027	0.019	0.043
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0037	0.0032	0.0046	0.0052	0.0012	0.00088	0.0015	0.0013	0.0012	0.0031
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.003	0.0031	0.0043	0.005	0.0011	0.00058	0.00096	0.0011	0.0011	0.0031
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0027	0.0029	0.0041	0.0048	0.001	0.00042	0.00082	0.001	0.001	0.0031
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.017	0.0066 J	0.0087 J	< 0.00087 U	< 0.00031 U	0.0018 J	< 0.0017 U	< 0.00028 U	< 0.00026 U	0.017
PCB-10	33146-45-1	ng/g	0.0041 J	0.0015 JN	0.0012 JN	< 0.0030 U	< 0.0037 U	< 0.0026 U	< 0.0034 U	< 0.0067 UJ	< 0.0023 U	< 0.0044 U
PCB-103	60145-21-3	ng/g	0.040	0.011 J	0.015	0.0074 JN	0.0091 J	0.0098	< 0.00066 U	< 0.00077 U	0.0020 JN	0.078
PCB-104	56558-16-8	ng/g	< 0.00024 U	< 0.00073 U	< 0.00040 U	< 0.00019 U	< 0.00024 U	< 0.00010 U	< 0.00050 U	< 0.00059 U	< 0.00025 U	< 0.00029 U
PCB-105	32598-14-4	ng/g	0.14	0.22	0.47	0.12	0.092	0.065	0.093	0.065	0.039	0.20
PCB-106	70424-69-0	ng/g	< 0.0016 U	< 0.0027 U	< 0.0024 U	< 0.0036 U	< 0.0011 U	< 0.0017 U	< 0.0019 U	< 0.0019 U	< 0.00096 U	< 0.0023 U
PCB-107	70424-68-9	ng/g	0.066	0.046	0.097	< 0.0038 U	0.021	0.028 JN	0.021	0.016 JN	0.0067 JN	0.093
PCB-108/124	70362-41-3	ng/g	0.017 J	0.024 J	0.052	< 0.0037 U	0.010 J	0.0050 JN	0.0071 JN	0.0063 J	0.0041 J	0.020 JN
PCB-11	2050-67-1	ng/g	0.026	0.057	0.057	0.027 J+	0.030 J+	0.035	0.043	0.039 JN	0.067 JN	0.11
PCB-110/115	38380-03-9	ng/g	0.83	0.78	1.8	0.69	0.39	0.38	0.34	0.24	0.13	0.86
PCB-111	39635-32-0	ng/g	0.0046 J	< 0.00065 U	< 0.00036 U	< 0.00018 U	< 0.00023 U	< 0.000093 U	< 0.00046 U	< 0.00055 U	< 0.00023 U	< 0.00027 U
PCB-112	74472-36-9	ng/g	0.0046 JN	< 0.00071 U	< 0.00039 U	< 0.00019 U	< 0.00024 U	0.0054 J	< 0.00049 U	< 0.00057 U	< 0.00024 U	< 0.00028 U
PCB-114	74472-37-0	ng/g	0.010	0.011 J	0.027	< 0.0035 U	0.0048 J	0.0041 JN	< 0.0017 U	0.0028 J	< 0.00092 U	0.0081 JN
PCB-118	31508-00-6	ng/g	0.47	0.55	1.2	0.41	0.24	0.22	0.23	0.16	0.095	0.65
PCB-12/13	2974-92-7	ng/g	0.0061 J	0.0060 JN	0.011 J	< 0.0027 U	< 0.0033 U	0.0030 JN	< 0.0031 U	< 0.0060 UJ	< 0.0021 U	0.018 J
PCB-120	68194-12-7	ng/g	0.013 JN	0.0046 JN	0.0077 JN	0.012 JN	0.0030 J	0.0033 J	< 0.00047 U	< 0.00055 U	0.0011 JN	0.0064 J
PCB-121	56558-18-0	ng/g	< 0.00022 U	< 0.00070 U	< 0.00038 U	< 0.00019 U	< 0.00024 U	< 0.000098 U	< 0.00048 U	< 0.00057 U	< 0.00024 U	< 0.00028 U
PCB-122	76842-07-4	ng/g	0.0087 J	0.011 J	0.024	< 0.0041 U	< 0.0013 U	0.0037 J	< 0.0021 U	< 0.0022 U	< 0.0011 U	0.0067 JN
PCB-123	65510-44-3	ng/g	0.0078 JN	0.011 J	0.022	0.064	0.0025 JN	0.0045 J	0.0062 J	< 0.0019 U	0.0016 J+	0.010
PCB-126	57465-28-8	ng/g	0.0015 JN	< 0.0027 U	< 0.0024 U	0.0061 JN	< 0.0012 U	< 0.0017 U	< 0.0019 U	< 0.0021 U	< 0.00098 U	< 0.0024 U
PCB-127	39635-33-1	ng/g	< 0.0015 U	< 0.0025 U	< 0.0023 U	< 0.0036 U	< 0.0011 U	< 0.0017 U	< 0.0018 U	< 0.0019 U	< 0.00096 U	< 0.0023 U
PCB-128/166	38380-07-3	ng/g	0.14	0.16	0.34	0.14	0.11	0.058	0.075	0.046 JN	0.028	0.19
PCB-129/138/160/163	55215-18-4	ng/g	1.0	1.0	1.9	1.4	0.92	0.61	0.52	0.40	0.19	1.7
PCB-130	52663-66-8	ng/g	0.086	0.068	0.14	0.097	0.047	0.037	0.030	0.018 JN	0.0090 JN	0.11
PCB-131	61798-70-7	ng/g	< 0.0020 U	0.0088 JN	0.030	< 0.0098 U	< 0.0044 U	< 0.0040 U	< 0.0036 U	< 0.0045 U	< 0.0021 U	< 0.0067 U
PCB-132	38380-05-1	ng/g	0.37	0.33	0.67	0.40	0.31	0.19	0.15	0.12	0.046	0.55
PCB-133	35694-04-3	ng/g	0.043	0.020	0.033	0.082	0.013	0.011 JN	0.0090 J	< 0.0041 U	< 0.0019 U	0.070
PCB-134/143	52704-70-8	ng/g	0.070	0.059	0.12	0.083	0.051	0.025 JN	0.023	0.016 JN	0.0074 JN	0.098
PCB-135/151	52744-13-5	ng/g	0.51	0.30	0.53	0.94	0.34	0.25	0.14	0.11	0.053	0.75
PCB-136	38411-22-2	ng/g	0.18	0.11	0.21	0.27	0.11	0.081	0.047	0.035	0.017	0.23
PCB-137	35694-06-5	ng/g	0.032	0.042	0.10	0.029	0.025	0.012 JN	0.019 JN	0.012 JN	0.0069 JN	0.035 JN
PCB-139/140	56030-56-9	ng/g	0.026	0.020 J	0.040	0.022 JN	0.0073 JN	0.0072 JN	0.0069 JN	< 0.0037 U	< 0.0017 U	0.038
PCB-14	34883-41-5	ng/g	< 0.00045 U	< 0.00078 U	< 0.00062 U	< 0.0023 U	< 0.0028 U	< 0.0020 U	< 0.0026 U	< 0.0051 UJ	< 0.0018 U	< 0.0034 U
PCB-141	52712-04-6	ng/g	0.20	0.19	0.35	0.22	0.20	0.14	0.088	0.065 JN	0.033	0.30
PCB-142	41411-61-4	ng/g	< 0.0019 U	< 0.0025 U	< 0.0022 U	< 0.0088 U	< 0.0040 U	< 0.0036 U	< 0.0033 U	< 0.0041 U	< 0.0019 U	< 0.0061 U
PCB-144	68194-14-9	ng/g	0.043	0.037	0.071	0.051	0.042	0.025	0.014	0.0095 JN	0.0041 JN	0.051
PCB-145	74472-40-5	ng/g	0.00066 J	0.00079 J+	0.0017 JN	< 0.00026 U	< 0.00036 U	< 0.00012 U	< 0.00053 U	< 0.00071 U	< 0.000089 U	< 0.00033 U
PCB-146	51908-16-8	ng/g	0.32	0.17	0.27	0.64	0.17	0.13	0.089	0.076	0.029	0.54
PCB-147/149	68194-13-8	ng/g	1.1	0.75	1.3	1.9	1.0	0.72	0.41	0.35	0.14	2.3
PCB-148	74472-41-6	ng/g	0.012	0.0015 JN	0.0052 J	0.020	0.0018 JN	0.0012 JN	< 0.00075 U	< 0.0010 U	< 0.00013 U	0.017 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B315	B316	B317	B318	B319	B320	B321	B322	B323	B324
		Sample ID	PDI-SG-B315-BL1-D	PDI-SG-B316-BL1	PDI-SG-B317-BL1	PDI-SG-B318-BL1	PDI-SG-B319-BL1	PDI-SG-B320-BL1	PDI-SG-B321-BL1	PDI-SG-B322-BL1	PDI-SG-B323-BL1	PDI-SG-B324-BL1
		Sample Date	22 May 2018	02 Jun 2018	03 Jun 2018	23 May 2018	23 May 2018	23 May 2018	26 Apr 2018	26 Apr 2018	23 Apr 2018	23 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
PCB-15	2050-68-2	ng/g	0.028	0.045	0.059	0.0086 JN	0.010 JN	0.0092 JN	< 0.0033 U	0.012 JN	0.0084 JN	0.042
PCB-150	68194-08-1	ng/g	0.010	0.0019 J	0.0039 J	0.019	0.0021 J	0.0018 J	< 0.00051 U	< 0.00068 U	< 0.000085 U	0.024
PCB-152	68194-09-2	ng/g	0.0026 J	0.0013 JN	0.0022 JN	< 0.00027 U	< 0.00037 U	< 0.00013 U	< 0.00055 U	< 0.00073 U	< 0.000091 U	0.0097
PCB-153/168	35065-27-1	ng/g	1.1	0.77	1.4	1.7	0.84	0.68	0.39	0.34	0.15	1.9
PCB-154	60145-22-4	ng/g	0.065	0.019 JN	0.033	0.088	0.013	0.0094 JN	0.0069 J	0.0067 J	0.0015 JN	0.092
PCB-155	33979-03-2	ng/g	< 0.000079 U	< 0.00015 U	< 0.00024 U	< 0.00025 U	< 0.00035 U	< 0.00012 U	< 0.00051 U	< 0.00068 U	< 0.000085 U	< 0.00031 U
PCB-156/157	38380-08-4	ng/g	0.085	0.10	0.23	0.059 JN	0.067	0.038	0.052	0.030 JN	0.019 J	0.12
PCB-158	74472-42-7	ng/g	0.076	0.10	0.21	0.070	0.073	0.043	0.043 JN	0.034	0.015 JN	0.13
PCB-159	39635-35-3	ng/g	0.013 JN	0.011 J	0.014	< 0.0059 U	0.012	0.0074 J	< 0.0022 U	< 0.0027 U	< 0.0013 U	< 0.0041 U
PCB-16	38444-78-9	ng/g	0.046	0.031	0.040	0.014	0.0066 JN	0.011 JN	0.0099 J	< 0.0011 U	0.0031 JN	0.038
PCB-161	74472-43-8	ng/g	< 0.0012 U	< 0.0017 U	< 0.0014 U	< 0.0059 U	< 0.0027 U	< 0.0024 U	< 0.0022 U	< 0.0027 U	< 0.0012 U	< 0.0040 U
PCB-162	39635-34-2	ng/g	< 0.0012 U	< 0.0016 U	< 0.0014 U	< 0.0058 U	< 0.0026 U	< 0.0024 U	< 0.0022 U	< 0.0027 U	< 0.0012 U	< 0.0040 U
PCB-164	74472-45-0	ng/g	0.084	0.072	0.14	0.099	0.070	0.049	0.033	0.028	0.012	0.14
PCB-165	74472-46-1	ng/g	< 0.0014 U	< 0.0019 U	< 0.0016 U	< 0.0067 U	< 0.0030 U	< 0.0027 U	< 0.0025 U	< 0.0031 U	< 0.0014 U	< 0.0046 U
PCB-167	52663-72-6	ng/g	0.033	0.036	0.076	0.028	0.026	0.017	0.017	0.010 J	0.0071 J	0.050
PCB-169	32774-16-6	ng/g	< 0.00088 U	< 0.0013 U	< 0.0011 U	< 0.0041 U	< 0.0021 U	< 0.0020 U	< 0.0017 U	< 0.0022 U	< 0.00092 U	0.013 JN
PCB-17	37680-66-3	ng/g	0.080	0.047	0.059	0.030	0.0097 JN	0.023	0.014 JN	0.016	0.0088 JN	0.094
PCB-170	35065-30-6	ng/g	0.38	0.25	0.43	0.53	0.37	0.23	0.12	0.11	0.053	0.64
PCB-171/173	52663-71-5	ng/g	0.11	0.078	0.13	0.15	0.11	0.069	0.031	0.034	0.016 J	0.16
PCB-172	52663-74-8	ng/g	0.073	0.049	0.077	0.093	0.057 JN	0.042 JN	0.014 JN	0.016	0.0097 J	0.11
PCB-174	38411-25-5	ng/g	0.45	0.31	0.48	0.47	0.37	0.28	0.11	0.12	0.047	0.64
PCB-175	40186-70-7	ng/g	0.017	0.012	0.019	0.022 JN	0.018	0.011	0.0041 JN	< 0.0017 U	< 0.00074 U	0.023
PCB-176	52663-65-7	ng/g	0.053	0.032	0.049	0.071	0.047	0.031	0.016	0.011 JN	0.0053 J	0.086
PCB-177	52663-70-4	ng/g	0.29	0.17	0.27	0.38	0.22	0.14	0.068	0.062	0.031	0.43
PCB-178	52663-67-9	ng/g	0.11	0.061	0.089	0.19	0.082	0.058	0.033	0.029	0.0089 JN	0.16
PCB-179	52663-64-6	ng/g	0.20	0.12	0.18	0.32	0.16	0.12	0.054	0.052	0.026	0.33
PCB-18/30	37680-65-2	ng/g	0.11	0.071	0.086	0.027 JN	0.018 J	0.036	0.025	0.025	0.016 J	0.094
PCB-180/193	35065-29-3	ng/g	0.84	0.58	0.94	1.3	0.78	0.55	0.25	0.22	0.11	1.4
PCB-181	74472-47-2	ng/g	< 0.000016 U	< 0.00015 U	0.0066 JN	< 0.00031 U	< 0.00086 U	< 0.00039 U	< 0.0017 U	< 0.0017 U	< 0.00073 U	< 0.00044 U
PCB-182	60145-23-5	ng/g	0.0069 JN	< 0.00014 U	< 0.00041 U	0.0067 JN	< 0.00083 U	0.0031 JN	< 0.0017 U	< 0.0016 U	< 0.00071 U	0.0069 JN
PCB-183/185	52663-69-1	ng/g	0.26	0.18	0.29	0.42	0.26	0.18	0.079	0.075	0.031	0.45
PCB-184	74472-48-3	ng/g	< 0.000013 U	< 0.00012 U	< 0.00035 U	< 0.00025 U	< 0.00071 U	< 0.00032 U	< 0.0014 U	< 0.0014 U	< 0.00060 U	< 0.00036 U
PCB-186	74472-49-4	ng/g	< 0.000013 U	< 0.00012 U	< 0.00034 U	< 0.00024 U	< 0.00069 U	< 0.00031 U	< 0.0014 U	< 0.0013 U	< 0.00059 U	< 0.00035 U
PCB-187	52663-68-0	ng/g	0.57	0.37	0.58	0.90	0.47	0.32	0.16	0.16	0.072	0.97
PCB-188	74487-85-7	ng/g	< 0.000012 U	< 0.00011 U	< 0.00031 U	< 0.00021 U	< 0.00059 U	< 0.00028 U	< 0.0012 U	< 0.0011 U	< 0.00051 U	< 0.00031 U
PCB-189	39635-31-9	ng/g	0.013	0.010 J	0.016	0.016	0.013	0.0055 JN	< 0.0020 U	< 0.0034 U	< 0.0014 U	0.024 JN
PCB-19	38444-73-4	ng/g	0.049	0.017	0.021	0.0099	0.0050 J	0.011 JN	0.0091 J	0.0068 J	0.010 JN	0.050
PCB-190	41411-64-7	ng/g	0.073	0.052	0.083	0.078	0.055	0.040	0.022 JN	0.016 JN	0.0087 JN	0.12
PCB-191	74472-50-7	ng/g	0.015	0.012	0.023	0.018 JN	0.013	0.0096 J	0.0056 J	0.0038 J	0.0033 J	0.026
PCB-192	74472-51-8	ng/g	< 0.000013 U	< 0.00012 U	< 0.00034 U	< 0.00026 U	< 0.00073 U	< 0.00033 U	< 0.0014 U	< 0.0014 U	< 0.00062 U	< 0.00037 U
PCB-194	35694-08-7	ng/g	0.23	0.16	0.27	0.37	0.20	0.12	0.064	0.060	0.027	0.41
PCB-195	52663-78-2	ng/g	0.091	0.062	0.093	0.14	0.091	0.050	0.023	0.019 JN	0.013	0.17
PCB-196	42740-50-1	ng/g	0.10	0.073	0.12	0.20	0.081	0.053 JN	0.027	0.027	0.011	0.19
PCB-197	33091-17-7	ng/g	0.0071 J	0.0047 JN	0.0078 JN	0.014 JN	0.0043 JN	0.0031 JN	< 0.0012 U	0.0030 J	< 0.00038 U	0.012 JN
PCB-198/199	68194-17-2	ng/g	0.23	0.19	0.34	0.51	0.18	0.12	0.064 JN	0.084 JN	0.032	0.50
PCB-2	2051-61-8	ng/g	0.0069 J	0.0080 J	0.0058 J	< 0.00097 U	< 0.00035 U	0.0017 JN	< 0.0027 U	< 0.0021 U	< 0.00029 U	0.060
PCB-20/28	38444-84-7	ng/g	0.24	0.19	0.25	0.066	0.060	0.12	0.051	0.060	0.038	0.36
PCB-200	52663-73-7	ng/g	0.025	0.020 JN	0.034	0.043	0.018	0.013	0.0059 JN	0.0097 J	0.0024 JN	0.040
PCB-201	40186-71-8	ng/g	0.026	0.021	0.038	0.051	0.023	0.013	0.0058 J	0.0062 J	0.0028 JN	0.040
PCB-202	2136-99-4	ng/g	0.044	0.042	0.073	0.14	0.032	0.021	0.018	0.022	0.0063 J	0.12
PCB-203	52663-76-0	ng/g	0.13	0.12	0.22	0.28	0.10	0.061 JN	0.041	0.042 JN	0.018	0.27
PCB-204	74472-52-9	ng/g	< 0.000042 U	< 0.00040 U	< 0.00077 U	< 0.00031 U	< 0.00046 U	< 0.00020 U	< 0.0012 U	< 0.0014 U	< 0.00038 U	< 0.00042 U
PCB-205	74472-53-0	ng/g	0.0098 JN	0.0065 J	0.012	0.011 JN	0.0093 JN	0.0063 J	< 0.0027 U	< 0.0052 U	< 0.0012 U	0.020
PCB-206	40186-72-9	ng/g	0.092	0.12	0.24 JN	0.87	0.064	0.037	0.037	0.50	0.020	1.5
PCB-207	52663-79-3	ng/g	0.010	0.013	0.022	0.062	0.0070 JN	0.0049 JN	< 0.0037 U	0.013	< 0.0018 U	0.081
PCB-208	52663-77-1	ng/g	0.022 JN	0.035	0.057	0.37	0.012	0.0096 J	0.014	0.21	0.0068 J	0.61
PCB-209	2051-24-3	ng/g	0.061	0.12	0.14	1.6	0.024	0.018	0.057	0.76	0.034	2.5
PCB-21/33	55702-46-0	ng/g	0.10	0.074	0.092	0.037	0.033	0.063	0.019 J	0.020 JN	0.014 J	0.078
PCB-22	38444-85-8	ng/g	0.052	0.060	0.073	0.014	0.015	0.029	0.015	0.019	0.0094 J	0.042
PCB-23	55720-44-0	ng/g	< 0.0016 U	< 0.0013 U	< 0.0013 U	< 0.0023 U	< 0.00077 U	< 0.0011 U	< 0.00085 U	< 0.0012 U	< 0.00053 U	< 0.0015 U
PCB-24	55702-45-9	ng/g	0.0029 J	0.0018 J	0.0023 JN	< 0.00038 U	< 0.00048 U	0.00062 JN	< 0.00059 U	0.0068 JN	< 0.00029 U	0.0028 J
PCB-25	55712-37-3	ng/g	0.020	0.021	0.026	0.0063 J	0.0036 J	0.0057 JN	0.0045 JN	0.0059 J	0.0038 J	0.032

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B315	B316	B317	B318	B319	B320	B321	B322	B323	B324
		Sample ID	PDI-SG-B315-BL1-D	PDI-SG-B316-BL1	PDI-SG-B317-BL1	PDI-SG-B318-BL1	PDI-SG-B319-BL1	PDI-SG-B320-BL1	PDI-SG-B321-BL1	PDI-SG-B322-BL1	PDI-SG-B323-BL1	PDI-SG-B324-BL1
		Sample Date	22 May 2018	02 Jun 2018	03 Jun 2018	23 May 2018	23 May 2018	23 May 2018	26 Apr 2018	26 Apr 2018	23 Apr 2018	23 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
PCB-26/29	38444-81-4	ng/g	0.032	0.035	0.042	0.0096 JN	0.0055 JN	0.011 J	0.0084 JN	0.011 J	0.0057 J	0.030
PCB-27	38444-76-7	ng/g	0.024	0.0091 J	0.012 JN	< 0.00033 U	0.0023 JN	0.0031 J	0.0021 JN	< 0.00072 U	0.0023 J	0.019
PCB-3	2051-62-9	ng/g	0.011	0.0056 JN	0.0089 J	0.0077 JN	< 0.00038 U	0.0026 JN	< 0.0023 U	< 0.00037 U	0.0024 JN	0.027
PCB-31	16606-02-3	ng/g	0.15	0.14	0.16	0.053	0.037	0.075	0.037	0.044	0.028	0.16
PCB-32	38444-77-8	ng/g	0.051	0.029 JN	0.044	0.011 JN	0.011	0.017	0.010 J	0.0067 JN	0.0065 JN	0.11
PCB-34	37680-68-5	ng/g	0.0023 JN	< 0.0014 U	< 0.0013 U	< 0.0024 U	< 0.00080 U	0.0012 JN	< 0.00089 U	< 0.0013 U	< 0.00055 U	0.0028 JN
PCB-35	37680-69-6	ng/g	0.0034 J	< 0.0013 U	0.0042 J	< 0.0023 U	< 0.00078 U	< 0.0011 U	< 0.00086 U	< 0.0012 U	< 0.00053 U	0.0059 J
PCB-36	38444-87-0	ng/g	< 0.0014 U	< 0.0012 U	< 0.0011 U	< 0.0022 U	< 0.00075 U	< 0.0010 U	< 0.00083 U	< 0.0012 U	< 0.00051 U	< 0.0014 U
PCB-37	38444-90-5	ng/g	0.051	0.060	0.088	0.013 JN	0.016	0.027	0.012 JN	0.014	0.0097 J	0.048
PCB-38	53555-66-1	ng/g	< 0.0015 U	< 0.0013 U	< 0.0012 U	< 0.0024 U	< 0.00081 U	< 0.0011 U	< 0.00089 U	< 0.0013 U	< 0.00055 U	< 0.0015 U
PCB-39	38444-88-1	ng/g	< 0.0014 U	< 0.0012 U	< 0.0011 U	< 0.0022 U	< 0.00073 U	< 0.0010 U	< 0.00080 U	< 0.0011 U	< 0.00049 U	< 0.0014 U
PCB-4	13029-08-8	ng/g	0.032	0.026	0.033	0.0097 JN	< 0.0048 U	0.0063 JN	0.0079 JN	< 0.0089 U	< 0.0030 U	0.052
PCB-40/41/71	38444-93-8	ng/g	0.17	0.11	0.17	0.063	0.041	0.096	0.031 J	0.027 J	0.018 J	0.28
PCB-42	36559-22-5	ng/g	0.088	0.057	0.086	0.032 JN	0.018 JN	0.053	0.017	0.015 JN	0.0094 J	0.10
PCB-43/73	70362-46-8	ng/g	0.012 J	0.0087 J	0.028	0.010 J	< 0.0020 U	0.012 J	< 0.0019 U	< 0.0017 U	< 0.0013 U	0.032
PCB-44/47/65	41464-39-5	ng/g	0.47	0.26	0.44	0.24	0.10	0.21	0.083	0.073	0.056	1.3
PCB-45/51	70362-45-7	ng/g	0.11	0.049	0.068	0.025	0.016 J	0.031	0.013 JN	0.0083 JN	0.012 J	0.36
PCB-46	41464-47-5	ng/g	0.019	0.012	0.020	< 0.0061 U	< 0.0027 U	0.0081 JN	< 0.0026 U	< 0.0022 U	< 0.0018 U	0.037
PCB-48	70362-47-9	ng/g	0.048 JN	0.035	0.043 JN	< 0.0048 U	0.012 JN	0.036	0.011	0.0059 JN	0.0054 J	0.040
PCB-49/69	41464-40-8	ng/g	0.30	0.17	0.27	0.29	0.077	0.17	0.061	0.049	0.035	0.71
PCB-5	16605-91-7	ng/g	< 0.00054 U	< 0.00094 U	< 0.00075 U	< 0.0031 U	< 0.0037 U	< 0.0026 U	< 0.0035 U	< 0.0068 UJ	< 0.0024 U	< 0.0045 U
PCB-50/53	62796-65-0	ng/g	0.084	0.036	0.055	0.031	0.013 J	0.029	0.012 J	0.012 J	0.012 J	0.21
PCB-52	35693-99-3	ng/g	0.51	0.37	0.76	0.49	0.14	0.24	0.12	0.10	0.066	0.61
PCB-54	15968-05-5	ng/g	0.0083 JN	0.0019 JN	0.0051 J	0.0017 J	0.00042 JN	0.0020 JN	< 0.00012 U	< 0.00013 U	0.0018 JN	0.028
PCB-55	74338-24-2	ng/g	0.0067 J	< 0.0011 U	0.0094 JN	< 0.0035 U	0.0019 JN	0.010	< 0.0015 U	< 0.0013 U	< 0.0010 U	< 0.0050 U
PCB-56	41464-43-1	ng/g	0.12	0.084	0.13	0.072	0.042	0.091	0.031	0.026	0.016	0.078
PCB-57	70424-67-8	ng/g	< 0.0010 U	< 0.0012 U	< 0.0013 U	< 0.0035 U	< 0.0016 U	< 0.0014 U	< 0.0015 U	< 0.0013 U	< 0.0011 U	< 0.0051 U
PCB-58	41464-49-7	ng/g	0.0048 J	< 0.0011 U	0.0032 JN	< 0.0036 U	< 0.0016 U	0.0023 J	< 0.0016 U	< 0.0013 U	< 0.0011 U	< 0.0052 U
PCB-59/62/75	74472-33-6	ng/g	0.039	0.020 J	0.031 J	0.0055 JN	0.0075 JN	0.019 J	< 0.0015 U	0.0037 JN	< 0.0010 U	0.045 JN
PCB-6	25569-80-6	ng/g	0.016	0.015	0.015	0.0062 JN	< 0.0033 U	0.0052 JN	< 0.0030 U	< 0.0060 UJ	< 0.0021 U	0.024
PCB-60	33025-41-1	ng/g	0.034	0.036	0.051	0.0085 JN	0.011 JN	0.024	0.011	0.0091 JN	0.0072 J	0.018 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.50	0.36	0.62	0.37	0.17	0.37	0.14	0.12 JN	0.071	0.49
PCB-63	74472-34-7	ng/g	0.013	0.0063 J	0.0098 JN	< 0.0032 U	0.0038 J	0.010	< 0.0014 U	< 0.0012 U	< 0.00096 U	0.014
PCB-64	52663-58-8	ng/g	0.11	0.082	0.13	0.043 JN	0.038	0.085	0.029	0.025	0.015	0.11
PCB-66	32598-10-0	ng/g	0.32	0.23	0.36	0.16	0.094	0.24	0.075 JN	0.071	0.038	0.33
PCB-67	73575-53-8	ng/g	0.0074 J	0.0036 JN	0.0096 J	< 0.0031 U	< 0.0014 U	0.0034 JN	< 0.0013 U	< 0.0011 U	< 0.00091 U	< 0.0044 U
PCB-68	73575-52-7	ng/g	0.0090 JN	0.0060 J+	0.0075 J+	0.0094 J	< 0.0014 U	0.0041 JN	< 0.0014 U	< 0.0012 U	< 0.00093 U	0.038
PCB-7	33284-50-3	ng/g	0.0029 JN	0.0033 JN	0.0024 JN	< 0.0028 U	< 0.0034 U	< 0.0024 U	< 0.0031 U	< 0.0061 UJ	< 0.0021 U	< 0.0041 U
PCB-72	41464-42-0	ng/g	0.014	0.0045 J	0.0075 JN	0.019	< 0.0015 U	0.0058 J	< 0.0015 U	< 0.0013 U	< 0.0010 U	0.030
PCB-77	32598-13-3	ng/g	0.026	0.023	0.033	0.0094 JN	0.0067 J	0.015	0.0081 J	0.0094 J	0.0056 J	0.019
PCB-78	70362-49-1	ng/g	< 0.00096 U	< 0.0011 U	< 0.0013 U	< 0.0036 U	< 0.0016 U	< 0.0015 U	< 0.0016 U	< 0.0013 U	< 0.0011 U	< 0.0052 U
PCB-79	41464-48-6	ng/g	0.0063 J	0.0056 J	0.0093 J	< 0.0031 U	< 0.0014 U	0.0027 JN	< 0.0013 U	< 0.0011 U	< 0.00092 U	0.017
PCB-8	34883-43-7	ng/g	0.054	0.046	0.056	0.021	0.012 JN	0.018 JN	0.010 JN	0.013 JN	0.0090 JN	0.059
PCB-80	33284-52-5	ng/g	< 0.00086 U	< 0.0010 U	< 0.0012 U	< 0.0030 U	< 0.0014 U	< 0.0012 U	< 0.0013 U	< 0.0011 U	< 0.00090 U	< 0.0044 U
PCB-81	70362-50-4	ng/g	< 0.00091 U	< 0.0011 U	< 0.0012 U	< 0.0032 U	< 0.0015 U	< 0.0013 U	< 0.0014 U	< 0.0012 U	< 0.0010 U	< 0.0047 U
PCB-82	52663-62-4	ng/g	0.077	0.086	0.19	0.044 JN	0.033	0.035 JN	0.031	0.019 JN	0.011	0.057
PCB-83/99	60145-20-2	ng/g	0.61	0.42	0.87	0.62	0.18	0.23	0.17	0.12	0.066	0.66
PCB-84	52663-60-2	ng/g	0.20	0.16	0.40	0.14	0.081	0.082	0.056 JN	0.039	0.021 JN	0.21
PCB-85/116/117	65510-45-4	ng/g	0.11	0.12	0.24	0.11	0.045	0.056	0.055	0.037 J	0.021 J	0.10
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.43	0.44	1.0	0.36	0.18	0.19	0.17	0.11	0.063	0.48
PCB-88/91	55215-17-3	ng/g	0.19	0.10	0.21	0.17	0.051	0.072	0.043	0.021 JN	0.017 J	0.39
PCB-89	73575-57-2	ng/g	0.0088 J	< 0.0011 U	0.013	< 0.00029 U	0.0042 J	0.0041 JN	< 0.00075 U	< 0.00088 U	< 0.00037 U	< 0.00043 U
PCB-9	34883-39-1	ng/g	0.0031 J	0.0021 JN	0.0036 J	< 0.0028 U	< 0.0035 U	< 0.0024 U	< 0.0032 U	< 0.0063 UJ	< 0.0022 U	0.0047 JN
PCB-90/101/113	68194-07-0	ng/g	0.87	0.68	1.5	1.0	0.36	0.38	0.29	0.21	0.11	1.2
PCB-92	52663-61-3	ng/g	0.23	0.14	0.31	0.33	0.060 JN	0.083	0.057	0.034 JN	0.019	0.27
PCB-93/100	73575-56-1	ng/g	0.037 JN	0.022 JN	0.041	0.089	0.0088 J	0.0052 JN	< 0.00066 U	0.0041 JN	0.0023 JN	0.13 JN
PCB-94	73575-55-0	ng/g	0.013	0.0064 JN	< 0.00060 U	0.080 JN	< 0.00036 U	0.0027 J	< 0.00075 U	< 0.00088 U	< 0.00037 U	0.035
PCB-95	38379-99-6	ng/g	0.72	0.51	1.2	0.82 JN	0.33	0.33	0.23	0.15	0.085	0.91
PCB-96	73575-54-9	ng/g	0.012	< 0.00081 U	0.0080 JN	< 0.00022 U	< 0.00028 U	0.0037 J	< 0.00056 U	< 0.00066 U	< 0.00028 U	0.032 JN
PCB-98/102	60233-25-2	ng/g	0.044	0.025 JN	0.051	0.027	0.0086 JN	0.013 J	0.0080 JN	0.0046 JN	0.0033 J	0.070
Total PCBs (b)	T_PCBCg (PDI)	ng/g	20	15	28	25	12	10	6.2	6.5	2.7	34

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B315	B316	B317	B318	B319	B320	B321	B322	B323	B324
		Sample ID	PDI-SG-B315-BL1-D	PDI-SG-B316-BL1	PDI-SG-B317-BL1	PDI-SG-B318-BL1	PDI-SG-B319-BL1	PDI-SG-B320-BL1	PDI-SG-B321-BL1	PDI-SG-B322-BL1	PDI-SG-B323-BL1	PDI-SG-B324-BL1
		Sample Date	22 May 2018	02 Jun 2018	03 Jun 2018	23 May 2018	23 May 2018	23 May 2018	26 Apr 2018	26 Apr 2018	23 Apr 2018	23 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.70 U	< 1.2 U	< 1.2 U	< 0.93 U	< 0.69 U	< 1.5 U	< 0.61 UJ	< 0.68 UJ	< 1.1 UJ	< 0.87 U
2,4-DDE	3424-82-6	µg/kg	< 0.79 U	< 1.2 U	< 1.2 U	< 0.93 U	< 0.79 U	< 1.5 U	< 0.61 UJ	< 0.68 UJ	< 1.1 UJ	< 0.87 U
2,4-DDT	789-02-6	µg/kg	< 0.94 U	< 1.2 U	< 1.2 U	< 0.94 U	< 0.94 U	< 1.5 U	< 0.61 UJ	< 0.68 UJ	< 1.1 UJ	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	0.49 J	0.87 J	1.0 J	1.3	< 0.69 U	0.59 J	1.1 J	1.2 J	0.70 J	0.71 J
4,4'-DDE	72-55-9	µg/kg	0.72	2.2	2.8	1.5	< 0.70 U	< 1.5 U	2.6 J	2.6 J	2.2 J	1.6
4,4'-DDT	50-29-3	µg/kg	< 0.70 U	< 1.2 U	< 1.2 U	< 0.93 U	< 0.69 U	< 1.5 U	0.31 J	0.36 J	0.79 J	< 0.87 U
Total DDx (b)	T_DDx (PDI)	µg/kg	1.7	3.7	4.4	3.3	< 0.94 U	1.3	4.3	4.5	4.2	2.8
Aldrin	309-00-2	µg/kg	< 0.79 U	< 1.2 U	< 1.2 U	< 0.93 U	< 0.79 U	< 1.5 U	< 0.61 UJ	< 0.68 UJ	< 1.1 UJ	< 0.87 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.4 U	< 2.4 U	< 2.3 U	< 1.9 U	< 1.4 U	< 2.9 U	< 1.2 UJ	< 1.4 UJ	< 2.2 UJ	< 1.7 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.97 UJ	< 1.2 U	< 1.2 U	< 0.97 U	< 0.97 U	< 1.5 U	< 0.61 UJ	< 0.68 UJ	< 1.1 UJ	< 0.97 U
Dieldrin	60-57-1	µg/kg	< 2.0 U	< 2.4 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.9 U	< 1.2 UJ	< 1.4 UJ	< 2.2 UJ	< 2.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.70 U	< 1.2 U	< 1.2 U	< 0.93 U	< 0.69 U	< 1.5 U	< 0.61 UJ	< 0.68 UJ	< 1.1 UJ	< 0.87 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.4 U	< 2.4 U	< 2.3 U	< 1.9 U	< 1.4 U	< 2.9 U	< 1.2 UJ	< 1.4 UJ	< 2.2 UJ	< 1.7 U
Heptachlor	76-44-8	µg/kg	< 0.70 U	< 1.2 U	< 1.2 U	< 0.93 U	< 0.69 U	< 1.5 U	< 0.61 UJ	< 0.68 UJ	< 1.1 UJ	< 0.87 U
Oxychlordane	27304-13-8	µg/kg	< 2.0 U	< 2.4 U	< 2.3 U	< 2.0 U	< 2.0 U	< 2.9 U	< 1.2 UJ	< 1.4 UJ	< 2.2 UJ	< 2.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.4 U	1.4 J	< 2.3 U	< 1.9 U	< 1.4 U	< 2.9 U	< 1.2 UJ	< 1.4 UJ	< 2.2 UJ	< 1.7 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2 U	2.6	< 2.3 U	< 2 U	< 2 U	< 2.9 U	< 1.2 UJ	< 1.4 UJ	< 2.2 UJ	< 2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	7.9	2.7	3.1	44	1.1 J	0.89	1.3	1.3 J	2.1	4.4
Acenaphthene	83-32-9	µg/kg	9.6	4.0	5.9	61	0.88	0.71	2.8	1.5	0.57	12
Acenaphthylene	208-96-8	µg/kg	4.5	2.2	3.0	57	1.9	0.78	1.1	1.2	1.1	7.2
Anthracene	120-12-7	µg/kg	12	6.8	9.3	85	2.9	1.9	3.4	3.4	2.5	14
Benz(a)anthracene	56-55-3	µg/kg	38	28	43	150	21	5.9	9.7	9.8	6.3	100
Benzo(a)pyrene	50-32-8	µg/kg	48	22	34	170	22	8.4	11	7.2	7.5	110
Benzo(b)fluoranthene	205-99-2	µg/kg	64	53	73	180	34	9.8	16	16	11	210
Benzo(g,h,i)perylene	191-24-2	µg/kg	32 J	18	25	140	16	9.9	11	16	7.5	64
Benzo(k)fluoranthene	207-08-9	µg/kg	22	17	23	59	9.7	3.2	4.3	5.1	3.9	71
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	230	120 J	130	46 J	21 J	39 J	110 J	110 J	100 J	340
Chrysene	218-01-9	µg/kg	55	62	81	180	14	6.5	15	20	10	220
Dibenz(a,h)anthracene	53-70-3	µg/kg	6.1 J	3.8	5.7	17	4.6	2.0	1.8	3.4 J	1.5	18
Fluoranthene	206-44-0	µg/kg	98	85	170	440	12	9.9	24	27	13	330
Fluorene	86-73-7	µg/kg	6.5	6.2	8.1	62	0.79	0.73	3.1	2.4	1.0	7.2
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	31	18	26	120	13	7.6	8.5	13	6.3	71
Naphthalene	91-20-3	µg/kg	14	3.5	3.9	130	1.8	2.2	1.8	1.5	4.2	12
Phenanthrene	85-01-8	µg/kg	59	37	73	350	6.6	6.6	12	14	7.5	56
Pyrene	129-00-0	µg/kg	100	75	140	550	23	16	26	27	15	290
Total PAHs (b)	T_PAH (PDI)	µg/kg	608	444	727	2795	185	93	153	170	101	1597
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	68	36	54	233	34	13	16	15	11	167
Metals												
Arsenic	7440-38-2	mg/kg	6.4	4.7	5.0	6.6	5.4	4.9	5.5	5.5	5.5	4.2
Cadmium	7440-43-9	mg/kg	0.18 J	0.17 J	0.17 J	0.31	0.081 J	0.13 J	0.18 J	0.16 J	0.19 J	0.28
Copper	7440-50-8	mg/kg	23	39	43	40	21	21	43 J	41	38	33
Lead	7439-92-1	mg/kg	11	11	12	21	12	13	9.9	9.5	9.5	14
Mercury	7439-97-6	mg/kg	0.047	< 0.058 U	0.079	0.26	0.013 J	0.036 J	0.059	0.044 J	0.027 J	0.091
Tri-n-butyltin	36643-28-4	µg/kg	43	< 2.4 U	< 2.3 U	< 1.9 U	< 1.4 U	< 1.6 U	< 2.5 U	< 2.7 U	< 2.2 U	29
Zinc	7440-66-6	mg/kg	100	93	99	120	67	72	100	95	93	98
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	39 J	70 J	88 J	320	< 65 U	27 J	66 J	37 J	92 J	120
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	210	210 J	470	980	100	130	380	190	450	570
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	69.2	40.4	41.5	52.4	71.9	70.1				57.1
Total Solids@104C - E160.3 (f)	TSOLID	%							44.7	39.2	45.6	
Total Solids@104C - E160.3M (f)	TSOLID	%	71.0	41.5	42.7	53.2	71.3	63.2	40.6	36.8	44.8	56.9
Total Solids@70C	TSOLID70	%	70	41	43	55	72	77	41	38	45	56
Gravel	GS-Gravel	%		0	0	0	9.1	0	0	0	0	0
Sand, Coarse	GS-Csand	%		0	0	0.4	7.2	6.7	0.1	0	0	0.3
Sand, Medium	GS-Msand	%		0.3	0.2	3.6	29.6	18.4	0.3	0.3	0.1	1.5
Sand, Fine (#200) (d)	GS-Fsand-200	%		8.789	10.65	26.97	50.62	46.95	14.63	8.152	21.59	49.74
Sand, Fine (#230) (d)	GS-Fsand	%		11.7	14.0	30.2	52.1	49.4	19.1	11.1	27.8	56.6
Silt (#200) (d)	GS-Silt-200	%		79.81	77.44	58.62	12.67	16.04	73.56	75.54	71.00	48.55

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B315	B316	B317	B318	B319	B320	B321	B322	B323	B324
		Sample ID	PDI-SG-B315-BL1-D	PDI-SG-B316-BL1	PDI-SG-B317-BL1	PDI-SG-B318-BL1	PDI-SG-B319-BL1	PDI-SG-B320-BL1	PDI-SG-B321-BL1	PDI-SG-B322-BL1	PDI-SG-B323-BL1	PDI-SG-B324-BL1
		Sample Date	22 May 2018	02 Jun 2018	03 Jun 2018	23 May 2018	23 May 2018	23 May 2018	26 Apr 2018	26 Apr 2018	23 Apr 2018	23 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-21 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%		76.9	74.1	55.4	11.2	13.6	69.1	72.6	64.8	41.7
Clay	GS-Clay	%		11.2	11.8	10.3	0	2.9	11.6	16.1	7.3	0
Percent Fines (e)	GS-FINES	%		91.01	89.24	68.92	12.67	18.94	85.16	91.64	78.3	48.55
Total Organic Carbon	TOC	mg/kg	6300	29000	27000	29000	3400	4400	27000	33000	20000	21000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B325	B326	B327	B328	B329	B330	B331	B332	B333	B334
		Sample ID	PDI-SG-B325-BL1	PDI-SG-B326-BL1	PDI-SG-B327-BL1	PDI-SG-B328-BL1	PDI-SG-B329-BL1	PDI-SG-B330-BL1	PDI-SG-B331-BL1	PDI-SG-B332-BL1	PDI-SG-B333-BL1	PDI-SG-B334-BL1
		Sample Date	26 Apr 2018	23 May 2018	26 Apr 2018	27 Apr 2018	23 Apr 2018	24 May 2018	27 Apr 2018	24 May 2018	24 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.057	0.014	0.047	0.088	0.045	0.043	0.050	0.076	0.092	0.031
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0093 JN	0.0040 JN	0.011 J	0.025	0.0097 JN	0.0091 JN	0.0065 JN	0.014	0.014	0.0067 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0011 U	0.00054 J+	< 0.00048 U	0.0016 J+	0.00071 J+	0.0013 J+	< 0.00046 U	0.0015 J+	0.0013 J+	< 0.00055 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00067 JN	0.00024 J+	0.00083 J+	0.00073 J+	0.00083 J+	0.00093 J+	0.00079 J+	0.00065 J+	0.00072 J+	< 0.00054 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0011 J	0.00046 J+	< 0.00031 U	0.0011 J+	0.00084 J+	0.00097 J	0.00055 JN	0.0013 J	0.0013 J	0.00058 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0022 J	0.00078 J	0.0021 JN	0.0033 J	0.0020 J+	0.0022 J	0.0028 J	0.0026 J	0.0029 J	0.0017 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0031 U	0.00023 J+	< 0.0025 U	0.00053 J+	0.00045 J+	0.00066 J	< 0.00018 U	0.00091 J	0.0011 J	0.00038 J+
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0017 J	0.00046 J+	0.0016 J	0.0019 J	0.0015 J+	0.0018 J	0.0022 J	0.0018 J	0.0019 JN	0.0013 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00017 U	< 0.00045 U	< 0.00022 U	< 0.00016 U	< 0.00017 U	0.00079 J+	< 0.00013 U	0.00068 J+	< 0.00057 U	< 0.00016 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00037 J	< 0.000047 U	< 0.00030 U	0.00027 J	< 0.00011 U	0.00062 J	0.00040 JN	0.00042 J+	0.00036 JN	< 0.000073 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00019 U	0.00018 JN	< 0.00017 U	< 0.00017 U	< 0.00028 U	0.00054 J+	< 0.000086 U	0.00044 J+	0.00041 J+	< 0.00017 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00018 U	0.00015 J+	< 0.00022 U	< 0.00028 U	< 0.00037 U	0.00045 J+	0.00033 J+	0.00029 J+	0.00036 J+	< 0.00033 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00020 U	0.00017 J+	< 0.00017 U	< 0.000081 U	< 0.00025 U	0.00047 J+	0.00031 J+	< 0.000067 U	0.00036 J+	< 0.000062 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00016 U	< 0.00010 U	0.00026 J	0.00019 JN	0.00025 JN	0.00051 JN	0.00015 J	0.00048 J+	0.00036 JN	0.00019 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00046 J	0.00026 J+	0.00029 JN	0.0015	0.00045 J+	0.00065 J+	0.0014	0.00046 J+	0.00068 J+	0.00029 J+
OCDD	3268-87-9	µg/kg	0.48	0.22	0.41	0.80	0.36	0.39	0.42	0.96	1.7	0.24
OCDF	39001-02-0	µg/kg	0.033	0.0085	0.030	0.12	0.031	0.027	0.021	0.050	0.049	0.021
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.002	0.00062	0.0016	0.0028	0.0016	0.0028	0.0022	0.003	0.0034	0.0011
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0019	0.00061	0.0014	0.0027	0.0014	0.0025	0.0019	0.003	0.0026	0.00098
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0017	0.00056	0.0012	0.0026	0.0013	0.0023	0.0017	0.003	0.0024	0.00088
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.00027 U	0.0016 J	< 0.0018 U	0.0044 JN	< 0.00027 U	< 0.0013 UJ	0.0095 JN	0.039	0.023	0.00099 JN
PCB-10	33146-45-1	ng/g	< 0.0048 U	< 0.0043 U	< 0.0038 U	< 0.0010 U	< 0.0021 U	< 0.00088 U	< 0.0012 U	< 0.00084 U	0.0030 JN	< 0.0028 U
PCB-103	60145-21-3	ng/g	0.0060 J	0.0054 J	< 0.00045 U	0.034	0.0022 J	0.0061 J	0.033	0.036	0.075	0.0013 JN
PCB-104	56558-16-8	ng/g	< 0.00059 U	< 0.00022 U	< 0.00034 U	0.0046 J	< 0.00019 U	< 0.00030 U	< 0.00047 U	< 0.00027 U	< 0.00060 U	< 0.00015 U
PCB-105	32598-14-4	ng/g	0.070	0.15	0.058	0.062	0.059	0.044	0.10	0.15	0.16	0.044
PCB-106	70424-69-0	ng/g	< 0.0018 U	< 0.0010 U	< 0.0014 U	< 0.0014 U	< 0.0011 U	< 0.0010 U	< 0.0022 U	< 0.0024 U	< 0.0036 U	< 0.00066 U
PCB-107	70424-68-9	ng/g	0.018	0.029	0.013	0.030	0.011 J	0.014	0.039	0.059	0.084	0.0073 JN
PCB-108/124	70362-41-3	ng/g	0.0077 J	0.017 J	0.0049 JN	0.0076 J	0.0057 J	0.0037 JN	0.012 J	0.017 J	0.018 J	0.0049 J
PCB-11	2050-67-1	ng/g	0.046 JN	0.021 JN	0.038	0.097	0.047	0.058	0.086	0.023	0.22	0.036
PCB-110/115	38380-03-9	ng/g	0.29	0.51	0.16	0.38	0.16	0.17	0.70	0.69	0.85	0.14
PCB-111	39635-32-0	ng/g	< 0.00054 U	< 0.00020 U	< 0.00031 U	0.0027 JN	< 0.00018 U	0.00069 JN	0.0041 JN	< 0.00024 U	0.0075 J	< 0.00013 U
PCB-112	74472-36-9	ng/g	< 0.00057 U	< 0.00021 U	< 0.00033 U	< 0.00060 U	< 0.00019 U	< 0.00030 U	0.0043 J	< 0.00026 U	< 0.00059 U	< 0.00014 U
PCB-114	74472-37-0	ng/g	0.0040 JN	0.0068 JN	0.0014 JN	0.0043 JN	0.0017 JN	< 0.00091 U	< 0.0020 U	< 0.0022 U	0.010 JN	0.0016 JN
PCB-118	31508-00-6	ng/g	0.20	0.37	0.13	0.24	0.13	0.12	0.36	0.43	0.51	0.097
PCB-12/13	2974-92-7	ng/g	< 0.0043 U	< 0.0039 U	< 0.0034 U	0.0090 J	< 0.0019 U	< 0.00075 U	0.0049 J	0.0088 J	0.014 JN	< 0.0026 U
PCB-120	68194-12-7	ng/g	< 0.00055 U	< 0.00021 U	< 0.00032 U	0.012 JN	< 0.00018 U	0.0014 JN	0.012	0.013	0.021 JN	0.00096 JN
PCB-121	56558-18-0	ng/g	< 0.00057 U	< 0.00021 U	< 0.00033 U	0.0026 JN	< 0.00019 U	< 0.00029 U	< 0.00045 U	< 0.00025 U	< 0.00058 U	< 0.00014 U
PCB-122	76842-07-4	ng/g	< 0.0021 U	0.0043 JN	0.0028 J	< 0.0016 U	< 0.0012 U	< 0.0011 U	0.0061 J	< 0.0027 U	0.0070 JN	0.0017 J
PCB-123	65510-44-3	ng/g	0.0040 JN	0.0058 J	0.0029 JN	0.0043 J	0.0029 J+	0.0017 JN	0.0043 JN	0.0064 J	0.0077 JN	0.0023 J+
PCB-126	57465-28-8	ng/g	< 0.0018 U	0.0011 JN	< 0.0015 U	< 0.0013 U	< 0.0010 U	< 0.0010 U	< 0.0020 U	0.0028 JN	< 0.0036 U	< 0.0012 U
PCB-127	39635-33-1	ng/g	< 0.0018 U	< 0.0010 U	< 0.0014 U	< 0.0013 U	< 0.0011 U	< 0.00098 U	< 0.0021 U	< 0.0023 U	< 0.0035 U	< 0.00066 U
PCB-128/166	38380-07-3	ng/g	0.067	0.078	0.038	0.057	0.031	0.037	0.12	0.26	0.32	0.027
PCB-129/138/160/163	55215-18-4	ng/g	0.50	0.52	0.29	0.45	0.24	0.28	1.1	2.9	3.7	0.21
PCB-130	52663-66-8	ng/g	0.028 JN	0.029	0.015	0.038	0.013	0.017 JN	0.071	0.15	0.23	0.013
PCB-131	61798-70-7	ng/g	< 0.0035 U	0.0064 JN	< 0.0032 U	< 0.0021 U	< 0.0023 U	0.0026 J	0.011	< 0.0031 U	< 0.0069 U	0.0019 J
PCB-132	38380-05-1	ng/g	0.15	0.17	0.073	0.15	0.055	0.083	0.34	0.84	1.2	0.050
PCB-133	35694-04-3	ng/g	0.0099 J	0.0067 J	< 0.0029 U	0.029	< 0.0020 U	0.0060 J	0.035	0.075	0.13	0.0028 J
PCB-134/143	52704-70-8	ng/g	0.016 JN	0.031	0.0062 JN	0.027	0.0067 J	0.016 J	0.057	0.15	0.21	0.0069 J
PCB-135/151	52744-13-5	ng/g	0.15	0.15	0.081	0.30	0.056	0.11	0.58	1.3	2.0	0.051 JN
PCB-136	38411-22-2	ng/g	0.051	0.062	0.020	0.097	0.017	0.038	0.20	0.40	0.60	0.017
PCB-137	35694-06-5	ng/g	0.018	0.020 JN	0.011 J	0.011 JN	0.011 J	0.0097 J	0.024	0.035	0.044	0.0054 JN
PCB-139/140	56030-56-9	ng/g	0.0068 J	0.0087 J	< 0.0026 U	0.013 J	< 0.0018 U	0.0032 JN	0.019 J	0.036	0.067	0.0025 JN
PCB-14	34883-41-5	ng/g	< 0.0037 U	< 0.0033 U	< 0.0029 U	< 0.00078 U	< 0.0016 U	< 0.00069 U	< 0.00096 U	< 0.00065 U	< 0.00065 U	< 0.0022 U
PCB-141	52712-04-6	ng/g	0.089	0.094	0.045	0.081	0.037	0.051	0.25	0.77	0.95	0.030
PCB-142	41411-61-4	ng/g	< 0.0032 U	< 0.0020 U	< 0.0029 U	< 0.0020 U	< 0.0020 U	< 0.00092 U	< 0.0019 U	< 0.0029 U	< 0.0065 U	< 0.0013 U
PCB-144	68194-14-9	ng/g	0.013 JN	0.018	0.0054 J	0.022	0.0061 J	0.013	0.059	0.15	0.18	0.0054 J
PCB-145	74472-40-5	ng/g	< 0.00047 U	0.00070 J	< 0.00017 U	< 0.00054 U	< 0.000089 U	< 0.000051 U	< 0.000058 U	0.0018 JN	< 0.00023 U	< 0.000086 U
PCB-146	51908-16-8	ng/g	0.11	0.069	0.051	0.18	0.033	0.048	0.27	0.64	1.1	0.030
PCB-147/149	68194-13-8	ng/g	0.44	0.45	0.23	0.58	0.16	0.23	1.0	2.7	4.2	0.15
PCB-148	74472-41-6	ng/g	< 0.00067 U	< 0.00023 U	< 0.00025 U	0.013 JN	< 0.00013 U	0.00038 JN	0.012	0.016	0.032	< 0.00012 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B325	B326	B327	B328	B329	B330	B331	B332	B333	B334
		Sample ID	PDI-SG-B325-BL1	PDI-SG-B326-BL1	PDI-SG-B327-BL1	PDI-SG-B328-BL1	PDI-SG-B329-BL1	PDI-SG-B330-BL1	PDI-SG-B331-BL1	PDI-SG-B332-BL1	PDI-SG-B333-BL1	PDI-SG-B334-BL1
		Sample Date	26 Apr 2018	23 May 2018	26 Apr 2018	27 Apr 2018	23 Apr 2018	24 May 2018	27 Apr 2018	24 May 2018	24 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	< 0.0047 U	0.0069 JN	0.0096 JN	0.021	0.010 J	0.0073 JN	0.022	0.055	0.081	0.0065 JN
PCB-150	68194-08-1	ng/g	0.0028 J	< 0.00015 U	< 0.00017 U	0.013	< 0.000085 U	0.0011 JN	0.011 JN	0.010 JN	0.019	< 0.000083 U
PCB-152	68194-09-2	ng/g	< 0.00049 U	< 0.00016 U	< 0.00018 U	0.0047 J	< 0.000092 U	0.00042 JN	0.0017 JN	< 0.00024 U	0.0033 JN	< 0.000089 U
PCB-153/168	35065-27-1	ng/g	0.46	0.38	0.26	0.57	0.19	0.24	1.1	3.1	4.3	0.16
PCB-154	60145-22-4	ng/g	0.0087 JN	0.0072 J	0.0046 J	0.055	0.0018 JN	0.0062 JN	0.061	0.11	0.19	0.0030 J
PCB-155	33979-03-2	ng/g	< 0.00045 U	< 0.00015 U	< 0.00017 U	< 0.00049 U	< 0.000085 U	0.00048 J	0.00058 JN	< 0.00023 U	< 0.00021 U	< 0.000083 U
PCB-156/157	38380-08-4	ng/g	0.044	0.054	0.024 J	0.039	0.026	0.024	0.086	0.21	0.20	0.021
PCB-158	74472-42-7	ng/g	0.037 JN	0.047	0.022	0.036	0.021	0.023	0.10	0.25	0.29	0.017
PCB-159	39635-35-3	ng/g	< 0.0021 U	< 0.0013 U	< 0.0019 U	0.0069 J	< 0.0014 U	0.0020 JN	0.011 JN	0.054	0.064	0.0018 J
PCB-16	38444-78-9	ng/g	< 0.0010 U	0.0099	0.0052 JN	0.011	0.0037 JN	0.0096 J	0.017	0.058	0.096	0.0038 JN
PCB-161	74472-43-8	ng/g	< 0.0021 U	< 0.0013 U	< 0.0019 U	< 0.0013 U	< 0.0014 U	< 0.00060 U	< 0.0012 U	< 0.0019 U	< 0.0042 U	< 0.00084 U
PCB-162	39635-34-2	ng/g	< 0.0021 U	< 0.0013 U	< 0.0019 U	< 0.0012 U	< 0.0013 U	< 0.00057 U	< 0.0012 U	< 0.0018 U	< 0.0040 U	< 0.00083 U
PCB-164	74472-45-0	ng/g	0.029 JN	0.035	0.019	0.039	0.013 JN	0.017 JN	0.090	0.21	0.29	0.012 JN
PCB-165	74472-46-1	ng/g	< 0.0024 U	< 0.0015 U	< 0.0022 U	< 0.0015 U	< 0.0015 U	< 0.00068 U	< 0.0014 U	< 0.0021 U	< 0.0048 U	< 0.00096 U
PCB-167	52663-72-6	ng/g	0.016	0.014 JN	0.0080 J	0.015	0.0097 J	0.0088 J	0.037	0.091	0.085	0.0070 J
PCB-169	32774-16-6	ng/g	< 0.0017 U	< 0.0010 U	< 0.0016 U	< 0.00092 U	< 0.0010 U	< 0.00044 U	< 0.00088 U	< 0.0014 U	< 0.0031 U	< 0.00062 U
PCB-17	37680-66-3	ng/g	0.021	0.019 JN	0.0077 JN	0.030	0.0058 JN	0.012 JN	0.036 JN	0.076	0.13	0.0081 J
PCB-170	35065-30-6	ng/g	0.15	0.092	0.090	0.17	0.063	0.073	0.37	1.7	1.8	0.048
PCB-171/173	52663-71-5	ng/g	0.046	0.027 JN	0.021 JN	0.058	0.018 J	0.024	0.13	0.50	0.56	0.014 JN
PCB-172	52663-74-8	ng/g	0.023 JN	0.017	0.011 JN	0.032	0.011 J	0.013	0.072	0.30	0.32	0.0081 J
PCB-174	38411-25-5	ng/g	0.17	0.089	0.094	0.21	0.060	0.091	0.43	1.9	2.2	0.048
PCB-175	40186-70-7	ng/g	0.0057 J	0.0015 JN	0.0030 JN	0.0069 JN	< 0.00058 U	0.0030 J	0.019	0.068	0.077	0.0014 J
PCB-176	52663-65-7	ng/g	0.019	0.011	0.0073 JN	0.021 JN	0.0061 J	0.0092 JN	0.051	0.20	0.26	0.0044 JN
PCB-177	52663-70-4	ng/g	0.10	0.057	0.051	0.13	0.038	0.056	0.26	1.1	1.3	0.025 JN
PCB-178	52663-67-9	ng/g	0.040	0.022	< 0.0011 U	0.060	0.014	0.023	0.098	0.35	0.47	0.012
PCB-179	52663-64-6	ng/g	0.071	0.041	0.042	0.12	0.025	0.038	0.19	0.72	0.96	0.021
PCB-18/30	37680-65-2	ng/g	0.029 JN	0.027	0.012 JN	0.032	0.010 JN	0.018 JN	0.042	0.13	0.20	0.0095 JN
PCB-180/193	35065-29-3	ng/g	0.33	0.18	0.18	0.39	0.14	0.17	0.79	3.7	4.1	0.11
PCB-181	74472-47-2	ng/g	< 0.0019 U	< 0.00035 U	< 0.00098 U	< 0.000023 U	< 0.00057 U	< 0.00015 U	< 0.000026 U	< 0.00044 U	< 0.00050 U	< 0.00028 U
PCB-182	60145-23-5	ng/g	< 0.0018 U	< 0.00033 U	< 0.00095 U	0.0026 JN	< 0.00055 U	0.0014 JN	< 0.000025 U	< 0.00042 U	< 0.00047 U	< 0.00027 U
PCB-183/185	52663-69-1	ng/g	0.11	0.064	0.056	0.12	0.038	0.056	0.25	1.1	1.3	0.032
PCB-184	74472-48-3	ng/g	< 0.0015 U	< 0.00028 U	< 0.00081 U	< 0.000019 U	0.00098 JN	0.00080 J	< 0.000021 U	< 0.00036 U	< 0.00041 U	< 0.00023 U
PCB-186	74472-49-4	ng/g	< 0.0015 U	< 0.00028 U	< 0.00078 U	< 0.000018 U	< 0.00046 U	< 0.00012 U	< 0.000020 U	< 0.00035 U	< 0.00039 U	< 0.00022 U
PCB-187	52663-68-0	ng/g	0.23	0.12	0.12	0.29	0.081	0.12	0.48	2.1	2.6	0.070
PCB-188	74487-85-7	ng/g	< 0.0012 U	< 0.00024 U	< 0.00066 U	0.0033 JN	< 0.00041 U	< 0.00011 U	< 0.000019 U	< 0.00032 U	< 0.00036 U	< 0.00020 U
PCB-189	39635-31-9	ng/g	< 0.0021 U	0.0029 J	< 0.0029 U	0.0069 J	< 0.0017 U	0.0024 JN	0.017	0.063	0.060	0.0021 JN
PCB-19	38444-73-4	ng/g	0.0084 JN	0.037	0.0034 JN	0.015 JN	0.0038 JN	0.013	0.038	0.018	0.039	0.0052 JN
PCB-190	41411-64-7	ng/g	0.027 JN	0.015	0.014	0.034	0.014	0.014 JN	0.072	0.33	0.34	0.0096 J
PCB-191	74472-50-7	ng/g	0.0061 J	0.0029 JN	< 0.00074 U	0.0083 JN	0.0033 J	0.0022 JN	0.018	0.082	0.084	0.0017 J
PCB-192	74472-51-8	ng/g	< 0.0016 U	< 0.00029 U	< 0.00083 U	< 0.000019 U	< 0.00048 U	< 0.00012 U	< 0.000021 U	< 0.00035 U	< 0.00040 U	< 0.00024 U
PCB-194	35694-08-7	ng/g	0.081	0.039	0.043	0.092	0.030	0.039	0.18	0.87	0.97	0.026
PCB-195	52663-78-2	ng/g	0.033	0.017 JN	0.017 JN	0.040	0.012	0.016	0.081	0.37	0.42	0.011
PCB-196	42740-50-1	ng/g	0.029 JN	0.013 JN	0.017	0.046	0.012	0.016 JN	0.091	0.36	0.45	0.0094 J
PCB-197	33091-17-7	ng/g	< 0.00073 U	0.00094 JN	< 0.00057 U	0.0047 J	< 0.00029 U	0.0013 JN	0.0061 JN	0.024 JN	0.034	< 0.00014 U
PCB-198/199	68194-17-2	ng/g	0.077	0.037	0.040	0.11	0.040	0.048	0.19	0.71	0.92	0.030 JN
PCB-2	2051-61-8	ng/g	< 0.0027 U	0.0024 JN	< 0.0013 U	0.011 JN	< 0.00031 U	0.0052 JN	0.023	0.0085 J	0.014	0.0013 JN
PCB-20/28	38444-84-7	ng/g	0.080	0.041	0.035	0.10	0.034	0.039	0.13	0.26	0.41	0.027
PCB-200	52663-73-7	ng/g	0.0083 JN	0.0030 JN	0.0049 J	0.011 JN	0.0025 JN	0.0050 J	0.021	0.091	0.11	0.0028 J
PCB-201	40186-71-8	ng/g	0.0059 J	0.0053 J	0.0051 J	0.012	0.0024 JN	0.0041 JN	0.023	0.085	0.10	0.0027 J
PCB-202	2136-99-4	ng/g	0.016 JN	0.0084 J	0.0097 JN	0.024	0.0082 J	0.011	0.033	0.12	0.16 J+	0.0082 J
PCB-203	52663-76-0	ng/g	0.051	0.024	0.026	0.066	0.019 JN	0.029	0.12	0.44	0.53	0.021
PCB-204	74472-52-9	ng/g	< 0.00074 U	< 0.00017 U	< 0.00057 U	< 0.00034 U	< 0.00029 U	< 0.00024 U	< 0.000092 U	< 0.00057 U	< 0.00071 U	< 0.00014 U
PCB-205	74472-53-0	ng/g	< 0.0029 U	0.0018 J	0.0032 JN	0.0039 JN	< 0.0011 U	0.0016 JN	0.0091 J	0.042	0.048	0.0015 JN
PCB-206	40186-72-9	ng/g	0.049	0.014 JN	0.028	0.044 JN	0.023	0.040	0.075	0.19	0.24 J+	0.024
PCB-207	52663-79-3	ng/g	< 0.0043 U	< 0.00066 U	0.0026 JN	0.0061 J	< 0.0012 U	0.0045 J	0.0087 J	0.022	0.024 JN	0.0026 J
PCB-208	52663-77-1	ng/g	0.016	0.0026 JN	0.0065 J	0.012	0.0074 J	0.012	0.022	0.034	0.047	0.0076 JN
PCB-209	2051-24-3	ng/g	0.057	0.011 JN	0.048	0.030	0.042	0.038	0.036	0.040	0.079	0.042
PCB-21/33	55702-46-0	ng/g	0.033	0.017 J	0.010 J	0.044	0.011 J	0.014 J	0.051	0.12	0.20	0.0076 J
PCB-22	38444-85-8	ng/g	0.024	0.0056 JN	0.0097 J	0.024	0.0093 J	0.011	0.030	0.074	0.12	0.0074 J
PCB-23	55720-44-0	ng/g	< 0.0010 U	< 0.00064 U	< 0.00072 U	< 0.0016 U	< 0.00054 U	< 0.00080 U	< 0.0013 U	< 0.0015 U	< 0.0016 U	< 0.00038 U
PCB-24	55702-45-9	ng/g	0.0092 JN	< 0.00046 U	< 0.00042 U	0.0014 J	< 0.00027 U	0.00099 JN	< 0.00040 U	0.0020 JN	0.0028 JN	< 0.00023 U
PCB-25	55712-37-3	ng/g	0.0061 J	< 0.00059 U	0.0033 J	0.013	0.0029 JN	0.0040 J	0.018	0.023	0.042	0.0025 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B325	B326	B327	B328	B329	B330	B331	B332	B333	B334
		Sample ID	PDI-SG-B325-BL1	PDI-SG-B326-BL1	PDI-SG-B327-BL1	PDI-SG-B328-BL1	PDI-SG-B329-BL1	PDI-SG-B330-BL1	PDI-SG-B331-BL1	PDI-SG-B332-BL1	PDI-SG-B333-BL1	PDI-SG-B334-BL1
		Sample Date	26 Apr 2018	23 May 2018	26 Apr 2018	27 Apr 2018	23 Apr 2018	24 May 2018	27 Apr 2018	24 May 2018	24 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.012 JN	0.0071 J	0.0053 J	0.015 J	0.0046 JN	0.0060 JN	0.021	0.039	0.069	0.0045 J
PCB-27	38444-76-7	ng/g	0.0038 JN	0.012	0.0020 J	0.0067 J	0.0014 JN	0.0051 J	0.0087 J	0.0092 JN	0.020 JN	0.0018 JN
PCB-3	2051-62-9	ng/g	0.0028 JN	0.0021 JN	< 0.0018 U	0.0042 JN	< 0.00034 U	< 0.0031 UJ	0.013	0.027	0.026	0.0013 J
PCB-31	16606-02-3	ng/g	0.059	0.028	0.025 J	0.059	0.025	0.025	0.079	0.18	0.28	0.019 J
PCB-32	38444-77-8	ng/g	0.014	0.014	0.0063 JN	0.020 JN	0.0043 JN	0.010 J	0.026	0.044 JN	0.078	0.0054 JN
PCB-34	37680-68-5	ng/g	< 0.0011 U	< 0.00067 U	< 0.00075 U	< 0.0017 U	< 0.00056 U	< 0.00083 U	0.0016 J	< 0.0015 U	0.0025 J	< 0.00040 U
PCB-35	37680-69-6	ng/g	< 0.0010 U	< 0.00065 U	< 0.00073 U	0.0025 JN	< 0.00055 U	0.0023 J	0.0045 J	0.0045 J	0.0073 J	0.0010 J
PCB-36	38444-87-0	ng/g	< 0.0010 U	< 0.00063 U	< 0.00070 U	< 0.0015 U	< 0.00052 U	< 0.00072 U	< 0.0011 U	< 0.0013 U	< 0.0014 U	< 0.00037 U
PCB-37	38444-90-5	ng/g	0.023	0.0090 J	0.010 J	0.036	0.012	0.011	0.035	0.071	0.10	0.0091 J
PCB-38	53555-66-1	ng/g	< 0.0011 U	< 0.00067 U	< 0.00075 U	< 0.0016 U	< 0.00056 U	< 0.00078 U	< 0.0012 U	< 0.0015 U	< 0.0015 U	< 0.00040 U
PCB-39	38444-88-1	ng/g	< 0.00096 U	< 0.00060 U	< 0.00067 U	0.0019 J	< 0.00051 U	< 0.00071 U	0.0025 J	< 0.0013 U	< 0.0014 U	< 0.00036 U
PCB-4	13029-08-8	ng/g	< 0.0059 U	0.0071 JN	< 0.0046 U	0.021	< 0.0029 U	0.0099 J	0.023 JN	0.035	0.056 JN	0.0061 JN
PCB-40/41/71	38444-93-8	ng/g	0.036 J	0.037	0.020 J	0.063	0.016 J	0.025 J	0.067	0.12	0.20	0.018 J
PCB-42	36559-22-5	ng/g	0.016 JN	0.014	0.013	0.040	0.0082 JN	0.012	0.035 JN	0.057	0.092	0.0091 J
PCB-43/73	70362-46-8	ng/g	< 0.0020 U	< 0.0013 U	< 0.0018 U	0.014 J	< 0.0011 U	0.0044 J	0.0039 JN	0.0082 J	0.011 JN	0.0011 JN
PCB-44/47/65	41464-39-5	ng/g	0.099	0.11	0.059	0.28	0.044	0.077	0.22	0.27	0.54	0.049
PCB-45/51	70362-45-7	ng/g	0.019 J	0.014 JN	0.0079 J	0.089	0.0051 JN	0.018 J	0.047	0.053	0.12	0.0082 J
PCB-46	41464-47-5	ng/g	< 0.0027 U	< 0.0018 U	< 0.0024 U	0.0058 JN	< 0.0015 U	0.0020 JN	0.0083 J	0.011 JN	0.021 JN	0.0020 J
PCB-48	70362-47-9	ng/g	0.011 J	0.013	0.0065 J	0.019	0.0058 J	0.0092 J	0.017 JN	0.037	0.064	0.0047 J
PCB-49/69	41464-40-8	ng/g	0.070	0.062	0.037	0.19	0.034	0.050	0.17	0.18	0.38	0.035
PCB-5	16605-91-7	ng/g	< 0.0049 U	< 0.0044 U	< 0.0039 U	< 0.00094 U	< 0.0022 U	< 0.00082 U	< 0.0011 U	0.0016 JN	< 0.00078 U	< 0.0029 U
PCB-50/53	62796-65-0	ng/g	0.015 JN	0.019 J	0.0055 J	0.056	0.0058 JN	0.015 J	0.053	0.040	0.092	0.0071 J
PCB-52	35693-99-3	ng/g	0.13	0.20	0.080	0.22	0.063	0.090	0.27	0.35	0.58	0.069
PCB-54	15968-05-5	ng/g	< 0.00016 U	0.0023 JN	< 0.000059 U	0.013 JN	< 0.000048 U	0.0042 JN	0.0097 JN	0.0039 J	0.0080 J	0.0011 J
PCB-55	74338-24-2	ng/g	< 0.0016 U	< 0.0010 U	0.0018 J	< 0.0015 U	< 0.00087 U	0.00086 JN	0.0038 J	0.0082 J	0.0071 JN	0.00079 J
PCB-56	41464-43-1	ng/g	0.038	0.024	0.018	0.043	0.018	0.020	0.050	0.10	0.13	0.016
PCB-57	70424-67-8	ng/g	< 0.0016 U	< 0.0011 U	< 0.0014 U	< 0.0016 U	< 0.00089 U	< 0.00051 U	< 0.00094 U	< 0.00096 U	< 0.0011 U	< 0.00042 U
PCB-58	41464-49-7	ng/g	< 0.0016 U	< 0.0011 U	< 0.0014 U	0.0024 JN	< 0.00090 U	< 0.00049 U	< 0.00090 U	0.0035 J	< 0.0011 U	0.00053 JN
PCB-59/62/75	74472-33-6	ng/g	0.0075 J	0.0044 J	0.0036 JN	0.016 J	0.0025 JN	0.0053 JN	0.015 J	0.018 J	0.033	0.0027 JN
PCB-6	25569-80-6	ng/g	< 0.0043 U	< 0.0039 U	< 0.0034 U	0.0060 J	< 0.0019 U	0.0016 JN	0.0074 JN	0.023	0.042	0.0027 JN
PCB-60	33025-41-1	ng/g	0.014 JN	0.011	0.0070 J	0.010 JN	0.0071 JN	0.0082 J	0.013	0.041	0.035	0.0075 J
PCB-61/70/74/76	33284-53-6	ng/g	0.16	0.20	0.10	0.20	0.085	0.097	0.23	0.39	0.51	0.080
PCB-63	74472-34-7	ng/g	< 0.0014 U	0.0023 JN	0.0022 J	0.0054 J	< 0.00081 U	0.0023 J	0.0057 J	0.0080 J	0.012	0.0013 JN
PCB-64	52663-58-8	ng/g	0.032	0.030	0.020	0.040	0.017	0.020	0.049	0.078	0.12	0.017
PCB-66	32598-10-0	ng/g	0.094	0.076	0.055	0.14	0.049	0.059	0.16	0.23	0.32	0.044
PCB-67	73575-53-8	ng/g	< 0.0014 U	< 0.00091 U	< 0.0012 U	0.0026 JN	< 0.00077 U	0.0010 J	0.0022 JN	0.0067 J	0.0095 JN	0.00098 J
PCB-68	73575-52-7	ng/g	< 0.0014 U	< 0.00093 U	< 0.0012 U	0.015	< 0.00078 U	0.0019 J	0.015	0.0046 J	0.0080 J	< 0.00038 U
PCB-7	33284-50-3	ng/g	< 0.0044 U	< 0.0040 U	< 0.0035 U	0.0015 JN	< 0.0019 U	< 0.00077 U	< 0.0011 U	0.0038 JN	0.0042 JN	< 0.0026 U
PCB-72	41464-42-0	ng/g	< 0.0016 U	< 0.0010 U	< 0.0014 U	0.010	< 0.00087 U	< 0.00050 U	0.011	0.0070 J	0.0093 JN	0.0011 J
PCB-77	32598-13-3	ng/g	0.011 J	0.0059 J	0.0076 JN	0.013	0.0068 J	0.0060 J	0.017	0.028	0.029	0.0073 J
PCB-78	70362-49-1	ng/g	< 0.0016 U	< 0.0011 U	< 0.0014 U	< 0.0015 U	< 0.00090 U	< 0.00049 U	< 0.00091 U	< 0.00092 U	< 0.0011 U	< 0.00043 U
PCB-79	41464-48-6	ng/g	< 0.0014 U	0.0020 J	0.0018 JN	0.0043 J	< 0.00078 U	0.00073 JN	0.0061 J	0.0040 JN	0.0052 JN	0.00070 JN
PCB-8	34883-43-7	ng/g	0.018 J	0.0049 JN	0.0069 JN	0.024	0.0077 JN	0.0061 JN	0.026	0.10	0.16	0.0064 JN
PCB-80	33284-52-5	ng/g	< 0.0014 U	< 0.00090 U	< 0.0012 U	< 0.0013 U	< 0.00076 U	< 0.00044 U	< 0.00080 U	< 0.00082 U	< 0.00097 U	< 0.00037 U
PCB-81	70362-50-4	ng/g	< 0.0015 U	< 0.00098 U	< 0.0013 U	< 0.0014 U	< 0.00083 U	< 0.00046 U	< 0.00084 U	< 0.00088 U	< 0.0010 U	< 0.00041 U
PCB-82	52663-62-4	ng/g	0.022	0.038 JN	0.012 J	0.027	0.012 JN	0.015	0.048	0.062	0.060	0.013 JN
PCB-83/99	60145-20-2	ng/g	0.15	0.24	0.092	0.35	0.080	0.10	0.46	0.50	0.77	0.077
PCB-84	52663-60-2	ng/g	0.044	0.081 JN	0.024 JN	0.069	0.027	0.031	0.12	0.11	0.14	0.023
PCB-85/116/117	65510-45-4	ng/g	0.034 JN	0.067	0.028 J	0.048	0.026 J	0.023 JN	0.070	0.082	0.083	0.022 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.14	0.28	0.085	0.19	0.081	0.087	0.33	0.36	0.44	0.073
PCB-88/91	55215-17-3	ng/g	0.035	0.060	0.018 J	0.14	0.015 J	0.031	0.14	0.090	0.16	0.017 J
PCB-89	73575-57-2	ng/g	< 0.00087 U	< 0.00033 U	< 0.00051 U	< 0.00091 U	0.0018 J	< 0.00045 U	< 0.00069 U	0.0053 JN	< 0.00089 U	< 0.00022 U
PCB-9	34883-39-1	ng/g	< 0.0045 U	< 0.0041 U	< 0.0036 U	0.0011 JN	< 0.0020 U	< 0.00090 U	0.0014 JN	0.0056 J	0.0080 JN	< 0.0026 U
PCB-90/101/113	68194-07-0	ng/g	0.26	0.44	0.15	0.43	0.13	0.17	0.80	1.0	1.4	0.12
PCB-92	52663-61-3	ng/g	0.054	0.077	0.025	0.11	0.024	0.034	0.18	0.24	0.41	0.022
PCB-93/100	73575-56-1	ng/g	0.0060 J	0.0091 JN	0.0018 JN	0.087	0.0018 JN	0.0088 J	0.038 JN	0.048	0.074	0.0014 JN
PCB-94	73575-55-0	ng/g	< 0.00087 U	< 0.00033 U	< 0.00051 U	0.016	< 0.00029 U	0.0016 J	0.0097 J	0.0068 J	0.014	< 0.00022 U
PCB-95	38379-99-6	ng/g	0.19	0.34	0.10	0.28	0.092	0.13	0.63	0.73	1.1	0.093
PCB-96	73575-54-9	ng/g	0.0025 J	0.0038 J	< 0.00038 U	0.016	< 0.00022 U	0.0023 J	0.0098	0.0046 JN	0.012	0.0013 J
PCB-98/102	60233-25-2	ng/g	0.0095 J	0.0097 J	0.0025 JN	0.015 JN	0.0027 JN	0.0058 JN	0.026	0.029	0.059	0.0032 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	6.69	7.0	3.7	9.7	3.1	4.0	16	40.2	53	2.7

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B325	B326	B327	B328	B329	B330	B331	B332	B333	B334
		Sample ID	PDI-SG-B325-BL1	PDI-SG-B326-BL1	PDI-SG-B327-BL1	PDI-SG-B328-BL1	PDI-SG-B329-BL1	PDI-SG-B330-BL1	PDI-SG-B331-BL1	PDI-SG-B332-BL1	PDI-SG-B333-BL1	PDI-SG-B334-BL1
		Sample Date	26 Apr 2018	23 May 2018	26 Apr 2018	27 Apr 2018	23 Apr 2018	24 May 2018	27 Apr 2018	24 May 2018	24 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.70 UJ	< 0.77 U	< 0.77 UJ	< 0.39 U	< 1.3 UJ	< 1.1 U	< 0.48 U	< 0.88 U	< 1.1 U	< 1.2 UJ
2,4-DDE	3424-82-6	µg/kg	< 0.70 UJ	< 0.79 U	< 0.77 UJ	< 0.40 U	< 1.3 UJ	< 1.1 U	< 0.48 U	< 0.88 U	< 1.1 U	< 1.2 UJ
2,4-DDT	789-02-6	µg/kg	< 0.70 UJ	< 0.94 U	< 0.77 UJ	< 0.47 U	< 1.3 UJ	< 1.1 U	< 0.48 U	< 0.94 U	< 1.1 U	< 1.2 UJ
4,4'-DDD	72-54-8	µg/kg	1.4 J	< 0.77 U	1.5 J	0.33 J	0.90 J	0.93 J	0.96	0.55 J	1.0 J	0.66 J
4,4'-DDE	72-55-9	µg/kg	3.3 J	< 0.77 U	3.5 J	0.96	3.4 J	2.5	2.1	1.1	2.0	2.3 J
4,4'-DDT	50-29-3	µg/kg	0.66 J	< 0.77 U	0.73 J	< 0.39 U	0.99 J	< 1.1 U	0.33 J	< 0.88 U	< 1.1 U	< 1.2 UJ
Total DDx (b)	T_DDx (PDI)	µg/kg	5.7	< 0.94 U	6.1	1.5	5.9	4.0	3.6	2.1	3.6	3.6
Aldrin	309-00-2	µg/kg	< 0.70 UJ	< 0.79 U	< 0.77 UJ	< 0.40 U	< 1.3 UJ	< 1.1 U	< 0.48 U	< 0.88 U	< 1.1 U	< 1.2 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 1.4 UJ	< 1.5 U	< 1.5 UJ	< 0.78 U	< 2.6 UJ	< 2.2 U	< 0.96 U	< 1.8 U	< 2.2 U	< 2.4 UJ
cis-Nonachlor	5103-73-1	µg/kg	< 0.70 UJ	< 0.97 U	< 0.77 UJ	< 0.49 U	< 1.3 UJ	< 1.1 U	< 0.49 U	< 0.97 U	< 1.1 U	< 1.2 UJ
Dieldrin	60-57-1	µg/kg	< 1.4 UJ	< 2.0 U	< 1.5 UJ	< 1.0 U	< 2.6 UJ	< 2.2 U	< 1.0 U	< 2.0 U	< 2.2 U	< 2.4 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.70 UJ	< 0.77 U	< 0.77 UJ	< 0.39 U	< 1.3 UJ	< 1.1 U	< 0.48 U	< 0.88 U	< 1.1 U	< 1.2 UJ
gamma-Chlordane	5566-34-7	µg/kg	< 1.4 UJ	< 1.5 U	< 1.5 UJ	< 0.78 U	< 2.6 UJ	< 2.2 U	< 0.96 U	< 1.8 U	< 2.2 U	< 2.4 UJ
Heptachlor	76-44-8	µg/kg	< 0.70 UJ	< 0.77 U	< 0.77 UJ	< 0.39 U	< 1.3 UJ	< 1.1 U	< 0.48 U	< 0.88 U	< 1.1 U	< 1.2 UJ
Oxychlordane	27304-13-8	µg/kg	< 1.4 UJ	< 2.0 U	< 1.5 UJ	< 1.0 U	< 2.6 UJ	< 2.2 U	< 1.0 U	< 2.0 U	< 2.2 U	< 2.4 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 1.4 UJ	< 1.5 U	< 1.5 UJ	< 0.78 U	< 2.6 UJ	< 2.2 U	< 0.96 U	< 1.8 U	< 2.2 U	< 2.4 UJ
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.4 UJ	< 2 U	< 1.5 UJ	< 1 U	< 2.6 UJ	< 2.2 U	< 1 U	< 2 U	< 2.2 U	< 2.4 UJ
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.1	2.4	1.3 J	4.4	1.2 J	1.5	4.1	5.2	6.2 J	1.0 J
Acenaphthene	83-32-9	µg/kg	3.2	2.9	0.87	6.4	0.75	2.2	11	7.6	6.8 J	0.69
Acenaphthylene	208-96-8	µg/kg	2.2	1.4	1.2	4.1	0.87	3.5	7.2	3.1	3.3 J	0.78
Anthracene	120-12-7	µg/kg	7.2	6.6	4.0	7.5	3.3	8.2	14	8.6	11	2.1
Benz(a)anthracene	56-55-3	µg/kg	28	16	9.6	39	6.7	25	73	28	25	5.0
Benzo(a)pyrene	50-32-8	µg/kg	21	16	11	48	8.5	25	93	43	26	6.5
Benzo(b)fluoranthene	205-99-2	µg/kg	49	29	15	63	12	26	110 J	76	35	9.2
Benzo(g,h,i)perylene	191-24-2	µg/kg	16	10	11	35	10	16	70	32	20	7.5
Benzo(k)fluoranthene	207-08-9	µg/kg	14	11	3.9	19	3.9	11	39	29	12	2.5
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	120 J	52 J	120 J	47 J	130 J	61 J	110	59 J	97 J	82 J
Chrysene	218-01-9	µg/kg	68	34	15	50	12	27	95	78	37	8.8
Dibenz(a,h)anthracene	53-70-3	µg/kg	3.2	2.5	1.9	9.0	1.7	3.5	16	6.9	4.0	1.3
Fluoranthene	206-44-0	µg/kg	220	17	21	70	15	49	140 J	200	83	12
Fluorene	86-73-7	µg/kg	5.3	2.0	1.4	4.6	1.0	2.9	8.4	8.8	13	1.1
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	15	11	8.5	36	8.0	16	74	37	18	6.1
Naphthalene	91-20-3	µg/kg	2.7	6.3	1.9	16	1.7	3.5	13	8.7	8.9 J	1.8
Phenanthrene	85-01-8	µg/kg	120	10	10	38	8.7	23	63	150	55	6.3
Pyrene	129-00-0	µg/kg	160	20	24	77	19	52	170 J	150	80	14
Total PAHs (b)	T_PAH (PDI)	µg/kg	737	198	142	527	114	295	1001	872	444	87
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	34	24	16	71	13	35	135	64	38	10
Metals												
Arsenic	7440-38-2	mg/kg	5.4	4.5	5.9	4.3	5.9	5.0	4.7	4.2	4.6	4.6
Cadmium	7440-43-9	mg/kg	0.16 J	0.079 J	0.20 J	0.13 J	0.17 J	0.16 J	0.20 J	0.14 J	0.20 J	0.23 J
Copper	7440-50-8	mg/kg	42	18	44	28	41	34	35 J	26	37 J	33
Lead	7439-92-1	mg/kg	9.6	11	12	10	9.3	9.3	13	8.5	11	8.4
Mercury	7439-97-6	mg/kg	0.040 J	0.023 J	0.071	0.057	0.054	0.063	0.060	0.038	0.060	0.066
Tri-n-butyltin	36643-28-4	µg/kg	< 2.8 U	1.2 J	< 3.0 U	5.5	< 2.6 U	< 2.2 U	20	< 1.8 U	< 2.2 U	< 2.4 U
Zinc	7440-66-6	mg/kg	98	78	100	89	95	85	97	79	95	81
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	40 J	< 70 U	74 J	58 J	210	48 J	88 J	35 J	99 J	100
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	270	100	380	250	690	370	490 J	260	520	500
Other												
Total Solids@104C - D2216 (f)	TSOLID	%		68.0				45.6		56.2	46.0	
Total Solids@104C - E160.3 (f)	TSOLID	%	38.5		36.1	63.0	39.3		50.5			46.0
Total Solids@104C - E160.3M (f)	TSOLID	%	34.9	64.4	32.6	64.0	37.6	45.3	51.6	55.6	44.6	41.1
Total Solids@70C	TSOLID70	%	36	69	33	65	38	46	53	56	44	41
Gravel	GS-Gravel	%	0	0	0.6	1.3	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0.2	0.1	0.2	1.2	0	0.1	0.1	0.3	0.2	0
Sand, Medium	GS-Msand	%	0.3	16.4	0.6	43.1	0.2	10.1	1.6	27.7	1.2	0.6
Sand, Fine (#200) (d)	GS-Fsand-200	%	8.152	67.85	6.243	22.97	11.57	22.17	38.39	30.59	16.63	21.68
Sand, Fine (#230) (d)	GS-Fsand	%	10.8	70.7	8.4	25.7	16.0	24.6	45.2	33.2	20.4	27.0
Silt (#200) (d)	GS-Silt-200	%	77.04	12.44	77.15	26.02	78.12	58.42	52.60	36.50	67.66	68.81

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B325	B326	B327	B328	B329	B330	B331	B332	B333	B334
		Sample ID	PDI-SG-B325-BL1	PDI-SG-B326-BL1	PDI-SG-B327-BL1	PDI-SG-B328-BL1	PDI-SG-B329-BL1	PDI-SG-B330-BL1	PDI-SG-B331-BL1	PDI-SG-B332-BL1	PDI-SG-B333-BL1	PDI-SG-B334-BL1
		Sample Date	26 Apr 2018	23 May 2018	26 Apr 2018	27 Apr 2018	23 Apr 2018	24 May 2018	27 Apr 2018	24 May 2018	24 May 2018	23 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	74.4	9.6	75.0	23.3	73.7	56.0	45.8	33.9	63.9	63.5
Clay	GS-Clay	%	14.3	3.3	15.3	5.4	10.0	9.1 L	7.3	4.9	14.3	8.8
Percent Fines (e)	GS-FINES	%	91.34	15.74	92.45	31.42	88.12	67.52	59.9	41.4	81.96	77.61
Total Organic Carbon	TOC	mg/kg	31000	4600	44000	7100	33000	22000	14000	18000	25000	28000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B335	B336	B337	B338	B339	B340	B341	B342	B342	B343
		Sample ID	PDI-SG-B335-BL1	PDI-SG-B336-BL1	PDI-SG-B337-BL1	PDI-SG-B338-BL1	PDI-SG-B339-BL1	PDI-SG-B340-BL1	PDI-SG-B341-BL1	PDI-SG-B342-BL1	PDI-SG-B342-BL1-D	PDI-SG-B343-BL1
		Sample Date	23 May 2018	27 Apr 2018	24 May 2018	24 May 2018	28 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.014	0.028	0.040	0.049	0.019	0.079	0.019	0.070	0.067	0.035
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0034 J	0.0067	0.0064	0.0089	0.0047 JN	0.011	0.0035 J	0.012 JN	0.010 JN	0.0063 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00052 J+	0.00077 J+	0.00085 JN	0.00095 J+	0.00038 J+	0.00062 J+	0.00026 J+	0.0016 J+	0.0017 J+	0.00040 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00029 J+	0.00069 J+	0.00051 JN	0.00077 J+	0.00039 J+	0.00093 J+	0.00036 J+	0.00093 J	0.00083 J	0.00050 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00044 J+	0.00060 JN	0.00085 J	0.00096 J	0.0012 J	0.0013 J	0.00032 JN	0.0013 J	0.0012 J	0.00092 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00064 J+	0.0017 J	0.0015 JN	0.0022 J	0.00087 JN	0.0061	0.00096 J	0.0025 J	0.0024 J	0.0015 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00021 JN	< 0.00029 U	0.00041 J+	0.00056 J+	0.00040 JN	0.00089 J	0.00020 J	< 0.00022 U	0.00055 J	0.00042 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00053 J+	0.0011 J+	0.0014 J	0.0020 J	0.00091 J	0.0035 J	0.00079 J+	0.0019 J	0.0018 J	0.0014 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00032 U	< 0.00022 U	< 0.00050 U	< 0.00060 U	< 0.000079 U	< 0.00012 U	< 0.000057 U	0.0015 J+	0.0012 J+	< 0.00013 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00013 J+	0.00032 J	0.00029 J+	0.00048 J	0.00016 J+	0.00068 JN	0.00023 J+	0.00060 J	0.00050 J	0.00030 J+
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00013 U	< 0.00024 U	0.00035 J+	0.00037 J+	0.00023 J+	0.00039 J+	< 0.000091 U	0.00040 J	0.00041 J	0.00020 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00015 J+	0.00042 J+	0.00030 J+	0.00033 J+	0.00070 J+	0.00048 J+	< 0.00012 U	0.00044 J	< 0.00013 U	< 0.000092 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00017 J+	< 0.00025 U	0.00030 J+	0.00039 J+	0.00041 J+	0.00047 J+	< 0.00012 U	0.00034 J	0.00029 JN	0.00026 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00013 U	< 0.000089 U	< 0.00024 U	0.00034 J+	< 0.000057 U	0.00041 JN	< 0.000053 U	0.00018 JN	0.00027 JN	0.00029 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00037 J+	0.00052 J+	0.00073 J+	0.00075 J+	< 0.00034 U	0.0066	0.00050 J+	0.00048 J+	0.00049 J+	0.00058 J+
OCDD	3268-87-9	µg/kg	0.12	0.23	0.33	0.41	0.17	0.73	0.15	0.53	0.54	0.31
OCDF	39001-02-0	µg/kg	0.0084	0.018	0.019	0.027	0.010	0.035	0.0096	0.044	0.039	0.023
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00073	0.0013	0.0017	0.0025	0.0011	0.0044	0.00084	0.0028	0.0027	0.0017
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00071	0.0012	0.0014	0.0025	0.00095	0.0036	0.00081	0.0027	0.0025	0.0016
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00064	0.0012	0.0013	0.0024	0.0009	0.0033	0.00079	0.0026	0.0023	0.0014
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0023 J	0.011	0.0031 J	0.0043 JN	0.0027 JN	0.0078 J	0.0035 JN	0.0049 J+	0.0083 J+	0.0012 JN
PCB-10	33146-45-1	ng/g	< 0.0044 U	0.0030 J	< 0.00065 U	< 0.00062 U	< 0.00085 U	< 0.0052 U	< 0.00086 U	< 0.00060 U	< 0.00069 U	< 0.0028 U
PCB-103	60145-21-3	ng/g	0.0043 JN	0.021	0.026	0.027	0.010 JN	0.081	0.0079 J	0.0042 J	0.0039 J	0.020
PCB-104	56558-16-8	ng/g	< 0.00020 U	< 0.00068 U	< 0.00025 U	< 0.00013 U	< 0.00085 U	0.0081 J	< 0.00080 U	< 0.00026 U	< 0.00032 U	0.0042 J
PCB-105	32598-14-4	ng/g	0.054	0.058	0.062	0.080	0.040	0.18	0.043	0.062	0.073	0.060
PCB-106	70424-69-0	ng/g	< 0.00098 U	< 0.0018 U	< 0.0013 U	< 0.0016 U	< 0.0014 U	< 0.0052 U	< 0.0015 U	< 0.0015 U	< 0.0023 U	< 0.0011 U
PCB-107	70424-68-9	ng/g	0.014	0.016	0.025	0.027	0.012 JN	0.092	0.012	0.010 JN	0.014	0.017
PCB-108/124	70362-41-3	ng/g	0.0052 JN	0.0064 JN	0.0060 JN	0.0086 JN	0.0048 J	0.013 JN	0.0053 J	0.0059 J	0.0067 JN	0.0061 J
PCB-11	2050-67-1	ng/g	0.037	0.049	0.024	0.047	0.025	0.19	0.028 JN	0.075	0.060	0.050
PCB-110/115	38380-03-9	ng/g	0.18	0.31	0.27	0.33	0.23	0.73	0.19	0.18	0.22	0.28
PCB-111	39635-32-0	ng/g	< 0.00018 U	< 0.00061 U	0.0034 J	0.0034 JN	< 0.00076 U	0.0064 J	< 0.00071 U	< 0.00023 U	0.0012 JN	< 0.00019 U
PCB-112	74472-36-9	ng/g	< 0.00019 U	0.0036 J	0.0014 JN	0.0020 JN	0.0020 JN	< 0.00068 U	0.0017 JN	< 0.00025 U	0.0027 J	0.00068 JN
PCB-114	74472-37-0	ng/g	0.0044 J	< 0.0016 U	< 0.0012 U	0.0044 JN	< 0.0013 U	0.0080 JN	< 0.0013 U	0.0024 JN	< 0.0021 U	< 0.0010 U
PCB-118	31508-00-6	ng/g	0.14	0.18	0.16	0.21	0.13	0.69	0.14	0.14	0.17	0.19
PCB-12/13	2974-92-7	ng/g	< 0.0040 U	< 0.0011 U	0.0034 JN	0.0051 JN	0.0019 JN	< 0.0047 U	0.0032 JN	< 0.00051 U	0.0042 JN	0.0031 JN
PCB-120	68194-12-7	ng/g	0.0013 J	0.0044 J	0.0073 J	0.0076 J	0.0022 JN	0.017 JN	< 0.00070 U	0.0012 JN	0.0019 JN	0.0089 J
PCB-121	56558-18-0	ng/g	< 0.00019 U	< 0.00065 U	0.0013 JN	< 0.00012 U	< 0.00081 U	< 0.00067 U	< 0.00076 U	< 0.00024 U	< 0.00031 U	< 0.00019 U
PCB-122	76842-07-4	ng/g	< 0.0011 U	< 0.0020 U	< 0.0015 U	0.0037 J	< 0.0016 U	0.0081 JN	< 0.0016 U	< 0.0017 U	< 0.0025 U	< 0.0013 U
PCB-123	65510-44-3	ng/g	0.0034 JN	0.0034 JN	0.0037 J	0.0054 J	< 0.0013 U	0.0074 J	0.0027 JN	< 0.0014 U	0.0037 JN	0.0024 J
PCB-126	57465-28-8	ng/g	< 0.0011 U	< 0.0016 U	< 0.0013 U	< 0.0016 U	< 0.0014 U	< 0.0055 U	< 0.0013 U	< 0.0015 U	< 0.0023 U	< 0.0012 U
PCB-127	39635-33-1	ng/g	< 0.00098 U	< 0.0017 U	< 0.0013 U	< 0.0016 U	< 0.0014 U	< 0.0052 U	< 0.0014 U	< 0.0015 U	< 0.0022 U	< 0.0011 U
PCB-128/166	38380-07-3	ng/g	0.033	0.052	0.083	0.095	0.031	0.16	0.033	0.048	0.055	0.14
PCB-129/138/160/163	55215-18-4	ng/g	0.24	0.49	0.77	0.87	0.25	1.3	0.27	0.32	0.35	1.8
PCB-130	52663-66-8	ng/g	0.013	0.024	0.049	0.058	0.018	0.10	0.014	0.020	0.022	0.058 JN
PCB-131	61798-70-7	ng/g	< 0.0020 U	< 0.0016 U	< 0.0019 U	< 0.0028 U	< 0.00097 U	< 0.014 U	< 0.0016 U	< 0.0016 U	0.0038 J	< 0.0067 U
PCB-132	38380-05-1	ng/g	0.082	0.16	0.24	0.26	0.076	0.36	0.079	0.081	0.10	0.37
PCB-133	35694-04-3	ng/g	0.0034 JN	0.012	0.039	0.043	0.0066 J	0.060	0.0052 J	0.0063 JN	0.0085 J	0.023
PCB-134/143	52704-70-8	ng/g	0.015 JN	0.035	0.047	0.046	0.016 J	0.066	0.017 J	0.016 J	0.020 J	0.062
PCB-135/151	52744-13-5	ng/g	0.098	0.37	0.46	0.46	0.16	0.56	0.14	0.10	0.11	0.55
PCB-136	38411-22-2	ng/g	0.040	0.13	0.13	0.14	0.063	0.25	0.048	0.031	0.035 JN	0.15
PCB-137	35694-06-5	ng/g	0.012	0.012	0.016	0.020	0.0092 JN	0.032 JN	0.0085 J	0.010 J	0.015	0.018 JN
PCB-139/140	56030-56-9	ng/g	< 0.0016 U	0.0058 JN	0.018 J	0.019 J	0.0048 JN	0.027 JN	0.0034 J	0.0045 JN	0.0061 J	< 0.0054 U
PCB-14	34883-41-5	ng/g	< 0.0034 U	< 0.0010 U	< 0.00051 U	< 0.00048 U	< 0.00067 U	< 0.0040 U	< 0.00067 U	< 0.00047 U	< 0.00054 U	< 0.0021 U
PCB-141	52712-04-6	ng/g	0.045	0.11	0.17	0.19	0.050	0.19	0.059	0.057	0.067	0.47
PCB-142	41411-61-4	ng/g	< 0.0018 U	< 0.0015 U	< 0.0018 U	< 0.0027 U	< 0.00091 U	< 0.013 U	< 0.0015 U	< 0.0015 U	< 0.0016 U	< 0.0060 U
PCB-144	68194-14-9	ng/g	0.010 JN	0.035	0.034	0.039	0.013	0.024 JN	0.017	0.012 J	0.013	0.070
PCB-145	74472-40-5	ng/g	< 0.00018 U	< 0.00026 U	< 0.00026 U	< 0.00029 U	0.00037 J	< 0.00068 U	< 0.000082 U	< 0.00010 U	< 0.00011 U	< 0.00029 U
PCB-146	51908-16-8	ng/g	0.044	0.098	0.26	0.27	0.059	0.50	0.048	0.059	0.064	0.30
PCB-147/149	68194-13-8	ng/g	0.27	0.60	0.81	0.88	0.31	2.0	0.26	0.22	0.26	1.6
PCB-148	74472-41-6	ng/g	< 0.00026 U	0.0043 J	0.012	0.011 JN	0.00071 JN	0.025	0.00055 JN	0.0013 JN	0.0011 J	0.0036 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B335	B336	B337	B338	B339	B340	B341	B342	B342	B343
		Sample ID	PDI-SG-B335-BL1	PDI-SG-B336-BL1	PDI-SG-B337-BL1	PDI-SG-B338-BL1	PDI-SG-B339-BL1	PDI-SG-B340-BL1	PDI-SG-B341-BL1	PDI-SG-B342-BL1	PDI-SG-B342-BL1-D	PDI-SG-B343-BL1
		Sample Date	23 May 2018	27 Apr 2018	24 May 2018	24 May 2018	28 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.0059 JN	0.012	0.016	0.028	0.0090 J	0.036	0.011	0.010 J	0.0095 JN	0.011 JN
PCB-150	68194-08-1	ng/g	< 0.00018 U	0.0063 J	0.0072 J	0.0078 JN	0.0044 J	0.028	0.00073 JN	0.00052 JN	0.00058 JN	0.0039 JN
PCB-152	68194-09-2	ng/g	< 0.00019 U	0.0012 JN	0.0014 JN	0.0022 JN	< 0.000073 U	0.010	< 0.000079 U	< 0.000098 U	0.00053 J	0.0023 J
PCB-153/168	35065-27-1	ng/g	0.23	0.51	0.86	0.93	0.28	1.6	0.26	0.27	0.29	2.1
PCB-154	60145-22-4	ng/g	0.0069 J	0.020 JN	0.049 JN	0.058	0.014 JN	0.11	0.012	0.0087 J	0.0056 JN	0.023 JN
PCB-155	33979-03-2	ng/g	< 0.00018 U	0.00042 JN	0.00057 J	< 0.00027 U	< 0.000069 U	< 0.00066 U	< 0.000075 U	< 0.00015 U	< 0.00010 U	< 0.00028 U
PCB-156/157	38380-08-4	ng/g	0.022	0.038	0.048	0.060	0.021	0.11	0.022	0.031	0.033	0.13
PCB-158	74472-42-7	ng/g	0.020	0.044	0.061	0.073	0.021 JN	0.098	0.024	0.028	0.036	0.15
PCB-159	39635-35-3	ng/g	< 0.0012 U	0.0048 JN	0.013	0.012 JN	0.0032 JN	0.011 JN	0.0042 J	0.0056 J	0.0026 JN	0.039
PCB-16	38444-78-9	ng/g	0.0065 J	0.0072 JN	0.021	0.031	0.0040 JN	0.019 JN	0.0051 JN	0.0076 JN	0.0074 J	0.0041 JN
PCB-161	74472-43-8	ng/g	< 0.0012 U	< 0.0010 U	< 0.0012 U	< 0.0017 U	< 0.00059 U	< 0.0087 U	< 0.0010 U	< 0.00096 U	< 0.0010 U	< 0.0040 U
PCB-162	39635-34-2	ng/g	< 0.0012 U	< 0.00096 U	< 0.0011 U	< 0.0016 U	< 0.00056 U	< 0.0086 U	< 0.00095 U	< 0.00091 U	< 0.00098 U	< 0.0040 U
PCB-164	74472-45-0	ng/g	0.016 JN	0.040	0.060	0.064	0.019	0.10	0.019	0.021	0.025	0.11
PCB-165	74472-46-1	ng/g	< 0.0014 U	< 0.0012 U	< 0.0013 U	< 0.0020 U	< 0.00068 U	< 0.0099 U	< 0.0011 U	< 0.0011 U	< 0.0012 U	< 0.0046 U
PCB-167	52663-72-6	ng/g	0.0063 J	0.014	0.021	0.023	0.0071 JN	0.025 JN	0.0073 JN	0.011 J	0.013	0.048
PCB-169	32774-16-6	ng/g	< 0.00093 U	< 0.00069 U	< 0.00086 U	< 0.0013 U	< 0.00043 U	< 0.0066 U	< 0.00072 U	< 0.00069 U	< 0.00076 U	< 0.0031 U
PCB-17	37680-66-3	ng/g	0.013	0.026	0.028	0.036	0.011 JN	0.078 J	0.016	0.011 JN	0.014	0.021
PCB-170	35065-30-6	ng/g	0.058	0.16	0.33	0.39	0.081	0.42	0.077	0.14	0.11	1.3
PCB-171/173	52663-71-5	ng/g	0.020	0.058	0.11	0.11	0.030	0.12	0.028	0.042	0.032	0.37
PCB-172	52663-74-8	ng/g	0.0094 JN	0.033	0.063 JN	0.073	0.018	< 0.0037 U	0.013	0.027	0.021	0.21
PCB-174	38411-25-5	ng/g	0.062	0.22	0.43	0.48	0.11	0.47	0.11	0.14	0.12	1.3
PCB-175	40186-70-7	ng/g	0.0026 JN	0.0079 J	0.015	0.016	0.0032 J	0.017 JN	0.0026 JN	0.0035 JN	0.0041 J	0.049
PCB-176	52663-65-7	ng/g	0.0067 JN	0.024	0.048	0.051	0.011	0.050	0.013	0.014	0.014	0.16
PCB-177	52663-70-4	ng/g	0.035 JN	0.12	0.27	0.30	0.066	0.31	0.057 JN	0.093	0.076	0.71
PCB-178	52663-67-9	ng/g	0.011 JN	0.042	0.11	0.12	0.017 JN	0.15	0.021	0.035	0.025 JN	0.25
PCB-179	52663-64-6	ng/g	0.032	0.11	0.20	0.20	0.056	0.29	0.051	0.055	0.045	0.53
PCB-18/30	37680-65-2	ng/g	0.014 JN	0.024	0.046	0.060	0.020	0.086 J	0.019	0.020 J	0.020 J	0.019 J
PCB-180/193	35065-29-3	ng/g	0.13	0.40	0.83	0.89	0.20	1.0	0.19	0.33	0.23	2.9
PCB-181	74472-47-2	ng/g	< 0.00041 U	< 0.00029 U	< 0.00046 U	< 0.000013 U	< 0.00019 U	< 0.0034 U	< 0.000034 U	< 0.00043 U	< 0.000023 U	< 0.00079 U
PCB-182	60145-23-5	ng/g	< 0.00040 U	< 0.00028 U	0.0089 J	0.0079 JN	0.0016 JN	< 0.0032 U	< 0.000033 U	0.0029 JN	< 0.000022 U	< 0.00076 U
PCB-183/185	52663-69-1	ng/g	0.039 JN	0.12	0.25	0.27	0.067	0.27	0.065	0.094	0.074	0.96
PCB-184	74472-48-3	ng/g	< 0.00034 U	< 0.00024 U	< 0.00038 U	< 0.000010 U	< 0.00016 U	< 0.0028 U	< 0.000028 U	< 0.00035 U	< 0.000019 U	< 0.00065 U
PCB-186	74472-49-4	ng/g	< 0.00033 U	< 0.00023 U	< 0.00036 U	< 0.0000098 U	< 0.00015 U	< 0.0027 U	< 0.000027 U	< 0.00033 U	< 0.000018 U	< 0.00063 U
PCB-187	52663-68-0	ng/g	0.086	0.26	0.58	0.63	0.13	0.71	0.12	0.21	0.16	1.5
PCB-188	74487-85-7	ng/g	< 0.00028 U	< 0.00023 U	< 0.00034 U	< 0.0000090 U	< 0.00014 U	< 0.0023 U	< 0.000025 U	< 0.00032 U	< 0.000017 U	< 0.00052 U
PCB-189	39635-31-9	ng/g	0.0020 JN	0.0051 JN	0.012	0.013	0.0022 JN	0.011 JN	0.0027 JN	0.0063 J	0.0033 J	0.042
PCB-19	38444-73-4	ng/g	0.016	0.048	0.012 JN	0.018	0.0099 JN	0.059 JN	0.014 JN	0.0046 JN	0.0064 JN	0.039
PCB-190	41411-64-7	ng/g	0.0096 J	0.035	0.067	0.078	0.015 JN	0.074	0.017	0.032	0.022	0.22
PCB-191	74472-50-7	ng/g	< 0.00031 U	0.0095 J	0.016	0.018	0.0042 JN	0.017	0.0025 JN	0.0080 JN	0.0041 JN	0.051
PCB-192	74472-51-8	ng/g	< 0.00035 U	< 0.00023 U	< 0.00037 U	< 0.000010 U	< 0.00015 U	0.056	< 0.000027 U	< 0.00034 U	< 0.000019 U	< 0.00067 U
PCB-194	35694-08-7	ng/g	0.025 JN	0.071	0.22	0.24	0.040	0.26	0.035	0.096 J	0.056 J	0.78
PCB-195	52663-78-2	ng/g	0.0092 JN	0.030	0.094	0.10	0.021	0.11	0.015	0.040	0.025	0.36
PCB-196	42740-50-1	ng/g	0.013	0.041	0.082	0.10	0.020	0.090 JN	0.015 JN	0.050	0.026	0.32
PCB-197	33091-17-7	ng/g	0.0015 JN	0.0027 J	0.0066 J	0.0074 J	< 0.000082 U	0.0093 JN	0.0012 JN	0.0031 JN	0.0018 J	0.026
PCB-198/199	68194-17-2	ng/g	0.023 JN	0.090	0.22	0.25	0.048	0.25	0.036 JN	0.11	0.071	0.59
PCB-2	2051-61-8	ng/g	0.0025 JN	0.011 JN	0.0021 JN	0.0028 J	0.0067 JN	0.021 JN	0.0084 JN	< 0.0037 U	0.0047 J	0.0064 J
PCB-20/28	38444-84-7	ng/g	0.032	0.071	0.077	0.12	0.052	0.30	0.049	0.049	0.052	0.044
PCB-200	52663-73-7	ng/g	0.0024 JN	0.010	0.024	0.026	0.0030 JN	0.018 JN	0.0029 J	0.013	0.0077 J	0.069
PCB-201	40186-71-8	ng/g	0.0029 J	0.0094 JN	0.024	0.027	0.0054 J	0.031	0.0047 J	0.012 J	0.0073 J	0.076
PCB-202	2136-99-4	ng/g	0.0060 J	0.017	0.043	0.048	0.012	0.067	0.0071 J	0.021	0.017	0.10
PCB-203	52663-76-0	ng/g	0.016	0.053	0.13	0.14	0.024 JN	0.13 JN	0.023	0.064	0.042	0.35
PCB-204	74472-52-9	ng/g	< 0.00033 U	< 0.00062 U	< 0.00054 U	< 0.00025 U	< 0.000090 U	< 0.0018 U	< 0.00014 U	< 0.00051 U	< 0.00023 U	< 0.00066 U
PCB-205	74472-53-0	ng/g	< 0.00086 U	0.0033 J	0.011	0.012	0.0024 JN	< 0.0067 U	0.0018 JN	0.0051 J	0.0031 JN	0.042
PCB-206	40186-72-9	ng/g	0.0098 JN	0.060 JN	0.084 JN	0.092	0.025 JN	0.10	0.020 JN	0.067 JN	0.036 J	0.15
PCB-207	52663-79-3	ng/g	< 0.0015 U	0.0025 JN	0.0078 J	0.0098 J	< 0.0011 U	0.0089 JN	0.0020 J	0.0046 J	0.0047 J	0.018
PCB-208	52663-77-1	ng/g	0.0030 J	0.0078 JN	0.017	0.025	0.0054 JN	0.028 JN	0.0050 J	0.013 JN	0.012 J	0.026
PCB-209	2051-24-3	ng/g	0.0097 JN	0.030	0.042	0.046	0.019	0.080	0.022	0.046	0.045	0.034
PCB-21/33	55702-46-0	ng/g	0.012 J	0.028	0.034	0.049	0.025	0.092	0.020	0.018 J	0.017 JN	0.017 J
PCB-22	38444-85-8	ng/g	0.0079 J	0.019	0.024	0.033	0.015	0.054	0.012 JN	0.015	0.012 JN	0.0098 J
PCB-23	55720-44-0	ng/g	< 0.00083 U	< 0.00093 U	< 0.00063 U	< 0.00092 U	< 0.0011 U	< 0.0029 U	< 0.00093 U	< 0.0010 U	< 0.0010 U	< 0.00054 U
PCB-24	55702-45-9	ng/g	< 0.00036 U	< 0.00031 U	0.00072 JN	< 0.00035 U	< 0.00022 U	0.0018 JN	< 0.00018 U	< 0.00017 U	< 0.00020 U	0.00054 JN
PCB-25	55712-37-3	ng/g	0.0025 JN	0.0080 J	0.0096 J	0.014	0.0064 J	0.031	0.0069 J	0.0056 J	0.0051 JN	0.0063 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B335	B336	B337	B338	B339	B340	B341	B342	B342	B343
		Sample ID	PDI-SG-B335-BL1	PDI-SG-B336-BL1	PDI-SG-B337-BL1	PDI-SG-B338-BL1	PDI-SG-B339-BL1	PDI-SG-B340-BL1	PDI-SG-B341-BL1	PDI-SG-B342-BL1	PDI-SG-B342-BL1-D	PDI-SG-B343-BL1
		Sample Date	23 May 2018	27 Apr 2018	24 May 2018	24 May 2018	28 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0046 JN	0.011 J	0.016 J	0.022	0.0092 J	0.042	0.010 J	0.0088 J	0.011 J	0.0082 J
PCB-27	38444-76-7	ng/g	0.0030 J	0.0046 JN	0.0062 J	0.0074 J	0.0039 JN	0.014 J	0.00073 JN	0.0017 JN	0.0026 J	0.0053 JN
PCB-3	2051-62-9	ng/g	0.0016 JN	0.0051 JN	0.0025 JN	0.0041 J	0.0026 J	0.0066 J	0.0030 JN	0.0054 JN	0.0068 J+	0.0020 JN
PCB-31	16606-02-3	ng/g	0.020 JN	0.044	0.062	0.091	0.036 JN	0.17	0.036	0.037	0.034	0.031
PCB-32	38444-77-8	ng/g	0.0047 JN	0.020	0.021	0.024	0.010 JN	0.031 JN	0.0069 J	0.0079 J	0.0076 J	0.016
PCB-34	37680-68-5	ng/g	< 0.00086 U	< 0.00097 U	< 0.00065 U	< 0.00095 U	< 0.0011 U	< 0.0030 U	< 0.00096 U	< 0.0010 U	< 0.0011 U	< 0.00056 U
PCB-35	37680-69-6	ng/g	< 0.00084 U	0.0021 J	0.0019 JN	0.0037 J	< 0.0011 U	0.0062 J	< 0.00092 U	< 0.00099 U	0.0021 J	< 0.00054 U
PCB-36	38444-87-0	ng/g	< 0.00080 U	< 0.00084 U	< 0.00056 U	< 0.00083 U	< 0.0010 U	0.0034 JN	< 0.00084 U	< 0.00091 U	< 0.00092 U	< 0.00052 U
PCB-37	38444-90-5	ng/g	0.0070 JN	0.021	0.021	0.033	0.013	0.064	0.011 JN	0.014	0.015	0.013
PCB-38	53555-66-1	ng/g	< 0.00086 U	< 0.00091 U	< 0.00061 U	< 0.00090 U	< 0.0011 U	< 0.0030 U	< 0.00091 U	< 0.00098 U	< 0.0010 U	< 0.00056 U
PCB-39	38444-88-1	ng/g	< 0.00077 U	0.0012 J	< 0.00056 U	< 0.00082 U	< 0.00098 U	0.0057 J	< 0.00083 U	< 0.00090 U	< 0.00091 U	< 0.00050 U
PCB-4	13029-08-8	ng/g	0.011 JN	0.048	0.015 J	0.020	0.011 J	0.034	0.012 JN	0.0065 J	0.0093 J	0.018 JN
PCB-40/41/71	38444-93-8	ng/g	0.027 J	0.034	0.049	0.056	0.032	0.28	0.021 J	0.026 J	0.029 J	0.033
PCB-42	36559-22-5	ng/g	0.015	0.017	0.019	0.026	0.016	0.13	0.010 JN	0.013	0.016	0.014
PCB-43/73	70362-46-8	ng/g	0.0045 JN	0.0092 JN	0.0075 J	0.0032 JN	0.0044 JN	0.033	0.0052 J	< 0.00092 U	0.0032 J	0.0071 J
PCB-44/47/65	41464-39-5	ng/g	0.067	0.14	0.18	0.19	0.094	1.3	0.072	0.074	0.079	0.20
PCB-45/51	70362-45-7	ng/g	0.017 J	0.047	0.048	0.049	0.022	0.35	0.018 J	0.0081 JN	0.012 J	0.081
PCB-46	41464-47-5	ng/g	< 0.0020 U	< 0.0053 U	0.0065 J	0.0054 JN	0.0030 J	0.036	< 0.0017 U	0.0036 J	0.0028 JN	0.0050 J
PCB-48	70362-47-9	ng/g	0.011	0.0073 JN	0.012	0.017	0.0087 J	0.057	0.0051 JN	0.0078 J	0.0092 J	0.0074 J
PCB-49/69	41464-40-8	ng/g	0.047	0.091	0.13	0.14	0.072	0.88	0.047	0.047	0.051	0.12
PCB-5	16605-91-7	ng/g	< 0.0045 U	< 0.0013 U	< 0.00061 U	< 0.00058 U	< 0.00080 U	< 0.0053 U	< 0.00080 U	0.00057 JN	< 0.00064 U	< 0.0028 U
PCB-50/53	62796-65-0	ng/g	0.019 J	0.037 JN	0.043	0.038	0.022	0.31	0.016 J	0.011 J	0.012 J	0.051
PCB-52	35693-99-3	ng/g	0.084	0.15	0.20	0.22	0.11	0.95	0.076	0.097	0.12	0.15
PCB-54	15968-05-5	ng/g	0.0019 JN	0.017	0.0045 J	0.0030 JN	0.0068 J	0.026 JN	0.0031 JN	0.0011 J	0.0013 JN	0.015
PCB-55	74338-24-2	ng/g	< 0.0011 U	< 0.0030 U	< 0.00067 U	< 0.00072 U	0.0018 JN	< 0.0065 U	0.0012 JN	< 0.00069 U	< 0.00066 U	< 0.0010 U
PCB-56	41464-43-1	ng/g	0.020	0.028	0.029	0.039	0.025	0.13	0.020	0.023	0.026	0.022
PCB-57	70424-67-8	ng/g	< 0.0012 U	< 0.0030 U	< 0.00068 U	< 0.00074 U	< 0.00094 U	< 0.0066 U	< 0.00098 U	< 0.00071 U	< 0.00067 U	< 0.0010 U
PCB-58	41464-49-7	ng/g	< 0.0012 U	< 0.0029 U	< 0.00066 U	< 0.00071 U	< 0.00091 U	< 0.0067 U	< 0.00094 U	0.0020 JN	< 0.00065 U	< 0.0010 U
PCB-59/62/75	74472-33-6	ng/g	0.0041 JN	0.0061 JN	0.0081 J	0.011 J	0.0066 JN	0.070	0.0041 J	0.0034 JN	0.0046 JN	0.0098 J
PCB-6	25569-80-6	ng/g	< 0.0040 U	0.0053 JN	0.0081 JN	0.013	0.0031 JN	0.014 JN	< 0.00080 U	0.0039 JN	0.0053 J	0.0030 JN
PCB-60	33025-41-1	ng/g	0.0073 J	0.011	0.0094 J	0.013	0.0069 J	0.020	0.0080 J	0.0088 JN	0.011 J	0.0062 J
PCB-61/70/74/76	33284-53-6	ng/g	0.093	0.11	0.12	0.16	0.10	0.70	0.085	0.10	0.12	0.11
PCB-63	74472-34-7	ng/g	0.0018 J	< 0.0026 U	0.0026 J	0.0032 J	0.0022 JN	0.015 JN	0.0026 J	0.0012 JN	0.0024 JN	< 0.00094 U
PCB-64	52663-58-8	ng/g	0.021	0.022 JN	0.026	0.034	0.026	0.17	0.025	0.021	0.026	0.023
PCB-66	32598-10-0	ng/g	0.054	0.077	0.070	0.096	0.062	0.52	0.062	0.059	0.069	0.067
PCB-67	73575-53-8	ng/g	0.0018 J	< 0.0028 U	0.0022 J	0.0031 J	0.0012 JN	< 0.0057 U	< 0.00090 U	< 0.00065 U	0.0016 J	< 0.00089 U
PCB-68	73575-52-7	ng/g	< 0.0010 U	< 0.0026 U	0.0060 J	0.0045 J	0.0020 JN	0.055	0.0015 JN	0.0015 J	0.00083 JN	0.0034 J
PCB-7	33284-50-3	ng/g	< 0.0041 U	< 0.0012 U	< 0.00058 U	0.0026 J	< 0.00075 U	< 0.0048 U	< 0.00076 U	0.0017 JN	0.0012 JN	< 0.0025 U
PCB-72	41464-42-0	ng/g	< 0.0011 U	< 0.0030 U	0.0046 J	0.0059 J	0.0029 JN	0.032 JN	< 0.00096 U	0.0017 J	0.00098 JN	0.0029 J
PCB-77	32598-13-3	ng/g	0.0041 J	0.010	0.0071 JN	0.011	0.0058 J	0.025 JN	0.0051 J	0.0088 J	0.0086 J	0.0067 J
PCB-78	70362-49-1	ng/g	< 0.0012 U	< 0.0029 U	< 0.00066 U	< 0.00071 U	< 0.00091 U	< 0.0067 U	< 0.00094 U	< 0.00068 U	< 0.00065 U	< 0.0010 U
PCB-79	41464-48-6	ng/g	< 0.0010 U	< 0.0025 U	0.0035 J	0.0031 J	0.0012 JN	0.013 JN	< 0.00080 U	< 0.00058 U	0.0017 JN	0.0021 J
PCB-8	34883-43-7	ng/g	< 0.0037 U	0.020	0.029	0.047	0.014 JN	0.047	0.014 J	0.013 J	0.011 J	0.0093 JN
PCB-80	33284-52-5	ng/g	< 0.0010 U	< 0.0026 U	< 0.00058 U	< 0.00063 U	< 0.00081 U	< 0.0057 U	< 0.00083 U	< 0.00060 U	< 0.00057 U	< 0.00088 U
PCB-81	70362-50-4	ng/g	< 0.0011 U	< 0.0028 U	< 0.00064 U	< 0.00068 U	< 0.00085 U	< 0.0060 U	< 0.00089 U	< 0.00064 U	< 0.00061 U	< 0.00096 U
PCB-82	52663-62-4	ng/g	0.015 JN	0.022	0.020	0.027	0.017	0.036 JN	0.016 JN	0.022	0.021 JN	0.014
PCB-83/99	60145-20-2	ng/g	0.12	0.22	0.24	0.26	0.20	0.69	0.15	0.11	0.13	0.17
PCB-84	52663-60-2	ng/g	0.036	0.047	0.045	0.056	0.036 JN	0.17	0.030	0.030	0.040 JN	0.040
PCB-85/116/117	65510-45-4	ng/g	0.031	0.046	0.035	0.044	0.034	0.11	0.030	0.029 J	0.038 J	0.035
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.089	0.14	0.15	0.18	0.11	0.34 JN	0.10	0.10	0.12	0.13
PCB-88/91	55215-17-3	ng/g	0.033	0.082	0.065	0.073	0.067	0.34	0.038 JN	0.025 J	0.029	0.070
PCB-89	73575-57-2	ng/g	< 0.00029 U	< 0.0010 U	0.0025 J	< 0.00019 U	< 0.0013 U	< 0.0010 U	< 0.0012 U	< 0.00038 U	0.0016 J	< 0.00030 U
PCB-9	34883-39-1	ng/g	< 0.0042 U	< 0.0014 U	0.0017 J	0.0031 JN	< 0.00088 U	< 0.0049 U	< 0.00088 U	0.0014 J+	0.0015 JN	< 0.0026 U
PCB-90/101/113	68194-07-0	ng/g	0.19	0.41	0.40	0.45	0.26	0.95	0.23	0.16	0.20	0.40
PCB-92	52663-61-3	ng/g	0.034	0.077	0.12	0.12	0.057	0.22	0.036 JN	0.038	0.039	0.067
PCB-93/100	73575-56-1	ng/g	0.0066 JN	0.025	0.026	0.028 JN	0.014 J	0.13 JN	0.0082 JN	0.016 JN	0.0080 J	0.040
PCB-94	73575-55-0	ng/g	< 0.00029 U	0.0041 JN	0.0089 J	0.0067 JN	< 0.0013 U	0.034 JN	< 0.0012 U	0.0017 JN	< 0.00048 U	0.0050 JN
PCB-95	38379-99-6	ng/g	0.14	0.31	0.29	0.32	0.19	0.79	0.13 JN	0.12	0.15	0.29
PCB-96	73575-54-9	ng/g	0.0019 JN	0.0055 J	0.0055 JN	0.0061 JN	0.0022 JN	0.030 JN	0.0020 J	0.0014 JN	0.0025 J	0.0068 J
PCB-98/102	60233-25-2	ng/g	0.0071 J	0.010 JN	0.018 J	0.021	0.0065 JN	0.070	0.0088 J	0.0070 J	0.0056 J	0.012 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	3.6	8.2	12.1	14	4.8	26	4.3	5.0	5.1	25

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B335	B336	B337	B338	B339	B340	B341	B342	B342	B343
		Sample ID	PDI-SG-B335-BL1	PDI-SG-B336-BL1	PDI-SG-B337-BL1	PDI-SG-B338-BL1	PDI-SG-B339-BL1	PDI-SG-B340-BL1	PDI-SG-B341-BL1	PDI-SG-B342-BL1	PDI-SG-B342-BL1-D	PDI-SG-B343-BL1
		Sample Date	23 May 2018	27 Apr 2018	24 May 2018	24 May 2018	28 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.76 U	< 0.47 U	< 0.84 U	< 0.96 U	< 0.42 U	< 0.49 U	< 0.42 U	< 1.3 U	< 1.3 U	< 0.50 U
2,4-DDE	3424-82-6	µg/kg	< 0.79 U	< 0.47 U	< 0.84 U	< 0.96 U	< 0.42 U	< 0.49 U	< 0.42 U	< 1.3 U	< 1.3 U	< 0.50 U
2,4-DDT	789-02-6	µg/kg	< 0.94 U	< 0.47 U	< 0.94 U	< 0.96 U	< 0.47 U	< 0.49 U	< 0.47 U	< 1.3 U	< 1.3 U	< 0.50 U
4,4'-DDD	72-54-8	µg/kg	< 0.76 U	0.56	< 0.84 U	0.47 J	0.51	0.79	0.43	0.75 J	0.60 J	0.66
4,4'-DDE	72-55-9	µg/kg	< 0.76 U	1.1	0.82 J	1.2	0.86	2.3	0.82	1.9	1.7	1.1
4,4'-DDT	50-29-3	µg/kg	< 0.76 U	< 0.47 U	< 0.84 U	< 0.96 U	0.29 J	0.39 J	< 0.42 U	< 1.3 U	< 1.3 U	0.38 J
Total DDx (b)	T_DDx (PDI)	µg/kg	< 0.94 U	1.9	1.3	2.2	1.9	3.7	1.5	3.3	3.0	2.4
Aldrin	309-00-2	µg/kg	< 0.79 U	< 0.47 U	< 0.84 U	< 0.96 U	< 0.42 U	< 0.49 U	< 0.42 U	< 1.3 U	< 1.3 U	< 0.50 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.5 U	< 0.95 U	< 1.7 U	< 1.9 U	< 0.84 U	< 0.98 U	< 0.84 U	< 2.6 U	< 2.6 U	< 0.99 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.97 U	< 0.49 U	< 0.97 U	< 0.97 U	< 0.49 U	< 0.49 U	< 0.49 U	< 1.3 U	< 1.3 U	< 0.50 U
Dieldrin	60-57-1	µg/kg	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.6 U	< 2.6 U	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.76 U	< 0.47 U	< 0.84 U	< 0.96 U	< 0.42 U	< 0.49 U	< 0.42 U	< 1.3 U	< 1.3 U	< 0.50 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.5 U	< 0.95 U	< 1.7 U	< 1.9 U	< 0.84 U	0.41 J	< 0.84 U	< 2.6 U	< 2.6 U	< 0.99 U
Heptachlor	76-44-8	µg/kg	< 0.76 U	< 0.47 U	< 0.84 U	< 0.96 U	< 0.42 U	< 0.49 U	< 0.42 U	< 1.3 U	< 1.3 U	< 0.50 U
Oxychlordane	27304-13-8	µg/kg	< 2.0 U	< 1.0 U	< 2.0 U	< 2.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.6 U	< 2.6 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.5 U	< 0.95 U	< 1.7 U	< 1.9 U	< 0.84 U	< 0.98 U	< 0.84 U	< 2.6 U	< 2.6 U	< 0.99 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2 U	< 1 U	< 2 U	< 2 U	< 1 U	0.91	< 1 U	< 2.6 U	< 2.6 U	< 1 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.0 J	1.5	1.2	1.5	1.9	9.0	1.7	1.7	1.5	1.7
Acenaphthene	83-32-9	µg/kg	9.5	11	1.8	1.8	3.8	33	2.3	1.4	1.0	0.84
Acenaphthylene	208-96-8	µg/kg	10	2.2	6.1	5.0	1.2	12	0.89	1.3	1.3	1.3
Anthracene	120-12-7	µg/kg	25	2.9	5.6	5.5	2.6	15	2.4	5.4	4.1	2.5
Benz(a)anthracene	56-55-3	µg/kg	50	10	34	31	15	100	12	19	16	9.6
Benzo(a)pyrene	50-32-8	µg/kg	290	11	54	46	17	140	11	18	14	12
Benzo(b)fluoranthene	205-99-2	µg/kg	450	19	54	50	28	170	17	27	26	17
Benzo(g,h,i)perylene	191-24-2	µg/kg	140	11	48	42	15	150	10	16	13	12
Benzo(k)fluoranthene	207-08-9	µg/kg	100	5.9	19	17	10	60	5.9	10	10	5.2
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	28 J	46 J	94	130	38 J	170	35 J	170	130	71 J
Chrysene	218-01-9	µg/kg	140	20	53	51	28	130	15	28	36	14
Dibenz(a,h)anthracene	53-70-3	µg/kg	54	2.1	6.1	5.7	3.4	40	2.4	3.1	3.1	2.2
Fluoranthene	206-44-0	µg/kg	45	45	83	76	44	190	27	38	60	22
Fluorene	86-73-7	µg/kg	5.2	2.1	2.6	2.6	2.2	12	2.3	2.0	1.9	1.6
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	180	10	44	39	15	160	9.4	14	12	10
Naphthalene	91-20-3	µg/kg	1.3 J	4.5	2.7	2.8	2.4	41	2.0	2.3	2.0	3.6
Phenanthrene	85-01-8	µg/kg	11	14	32	29	18	100	12	15	19	9.4
Pyrene	129-00-0	µg/kg	89	47	120	100	46	200	26	40	60	24
Total PAHs (b)	T_PAH (PDI)	µg/kg	1601	219	567	506	254	1562	159	242	281	149
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	413	17	74	64	26	224	17	27	23	18
Metals												
Arsenic	7440-38-2	mg/kg	3.5	4.5	2.3	2.9	3.8	5.1	3.8	5.8	6.0	4.3
Cadmium	7440-43-9	mg/kg	0.086 J	0.088 J	0.090 J	0.11 J	0.12 J	0.21 J	0.12 J	0.17 J	0.19 J	0.14 J
Copper	7440-50-8	mg/kg	18	35	14	20	28	40	28	54 J	100 J	34
Lead	7439-92-1	mg/kg	5.2	10	7.0	8.1	8.9	16	8.2	12	13	9.9
Mercury	7439-97-6	mg/kg	0.083	0.089	0.021 J	0.027 J	0.037 J	0.073	0.058	0.060	0.042 J	0.045 J
Tri-n-butyltin	36643-28-4	µg/kg	0.99 J	< 1.9 U	< 1.7 U	< 1.9 U	2.0 J	44 J	< 2.8 U	< 2.6 U	< 2.6 U	< 2.0 U
Zinc	7440-66-6	mg/kg	63	93	45	56	80	110	79	100	130	95
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	24 J	47 J	21 J	27 J	< 78 U	180	< 83 U	110 J	95 J	35 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	190	260	140	210	130	710	130	680	580	260
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	65.5		58.7	52.2				38.4	38.2	
Total Solids@104C - E160.3 (f)	TSOLID	%		51.4			59.0	51.2	57.4			48.5
Total Solids@104C - E160.3M (f)	TSOLID	%	65.3	52.4	58.9	51.9	58.4	50.2	58.1	38.2	37.9	49.3
Total Solids@70C	TSOLID70	%	67	54	59	51	59	51	59	38	38	50
Gravel	GS-Gravel	%	0	0	0	0	0.1	0	0	0		0
Sand, Coarse	GS-Csand	%	0.2	0.1	0	0.1	0.2	0	0	0.1		0
Sand, Medium	GS-Msand	%	20.1	0.8	0.2	0.4	0.4	0.5	0.2	0.3		0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	60	37.6	8.003	8.82	57.59	30.26	43.21	9.208		33.98
Sand, Fine (#230) (d)	GS-Fsand	%	62.2	44.4	13.3	13.6	64.2	36.5	51.6	12.1		39.3
Silt (#200) (d)	GS-Silt-200	%	18.09	49.59	86.09	86.37	36.40	59.53	48.98	78.39		55.11

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B335	B336	B337	B338	B339	B340	B341	B342	B342	B343
		Sample ID	PDI-SG-B335-BL1	PDI-SG-B336-BL1	PDI-SG-B337-BL1	PDI-SG-B338-BL1	PDI-SG-B339-BL1	PDI-SG-B340-BL1	PDI-SG-B341-BL1	PDI-SG-B342-BL1	PDI-SG-B342-BL1-D	PDI-SG-B343-BL1
		Sample Date	23 May 2018	27 Apr 2018	24 May 2018	24 May 2018	28 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-28 cm	0-25 cm	0-30 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	15.9	42.8	80.8	81.6	29.8	53.3	40.6	75.5		49.8
Clay	GS-Clay	%	1.7	11.9	5.7	4.3	5.3	9.8	7.5	12.0		10.8
Percent Fines (e)	GS-FINES	%	19.79	61.49	91.79	90.67	41.7	69.33	56.48	90.39		65.91
Total Organic Carbon	TOC	mg/kg	7000	13000	13000	18000	7000	17000	10000	33000	32000	16000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B344	B345	B346	B347	B347	B348	B349	B350	B351	B352
		Sample ID	PDI-SG-B344-BL1	PDI-SG-B345-BL1	PDI-SG-B346-BL1	PDI-SG-B347-BL1	PDI-SG-B347-BL1-D	PDI-SG-B348-BL1	PDI-SG-B349-BL1	PDI-SG-B350-BL1	PDI-SG-B351-BL1	PDI-SG-B352-BL1
		Sample Date	30 May 2018	28 Apr 2018	23 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018	29 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.072	0.040	0.026	0.033	0.030	0.074	0.067	0.045	0.44	0.032
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.016 JN	0.0072 JN	0.0053 JN	0.0059	0.0057 JN	0.017 JN	0.014 JN	0.0083 JN	0.043	0.0065
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0022 J+	< 0.00039 U	0.00067 J+	0.00039 J+	0.00037 J+	0.0023 J+	0.0014 J+	0.00052 J+	0.0027 J	< 0.00046 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00083 JN	0.00052 JN	0.00086 J+	0.00045 J+	< 0.000099 U	0.0013 JN	0.00075 JN	< 0.000092 U	0.0016 JN	< 0.00051 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0015 JN	< 0.00014 U	0.00085 J+	< 0.00023 U	0.00048 J+	0.0018 JN	0.0017 J	0.00083 J	0.0037 J	0.00057 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0034 J	0.0018 J	0.0016 J+	0.0013 J	0.0012 J	0.0031 J	0.0026 J	0.0019 J	0.013	0.0014 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00097 JN	0.00030 JN	0.00062 J+	< 0.00023 U	0.00031 J	0.0011 J	0.00068 J	0.00044 J	0.0014 J	< 0.00028 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0020 JN	0.0013 J	0.0014 J+	0.0011 J	0.0010 J	0.0031 J	0.0020 J	0.0015 J	0.0054 J	0.0011 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0021 JN	< 0.000089 U	0.00058 J+	< 0.00011 U	< 0.00011 U	0.0019 J+	0.0010 J+	0.00030 J+	< 0.00023 U	< 0.00020 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00043 JN	0.00015 JN	0.00054 J+	0.00030 J+	0.00026 JN	0.00055 JN	0.00064 J	0.00036 J+	0.00085 JN	< 0.000081 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00035 JN	0.00016 J+	0.00039 JN	< 0.00013 U	< 0.00013 U	0.00074 J	0.00034 J+	0.00029 J+	0.00077 J	< 0.00015 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00079 J	0.00019 JN	0.00053 J+	< 0.00017 U	0.00020 J+	< 0.00027 U	0.00040 J	0.00027 J+	0.0010 J	< 0.00014 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00061 J	0.00023 J+	0.00040 J+	0.00019 J+	< 0.00013 U	0.00037 JN	0.00045 J+	0.00027 J+	0.00082 J	< 0.00019 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00060 JN	< 0.000067 U	0.00042 JN	0.00014 JN	0.00015 JN	0.00054 JN	0.0073	0.00028 JN	0.00049 JN	0.00026 J+
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00077 J+	0.00075 J+	0.00040 J+	0.00061 JN	0.00044 JN	0.00065 J+	< 0.00030 U	0.00064 J+	0.00086 J+	0.00033 J+
OCDD	3268-87-9	µg/kg	0.50	0.33	0.22	0.29	0.28	0.50	0.53	0.37	3.6	0.29
OCDF	39001-02-0	µg/kg	0.046	0.028	0.015	0.022	0.024	0.049	0.047	0.028	0.12	0.023
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0035	0.0013	0.0022	0.0013	0.0012	0.0036	0.01	0.002	0.01	0.0011
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.002	0.0011	0.0019	0.0012	0.0009	0.0024	0.01	0.0018	0.0092	0.0011
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0017	0.001	0.0017	0.0011	0.00077	0.0021	0.0099	0.0017	0.0088	0.0011
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0046 JN	0.0012 JN	0.0031 J	0.0013 J	< 0.00052 U	0.0057 J+	0.0047 J+	0.0053 JN	0.0092 J	0.0019 J
PCB-10	33146-45-1	ng/g	< 0.00070 U	< 0.0010 U	< 0.0014 U	< 0.0025 U	< 0.0036 U	0.0012 JN	< 0.00063 U	< 0.0033 U	< 0.0042 U	< 0.0021 U
PCB-103	60145-21-3	ng/g	0.0023 JN	0.0091 J	0.0036 J	0.0070 JN	0.012	0.0018 JN	0.0018 JN	0.0062 JN	0.060	0.0073 J
PCB-104	56558-16-8	ng/g	< 0.00032 U	< 0.00074 U	< 0.00020 U	< 0.00034 U	< 0.00035 U	< 0.00023 U	< 0.00020 U	< 0.00040 U	< 0.00033 U	< 0.00037 U
PCB-105	32598-14-4	ng/g	0.064	0.074	0.045	0.050	0.056	0.057	0.051	0.054	2.0	0.053
PCB-106	70424-69-0	ng/g	< 0.0015 U	< 0.0019 U	< 0.00091 U	< 0.0010 U	< 0.0018 U	< 0.0012 U	< 0.0014 U	< 0.0012 U	< 0.0025 U	< 0.0013 U
PCB-107	70424-68-9	ng/g	0.012 J	0.015	0.011	0.0096 JN	0.016	0.016	0.011 J	0.013	0.33	0.013 JN
PCB-108/124	70362-41-3	ng/g	0.0049 JN	0.0088 J	0.0045 J	0.0021 JN	0.0079 J	0.0071 J	0.0062 J	< 0.0013 U	0.18	0.0054 J
PCB-11	2050-67-1	ng/g	0.059	0.038	0.036	0.035 JN	0.035 JN	0.060	0.069	0.043	0.27	0.13
PCB-110/115	38380-03-9	ng/g	0.18	0.30	0.18	0.20	0.24	0.16	0.15	0.19	5.7	0.21
PCB-111	39635-32-0	ng/g	0.00081 JN	< 0.00066 U	< 0.00018 U	< 0.00032 U	< 0.00032 U	< 0.00020 U	< 0.00017 U	< 0.00037 U	< 0.00030 U	< 0.00034 U
PCB-112	74472-36-9	ng/g	< 0.00031 U	< 0.00072 U	< 0.00019 U	< 0.00033 U	< 0.00034 U	0.00087 JN	0.00078 JN	< 0.00039 U	0.014	0.0011 JN
PCB-114	74472-37-0	ng/g	0.0026 JN	0.0036 JN	0.0027 J	< 0.00095 U	0.0031 JN	0.0029 J	0.0027 JN	< 0.0012 U	0.10	0.0019 JN
PCB-118	31508-00-6	ng/g	0.15	0.19	0.12	0.14	0.18	0.14	0.13	0.14	4.4	0.14
PCB-12/13	2974-92-7	ng/g	0.0049 JN	0.0035 JN	0.0020 JN	< 0.0022 U	< 0.0033 U	0.0017 JN	< 0.00053 U	< 0.0029 U	0.014 J	0.0030 JN
PCB-120	68194-12-7	ng/g	0.0017 JN	< 0.00065 U	< 0.00019 U	0.0016 JN	0.0018 JN	< 0.00020 U	0.00064 JN	< 0.00038 U	< 0.00031 U	0.0023 JN
PCB-121	56558-18-0	ng/g	< 0.00030 U	< 0.00071 U	< 0.00019 U	< 0.00033 U	< 0.00034 U	< 0.00022 U	< 0.00019 U	< 0.00039 U	< 0.00032 U	< 0.00036 U
PCB-122	76842-07-4	ng/g	0.0018 J+	< 0.0021 U	0.0016 J	< 0.0012 U	0.0038 J	< 0.0013 U	0.0019 JN	< 0.0014 U	0.059	0.0017 JN
PCB-123	65510-44-3	ng/g	0.0028 JN	0.0031 JN	0.0023 JN	< 0.0010 U	0.0043 JN	0.0026 JN	0.0029 J	0.0026 J	0.058 JN	0.0017 JN
PCB-126	57465-28-8	ng/g	< 0.0015 U	< 0.0016 U	0.0015 J+	< 0.0011 U	< 0.0025 U	< 0.0011 U	< 0.0015 U	< 0.0014 U	< 0.0029 U	0.0016 J+
PCB-127	39635-33-1	ng/g	< 0.0015 U	< 0.0018 U	< 0.00090 U	< 0.0010 U	< 0.0018 U	< 0.0011 U	< 0.0013 U	< 0.0012 U	< 0.0025 U	< 0.0013 U
PCB-128/166	38380-07-3	ng/g	0.047	0.045	0.035	0.042	0.095	0.043	0.040	0.043	1.5	0.036 JN
PCB-129/138/160/163	55215-18-4	ng/g	0.31	0.35	0.27	0.39 J	1.3 J	0.27	0.26	0.37	7.8	0.37
PCB-130	52663-66-8	ng/g	0.019	0.019	0.016	0.020	0.048 JN	0.017	0.016	0.020	0.47	0.019 JN
PCB-131	61798-70-7	ng/g	0.0028 J	0.0029 JN	0.0027 J	< 0.0028 U	< 0.0073 U	< 0.0017 U	0.0024 JN	< 0.0034 U	0.089	< 0.0031 U
PCB-132	38380-05-1	ng/g	0.082	0.10	0.076	0.12 J	0.34 J	0.073	0.064	0.11	2.2	0.11
PCB-133	35694-04-3	ng/g	0.0058 J	0.0069 J	0.0046 JN	0.0058 J	0.025 JN	0.0032 J	0.0030 JN	0.0063 J	0.086	0.0095 J
PCB-134/143	52704-70-8	ng/g	0.014 J	0.015 JN	0.012 JN	0.018 JN	0.067 J	0.011 J	0.012 J	0.015 JN	0.33	0.022
PCB-135/151	52744-13-5	ng/g	0.089	0.17	0.091	0.16 J	0.40 J	0.073	0.064	0.12	1.2	0.17
PCB-136	38411-22-2	ng/g	0.030	0.056	0.032	0.061 J	0.13 J	0.023	0.019	0.042	0.45	0.059
PCB-137	35694-06-5	ng/g	0.012 J	0.012 JN	0.0077 J	0.011 J	0.035 J	0.010 J	0.0065 JN	0.0065 JN	0.44	0.0094 JN
PCB-139/140	56030-56-9	ng/g	0.0035 JN	< 0.0013 U	0.0035 JN	< 0.0023 UJ	0.024 J	0.0042 J	0.0024 J	< 0.0027 U	0.11	0.0050 JN
PCB-14	34883-41-5	ng/g	< 0.00054 U	< 0.00080 U	< 0.0011 U	< 0.0019 U	< 0.0028 U	< 0.00037 U	< 0.00049 U	< 0.0025 U	< 0.0033 U	< 0.0016 U
PCB-141	52712-04-6	ng/g	0.053	0.071	0.046	0.083 J	0.33 J	0.050	0.046	0.069	1.1	0.071
PCB-142	41411-61-4	ng/g	< 0.0012 U	< 0.0015 U	< 0.0017 U	< 0.0026 U	< 0.0066 U	< 0.0016 U	< 0.0013 U	< 0.0030 U	< 0.0042 U	< 0.0028 U
PCB-144	68194-14-9	ng/g	0.0090 JN	0.018 JN	0.0086 J	0.018	0.048	0.0091 J	0.0071 J	0.012	0.16	0.015
PCB-145	74472-40-5	ng/g	< 0.00019 U	< 0.00020 U	< 0.00016 U	< 0.00043 U	< 0.00057 U	< 0.00019 U	< 0.000027 U	< 0.00045 U	0.0025 JN	< 0.00020 U
PCB-146	51908-16-8	ng/g	0.049	0.052	0.042	0.069 J	0.30 J	0.039	0.035	0.062	0.78	0.087
PCB-147/149	68194-13-8	ng/g	0.21	0.28	0.23	0.42 J	1.9 J	0.17	0.16	0.35	4.4	0.43
PCB-148	74472-41-6	ng/g	< 0.00026 U	< 0.00027 U	< 0.00022 U	< 0.00061 U	0.0028 JN	< 0.00026 U	< 0.000036 U	< 0.00064 U	< 0.00042 U	0.0025 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B344	B345	B346	B347	B347	B348	B349	B350	B351	B352
		Sample ID	PDI-SG-B344-BL1	PDI-SG-B345-BL1	PDI-SG-B346-BL1	PDI-SG-B347-BL1	PDI-SG-B347-BL1-D	PDI-SG-B348-BL1	PDI-SG-B349-BL1	PDI-SG-B350-BL1	PDI-SG-B351-BL1	PDI-SG-B352-BL1
		Sample Date	30 May 2018	28 Apr 2018	23 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018	29 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.012 J	0.0079 JN	0.0064 JN	0.0088 J	0.0082 JN	0.013	0.0073 JN	0.0073 JN	0.046	0.012
PCB-150	68194-08-1	ng/g	0.00055 JN	0.0011 JN	< 0.00015 U	0.0017 J	0.0042 JN	0.00029 JN	0.00015 JN	< 0.00043 U	0.0070 JN	0.0030 J
PCB-152	68194-09-2	ng/g	0.00027 J	0.00068 JN	< 0.00016 U	0.00073 J	< 0.00058 U	< 0.00019 U	0.00014 J	< 0.00047 U	0.0037 JN	< 0.00021 U
PCB-153/168	35065-27-1	ng/g	0.25	0.28	0.23	0.36 J	2.1 J	0.21	0.19	0.33	4.5	0.36
PCB-154	60145-22-4	ng/g	0.0035 JN	0.0095 J	0.0021 JN	0.0066 JN	0.016 JN	0.0035 JN	0.0010 JN	0.0051 JN	0.051	0.016
PCB-155	33979-03-2	ng/g	< 0.00018 U	< 0.00019 U	< 0.00015 U	< 0.00042 U	< 0.00054 U	< 0.00018 U	0.00035 JN	< 0.00043 U	< 0.00028 U	< 0.00019 U
PCB-156/157	38380-08-4	ng/g	0.030	0.034	0.024	0.029	0.065	0.027	0.023 J	0.028	1.7	0.029
PCB-158	74472-42-7	ng/g	0.028	0.032	0.023	0.033 J	0.11 J	0.027	0.025	0.031	0.79	0.025 JN
PCB-159	39635-35-3	ng/g	0.0027 JN	0.0027 JN	0.0017 JN	0.0046 J	0.021 JN	0.0028 J	< 0.00081 U	< 0.0020 U	< 0.0028 U	0.0034 J
PCB-16	38444-78-9	ng/g	0.0091 J	0.013 JN	0.0057 J	0.0048 J	0.0039 JN	0.0089 JN	0.0046 JN	0.0045 J	0.042	0.0073 J
PCB-161	74472-43-8	ng/g	< 0.00076 U	< 0.00095 U	< 0.0011 U	< 0.0017 U	< 0.0044 U	< 0.0010 U	< 0.00084 U	< 0.0020 U	< 0.0028 U	< 0.0019 U
PCB-162	39635-34-2	ng/g	< 0.00072 U	< 0.00091 U	0.0013 J	< 0.0017 U	< 0.0043 U	< 0.00098 U	< 0.00080 U	< 0.0020 U	< 0.0027 U	< 0.0018 U
PCB-164	74472-45-0	ng/g	0.021	0.026	0.019	0.030 J	0.096 JN	0.019	0.019	0.023	0.49	0.024 JN
PCB-165	74472-46-1	ng/g	< 0.00087 U	< 0.0011 U	< 0.0013 U	< 0.0019 U	< 0.0050 U	< 0.0012 U	< 0.00096 U	< 0.0023 U	< 0.0032 U	< 0.0021 U
PCB-167	52663-72-6	ng/g	0.0092 J	0.010 JN	0.0080 J	0.0087 J	0.035 J	0.010 J	0.0083 JN	0.011	0.41	0.011
PCB-169	32774-16-6	ng/g	< 0.00055 U	< 0.00067 U	< 0.00086 U	< 0.0013 U	< 0.0044 U	< 0.00074 U	< 0.00061 U	< 0.0016 U	< 0.0022 U	< 0.0014 U
PCB-17	37680-66-3	ng/g	0.012 J	0.023	0.0099 JN	0.010 JN	0.016	0.012 J	0.0081 J	0.018	0.36	0.017
PCB-170	35065-30-6	ng/g	0.088	0.089	0.069	0.096 J	0.68 J	0.079	0.068	0.096	1.8	0.10
PCB-171/173	52663-71-5	ng/g	0.028	0.027 JN	0.021	0.032 J	0.18 J	0.020 JN	0.022 J	0.025 JN	0.37	0.028
PCB-172	52663-74-8	ng/g	0.017	0.013 JN	0.012	0.017 J	0.088 J	0.015	0.011 J	0.015 JN	0.21	0.019
PCB-174	38411-25-5	ng/g	0.10	0.11	0.074	0.11 J	0.68 J	0.082	0.076	0.10	0.87	0.11
PCB-175	40186-70-7	ng/g	0.0040 J	0.0037 JN	0.0018 JN	0.0036 JN	0.026 J	0.0036 J	0.0031 JN	0.0061 J	0.033	0.0047 J
PCB-176	52663-65-7	ng/g	0.0096 J	0.010 J	0.0091 J	0.012 JN	0.11 J	0.0083 J	0.0057 JN	0.012	0.091	0.017
PCB-177	52663-70-4	ng/g	0.063	0.064	0.045	0.067 J	0.40 J	0.050	0.045	0.058	0.56	0.071
PCB-178	52663-67-9	ng/g	0.025	0.025	0.018	0.025 J	0.15 J	0.016	0.016	0.025	0.13	0.034
PCB-179	52663-64-6	ng/g	0.039	0.052	0.036	0.058 J	0.39 J	0.030	0.028	0.052	0.30	0.068
PCB-18/30	37680-65-2	ng/g	0.018 J	0.029	0.015 J	0.013 J	0.017 J	0.021 J	0.014 J	0.014 JN	0.19	0.021
PCB-180/193	35065-29-3	ng/g	0.20	0.22	0.15	0.21 J	1.3 J	0.17	0.14	0.19	2.3	0.23
PCB-181	74472-47-2	ng/g	< 0.00060 U	< 0.000069 U	< 0.00045 U	< 0.0013 U	< 0.0023 U	< 0.00066 U	< 0.00011 U	< 0.0017 U	0.023	< 0.00061 U
PCB-182	60145-23-5	ng/g	< 0.00057 U	0.0013 J	0.0012 J	< 0.0012 U	0.0041 J	< 0.00062 U	< 0.00011 U	< 0.0016 U	< 0.00061 U	< 0.00059 U
PCB-183/185	52663-69-1	ng/g	0.059	0.065	0.048	0.078 J	0.53 J	0.049	0.048	0.065	0.58	0.076
PCB-184	74472-48-3	ng/g	< 0.00049 U	< 0.000056 U	< 0.00037 U	< 0.0010 U	< 0.0019 U	< 0.00053 U	0.00061 JN	< 0.0014 U	< 0.00052 U	< 0.00050 U
PCB-186	74472-49-4	ng/g	< 0.00047 U	< 0.000054 U	< 0.00036 U	< 0.0010 U	< 0.0018 U	< 0.00051 U	< 0.000089 U	< 0.0014 U	< 0.00051 U	< 0.00049 U
PCB-187	52663-68-0	ng/g	0.13	0.14	0.099	0.15 J	0.83 J	0.11	0.096	0.13	0.84	0.17
PCB-188	74487-85-7	ng/g	< 0.00044 U	< 0.000051 U	< 0.00031 U	< 0.00084 U	< 0.0014 U	< 0.00048 U	< 0.000082 U	< 0.0011 U	< 0.00042 U	< 0.00042 U
PCB-189	39635-31-9	ng/g	< 0.00072 U	0.0036 JN	0.0024 JN	< 0.0016 UJ	0.026 J	0.0031 J	0.0025 J	< 0.0021 U	0.074	0.0034 J
PCB-19	38444-73-4	ng/g	0.0082 J	0.030	0.012 JN	0.020	0.021 JN	0.0098 J	0.0048 J	0.027 JN	0.26	0.017
PCB-190	41411-64-7	ng/g	0.019	0.020	0.013	0.019 J	0.083 J	0.016	0.014	0.017	0.27	0.019
PCB-191	74472-50-7	ng/g	0.0054 J	0.0049 JN	0.0029 J	0.0028 JN	0.023 JN	0.0032 JN	0.0020 JN	< 0.0013 U	0.055	0.0033 JN
PCB-192	74472-51-8	ng/g	< 0.00048 U	< 0.000055 U	< 0.00038 U	< 0.0011 U	< 0.0019 U	< 0.00052 U	< 0.000091 U	< 0.0014 U	< 0.00054 U	< 0.00052 U
PCB-194	35694-08-7	ng/g	0.051	0.046	0.036	0.041 J	0.47 J	0.044	0.035	0.048	0.34	0.056
PCB-195	52663-78-2	ng/g	0.024	0.016	0.015	0.020 J	0.23 JN	0.018	0.012 JN	0.024	0.17	0.028
PCB-196	42740-50-1	ng/g	0.025	0.020	0.012 JN	0.015 JN	0.14 J	0.020	0.016	0.021	0.14	0.026 JN
PCB-197	33091-17-7	ng/g	0.0015 JN	0.00092 JN	0.0012 J	0.0022 J	0.011 JN	0.0019 J	0.0011 JN	< 0.0010 U	0.0063 JN	0.0014 JN
PCB-198/199	68194-17-2	ng/g	0.062	0.054	0.041	0.047 J	0.26 J	0.055	0.047	0.049	0.26	0.066
PCB-2	2051-61-8	ng/g	0.0046 J	0.0029 JN	0.0037 J	0.0049 JN	0.0049 JN	< 0.0031 U	< 0.0031 U	0.0073 J	0.020	0.0083 J
PCB-20/28	38444-84-7	ng/g	0.048	0.056	0.032	0.036	0.032 JN	0.047	0.040	0.036	0.49	0.049
PCB-200	52663-73-7	ng/g	0.0063 JN	0.0051 J	0.0037 J	0.0037 JN	0.040 J	0.0055 J	0.0039 JN	0.0032 JN	0.030	0.0051 JN
PCB-201	40186-71-8	ng/g	0.0059 J	0.0042 J	0.0041 J	0.0055 J	0.037 J	0.0056 J	0.0044 J	< 0.00092 U	0.027	0.0054 JN
PCB-202	2136-99-4	ng/g	0.014	0.011 J	0.0084 J	0.0084 JN	0.061 JN	0.013	0.0099 J	0.011 JN	0.049	0.010 JN
PCB-203	52663-76-0	ng/g	0.035	0.030	0.027	0.027 J	0.16 J	0.027 JN	0.029	0.026	0.19	0.039
PCB-204	74472-52-9	ng/g	< 0.00053 U	< 0.00019 U	< 0.00032 U	< 0.00070 U	< 0.0019 U	< 0.00036 U	< 0.00020 U	< 0.0010 U	< 0.00035 U	< 0.00034 U
PCB-205	74472-53-0	ng/g	0.0029 J	0.0029 J	< 0.00088 U	< 0.0025 UJ	0.021 J	0.0027 J	0.0015 JN	< 0.0033 U	0.016	0.0025 JN
PCB-206	40186-72-9	ng/g	0.058 JN	0.030 JN	0.021	0.018 J	0.094 J	0.065 JN	0.029 JN	< 0.0036 U	0.11	0.047
PCB-207	52663-79-3	ng/g	0.0032 J	0.0034 J	0.0029 J	< 0.0023 UJ	0.0099 JN	0.0041 J	0.0034 J	< 0.0022 U	0.042	0.0040 J
PCB-208	52663-77-1	ng/g	0.0099 JN	0.0091 J	0.0071 J	0.0066 J	0.018 JN	0.013	0.010 J	0.0079 J	0.039	0.013
PCB-209	2051-24-3	ng/g	0.049	0.041	0.028	0.029	0.036	0.050	0.043	0.041	0.37	0.042
PCB-21/33	55702-46-0	ng/g	0.016 J	0.019 JN	0.012 J	0.013 J	0.012 J	0.015 J	0.012 J	0.011 J	0.075	0.018 J
PCB-22	38444-85-8	ng/g	0.014	0.018	0.0087 J	0.0092 J	0.0090 J	0.016	0.011 JN	0.0087 J	0.048	0.013
PCB-23	55720-44-0	ng/g	< 0.00080 U	< 0.0013 U	< 0.00041 U	< 0.00061 U	< 0.00094 U	< 0.00065 U	< 0.00064 U	< 0.00065 U	< 0.00092 U	< 0.00057 U
PCB-24	55702-45-9	ng/g	0.00045 JN	0.0015 J	< 0.00018 U	< 0.00035 U	< 0.00064 U	0.0012 J	< 0.00016 U	< 0.00044 U	< 0.00058 U	< 0.00024 U
PCB-25	55712-37-3	ng/g	0.0065 JN	0.0062 JN	0.0028 JN	0.0033 J	0.0043 J	0.0039 JN	0.0040 J	0.0038 J	0.030	0.0050 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B344	B345	B346	B347	B347	B348	B349	B350	B351	B352
		Sample ID	PDI-SG-B344-BL1	PDI-SG-B345-BL1	PDI-SG-B346-BL1	PDI-SG-B347-BL1	PDI-SG-B347-BL1-D	PDI-SG-B348-BL1	PDI-SG-B349-BL1	PDI-SG-B350-BL1	PDI-SG-B351-BL1	PDI-SG-B352-BL1
		Sample Date	30 May 2018	28 Apr 2018	23 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018	29 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.012 J	0.0098 J	0.0050 J	0.0054 JN	0.0064 J	0.0078 JN	0.0072 J	0.0067 J	0.037	0.0089 J
PCB-27	38444-76-7	ng/g	0.0022 J	0.0039 JN	0.0027 JN	0.0043 JN	0.0038 JN	0.0029 JN	0.0014 J	0.0047 J	0.075	0.0026 JN
PCB-3	2051-62-9	ng/g	0.0050 JN	0.0024 JN	0.0018 JN	0.0011 JN	< 0.00055 U	0.0041 JN	0.0044 JN	0.0049 J	0.0045 JN	0.0022 JN
PCB-31	16606-02-3	ng/g	0.037	0.039	0.023	0.026	0.025	0.033	0.028	0.026	0.27	0.037
PCB-32	38444-77-8	ng/g	0.0085 J	0.014	0.0062 JN	0.010 JN	0.0096 JN	0.0075 J	0.0064 J	0.010 J	0.34	0.0078 JN
PCB-34	37680-68-5	ng/g	< 0.00083 U	< 0.0013 U	< 0.00043 U	< 0.00063 U	< 0.00097 U	< 0.00068 U	< 0.00067 U	< 0.00068 U	< 0.00096 U	< 0.00059 U
PCB-35	37680-69-6	ng/g	< 0.00079 U	< 0.0012 U	0.00098 J	< 0.00062 U	< 0.00095 U	0.0024 J	0.0012 JN	< 0.00066 U	0.0045 J	0.0013 JN
PCB-36	38444-87-0	ng/g	< 0.00072 U	< 0.0011 U	< 0.00040 U	< 0.00059 U	< 0.00091 U	< 0.00059 U	< 0.00058 U	< 0.00063 U	0.0029 J	< 0.00055 U
PCB-37	38444-90-5	ng/g	0.015	0.012 JN	0.0084 JN	0.0098 JN	0.0097	0.019	0.013 J	0.011	0.037	0.014
PCB-38	53555-66-1	ng/g	< 0.00078 U	< 0.0012 U	< 0.00043 U	< 0.00064 U	< 0.00098 U	< 0.00064 U	< 0.00063 U	< 0.00068 U	< 0.00097 U	< 0.00060 U
PCB-39	38444-88-1	ng/g	< 0.00071 U	< 0.0011 U	< 0.00039 U	< 0.00057 U	< 0.00088 U	< 0.00058 U	< 0.00057 U	< 0.00061 U	0.0022 JN	< 0.00053 U
PCB-4	13029-08-8	ng/g	0.0098 J	0.018 J	0.010 J	0.011 JN	0.016 JN	0.0098 J	0.0064 J	0.018 J	0.27	0.0097 JN
PCB-40/41/71	38444-93-8	ng/g	0.029 J	0.027 JN	0.020 J	0.024 J	0.025 J	0.026 JN	0.020 J	0.024 J	0.54	0.033
PCB-42	36559-22-5	ng/g	0.014	0.015	0.0070 JN	0.010	0.0094 J	0.014	0.012 J	0.011 JN	0.24	0.016
PCB-43/73	70362-46-8	ng/g	0.0041 JN	0.0043 JN	0.0023 JN	0.0036 J	0.0046 J	0.0034 J	0.0028 J	0.0031 JN	0.066	0.0029 JN
PCB-44/47/65	41464-39-5	ng/g	0.074	0.11	0.058	0.089	0.090	0.067	0.059	0.082	2.1	0.095
PCB-45/51	70362-45-7	ng/g	0.013 J	0.026 JN	0.010 JN	0.027	0.023 JN	0.012 JN	0.0092 J	0.019 JN	0.37	0.019 J
PCB-46	41464-47-5	ng/g	0.0027 J	0.0029 JN	0.0023 JN	< 0.0019 U	< 0.0028 U	0.0041 J	0.0020 J	< 0.0017 U	0.12	< 0.0017 U
PCB-48	70362-47-9	ng/g	0.0071 J	0.0095 J	0.0045 JN	0.0054 J	0.0056 JN	0.0087 J	0.0064 J	0.0046 JN	0.11	0.0083 JN
PCB-49/69	41464-40-8	ng/g	0.048	0.067	0.039	0.059	0.060	0.041	0.037	0.058	1.4	0.068
PCB-5	16605-91-7	ng/g	< 0.00065 U	< 0.00096 U	< 0.0014 U	< 0.0025 U	< 0.0037 U	< 0.00045 U	< 0.00059 U	< 0.0033 U	< 0.0043 U	< 0.0022 U
PCB-50/53	62796-65-0	ng/g	0.010 J	0.030	0.014 J	0.024	0.028	0.0099 J	0.0081 J	0.023	0.47	0.019 J
PCB-52	35693-99-3	ng/g	0.10	0.15	0.080	0.094	0.11	0.094	0.083	0.10	3.6	0.11
PCB-54	15968-05-5	ng/g	0.0011 JN	0.0079 J	0.0024 J	0.0047 JN	0.0053 J	0.0033 JN	0.00047 JN	0.0052 JN	0.045	0.0023 JN
PCB-55	74338-24-2	ng/g	0.0033 JN	0.0023 JN	< 0.00072 U	< 0.0011 U	0.0018 J	0.0022 JN	0.0030 J	< 0.00097 U	0.0086 JN	< 0.00098 U
PCB-56	41464-43-1	ng/g	0.024	0.030	0.016	0.019	0.017	0.025	0.022	0.019	0.28	0.026
PCB-57	70424-67-8	ng/g	< 0.00074 U	< 0.00066 U	< 0.00073 U	< 0.0011 U	< 0.0016 U	< 0.00083 U	< 0.00066 U	< 0.00098 U	< 0.0054 U	< 0.0010 U
PCB-58	41464-49-7	ng/g	< 0.00071 U	< 0.00063 U	< 0.00074 U	< 0.0011 U	< 0.0017 U	< 0.00080 U	< 0.00063 U	< 0.0010 U	< 0.0054 U	< 0.0010 U
PCB-59/62/75	74472-33-6	ng/g	0.0045 JN	0.0060 JN	0.0025 JN	0.0044 J	0.0025 JN	0.0045 JN	0.0046 J	0.0038 J	0.068	0.0059 JN
PCB-6	25569-80-6	ng/g	0.0048 J	0.0043 JN	0.0040 JN	0.0029 J	< 0.0032 U	0.0049 J	0.0025 J	< 0.0029 U	0.016 JN	0.0033 JN
PCB-60	33025-41-1	ng/g	0.0098 J	0.011 JN	0.0063 JN	0.0070 JN	0.0062 J	0.013	0.0080 JN	0.0075 J	0.11	0.0070 J
PCB-61/70/74/76	33284-53-6	ng/g	0.11	0.13	0.079	0.10	0.089	0.11	0.091	0.096	2.8	0.12
PCB-63	74472-34-7	ng/g	0.0025 J	0.0026 J	0.0012 JN	< 0.00099 U	0.0028 J	0.0016 JN	0.0010 JN	< 0.00090 U	0.054	< 0.00091 U
PCB-64	52663-58-8	ng/g	0.023	0.027	0.017	0.018	0.017	0.024	0.019	0.017	0.43	0.022 JN
PCB-66	32598-10-0	ng/g	0.067	0.063	0.045	0.056	0.055	0.065	0.057 J+	0.055	1.0	0.067
PCB-67	73575-53-8	ng/g	0.0012 JN	0.0021 J	0.0012 JN	< 0.00093 U	< 0.0014 U	0.0019 J	< 0.00060 U	< 0.00085 U	< 0.0046 U	< 0.00086 U
PCB-68	73575-52-7	ng/g	0.00071 JN	0.0017 J	0.0010 JN	< 0.00095 U	< 0.0014 U	0.0015 J	0.00077 J	0.0017 J	0.022 JN	< 0.00088 U
PCB-7	33284-50-3	ng/g	0.0014 JN	< 0.00090 U	< 0.0013 U	< 0.0022 U	< 0.0033 U	0.0033 J	< 0.00055 U	< 0.0030 U	0.0041 JN	< 0.0020 U
PCB-72	41464-42-0	ng/g	0.0012 J	< 0.00064 U	0.0011 JN	< 0.0011 U	< 0.0016 U	< 0.00081 U	< 0.00064 U	< 0.00096 U	0.026	0.0018 JN
PCB-77	32598-13-3	ng/g	0.0093 J	0.0095 J	0.0050 J	0.0060 J	0.0058 JN	0.0096 J	0.0070 J	0.0071 J	0.023	0.0069 J
PCB-78	70362-49-1	ng/g	< 0.00071 U	< 0.00063 U	< 0.00074 U	< 0.0011 U	< 0.0017 U	< 0.00080 U	< 0.00063 U	< 0.00099 U	< 0.0054 U	< 0.0010 U
PCB-79	41464-48-6	ng/g	0.0011 J	< 0.00054 U	0.0012 JN	< 0.00095 U	< 0.0014 U	0.0010 J	0.0012 J	< 0.00086 U	0.027	< 0.00087 U
PCB-8	34883-43-7	ng/g	0.012 JN	0.015 JN	0.015 JN	0.0096 JN	0.0074 JN	0.015 J	0.0074 J	0.0070 JN	0.074 JN	0.011 JN
PCB-80	33284-52-5	ng/g	< 0.00063 U	< 0.00056 U	< 0.00063 U	< 0.00093 U	< 0.0014 U	< 0.00071 U	< 0.00056 U	< 0.00085 U	< 0.0046 U	< 0.00086 U
PCB-81	70362-50-4	ng/g	< 0.00068 U	< 0.00060 U	< 0.00067 U	< 0.00099 U	< 0.0015 U	< 0.00075 U	< 0.00058 U	< 0.00092 U	< 0.0050 U	< 0.00090 U
PCB-82	52663-62-4	ng/g	0.021	0.029	0.015	0.012 JN	0.015	0.017	0.015 JN	0.013 JN	0.53	0.016
PCB-83/99	60145-20-2	ng/g	0.10	0.15	0.095	0.11 J	0.22 J	0.086	0.086	0.11	2.5	0.13
PCB-84	52663-60-2	ng/g	0.032	0.057	0.031	0.031	0.029	0.028	0.029	0.033	1.4	0.033 JN
PCB-85/116/117	65510-45-4	ng/g	0.029 J	0.040 JN	0.028 J	0.028 J	0.036	0.029 J	0.023 JN	0.029 J	0.81	0.028 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.10	0.15	0.089	0.097	0.093 JN	0.090	0.083	0.095	3.3	0.11
PCB-88/91	55215-17-3	ng/g	0.024 J	0.044	0.027	0.035	0.062	0.019 JN	0.018 J	0.035	0.78	0.043
PCB-89	73575-57-2	ng/g	0.0015 JN	< 0.0011 U	< 0.00030 U	< 0.00051 U	< 0.00052 U	0.0010 J	0.0017 JN	< 0.00060 U	< 0.00049 U	< 0.00055 U
PCB-9	34883-39-1	ng/g	< 0.00072 U	0.0014 JN	< 0.0013 U	< 0.0023 U	< 0.0034 U	0.0023 J+	< 0.00065 U	< 0.0030 U	0.0045 JN	< 0.0020 U
PCB-90/101/113	68194-07-0	ng/g	0.16	0.26 JN	0.17	0.23	0.32	0.13	0.13	0.20	4.9	0.24
PCB-92	52663-61-3	ng/g	0.032 JN	0.056	0.030	0.037	0.051	0.027	0.025	0.033	0.77	0.050
PCB-93/100	73575-56-1	ng/g	0.0073 JN	0.012 JN	0.0056 J	0.011 J	0.013 J	0.0035 J	0.0042 J	0.0077 J	0.099	0.011 J
PCB-94	73575-55-0	ng/g	< 0.00047 U	0.0026 JN	< 0.00030 U	0.0024 JN	0.0048 J	0.0011 JN	0.0012 JN	0.0018 JN	0.038	< 0.00055 U
PCB-95	38379-99-6	ng/g	0.13	0.23	0.13	0.19	0.22	0.10	0.091	0.14	4.3	0.19
PCB-96	73575-54-9	ng/g	0.0010 JN	0.0032 JN	< 0.00022 U	0.0024 JN	0.0026 JN	0.0010 JN	< 0.00022 U	0.0025 JN	0.040	0.0021 J
PCB-98/102	60233-25-2	ng/g	0.0049 J	0.0055 JN	0.0031 JN	0.0064 J	0.0076 J	0.0044 JN	0.0046 J	0.0058 J	0.13 JN	0.0048 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	4.4	5.5	3.6	5.0	17	3.9	3.4	4.6	89	5.5

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B344	B345	B346	B347	B347	B348	B349	B350	B351	B352
		Sample ID	PDI-SG-B344-BL1	PDI-SG-B345-BL1	PDI-SG-B346-BL1	PDI-SG-B347-BL1	PDI-SG-B347-BL1-D	PDI-SG-B348-BL1	PDI-SG-B349-BL1	PDI-SG-B350-BL1	PDI-SG-B351-BL1	PDI-SG-B352-BL1
		Sample Date	30 May 2018	28 Apr 2018	23 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018	29 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	< 0.49 U	< 1.4 U	< 1.3 U	< 0.60 U	0.38 J	< 0.95 UJ
2,4-DDE	3424-82-6	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	< 0.49 U	< 1.4 U	< 1.3 U	< 0.60 U	< 0.57 U	< 0.95 UJ
2,4-DDT	789-02-6	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	< 0.49 U	< 1.4 U	< 1.3 U	< 0.60 U	< 0.57 U	< 0.95 UJ
4,4'-DDD	72-54-8	µg/kg	0.72 J	0.77	0.60 J	0.61	0.78	1.2 J	0.89 J	0.80	1.4	0.52 J
4,4'-DDE	72-55-9	µg/kg	2.1	1.7	1.7 J	1.3	1.8	2.5	2.2	1.5	2.6	1.7 J
4,4'-DDT	50-29-3	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	0.28 J	9.8	< 1.3 U	0.31 J	0.34 J	0.95 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.5	2.8	2.8	2.2	3.1	14	3.7	2.9	5.0	3.6
Aldrin	309-00-2	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	< 0.49 U	< 1.4 U	< 1.3 U	< 0.60 U	< 0.57 U	< 0.95 UJ
alpha-Chlordane	5103-71-9	µg/kg	< 2.7 U	< 1.1 U	< 2.0 UJ	< 0.99 U	< 0.98 U	< 2.8 U	< 2.7 U	< 1.2 U	0.65 J	< 1.9 UJ
cis-Nonachlor	5103-73-1	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	< 0.49 U	< 1.4 U	< 1.4 U	< 0.60 U	< 0.57 U	< 0.97 UJ
Dieldrin	60-57-1	µg/kg	< 2.7 U	< 1.1 U	< 2.0 UJ	< 1.0 U	< 1.0 U	< 2.8 U	< 2.7 U	< 1.2 U	< 1.1 U	< 2.0 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	< 0.49 U	< 1.4 U	< 1.3 U	< 0.60 U	< 0.57 U	< 0.95 UJ
gamma-Chlordane	5566-34-7	µg/kg	< 2.7 U	< 1.1 U	< 2.0 UJ	< 0.99 U	< 0.98 U	< 2.8 U	< 2.7 U	< 1.2 U	0.48 J	< 1.9 UJ
Heptachlor	76-44-8	µg/kg	< 1.3 U	< 0.56 U	< 1.0 UJ	< 0.49 U	< 0.49 U	< 1.4 U	< 1.3 U	< 0.60 U	< 0.57 U	< 0.95 UJ
Oxychlordane	27304-13-8	µg/kg	< 2.7 U	< 1.1 U	< 2.0 UJ	< 1.0 U	< 1.0 U	< 2.8 U	< 2.7 U	< 1.2 U	< 1.1 U	< 2.0 UJ
trans-Nonachlor	39765-80-5	µg/kg	< 2.7 U	< 1.1 U	< 2.0 UJ	0.35 J	< 0.98 U	< 2.8 U	< 2.7 U	< 1.2 U	0.59 J	< 1.9 UJ
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2.7 U	< 1.1 U	< 2 UJ	0.85	< 1 U	< 2.8 U	< 2.7 U	< 1.2 U	2.27	< 2 UJ
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.7	1.6	0.80 J	1.3	1.6	1.6	1.6	1.8	5.5	3.2
Acenaphthene	83-32-9	µg/kg	1.4	1.1	0.69	1.1	1.4	1.4	1.1	1.1	9.5	2.2
Acenaphthylene	208-96-8	µg/kg	1.2	1.2	0.57	1.0	0.87	1.3	1.1	1.3	4.3	1.7
Anthracene	120-12-7	µg/kg	3.9	2.4	1.7	2.5	3.0	4.3	3.8	2.7	13	3.0
Benz(a)anthracene	56-55-3	µg/kg	14	9.7	5.5	8.5 J	16 J	9.9	9.5	9.6	40	8.5
Benzo(a)pyrene	50-32-8	µg/kg	14	9.8	6.3	8.6	14	12	11	12	55	10
Benzo(b)fluoranthene	205-99-2	µg/kg	22	17	9.4	13 J	25 J	18	16	18	78	13
Benzo(g,h,i)perylene	191-24-2	µg/kg	13	13	6.7	13	15	13	11	14	38	10
Benzo(k)fluoranthene	207-08-9	µg/kg	8.4	5.6	3.4	5.0 J	9.0 J	7.1	7.0	5.2	25	3.5
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	140	74 J	59 J	56 J	130	170	190	110 J	95 J	43 J
Chrysene	218-01-9	µg/kg	22	17	9.5	17	24	17	16	16	70	12
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.6	2.4	1.3	3.2	3.7	2.4	1.9	2.6	9.1	1.6
Fluoranthene	206-44-0	µg/kg	34	22	16	17 J	41 J	24	22	24	130	28
Fluorene	86-73-7	µg/kg	2.1	2.0	0.92	1.8	2.2	1.9	1.5	2.0	7.8	3.8
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	11	10	5.7	11	13	11	9.4	12	40	8.6
Naphthalene	91-20-3	µg/kg	2.1	2.2	1.3	1.9	1.9	1.9	2.2	2.6	11	4.7
Phenanthrene	85-01-8	µg/kg	14	9.3	6.6	7.3 J	15 J	13	11	12	66	19
Pyrene	129-00-0	µg/kg	36	21	17	17 J	35 J	27	25	26	130	30
Total PAHs (b)	T_PAH (PDI)	µg/kg	203	147	93	130	222	167	151	163	732	163
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	21	16	10	15	23	18	16	19	80	15
Metals												
Arsenic	7440-38-2	mg/kg	5.8	3.9	5.0	4.0	4.2	6.1	6.4	5.0	5.1	4.1
Cadmium	7440-43-9	mg/kg	0.18 J	0.15 J	0.16 J	0.16 J	0.16 J	0.19 J	0.22 J	0.16 J	0.25 J	0.16 J
Copper	7440-50-8	mg/kg	41	31	32	33	34	43 J	47	41	37 J	30
Lead	7439-92-1	mg/kg	9.9	8.0	9.1	8.2	8.7	10	11	10	11	17
Mercury	7439-97-6	mg/kg	0.049 J	0.060	0.028 J	0.050	0.046	0.048 J	0.051 J	0.047 J	0.057	0.040 J
Tri-n-butyltin	36643-28-4	µg/kg	< 2.7 U	< 2.2 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.8 U	< 2.7 U	< 2.4 U	1.0 J	< 1.9 U
Zinc	7440-66-6	mg/kg	92	76	95	83	86	99	110	96	100	82
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	97 J	46 J	45 J	< 92 U	< 91 U	150	150	27 J	110	50 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	620	360	290	250	220	740	720	290	1200	320
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	36.5					36.0	36.3			
Total Solids@104C - E160.3 (f)	TSOLID	%		43.2	50.2	52.8	52.0			42.8	43.7	51.8
Total Solids@104C - E160.3M (f)	TSOLID	%	36.8	44.1	48.9	50.2	50.2	35.5	36.5	41.6	43.8	51.6
Total Solids@70C	TSOLID70	%	37	45	49	51	52	36	36	42	36	52
Gravel	GS-Gravel	%	0	0	0	0		0	0	0	0	0.1
Sand, Coarse	GS-Csand	%	0	0	0	0		0	0	0	0	0.1
Sand, Medium	GS-Msand	%	0.3	0.1	0.2	0.1		0.3	0.2	0.1	1.1	2.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	7.684	21.13	45.8	28.2		8.704	7.934	10.2	9.431	46.44
Sand, Fine (#230) (d)	GS-Fsand	%	10.5	27.1	49.5	36.0		11.7	10.8	13.8	10.4	50.4
Silt (#200) (d)	GS-Silt-200	%	76.71	67.26	46.99	61.89		78.69	78.96	78.29	64.26	42.25

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B344	B345	B346	B347	B347	B348	B349	B350	B351	B352
		Sample ID	PDI-SG-B344-BL1	PDI-SG-B345-BL1	PDI-SG-B346-BL1	PDI-SG-B347-BL1	PDI-SG-B347-BL1-D	PDI-SG-B348-BL1	PDI-SG-B349-BL1	PDI-SG-B350-BL1	PDI-SG-B351-BL1	PDI-SG-B352-BL1
		Sample Date	30 May 2018	28 Apr 2018	23 Apr 2018	28 Apr 2018	28 Apr 2018	30 May 2018	30 May 2018	28 Apr 2018	29 Apr 2018	24 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	73.9	61.3	43.3	54.1		75.7	76.1	74.7	63.3	38.3
Clay	GS-Clay	%	15.2	11.5	6.9	9.8		12.2	12.9	11.5	25.2	8.3
Percent Fines (e)	GS-FINES	%	91.91	78.76	53.89	71.69		90.89	91.86	89.79	89.46	50.55
Total Organic Carbon	TOC	mg/kg	35000	19000	16000	16000	16000	38000	37000	24000	74000	19000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B353	B354	B355	B356	B357	B358	B359	B360	B361	B362
		Sample ID	PDI-SG-B353-BL1	PDI-SG-B354-BL1	PDI-SG-B355-BL1	PDI-SG-B356-BL1	PDI-SG-B357-BL1	PDI-SG-B358-BL1	PDI-SG-B359-BL1	PDI-SG-B360-BL1	PDI-SG-B361-BL1	PDI-SG-B362-BL1
		Sample Date	29 Apr 2018	30 Apr 2018	31 May 2018	30 Apr 2018	24 Apr 2018	30 Apr 2018	29 Apr 2018	28 Apr 2018	29 Apr 2018	30 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.047	0.058	0.059	0.086	0.038	0.069	0.043	0.043	0.055	0.12
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0074 JN	0.012 JN	0.0096 JN	0.017 JN	0.0060 JN	0.015	0.0075 JN	0.0077 JN	0.0083 JN	0.026
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00041 JN	0.0012 J+	0.0012 J+	0.0019 J	0.00058 J+	0.0012 JN	0.00045 J+	0.00048 J+	0.00048 J+	0.0016 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00063 J+	< 0.00014 U	0.00073 J+	< 0.00016 U	0.00029 J+	0.00099 J	0.00061 J+	0.00061 J+	0.00082 J+	0.0011 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00065 J+	0.0015 J	0.00094 J	0.0039 J	0.00066 J	0.0021 J	0.00060 J+	0.00061 J+	0.00067 J+	0.0025 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0018 J	0.0029 J	0.0021 J	0.0031 JN	0.0016 JN	0.0036 J	0.0017 J	0.0018 J	0.0021 J	0.0042 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00023 J	0.00070 JN	0.00050 J	0.00099 JN	0.00034 JN	0.00073 JN	0.00035 J	< 0.00014 U	0.00037 J	0.0016 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0014 J	0.0020 J	0.0016 J	0.0030 J	0.0011 JN	0.0023 J	0.0015 J	0.0015 J	0.0024 J	0.0030 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00016 U	0.00068 JN	0.00095 J+	0.00070 J+	0.00024 J+	0.00055 J+	< 0.00015 U	< 0.00015 U	< 0.00013 U	0.00044 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00026 JN	0.00067 J	0.00044 J	0.00048 J	0.00032 J	0.00051 J	0.00035 JN	0.00035 JN	0.00068 J+	0.00052 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00022 J+	0.00068 J	0.00039 J+	< 0.00017 U	0.00012 JN	0.00045 J	0.00022 J+	< 0.000036 U	0.00023 J+	0.00061 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00023 JN	0.00067 J	0.00036 J	0.00067 J	0.00019 JN	0.00061 J	0.00022 JN	< 0.000094 U	0.00030 J+	0.0011 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00024 J+	0.00052 JN	0.00027 J+	< 0.00019 U	0.00014 JN	0.00064 JN	0.00020 JN	0.00021 J+	0.00022 J+	0.00092 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00022 JN	0.00039 JN	0.00019 JN	< 0.00013 U	0.00015 JN	0.00023 JN	0.00030 JN	0.00015 JN	0.00032 JN	0.00040 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00063 J+	0.0011 J+	0.00048 J+	0.00091 J+	0.00027 J	0.00089 JN	0.00074 J+	0.00058 J+	0.00059 J+	0.00061 J+
OCDD	3268-87-9	µg/kg	0.40	0.36	0.51	0.55	0.31	0.44	0.37	0.35	0.53	0.85
OCDF	39001-02-0	µg/kg	0.030	0.037	0.037	0.064	0.021	0.042	0.028	0.028	0.038	0.076
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0018	0.003	0.0024	0.0031	0.0015	0.0031	0.0019	0.0017	0.0026	0.0044
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0014	0.0025	0.0023	0.0028	0.0011	0.0026	0.0014	0.0014	0.0024	0.0041
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0013	0.0023	0.0022	0.0026	0.001	0.0025	0.0012	0.0012	0.0023	0.0038
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0021 J	0.0096 J	0.0023 JN	0.022	0.0029 J	0.020	0.0016 JN	0.0014 J	0.012	21
PCB-10	33146-45-1	ng/g	< 0.0027 U	< 0.00080 U	0.00093 JN	0.0016 J	< 0.0030 U	0.0020 JN	< 0.0072 U	0.0014 JN	< 0.0058 U	0.69
PCB-103	60145-21-3	ng/g	0.010 J	0.0042 JN	0.0098 J	0.055	0.0047 JN	0.0066 J	0.0098 JN	0.023 JN	0.0089 JN	0.046 J
PCB-104	56558-16-8	ng/g	< 0.00021 U	< 0.00067 U	< 0.00017 U	0.0072 J	< 0.00028 U	< 0.00052 U	< 0.00037 U	0.0033 JN	< 0.00049 U	< 0.0017 U
PCB-105	32598-14-4	ng/g	0.061	0.095	0.14	0.11	0.087	0.11	0.070	0.069	0.062	1.3
PCB-106	70424-69-0	ng/g	< 0.00086 U	< 0.0023 U	< 0.0014 U	< 0.0023 U	< 0.0012 U	< 0.0019 U	< 0.0014 U	< 0.00095 U	< 0.0016 U	< 0.0094 U
PCB-107	70424-68-9	ng/g	0.012 JN	0.020	0.025	0.090	0.022	0.023	0.016	0.021	0.014	0.23 JN
PCB-108/124	70362-41-3	ng/g	0.0064 J	0.011 J	0.017 J	0.0093 JN	0.0092 J	0.0089 JN	0.0053 JN	0.0077 J	0.0064 J	0.15 J
PCB-11	2050-67-1	ng/g	0.051	0.076	0.049	0.079	0.045 JN	0.068	0.048	0.058	0.045 JN	0.14 J
PCB-110/115	38380-03-9	ng/g	0.25	0.31	0.43	0.36	0.28	0.39	0.25	0.18	0.24	4.3
PCB-111	39635-32-0	ng/g	< 0.00020 U	< 0.00060 U	< 0.00015 U	0.0089 J	< 0.00026 U	< 0.00046 U	< 0.00035 U	< 0.000072 U	< 0.00045 U	< 0.0015 U
PCB-112	74472-36-9	ng/g	< 0.00021 U	< 0.00066 U	< 0.00017 U	< 0.00078 U	< 0.00027 U	0.0038 J	< 0.00037 U	< 0.000076 U	< 0.00048 U	< 0.0016 U
PCB-114	74472-37-0	ng/g	0.0033 JN	0.0059 J	0.010 J	0.0099 J	0.0039 J	0.0057 JN	0.0022 J	0.0038 J	< 0.0015 U	0.091
PCB-118	31508-00-6	ng/g	0.17	0.22	0.33	0.28	0.23	0.29 J+	0.17	0.20	0.18	3.2
PCB-12/13	2974-92-7	ng/g	0.0047 JN	< 0.00068 U	0.0040 JN	0.0043 JN	0.0029 JN	0.0073 JN	< 0.0065 U	0.0019 JN	0.015 JN	1.4
PCB-120	68194-12-7	ng/g	< 0.00020 U	0.0013 JN	0.0025 J	0.025 JN	< 0.00026 U	0.0035 JN	0.0021 J	< 0.000073 U	< 0.00046 U	< 0.0015 U
PCB-121	56558-18-0	ng/g	< 0.00021 U	< 0.00064 U	< 0.00016 U	< 0.00076 U	< 0.00027 U	< 0.00050 U	< 0.00036 U	< 0.000075 U	< 0.00047 U	< 0.0016 U
PCB-122	76842-07-4	ng/g	< 0.0010 U	< 0.0026 U	0.0087 J	< 0.0026 U	< 0.0014 U	0.0048 JN	0.0033 JN	0.0014 JN	< 0.0018 U	0.064 J
PCB-123	65510-44-3	ng/g	0.0029 J	0.0048 JN	0.0057 J	0.0049 J	0.0045 J	0.0052 JN	0.0026 JN	0.0023 JN	0.0032 JN	0.055 J
PCB-126	57465-28-8	ng/g	< 0.0010 U	< 0.0023 U	< 0.0014 U	< 0.0021 U	< 0.0013 U	< 0.0018 U	< 0.0015 U	< 0.0014 U	< 0.0018 U	< 0.0095 U
PCB-127	39635-33-1	ng/g	< 0.00086 U	< 0.0022 U	< 0.0013 U	< 0.0022 U	< 0.0012 U	< 0.0018 U	< 0.0014 U	< 0.00095 U	< 0.0016 U	< 0.0090 U
PCB-128/166	38380-07-3	ng/g	0.052	0.062	0.11	0.17	0.059	0.072	0.054	0.061	0.053	0.66
PCB-129/138/160/163	55215-18-4	ng/g	0.53	0.41	0.66	2.1	0.47	0.49	0.44	0.68	0.52	4.0
PCB-130	52663-66-8	ng/g	0.023	0.027	0.043	0.22	0.029	0.033	0.022	0.031	0.022	0.27
PCB-131	61798-70-7	ng/g	< 0.0019 U	0.0061 J	0.0081 JN	< 0.0040 U	< 0.0027 U	0.0041 JN	0.0048 JN	0.0046 J	< 0.0026 U	0.064 J
PCB-132	38380-05-1	ng/g	0.16	0.12	0.21	0.40	0.13	0.14	0.12	0.23	0.16	1.4
PCB-133	35694-04-3	ng/g	0.0070 JN	0.0076 J	0.011 J	0.16	0.0071 J	0.0097 J	0.0095 J	0.015	0.011	0.054 J
PCB-134/143	52704-70-8	ng/g	0.027	0.021 J	0.039	0.17	0.019 J	0.026 JN	0.017 J	0.040	0.023 JN	0.25
PCB-135/151	52744-13-5	ng/g	0.19	0.11	0.19	1.5	0.14	0.20	0.13 JN	0.19	0.18	1.3
PCB-136	38411-22-2	ng/g	0.068	0.042	0.081	0.26	0.047	0.066	0.055	0.097	0.060 JN	0.56
PCB-137	35694-06-5	ng/g	0.012	0.016 JN	0.034	0.066	0.016 JN	0.020	0.011 J	0.014	0.0088 JN	0.20
PCB-139/140	56030-56-9	ng/g	< 0.0016 U	0.0063 J	0.011 J	0.063	< 0.0022 U	0.0073 J	0.0036 J	0.0082 J	0.0037 JN	0.078 J
PCB-14	34883-41-5	ng/g	< 0.0021 U	< 0.00062 U	< 0.00034 U	< 0.00068 U	< 0.0023 U	< 0.00065 U	< 0.0055 U	< 0.00057 U	< 0.0045 U	< 0.0016 U
PCB-141	52712-04-6	ng/g	0.11	0.073	0.13	0.27	0.087	0.094	0.077	0.15	0.10	0.79
PCB-142	41411-61-4	ng/g	< 0.0018 U	< 0.0014 U	< 0.0010 U	< 0.0037 U	< 0.0025 U	< 0.0012 U	< 0.0019 U	< 0.0022 U	< 0.0023 U	< 0.0051 U
PCB-144	68194-14-9	ng/g	0.018 J-	0.014 JN	0.026	0.059	0.015	0.024	0.016	0.017	0.015 JN	0.18
PCB-145	74472-40-5	ng/g	< 0.00023 U	< 0.00022 U	0.00025 JN	0.0062 JN	< 0.00029 U	< 0.00054 U	< 0.00029 U	< 0.00015 U	< 0.00026 U	0.0068 JN
PCB-146	51908-16-8	ng/g	0.087	0.060	0.089	1.0	0.079	0.086	0.072	0.14	0.094	0.55
PCB-147/149	68194-13-8	ng/g	0.58	0.30	0.48	2.3	0.37	0.39	0.42	0.99	0.57	3.1
PCB-148	74472-41-6	ng/g	< 0.00033 U	0.00052 JN	0.0012 JN	0.052	0.0018 J	0.0018 JN	0.0013 JN	0.0026 JN	0.0018 JN	0.0087 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B353	B354	B355	B356	B357	B358	B359	B360	B361	B362
		Sample ID	PDI-SG-B353-BL1	PDI-SG-B354-BL1	PDI-SG-B355-BL1	PDI-SG-B356-BL1	PDI-SG-B357-BL1	PDI-SG-B358-BL1	PDI-SG-B359-BL1	PDI-SG-B360-BL1	PDI-SG-B361-BL1	PDI-SG-B362-BL1
		Sample Date	29 Apr 2018	30 Apr 2018	31 May 2018	30 Apr 2018	24 Apr 2018	30 Apr 2018	29 Apr 2018	28 Apr 2018	29 Apr 2018	30 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.015 JN	0.015	0.012	0.021	0.011 JN	0.026	0.012 JN	0.011 JN	0.047 JN	5.1
PCB-150	68194-08-1	ng/g	0.0019 J	0.00077 JN	0.0022 J	0.036	0.0013 JN	0.0024 J	0.0016 JN	0.0075 J	0.0015 JN	0.011 JN
PCB-152	68194-09-2	ng/g	0.00063 JN	0.00061 J+	0.00087 JN	0.055	< 0.00030 U	< 0.00052 U	0.0015 JN	0.0011 JN	< 0.00027 U	< 0.0020 U
PCB-153/168	35065-27-1	ng/g	0.49	0.32	0.49	2.3	0.41	0.41	0.38	0.73	0.49	3.0
PCB-154	60145-22-4	ng/g	0.0077 J	0.0063 JN	0.0087 JN	0.35	0.0079 J	0.015	0.0073 J	0.013 JN	0.0079 JN	0.061 J
PCB-155	33979-03-2	ng/g	< 0.00022 U	0.00038 JN	0.00021 JN	0.0018 JN	< 0.00028 U	< 0.00049 U	< 0.00028 U	0.0012 J	< 0.00025 U	< 0.0019 U
PCB-156/157	38380-08-4	ng/g	0.037	0.042	0.080	0.099 JN	0.050	0.053	0.033 JN	0.039	0.037	0.49
PCB-158	74472-42-7	ng/g	0.043	0.042	0.071	0.13	0.036 JN	0.047	0.037	0.054	0.041	0.44
PCB-159	39635-35-3	ng/g	< 0.0012 U	0.0039 J	0.0044 JN	0.047	< 0.0017 U	0.0057 JN	0.0042 J	0.0068 J	0.0046 J	0.025 JN
PCB-16	38444-78-9	ng/g	0.0083 JN	0.0095 JN	0.0061 J	0.011 J	0.0080 JN	0.013 JN	0.011 J	0.0052 JN	0.0096 JN	0.23
PCB-161	74472-43-8	ng/g	< 0.0012 U	< 0.00089 U	< 0.00065 U	< 0.0024 U	< 0.0016 U	< 0.00077 U	< 0.0013 U	< 0.0015 U	< 0.0015 U	< 0.0034 U
PCB-162	39635-34-2	ng/g	< 0.0012 U	< 0.00085 U	< 0.00062 U	< 0.0023 U	< 0.0016 U	< 0.00073 U	< 0.0013 U	< 0.0015 U	< 0.0015 U	< 0.0032 U
PCB-164	74472-45-0	ng/g	0.036	0.030	0.048	0.16	0.030	0.036	0.026	0.051	0.034 JN	0.27
PCB-165	74472-46-1	ng/g	< 0.0013 U	< 0.0010 U	< 0.00075 U	< 0.0028 U	< 0.0019 U	< 0.00088 U	< 0.0015 U	< 0.0017 U	< 0.0017 U	< 0.0038 U
PCB-167	52663-72-6	ng/g	0.013	0.014	0.026	0.040	0.015	0.019	0.011 J	0.014	0.011	0.15
PCB-169	32774-16-6	ng/g	< 0.00092 U	< 0.00067 U	< 0.00050 U	< 0.0018 U	< 0.0013 U	< 0.00053 U	< 0.0010 U	< 0.0014 U	< 0.0013 U	< 0.0024 U
PCB-17	37680-66-3	ng/g	0.029	0.012 JN	0.016	0.018	0.014	0.024	0.024	0.027	0.027 JN	3.1
PCB-170	35065-30-6	ng/g	0.14	0.11	0.14	1.3	0.16	0.17	0.12	0.16	0.14	1.1
PCB-171/173	52663-71-5	ng/g	0.041	0.033	0.043	0.41	0.040	0.053	0.038	0.043	0.038	0.33
PCB-172	52663-74-8	ng/g	0.021	0.020	0.023	0.27	0.026	0.032	0.016	0.024	0.020 JN	0.20
PCB-174	38411-25-5	ng/g	0.16	0.11	0.15	1.6	0.14	0.19	0.12	0.20	0.16	1.1
PCB-175	40186-70-7	ng/g	0.0065 J	0.0049 J	0.0043 JN	0.060	0.0047 JN	0.0024 JN	0.0049 J	0.0064 J	0.0055 J	0.047 J
PCB-176	52663-65-7	ng/g	0.017 JN	0.013 J	0.016	0.20	0.016	0.019	0.015	0.025	0.019	0.12
PCB-177	52663-70-4	ng/g	0.089	0.063 JN	0.087	1.1	0.086	0.11	0.076	0.10	0.088	0.66
PCB-178	52663-67-9	ng/g	0.037	0.026	0.029	0.50	0.029 JN	0.040	0.032	0.050	0.038 JN	0.21
PCB-179	52663-64-6	ng/g	0.087	0.047	0.053	0.87	0.057	0.068 JN	0.058	0.12	0.083	0.49
PCB-18/30	37680-65-2	ng/g	0.028	0.019 JN	0.018 J	0.024 J	0.022	0.034	0.021 JN	0.021	0.035	0.57
PCB-180/193	35065-29-3	ng/g	0.27	0.21	0.27	3.0	0.34	0.38	0.26	0.33	0.30	2.3
PCB-181	74472-47-2	ng/g	< 0.00066 U	< 0.00072 U	0.0020 JN	< 0.00063 U	< 0.00061 U	< 0.00032 U	< 0.00099 U	< 0.00067 U	< 0.0012 U	< 0.0031 U
PCB-182	60145-23-5	ng/g	< 0.00064 U	< 0.00068 U	0.0013 JN	0.041	< 0.00059 U	< 0.00031 U	0.0020 JN	0.0025 JN	< 0.0012 U	0.012 J
PCB-183/185	52663-69-1	ng/g	0.10	0.070	0.088	0.89	0.099	0.12	0.080	0.13	0.10	0.72
PCB-184	74472-48-3	ng/g	< 0.00054 U	< 0.00059 U	< 0.0000091 U	< 0.00051 U	< 0.00050 U	< 0.00026 U	< 0.00081 U	< 0.00055 U	< 0.0010 U	< 0.0025 U
PCB-186	74472-49-4	ng/g	< 0.00053 U	< 0.00056 U	< 0.0000087 U	< 0.00049 U	< 0.00049 U	< 0.00025 U	< 0.00079 U	< 0.00054 U	< 0.00098 U	< 0.0024 U
PCB-187	52663-68-0	ng/g	0.21	0.14	0.17	2.4	0.17	0.24	0.17	0.25	0.20	1.3
PCB-188	74487-85-7	ng/g	< 0.00042 U	< 0.00050 U	< 0.0000081 U	< 0.00045 U	< 0.00043 U	< 0.00024 U	< 0.00068 U	< 0.00041 U	< 0.00081 U	< 0.0023 U
PCB-189	39635-31-9	ng/g	0.0027 JN	0.0039 JN	0.0049 J	0.049	0.0068 J+	0.0058 J	< 0.0019 U	0.0044 J	< 0.0022 U	0.037 J
PCB-19	38444-73-4	ng/g	0.040	0.010 J	0.032	0.010 JN	0.017	0.018	0.044	0.060	0.041 JN	2.3
PCB-190	41411-64-7	ng/g	0.024	0.020	0.027	0.28	0.030	0.034	0.019 JN	0.021	0.024	0.21
PCB-191	74472-50-7	ng/g	0.0046 JN	0.0046 JN	0.0064 J	0.059 JN	0.0049 J	0.0073 JN	0.0030 JN	0.0065 J	0.0054 J	0.054 J
PCB-192	74472-51-8	ng/g	< 0.00056 U	< 0.00057 U	< 0.0000089 U	< 0.00050 U	< 0.00051 U	< 0.00026 U	< 0.00083 U	< 0.00057 U	< 0.0010 U	< 0.0025 U
PCB-194	35694-08-7	ng/g	0.063	0.063	0.054	1.1	0.085	0.096	0.064	0.076	0.061 JN	0.62
PCB-195	52663-78-2	ng/g	0.035	0.025	0.024	0.48	0.035	0.035	0.031	0.035	0.031	0.26
PCB-196	42740-50-1	ng/g	0.025	0.029	0.025	0.47	0.039	0.044 JN	0.021	0.028	0.022	0.33
PCB-197	33091-17-7	ng/g	0.0011 JN	0.0013 JN	0.0021 J	0.040	0.0019 JN	0.0036 J	< 0.00044 U	0.0012 JN	< 0.00057 U	0.021 JN
PCB-198/199	68194-17-2	ng/g	0.064	0.096	0.060	1.0	0.089	0.13	0.053 JN	0.058	0.060	0.70
PCB-2	2051-61-8	ng/g	0.0031 J	0.0039 JN	0.0053 J+	0.0080 JN	0.0042 JN	0.0045 JN	0.0020 JN	0.0052 J	0.012	1.7
PCB-20/28	38444-84-7	ng/g	0.057	0.053	0.054	0.061	0.051	0.083	0.056	0.057	0.069	0.50
PCB-200	52663-73-7	ng/g	0.0059 JN	0.0085 J	0.0061 J	0.13	0.0090 J	0.013	0.0048 JN	0.0076 J	0.0061 J	0.083
PCB-201	40186-71-8	ng/g	0.0065 J	0.0095 JN	0.0061 J	0.14	0.0088 J	0.015	0.0059 JN	0.0065 JN	0.0064 JN	0.078
PCB-202	2136-99-4	ng/g	0.013	0.022	0.013	0.21	0.016 JN	0.029	0.011 J	0.016	0.014	0.13 JN
PCB-203	52663-76-0	ng/g	0.035	0.050	0.037	0.56	0.052	0.087	0.037	0.039	0.034 JN	0.33 JN
PCB-204	74472-52-9	ng/g	< 0.00074 U	< 0.00063 U	< 0.000093 U	< 0.0015 U	< 0.00060 U	< 0.00056 U	< 0.00044 U	< 0.00022 U	< 0.00057 U	< 0.0049 U
PCB-205	74472-53-0	ng/g	< 0.0021 U	0.0025 JN	0.0029 J	0.056	0.0046 J+	0.0036 JN	< 0.0016 U	0.0045 J	< 0.0018 U	0.027 JN
PCB-206	40186-72-9	ng/g	0.038	0.21	0.033	0.29	0.041	0.083	0.036	0.035	0.032 JN	0.34
PCB-207	52663-79-3	ng/g	< 0.0019 U	0.017	0.0033 JN	0.038	0.0042 JN	0.0084 J	< 0.0019 U	0.0040 J	< 0.0025 U	0.035 J
PCB-208	52663-77-1	ng/g	0.014	0.085	0.0096 JN	0.054	0.011	0.028	0.0096 J	0.013	0.010 J	0.088
PCB-209	2051-24-3	ng/g	0.061	0.063	0.042	0.057	0.039	0.058	0.041	0.034	0.040	0.18
PCB-21/33	55702-46-0	ng/g	0.020 J	0.020 J	0.018 J	0.024 J	0.018 J	0.034	0.023 J	0.016 J	0.027	0.20
PCB-22	38444-85-8	ng/g	0.015	0.016	0.016	0.016	0.014	0.023	0.017	0.0091 J	0.023	0.23
PCB-23	55720-44-0	ng/g	< 0.00045 U	< 0.00086 U	< 0.00083 U	< 0.00086 U	< 0.00055 U	< 0.0013 U	< 0.00084 U	< 0.00053 U	< 0.00094 U	< 0.0072 U
PCB-24	55702-45-9	ng/g	0.0010 JN	< 0.00016 U	0.00037 JN	< 0.00034 U	< 0.00036 U	< 0.00036 U	0.0019 J	0.00034 JN	0.0019 JN	0.020 J
PCB-25	55712-37-3	ng/g	0.0072 J	0.0052 JN	0.0070 J	0.0070 J	0.0047 J	0.0081 J	0.0059 J	0.0082 J	0.0067 JN	0.20

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B353	B354	B355	B356	B357	B358	B359	B360	B361	B362
		Sample ID	PDI-SG-B353-BL1	PDI-SG-B354-BL1	PDI-SG-B355-BL1	PDI-SG-B356-BL1	PDI-SG-B357-BL1	PDI-SG-B358-BL1	PDI-SG-B359-BL1	PDI-SG-B360-BL1	PDI-SG-B361-BL1	PDI-SG-B362-BL1
		Sample Date	29 Apr 2018	30 Apr 2018	31 May 2018	30 Apr 2018	24 Apr 2018	30 Apr 2018	29 Apr 2018	28 Apr 2018	29 Apr 2018	30 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.011 J	0.010 J	0.0097 JN	0.012 J	0.0084 J	0.013 J	0.010 J	0.011 J	0.012 J	0.68
PCB-27	38444-76-7	ng/g	0.0079 J	0.0030 J	0.0045 JN	0.0033 JN	0.0018 JN	0.0039 JN	0.0091 J	0.0076 JN	0.0067 JN	0.91
PCB-3	2051-62-9	ng/g	< 0.00024 U	0.0071 J	0.0034 JN	0.015 JN	< 0.00023 U	0.010 JN	0.0021 J	0.0019 J	0.050	13
PCB-31	16606-02-3	ng/g	0.043	0.039	0.039	0.043	0.037	0.058	0.041	0.041	0.050	1.2
PCB-32	38444-77-8	ng/g	0.017 JN	0.011 J	0.011 J	0.011 J	0.0064 JN	0.016	0.016	0.013	0.024	1.3
PCB-34	37680-68-5	ng/g	< 0.00047 U	< 0.00089 U	< 0.00086 U	< 0.00089 U	< 0.00057 U	< 0.0013 U	< 0.00088 U	< 0.00055 U	< 0.00097 U	0.013 J
PCB-35	37680-69-6	ng/g	0.0015 JN	< 0.00085 U	< 0.00082 U	0.0020 JN	< 0.00055 U	< 0.0013 U	0.0019 JN	0.0021 J	0.0015 J	< 0.0071 U
PCB-36	38444-87-0	ng/g	< 0.00044 U	< 0.00077 U	< 0.00074 U	< 0.00078 U	< 0.00053 U	< 0.0011 U	< 0.00082 U	< 0.00051 U	< 0.00091 U	< 0.0064 U
PCB-37	38444-90-5	ng/g	0.016	0.017	0.018	0.018	0.015 JN	0.025	0.015 JN	0.017	0.018 JN	0.25
PCB-38	53555-66-1	ng/g	< 0.00047 U	< 0.00084 U	< 0.00081 U	< 0.00084 U	< 0.00057 U	< 0.0012 U	< 0.00088 U	< 0.00055 U	< 0.00098 U	< 0.0070 U
PCB-39	38444-88-1	ng/g	< 0.00042 U	< 0.00076 U	< 0.00074 U	< 0.00077 U	< 0.00051 U	< 0.0011 U	< 0.00079 U	0.00077 JN	< 0.00088 U	< 0.0064 U
PCB-4	13029-08-8	ng/g	0.038	0.013 J	0.020 J	0.018 J	0.0096 JN	0.025 J	0.037	0.024 JN	0.031 JN	12
PCB-40/41/71	38444-93-8	ng/g	0.040	0.031 JN	0.043	0.057	0.037	0.049	0.034 JN	0.066	0.032 J	0.54
PCB-42	36559-22-5	ng/g	0.016	0.018	0.021	0.025 JN	0.017	0.027	0.017	0.021 JN	0.015 JN	0.21
PCB-43/73	70362-46-8	ng/g	0.0041 J	< 0.0011 U	0.0078 JN	0.014 J	< 0.0015 U	< 0.0014 U	0.0030 JN	0.0029 JN	0.0060 JN	0.12 J
PCB-44/47/65	41464-39-5	ng/g	0.12	0.097	0.15	0.42	0.10	0.15	0.14	0.46	0.14	2.2
PCB-45/51	70362-45-7	ng/g	0.032	0.016 J	0.035	0.049	0.020 J	0.023 J	0.038	0.10	0.041	0.65
PCB-46	41464-47-5	ng/g	0.0051 J	0.0031 J	0.0038 JN	< 0.0026 U	< 0.0021 U	0.0029 JN	0.0044 J	0.0063 J	0.0046 JN	0.072 J
PCB-48	70362-47-9	ng/g	0.0076 JN	0.0086 JN	0.012	0.018	0.0097 JN	0.017	0.010 JN	0.010 JN	0.0073 J	0.090
PCB-49/69	41464-40-8	ng/g	0.081	0.062	0.090	0.086 JN	0.068	0.099	0.080	0.19	0.098	1.1
PCB-5	16605-91-7	ng/g	< 0.0027 U	< 0.00075 U	< 0.00041 U	< 0.00081 U	< 0.0030 U	< 0.00077 U	< 0.0073 U	< 0.00076 U	< 0.0059 U	0.096
PCB-50/53	62796-65-0	ng/g	0.036	0.014 J	0.038	0.023 J	0.020 J	0.021 J	0.036	0.094	0.043	0.40
PCB-52	35693-99-3	ng/g	0.14	0.14	0.23	0.16	0.13	0.22	0.14	0.27	0.16	3.4
PCB-54	15968-05-5	ng/g	0.0089 J	0.0025 J	0.0086 J	0.0016 JN	0.0042 J	0.0020 JN	0.0093 JN	0.016	0.012	0.11
PCB-55	74338-24-2	ng/g	< 0.00078 U	< 0.00084 U	< 0.00074 U	0.0021 JN	< 0.0012 U	< 0.0010 U	0.0017 J	< 0.0011 U	< 0.0017 U	< 0.016 U
PCB-56	41464-43-1	ng/g	0.028	0.033	0.034	0.041	0.029	0.049	0.022	0.037	0.022 JN	0.25
PCB-57	70424-67-8	ng/g	< 0.00079 U	< 0.00086 U	< 0.00076 U	< 0.0015 U	< 0.0012 U	< 0.0010 U	< 0.0013 U	< 0.0011 U	< 0.0017 U	< 0.016 U
PCB-58	41464-49-7	ng/g	< 0.00080 U	< 0.00083 U	< 0.00073 U	0.0040 JN	< 0.0012 U	< 0.0010 U	< 0.0013 U	< 0.0011 U	< 0.0018 U	< 0.015 U
PCB-59/62/75	74472-33-6	ng/g	0.0062 J	0.0062 JN	0.0082 J	0.012 JN	0.0067 J	0.0095 J	0.0082 J	0.012 JN	0.0059 JN	0.056 J
PCB-6	25569-80-6	ng/g	0.0055 JN	0.0042 JN	0.0024 JN	0.0077 J	0.0046 JN	0.0086 J	< 0.0064 U	0.0031 JN	0.015 JN	2.8
PCB-60	33025-41-1	ng/g	0.0095 JN	0.011 JN	0.017	0.015	0.0094 J	0.016	0.0083 J	0.0091 J	0.010 J	0.098
PCB-61/70/74/76	33284-53-6	ng/g	0.13	0.17	0.19	0.19	0.14	0.22	0.12	0.19	0.13	2.1
PCB-63	74472-34-7	ng/g	0.0024 JN	0.0026 JN	0.0018 JN	0.0057 JN	< 0.0011 U	< 0.00091 U	< 0.0011 U	0.0037 JN	< 0.0016 U	0.019 JN
PCB-64	52663-58-8	ng/g	0.026	0.030	0.035	0.037	0.028	0.038 JN	0.025	0.037	0.024	0.36
PCB-66	32598-10-0	ng/g	0.075	0.085	0.092	0.12	0.077	0.13	0.063	0.12	0.077	0.72
PCB-67	73575-53-8	ng/g	0.0021 J	0.0018 J	0.0014 JN	0.0030 JN	< 0.0011 U	0.0013 JN	0.0013 J	0.0034 JN	< 0.0015 U	< 0.015 U
PCB-68	73575-52-7	ng/g	0.0027 J	0.0014 JN	0.0028 J	0.0074 J	0.0025 J	0.0026 JN	0.0046 J	0.0032 JN	< 0.0015 U	0.030 J
PCB-7	33284-50-3	ng/g	< 0.0025 U	0.0012 JN	< 0.00072 U	0.0013 JN	< 0.0027 U	0.0025 J	< 0.0066 U	< 0.00068 U	0.0068 JN	0.19
PCB-72	41464-42-0	ng/g	0.0015 JN	0.0019 J	0.0016 J	0.0040 J	< 0.0012 U	0.0036 J	< 0.0012 U	< 0.0011 U	< 0.0017 U	0.034 J
PCB-77	32598-13-3	ng/g	0.0072 JN	0.0096 J	0.0095 J	0.012 J	0.0058 JN	0.015	0.0083 JN	0.0079 JN	0.0036 JN	0.036 J
PCB-78	70362-49-1	ng/g	< 0.00080 U	< 0.00083 U	< 0.00073 U	< 0.0014 U	< 0.0012 U	< 0.0010 U	< 0.0013 U	< 0.0011 U	< 0.0018 U	< 0.015 U
PCB-79	41464-48-6	ng/g	< 0.00069 U	0.0012 JN	0.0019 JN	0.0033 J	< 0.0011 U	0.0033 J	< 0.0011 U	0.0020 J	< 0.0015 U	0.021 J
PCB-8	34883-43-7	ng/g	0.018 JN	0.015 J	0.010 J	0.024 J	0.0098 JN	0.027 JN	0.011 JN	0.011 J	0.061	8.9
PCB-80	33284-52-5	ng/g	< 0.00068 U	< 0.00074 U	< 0.00065 U	< 0.0012 U	< 0.0011 U	< 0.00090 U	< 0.0011 U	< 0.00096 U	< 0.0015 U	< 0.014 U
PCB-81	70362-50-4	ng/g	< 0.00074 U	< 0.00079 U	< 0.00074 U	< 0.0013 U	< 0.0011 U	< 0.00095 U	< 0.0012 U	< 0.0010 U	< 0.0016 U	< 0.014 U
PCB-82	52663-62-4	ng/g	0.017	0.030 JN	0.047	0.036	0.024	0.034 JN	0.018	0.0081 J	0.017	0.49
PCB-83/99	60145-20-2	ng/g	0.13	0.16	0.21	1.0	0.15	0.22	0.14	0.11	0.12	2.2
PCB-84	52663-60-2	ng/g	0.043	0.063	0.087	0.064	0.049	0.081	0.033	0.044	0.036	1.1
PCB-85/116/117	65510-45-4	ng/g	0.035	0.053	0.063	0.069	0.038 JN	0.058	0.031 JN	0.022 J	0.032 J	0.64
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.13	0.18	0.26	0.33	0.14	0.21	0.10 JN	0.093	0.12	2.7
PCB-88/91	55215-17-3	ng/g	0.046	0.036 JN	0.058	0.27	0.045	0.053	0.048	0.098	0.045	0.59
PCB-89	73575-57-2	ng/g	< 0.00032 U	0.0026 JN	< 0.00026 U	0.0076 JN	< 0.00042 U	0.0028 JN	< 0.00056 U	< 0.00012 U	< 0.00073 U	0.035 JN
PCB-9	34883-39-1	ng/g	< 0.0025 U	< 0.00082 U	0.0011 JN	0.0019 JN	< 0.0028 U	0.0022 JN	< 0.0067 U	0.0010 J	0.0071 JN	1.0
PCB-90/101/113	68194-07-0	ng/g	0.29	0.27	0.41	0.71	0.26	0.35	0.26	0.28	0.27	3.9
PCB-92	52663-61-3	ng/g	0.049	0.057	0.078	0.24	0.047	0.070	0.044	0.042	0.043 JN	0.69
PCB-93/100	73575-56-1	ng/g	0.015 JN	0.0088 JN	0.017 J	0.17	0.0058 JN	0.0085 JN	0.017 J	0.061	0.021 J	0.11 JN
PCB-94	73575-55-0	ng/g	0.0039 JN	< 0.0010 U	0.0041 JN	0.11	0.0027 J	0.0027 J	0.0025 JN	< 0.00012 U	0.0037 J	< 0.0025 U
PCB-95	38379-99-6	ng/g	0.23	0.20	0.33	0.29	0.20	0.26	0.21	0.31	0.24	3.4
PCB-96	73575-54-9	ng/g	0.0040 J	0.0025 J	0.0046 J	0.012 JN	0.0023 J	0.0025 JN	0.0037 JN	0.012	0.0042 JN	0.033 J
PCB-98/102	60233-25-2	ng/g	0.0093 JN	0.0097 J	0.015 JN	0.20	0.0068 JN	0.010 JN	0.0045 JN	0.014 J	0.0080 JN	0.13 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	6.8	6.2	8.2	36	6.3	8.2	5.9	9.1	6.9	148

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B353	B354	B355	B356	B357	B358	B359	B360	B361	B362
		Sample ID	PDI-SG-B353-BL1	PDI-SG-B354-BL1	PDI-SG-B355-BL1	PDI-SG-B356-BL1	PDI-SG-B357-BL1	PDI-SG-B358-BL1	PDI-SG-B359-BL1	PDI-SG-B360-BL1	PDI-SG-B361-BL1	PDI-SG-B362-BL1
		Sample Date	29 Apr 2018	30 Apr 2018	31 May 2018	30 Apr 2018	24 Apr 2018	30 Apr 2018	29 Apr 2018	28 Apr 2018	29 Apr 2018	30 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.58 U	< 0.68 U	< 1.2 U	< 0.67 U	< 1.2 UJ	< 0.66 U	< 0.60 U	< 0.55 U	< 0.57 U	0.77
2,4-DDE	3424-82-6	µg/kg	< 0.58 U	< 0.68 U	< 1.2 U	< 0.67 U	< 1.2 UJ	< 0.66 U	< 0.60 U	< 0.55 U	< 0.57 U	< 0.51 U
2,4-DDT	789-02-6	µg/kg	< 0.58 U	< 0.68 U	< 1.2 U	< 0.67 U	< 1.2 UJ	< 0.66 U	< 0.60 U	< 0.55 U	< 0.57 U	< 0.51 U
4,4'-DDD	72-54-8	µg/kg	0.85	0.98 J	0.66 J	1.2 J	0.65 J	1.1 J	0.96	0.64	0.88	1.9 J
4,4'-DDE	72-55-9	µg/kg	1.8	2.9	1.9	3.0	2.3 J	2.9	2.0	1.3	1.6	2.7
4,4'-DDT	50-29-3	µg/kg	0.41 J	0.69	< 1.2 U	0.79	< 1.2 UJ	0.50 J	0.40 J	< 0.55 U	0.28 J	0.64
Total DDx (b)	T_DDx (PDI)	µg/kg	3.4	4.9	3.2	5.3	3.6	4.8	3.7	2.2	3.0	6.3
Aldrin	309-00-2	µg/kg	< 0.58 U	< 0.68 U	< 1.2 U	< 0.67 U	< 1.2 UJ	< 0.66 U	< 0.60 U	< 0.55 U	< 0.57 U	< 0.51 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.2 U	< 1.4 U	< 2.4 U	< 1.3 U	< 2.3 UJ	< 1.3 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.58 U	< 0.68 U	< 1.2 U	< 0.67 U	< 1.2 UJ	< 0.66 U	< 0.60 U	< 0.55 U	< 0.57 U	< 0.51 U
Dieldrin	60-57-1	µg/kg	< 1.2 U	< 1.4 U	< 2.4 U	0.92 J	< 2.3 UJ	< 1.3 U	< 1.2 U	< 1.1 U	0.49 J	< 1.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.58 U	< 0.68 U	< 1.2 U	< 0.67 U	< 1.2 UJ	< 0.66 UJ	< 0.60 U	< 0.55 U	< 0.57 U	< 0.51 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.2 U	< 1.4 U	< 2.4 U	< 1.3 U	< 2.3 UJ	< 1.3 UJ	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U
Heptachlor	76-44-8	µg/kg	< 0.58 U	< 0.68 U	< 1.2 U	< 0.67 U	< 1.2 UJ	< 0.66 U	< 0.60 U	< 0.55 U	< 0.57 U	< 0.51 U
Oxychlordane	27304-13-8	µg/kg	< 1.2 UJ	< 1.4 U	< 2.4 U	< 1.3 U	< 2.3 UJ	< 1.3 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.0 U
trans-Nonachlor	39765-80-5	µg/kg	0.48 J	< 1.4 U	< 2.4 U	< 1.3 U	< 2.3 UJ	< 1.3 UJ	< 1.2 U	< 1.1 U	< 1.1 U	0.32 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	1.08	< 1.4 U	< 2.4 U	< 1.3 U	< 2.3 UJ	< 1.3 U	< 1.2 U	< 1.1 U	< 1.1 U	0.82
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.4	2.1	2.7	2.4	1.7	3.7	2.8	2.0	2.7	6.9
Acenaphthene	83-32-9	µg/kg	2.0	1.9	8.8	1.6	1.5	4.6	4.7	1.0	2.7	8.8
Acenaphthylene	208-96-8	µg/kg	1.6	1.6	2.2	1.4	1.2	1.7	1.3	1.6	2.2	4.3
Anthracene	120-12-7	µg/kg	4.0	8.5	51	5.1	2.9	6.4	6.2	3.6	11	21
Benz(a)anthracene	56-55-3	µg/kg	16	25	91	14	9.3	14	29	13	49	110
Benzo(a)pyrene	50-32-8	µg/kg	17	16	100	15	10	15	33	14	29	64
Benzo(b)fluoranthene	205-99-2	µg/kg	27	26	140	21	15	22	45	23	49	130
Benzo(g,h,i)perylene	191-24-2	µg/kg	17	15	65	13	11	14	25	15	22	37
Benzo(k)fluoranthene	207-08-9	µg/kg	7.8	9.2	51	6.1	4.2	6.7	14	7.0	17	40
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	310	110 J	130	100 J	84 J	96 J	86 J	88 J	97 J	97 J
Chrysene	218-01-9	µg/kg	26	51	170	21	14	21	38	22	67	160
Dibenz(a,h)anthracene	53-70-3	µg/kg	3.0	3.0	15	2.7	2.0	3.1	5.6	2.5	4.8	11
Fluoranthene	206-44-0	µg/kg	46	54	190	34	23	42	68	41	130	410
Fluorene	86-73-7	µg/kg	3.6	2.8	10	2.4	1.8	5.4	5.6	2.2	5.0	17
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	14	13	68	12	9.1	13	26	12	21	42
Naphthalene	91-20-3	µg/kg	3.4	3.0	2.7	3.4	4.4	5.4	3.6	3.9	3.8	17
Phenanthrene	85-01-8	µg/kg	21	25	92	15	11	29	36	14	40	110
Pyrene	129-00-0	µg/kg	46	54	180	35	24	40	64	39	110	320
Total PAHs (b)	T_PAH (PDI)	µg/kg	258	311	1239	205	146	247	408	217	566	1509
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	26	26	146	22	15	23	49	21	46	104
Metals												
Arsenic	7440-38-2	mg/kg	5.1	5.5	4.9	5.2	6.7	5.8	5.1	4.9	4.5	7.3
Cadmium	7440-43-9	mg/kg	0.17 J	0.25 J	0.17 J	0.24 J	0.24	0.19 J	0.15 J	0.20 J	0.17 J	0.20 J
Copper	7440-50-8	mg/kg	42	43	39	43	37	45	42	41	38	110
Lead	7439-92-1	mg/kg	11	11	11	11	11	13	11	12	11	34
Mercury	7439-97-6	mg/kg	0.048 J	0.13	0.044 J	0.11	0.053 J	0.15 J	0.048 J	0.044 J	0.049 J	0.090
Tri-n-butyltin	36643-28-4	µg/kg	< 2.3 U	< 2.7 U	< 2.4 U	< 2.7 U	< 2.3 U	< 2.6 U	< 2.4 U	< 2.2 U	1.7 J	5.3
Zinc	7440-66-6	mg/kg	100	100	98	100	98	110	99	110	96	180
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	37 J	120 J	81 J	120 J	60 J	130 J	45 J	39 J	47 J	68 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	370	560	520	560	250	580 J	380	310	420	250
Other												
Total Solids@104C - D2216 (f)	TSOLID	%			41.8							
Total Solids@104C - E160.3 (f)	TSOLID	%	44.8	35.9		36.9	44.0	36.9	41.5	47.1	43.3	49.5
Total Solids@104C - E160.3M (f)	TSOLID	%	42.5	36.4	41.4	37.2	42.2	37.3	41.4	45.0	44.0	48.4
Total Solids@70C	TSOLID70	%	39	37	41	38	43	38	43	47	45	48
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0	0.3
Sand, Coarse	GS-Csand	%	0.1	0	0.1	0	0.1	0	0.1	0	0.1	0.6
Sand, Medium	GS-Msand	%	0.8	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.1	7.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	9.277	11.45	15.19	12.19	24.37	11.82	14.82	28.14	21.1	31.4
Sand, Fine (#230) (d)	GS-Fsand	%	11.0	14.7	19.9	15.8	28.3	15.2	18.7	33.3	26.4	36.2
Silt (#200) (d)	GS-Silt-200	%	64.62	75.64	72.70	77.00	66.02	78.57	72.67	59.35	67.69	52.59

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B353	B354	B355	B356	B357	B358	B359	B360	B361	B362
		Sample ID	PDI-SG-B353-BL1	PDI-SG-B354-BL1	PDI-SG-B355-BL1	PDI-SG-B356-BL1	PDI-SG-B357-BL1	PDI-SG-B358-BL1	PDI-SG-B359-BL1	PDI-SG-B360-BL1	PDI-SG-B361-BL1	PDI-SG-B362-BL1
		Sample Date	29 Apr 2018	30 Apr 2018	31 May 2018	30 Apr 2018	24 Apr 2018	30 Apr 2018	29 Apr 2018	28 Apr 2018	29 Apr 2018	30 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-28 cm	0-27 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	62.9	72.4	68.0	73.4	62.1	75.2	68.8	54.2	62.4	47.8
Clay	GS-Clay	%	25.2	12.7	11.8	10.6	9.3	9.5	12.3	12.4	10.9	7.3
Percent Fines (e)	GS-FINES	%	89.82	88.34	84.5	87.6	75.32	88.07	84.97	71.75	78.59	59.89
Total Organic Carbon	TOC	mg/kg	22000	30000	26000	28000	24000	27000	24000	19000	22000	19000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B363	B364	B365	B366	B366	B367	B368	B369	B370	B371
		Sample ID	PDI-SG-B363-BL1	PDI-SG-B364-BL1	PDI-SG-B365-BL1	PDI-SG-B366-BL1	PDI-SG-B366-BL1-D	PDI-SG-B367-BL1	PDI-SG-B368-BL1	PDI-SG-B369-BL1	PDI-SG-B370-BL1	PDI-SG-B371-BL1
		Sample Date	30 Apr 2018	29 Apr 2018	27 Apr 2018	24 Apr 2018	24 Apr 2018	30 Apr 2018	30 Apr 2018	27 Apr 2018	29 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.17	0.063	0.038	0.032	0.031	0.59	0.35	0.037	0.025	0.17
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.018 JN	0.016 JN	0.0073 JN	0.0046 JN	0.0057	0.038	0.019 JN	0.0066 JN	0.0054 JN	0.026
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0017 J	0.00096 J+	< 0.00031 U	0.00045 J+	0.00047 J+	0.0028 J	0.0013 J+	0.00045 J+	0.00043 J+	0.0018 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00086 J	0.0010 J+	0.00076 J+	0.00039 J+	0.00038 J+	0.00085 JN	0.00054 J	0.00062 JN	0.00044 J+	0.00080 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0035 J	0.00099 J	0.00081 J+	0.00045 J	0.00056 J	0.0034 J	0.0022 J	0.00031 J+	0.00053 J+	0.0026 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0039 J	0.0026 J	0.0019 JN	0.0011 J	0.0012 J	0.0061	0.0040 J	0.0016 J+	0.0010 JN	0.0039 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00091 J	0.00070 J	0.00044 J+	0.00037 J	0.00088 J	0.00093 J	0.00047 JN	0.00043 JN	0.00033 J	0.00075 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0022 J	0.0023 J	0.0014 J	0.00082 J	0.00091 J	0.0034 J	0.0023 J	0.0013 J	0.00093 J	0.0022 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00035 U	0.00039 J+	< 0.00029 U	0.00022 J+	< 0.00011 U	0.00038 J+	< 0.00025 U	< 0.000099 U	< 0.00020 U	< 0.00018 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00056 J	0.00065 J+	0.00048 J	0.00024 J	0.00028 J	0.00059 J	0.00038 JN	0.00033 J	0.00026 J+	0.00043 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00063 J	0.00040 J+	0.00040 J+	0.00011 JN	< 0.000093 U	< 0.00014 U	0.00022 JN	< 0.000074 U	0.00023 J+	0.00034 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00056 JN	0.00051 J+	0.00037 J+	0.00020 J	0.00013 J	0.00057 J	< 0.00018 U	0.00031 J+	0.00021 J+	0.00040 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00079 J	0.00035 J+	0.00034 J+	0.00013 J	0.00015 J	0.00062 J	0.00043 J	< 0.00022 U	0.00022 J+	0.00042 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00015 JN	0.00028 JN	< 0.000098 U	0.00010 JN	0.00012 JN	< 0.000084 U	0.00024 JN	< 0.000088 U	0.00019 JN	0.00026 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00077 J+	0.00075 J+	0.00048 J+	0.00025 J	0.00023 J	0.00065 J+	0.00040 J+	0.00037 JN	0.00058 J+	0.00061 J+
OCDD	3268-87-9	µg/kg	1.2	0.53	0.31	0.29	0.29	4.4	2.4	0.31	0.23	1.3
OCDF	39001-02-0	µg/kg	0.063	0.049	0.024	0.014	0.017	0.20	0.10	0.024	0.017	0.13
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0045	0.0029	0.0018	0.0012	0.0013	0.01	0.0062	0.0014	0.0013	0.0044
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0044	0.0028	0.0017	0.0012	0.0013	0.01	0.0057	0.0013	0.0011	0.0039
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0043	0.0027	0.0016	0.0011	0.0012	0.01	0.0055	0.0012	0.001	0.0037
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.022	0.0035 JN	0.0025 JN	0.0024 JN	< 0.00030 U	0.0084 J	0.031	0.0031 JN	0.0018 J	0.0023 J
PCB-10	33146-45-1	ng/g	0.0017 JN	< 0.0082 U	0.0026 J	< 0.0029 U	< 0.0036 U	0.00099 JN	0.0057 JN	0.0016 JN	< 0.0041 U	< 0.0064 U
PCB-103	60145-21-3	ng/g	0.015	0.010 J	0.012	0.013 JN	0.019	0.0067 J	0.0053 J	0.0086 J	0.042	0.0021 JN
PCB-104	56558-16-8	ng/g	< 0.00033 U	< 0.00036 U	0.0018 JN	< 0.00026 U	< 0.00057 U	< 0.00055 U	< 0.00028 U	0.00057 JN	0.0060 J	< 0.00030 U
PCB-105	32598-14-4	ng/g	0.27	0.12	0.057	0.064	0.056	0.13	0.089	0.045	0.039	0.065
PCB-106	70424-69-0	ng/g	< 0.0020 U	< 0.0016 U	< 0.0021 U	< 0.0011 U	< 0.0015 U	< 0.0016 U	< 0.0019 U	< 0.0017 U	< 0.00080 U	< 0.0016 U
PCB-107	70424-68-9	ng/g	0.059	0.024	0.012	0.023	0.019 JN	0.026	0.018	0.0075 JN	0.010 JN	0.010 JN
PCB-108/124	70362-41-3	ng/g	0.028	0.012 J	0.0068 J	0.0066 J	0.0051 J	0.016 J	0.0086 JN	0.0044 JN	0.0031 JN	0.0053 JN
PCB-11	2050-67-1	ng/g	0.054	0.048	0.038	0.032 JN	0.038	0.056	0.063	0.035 JN	0.029 J+	0.047 JN
PCB-110/115	38380-03-9	ng/g	1.1	0.37	0.25	0.28	0.27	0.53	0.33	0.19	0.22	0.23
PCB-111	39635-32-0	ng/g	< 0.00030 U	< 0.00033 U	0.0018 JN	< 0.00024 U	< 0.00053 U	< 0.00049 U	0.0014 J	< 0.00050 U	< 0.00019 U	< 0.00028 U
PCB-112	74472-36-9	ng/g	< 0.00032 U	< 0.00035 U	< 0.00074 U	< 0.00025 U	< 0.00056 U	< 0.00054 U	0.0029 J	0.0016 J	< 0.00020 U	0.0023 J
PCB-114	74472-37-0	ng/g	0.011 JN	0.0040 J	< 0.0019 U	0.0020 JN	< 0.0014 U	0.0061 JN	< 0.0018 U	< 0.0016 U	0.0014 JN	0.0036 J
PCB-118	31508-00-6	ng/g	0.65	0.30	0.14	0.20	0.18	0.33	0.22	0.12	0.11	0.16
PCB-12/13	2974-92-7	ng/g	0.0090 J	< 0.0074 U	0.0036 JN	0.0028 JN	< 0.0032 U	< 0.00062 U	< 0.00095 U	0.0012 JN	< 0.0037 U	< 0.0058 U
PCB-120	68194-12-7	ng/g	0.0052 J	< 0.00034 U	< 0.00067 U	0.0027 J	< 0.00054 U	0.0022 JN	0.0022 JN	0.0019 JN	0.0017 JN	< 0.00029 U
PCB-121	56558-18-0	ng/g	< 0.00032 U	< 0.00035 U	< 0.00072 U	< 0.00025 U	< 0.00056 U	< 0.00053 U	< 0.00027 U	0.0010 J	< 0.00020 U	< 0.00029 U
PCB-122	76842-07-4	ng/g	0.0094 JN	< 0.0019 U	< 0.0023 U	< 0.0012 U	< 0.0017 U	0.0046 JN	< 0.0021 U	< 0.0019 U	0.0015 J	0.0024 JN
PCB-123	65510-44-3	ng/g	0.0095 JN	0.0038 JN	0.0022 JN	0.0037 JN	0.0033 J+	0.0074 J	0.0043 JN	0.0033 JN	0.0020 JN	0.0028 J
PCB-126	57465-28-8	ng/g	0.0020 JN	< 0.0018 U	< 0.0020 U	< 0.0011 U	< 0.0015 U	0.0022 J	0.0023 J	< 0.0015 U	< 0.00086 U	< 0.0017 U
PCB-127	39635-33-1	ng/g	< 0.0019 U	< 0.0016 U	< 0.0020 U	< 0.0010 U	< 0.0015 U	< 0.0015 U	< 0.0018 U	< 0.0016 U	< 0.00079 U	< 0.0016 U
PCB-128/166	38380-07-3	ng/g	0.29	0.094	0.084	0.065	0.048	0.12	0.066	0.034	0.035 JN	0.041
PCB-129/138/160/163	55215-18-4	ng/g	2.2	0.72	0.82	0.64	0.48	0.82	0.43	0.27	0.44	0.31
PCB-130	52663-66-8	ng/g	0.11	0.037	0.035	0.034	0.024	0.052	0.024	0.014	0.017 JN	0.015 JN
PCB-131	61798-70-7	ng/g	< 0.0036 U	0.0069 J	< 0.0027 U	< 0.0033 U	< 0.0032 U	0.0094 J	0.0046 J	< 0.0013 U	0.0040 J	< 0.0023 U
PCB-132	38380-05-1	ng/g	0.70	0.20	0.18	0.17	0.15	0.25	0.11	0.075	0.14	0.080
PCB-133	35694-04-3	ng/g	0.032	0.0069 JN	0.012 JN	0.012	0.0085 JN	0.013	0.0070 J	0.0056 JN	0.015 JN	< 0.0021 U
PCB-134/143	52704-70-8	ng/g	0.11	0.023 JN	0.034 JN	0.031	0.022 JN	0.046	0.020 J	0.014 JN	0.024	0.0086 JN
PCB-135/151	52744-13-5	ng/g	1.0	0.19	0.33	0.27	0.22	0.31	0.15	0.16	0.24	0.067
PCB-136	38411-22-2	ng/g	0.32	0.064 JN	0.10	0.098	0.084	0.11	0.049	0.055	0.10	0.020
PCB-137	35694-06-5	ng/g	0.049	0.030	0.016	0.016 JN	< 0.0026 U	0.029	0.012 JN	0.0058 JN	0.0080 JN	0.013
PCB-139/140	56030-56-9	ng/g	0.024	0.0074 J	0.0071 J	< 0.0027 U	0.0074 JN	0.011 J	0.0053 J	< 0.0011 U	0.0064 J	< 0.0019 U
PCB-14	34883-41-5	ng/g	< 0.00055 U	< 0.0063 U	< 0.0011 U	< 0.0022 U	< 0.0027 U	< 0.00057 U	< 0.00087 U	< 0.00084 U	< 0.0032 U	< 0.0049 U
PCB-141	52712-04-6	ng/g	0.57	0.13	0.21	0.13	0.099	0.17	0.076	0.057	0.087	0.049
PCB-142	41411-61-4	ng/g	< 0.0034 U	< 0.0032 U	< 0.0025 U	< 0.0030 U	< 0.0029 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.0015 U	< 0.0021 U
PCB-144	68194-14-9	ng/g	0.097	0.016	0.044	0.027	0.020	0.040	0.017 JN	0.018	0.021	0.0096 J
PCB-145	74472-40-5	ng/g	0.0012 JN	< 0.00025 U	< 0.00030 U	< 0.00036 U	< 0.00035 U	0.00068 JN	< 0.00031 U	< 0.00014 U	< 0.00015 U	< 0.00018 U
PCB-146	51908-16-8	ng/g	0.35	0.10	0.13	0.12	0.11	0.11	0.056	0.044	0.11 JN	0.043
PCB-147/149	68194-13-8	ng/g	2.1	0.60	0.61	0.67	0.57	0.64	0.28	0.24	0.59	0.23
PCB-148	74472-41-6	ng/g	0.0043 J	< 0.00035 U	< 0.00040 U	0.0038 J	0.0030 J	0.0013 J	0.0013 J	0.0011 J	0.0052 JN	< 0.00025 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B363	B364	B365	B366	B366	B367	B368	B369	B370	B371
		Sample ID	PDI-SG-B363-BL1	PDI-SG-B364-BL1	PDI-SG-B365-BL1	PDI-SG-B366-BL1	PDI-SG-B366-BL1-D	PDI-SG-B367-BL1	PDI-SG-B368-BL1	PDI-SG-B369-BL1	PDI-SG-B370-BL1	PDI-SG-B371-BL1
		Sample Date	30 Apr 2018	29 Apr 2018	27 Apr 2018	24 Apr 2018	24 Apr 2018	30 Apr 2018	30 Apr 2018	27 Apr 2018	29 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.031	0.013 JN	0.012	0.013	0.0092 JN	0.034	0.022	0.014	0.0072 JN	0.0068 JN
PCB-150	68194-08-1	ng/g	0.0038 J	0.0019 JN	0.0034 JN	0.0026 J	0.0053 J	0.00059 JN	0.00092 J	0.0016 JN	0.0073 JN	< 0.00017 U
PCB-152	68194-09-2	ng/g	0.0024 JN	< 0.00026 U	0.0019 J	< 0.00037 U	< 0.00036 U	< 0.00035 U	< 0.00030 U	0.00065 JN	0.0027 J	< 0.00019 U
PCB-153/168	35065-27-1	ng/g	2.2	0.54	0.86	0.65	0.49	0.63	0.31	0.24	0.44	0.23
PCB-154	60145-22-4	ng/g	0.031	0.0070 JN	0.011 JN	0.015	0.011 JN	0.014	0.0064 JN	0.0099 J	0.020	0.0021 JN
PCB-155	33979-03-2	ng/g	< 0.00016 U	< 0.00024 U	< 0.00028 U	< 0.00035 U	< 0.00033 U	0.00035 JN	< 0.00028 U	< 0.00012 U	0.00076 JN	< 0.00017 U
PCB-156/157	38380-08-4	ng/g	0.17	0.074	0.078	0.067	0.035	0.082	0.048	0.025	0.024	0.028
PCB-158	74472-42-7	ng/g	0.22	0.070	0.082	0.056 J	0.033 JN	0.086	0.042	0.023	0.034	0.029
PCB-159	39635-35-3	ng/g	0.045	0.0063 JN	0.018	< 0.0020 U	0.0051 J	0.0089 J	0.0045 JN	0.0025 JN	0.0043 JN	0.0023 JN
PCB-16	38444-78-9	ng/g	0.018	0.0073 J	0.0030 JN	0.0074 J	0.010	0.024	0.017	0.0071 JN	0.0039 JN	0.0057 J
PCB-161	74472-43-8	ng/g	< 0.0022 U	< 0.0021 U	< 0.0017 U	< 0.0020 U	< 0.0019 U	< 0.00078 U	< 0.00081 U	< 0.00081 U	< 0.0010 U	< 0.0014 U
PCB-162	39635-34-2	ng/g	< 0.0021 U	< 0.0021 U	< 0.0016 U	< 0.0020 U	< 0.0019 U	< 0.00074 U	< 0.00076 U	< 0.00077 U	0.0011 JN	< 0.0014 U
PCB-164	74472-45-0	ng/g	0.17	0.048	0.055	0.042	0.037	0.061	0.031	0.019	0.032	0.019
PCB-165	74472-46-1	ng/g	< 0.0025 U	< 0.0024 U	< 0.0019 U	< 0.0023 U	< 0.0022 U	< 0.00089 U	< 0.00092 U	< 0.00092 U	< 0.0011 U	< 0.0016 U
PCB-167	52663-72-6	ng/g	0.069	0.018 JN	0.030	0.021	0.011	0.030	0.016	0.0088 J	0.0097	0.012 JN
PCB-169	32774-16-6	ng/g	< 0.0016 U	< 0.0017 U	< 0.0011 U	< 0.0015 U	< 0.0015 U	< 0.00058 U	< 0.00059 U	< 0.00054 U	< 0.00073 U	< 0.0011 U
PCB-17	37680-66-3	ng/g	0.028 JN	0.023 JN	0.018 JN	0.021	0.022	0.031	0.027	0.025	0.034	0.0073 J
PCB-170	35065-30-6	ng/g	1.2	0.14	0.76	0.21	0.14	0.27	0.18	0.088	0.12	0.073
PCB-171/173	52663-71-5	ng/g	0.37	0.042 JN	0.22	0.065	0.045	0.088	0.059	0.034	0.038	0.018 JN
PCB-172	52663-74-8	ng/g	0.23	0.024 JN	0.13	0.039	0.020 JN	0.053	0.034	0.022	0.016 JN	0.014 JN
PCB-174	38411-25-5	ng/g	1.7	0.15	0.67	0.23	0.17	0.33	0.21	0.12	0.13	0.078
PCB-175	40186-70-7	ng/g	0.056	0.0040 JN	0.026 JN	0.0096	0.0064 JN	0.012 JN	0.0063 J	0.0042 JN	0.0047 J	0.0027 JN
PCB-176	52663-65-7	ng/g	0.15	0.016	0.076	0.029	0.020	0.036	0.020	0.011	0.017	0.0091 JN
PCB-177	52663-70-4	ng/g	0.88	0.086	0.40	0.13	0.10	0.19	0.11	0.061	0.11	0.049
PCB-178	52663-67-9	ng/g	0.29	0.030 JN	0.13	0.052	0.044	0.060	0.040	0.025	0.078	0.015 JN
PCB-179	52663-64-6	ng/g	0.62	0.070	0.29	0.11	0.089	0.12	0.067	0.058	0.091	0.033
PCB-18/30	37680-65-2	ng/g	0.042	0.028	0.016 J	0.024	0.026	0.042	0.047	0.026	0.014 JN	0.012 J
PCB-180/193	35065-29-3	ng/g	3.6	0.30	1.7	0.55 J	0.31 J	0.71	0.40	0.24	0.27	0.17
PCB-181	74472-47-2	ng/g	< 0.000054 U	< 0.00067 U	< 0.00055 U	< 0.00081 U	< 0.0014 U	< 0.00055 U	< 0.00084 U	< 0.00014 U	< 0.00059 U	< 0.00080 U
PCB-182	60145-23-5	ng/g	< 0.000051 U	< 0.00065 U	< 0.00052 U	0.0017 JN	< 0.0014 U	< 0.00052 U	< 0.00080 U	0.0019 JN	0.0034 JN	< 0.00077 U
PCB-183/185	52663-69-1	ng/g	1.1	0.10	0.49	0.17	0.12	0.21	0.13	0.070	0.087	0.050
PCB-184	74472-48-3	ng/g	< 0.000044 U	< 0.00055 U	< 0.00045 U	< 0.00066 U	< 0.0012 U	< 0.00045 U	< 0.00069 U	< 0.00012 U	< 0.00049 U	< 0.00066 U
PCB-186	74472-49-4	ng/g	< 0.000042 U	< 0.00053 U	< 0.00043 U	< 0.00065 U	< 0.0011 U	< 0.00043 U	< 0.00066 U	< 0.00011 U	< 0.00047 U	< 0.00064 U
PCB-187	52663-68-0	ng/g	2.2	0.19	0.78	0.32	0.21	0.42	0.25	0.14	0.30	0.10
PCB-188	74487-85-7	ng/g	< 0.000040 U	< 0.00046 U	< 0.00043 U	< 0.00058 U	< 0.0010 U	< 0.00041 U	< 0.00061 U	< 0.00011 U	0.0038 JN	< 0.00054 U
PCB-189	39635-31-9	ng/g	0.036	0.0050 J	0.031	0.0081 J+	< 0.0014 U	0.010 J	0.0067 J	0.0041 J	0.0033 J	< 0.0021 U
PCB-19	38444-73-4	ng/g	0.028 JN	0.064	0.038 JN	0.038	0.039	0.021 JN	0.023 JN	0.048	0.070	< 0.00068 U
PCB-190	41411-64-7	ng/g	0.27	0.025	0.18	0.043	0.024 JN	0.059	0.038	0.020	0.020	0.013
PCB-191	74472-50-7	ng/g	0.060	0.0051 J	0.039	0.0089 J	0.0059 J	0.015	0.010 J	0.0039 JN	0.0026 JN	0.0025 JN
PCB-192	74472-51-8	ng/g	< 0.000043 U	< 0.00056 U	< 0.00044 U	< 0.00068 U	< 0.0012 U	< 0.00044 U	< 0.00067 U	< 0.00011 U	< 0.00050 U	< 0.00067 U
PCB-194	35694-08-7	ng/g	1.6	0.066 JN	0.44	0.16 J	0.073 J	0.18	0.12	0.049	0.062	0.040
PCB-195	52663-78-2	ng/g	0.49	0.026 JN	0.18	0.056 J	0.030 J	0.062	0.043	0.020	0.024 JN	0.018
PCB-196	42740-50-1	ng/g	0.68	0.024	0.25	0.079 J	0.028 JN	0.082	0.050	0.026	0.024	0.014 JN
PCB-197	33091-17-7	ng/g	0.038	< 0.00033 U	0.014	0.0038 JN	0.0028 J	0.0062 J	0.0029 JN	0.00087 JN	0.0026 JN	< 0.00034 U
PCB-198/199	68194-17-2	ng/g	1.8	0.062	0.50	0.16 J	0.081 J	0.24	0.15	0.063 JN	0.085	0.046 JN
PCB-2	2051-61-8	ng/g	0.012	0.0033 J	0.0040 J	0.0059 J	0.0045 JN	0.0049 J	0.011	0.0028 JN	0.0029 J	0.0026 J
PCB-20/28	38444-84-7	ng/g	0.10	0.058	0.041	0.065	0.056	0.12	0.077	0.069	0.046	0.032
PCB-200	52663-73-7	ng/g	0.18	0.0065 J	0.053	0.016	0.0090 JN	0.022 JN	0.015	0.0063 J	0.0050 JN	0.0049 J
PCB-201	40186-71-8	ng/g	0.17	0.0057 JN	0.052	0.020	0.0075 J	0.025	0.017 JN	0.0030 JN	0.0072 JN	0.0045 JN
PCB-202	2136-99-4	ng/g	0.33	0.012 JN	0.064	0.030	0.015	0.056	0.037	0.011	0.027	0.011 J
PCB-203	52663-76-0	ng/g	1.2	0.038	0.32	0.12 J	0.043 J	0.15	0.098	0.036	0.036	0.025
PCB-204	74472-52-9	ng/g	< 0.00014 U	< 0.00033 U	< 0.0010 U	< 0.00055 U	< 0.00091 U	< 0.00065 U	< 0.00071 U	< 0.00023 U	< 0.00032 U	< 0.00034 U
PCB-205	74472-53-0	ng/g	0.063	< 0.0016 U	0.024	0.0076 J+	< 0.0026 U	0.0085 J	0.0057 J	0.0024 JN	0.0025 JN	0.0039 J
PCB-206	40186-72-9	ng/g	1.2	0.040	0.24 JN	0.094 J	0.039 J	0.21	0.42 JN	0.037	0.022 JN	0.028 JN
PCB-207	52663-79-3	ng/g	0.12	0.0030 J	0.012 JN	0.011	0.0057 J	0.019	0.011	0.0027 JN	0.0025 JN	0.0071 JN
PCB-208	52663-77-1	ng/g	0.23	0.012	0.020	0.024	0.014	0.052	0.043	0.010	0.0074 J	0.014
PCB-209	2051-24-3	ng/g	0.17	0.037 JN	0.033 JN	0.033 JN	0.031	0.098	0.055	0.031 JN	0.015 JN	0.28
PCB-21/33	55702-46-0	ng/g	0.036	0.011 JN	0.014 JN	0.025	0.020 JN	0.044	0.022	0.025 JN	0.016 J	0.011 JN
PCB-22	38444-85-8	ng/g	0.031	0.015	0.013	0.016	0.013	0.039	0.016 JN	0.019	0.0079 J	0.010 J
PCB-23	55720-44-0	ng/g	< 0.0012 U	< 0.0011 U	< 0.0013 U	< 0.00059 U	< 0.00082 U	< 0.0011 U	< 0.00070 U	< 0.0010 U	< 0.00086 U	< 0.00096 U
PCB-24	55702-45-9	ng/g	0.0010 JN	< 0.00086 U	< 0.00037 U	0.00080 JN	< 0.00049 U	0.00098 JN	< 0.00027 U	< 0.00026 U	0.0014 JN	< 0.00047 U
PCB-25	55712-37-3	ng/g	0.011	0.0067 J	0.0072 JN	0.0066 J	0.0063 J	0.012	0.011	0.0081 J	0.0094 JN	0.0028 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B363	B364	B365	B366	B366	B367	B368	B369	B370	B371
		Sample ID	PDI-SG-B363-BL1	PDI-SG-B364-BL1	PDI-SG-B365-BL1	PDI-SG-B366-BL1	PDI-SG-B366-BL1-D	PDI-SG-B367-BL1	PDI-SG-B368-BL1	PDI-SG-B369-BL1	PDI-SG-B370-BL1	PDI-SG-B371-BL1
		Sample Date	30 Apr 2018	29 Apr 2018	27 Apr 2018	24 Apr 2018	24 Apr 2018	30 Apr 2018	30 Apr 2018	27 Apr 2018	29 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.017 J	0.011 J	0.0099 J	0.010 J	0.011 JN	0.023	0.018 J	0.014 J	0.0074 JN	0.0046 JN
PCB-27	38444-76-7	ng/g	0.0080 JN	0.0097 JN	0.0066 J	0.0055 J	0.0045 JN	0.0063 J	0.0055 J	0.0069 JN	0.012 JN	< 0.00041 U
PCB-3	2051-62-9	ng/g	0.017	0.0025 JN	< 0.00041 U	0.0022 JN	0.0016 JN	0.0052 J	0.011 JN	0.0034 J	0.0015 JN	0.0015 JN
PCB-31	16606-02-3	ng/g	0.070	0.038	0.031	0.046	0.040	0.086	0.050	0.054	0.026	0.025
PCB-32	38444-77-8	ng/g	0.022 JN	0.018	0.015	0.015	0.015	0.019 JN	0.020	0.018	0.051	0.0070 J
PCB-34	37680-68-5	ng/g	< 0.0012 U	< 0.0011 U	< 0.0013 U	< 0.00061 U	< 0.00085 U	< 0.0012 U	< 0.00072 U	< 0.0011 U	< 0.00089 U	< 0.00099 U
PCB-35	37680-69-6	ng/g	0.0025 J	< 0.0011 U	0.0020 JN	0.00099 JN	< 0.00083 U	< 0.0011 U	0.0014 J	0.0024 JN	< 0.00087 U	< 0.00097 U
PCB-36	38444-87-0	ng/g	< 0.0010 U	< 0.0010 U	< 0.0011 U	< 0.00057 U	< 0.00079 U	< 0.0010 U	< 0.00063 U	< 0.00091 U	< 0.00083 U	< 0.00093 U
PCB-37	38444-90-5	ng/g	0.033	0.018	0.010 J	0.024	0.013	0.041	0.019	0.017	0.0092 JN	0.011 J
PCB-38	53555-66-1	ng/g	< 0.0011 U	< 0.0011 U	< 0.0012 U	< 0.00062 U	< 0.00086 U	< 0.0011 U	< 0.00068 U	< 0.00099 U	< 0.00090 U	< 0.0010 U
PCB-39	38444-88-1	ng/g	< 0.0010 U	< 0.0010 U	< 0.0011 U	< 0.00055 U	< 0.00077 U	< 0.00099 U	< 0.00062 U	< 0.00090 U	< 0.00080 U	< 0.00090 U
PCB-4	13029-08-8	ng/g	0.029	0.049 JN	0.031	0.011 JN	0.019 JN	0.024	0.12	0.029	0.029	< 0.0085 U
PCB-40/41/71	38444-93-8	ng/g	0.077	0.040 JN	0.037	0.040	0.041	0.085	0.043	0.037	0.042	0.016 JN
PCB-42	36559-22-5	ng/g	0.035	0.020	0.014 JN	0.017	0.019	0.037	0.021	0.015 JN	0.011	0.011 J
PCB-43/73	70362-46-8	ng/g	0.014 J	0.0048 JN	0.0050 JN	0.0050 J	0.0050 JN	0.0048 JN	0.0025 JN	0.0043 J	0.010 JN	0.0024 JN
PCB-44/47/65	41464-39-5	ng/g	0.27	0.13	0.12	0.14	0.14	0.19	0.12	0.12	0.36	0.049 JN
PCB-45/51	70362-45-7	ng/g	0.060	0.037 JN	0.046	0.047	0.054	0.042	0.023	0.035	0.23	0.0095 JN
PCB-46	41464-47-5	ng/g	0.0073 J	< 0.0030 U	0.0037 JN	0.0042 JN	< 0.0026 U	0.010 JN	0.0050 JN	0.0047 JN	0.0089 JN	0.0025 JN
PCB-48	70362-47-9	ng/g	0.022	0.011 JN	< 0.0020 U	0.011	0.0091 JN	0.024	0.012	0.013	0.0049 JN	0.0052 JN
PCB-49/69	41464-40-8	ng/g	0.15	0.089	0.093	0.094	0.10	0.11	0.073	0.075	0.20	0.036
PCB-5	16605-91-7	ng/g	< 0.00066 U	< 0.0083 U	< 0.0014 U	< 0.0029 U	< 0.0036 U	< 0.00069 U	0.0025 J	< 0.0010 U	< 0.0042 U	< 0.0065 U
PCB-50/53	62796-65-0	ng/g	0.041	0.042	0.055	0.040	0.047	0.038	0.022	0.040	0.17	0.0051 JN
PCB-52	35693-99-3	ng/g	0.41	0.14	0.16	0.16	0.18	0.29	0.17	0.12	0.18	0.083
PCB-54	15968-05-5	ng/g	0.0092 J	0.0072 JN	0.017 JN	0.011	0.011	0.0029 JN	0.0034 JN	0.011 JN	0.054	< 0.000076 U
PCB-55	74338-24-2	ng/g	0.0034 JN	0.0023 JN	< 0.0014 U	0.0019 J	< 0.0015 U	0.0022 JN	< 0.00067 U	0.0024 J	< 0.0013 U	0.0019 J
PCB-56	41464-43-1	ng/g	0.058	0.033	0.020	0.032	0.028 JN	0.037	0.039	0.020	0.0028 JN	0.019
PCB-57	70424-67-8	ng/g	< 0.00086 U	< 0.0017 U	< 0.0015 U	< 0.0011 U	< 0.0015 U	< 0.00062 U	< 0.00069 U	< 0.00077 U	< 0.0013 U	< 0.0011 U
PCB-58	41464-49-7	ng/g	0.0024 J	< 0.0018 U	< 0.0014 U	< 0.0011 U	< 0.0015 U	0.00082 J	< 0.00066 U	< 0.00074 U	0.0054 JN	< 0.0011 U
PCB-59/62/75	74472-33-6	ng/g	0.015 J	0.0083 J	0.0067 J	0.0079 J	0.0097 J	0.013 JN	0.0069 JN	0.0064 JN	0.016 J	0.0030 JN
PCB-6	25569-80-6	ng/g	0.011	< 0.0073 U	0.0049 J	0.0030 JN	0.0050 JN	0.0062 J	0.057	0.0046 JN	< 0.0037 U	< 0.0057 U
PCB-60	33025-41-1	ng/g	0.023	0.015	0.0095 J	0.0098	0.0092 JN	0.017	0.015	0.0081 JN	0.0075 JN	0.0079 J
PCB-61/70/74/76	33284-53-6	ng/g	0.34	0.14	0.084	0.14	0.13	0.21	0.18	0.083	0.069	0.10
PCB-63	74472-34-7	ng/g	0.0045 JN	< 0.0016 U	0.0015 JN	0.0034 J	< 0.0014 U	0.0043 J	0.0029 J	0.0021 J	0.0015 JN	0.0018 JN
PCB-64	52663-58-8	ng/g	0.067	0.033	0.019	0.029	0.028	0.056	0.037	0.023	0.014	0.019
PCB-66	32598-10-0	ng/g	0.16	0.086	0.051	0.088	0.084	0.10	0.11	0.052	0.045	0.045 JN
PCB-67	73575-53-8	ng/g	0.0039 J	< 0.0015 U	< 0.0013 U	< 0.00092 U	< 0.0013 U	0.0028 J	0.0020 JN	0.0011 JN	< 0.0012 U	< 0.00096 U
PCB-68	73575-52-7	ng/g	0.0022 J	< 0.0015 U	< 0.0013 U	< 0.00094 U	< 0.0013 U	0.0014 J	0.0020 J	< 0.00067 U	0.0026 JN	< 0.00098 U
PCB-7	33284-50-3	ng/g	0.0022 J	< 0.0075 U	< 0.0013 U	< 0.0026 U	< 0.0033 U	< 0.00065 U	0.0056 J	< 0.00094 U	< 0.0038 U	< 0.0059 U
PCB-72	41464-42-0	ng/g	0.0028 J	< 0.0017 U	< 0.0014 U	< 0.0010 U	0.0029 J	0.0020 J	0.0014 JN	< 0.00076 U	< 0.0013 U	< 0.0011 U
PCB-77	32598-13-3	ng/g	0.017	0.0089 J	0.0048 JN	0.011	0.0090 J	0.0092 J	0.016	0.0046 JN	0.0041 JN	0.0066 J
PCB-78	70362-49-1	ng/g	< 0.00083 U	< 0.0018 U	< 0.0014 U	< 0.0011 U	< 0.0015 U	< 0.00059 U	< 0.00066 U	< 0.00074 U	< 0.0014 U	< 0.0011 U
PCB-79	41464-48-6	ng/g	0.0056 J	< 0.0015 U	< 0.0012 U	< 0.00093 U	< 0.0013 U	0.0029 J	0.0019 JN	< 0.00064 U	< 0.0012 U	< 0.00098 U
PCB-8	34883-43-7	ng/g	0.029	0.020 JN	0.010 JN	0.014 J	0.0090 J	0.015 J	0.083	0.021	0.010 JN	0.011 JN
PCB-80	33284-52-5	ng/g	< 0.00074 U	< 0.0015 U	< 0.0012 U	< 0.00092 U	< 0.0013 U	< 0.00053 U	< 0.00059 U	< 0.00066 U	< 0.0012 U	< 0.00096 U
PCB-81	70362-50-4	ng/g	0.0015 J	< 0.0016 U	< 0.0013 U	< 0.00097 U	< 0.0013 U	< 0.00056 U	< 0.00062 U	< 0.00070 U	< 0.0013 U	< 0.0010 U
PCB-82	52663-62-4	ng/g	0.10	0.024 JN	0.013 JN	0.018 JN	0.018	0.052	0.035	0.014 JN	0.011	0.017
PCB-83/99	60145-20-2	ng/g	0.49	0.15	0.12	0.16	0.15	0.23	0.17	0.10	0.13	0.11
PCB-84	52663-60-2	ng/g	0.22	0.034 JN	0.029 JN	0.046	0.047	0.12	0.069	0.028	0.038	0.039
PCB-85/116/117	65510-45-4	ng/g	0.13	0.055	0.034	0.036	0.035	0.067	0.048	0.027 J	0.028	0.033 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.52	0.18	0.12	0.13	0.14	0.25	0.18	0.092	0.10	0.11
PCB-88/91	55215-17-3	ng/g	0.12	0.050	0.045 JN	0.057	0.048 JN	0.065	0.045	0.033 JN	0.12	0.021 JN
PCB-89	73575-57-2	ng/g	0.0067 JN	< 0.00054 U	< 0.0011 U	< 0.00039 U	< 0.00086 U	0.0031 JN	0.0022 JN	< 0.00083 U	< 0.00030 U	< 0.00045 U
PCB-9	34883-39-1	ng/g	0.0032 JN	< 0.0077 U	< 0.0015 U	< 0.0027 U	< 0.0033 U	0.0013 JN	0.010 J	< 0.0011 U	< 0.0038 U	< 0.0060 U
PCB-90/101/113	68194-07-0	ng/g	1.0	0.34	0.28	0.34	0.31	0.46	0.27	0.18	0.30	0.18
PCB-92	52663-61-3	ng/g	0.20	0.049 JN	0.045	0.065	0.059	0.088	0.057	0.038	< 0.00027 U	0.032
PCB-93/100	73575-56-1	ng/g	0.032 JN	0.012 JN	0.021 JN	0.018 J	0.019 J	0.014 JN	0.0076 JN	0.014 JN	0.065	0.0010 JN
PCB-94	73575-55-0	ng/g	0.0088 J	< 0.00054 U	0.0044 JN	0.0036 JN	< 0.00086 U	0.0045 J	0.0029 J	0.0047 J	0.013 JN	< 0.00045 U
PCB-95	38379-99-6	ng/g	0.90	0.24	0.25	0.30	0.29	0.41	0.24	0.16	0.29	0.14
PCB-96	73575-54-9	ng/g	0.0071 J	0.0037 J	0.0065 J	0.0043 J	0.0059 J	0.0047 J	0.0044 J	0.0051 J	0.015 JN	< 0.00034 U
PCB-98/102	60233-25-2	ng/g	0.029	0.0078 JN	0.0093 JN	0.0084 JN	0.0092 J	0.020 J	0.014 J	0.010 J	0.017	0.0028 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	40	7.8	14	9.0	7.1	12	7.9	4.7	7.4	4.1

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B363	B364	B365	B366	B366	B367	B368	B369	B370	B371
		Sample ID	PDI-SG-B363-BL1	PDI-SG-B364-BL1	PDI-SG-B365-BL1	PDI-SG-B366-BL1	PDI-SG-B366-BL1-D	PDI-SG-B367-BL1	PDI-SG-B368-BL1	PDI-SG-B369-BL1	PDI-SG-B370-BL1	PDI-SG-B371-BL1
		Sample Date	30 Apr 2018	29 Apr 2018	27 Apr 2018	24 Apr 2018	24 Apr 2018	30 Apr 2018	30 Apr 2018	27 Apr 2018	29 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.54 U	< 0.58 U	< 0.58 U	< 0.88 UJ	< 0.87 UJ	0.35 J	0.65	< 0.56 U	< 0.42 U	< 0.63 U
2,4-DDE	3424-82-6	µg/kg	< 0.54 U	< 0.58 U	< 0.58 U	< 0.88 UJ	< 0.87 UJ	< 0.52 U	< 0.55 U	< 0.56 U	< 0.42 U	< 0.63 U
2,4-DDT	789-02-6	µg/kg	< 0.54 U	< 0.58 U	< 0.58 U	< 0.94 UJ	< 0.94 UJ	< 0.52 U	< 0.55 U	< 0.56 U	< 0.47 U	< 0.63 U
4,4'-DDD	72-54-8	µg/kg	0.95 J	0.85	0.92	0.45 J	0.71 J	1.1 J	2.1 J	0.89	0.43	0.86
4,4'-DDE	72-55-9	µg/kg	1.9	1.5	2.1	1.6 J	1.4 J	1.7	2.1	1.9	0.64	1.6
4,4'-DDT	50-29-3	µg/kg	0.60	0.50 J	0.60	< 0.88 UJ	< 0.87 UJ	0.46 J	1.5	0.35 J	< 0.42 U	0.64
Total DDx (b)	T_DDx (PDI)	µg/kg	3.7	3.1	3.9	2.5	2.6	3.9	6.6	3.4	1.3	3.4
Aldrin	309-00-2	µg/kg	< 0.54 U	< 0.58 U	< 0.58 U	< 0.88 UJ	< 0.87 UJ	< 0.52 U	< 0.55 U	< 0.56 U	< 0.42 U	< 0.63 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.1 U	< 1.2 U	< 1.2 U	< 1.8 UJ	< 1.7 UJ	< 1.0 U	< 1.1 U	0.40 J	< 0.84 U	< 1.3 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.54 U	< 0.58 U	< 0.58 U	< 0.97 UJ	< 0.97 UJ	< 0.52 U	< 0.55 U	< 0.56 U	< 0.49 U	< 0.63 U
Dieldrin	60-57-1	µg/kg	< 1.1 U	< 1.2 U	< 1.2 U	< 2.0 UJ	< 2.0 UJ	0.69 J	< 1.1 U	< 1.1 U	< 1.0 U	0.97 J
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.54 U	< 0.58 U	< 0.58 U	< 0.88 UJ	< 0.87 UJ	< 0.52 U	< 0.55 U	< 0.56 U	< 0.42 U	< 0.63 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.1 U	< 1.2 U	< 1.2 U	< 1.8 UJ	< 1.7 UJ	< 1.0 U	< 1.1 U	< 1.1 U	< 0.84 U	< 1.3 U
Heptachlor	76-44-8	µg/kg	< 0.54 U	< 0.58 U	< 0.58 U	< 0.88 UJ	< 0.87 UJ	< 0.52 U	< 0.55 U	< 0.56 U	< 0.42 U	< 0.63 U
Oxychlordane	27304-13-8	µg/kg	< 1.1 U	< 1.2 U	< 1.2 U	< 2.0 UJ	< 2.0 UJ	< 1.0 U	< 1.1 U	< 1.1 U	< 1.0 U	< 1.3 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.1 U	< 1.2 U	< 1.2 U	< 1.8 UJ	< 1.7 UJ	< 1.0 U	< 1.1 U	0.62 J	< 0.84 U	< 1.3 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.1 U	< 1.2 U	< 1.2 U	< 2 UJ	< 2 UJ	< 1 U	< 1.1 U	1.57	< 1 U	< 1.3 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.5	2.8	2.0	1.5 J	12 J	4.0	2.7	2.1	0.94	2.8
Acenaphthene	83-32-9	µg/kg	7.4	1.7	1.3	2.4	4.0	13	110	0.94	4.3	3.4
Acenaphthylene	208-96-8	µg/kg	9.0	3.0	2.4	3.4	2.4	5.8	6.4	2.0	1.3	2.8
Anthracene	120-12-7	µg/kg	92	5.3	4.3	11	8.3	15	14	4.2	1.6	9.2
Benz(a)anthracene	56-55-3	µg/kg	230	26	22	130 J	15 J	46	23	18	5.5	28
Benzo(a)pyrene	50-32-8	µg/kg	130	29	23	120 J	15 J	42	33	20	6.0	26
Benzo(b)fluoranthene	205-99-2	µg/kg	200	42	33	140 J	19 J	66	43	32	9.4	42
Benzo(g,h,i)perylene	191-24-2	µg/kg	58	25	20	60 J	11 J	36	30	19	6.9	23
Benzo(k)fluoranthene	207-08-9	µg/kg	75	13	10	52 J	6.4 J	20	12	9.1	2.7	13
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	80 J	82 J	75 J	210	38 J	75 J	98 J	69 J	60 J	110 J
Chrysene	218-01-9	µg/kg	420	37	29	140 J	18 J	65	34	30	8.9	43
Dibenz(a,h)anthracene	53-70-3	µg/kg	18	5.3	4.1	19 J	2.3 J	8.7	6.4	3.6	1.1	5.0
Fluoranthene	206-44-0	µg/kg	410	63	46	150 J	34 J	93	59	41	18	97
Fluorene	86-73-7	µg/kg	16	2.7	2.4	2.9 J	8.7 J	8.0	6.4	2.5	1.2	4.9
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	73	23	19	70 J	11 J	38	31	17	5.5	23
Naphthalene	91-20-3	µg/kg	6.4	5.0	4.2	3.8 J	19 J	6.7	4.7	3.3	2.8	4.2
Phenanthrene	85-01-8	µg/kg	120	24	18	34	31	42	30	15	8.9	50
Pyrene	129-00-0	µg/kg	400	60	49	170 J	37 J	92	58	41	19	95
Total PAHs (b)	T_PAH (PDI)	µg/kg	2268	368	290	1110	254	601	504	261	104	472
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	199	44	35	174	22	66	49	30	9	40
Metals												
Arsenic	7440-38-2	mg/kg	4.5	5.1	4.3	3.9	4.3	4.9	4.6	4.3	4.2	4.9
Cadmium	7440-43-9	mg/kg	0.18 J	0.18 J	0.15 J	0.10 J	0.16 J	0.22 J	0.25 J	0.14 J	0.12 J	0.17 J
Copper	7440-50-8	mg/kg	46	42	34	26	28	46	47	36	25	40
Lead	7439-92-1	mg/kg	19	11	10	8.7	11	14	12	9.5	9.0	10
Mercury	7439-97-6	mg/kg	0.14	0.052 J	0.051 J	0.090	0.029 J	0.14	0.084	0.25 J	0.031 J	0.051 J
Tri-n-butyltin	36643-28-4	µg/kg	< 2.2 U	< 2.3 U	< 2.3 U	2.6	2.9	< 2.1 U	< 2.2 U	< 2.3 U	< 1.7 U	< 2.5 U
Zinc	7440-66-6	mg/kg	92	100	85	81	91	110	94	87	89	97
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	37 J	61 J	76 J	24 J	30 J	98 J	68 J	47 J	< 81 U	70 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	230	440	370	120	150	610	340	390	180	460
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										
Total Solids@104C - E160.3 (f)	TSOLID	%	45.3	40.7	42.3	64.0	59.1	44.0	44.8	47.8	58.0	39.1
Total Solids@104C - E160.3M (f)	TSOLID	%	45.6	42.5	42.2	56.1	56.2	47.7	45.1	43.6	58.8	39.3
Total Solids@70C	TSOLID70	%	47	43	42	56	57	49	46	43	61	41
Gravel	GS-Gravel	%	0	0	0	1.8		0	0	0	0	0
Sand, Coarse	GS-Csand	%	1.0	0.1	0	1.4		0.3	0	0	0.8	0
Sand, Medium	GS-Msand	%	3.7	0.1	0.2	2.5		6.6	0.9	0.1	5.7	0.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	31.92	24.87	25.79	53.93		34.45	28.92	19.54	61.86	19.09
Sand, Fine (#230) (d)	GS-Fsand	%	37.2	30.7	31.3	56.8		39.7	34.6	25.1	64.0	24.1
Silt (#200) (d)	GS-Silt-200	%	55.97	64.82	62.60	33.06		53.84	58.87	67.05	25.23	68.10

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B363	B364	B365	B366	B366	B367	B368	B369	B370	B371
		Sample ID	PDI-SG-B363-BL1	PDI-SG-B364-BL1	PDI-SG-B365-BL1	PDI-SG-B366-BL1	PDI-SG-B366-BL1-D	PDI-SG-B367-BL1	PDI-SG-B368-BL1	PDI-SG-B369-BL1	PDI-SG-B370-BL1	PDI-SG-B371-BL1
		Sample Date	30 Apr 2018	29 Apr 2018	27 Apr 2018	24 Apr 2018	24 Apr 2018	30 Apr 2018	30 Apr 2018	27 Apr 2018	29 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N	N
		Depth	0-25 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	50.7	59.0	57.1	30.2		48.6	53.2	61.5	23.1	63.1
Clay	GS-Clay	%	7.4	10.1	11.4	7.2		4.8	11.3	13.3	6.3	12.5
Percent Fines (e)	GS-FINES	%	63.37	74.92	74	40.26		58.64	70.17	80.35	31.53	80.6
Total Organic Carbon	TOC	mg/kg	16000	22000	21000	11000	11000	17000	20000	23000	9000	24000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B372	B373	B374	B375	B376	B377	B378	B379	B380	B381
		Sample ID	PDI-SG-B372-BL1	PDI-SG-B373-BL1	PDI-SG-B374-BL1	PDI-SG-B375-BL1	PDI-SG-B376-BL1	PDI-SG-B377-BL1	PDI-SG-B378-BL1	PDI-SG-B379-BL1	PDI-SG-B380-BL1	PDI-SG-B381-BL1
		Sample Date	20 May 2018	20 May 2018	01 May 2018	27 Apr 2018	27 Apr 2018	01 May 2018	24 Apr 2018	29 Apr 2018	13 May 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.049	0.092	0.062	0.049	0.047	0.054	0.021	0.052	0.15	0.052
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.010 JN	0.018	0.0091 JN	0.010 JN	0.0072 JN	0.0089 JN	0.0033 JN	0.0093 JN	0.022	0.0084
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0013 J+	0.0021 JN	0.0010 J+	0.00060 JN	0.00071 J+	0.00077 JN	0.00032 J+	< 0.00072 U	< 0.00090 UJ	< 0.00048 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00096 J+	0.00082 JN	0.00065 J	0.00071 J+	0.0010 J+	0.00065 J	0.00031 J+	0.00075 JN	0.0012 J	0.00069 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00074 JN	0.0014 J+	0.0021 J	0.00068 JN	0.00083 J+	0.0013 J	0.00031 J	0.0015 J+	0.0021 J	0.00074 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0025 JN	0.0034 J	0.0021 J	0.0022 JN	0.0024 JN	0.0021 J	0.00087 J	0.0025 JN	0.0046	0.0022 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00060 JN	0.00090 J+	0.00043 JN	0.00045 JN	0.00067 J+	0.00051 J	0.00025 J	0.00074 J+	0.0022 J	0.00046 J+
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0022 JN	0.0031 J	0.0013 J	0.0014 J	0.0018 J	0.0015 J	0.00059 JN	0.0017 J	0.0030 J	0.0016 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00087 U	< 0.00084 U	< 0.00033 U	< 0.00029 U	0.00040 JN	< 0.00032 U	< 0.00014 U	< 0.00022 U	0.00026 J	< 0.000087 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00050 J+	0.00029 JN	0.00031 JN	0.00042 JN	0.00063 J	0.00037 JN	0.00018 J	0.00048 J	0.00081 J	0.00039 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00048 J	0.00036 J	0.00033 J	< 0.00020 U	0.00051 J+	0.00022 JN	0.000076 J	< 0.00015 U	0.00052 J	< 0.00018 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00037 U	0.00057 JN	0.00024 JN	0.00036 J+	0.00051 JN	0.00035 J	0.00012 J	< 0.00021 U	0.00054 JN	< 0.00029 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00019 U	< 0.00014 U	0.00058 J	< 0.00026 U	0.00044 J+	0.00038 J	0.00011 J	0.00041 J+	0.00061 J	< 0.00028 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00017 U	< 0.00011 U	< 0.000069 U	0.00039 JN	0.00049 JN	0.00020 JN	0.000088 JN	< 0.00021 U	0.00041 JN	0.00023 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00050 J+	0.00047 JN	0.00047 J+	0.00039 J+	0.00054 J+	0.00047 J+	0.00020 J	0.00038 JN	0.00091 J	0.00047 J+
OCDD	3268-87-9	µg/kg	0.37	1.2	0.49	0.40	0.39	0.46	0.18	0.40	2.1	0.46
OCDF	39001-02-0	µg/kg	0.037	0.095	0.039	0.033	0.024	0.035	0.010	0.033	0.11	0.030
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0021	0.0029	0.0021	0.0022	0.0028	0.0022	0.00088	0.0022	0.0053	0.002
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0015	0.0025	0.0019	0.0012	0.0022	0.0018	0.00074	0.0019	0.005	0.0019
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0014	0.0024	0.0017	0.001	0.0019	0.0016	0.00069	0.0017	0.0048	0.0018
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.0037 U	< 0.00033 U	0.0017 JN	0.13 JN	0.0067 J	0.00096 JN	0.0049 J	0.0037 J	0.014	0.0033 JN
PCB-10	33146-45-1	ng/g	< 0.087 U	< 0.0034 U	< 0.0039 U	< 0.053 U	< 0.0013 U	< 0.0041 U	< 0.0026 U	0.0020 JN	< 0.00050 U	0.0029 J
PCB-103	60145-21-3	ng/g	< 0.0027 U	0.013 JN	0.0022 JN	0.91	0.010 J	0.0019 JN	0.0099	0.013 JN	0.045	0.012
PCB-104	56558-16-8	ng/g	< 0.0020 U	< 0.00026 U	< 0.00018 U	0.098 JN	< 0.00069 U	< 0.00033 U	< 0.00034 U	0.0026 J	< 0.00039 U	0.0020 JN
PCB-105	32598-14-4	ng/g	0.063 J	0.052	0.057	3.2	0.051	0.063	0.039	0.10	0.18	0.066
PCB-106	70424-69-0	ng/g	< 0.0044 U	< 0.0014 U	< 0.0015 U	< 0.092 U	< 0.0023 U	< 0.0017 U	< 0.00092 U	0.014 JN	< 0.0020 U	< 0.0025 U
PCB-107	70424-68-9	ng/g	0.016 JN	0.012	0.011	0.68	0.0092 JN	0.010 JN	0.0020 JN	0.025	0.10	0.012 JN
PCB-108/124	70362-41-3	ng/g	< 0.0045 U	0.0052 J	0.0071 J	0.27 JN	< 0.0023 U	0.0052 JN	0.0023 JN	0.023 J	0.020	0.0056 JN
PCB-11	2050-67-1	ng/g	0.088 JN	0.066	0.039 JN	1.6	0.044	0.048	0.028 JN	0.050	0.031	0.052
PCB-110/115	38380-03-9	ng/g	0.22	0.25	0.19	13	0.22	0.19	0.19	0.26	1.2	0.22
PCB-111	39635-32-0	ng/g	< 0.0019 U	< 0.00024 U	< 0.00017 U	< 0.032 U	< 0.00062 U	< 0.00031 U	< 0.00031 U	0.0035 J	0.0051 J	< 0.00071 U
PCB-112	74472-36-9	ng/g	< 0.0020 U	< 0.00025 U	< 0.00018 U	< 0.035 U	0.0016 J	< 0.00032 U	< 0.00033 U	0.017	< 0.00038 U	< 0.00077 U
PCB-114	74472-37-0	ng/g	< 0.0042 U	< 0.0014 U	< 0.0014 U	0.20 JN	< 0.0021 U	0.0032 J	< 0.00086 U	0.015 JN	0.011	< 0.0023 U
PCB-118	31508-00-6	ng/g	0.16 JN	0.14	0.14	7.9	0.13	0.16	0.12	0.27	0.64	0.16
PCB-12/13	2974-92-7	ng/g	< 0.078 U	< 0.0031 U	< 0.0036 U	0.15 JN	< 0.0011 U	< 0.0037 U	0.0024 JN	0.0035 JN	0.0080 J	0.0018 J+
PCB-120	68194-12-7	ng/g	< 0.0019 U	< 0.00024 U	0.0017 JN	< 0.032 U	0.0015 JN	< 0.00031 U	0.0022 J	0.012 J	0.020 JN	< 0.00070 U
PCB-121	56558-18-0	ng/g	< 0.0020 U	< 0.00025 U	< 0.00018 U	0.088 J	< 0.00066 U	< 0.00032 U	< 0.00033 U	0.0027 JN	< 0.00037 U	< 0.00076 U
PCB-122	76842-07-4	ng/g	< 0.0051 U	< 0.0017 U	< 0.0017 U	< 0.10 U	< 0.0025 U	0.0029 JN	< 0.0011 U	< 0.0044 U	0.0091 JN	< 0.0028 U
PCB-123	65510-44-3	ng/g	< 0.0042 U	0.0024 JN	0.0025 JN	0.19 J	0.0022 J	0.0018 JN	< 0.00093 U	0.0047 JN	0.0083 J	0.0028 JN
PCB-126	57465-28-8	ng/g	< 0.0047 U	< 0.0015 U	< 0.0015 U	< 0.080 U	< 0.0020 U	< 0.0017 U	< 0.00095 U	< 0.0041 U	0.0032 J	< 0.0025 U
PCB-127	39635-33-1	ng/g	< 0.0044 U	< 0.0014 U	< 0.0015 U	< 0.088 U	< 0.0022 U	< 0.0017 U	< 0.00092 U	< 0.0038 U	< 0.0019 U	< 0.0024 U
PCB-128/166	38380-07-3	ng/g	0.024 JN	0.051	0.039	2.0	0.029 JN	0.039	0.042	0.59	0.19	0.042 JN
PCB-129/138/160/163	55215-18-4	ng/g	0.46	0.50	0.28	18	0.28	0.26	0.40	6.4	1.5	0.36
PCB-130	52663-66-8	ng/g	< 0.011 U	0.022	0.016	0.94	0.012 JN	0.015	0.016 JN	0.23	0.14	0.015 JN
PCB-131	61798-70-7	ng/g	< 0.012 U	< 0.0047 U	< 0.0030 U	< 0.072 U	< 0.0020 U	< 0.0022 U	< 0.0027 U	< 0.014 U	< 0.0022 U	< 0.0017 U
PCB-132	38380-05-1	ng/g	0.10 JN	0.15	0.074	5.3	0.089	0.062	0.12	0.58	0.52	0.11
PCB-133	35694-04-3	ng/g	< 0.011 U	0.0089 J	< 0.0028 U	0.43 JN	0.0056 JN	< 0.0020 U	0.0077 J	0.29	0.045	0.0075 JN
PCB-134/143	52704-70-8	ng/g	< 0.011 U	0.019 JN	0.0089 JN	0.84 JN	0.014 J	0.0051 JN	0.019 JN	1.1	0.092	0.019 J
PCB-135/151	52744-13-5	ng/g	0.062 JN	0.24	0.088	11	0.17	0.055 JN	0.19	1.4	0.70	0.16
PCB-136	38411-22-2	ng/g	0.057 JN	0.094	0.023 JN	4.2	0.068	0.024	0.069	0.31	0.27	0.058
PCB-137	35694-06-5	ng/g	0.011 JN	0.0095 JN	0.0098 JN	0.41	0.0075 J	0.0086 JN	0.0070 JN	0.16	0.040	0.0092 JN
PCB-139/140	56030-56-9	ng/g	< 0.0095 U	< 0.0038 U	0.0036 JN	< 0.060 U	0.0035 JN	0.0034 JN	< 0.0021 U	0.051	0.032	0.0055 J
PCB-14	34883-41-5	ng/g	< 0.067 U	< 0.0026 U	< 0.0030 U	< 0.042 U	< 0.0010 U	< 0.0031 U	< 0.0020 U	< 0.00066 U	0.00047 J	< 0.00067 U
PCB-141	52712-04-6	ng/g	0.092 J	0.11	0.043	4.0	0.060	0.039	0.087	2.6	0.25	0.080
PCB-142	41411-61-4	ng/g	< 0.011 U	< 0.0043 U	< 0.0028 U	< 0.068 U	< 0.0019 U	< 0.0020 U	< 0.0024 U	< 0.013 U	< 0.0020 U	< 0.0016 U
PCB-144	68194-14-9	ng/g	< 0.00052 U	0.022	0.0076 J	1.2 JN	0.019	0.0084 J	0.019	0.21	0.067	0.018
PCB-145	74472-40-5	ng/g	< 0.00039 U	< 0.00021 U	< 0.000084 U	0.031 J	< 0.00011 U	< 0.000082 U	< 0.00032 U	0.0033 JN	< 0.00044 U	< 0.000066 U
PCB-146	51908-16-8	ng/g	0.089 JN	0.082	0.041	3.4	0.054	0.036	0.077	1.3	0.41	0.062
PCB-147/149	68194-13-8	ng/g	0.51	0.58	0.21	18	0.26	0.19	0.48	2.6	1.6	0.36
PCB-148	74472-41-6	ng/g	< 0.00055 U	< 0.00030 U	< 0.00012 U	0.15 JN	0.0016 JN	< 0.00012 U	0.0015 JN	0.024	0.011	0.00075 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B372	B373	B374	B375	B376	B377	B378	B379	B380	B381
		Sample ID	PDI-SG-B372-BL1	PDI-SG-B373-BL1	PDI-SG-B374-BL1	PDI-SG-B375-BL1	PDI-SG-B376-BL1	PDI-SG-B377-BL1	PDI-SG-B378-BL1	PDI-SG-B379-BL1	PDI-SG-B380-BL1	PDI-SG-B381-BL1
		Sample Date	20 May 2018	20 May 2018	01 May 2018	27 Apr 2018	27 Apr 2018	01 May 2018	24 Apr 2018	29 Apr 2018	13 May 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.26	0.0099 JN	0.0086 JN	0.56	0.013 JN	0.010 JN	0.0081 JN	0.0082 JN	0.033	0.0098 J
PCB-150	68194-08-1	ng/g	< 0.00037 U	0.0028 JN	< 0.000080 U	0.16 J	0.0024 J	< 0.000078 U	0.0018 J	0.027	0.013	0.0017 JN
PCB-152	68194-09-2	ng/g	< 0.00040 U	< 0.00022 U	< 0.000086 U	0.061 JN	< 0.00010 U	< 0.000084 U	0.0010 J	0.083	< 0.00042 U	< 0.000064 U
PCB-153/168	35065-27-1	ng/g	0.44	0.47	0.23	17	0.25	0.20	0.40	6.3	1.5	0.33
PCB-154	60145-22-4	ng/g	0.0074 JN	0.0088 J	0.0030 J	0.79	0.0084 JN	0.0034 JN	0.0091 J	0.13	0.076	0.0074 J
PCB-155	33979-03-2	ng/g	< 0.00037 U	< 0.00020 U	< 0.000080 U	0.019 JN	< 0.000098 U	< 0.000078 U	< 0.00031 U	0.0044 J	< 0.00040 U	0.00032 JN
PCB-156/157	38380-08-4	ng/g	0.040 JN	0.031 JN	0.026	1.5	0.025	0.026	0.026	0.77	0.095	0.031
PCB-158	74472-42-7	ng/g	0.038 JN	0.040	0.021 JN	1.6	0.024	0.022	0.030 JN	0.51	0.10	0.029 JN
PCB-159	39635-35-3	ng/g	< 0.0071 U	< 0.0029 U	0.0028 J	0.17 JN	0.0027 JN	< 0.0014 U	0.0027 JN	0.33	0.016 JN	0.0055 J
PCB-16	38444-78-9	ng/g	0.23 JN	0.0072 JN	0.0056 JN	0.32 JN	0.0033 JN	0.0083 JN	0.0078 J	0.0053 JN	0.067	0.0098 J
PCB-161	74472-43-8	ng/g	< 0.0071 U	< 0.0028 U	< 0.0018 U	< 0.044 U	< 0.0012 U	< 0.0013 U	< 0.0016 U	< 0.0085 U	< 0.0013 U	< 0.0010 U
PCB-162	39635-34-2	ng/g	< 0.0070 U	< 0.0028 U	< 0.0018 U	< 0.042 U	< 0.0012 U	< 0.0013 U	< 0.0016 U	< 0.0080 U	< 0.0013 U	< 0.00099 U
PCB-164	74472-45-0	ng/g	0.022 JN	0.033 JN	0.016	1.4	0.019	0.017	0.030	0.48	0.12	0.027
PCB-165	74472-46-1	ng/g	< 0.0081 U	< 0.0032 U	< 0.0021 U	< 0.050 U	< 0.0014 U	< 0.0015 U	< 0.0018 U	< 0.0097 U	< 0.0015 U	< 0.0012 U
PCB-167	52663-72-6	ng/g	< 0.0056 U	0.011	0.0074 JN	0.53	0.0086 J	0.0076 J	0.012	0.31	0.041	0.010 J
PCB-169	32774-16-6	ng/g	< 0.0048 U	0.0072 JN	< 0.0014 U	< 0.031 U	< 0.00087 U	< 0.0010 U	< 0.0012 U	< 0.0065 U	< 0.0010 U	< 0.00077 U
PCB-17	37680-66-3	ng/g	0.42	0.020 JN	0.0075 J	1.3	0.020 JN	0.015	0.021	0.018 JN	0.095	0.022 JN
PCB-170	35065-30-6	ng/g	0.16	0.29	0.085	5.7	0.099	0.071	0.13	11	0.40	0.12
PCB-171/173	52663-71-5	ng/g	0.051 JN	0.063	0.025	2.1	0.032	0.022 J	0.043	2.8	0.14	0.037
PCB-172	52663-74-8	ng/g	< 0.0037 U	0.046	0.0092 JN	1.2	0.018 JN	0.0099 J	0.024	2.2	0.084	0.020
PCB-174	38411-25-5	ng/g	0.12	0.20	0.082	7.5	0.13	0.071	0.16	11	0.51	0.13
PCB-175	40186-70-7	ng/g	< 0.0033 U	0.0064 J	0.0029 JN	0.31 JN	0.0030 JN	< 0.00085 U	0.0062 J	0.41	0.024	0.0047 JN
PCB-176	52663-65-7	ng/g	0.014 JN	0.021	0.0095 J	0.91	0.014	0.0052 JN	0.021	0.79	0.063	0.014 JN
PCB-177	52663-70-4	ng/g	0.096 J	0.13	0.039 JN	4.1	0.065	0.039 JN	0.088	5.4	0.31	0.081
PCB-178	52663-67-9	ng/g	0.020 JN	0.055	0.021	1.6 JN	0.024	0.018	0.038	1.9	0.11	0.026
PCB-179	52663-64-6	ng/g	0.063 JN	0.088	0.039	4.0	0.054	0.029 JN	0.086	3.6	0.22	0.058
PCB-18/30	37680-65-2	ng/g	0.76	0.017 JN	0.015 J	1.0	0.022 JN	0.020 JN	0.024	0.0090 JN	0.14	0.022 J
PCB-180/193	35065-29-3	ng/g	0.28	0.66	0.19	13	0.21	0.15	0.36	26	0.89	0.25
PCB-181	74472-47-2	ng/g	< 0.0033 U	< 0.00042 U	< 0.00035 U	< 0.0016 U	< 0.00036 U	< 0.00085 U	< 0.00072 U	< 0.000049 U	< 0.00087 U	< 0.00033 U
PCB-182	60145-23-5	ng/g	< 0.0032 U	< 0.00040 U	0.0012 JN	< 0.0015 U	0.0016 JN	< 0.00082 U	< 0.00070 U	< 0.000046 U	0.0072 J	< 0.00031 U
PCB-183/185	52663-69-1	ng/g	0.12 J	0.16	0.059	4.3	0.072	0.048	0.12	6.7	0.32	0.084
PCB-184	74472-48-3	ng/g	< 0.0027 U	< 0.00034 U	< 0.00029 U	< 0.0013 U	< 0.00029 U	< 0.00070 U	< 0.00059 U	< 0.000040 U	< 0.00071 U	< 0.00027 U
PCB-186	74472-49-4	ng/g	< 0.0027 U	< 0.00033 U	< 0.00028 U	< 0.0013 U	< 0.00028 U	< 0.00068 U	< 0.00058 U	< 0.000038 U	< 0.00068 U	< 0.00025 U
PCB-187	52663-68-0	ng/g	0.15 JN	0.29	0.12	9.1	0.14	0.10	0.23	11	0.65	0.17
PCB-188	74487-85-7	ng/g	< 0.0023 U	< 0.00028 U	< 0.00026 U	< 0.0012 U	< 0.00027 U	< 0.00059 U	< 0.00051 U	< 0.000035 U	< 0.00061 U	< 0.00023 U
PCB-189	39635-31-9	ng/g	< 0.0038 U	0.013 JN	0.0033 JN	0.26 JN	0.0041 JN	0.0027 JN	0.0039 JN	0.51	0.013	0.0033 JN
PCB-19	38444-73-4	ng/g	0.082 JN	0.049 JN	0.0049 J	2.9	0.047	0.0042 JN	0.037	0.058	0.024	0.050 JN
PCB-190	41411-64-7	ng/g	0.031 J	0.052	0.015	1.3	0.025	0.013	0.022 JN	2.4	0.066	0.024
PCB-191	74472-50-7	ng/g	< 0.0025 U	0.012	0.0023 JN	0.24 JN	0.0038 JN	0.0025 JN	0.0061 J	0.49 JN	0.017	0.0049 J
PCB-192	74472-51-8	ng/g	< 0.0028 U	< 0.00035 U	< 0.00030 U	< 0.0013 U	< 0.00029 U	< 0.00072 U	< 0.00061 U	< 0.000039 U	< 0.00069 U	< 0.00026 U
PCB-194	35694-08-7	ng/g	0.044 JN	0.40	0.038 JN	2.5	0.044	0.039	0.12	8.3	0.24	0.055
PCB-195	52663-78-2	ng/g	0.022 JN	0.17	0.017	1.1	0.017	0.011 JN	0.046	3.3	0.10	0.021 JN
PCB-196	42740-50-1	ng/g	0.037 J	0.16	0.020 JN	1.2	0.021 JN	0.011 JN	0.058	3.5	0.10	0.024
PCB-197	33091-17-7	ng/g	< 0.00049 U	0.011	0.0024 JN	0.093 JN	0.0014 JN	0.0014 J	0.0032 JN	0.24	0.0083 J	0.00096 JN
PCB-198/199	68194-17-2	ng/g	0.069 J	0.28	0.060	2.8 JN	0.055 JN	0.044	0.15	6.4	0.25	0.057
PCB-2	2051-61-8	ng/g	< 0.0043 U	0.0048 J	0.0035 JN	0.17 JN	0.0025 J	0.0033 JN	0.0060 J	0.0027 JN	< 0.0043 U	0.0056 J
PCB-20/28	38444-84-7	ng/g	0.85	0.040	0.036	3.2	0.056	0.049	0.040	0.044	0.31	0.052
PCB-200	52663-73-7	ng/g	< 0.00044 U	0.027	0.0035 JN	0.31 J	0.0050 JN	0.0032 J	0.014	0.76	0.028	0.0072 J
PCB-201	40186-71-8	ng/g	< 0.00045 U	0.030	0.0064 J	0.30 J	0.0055 JN	0.0040 J	0.016	0.78	0.032	0.0077 J
PCB-202	2136-99-4	ng/g	0.014 JN	0.043	0.011 JN	0.56	0.0099 JN	0.0097 J	0.031	1.1	0.056	0.011
PCB-203	52663-76-0	ng/g	0.028 JN	0.18	0.034	1.7	0.029 JN	0.030	0.099	3.9	0.14	0.030 JN
PCB-204	74472-52-9	ng/g	< 0.00050 U	< 0.00067 U	< 0.00011 U	< 0.015 U	< 0.00017 U	< 0.00021 U	< 0.00053 U	< 0.000083 U	< 0.00075 U	< 0.00039 U
PCB-205	74472-53-0	ng/g	< 0.0015 U	0.023	0.0023 JN	0.12 JN	0.0035 JN	< 0.0011 U	0.0046 J+	0.45	0.0096	0.0024 J
PCB-206	40186-72-9	ng/g	0.027 JN	0.10	0.040	1.6 JN	0.036 JN	0.031	0.092	1.7	0.15	0.039 JN
PCB-207	52663-79-3	ng/g	< 0.0030 U	0.014	0.0020 JN	0.14 J	0.0027 JN	0.0043 J	0.010	0.23	0.016	0.0020 JN
PCB-208	52663-77-1	ng/g	< 0.0030 U	0.019	0.012	0.32 JN	0.0094 JN	0.0086 J	0.022	0.27	0.038	0.010 J
PCB-209	2051-24-3	ng/g	0.031 J	0.028 JN	0.045	1.3 JN	0.032	0.037	0.025 JN	0.057	0.16	0.029
PCB-21/33	55702-46-0	ng/g	0.49 JN	0.012 JN	0.013 J	1.1	0.025	0.017 JN	0.013 JN	0.013 J	0.14	0.021 J
PCB-22	38444-85-8	ng/g	0.29	0.011	0.010 J	0.59 JN	0.017	0.014 JN	0.0099	0.012 J	0.076	0.014
PCB-23	55720-44-0	ng/g	< 0.011 U	< 0.00082 U	< 0.00070 U	< 0.049 U	< 0.0014 U	< 0.00082 U	< 0.00048 U	< 0.00094 U	< 0.0018 U	< 0.00093 U
PCB-24	55702-45-9	ng/g	< 0.012 U	< 0.00052 U	< 0.00030 U	< 0.011 U	< 0.00014 U	< 0.00025 U	< 0.00036 U	< 0.00032 U	< 0.00040 U	< 0.00039 U
PCB-25	55712-37-3	ng/g	0.066 J	0.0047 J	0.0041 J	0.56	0.0074 J	0.0042 J	0.0046 J	0.0045 JN	0.041	0.0082 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B372	B373	B374	B375	B376	B377	B378	B379	B380	B381
		Sample ID	PDI-SG-B372-BL1	PDI-SG-B373-BL1	PDI-SG-B374-BL1	PDI-SG-B375-BL1	PDI-SG-B376-BL1	PDI-SG-B377-BL1	PDI-SG-B378-BL1	PDI-SG-B379-BL1	PDI-SG-B380-BL1	PDI-SG-B381-BL1
		Sample Date	20 May 2018	20 May 2018	01 May 2018	27 Apr 2018	27 Apr 2018	01 May 2018	24 Apr 2018	29 Apr 2018	13 May 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.13 JN	0.0061 J	0.0046 JN	0.66 J	0.012 J	0.0063 J	0.0079 J	0.0059 JN	0.063	0.011 J
PCB-27	38444-76-7	ng/g	0.060 JN	0.0065 JN	< 0.00026 U	0.32 JN	0.0054 JN	0.0017 JN	0.0062 J	0.0039 JN	0.015	0.0075 J
PCB-3	2051-62-9	ng/g	< 0.0050 U	< 0.00041 U	0.0011 JN	0.12 JN	0.0024 JN	0.0022 J	0.0014 JN	0.0030 JN	0.013	0.0038 J
PCB-31	16606-02-3	ng/g	0.78	0.029	0.024	2.3	0.049	0.037	0.028	0.032	0.21	0.039
PCB-32	38444-77-8	ng/g	0.20 JN	0.015	0.0067 J	0.94	0.012 JN	0.0064 JN	0.013 JN	0.012 J	0.066	0.016 JN
PCB-34	37680-68-5	ng/g	< 0.012 U	< 0.00085 U	< 0.00073 U	< 0.051 U	< 0.0015 U	< 0.00085 U	< 0.00050 U	< 0.00098 U	0.0050 J	< 0.00096 U
PCB-35	37680-69-6	ng/g	< 0.011 U	< 0.00083 U	0.0016 J	< 0.049 U	0.0027 JN	< 0.00083 U	< 0.00048 U	0.0012 JN	0.0045 J	< 0.00091 U
PCB-36	38444-87-0	ng/g	< 0.011 U	< 0.00080 U	< 0.00068 U	< 0.044 U	< 0.0013 U	< 0.00079 U	< 0.00047 U	< 0.00085 U	< 0.0016 U	< 0.00083 U
PCB-37	38444-90-5	ng/g	0.11 JN	0.011	0.012	0.96 JN	0.027	0.015	0.0094 J	0.014	0.064	0.013
PCB-38	53555-66-1	ng/g	< 0.012 U	< 0.00086 U	< 0.00073 U	< 0.048 U	< 0.0014 U	< 0.00086 U	< 0.00050 U	< 0.00092 U	< 0.0017 U	< 0.00090 U
PCB-39	38444-88-1	ng/g	< 0.011 U	< 0.00077 U	< 0.00066 U	< 0.044 U	< 0.0013 U	< 0.00077 U	< 0.00045 U	< 0.00084 U	0.0040 J	< 0.00082 U
PCB-4	13029-08-8	ng/g	0.22 JN	0.035 JN	0.0083 JN	1.7	0.031	0.0072 JN	0.022 JN	0.033 JN	0.025	0.028
PCB-40/41/71	38444-93-8	ng/g	0.22 JN	0.035	0.013 JN	2.0	0.029 J	0.019 JN	0.030	0.029 J	0.25	0.034
PCB-42	36559-22-5	ng/g	0.14	0.013	0.0069 JN	0.87	0.013 JN	0.010 JN	0.0094 JN	0.013	0.14	0.018
PCB-43/73	70362-46-8	ng/g	0.041 J	0.0054 JN	< 0.0016 U	0.58 J	0.0068 J	0.0017 JN	0.0023 J	0.0070 JN	0.034	0.0097 J
PCB-44/47/65	41464-39-5	ng/g	0.46	0.12	0.052 J+	7.9	0.10	0.051 JN	0.11	0.12	0.66	0.16
PCB-45/51	70362-45-7	ng/g	0.11 JN	0.038	0.011 J+	2.6	0.031 JN	0.0076 JN	0.040	0.037 JN	0.13	0.063
PCB-46	41464-47-5	ng/g	< 0.019 U	< 0.0019 U	< 0.0022 U	0.17 JN	0.0044 J	0.0034 J	0.0046 JN	< 0.0018 U	0.033	0.0052 J
PCB-48	70362-47-9	ng/g	0.12 JN	0.0063 J	0.0057 J	0.59	0.0063 JN	0.0071 J	0.0075 J	0.0074 JN	0.070	0.011 JN
PCB-49/69	41464-40-8	ng/g	0.32	0.079	0.030	5.2	0.068	0.033	0.072	0.072	0.52	0.085
PCB-5	16605-91-7	ng/g	< 0.088 U	< 0.0034 U	< 0.0040 U	< 0.050 U	< 0.0013 U	< 0.0041 U	< 0.0026 U	< 0.00080 U	< 0.00047 U	< 0.00080 U
PCB-50/53	62796-65-0	ng/g	0.10 J	0.041	0.0086 J	3.0	0.039	0.0076 J	0.038	0.041	0.10	0.056
PCB-52	35693-99-3	ng/g	0.59	0.13	0.065	7.8	0.12	0.070	0.12	0.12	0.81	0.15
PCB-54	15968-05-5	ng/g	< 0.0012 U	0.013	0.0011 J	0.98	0.0097 JN	< 0.000060 U	0.0079 JN	0.016	0.0080 JN	0.017
PCB-55	74338-24-2	ng/g	< 0.011 U	< 0.0011 U	< 0.0013 U	< 0.058 U	0.0032 J	0.0012 JN	< 0.00070 U	< 0.00098 U	0.016	< 0.0011 U
PCB-56	41464-43-1	ng/g	0.040 J	0.018	0.015	1.9	0.021 JN	0.022	0.015	0.021	0.18	0.023 JN
PCB-57	70424-67-8	ng/g	< 0.011 U	< 0.0011 U	< 0.0013 U	< 0.059 U	< 0.0012 U	< 0.00086 U	< 0.00071 U	< 0.0010 U	< 0.0011 U	< 0.0012 U
PCB-58	41464-49-7	ng/g	< 0.011 U	< 0.0011 U	< 0.0013 U	< 0.057 U	< 0.0011 U	< 0.00087 U	< 0.00072 U	< 0.00096 U	0.0080 J	< 0.0011 U
PCB-59/62/75	74472-33-6	ng/g	0.048 J	0.0041 JN	0.0015 JN	0.45 J	0.0055 J	0.0034 JN	0.0054 J	0.0072 J	0.045	0.0089 J
PCB-6	25569-80-6	ng/g	0.10 J	< 0.0030 U	< 0.0035 U	0.14 J	0.0034 J	< 0.0036 U	0.0049 JN	0.0033 J	0.018	< 0.00079 U
PCB-60	33025-41-1	ng/g	< 0.011 U	0.0087 J	0.0071 J	0.73 JN	0.011 JN	0.0072 JN	0.0050 JN	0.0095 J	0.039	0.016
PCB-61/70/74/76	33284-53-6	ng/g	0.25 J	0.099	0.084	7.6	0.093	0.091	0.082	0.096	0.76	0.13
PCB-63	74472-34-7	ng/g	< 0.010 U	0.0021 J	< 0.0012 U	0.20 J	0.0023 J	0.0024 J	0.0013 JN	0.0021 J	0.017	0.0025 J
PCB-64	52663-58-8	ng/g	0.19	0.021	0.017	1.3	0.022	0.019	0.019	0.022	0.17	0.026
PCB-66	32598-10-0	ng/g	0.14	0.054	0.043	4.8	0.059	0.052	0.047	0.058	0.49	0.078
PCB-67	73575-53-8	ng/g	< 0.0098 U	0.0011 JN	< 0.0011 U	< 0.055 U	< 0.0011 U	0.0014 J+	< 0.00061 U	< 0.00092 U	0.013	0.0028 J
PCB-68	73575-52-7	ng/g	< 0.010 U	0.0014 JN	< 0.0011 U	0.12 J	0.0019 J	< 0.00076 U	0.0015 JN	0.0020 JN	0.017	0.0019 JN
PCB-7	33284-50-3	ng/g	< 0.079 U	< 0.0031 U	< 0.0036 U	< 0.047 U	< 0.0012 U	< 0.0037 U	< 0.0023 U	0.0011 JN	0.0039 J	< 0.00075 U
PCB-72	41464-42-0	ng/g	< 0.011 U	0.0016 JN	< 0.0013 U	0.099 JN	< 0.0011 U	< 0.00084 U	< 0.00070 U	0.0018 J	0.028	< 0.0011 U
PCB-77	32598-13-3	ng/g	< 0.011 U	0.0055 JN	0.0069 J	0.72	0.0093 J	0.0079 JN	0.0044 J	0.0053 JN	0.035	0.0071 JN
PCB-78	70362-49-1	ng/g	< 0.011 U	< 0.0011 U	< 0.0013 U	< 0.057 U	< 0.0011 U	< 0.00087 U	< 0.00072 U	< 0.00097 U	< 0.0011 U	< 0.0011 U
PCB-79	41464-48-6	ng/g	< 0.0099 U	0.0011 JN	< 0.0011 U	< 0.049 U	< 0.00095 U	0.0021 JN	< 0.00062 U	< 0.00083 U	0.012	0.0017 J
PCB-8	34883-43-7	ng/g	0.42 JN	0.011 JN	0.0088 JN	0.76	0.013 JN	0.013 JN	0.012 JN	0.0089 JN	0.069	0.011 J
PCB-80	33284-52-5	ng/g	< 0.0097 U	< 0.00097 U	< 0.0011 U	< 0.051 U	< 0.00099 U	< 0.00074 U	< 0.00061 U	< 0.00086 U	< 0.00096 U	< 0.00099 U
PCB-81	70362-50-4	ng/g	< 0.010 U	< 0.0010 U	< 0.0012 U	< 0.053 U	< 0.0010 U	< 0.00082 U	< 0.00064 U	< 0.00091 U	< 0.0010 U	< 0.0011 U
PCB-82	52663-62-4	ng/g	< 0.0031 U	0.012 JN	0.013 JN	1.1	0.019	0.015 JN	0.012	0.018 JN	0.090	0.019 JN
PCB-83/99	60145-20-2	ng/g	0.17 JN	0.12	0.092	8.1	0.13	0.088	0.11	0.27	0.81	0.13
PCB-84	52663-60-2	ng/g	0.037 JN	0.041	0.029	2.2	0.027	0.022 JN	0.032	0.039	0.28	0.039
PCB-85/116/117	65510-45-4	ng/g	0.016 JN	0.033	0.030 J	1.8	0.033 J	0.030 J	0.023 J	0.047	0.13	0.037
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.10 J	0.13	0.091	6.2	0.089 JN	0.076 JN	0.092	0.21	0.55	0.13
PCB-88/91	55215-17-3	ng/g	0.062 JN	0.052	0.019 J	3.0	0.034	0.018 J	0.042	0.062	0.24	0.045
PCB-89	73575-57-2	ng/g	< 0.0031 U	< 0.00038 U	< 0.00027 U	< 0.053 U	0.0019 JN	< 0.00050 U	< 0.00050 U	< 0.0011 U	0.0087 JN	0.0018 JN
PCB-9	34883-39-1	ng/g	< 0.081 U	< 0.0032 U	< 0.0037 U	< 0.055 U	< 0.0014 U	< 0.0038 U	< 0.0024 U	< 0.00087 U	0.0043 JN	< 0.00088 U
PCB-90/101/113	68194-07-0	ng/g	0.25 J	0.32	0.16	15	0.24	0.14	0.23	0.34	1.2	0.24
PCB-92	52663-61-3	ng/g	0.041 JN	0.052	0.026	3.2	0.041	0.027	0.039	0.16	0.31	0.047
PCB-93/100	73575-56-1	ng/g	< 0.0027 U	0.014 JN	0.0051 JN	0.97 JN	0.013 JN	0.0041 J	0.016 J	0.039 JN	0.046	0.021 JN
PCB-94	73575-55-0	ng/g	< 0.0030 U	0.0043 JN	0.0018 J	< 0.054 U	0.0025 JN	< 0.00050 U	0.0041 J	0.014 JN	0.0073 J	0.0058 J
PCB-95	38379-99-6	ng/g	0.26 JN	0.29	0.11 JN	13	0.18	0.11	0.21	0.15	1.1	0.20
PCB-96	73575-54-9	ng/g	< 0.0023 U	0.0048 JN	< 0.00020 U	0.32 J	0.0025 J	< 0.00037 U	0.0036 J	< 0.00083 U	0.011	0.0048 JN
PCB-98/102	60233-25-2	ng/g	< 0.0026 U	0.0098 J	0.0051 JN	0.75 JN	0.0057 JN	0.0018 JN	0.0079 J	0.030	0.053	0.010 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	13	8.7	3.7	316	4.9	3.5	6.2	147	26	5.8

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B372	B373	B374	B375	B376	B377	B378	B379	B380	B381
		Sample ID	PDI-SG-B372-BL1	PDI-SG-B373-BL1	PDI-SG-B374-BL1	PDI-SG-B375-BL1	PDI-SG-B376-BL1	PDI-SG-B377-BL1	PDI-SG-B378-BL1	PDI-SG-B379-BL1	PDI-SG-B380-BL1	PDI-SG-B381-BL1
		Sample Date	20 May 2018	20 May 2018	01 May 2018	27 Apr 2018	27 Apr 2018	01 May 2018	24 Apr 2018	29 Apr 2018	13 May 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 1.8 U	< 1.6 U	< 0.57 U	< 0.56 U	< 0.60 U	< 0.61 U	< 0.34 U	< 0.64 U	3.6	< 0.59 U
2,4-DDE	3424-82-6	µg/kg	< 1.8 U	< 1.6 U	< 0.57 U	< 0.56 U	< 0.60 U	< 0.61 U	< 0.34 U	< 0.64 U	0.90	< 0.59 U
2,4-DDT	789-02-6	µg/kg	< 1.8 UJ	< 1.6 UJ	< 0.57 U	< 0.56 U	< 0.60 U	< 0.61 U	< 0.34 U	< 0.64 U	< 0.47 U	< 0.59 U
4,4'-DDD	72-54-8	µg/kg	0.77 J	0.64 J	0.76	1.1	0.86	0.88	0.40	1.1	9.3	0.95
4,4'-DDE	72-55-9	µg/kg	1.8	1.3 J	1.7	1.8	1.8	2.3	1.1	2.2	9.8	2.0
4,4'-DDT	50-29-3	µg/kg	< 1.8 U	< 1.6 U	0.41 J	0.43 J	0.31 J	0.48 J	0.50 J	0.52 J	0.93	0.37 J
Total DDx (b)	T_DDx (PDI)	µg/kg	3.5	2.7	3.2	3.6	3.3	4.0	2.2	4.1	25	3.6
Aldrin	309-00-2	µg/kg	< 1.8 U	< 1.6 U	< 0.57 U	< 0.56 U	< 0.60 U	< 0.61 U	< 0.34 U	< 0.64 U	< 0.46 U	< 0.59 U
alpha-Chlordane	5103-71-9	µg/kg	< 3.6 U	< 3.3 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.68 U	< 1.3 U	0.66 J	< 1.2 U
cis-Nonachlor	5103-73-1	µg/kg	< 1.8 U	< 1.6 U	< 0.57 U	< 0.56 U	< 0.60 U	< 0.61 U	< 0.34 U	< 0.64 U	< 0.49 U	< 0.59 U
Dieldrin	60-57-1	µg/kg	< 3.6 U	< 3.3 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.68 U	< 1.3 U	< 1.0 U	< 1.2 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 1.8 U	< 1.6 U	< 0.57 U	< 0.56 U	< 0.60 U	< 0.61 U	< 0.34 U	< 0.64 U	0.21 J	< 0.59 U
gamma-Chlordane	5566-34-7	µg/kg	< 3.6 U	< 3.3 U	< 1.1 U	< 1.1 U	< 1.2 U	0.42 J	< 0.68 U	< 1.3 U	1.2	< 1.2 U
Heptachlor	76-44-8	µg/kg	< 1.8 U	< 1.6 U	< 0.57 U	< 0.56 U	< 0.60 U	< 0.61 U	< 0.34 U	< 0.64 U	< 0.46 UJ	< 0.59 U
Oxychlordane	27304-13-8	µg/kg	< 3.6 U	< 3.3 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.68 U	< 1.3 U	< 1.0 UJ	< 1.2 U
trans-Nonachlor	39765-80-5	µg/kg	< 3.6 U	< 3.3 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.2 U	< 0.68 U	0.56 J	0.52 J	< 1.2 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 3.6 U	< 3.3 U	< 1.1 U	< 1.1 U	< 1.2 U	1.02	< 0.68 U	1.21	2.88	< 1.2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.9	3.8	2.1	1.9	2.0	1.7	2.2	2.3	15	2.0
Acenaphthene	83-32-9	µg/kg	1.9	3.6	2.5	0.97	1.1	2.9	7.0	1.2	41	1.1
Acenaphthylene	208-96-8	µg/kg	2.6	1.9	1.9	3.4	2.1	1.6	0.98	2.4	38	1.6
Anthracene	120-12-7	µg/kg	4.1	4.0	5.6	4.2	3.7	5.9	3.2	5.1	40	3.5 J
Benz(a)anthracene	56-55-3	µg/kg	9.1	13	14	17	14	16	7.3	15	380	13
Benzo(a)pyrene	50-32-8	µg/kg	21	20	25	25	20	25	8.3	20	290	15 J
Benzo(b)fluoranthene	205-99-2	µg/kg	20	23	35	35	29	36	11	33	390	23
Benzo(g,h,i)perylene	191-24-2	µg/kg	14	11	23	26	20	22	8.0	21	200	15
Benzo(k)fluoranthene	207-08-9	µg/kg	7.2	7.6	13	10	8.3	13	3.2	9.4	140	6.4 J
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	100 J	70 J	76 J	81 J	87 J	93 J	62 J	110 J	48 J	120 J
Chrysene	218-01-9	µg/kg	16	20	27	29	22	22	9.9	27	400	20
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.5	2.2	3.6	4.1	3.4	3.6	1.5	3.7	46	2.8
Fluoranthene	206-44-0	µg/kg	29	32	33	44	35	40	19	47	610	32 J
Fluorene	86-73-7	µg/kg	2.9	3.9	3.4	2.2	2.2	3.7	4.6	2.8	35	2.2 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	12	9.9	20	23	18	20	6.8	19	210	13 J
Naphthalene	91-20-3	µg/kg	3.8	2.7	2.2	3.3	3.3	2.4	3.2	3.2	29	3.0
Phenanthrene	85-01-8	µg/kg	15	15	18	13	15	20	14	28	140	14 J
Pyrene	129-00-0	µg/kg	25	27	33	49	38	39	19	46	670	34 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	188	201	262	291	237	275	129	286	3674	202
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	28	27	36	37	30	36	12	31	436	23
Metals												
Arsenic	7440-38-2	mg/kg	3.5	4.0	4.8	4.6	5.1	4.7	3.7	5.1	3.8	4.8
Cadmium	7440-43-9	mg/kg	0.20 J	0.16 J	0.19 J	0.16 J	0.16 J	0.20 J	0.074 J	0.18 J	0.25	0.18 J
Copper	7440-50-8	mg/kg	29	31	38	37	42	37	24	42	33	40
Lead	7439-92-1	mg/kg	8.6	8.9	9.9	10	10	9.4	8.5	9.9	17	11
Mercury	7439-97-6	mg/kg	0.039 J	0.039 J	0.071	0.17	0.17	0.072	0.028 J	0.15	0.089	0.16
Tri-n-butyltin	36643-28-4	µg/kg	< 2.1 U	< 2.0 U	< 2.3 U	< 2.3 U	< 2.4 U	< 2.4 U	< 1.7 U	< 2.6 U	< 1.8 U	< 2.4 U
Zinc	7440-66-6	mg/kg	81	85	99	96	100	92	81	100	90	100
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	61 J	47 J	50 J	55 J	80 J	79 J	22 J	97 J	81 J	49 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	380	310	290	310	490	440	130	450	390	280
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	45.9	49.0							54.1	
Total Solids@104C - E160.3 (f)	TSOLID	%			44.7	42.9	39.9	41.1	63.1	37.5		41.7
Total Solids@104C - E160.3M (f)	TSOLID	%	46.1	49.0	43.5	44.0	40.9	40.8	58.0	38.2	54.8	41.9
Total Solids@70C	TSOLID70	%	46	49	45	44	41	42	58	38	54	42
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	4.1	0
Sand, Coarse	GS-Csand	%	0.1	0.2	0	0.2	0.2	0	0	0	1.0	0
Sand, Medium	GS-Msand	%	0.8	1.2	0.1	0.2	0.2	0.1	1.1	0.1	6.0	0.3
Sand, Fine (#200) (d)	GS-Fsand-200	%	31.76	37.46	27.12	27.64	20.28	19.55	64.37	16.26	25.46	23.84
Sand, Fine (#230) (d)	GS-Fsand	%	38.9	43.6	32.5	32.9	24.9	24.4	66.3	20.4	28.2	29.3
Silt (#200) (d)	GS-Silt-200	%	57.73	51.93	64.17	60.75	66.01	71.54	28.12	74.03	51.83	66.75

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B372	B373	B374	B375	B376	B377	B378	B379	B380	B381
		Sample ID	PDI-SG-B372-BL1	PDI-SG-B373-BL1	PDI-SG-B374-BL1	PDI-SG-B375-BL1	PDI-SG-B376-BL1	PDI-SG-B377-BL1	PDI-SG-B378-BL1	PDI-SG-B379-BL1	PDI-SG-B380-BL1	PDI-SG-B381-BL1
		Sample Date	20 May 2018	20 May 2018	01 May 2018	27 Apr 2018	27 Apr 2018	01 May 2018	24 Apr 2018	29 Apr 2018	13 May 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	50.6	45.8	58.8	55.5	61.4	66.7	26.2	69.9	49.1	61.3
Clay	GS-Clay	%	9.5	9.3	8.7	11.5	13.4	8.7	6.4	9.6	11.6	9.2
Percent Fines (e)	GS-FINES	%	67.23	61.23	72.87	72.25	79.41	80.24	34.52	83.63	63.43	75.95
Total Organic Carbon	TOC	mg/kg	22000	17000	19000	19000	23000	23000	10000	25000	17000	23000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B381	B382	B383	B384	B385	B386	B387	B388	B388	B389
		Sample ID	PDI-SG-B381-BL1-D	PDI-SG-B382-BL1	PDI-SG-B383-BL1	PDI-SG-B384-BL1	PDI-SG-B385-BL1	PDI-SG-B386-BL1	PDI-SG-B387-BL1	PDI-SG-B388-BL1	PDI-SG-B388-BL1-D	PDI-SG-B389-BL1
		Sample Date	29 Apr 2018	01 May 2018	01 May 2018	24 Apr 2018	28 Apr 2018	28 Apr 2018	01 May 2018	27 Apr 2018	27 Apr 2018	20 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-19 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.049	0.051	0.13	0.031	0.080	0.054	0.031	0.062	0.095	0.56
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0089	0.0083 JN	0.020 JN	0.0053 JN	0.012 JN	0.0098 JN	0.0048 JN	0.0064 J	0.025 J	0.058 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00059 J+	0.00068 J+	0.0018 J	0.00060 J+	0.00099 J	0.00065 J+	0.00049 J+	< 0.00047 U	0.0014 J+	0.0032 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00074 J+	0.00071 J	0.0010 J	0.00052 J+	0.00090 J+	0.00064 J+	0.00048 J	0.00060 JN	0.0013 J+	0.0062
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0011 J+	< 0.000020 U	0.0027 J	0.00055 J	0.0028 J	< 0.00014 U	0.00053 JN	0.00070 J+	0.0012 J+	0.0041 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0022 J	0.0021 J	0.0038 J	0.0013 J	0.0030 J	0.0021 J	0.0013 J	0.0024 J	0.0034 J	0.028
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00049 J+	< 0.00019 U	0.00094 J	0.00036 J	0.0035 J	0.00033 JN	0.00035 J	0.00039 J+	0.00089 J+	0.0054
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0016 J	0.0016 J	0.0023 J	0.0011 J	0.0023 J	0.0017 J	0.0011 J	0.0013 J	0.0026 J	0.015
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00013 U	< 0.00030 U	< 0.00031 U	0.00025 JN	< 0.00015 U	< 0.00021 U	0.00050 J+	< 0.00014 U	< 0.00011 U	< 0.00044 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00033 J	0.00045 J	0.00066 J	0.00034 J	0.00080 J	0.00035 J+	0.00034 J	< 0.00022 U	0.00051 J	0.0035 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00020 U	0.00025 J	0.00040 J	0.00019 J	< 0.00033 U	0.00024 J+	< 0.000054 U	< 0.000075 U	< 0.000077 U	0.0015 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00039 J+	0.00034 J	0.00056 J	0.00012 J	0.0030 J	0.00029 J+	< 0.000092 U	< 0.00021 U	0.00058 J+	0.0022 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00027 U	< 0.000083 U	0.00051 J	0.00019 J	0.0014 J	0.00024 J+	0.00019 J	< 0.00028 U	< 0.00023 U	0.00087 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00031 J	< 0.000062 U	0.00050 JN	0.00014 JN	0.00031 JN	0.00024 JN	< 0.000050 U	< 0.000092 U	0.00014 JN	0.00026 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00048 J+	0.00048 J+	0.00056 J+	0.00031 J	0.00089 J+	0.00068 J+	0.00036 J+	0.00049 J+	0.00051 J+	0.00067 J
OCDD	3268-87-9	µg/kg	0.39	0.39	1.3	0.24	0.65	0.46	0.25	0.52	0.76	3.1
OCDF	39001-02-0	µg/kg	0.029	0.026	0.11	0.018	0.043	0.049	0.017	0.023 J	0.080 J	0.14
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0021	0.0017	0.0045	0.0014	0.0043	0.0021	0.0013	0.0015	0.0032	0.017
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0021	0.0017	0.0042	0.0013	0.0042	0.0019	0.0012	0.0015	0.0031	0.017
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0021	0.0017	0.004	0.0012	0.004	0.0018	0.0012	0.0014	0.003	0.017
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0025 J	< 0.00036 U	< 0.00039 U	< 0.00032 U	< 0.00034 U	0.0015 J	0.0039 J	0.010 J	0.0033 JN	< 0.00018 U
PCB-10	33146-45-1	ng/g	< 0.0010 U	< 0.0051 U	< 0.0085 U	< 0.0059 U	< 0.0032 U	< 0.0029 U	< 0.0056 U	0.0059 JN	0.0041 JN	0.0036 JN
PCB-103	60145-21-3	ng/g	0.011 J	< 0.00070 U	< 0.00038 U	< 0.00058 U	0.016	0.019 JN	< 0.00054 U	0.070	0.056	0.039
PCB-104	56558-16-8	ng/g	0.0014 JN	< 0.00053 U	< 0.00029 U	< 0.00044 U	< 0.00018 U	0.0020 JN	< 0.00041 U	0.017 J	0.0062 JN	< 0.00027 U
PCB-105	32598-14-4	ng/g	0.053	0.069	0.095	0.061	0.080	0.049	0.078	0.12 JN	0.088	0.24
PCB-106	70424-69-0	ng/g	< 0.0024 U	< 0.0018 U	< 0.0022 U	< 0.0015 U	< 0.0019 U	< 0.0010 U	< 0.0017 U	< 0.0065 U	< 0.0032 U	< 0.0030 U
PCB-107	70424-68-9	ng/g	0.014 JN	0.011 J	0.018 JN	0.012 JN	0.017	0.012	0.016	0.034 J	0.024	0.053
PCB-108/124	70362-41-3	ng/g	0.0058 J	0.0071 JN	0.011 J	0.0045 JN	0.0056 JN	0.0043 J	0.0098 J	0.012 JN	0.012 JN	0.033
PCB-11	2050-67-1	ng/g	0.051	0.044	0.068	0.043 JN	0.051 JN	0.040	0.047	0.063 J	0.059	0.063
PCB-110/115	38380-03-9	ng/g	0.21	0.20	0.29	0.18	0.33	0.25	0.22	0.52	0.65	1.8
PCB-111	39635-32-0	ng/g	< 0.00075 U	< 0.00049 U	< 0.00027 U	< 0.00041 U	< 0.00017 U	< 0.00016 U	< 0.00038 U	< 0.0015 U	< 0.00037 U	< 0.00025 U
PCB-112	74472-36-9	ng/g	< 0.00082 U	< 0.00052 U	0.0014 JN	< 0.00043 U	0.0022 J	< 0.00017 U	< 0.00040 U	< 0.0017 U	< 0.00040 U	< 0.00027 U
PCB-114	74472-37-0	ng/g	< 0.0022 U	0.0040 J	< 0.0022 U	< 0.0013 U	< 0.0018 U	0.0029 JN	< 0.0016 U	< 0.0058 U	0.0056 JN	0.015
PCB-118	31508-00-6	ng/g	0.13	0.15	0.24	0.14	0.20	0.14	0.20	0.38	0.28	0.79
PCB-12/13	2974-92-7	ng/g	0.0049 JN	< 0.0046 U	< 0.0077 U	< 0.0053 U	< 0.0029 U	< 0.0027 U	0.0057 JN	0.0048 JN	0.0061 JN	< 0.0033 U
PCB-120	68194-12-7	ng/g	0.0015 JN	< 0.00050 U	< 0.00027 U	< 0.00041 U	< 0.00017 U	< 0.00017 U	< 0.00039 U	0.0033 JN	0.0054 JN	0.0080 JN
PCB-121	56558-18-0	ng/g	< 0.00080 U	< 0.00051 U	< 0.00028 U	< 0.00042 U	< 0.00017 U	< 0.00017 U	< 0.00040 U	0.011 JN	< 0.00039 U	< 0.00026 U
PCB-122	76842-07-4	ng/g	< 0.0027 U	0.0025 J	< 0.0025 U	< 0.0017 U	< 0.0022 U	0.0027 J	< 0.0019 U	< 0.0072 U	< 0.0035 U	0.017
PCB-123	65510-44-3	ng/g	0.0031 JN	0.0032 J	0.0029 JN	0.0041 J	< 0.0019 U	0.0022 J	0.0054 JN	< 0.0057 U	0.0044 J	0.021 JN
PCB-126	57465-28-8	ng/g	< 0.0023 U	< 0.0017 U	< 0.0020 U	< 0.0016 U	< 0.0023 U	< 0.0011 U	< 0.0018 U	< 0.0067 U	< 0.0032 U	< 0.0033 U
PCB-127	39635-33-1	ng/g	< 0.0023 U	< 0.0018 U	< 0.0022 U	< 0.0015 U	< 0.0019 U	< 0.0010 U	< 0.0017 U	< 0.0062 U	< 0.0030 U	< 0.0030 U
PCB-128/166	38380-07-3	ng/g	0.045	0.040	0.051	0.033	0.071	0.049	0.048	0.21	0.15	0.65
PCB-129/138/160/163	55215-18-4	ng/g	0.35	0.28	0.37	0.26	0.58	0.54	0.36	2.4	1.7	8.7
PCB-130	52663-66-8	ng/g	0.019	0.013 JN	0.016 JN	0.014	0.025 JN	0.018 JN	0.023	0.098	0.078	0.30
PCB-131	61798-70-7	ng/g	< 0.0013 U	0.0039 J	< 0.0024 U	< 0.0024 U	< 0.0037 U	0.0033 JN	< 0.0025 U	< 0.0079 UJ	0.018 J	0.057
PCB-132	38380-05-1	ng/g	0.10	0.055 JN	0.10	0.061	0.18	0.17	0.11	0.64	0.60	2.5
PCB-133	35694-04-3	ng/g	0.0048 JN	0.0043 J	< 0.0021 U	< 0.0022 U	0.010 J	0.011	0.0037 J	0.049	0.045	0.097
PCB-134/143	52704-70-8	ng/g	0.018 JN	0.0062 JN	0.012 JN	0.0071 JN	0.029 JN	0.030	0.013 JN	0.13	0.13	0.42
PCB-135/151	52744-13-5	ng/g	0.15	0.052 JN	0.11	0.061	0.22	0.25	0.11	1.1	0.91	3.5
PCB-136	38411-22-2	ng/g	0.057	0.016 JN	0.035	0.020 JN	0.083	0.11	0.029 JN	0.39	0.43	1.1
PCB-137	35694-06-5	ng/g	0.0081 JN	0.011 J	0.012 JN	0.0035 JN	0.014 JN	0.0081 J	0.011	0.046 J	0.023 JN	0.081
PCB-139/140	56030-56-9	ng/g	0.0029 JN	0.0036 J	< 0.0019 U	0.0042 JN	< 0.0030 U	0.0055 J	< 0.0020 U	< 0.0066 U	0.017 J	0.037
PCB-14	34883-41-5	ng/g	< 0.00078 U	< 0.0039 U	< 0.0065 U	< 0.0045 U	< 0.0025 U	< 0.0023 U	< 0.0043 U	< 0.0019 U	< 0.00072 U	< 0.0028 U
PCB-141	52712-04-6	ng/g	0.082	0.036	0.050 JN	0.043	0.11	0.12	0.059	0.69	0.48	2.4
PCB-142	41411-61-4	ng/g	< 0.0012 U	< 0.0014 U	< 0.0021 U	< 0.0022 U	< 0.0034 U	< 0.0023 U	< 0.0022 U	< 0.0075 U	< 0.0024 U	< 0.0084 U
PCB-144	68194-14-9	ng/g	0.015 JN	0.0069 JN	0.013 JN	0.0050 JN	0.020 JN	0.025	0.0079 JN	0.14	0.12	0.44
PCB-145	74472-40-5	ng/g	0.00047 JN	< 0.000096 U	< 0.00013 U	< 0.00031 U	< 0.00016 U	< 0.00036 U	< 0.00014 U	< 0.0022 U	< 0.00028 U	< 0.000097 U
PCB-146	51908-16-8	ng/g	0.052 JN	0.033 JN	0.056	0.036	0.10	0.092	0.062	0.41	0.31	1.3
PCB-147/149	68194-13-8	ng/g	0.33	0.17	0.28	0.19	0.66	0.69	0.26	2.5	2.0	8.8
PCB-148	74472-41-6	ng/g	< 0.00011 U	< 0.00014 U	< 0.00019 U	< 0.00044 U	0.0019 JN	0.0024 J	< 0.00020 U	0.0098 JN	0.0058 JN	0.0097

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B381	B382	B383	B384	B385	B386	B387	B388	B388	B389
		Sample ID	PDI-SG-B381-BL1-D	PDI-SG-B382-BL1	PDI-SG-B383-BL1	PDI-SG-B384-BL1	PDI-SG-B385-BL1	PDI-SG-B386-BL1	PDI-SG-B387-BL1	PDI-SG-B388-BL1	PDI-SG-B388-BL1-D	PDI-SG-B389-BL1
		Sample Date	29 Apr 2018	01 May 2018	01 May 2018	24 Apr 2018	28 Apr 2018	28 Apr 2018	01 May 2018	27 Apr 2018	27 Apr 2018	20 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-19 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.011 J	0.0089 JN	0.013 JN	0.0073 JN	0.0072 JN	0.010 JN	0.0095 JN	0.015 J	0.017	0.011 JN
PCB-150	68194-08-1	ng/g	0.0012 JN	< 0.000092 U	< 0.00013 U	< 0.00030 U	0.0037 J	0.0034 JN	< 0.00014 U	0.019 JN	0.011	0.0068 JN
PCB-152	68194-09-2	ng/g	0.00092 JN	< 0.000099 U	< 0.00014 U	< 0.00032 U	0.00059 JN	0.0015 JN	< 0.00015 U	0.012 JN	0.0080 J	< 0.000099 U
PCB-153/168	35065-27-1	ng/g	0.32	0.21	0.28	0.20	0.51	0.51	0.29	2.6	1.9	8.6
PCB-154	60145-22-4	ng/g	0.0074 JN	0.0020 JN	0.0026 JN	0.0031 JN	0.0088 JN	0.011	< 0.00016 U	0.048 J	0.036	0.061 JN
PCB-155	33979-03-2	ng/g	< 0.000074 U	< 0.000092 U	< 0.00013 U	< 0.00030 U	< 0.00015 U	< 0.00035 U	< 0.00014 U	< 0.0020 U	< 0.00026 U	< 0.000093 U
PCB-156/157	38380-08-4	ng/g	0.029	0.025 J	0.039	0.025	0.040	0.035	0.031	0.16	0.10	0.55
PCB-158	74472-42-7	ng/g	0.034	0.021	0.032	0.019	0.051	0.044	0.032	0.24	0.16	0.77
PCB-159	39635-35-3	ng/g	0.0046 J	< 0.00094 U	< 0.0014 U	< 0.0015 U	0.0042 JN	0.0060 J	< 0.0015 U	0.050	0.036	0.12
PCB-16	38444-78-9	ng/g	0.0052 JN	0.0037 JN	0.0081 JN	0.0041 JN	0.0062 JN	0.0043 JN	0.0089 J	0.0052 JN	0.012	0.0075 JN
PCB-161	74472-43-8	ng/g	< 0.00079 U	< 0.00093 U	< 0.0014 U	< 0.0014 U	< 0.0022 U	< 0.0015 U	< 0.0015 U	< 0.0049 U	< 0.0016 U	< 0.0056 U
PCB-162	39635-34-2	ng/g	< 0.00075 U	< 0.00092 U	< 0.0014 U	< 0.0014 U	< 0.0022 U	< 0.0015 U	< 0.0015 U	< 0.0046 U	< 0.0015 U	0.011
PCB-164	74472-45-0	ng/g	0.029	0.013 JN	0.022 JN	0.014 JN	0.040	0.038	0.023	0.17	0.15	0.63
PCB-165	74472-46-1	ng/g	< 0.00090 U	< 0.0011 U	< 0.0016 U	< 0.0016 U	< 0.0026 U	< 0.0017 U	< 0.0017 U	< 0.0056 U	< 0.0018 U	< 0.0063 U
PCB-167	52663-72-6	ng/g	0.011 J	0.0084 J	0.014	0.0069 JN	0.015	0.011 JN	0.013	0.057 JN	0.043	0.21
PCB-169	32774-16-6	ng/g	< 0.00060 U	< 0.00070 U	< 0.0011 U	< 0.0011 U	< 0.0020 U	< 0.0012 U	< 0.0012 U	< 0.0039 U	< 0.0012 U	0.017 JN
PCB-17	37680-66-3	ng/g	0.021	0.0069 JN	0.012	0.0091 J	0.019 JN	0.038	0.011	0.085	0.093	0.044
PCB-170	35065-30-6	ng/g	0.10	0.069	0.10	0.067	0.15	0.18	0.090	1.2	0.81	4.4
PCB-171/173	52663-71-5	ng/g	0.032	0.015 JN	0.023 JN	0.020 JN	0.045	0.053	0.029	0.41	0.26	1.3
PCB-172	52663-74-8	ng/g	0.018	0.0085 JN	0.011 JN	0.0080 JN	0.023	0.028	0.015 JN	0.23	0.15	0.62
PCB-174	38411-25-5	ng/g	0.13	0.070	0.11	0.067	0.18	0.20	0.097	1.5	1.0	3.9
PCB-175	40186-70-7	ng/g	0.0051 J	< 0.0012 U	< 0.00077 U	< 0.0017 U	0.0049 JN	0.0079 J	0.0027 JN	0.072	0.035 JN	0.14
PCB-176	52663-65-7	ng/g	0.011 JN	0.0073 J	0.013	0.0075 J	0.018 JN	0.025	0.0097 J	0.18 JN	0.12	0.50
PCB-177	52663-70-4	ng/g	0.070	0.036 JN	0.057	0.039	0.099	0.12	0.045	0.89	0.59	2.3
PCB-178	52663-67-9	ng/g	0.030	0.017	0.025	0.014 JN	0.041	0.047	0.023	0.34 J	0.20 J	0.70
PCB-179	52663-64-6	ng/g	0.061	0.024	0.049	0.027	0.086	0.10	0.043	0.66	0.45	1.6
PCB-18/30	37680-65-2	ng/g	0.019 J	0.012 J	0.019 JN	0.014 JN	0.022 J	0.017 JN	0.015 JN	0.035 J	0.040	0.030
PCB-180/193	35065-29-3	ng/g	0.23	0.15	0.26	0.13	0.31	0.39	0.20	2.9	1.8	8.3
PCB-181	74472-47-2	ng/g	< 0.00011 U	< 0.0012 U	< 0.00077 U	< 0.0017 U	< 0.00033 U	< 0.00077 U	< 0.00049 U	< 0.0041 U	< 0.00053 U	< 0.00013 U
PCB-182	60145-23-5	ng/g	0.0012 JN	< 0.0011 U	< 0.00074 U	< 0.0016 U	< 0.00032 U	0.0027 J	< 0.00048 U	< 0.0039 U	< 0.00050 U	0.035
PCB-183/185	52663-69-1	ng/g	0.070	0.039	0.068 JN	0.043	0.12	0.13	0.063	0.95	0.62	2.9
PCB-184	74472-48-3	ng/g	< 0.000093 U	< 0.00096 U	< 0.00063 U	< 0.0014 U	< 0.00027 U	< 0.00064 U	< 0.00040 U	< 0.0034 U	< 0.00043 U	< 0.00011 U
PCB-186	74472-49-4	ng/g	< 0.000089 U	< 0.00094 U	< 0.00061 U	< 0.0013 U	< 0.00026 U	< 0.00062 U	< 0.00039 U	< 0.0032 U	< 0.00041 U	< 0.00010 U
PCB-187	52663-68-0	ng/g	0.17	0.086	0.14	0.083	0.24	0.25	0.12	1.8	1.1	4.2
PCB-188	74487-85-7	ng/g	< 0.000082 U	< 0.00085 U	< 0.00053 U	< 0.0011 U	< 0.00021 U	< 0.00053 U	< 0.00032 U	< 0.0030 U	< 0.00038 U	< 0.000089 U
PCB-189	39635-31-9	ng/g	0.0042 J	< 0.0025 U	< 0.0024 U	< 0.0019 U	< 0.0027 U	0.0050 J	< 0.0023 U	0.039 J	0.029	0.13
PCB-19	38444-73-4	ng/g	0.049 JN	0.0051 JN	0.0075 J	0.013	0.069	0.11	< 0.00035 U	0.24 JN	0.27	0.11
PCB-190	41411-64-7	ng/g	0.020	0.012 J	0.022	0.013	0.023	0.032	0.016	0.25	0.17	0.71
PCB-191	74472-50-7	ng/g	0.0044 JN	0.0029 JN	0.0044 JN	< 0.0013 U	0.0036 J	0.0073 J	0.0015 JN	0.070	0.042	0.16
PCB-192	74472-51-8	ng/g	< 0.000091 U	< 0.00099 U	< 0.00065 U	< 0.0014 U	< 0.00028 U	< 0.00065 U	< 0.00042 U	< 0.0033 U	< 0.00042 U	< 0.00011 U
PCB-194	35694-08-7	ng/g	0.052	0.034 JN	0.073	0.037 JN	0.066	0.10	0.040 JN	0.62	0.41	1.6
PCB-195	52663-78-2	ng/g	0.025	0.012 JN	0.028	0.014 JN	0.039	0.041	0.021	0.31	0.19	0.79
PCB-196	42740-50-1	ng/g	0.022	0.014 JN	0.026 JN	0.012 JN	0.024	0.037	0.014	0.29 JN	0.21	0.74
PCB-197	33091-17-7	ng/g	0.0017 JN	0.0013 JN	0.0018 JN	< 0.00069 U	0.00056 JN	0.0030 J	< 0.00018 U	0.020 JN	0.011 JN	0.058
PCB-198/199	68194-17-2	ng/g	0.054 JN	0.040	0.075	0.042 JN	0.056	0.095	0.043	0.67 J	0.39 J	1.3
PCB-2	2051-61-8	ng/g	0.0032 JN	0.0018 JN	0.0051 JN	< 0.00035 U	0.0031 J	0.0018 JN	0.0065 J	0.0072 J	0.0026 JN	0.0025 JN
PCB-20/28	38444-84-7	ng/g	0.050	0.031 JN	0.057	0.040	0.048	0.042	0.047 JN	0.082 J	0.075	0.057
PCB-200	52663-73-7	ng/g	0.0067 J	0.0022 JN	0.0068 JN	0.0035 JN	0.0062 JN	0.0078 JN	0.0034 JN	0.091	0.049	0.14
PCB-201	40186-71-8	ng/g	0.0050 JN	0.0030 JN	0.0069 JN	0.0032 JN	0.0066 J	0.0099 J	0.0033 JN	0.089	0.048	0.16
PCB-202	2136-99-4	ng/g	0.014	0.0044 JN	0.012 JN	0.0094 JN	0.014 JN	0.017	0.012	0.13 J	0.071 J	0.20
PCB-203	52663-76-0	ng/g	0.034	0.024	0.040	0.029	0.032 JN	0.054	0.029	0.39	0.24	0.79
PCB-204	74472-52-9	ng/g	< 0.000057 U	< 0.00020 U	< 0.00017 U	< 0.00069 U	< 0.00013 U	< 0.00030 U	< 0.00018 U	< 0.0037 U	< 0.00011 U	< 0.00039 U
PCB-205	74472-53-0	ng/g	0.0026 J	< 0.00076 U	0.0024 JN	< 0.0025 U	< 0.0012 U	0.0042 JN	< 0.0015 U	0.042 J	0.021	0.084
PCB-206	40186-72-9	ng/g	0.034	0.033	0.038	0.029 JN	0.026 JN	0.033	0.035	7.8 JN	0.10 J	0.32
PCB-207	52663-79-3	ng/g	0.0047 J	< 0.0026 U	0.0055 JN	< 0.0029 U	0.0022 JN	0.0030 J	< 0.0019 U	0.024 J	0.013	0.035 JN
PCB-208	52663-77-1	ng/g	0.011 J	0.0093 J	0.014 JN	0.011 JN	0.0087 J	0.0088 J	0.011 JN	0.024 J	0.023	0.070
PCB-209	2051-24-3	ng/g	0.037	0.043	0.030 JN	0.045	0.034	0.034	0.028 JN	0.040 J	0.036	0.11 JN
PCB-21/33	55702-46-0	ng/g	0.021 J	0.011 J	0.019 JN	0.013 J	0.014 J	0.012 J	0.021	0.030 J	0.029	0.018 J
PCB-22	38444-85-8	ng/g	0.015	0.0086 JN	0.017	0.011 J	0.011 J	0.0093 J	0.018	0.014 J	0.017	0.013
PCB-23	55720-44-0	ng/g	< 0.0013 U	< 0.0010 U	< 0.00099 U	< 0.00093 U	< 0.00090 U	< 0.00050 U	< 0.0010 U	< 0.0031 U	< 0.0012 U	< 0.00097 U
PCB-24	55702-45-9	ng/g	< 0.00039 U	< 0.00036 U	< 0.00066 U	< 0.00047 U	< 0.00050 U	0.00077 JN	< 0.00024 U	< 0.00093 U	< 0.00091 U	0.0014 JN
PCB-25	55712-37-3	ng/g	0.0082 J	0.0027 JN	0.0076 J	0.0036 J	0.0055 JN	0.0076 J	0.0049 JN	0.014 JN	0.020	0.0074 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B381	B382	B383	B384	B385	B386	B387	B388	B388	B389
		Sample ID	PDI-SG-B381-BL1-D	PDI-SG-B382-BL1	PDI-SG-B383-BL1	PDI-SG-B384-BL1	PDI-SG-B385-BL1	PDI-SG-B386-BL1	PDI-SG-B387-BL1	PDI-SG-B388-BL1	PDI-SG-B388-BL1-D	PDI-SG-B389-BL1
		Sample Date	29 Apr 2018	01 May 2018	01 May 2018	24 Apr 2018	28 Apr 2018	28 Apr 2018	01 May 2018	27 Apr 2018	27 Apr 2018	20 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-19 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0094 J	0.0055 J	0.0076 J	0.0069 J	0.0079 J	0.0085 J	0.0086 J	0.015 J	0.020	0.0080 J
PCB-27	38444-76-7	ng/g	0.0064 J	0.0023 JN	0.0025 J	0.0021 JN	0.0070 J	0.011 JN	< 0.00021 U	0.033 J	0.037	0.014
PCB-3	2051-62-9	ng/g	0.0033 J	0.0015 JN	0.0022 J	< 0.00037 U	0.0026 J	0.0013 JN	0.0033 J	0.0042 J	0.0031 J	0.0025 J+
PCB-31	16606-02-3	ng/g	0.036	0.026	0.040 JN	0.026	0.033	0.029	0.039	0.055 J	0.048	0.041
PCB-32	38444-77-8	ng/g	0.017	0.0073 J	0.0094 J	0.0066 J	0.019 JN	0.022	0.011	0.065	0.058	0.026 JN
PCB-34	37680-68-5	ng/g	< 0.0013 U	< 0.0010 U	< 0.0010 U	< 0.00097 U	< 0.00093 U	< 0.00052 U	< 0.0010 U	< 0.0032 U	< 0.0013 U	< 0.0010 U
PCB-35	37680-69-6	ng/g	< 0.0012 U	< 0.0010 U	0.0029 JN	< 0.00094 U	< 0.00091 U	< 0.00051 U	< 0.0010 U	< 0.0031 U	< 0.0012 U	< 0.00098 U
PCB-36	38444-87-0	ng/g	< 0.0011 U	< 0.00097 U	< 0.00097 U	< 0.00091 U	< 0.00087 U	< 0.00049 U	< 0.00097 U	< 0.0028 U	< 0.0011 U	< 0.00094 U
PCB-37	38444-90-5	ng/g	0.013 JN	0.012 J	0.020	0.014	0.014	0.012	0.019	0.016 JN	0.019	0.021
PCB-38	53555-66-1	ng/g	< 0.0012 U	< 0.0010 U	< 0.0010 U	< 0.00098 U	< 0.00094 U	< 0.00052 U	< 0.0010 U	< 0.0030 U	< 0.0012 U	< 0.0010 U
PCB-39	38444-88-1	ng/g	< 0.0011 U	< 0.00094 U	< 0.00093 U	< 0.00088 U	< 0.00084 U	< 0.00047 U	< 0.00093 U	< 0.0028 U	< 0.0011 U	< 0.00091 U
PCB-4	13029-08-8	ng/g	0.030	0.0077 JN	< 0.012 U	0.0088 JN	0.024	0.038 JN	< 0.0075 U	0.11	0.096	0.034
PCB-40/41/71	38444-93-8	ng/g	0.038	0.021 J	0.026 JN	0.023 J	0.041	0.044	0.029 J	0.11 J	0.13	0.084
PCB-42	36559-22-5	ng/g	0.015	0.0081 J	0.015	0.015 JN	0.016 JN	0.015	0.0099 J	0.035 J	0.033	0.026 JN
PCB-43/73	70362-46-8	ng/g	0.0075 JN	< 0.0017 U	0.0037 JN	< 0.0017 U	0.0033 JN	0.0090 J	< 0.0023 U	0.047 J	0.041	0.0098 J
PCB-44/47/65	41464-39-5	ng/g	0.15	0.058 J+	0.088 J+	0.063	0.18	0.18	0.085 J+	0.85	0.52	0.29
PCB-45/51	70362-45-7	ng/g	0.063	0.0060 J+	0.015 J+	0.011 J	0.066	0.066	< 0.0026 U	0.21 JN	0.23	0.090
PCB-46	41464-47-5	ng/g	0.0051 JN	< 0.0023 U	< 0.0023 U	< 0.0023 U	0.0045 JN	0.0062 JN	< 0.0032 U	0.017 J	0.019 JN	< 0.0044 U
PCB-48	70362-47-9	ng/g	0.0092 JN	0.0066 J	0.0094 JN	0.0061 JN	0.0086 J	0.0076 J	< 0.0025 U	0.012 JN	< 0.0050 U	0.0092 JN
PCB-49/69	41464-40-8	ng/g	0.085	0.031	0.050	0.042	0.10	0.13	0.047	0.27	0.30	0.19
PCB-5	16605-91-7	ng/g	< 0.00094 U	< 0.0052 U	< 0.0086 U	< 0.0060 U	< 0.0033 U	< 0.0030 U	< 0.0057 U	< 0.0023 U	< 0.00086 U	< 0.0036 U
PCB-50/53	62796-65-0	ng/g	0.051	0.0049 JN	0.0094 JN	0.011 J	0.074	0.089	< 0.0024 U	0.25	0.34	0.11
PCB-52	35693-99-3	ng/g	0.13	0.076	0.11	0.082	0.16	0.19	0.11	0.36	0.57	0.35
PCB-54	15968-05-5	ng/g	0.019	< 0.000075 U	< 0.000073 U	< 0.000097 U	0.018	0.023	< 0.00012 U	0.19 JN	0.092 J	0.024
PCB-55	74338-24-2	ng/g	0.0022 JN	< 0.0013 U	< 0.0013 U	0.0016 JN	< 0.0011 U	< 0.00076 U	< 0.0018 U	< 0.0034 U	< 0.0035 U	0.0042 JN
PCB-56	41464-43-1	ng/g	0.024	0.016 JN	0.025 JN	0.022	0.024	0.017	0.024 JN	0.025 JN	0.027	0.12
PCB-57	70424-67-8	ng/g	< 0.0011 U	< 0.0014 U	< 0.0013 U	< 0.0013 U	< 0.0011 U	< 0.00077 U	< 0.0018 U	< 0.0035 U	< 0.0036 U	< 0.0026 U
PCB-58	41464-49-7	ng/g	< 0.0010 U	< 0.0014 U	< 0.0014 U	< 0.0013 U	< 0.0011 U	0.00095 JN	< 0.0019 U	< 0.0033 U	< 0.0035 U	0.0037 JN
PCB-59/62/75	74472-33-6	ng/g	0.0090 JN	0.0032 J	0.0036 JN	0.0038 JN	0.0075 J	0.0077 JN	< 0.0018 U	0.036 JN	0.023 J	0.010 JN
PCB-6	25569-80-6	ng/g	0.0026 JN	< 0.0046 U	< 0.0076 U	< 0.0053 U	< 0.0029 U	0.0029 JN	< 0.0050 U	< 0.0023 U	0.0048 JN	0.0041 JN
PCB-60	33025-41-1	ng/g	0.011 J	0.0091 JN	0.011 J	0.0068 JN	0.011 J	0.0076 J	0.0075 JN	0.012 J	0.011	0.048
PCB-61/70/74/76	33284-53-6	ng/g	0.11	0.079 JN	0.14	0.10	0.13	0.097	0.11	0.17 J	0.16	0.52
PCB-63	74472-34-7	ng/g	0.0020 JN	< 0.0012 U	< 0.0012 U	< 0.0012 U	0.0032 J	0.0015 J	< 0.0017 U	< 0.0030 U	< 0.0031 U	0.0087 JN
PCB-64	52663-58-8	ng/g	0.020 JN	0.019	0.028	0.018 JN	0.028	< 0.00070 U	0.023	0.040 J	0.037	0.083
PCB-66	32598-10-0	ng/g	0.062	0.049	0.061 JN	0.054	0.073	0.053	0.071	0.11	0.093	0.36
PCB-67	73575-53-8	ng/g	0.0021 J	< 0.0012 U	< 0.0012 U	< 0.0011 U	< 0.00093 U	< 0.00067 U	< 0.0016 U	< 0.0032 U	< 0.0033 U	0.0039 JN
PCB-68	73575-52-7	ng/g	0.0027 J	< 0.0012 U	0.0046 J+	< 0.0012 U	< 0.00095 U	0.0017 J	< 0.0016 U	0.0048 JN	< 0.0031 U	< 0.0023 U
PCB-7	33284-50-3	ng/g	< 0.00088 U	< 0.0047 U	< 0.0077 U	< 0.0054 U	< 0.0030 U	< 0.0027 U	< 0.0052 U	< 0.0022 U	< 0.00081 U	< 0.0033 U
PCB-72	41464-42-0	ng/g	< 0.0010 U	< 0.0013 U	< 0.0013 U	< 0.0013 U	< 0.0011 U	0.0018 J	< 0.0018 U	< 0.0034 U	< 0.0035 U	0.0037 JN
PCB-77	32598-13-3	ng/g	0.0068 J	0.0072 J	0.014	0.0057 JN	0.0094 J	0.0065 J	0.0086 J	0.0096 JN	0.0039 JN	0.035
PCB-78	70362-49-1	ng/g	< 0.0010 U	< 0.0014 U	< 0.0014 U	< 0.0013 U	< 0.0011 U	< 0.00078 U	< 0.0019 U	< 0.0033 U	< 0.0035 U	< 0.0026 U
PCB-79	41464-48-6	ng/g	< 0.00087 U	< 0.0012 U	< 0.0012 U	< 0.0012 U	< 0.00095 U	0.0016 J	< 0.0016 U	< 0.0028 U	< 0.0030 U	0.0047 J
PCB-8	34883-43-7	ng/g	0.0091 J	0.011 JN	0.017 JN	0.0085 JN	0.0050 JN	0.0089 JN	0.014 JN	0.018 J	0.021	0.0095 J
PCB-80	33284-52-5	ng/g	< 0.00091 U	< 0.0012 U	< 0.0012 U	< 0.0011 U	< 0.00093 U	< 0.00066 U	< 0.0016 U	< 0.0029 U	< 0.0031 U	< 0.0022 U
PCB-81	70362-50-4	ng/g	< 0.00096 U	< 0.0012 U	< 0.0013 U	< 0.0012 U	< 0.0010 U	< 0.00071 U	< 0.0017 U	< 0.0030 U	< 0.0033 U	< 0.0024 U
PCB-82	52663-62-4	ng/g	0.019 JN	0.012 JN	0.024 JN	0.011 JN	0.024	0.014	0.019	0.041 J	0.030	0.099
PCB-83/99	60145-20-2	ng/g	0.11 JN	0.094	0.15	0.087	0.15	0.12	0.12	0.38	0.36	0.77
PCB-84	52663-60-2	ng/g	0.039	0.024	0.049	0.025 JN	0.062	0.044	0.032 JN	0.091	0.11	0.20
PCB-85/116/117	65510-45-4	ng/g	0.034 J	0.030 JN	0.046	0.026 JN	0.042	0.029 J	0.030 JN	0.095 J	0.055	0.29
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.11	0.095 JN	0.14	0.083	0.14	0.12	0.11	0.28 J	0.30	0.61
PCB-88/91	55215-17-3	ng/g	0.051	0.018 JN	0.033	0.019 JN	0.068	0.072	0.023	0.28	0.22	0.25
PCB-89	73575-57-2	ng/g	< 0.0012 U	< 0.00079 U	< 0.00043 U	< 0.00065 U	< 0.00027 U	< 0.00026 U	< 0.00061 U	< 0.0025 U	< 0.00061 U	< 0.00041 U
PCB-9	34883-39-1	ng/g	< 0.0010 U	< 0.0048 U	< 0.0079 U	< 0.0055 U	< 0.0030 U	< 0.0028 U	< 0.0053 U	< 0.0026 U	< 0.00094 U	< 0.0034 U
PCB-90/101/113	68194-07-0	ng/g	0.22	0.15	0.23	0.15	0.30	0.32	0.15	0.85	0.91	2.4
PCB-92	52663-61-3	ng/g	0.041	0.025 JN	0.043	0.026	0.051	0.048	0.030	0.15	0.17	0.37
PCB-93/100	73575-56-1	ng/g	0.019 J	< 0.00070 U	0.0033 JN	0.0029 JN	0.018 JN	0.033	< 0.00054 U	0.21	0.073 JN	0.050 JN
PCB-94	73575-55-0	ng/g	0.0057 JN	< 0.00079 U	< 0.00043 U	< 0.00065 U	0.0066 J	0.0072 J	< 0.00061 U	0.042 JN	0.046	< 0.00041 U
PCB-95	38379-99-6	ng/g	0.20	0.12	0.19	0.12	0.32	0.35	0.14	0.75	0.88	1.8
PCB-96	73575-54-9	ng/g	0.0046 J	< 0.00060 U	< 0.00032 U	< 0.00049 U	0.0046 JN	0.011	< 0.00046 U	0.041 JN	0.041	0.016 JN
PCB-98/102	60233-25-2	ng/g	0.0045 JN	< 0.00068 U	0.0066 JN	< 0.00056 U	0.012 J	0.013 J	< 0.00053 U	0.040 JN	0.083	0.034 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	5.4	3.4	5.3	3.4	7.6	7.9	4.5	42	27	92

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B381	B382	B383	B384	B385	B386	B387	B388	B388	B389
		Sample ID	PDI-SG-B381-BL1-D	PDI-SG-B382-BL1	PDI-SG-B383-BL1	PDI-SG-B384-BL1	PDI-SG-B385-BL1	PDI-SG-B386-BL1	PDI-SG-B387-BL1	PDI-SG-B388-BL1	PDI-SG-B388-BL1-D	PDI-SG-B389-BL1
		Sample Date	29 Apr 2018	01 May 2018	01 May 2018	24 Apr 2018	28 Apr 2018	28 Apr 2018	01 May 2018	27 Apr 2018	27 Apr 2018	20 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-19 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.59 U	< 0.64 U	0.40 J	< 1.2 UJ	< 0.58 U	< 0.56 U	< 0.52 U	< 0.49 U	< 0.50 U	< 2.0 U
2,4-DDE	3424-82-6	µg/kg	< 0.59 U	< 0.64 U	< 0.57 U	< 1.2 UJ	< 0.58 U	< 0.56 U	< 0.52 U	< 0.49 U	< 0.50 U	< 2.0 U
2,4-DDT	789-02-6	µg/kg	< 0.59 U	< 0.64 U	< 0.57 U	< 1.2 UJ	< 0.58 U	< 0.56 U	< 0.52 U	< 0.49 U	< 0.50 U	< 2.0 U
4,4'-DDD	72-54-8	µg/kg	0.92	0.95	1.6	0.51 J	0.98	0.83	1.0	0.69	0.68	1.1 J
4,4'-DDE	72-55-9	µg/kg	1.9	2.2	2.1	1.8 J	1.6	1.3	1.9	1.3	1.3	2.2
4,4'-DDT	50-29-3	µg/kg	0.46 J	0.45 J	1.1	< 1.2 UJ	0.51 J	0.54 J	0.40 J	0.59	0.36 J	2.0
Total DDx (b)	T_DDx (PDI)	µg/kg	3.6	3.9	5.5	2.9	3.4	3.0	3.6	2.8	2.6	6.3
Aldrin	309-00-2	µg/kg	< 0.59 U	< 0.64 U	< 0.57 U	< 1.2 UJ	< 0.58 U	< 0.56 U	< 0.52 U	< 0.49 U	< 0.50 U	< 2.0 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.2 U	< 1.3 U	< 1.1 U	< 2.4 UJ	< 1.2 U	< 1.1 U	< 1.0 U	< 0.99 U	< 1.0 U	< 4.0 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.59 U	< 0.64 U	< 0.57 U	< 1.2 UJ	< 0.58 U	< 0.56 U	< 0.52 U	< 0.49 U	< 0.50 U	< 2.0 U
Dieldrin	60-57-1	µg/kg	0.79 J	< 1.3 U	< 1.1 U	< 2.4 UJ	< 1.2 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 4.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.59 U	< 0.64 U	< 0.57 U	< 1.2 UJ	< 0.58 U	< 0.56 U	< 0.52 U	< 0.49 U	< 0.50 U	< 2.0 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.2 U	< 1.3 U	0.41 J	< 2.4 UJ	< 1.2 U	< 1.1 U	< 1.0 U	< 0.99 U	< 1.0 U	< 4.0 U
Heptachlor	76-44-8	µg/kg	< 0.59 U	< 0.64 U	< 0.57 U	< 1.2 UJ	< 0.58 U	< 0.56 U	< 0.52 U	< 0.49 U	< 0.50 U	< 2.0 U
Oxychlordane	27304-13-8	µg/kg	< 1.2 U	< 1.3 U	< 1.1 U	< 2.4 UJ	< 1.2 U	< 1.1 U	< 1.0 U	< 1.0 U	< 1.0 U	< 4.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.2 U	< 1.3 U	< 1.1 U	< 2.4 UJ	0.35 J	< 1.1 U	0.40 J	0.38 J	< 1.0 U	< 4.0 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.2 U	< 1.3 U	0.96	< 2.4 UJ	0.95	< 1.1 U	0.9	0.88	< 1 U	< 4 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.9	1.9	3.9	1.2 J	2.0 J	7.1	2.0	2.3	3.4	7.6
Acenaphthene	83-32-9	µg/kg	2.8	2.0	3.2	0.69	0.93 J	18	4.6	1.7	1.8	33
Acenaphthylene	208-96-8	µg/kg	1.9	1.6	3.2	0.90	2.4	5.9	1.3	13	15	22
Anthracene	120-12-7	µg/kg	10 J	4.2	7.3	2.3	4.7	14	3.7	36 J	14 J	60
Benz(a)anthracene	56-55-3	µg/kg	20	9.9	23	6.1	16	69	8.0	490 J	55 J	190
Benzo(a)pyrene	50-32-8	µg/kg	26 J	17	34	8.0	18	69	11	310 J	98 J	260
Benzo(b)fluoranthene	205-99-2	µg/kg	35	25	48	11	30	110	16	850 J	120 J	330
Benzo(g,h,i)perylene	191-24-2	µg/kg	24	18	29	9.2	24	54	12	150 J	85 J	220
Benzo(k)fluoranthene	207-08-9	µg/kg	11 J	9.2	16	3.0	7.5	36	5.7	240 J	35 J	130
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	63 J	95 J	170	92 J	120 J	93 J	56 J	100	62 J	96 J
Chrysene	218-01-9	µg/kg	30	16	43	11	18	130	14	820 J	80 J	290
Dibenz(a,h)anthracene	53-70-3	µg/kg	4.1	2.6	4.6	1.5	5.0	11	2.1	62 J	14 J	34
Fluoranthene	206-44-0	µg/kg	58 J	22	51	16	40	84	21	2000 J	100 J	490
Fluorene	86-73-7	µg/kg	4.3 J	2.5	4.6	1.2	2.3	15	5.7	5.9 J	3.3 J	31
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	23 J	14	24	7.3	18	55	9.2	180 J	86 J	210
Naphthalene	91-20-3	µg/kg	2.8	3.2	5.7	2.2	3.1	9.9	2.0	3.8 J	6.5 J	15
Phenanthrene	85-01-8	µg/kg	35 J	14	26	7.7	13	48	19	56 J	27 J	230
Pyrene	129-00-0	µg/kg	59 J	23	56	18	43	100	22	1800 J	120 J	540
Total PAHs (b)	T_PAH (PDI)	µg/kg	349	186	383	107	248	836	159	7021	864	3093
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	38	25	48	12	29	104	16	527	139	369
Metals												
Arsenic	7440-38-2	mg/kg	4.6	4.8	4.6	5.7	4.3	4.9	4.7	4.0	3.8	4.7
Cadmium	7440-43-9	mg/kg	0.18 J	0.21 J	0.22 J	0.14 J	0.16 J	0.16 J	0.22 J	0.13 J	0.16 J	0.19 J
Copper	7440-50-8	mg/kg	38	39	39	37	33	36	33	32	30	32
Lead	7439-92-1	mg/kg	9.6	10	11	9.9	10	9.7	10	11	10	14
Mercury	7439-97-6	mg/kg	0.15	0.080	0.083	0.049	0.043 J	0.050	0.099	0.15	0.15	0.10 J
Tri-n-butyltin	36643-28-4	µg/kg	< 2.3 U	< 2.5 U	< 2.3 U	< 2.4 U	< 2.4 U	< 2.3 U	< 2.1 U	0.92 J	< 2.0 U	< 2.0 U
Zinc	7440-66-6	mg/kg	95	93	110	94	84	91	82	94	88	92
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	78 J	120	110 J	41 J	< 540 U	< 490 U	62 J	50 J	44 J	95
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	450	550	610	190	980	1100	350	290	250	540
Other												
Total Solids@104C - D2216 (f)	TSOLID	%										51.8
Total Solids@104C - E160.3 (f)	TSOLID	%	41.0	38.6	42.1	41.8	42.7	46.5	46.3	49.1	49.0	
Total Solids@104C - E160.3M (f)	TSOLID	%	41.9	38.9	43.3	41.5	42.1	44.1	46.7	49.5	48.9	49.0
Total Solids@70C	TSOLID70	%	43	40	44	42	43	45	47	50	50	62
Gravel	GS-Gravel	%		0	0	0	5.1	0	0	0		0
Sand, Coarse	GS-Csand	%		0	0	0	4.6	0	0.1	0.1		0.3
Sand, Medium	GS-Msand	%		0.1	0.2	0.1	7.8	0.2	0.2	0.2		1.1
Sand, Fine (#200) (d)	GS-Fsand-200	%		16.37	29.02	25.5	22.82	30.2	24.15	42.08		41.22
Sand, Fine (#230) (d)	GS-Fsand	%		20.7	35.4	28.4	25.5	36.1	29.3	46.8		45.7
Silt (#200) (d)	GS-Silt-200	%		73.72	63.17	61.89	48.77	60.09	64.84	50.41		53.37

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B381	B382	B383	B384	B385	B386	B387	B388	B388	B389
		Sample ID	PDI-SG-B381-BL1-D	PDI-SG-B382-BL1	PDI-SG-B383-BL1	PDI-SG-B384-BL1	PDI-SG-B385-BL1	PDI-SG-B386-BL1	PDI-SG-B387-BL1	PDI-SG-B388-BL1	PDI-SG-B388-BL1-D	PDI-SG-B389-BL1
		Sample Date	29 Apr 2018	01 May 2018	01 May 2018	24 Apr 2018	28 Apr 2018	28 Apr 2018	01 May 2018	27 Apr 2018	27 Apr 2018	20 May 2018
		Sample Type Code	FD	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-19 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%		69.4	56.8	59.0	46.1	54.2	59.7	45.7		48.9
Clay	GS-Clay	%		9.8	7.5	12.4	10.8	9.6	10.8	7.2		3.9
Percent Fines (e)	GS-FINES	%		83.52	70.67	74.29	59.57	69.69	75.64	57.61		57.27
Total Organic Carbon	TOC	mg/kg	22000	24000	21000	23000	24000	22000	18000	15000	16000	14000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B390	B391	B392	B393	B394	B395	B396	B397	B398	B399
		Sample ID	PDI-SG-B390-BL1	PDI-SG-B391-BL1	PDI-SG-B392-BL1	PDI-SG-B393-BL1	PDI-SG-B394-BL1	PDI-SG-B395-BL1	PDI-SG-B396-BL1	PDI-SG-B397-BL1	PDI-SG-B398-BL1	PDI-SG-B399-BL1
		Sample Date	01 May 2018	20 May 2018	20 May 2018	01 May 2018	26 Apr 2018	18 May 2018	30 May 2018	18 May 2018	22 May 2018	24 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-14 cm	0-20 cm	0-30 cm	0-28 cm	0-30 cm	0-14 cm	0-30 cm	0-19 cm	0-15 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.065	0.062	0.14	0.055	0.028	0.048	0.0052	0.049	0.062	0.0078
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0092 JN	0.0090 JN	0.017	0.0078 JN	0.0066 JN	0.010 JN	0.00093 J	0.012 JN	0.014 JN	0.0018 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00095 J+	< 0.00022 U	0.0016 J+	0.00072 J+	< 0.0019 U	0.0024 J+	0.00058 J+	0.0024 J+	0.0011 JN	0.00059 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00063 JN	0.00037 J+	0.00088 J+	0.00075 J	< 0.00076 U	0.00081 J+	0.00017 J+	0.00074 J+	0.0012 J	0.00021 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0017 J	0.00072 J	0.0012 JN	0.0010 J	< 0.0019 U	0.0010 J	0.00020 JN	0.00096 J	0.0016 J	0.00028 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0024 J	0.0020 J	0.0044	0.0020 J	0.0014 JN	0.0022 J	0.00026 JN	0.0021 J	0.0029 J	0.00052 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.00028 U	0.00041 J	0.00059 J	0.00046 J	< 0.0018 U	0.00062 J	0.000094 JN	0.00057 J	0.00088 J	0.00016 J+
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0017 J	0.0012 J	0.0023 J	0.0018 J	< 0.00064 U	0.0018 J	0.00019 JN	0.0018 J	0.0025 J	0.00035 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00030 U	< 0.00025 U	< 0.00016 U	0.00039 J+	< 0.0014 U	0.0010 J+	< 0.00054 U	0.00092 J+	0.0017 JN	< 0.00052 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00050 JN	0.00027 J	0.00052 JN	0.00042 JN	< 0.0014 U	0.00032 JN	0.000066 JN	0.00036 J	0.00058 J+	< 0.000063 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00036 J	0.00020 J+	0.00035 JN	< 0.000083 U	< 0.00088 U	0.00043 J+	0.00014 J+	0.00033 JN	0.00052 J	< 0.00015 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00020 U	0.00026 J+	0.00043 JN	< 0.00019 U	< 0.0014 U	0.00037 J	0.000084 J+	0.00033 J	< 0.00020 U	< 0.000046 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00044 J	0.00027 J+	0.00047 J+	0.00034 J	< 0.0011 U	0.00029 J	0.000088 J+	0.00027 J	0.00034 JN	< 0.00012 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00044 JN	0.00010 JN	0.00029 J	0.00032 JN	< 0.0012 U	0.00027 JN	< 0.000072 U	0.00013 J+	< 0.00021 U	< 0.00012 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00059 J+	0.00036 J+	0.00058 J	0.00063 J+	< 0.00074 U	0.00052 J+	< 0.00014 U	0.00060 J+	0.00087 J	0.00020 J+
OCDD	3268-87-9	µg/kg	0.48	0.60	1.4	0.39	0.25	0.41	0.043	0.42	0.39	0.073
OCDF	39001-02-0	µg/kg	0.032	0.032	0.077	0.029	0.023	0.031	0.0023 J	0.047	0.036	0.0049 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0027	0.0019	0.004	0.0023	0.0013	0.0023	0.00031	0.0022	0.0029	0.00036
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0019	0.0018	0.0036	0.0018	0.0011	0.0018	0.00017	0.0022	0.0026	0.00034
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0017	0.0018	0.0033	0.0016	0.00043	0.0017	0.00014	0.0021	0.0025	0.00028
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0024 JN	0.0039 J	0.0099	0.0024 JN	< 0.0018 U	0.011 JN	0.0014 JN	0.0019 JN	0.0050 J	0.00068 J
PCB-10	33146-45-1	ng/g	< 0.00070 U	< 0.0024 U	0.0022 JN	< 0.00078 U	< 0.0023 U	0.0033 J	< 0.00024 U	0.00080 JN	0.0064 J	0.0012 JN
PCB-103	60145-21-3	ng/g	0.0027 JN	0.036	0.13	0.0021 J	0.0046 J	0.0030 J	0.0014 JN	0.0021 J	0.024	0.043
PCB-104	56558-16-8	ng/g	< 0.00037 U	< 0.00018 U	< 0.00012 U	< 0.00046 U	< 0.00021 U	< 0.00026 U	0.00040 JN	< 0.00034 U	< 0.00040 U	0.0022 JN
PCB-105	32598-14-4	ng/g	0.070	0.11	0.46	0.064	0.065	0.10	0.0094 J	0.087	0.58	0.021
PCB-106	70424-69-0	ng/g	< 0.0013 U	< 0.0017 U	< 0.0030 U	< 0.0017 U	< 0.0010 U	< 0.0018 U	< 0.00029 U	< 0.0017 U	< 0.0028 U	< 0.00075 U
PCB-107	70424-68-9	ng/g	0.013	0.047	0.13	0.012 J	0.014	0.018	0.0016 JN	0.016	0.095	0.0053 J
PCB-108/124	70362-41-3	ng/g	0.0071 JN	0.015 J	0.041 JN	0.0060 JN	0.0077 J	0.011 J	0.00067 JN	0.010 J	0.063	0.0023 J
PCB-11	2050-67-1	ng/g	0.11	0.012 J+	0.018 JN	0.074	0.034	0.065	0.017 J+	0.051	0.066	0.020
PCB-110/115	38380-03-9	ng/g	0.22	0.72	2.0	0.19	0.23	0.28	0.050	0.23	1.9	0.14
PCB-111	39635-32-0	ng/g	< 0.00033 U	< 0.00017 U	< 0.00011 U	< 0.00041 U	< 0.00020 U	< 0.00023 U	0.00026 J	< 0.00031 U	< 0.00035 U	< 0.00023 U
PCB-112	74472-36-9	ng/g	< 0.00036 U	0.0051 J	< 0.00012 U	< 0.00045 U	< 0.00021 U	0.0013 J	< 0.000071 U	0.0015 JN	< 0.00039 U	< 0.00025 U
PCB-114	74472-37-0	ng/g	0.0032 J	0.0066 JN	0.025 JN	0.0016 JN	0.0026 JN	0.0051 JN	< 0.00026 U	0.0056 J	0.035	0.00089 JN
PCB-118	31508-00-6	ng/g	0.17	0.39	1.2	0.15	0.17	0.23	0.023	0.20	1.4	0.054
PCB-12/13	2974-92-7	ng/g	0.0054 JN	0.0058 JN	0.0064 JN	0.0052 J	< 0.0021 U	0.0093 JN	< 0.00094 U	0.0051 J	0.0062 J	< 0.00043 U
PCB-120	68194-12-7	ng/g	0.0014 J	0.0062 JN	0.016 JN	< 0.00040 U	0.00072 JN	< 0.00023 U	< 0.000064 U	< 0.00030 U	< 0.00035 U	0.0016 JN
PCB-121	56558-18-0	ng/g	< 0.00036 U	< 0.00018 U	< 0.00012 U	< 0.00044 U	< 0.00021 U	< 0.00025 U	0.00024 JN	< 0.00033 U	< 0.00038 U	0.0018 JN
PCB-122	76842-07-4	ng/g	< 0.0015 U	0.0073 JN	0.023	< 0.0019 U	0.0031 J	0.0027 JN	< 0.00032 U	0.0034 JN	0.025	< 0.00083 U
PCB-123	65510-44-3	ng/g	0.0029 JN	0.0096 J	0.016 JN	0.0035 J	0.0040 JN	0.0037 JN	< 0.00026 U	0.0049 J	0.025	0.0015 JN
PCB-126	57465-28-8	ng/g	< 0.0013 U	0.0047 J	0.0073 J	< 0.0017 U	< 0.0011 U	< 0.0018 U	< 0.00028 U	< 0.0017 U	0.0033 J	< 0.00071 U
PCB-127	39635-33-1	ng/g	< 0.0013 U	< 0.0017 U	< 0.0030 U	< 0.0017 U	< 0.0010 U	< 0.0017 U	< 0.00027 U	< 0.0016 U	< 0.0027 U	< 0.00072 U
PCB-128/166	38380-07-3	ng/g	0.063	0.12	0.42	0.041	0.036	0.067	0.010 J	0.055	0.42	0.027
PCB-129/138/160/163	55215-18-4	ng/g	0.42	1.4	4.8	0.27	0.33	0.42	0.094	0.31	2.3	0.26
PCB-130	52663-66-8	ng/g	0.028	0.073	0.19 JN	0.016	0.018	0.026	0.0043 J	0.022 JN	0.17	0.014
PCB-131	61798-70-7	ng/g	< 0.0016 U	< 0.0062 U	0.035	0.0032 J	0.0026 JN	0.0048 J	< 0.00043 U	0.0052 J	0.036	0.0034 JN
PCB-132	38380-05-1	ng/g	0.12	0.46	1.6	0.069	0.094	0.12	0.034	0.087	0.78	0.096
PCB-133	35694-04-3	ng/g	0.0064 J	0.041	0.15	0.0029 JN	0.0039 JN	0.0055 JN	0.0018 JN	0.0061 J	0.034	0.0086 J
PCB-134/143	52704-70-8	ng/g	0.021 J	0.086	0.30	0.010 JN	0.015 J	0.022	0.0064 J	0.017 J	0.15	0.021
PCB-135/151	52744-13-5	ng/g	0.13	0.63	2.9	0.083	0.10	0.11	0.051	0.074	0.64	0.11 JN
PCB-136	38411-22-2	ng/g	0.046	0.23	1.0	0.029	0.036	0.043	0.021	0.026	0.26	0.081
PCB-137	35694-06-5	ng/g	0.016	0.029 JN	0.098	0.0095 JN	0.0099	0.019	0.0020 JN	0.015 JN	0.13	0.0049 J
PCB-139/140	56030-56-9	ng/g	0.0044 JN	0.018 JN	0.078	0.0029 J	0.0042 J	0.0058 J	0.0014 J	0.0060 J	0.047	0.0030 JN
PCB-14	34883-41-5	ng/g	< 0.00055 U	< 0.0018 U	< 0.0016 U	< 0.00061 U	< 0.0018 U	< 0.00053 U	< 0.00019 U	< 0.00038 U	< 0.00046 U	< 0.00040 U
PCB-141	52712-04-6	ng/g	0.083	0.34	1.1	0.045	0.057	0.079	0.022	0.052	0.41	0.064
PCB-142	41411-61-4	ng/g	< 0.0015 U	< 0.0056 U	< 0.0075 U	< 0.0015 U	< 0.0013 U	< 0.0012 U	< 0.00040 U	< 0.0013 U	< 0.0025 U	< 0.00056 U
PCB-144	68194-14-9	ng/g	0.017	0.071	0.24	0.012 J	0.010	0.016	0.0060 J	0.0099 JN	0.089	0.020
PCB-145	74472-40-5	ng/g	0.00026 JN	< 0.00044 U	< 0.00023 U	< 0.00020 U	< 0.00013 U	< 0.00023 U	< 0.000034 U	0.00023 JN	0.0011 JN	0.00050 JN
PCB-146	51908-16-8	ng/g	0.064	0.31	1.1	0.036	0.043	0.054	0.016	0.043	0.30	0.050
PCB-147/149	68194-13-8	ng/g	0.31	1.7	6.2	0.17	0.31	0.28	0.10	0.20	1.7	0.33
PCB-148	74472-41-6	ng/g	0.00055 JN	0.0077 JN	0.034	< 0.00026 U	0.00079 J	< 0.00031 U	0.00038 JN	< 0.000088 U	0.0021 JN	0.0028 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B390	B391	B392	B393	B394	B395	B396	B397	B398	B399
		Sample ID	PDI-SG-B390-BL1	PDI-SG-B391-BL1	PDI-SG-B392-BL1	PDI-SG-B393-BL1	PDI-SG-B394-BL1	PDI-SG-B395-BL1	PDI-SG-B396-BL1	PDI-SG-B397-BL1	PDI-SG-B398-BL1	PDI-SG-B399-BL1
		Sample Date	01 May 2018	20 May 2018	20 May 2018	01 May 2018	26 Apr 2018	18 May 2018	30 May 2018	18 May 2018	22 May 2018	24 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-14 cm	0-20 cm	0-30 cm	0-28 cm	0-30 cm	0-14 cm	0-30 cm	0-19 cm	0-15 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.011 JN	0.026	0.041	0.017	0.0072 J	0.048	0.0017 JN	0.012	0.028	0.0022 JN
PCB-150	68194-08-1	ng/g	0.00043 JN	0.0086 JN	0.047	0.00020 JN	0.00087 J	< 0.00021 U	0.00058 JN	0.00022 JN	0.0059 J	0.0050 J
PCB-152	68194-09-2	ng/g	< 0.00023 U	0.0046 J	0.0093 JN	< 0.00019 U	< 0.00013 U	< 0.00023 U	0.00032 J+	0.00019 JN	0.0028 JN	0.00076 JN
PCB-153/168	35065-27-1	ng/g	0.32	1.4	5.0	0.20	0.25	0.31	0.085	0.23	1.5	0.25
PCB-154	60145-22-4	ng/g	0.0046 JN	0.049	0.18	0.0047 JN	0.0025 J	0.0036 J	0.0021 J	0.0037 J	0.023	0.014
PCB-155	33979-03-2	ng/g	< 0.00022 U	< 0.00042 U	< 0.00022 U	< 0.00018 U	< 0.00012 U	< 0.00022 U	< 0.000031 U	0.00011 JN	< 0.00026 U	0.00047 J
PCB-156/157	38380-08-4	ng/g	0.038	0.094	0.30	0.032	0.027	0.049	0.0060 J	0.037	0.27	0.018 J
PCB-158	74472-42-7	ng/g	0.044	0.10	0.40	0.025	0.027	0.042	0.0084 J	0.035	0.25	0.022
PCB-159	39635-35-3	ng/g	0.0033 J	0.016	0.061	0.0019 JN	< 0.00090 U	0.0031 JN	0.0012 JN	0.0015 JN	0.015	0.0022 JN
PCB-16	38444-78-9	ng/g	0.0064 JN	0.036	0.036 JN	0.015 JN	0.0060 J	0.061	0.0020 JN	0.0079 J	0.042	0.0024 J
PCB-161	74472-43-8	ng/g	< 0.00097 U	< 0.0037 U	< 0.0049 U	< 0.00095 U	< 0.00090 U	< 0.00079 U	< 0.00026 U	< 0.00082 U	< 0.0016 U	< 0.00037 U
PCB-162	39635-34-2	ng/g	< 0.00092 U	0.0037 J	0.0092 JN	< 0.00090 U	< 0.00089 U	< 0.00075 U	< 0.00025 U	0.0011 J	< 0.0015 U	< 0.00035 U
PCB-164	74472-45-0	ng/g	0.033	0.10	0.36	0.019	0.019	0.028	0.0068 J	0.021	0.16	0.021
PCB-165	74472-46-1	ng/g	< 0.0011 U	< 0.0042 U	< 0.0056 U	< 0.0011 U	< 0.0010 U	< 0.00090 U	< 0.00030 U	< 0.00094 U	< 0.0018 U	< 0.00042 U
PCB-167	52663-72-6	ng/g	0.014	0.029	0.12	0.010 J	0.010	0.016	0.0024 J	0.014	0.086	0.0052 JN
PCB-169	32774-16-6	ng/g	< 0.00074 U	< 0.0030 U	< 0.0036 U	< 0.00069 U	< 0.00069 U	< 0.00057 U	< 0.00019 U	< 0.00063 U	< 0.0012 U	< 0.00027 U
PCB-17	37680-66-3	ng/g	0.012	0.073 JN	0.076 JN	0.017	0.013	0.061	0.0024 JN	0.011 J	0.071	0.021
PCB-170	35065-30-6	ng/g	0.14	0.59	1.9	0.091	0.066	0.092	0.025	0.069	0.45	0.072
PCB-171/173	52663-71-5	ng/g	0.045	0.16	0.55	0.028	0.022	0.028	0.0090 J	0.019 J	0.14	0.024
PCB-172	52663-74-8	ng/g	0.026	0.093	0.32	0.014 JN	0.011	0.018	0.0045 J	0.013	0.077	0.014
PCB-174	38411-25-5	ng/g	0.15	0.60	2.2	0.093	0.071	0.096	0.035	0.065	0.51	0.090
PCB-175	40186-70-7	ng/g	0.0063 J	0.024	0.072	0.0041 JN	0.0021 JN	0.0031 JN	0.0013 JN	0.0024 JN	0.020	0.0037 JN
PCB-176	52663-65-7	ng/g	0.015	0.071 JN	0.27	0.0093 J	0.0078 J	0.0082 JN	0.0046 J	0.0070 J	0.053	0.011
PCB-177	52663-70-4	ng/g	0.090	0.35	1.3	0.054	0.044	0.054	0.020	0.037	0.28	0.054
PCB-178	52663-67-9	ng/g	0.030	0.13	0.48	0.020	0.017	0.019 JN	0.0081 J	0.014 JN	0.10	0.021
PCB-179	52663-64-6	ng/g	0.052	0.30	1.2	0.034	0.039	0.036	0.016	0.025	0.21	0.046
PCB-18/30	37680-65-2	ng/g	0.019 J	0.10 JN	0.13	0.028	0.018 J	0.12	0.0035 JN	0.015 J	0.084	0.013 J
PCB-180/193	35065-29-3	ng/g	0.32	1.2	4.2	0.19	0.14	0.19	0.061	0.13	0.96	0.16
PCB-181	74472-47-2	ng/g	0.0015 J	0.0043 JN	< 0.00059 U	< 0.00068 U	< 0.00057 U	0.0012 JN	< 0.000011 U	< 0.00040 U	< 0.00038 U	< 0.00012 U
PCB-182	60145-23-5	ng/g	< 0.00030 U	0.0082 JN	< 0.00057 U	< 0.00065 U	< 0.00055 U	< 0.00027 U	< 0.000010 U	< 0.00038 U	< 0.00037 U	< 0.00012 U
PCB-183/185	52663-69-1	ng/g	0.093	0.42	1.4	0.053	0.048	0.056	0.022	0.041	0.32	0.056
PCB-184	74472-48-3	ng/g	< 0.00026 U	< 0.00060 U	< 0.00049 U	< 0.00056 U	< 0.00047 U	< 0.00024 U	< 0.0000089 U	< 0.00033 U	< 0.00031 U	< 0.00010 U
PCB-186	74472-49-4	ng/g	< 0.00025 U	< 0.00059 U	< 0.00047 U	< 0.00054 U	< 0.00046 U	< 0.00023 U	< 0.0000086 U	< 0.00032 U	< 0.00030 U	< 0.000097 U
PCB-187	52663-68-0	ng/g	0.18	0.75	2.8	0.12	0.094	0.11	0.043	0.087	0.60	0.12
PCB-188	74487-85-7	ng/g	< 0.00023 U	< 0.00049 U	< 0.00041 U	< 0.00051 U	< 0.00038 U	< 0.00021 U	< 0.0000080 U	< 0.00029 U	< 0.00028 U	< 0.000090 U
PCB-189	39635-31-9	ng/g	0.0053 J	0.018	0.056	0.0042 J	0.0025 JN	0.0039 J	0.00090 J	0.0020 JN	0.015	0.0023 JN
PCB-19	38444-73-4	ng/g	0.0063 J	0.090	0.080	0.0070 J	0.015 JN	0.024	0.012	0.0063 JN	0.16	0.085
PCB-190	41411-64-7	ng/g	0.028	0.10	0.33	0.018	0.0095 JN	0.016	0.0055 J	0.014	0.085	0.014 JN
PCB-191	74472-50-7	ng/g	0.0068 J	0.024	0.075	0.0041 J	0.0024 JN	0.0045 J	0.00080 JN	0.0024 JN	0.019 JN	0.0037 JN
PCB-192	74472-51-8	ng/g	< 0.00025 U	< 0.00062 U	< 0.00050 U	< 0.00055 U	< 0.00048 U	< 0.00023 U	< 0.0000087 U	< 0.00032 U	< 0.00031 U	< 0.000099 U
PCB-194	35694-08-7	ng/g	0.068	0.32	0.79	0.046	0.030 JN	0.040	0.011	0.034	0.23	0.029
PCB-195	52663-78-2	ng/g	0.029	0.16	0.35	0.016	0.015	0.017	0.0058 J	0.013	0.092	0.013
PCB-196	42740-50-1	ng/g	0.030	0.12	0.40	0.019 JN	0.012	0.019	0.0054 J	0.014	0.11	0.012
PCB-197	33091-17-7	ng/g	0.0024 J	0.012	0.025	0.0027 J	< 0.00023 U	0.0011 JN	0.00032 J	0.0010 J	0.0057 JN	0.00090 JN
PCB-198/199	68194-17-2	ng/g	0.079	0.27	0.88	0.061	0.039	0.053	0.012 J	0.039 JN	0.25	0.027 JN
PCB-2	2051-61-8	ng/g	0.0065 J	0.0018 J	0.0054 J	0.0046 J	< 0.0032 U	0.0050 J	0.0016 J+	0.0042 JN	0.0025 J	< 0.00013 U
PCB-20/28	38444-84-7	ng/g	0.046	0.21	0.29	0.062	0.034	0.12	0.0087 J	0.040	0.13	0.018 J
PCB-200	52663-73-7	ng/g	0.0085 JN	0.026	0.091	0.0050 J	0.0021 JN	0.0050 J	0.0011 JN	0.0028 JN	0.031	0.0035 J
PCB-201	40186-71-8	ng/g	0.0088 JN	0.033	0.088	0.0054 J	0.0039 J	0.0040 JN	0.0018 J	0.0012 JN	0.032	0.0032 JN
PCB-202	2136-99-4	ng/g	0.018	0.048 JN	0.15	0.013 JN	0.0086 JN	0.0095 JN	0.0025 J	0.010 JN	0.050 JN	0.0063 J
PCB-203	52663-76-0	ng/g	0.044	0.16	0.50	0.038	0.022	0.030	0.0078 J	0.025	0.14	0.019
PCB-204	74472-52-9	ng/g	< 0.00064 U	< 0.00052 U	< 0.00057 U	< 0.00045 U	< 0.00023 U	< 0.00057 U	< 0.000050 U	< 0.00029 U	< 0.00061 U	< 0.00019 U
PCB-205	74472-53-0	ng/g	0.0033 J	0.015 JN	0.035 JN	0.0020 JN	< 0.00085 U	0.0014 JN	0.00049 J+	0.0014 J	0.011 J	0.0013 JN
PCB-206	40186-72-9	ng/g	0.071 JN	0.088	0.21	0.060 JN	0.025	0.041 JN	0.0065 J	0.047 JN	0.13	0.015 JN
PCB-207	52663-79-3	ng/g	0.0037 J	0.011	0.023	0.0029 J	< 0.0012 U	0.0032 J	< 0.00013 U	< 0.0014 U	0.012 J	0.00094 JN
PCB-208	52663-77-1	ng/g	0.013	0.013 JN	0.041 JN	0.013	0.0078 J	0.0097 J	0.0021 JN	0.0079 J	0.025	0.0025 J
PCB-209	2051-24-3	ng/g	0.037	0.018	0.044 JN	0.044	0.024	0.039	0.0031 JN	0.036	0.052	0.0071 J
PCB-21/33	55702-46-0	ng/g	0.017 J	0.096	0.092	0.027	0.013 J	0.065	0.0024 J+	0.013 J	0.067	0.0072 J
PCB-22	38444-85-8	ng/g	0.014	0.056	0.071	0.020	0.0084 J	0.046	0.0024 J	0.013	0.046	0.0032 J
PCB-23	55720-44-0	ng/g	< 0.00063 U	< 0.0012 U	< 0.0013 U	< 0.00087 U	< 0.00050 U	< 0.0010 U	< 0.00022 U	< 0.00065 U	< 0.0010 U	< 0.00038 U
PCB-24	55702-45-9	ng/g	0.00046 JN	0.0028 J	0.0014 JN	< 0.00027 U	0.00058 JN	0.0032 JN	< 0.000083 U	< 0.00013 U	0.0031 J	< 0.00027 U
PCB-25	55712-37-3	ng/g	0.0054 J	0.019	0.029 JN	0.0051 JN	0.0036 JN	0.012	0.0011 J	0.0041 J	0.016	0.0099

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B390	B391	B392	B393	B394	B395	B396	B397	B398	B399
		Sample ID	PDI-SG-B390-BL1	PDI-SG-B391-BL1	PDI-SG-B392-BL1	PDI-SG-B393-BL1	PDI-SG-B394-BL1	PDI-SG-B395-BL1	PDI-SG-B396-BL1	PDI-SG-B397-BL1	PDI-SG-B398-BL1	PDI-SG-B399-BL1
		Sample Date	01 May 2018	20 May 2018	20 May 2018	01 May 2018	26 Apr 2018	18 May 2018	30 May 2018	18 May 2018	22 May 2018	24 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-14 cm	0-20 cm	0-30 cm	0-28 cm	0-30 cm	0-14 cm	0-30 cm	0-19 cm	0-15 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.0099 J	0.028	0.037 JN	0.011 J	0.0047 J	0.022	0.0012 J	0.0067 J	0.022 J	0.0092 JN
PCB-27	38444-76-7	ng/g	0.0020 JN	0.014 JN	0.019	0.0027 JN	0.0020 JN	0.0091 JN	0.0017 J	0.0028 JN	0.024	0.012
PCB-3	2051-62-9	ng/g	0.0044 J	0.0034 J+	0.0092 J	0.0049 JN	< 0.0015 U	0.0048 JN	0.0020 JN	0.0023 J	0.0041 J	0.0013 J+
PCB-31	16606-02-3	ng/g	0.034	0.16	0.18	0.047	0.022	0.10	0.0054 J	0.028	0.11	0.013 J
PCB-32	38444-77-8	ng/g	0.0084 J	0.054	0.065 J+	0.012 J	0.0066 JN	0.037	0.0026 JN	0.0073 J	0.047	0.024
PCB-34	37680-68-5	ng/g	< 0.00065 U	< 0.0012 U	< 0.0014 U	< 0.00090 U	< 0.00052 U	< 0.0011 U	< 0.00022 U	< 0.00067 U	< 0.0011 U	< 0.00040 U
PCB-35	37680-69-6	ng/g	0.0018 J	0.0034 JN	0.0045 J	< 0.00086 U	0.0011 JN	0.0020 JN	0.00053 JN	< 0.00064 U	0.0036 J	0.00078 J
PCB-36	38444-87-0	ng/g	< 0.00057 U	< 0.0011 U	< 0.0013 U	< 0.00078 U	0.00059 JN	< 0.00093 U	< 0.00019 U	< 0.00058 U	< 0.00092 U	< 0.00035 U
PCB-37	38444-90-5	ng/g	0.015	0.046	0.061	0.020	0.012	0.032	0.0026 J	0.013	0.043	0.0034 JN
PCB-38	53555-66-1	ng/g	< 0.00061 U	< 0.0012 U	< 0.0014 U	< 0.00085 U	< 0.00052 U	< 0.0010 U	< 0.00021 U	< 0.00063 U	< 0.0010 U	< 0.00037 U
PCB-39	38444-88-1	ng/g	< 0.00056 U	0.0020 JN	< 0.0013 U	< 0.00078 U	< 0.00047 U	< 0.00092 U	< 0.00019 U	< 0.00057 U	0.0033 J	< 0.00034 U
PCB-4	13029-08-8	ng/g	0.0069 JN	0.021	0.034	0.010 J	0.012 JN	0.066 JN	0.0053 J	0.010 J	0.082	0.019 J
PCB-40/41/71	38444-93-8	ng/g	0.034 J	0.15	0.26	0.037 J	0.025 J	0.044 JN	0.013 J	0.024 JN	0.12	0.057
PCB-42	36559-22-5	ng/g	0.016	0.066 JN	0.11	0.018	0.010	0.024	0.0054 J	0.014	0.050	< 0.0022 U
PCB-43/73	70362-46-8	ng/g	0.0025 JN	0.014 J	0.032	0.0021 JN	0.0012 JN	0.0039 J	0.0021 J	0.0025 J	0.026	0.015 J
PCB-44/47/65	41464-39-5	ng/g	0.075	0.40	0.73	0.074	0.084	0.11	0.034	0.076	0.45	0.18
PCB-45/51	70362-45-7	ng/g	0.016 J	0.12	0.19	0.013 J	0.013 JN	0.022	0.012 J	0.012 J	0.11	0.13
PCB-46	41464-47-5	ng/g	0.0051 J	0.017 JN	0.028 JN	0.0033 J	0.0030 JN	0.0056 JN	< 0.00049 U	0.0022 J	0.014 JN	0.017
PCB-48	70362-47-9	ng/g	0.0085 J	0.054	0.048 JN	0.011 J	0.0064 J	0.016	0.0024 JN	0.0064 JN	0.035	< 0.0021 U
PCB-49/69	41464-40-8	ng/g	0.053	0.26	0.58	0.046	0.053	0.062	0.019	0.048	0.24	0.21
PCB-5	16605-91-7	ng/g	< 0.00066 U	< 0.0024 U	< 0.0021 U	< 0.00073 U	< 0.0024 U	0.0024 JN	< 0.00023 U	< 0.00046 U	< 0.00055 U	< 0.00048 U
PCB-50/53	62796-65-0	ng/g	0.015 J	0.12	0.30	0.011 J	0.018 J	0.018 JN	0.016 J	0.011 J	0.11	0.28
PCB-52	35693-99-3	ng/g	0.11	0.43	0.93	0.10	0.12	0.17	0.037	0.13	0.75	0.41
PCB-54	15968-05-5	ng/g	0.0011 JN	0.029	0.023	< 0.000052 U	0.0046 J	< 0.000070 U	0.0037 J	0.0022 JN	0.038	0.028
PCB-55	74338-24-2	ng/g	< 0.00055 U	0.0067 JN	0.010	0.0015 JN	< 0.00079 U	0.0014 JN	< 0.00027 U	0.0012 JN	0.0071 JN	< 0.0015 U
PCB-56	41464-43-1	ng/g	0.027	0.13	0.16	0.027	0.020	0.029	0.0082 J	0.025	0.092	0.0057 JN
PCB-57	70424-67-8	ng/g	< 0.00056 U	< 0.0018 U	0.0042 J	< 0.00074 U	< 0.00081 U	< 0.00093 U	< 0.00028 U	< 0.00071 U	< 0.00097 U	< 0.0015 U
PCB-58	41464-49-7	ng/g	< 0.00054 U	0.0023 JN	0.0090 J	< 0.00071 U	< 0.00082 U	< 0.00090 U	0.00030 JN	< 0.00068 U	0.0015 JN	< 0.0014 U
PCB-59/62/75	74472-33-6	ng/g	0.0055 J	0.024 JN	0.032 JN	0.0053 JN	0.0033 JN	0.0068 JN	0.0020 J	0.0044 JN	0.019 J	0.011 J
PCB-6	25569-80-6	ng/g	0.0041 J	0.0085 JN	0.011 JN	0.0038 JN	< 0.0021 U	0.031	0.0011 J	0.0030 JN	0.012 J	< 0.00047 U
PCB-60	33025-41-1	ng/g	0.011 JN	0.033 JN	0.068	0.013	0.0093 J	0.015	0.0043 J	0.011 J	0.047	< 0.0015 U
PCB-61/70/74/76	33284-53-6	ng/g	0.12	0.50	0.76	0.12	0.11	0.15	0.028 J	0.13	0.63	0.036 J
PCB-63	74472-34-7	ng/g	0.0022 JN	0.012 JN	0.018	0.0020 J	0.0020 J	0.0033 J	0.00057 J+	0.0012 JN	0.0082 J	< 0.0013 U
PCB-64	52663-58-8	ng/g	0.026	0.11	0.12	0.030	0.022	0.037	0.0086 J	0.027	0.097	0.0089 JN
PCB-66	32598-10-0	ng/g	0.071	0.28	0.50	0.067	0.052	0.075	0.017	0.068	0.24	0.022
PCB-67	73575-53-8	ng/g	0.0012 JN	0.0074 JN	0.0092 JN	0.00090 JN	0.00090 JN	0.0022 J	0.00033 JN	< 0.00065 U	0.0050 J	< 0.0014 U
PCB-68	73575-52-7	ng/g	0.0017 J	0.0059 J	0.0089 JN	< 0.00064 U	< 0.00071 U	0.0013 JN	< 0.00024 U	0.0015 J+	0.0052 J	< 0.0013 U
PCB-7	33284-50-3	ng/g	< 0.00062 U	0.0028 JN	0.0028 JN	0.0024 J	< 0.0021 U	0.0060 J	0.0016 J+	< 0.00043 U	0.0019 JN	< 0.00045 U
PCB-72	41464-42-0	ng/g	0.0015 J	0.0069 JN	0.012 JN	< 0.00072 U	0.0011 JN	< 0.00092 U	< 0.00027 U	< 0.00069 U	0.0034 J	< 0.0015 U
PCB-77	32598-13-3	ng/g	0.0092 J	0.024	0.031	0.011 J	0.0092 J	0.0099 J	0.0019 J	0.0085 J	0.024	0.0017 J
PCB-78	70362-49-1	ng/g	< 0.00054 U	< 0.0018 U	< 0.0028 U	< 0.00071 U	< 0.00082 U	< 0.00090 U	< 0.00027 U	< 0.00068 U	< 0.00093 U	< 0.0015 U
PCB-79	41464-48-6	ng/g	0.0014 J	0.0050 J	0.0097	0.00080 J	0.0012 J	0.0013 JN	< 0.00023 U	0.0011 JN	0.0098 J	< 0.0012 U
PCB-8	34883-43-7	ng/g	0.010 J	0.036	0.055	0.015 JN	0.0096 JN	0.14	0.0031 J+	0.010 J	0.050	0.0038 J
PCB-80	33284-52-5	ng/g	< 0.00048 U	< 0.0016 U	< 0.0024 U	< 0.00063 U	< 0.00069 U	< 0.00080 U	< 0.00024 U	< 0.00060 U	< 0.00083 U	< 0.0013 U
PCB-81	70362-50-4	ng/g	< 0.00051 U	< 0.0016 U	< 0.0025 U	< 0.00067 U	< 0.00075 U	< 0.00084 U	< 0.00026 U	< 0.00065 U	< 0.00089 U	< 0.0013 U
PCB-82	52663-62-4	ng/g	0.024	0.062	0.13 JN	0.019 JN	0.016 JN	0.030	0.0041 JN	0.025	0.19	0.011
PCB-83/99	60145-20-2	ng/g	0.12	0.45	1.4	0.098	0.12	0.14	0.022	0.12	0.83	0.097
PCB-84	52663-60-2	ng/g	0.046	0.13 JN	0.37	0.037	0.047	0.057	0.011 JN	0.043 JN	0.40	0.028
PCB-85/116/117	65510-45-4	ng/g	0.036	0.093	0.26	0.033 J	0.032	0.044	0.0061 J	0.038	0.26	0.014 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.11	0.36	0.98	0.11	0.13	0.16	0.024 J	0.14	1.0	0.065
PCB-88/91	55215-17-3	ng/g	0.033	0.17	0.48	0.022 JN	0.038	0.036	0.012 J	0.027 JN	0.24	0.069
PCB-89	73575-57-2	ng/g	< 0.00055 U	0.0068 JN	< 0.00018 U	0.0018 J	< 0.00032 U	0.0022 J	0.00054 JN	< 0.00051 U	0.011 JN	< 0.00038 U
PCB-9	34883-39-1	ng/g	< 0.00072 U	0.0030 JN	0.0034 JN	0.0019 J	< 0.0022 U	0.0094 JN	< 0.00025 U	< 0.00050 U	0.0031 J	< 0.00052 U
PCB-90/101/113	68194-07-0	ng/g	0.19	0.82	2.5	0.15	0.24	0.25	0.055	0.19	1.4	0.23
PCB-92	52663-61-3	ng/g	0.041	0.16	0.56	0.028	0.039	0.040 JN	0.010	0.038	0.29	0.044
PCB-93/100	73575-56-1	ng/g	0.0056 JN	0.045 JN	0.10 JN	0.0047 J	0.0063 JN	0.0042 J	0.0048 JN	0.0031 JN	0.054	0.028
PCB-94	73575-55-0	ng/g	0.0017 J	0.018	0.039 JN	< 0.00068 U	< 0.00032 U	< 0.00039 U	0.0014 J	< 0.00051 U	0.012 J	0.0071 JN
PCB-95	38379-99-6	ng/g	0.17	0.71	2.2	0.12	0.19	0.19	0.064	0.16	1.4	0.35
PCB-96	73575-54-9	ng/g	0.0015 J+	0.017	0.045	< 0.00051 U	0.0021 J	< 0.00029 U	0.0016 J	0.0012 JN	0.016	0.013 JN
PCB-98/102	60233-25-2	ng/g	0.0068 JN	0.031	0.080	0.0041 JN	0.0044 JN	0.0078 JN	0.0031 J	0.0061 JN	0.050	0.024
Total PCBs (b)	T_PCBCg (PDI)	ng/g	5.6	22	67	4.2	4.3	6.3	1.4	4.3	29	5.2

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B390	B391	B392	B393	B394	B395	B396	B397	B398	B399
		Sample ID	PDI-SG-B390-BL1	PDI-SG-B391-BL1	PDI-SG-B392-BL1	PDI-SG-B393-BL1	PDI-SG-B394-BL1	PDI-SG-B395-BL1	PDI-SG-B396-BL1	PDI-SG-B397-BL1	PDI-SG-B398-BL1	PDI-SG-B399-BL1
		Sample Date	01 May 2018	20 May 2018	20 May 2018	01 May 2018	26 Apr 2018	18 May 2018	30 May 2018	18 May 2018	22 May 2018	24 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-14 cm	0-20 cm	0-30 cm	0-28 cm	0-30 cm	0-14 cm	0-30 cm	0-19 cm	0-15 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.58 U	< 1.4 U	< 1.6 U	< 5.7 U	< 0.50 UJ	< 1.8 U	< 0.63 U	< 1.9 U	< 1.3 U	< 0.68 U
2,4-DDE	3424-82-6	µg/kg	< 0.58 U	< 1.4 U	< 1.6 U	< 5.7 U	< 0.50 UJ	< 1.8 U	< 0.79 U	< 1.9 U	< 1.3 U	< 0.79 U
2,4-DDT	789-02-6	µg/kg	< 0.58 U	< 1.4 U	< 1.6 U	< 5.7 U	< 0.50 UJ	< 1.8 UJ	< 0.94 U	< 1.9 UJ	< 1.3 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	1.9 J	< 1.4 U	1.3 J	< 5.7 U	0.51 J	0.66 J	< 0.57 U	0.75 J	0.67 J	< 0.68 U
4,4'-DDE	72-55-9	µg/kg	2.2	< 1.4 U	1.8	< 5.7 U	1.1 J	1.5 J	< 0.70 U	< 1.9 U	1.6	< 0.70 U
4,4'-DDT	50-29-3	µg/kg	0.76	< 1.4 U	0.92 J	< 5.7 U	< 0.50 UJ	< 1.8 U	< 0.57 U	< 1.9 U	0.99 J	< 0.68 U
Total DDx (b)	T_DDx (PDI)	µg/kg	5.2	< 1.4 U	4.8	< 5.7 U	1.9	3.1	< 0.94 U	1.7	3.9	< 0.94 U
Aldrin	309-00-2	µg/kg	< 0.58 U	< 1.4 U	< 1.6 U	< 5.7 U	< 0.50 UJ	< 1.8 U	< 0.79 U	< 1.9 U	< 1.3 U	< 0.79 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.2 U	< 2.7 U	1.4 J	< 11 U	< 1.0 UJ	< 3.7 U	< 1.1 U	< 3.9 U	< 2.5 U	< 1.4 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.58 U	< 1.4 U	< 1.6 U	< 5.7 U	< 0.50 UJ	< 1.8 U	< 0.97 U	< 1.9 U	< 1.3 UJ	< 0.97 U
Dieldrin	60-57-1	µg/kg	< 1.2 U	< 2.7 U	< 3.2 U	< 11 U	< 1.0 UJ	< 3.7 U	< 2.0 U	< 3.9 U	< 2.5 U	< 2.0 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.58 U	< 1.4 U	< 1.6 U	< 5.7 U	< 0.50 UJ	< 1.8 U	< 0.57 U	< 1.9 U	< 1.3 U	< 0.68 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.2 U	< 2.7 U	3.1 J	< 11 U	< 1.0 UJ	< 3.7 U	< 1.1 U	< 3.9 U	< 2.5 U	< 1.4 U
Heptachlor	76-44-8	µg/kg	< 0.58 U	< 1.4 U	< 1.6 U	< 5.7 U	< 0.50 UJ	< 1.8 U	< 0.57 U	< 1.9 U	< 1.3 U	< 0.68 U
Oxychlordane	27304-13-8	µg/kg	< 1.2 U	< 2.7 U	< 3.2 U	< 11 U	< 1.0 UJ	< 3.7 U	< 2.0 U	< 3.9 U	< 2.5 U	< 2.0 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.2 U	< 2.7 U	1.8 J	< 11 U	< 1.0 UJ	< 3.7 U	< 1.1 U	< 3.9 U	< 2.5 U	< 1.4 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.2 U	< 2.7 U	7.9	< 11 U	< 1 UJ	< 3.7 U	< 2 U	< 3.9 U	< 2.5 U	< 2 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	2.7	1.5	13	2.8	1.1	1.7	0.43 J	1.8	4.2	0.44 J
Acenaphthene	83-32-9	µg/kg	7.2	1.6	21	3.2	1.4	2.0	< 0.59 U	2.1	2.7	0.21 J
Acenaphthylene	208-96-8	µg/kg	4.2	2.7	26	2.4	1.0	1.6	0.19 J	1.8	2.6	0.38
Anthracene	120-12-7	µg/kg	13	4.8	37	6.1	3.8	4.5	0.37 J	3.6	6.3	0.86
Benz(a)anthracene	56-55-3	µg/kg	25	22	150	16	8.1	18	2.7	11	14	2.8
Benzo(a)pyrene	50-32-8	µg/kg	27	25	150	21	9.6	32	4.9	28	31	2.8
Benzo(b)fluoranthene	205-99-2	µg/kg	32	34	200	73	12	29	6.5	21	27	4.6
Benzo(g,h,i)perylene	191-24-2	µg/kg	24	22	130	23	9.7	16	11	13	15 J	3.9
Benzo(k)fluoranthene	207-08-9	µg/kg	10	12	78	19	3.8	10	1.2	6.4	8.0	1.8
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	93 J	60 J	93 J	210	110	250	< 580 U	130	210	36 J
Chrysene	218-01-9	µg/kg	33	30	210	60	14	24	6.3	20	25	5.4
Dibenz(a,h)anthracene	53-70-3	µg/kg	4.4	4.5	20	4.2	1.5	3.0	3.3	2.2	2.8 J	0.77
Fluoranthene	206-44-0	µg/kg	75	49	520	120	23	34	3.7	27	37	11
Fluorene	86-73-7	µg/kg	7.4	2.9	39	6.4	1.6	2.5	0.34 J	2.4	4.0	0.37
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	22	20	120	20	7.9	13	4.4	10	13	2.8
Naphthalene	91-20-3	µg/kg	4.0	3.3	37	4.1	1.9	3.1	0.38 J	2.6	6.3	0.70
Phenanthrene	85-01-8	µg/kg	57	15	200	96	10	18	2.9	15	26	4.6
Pyrene	129-00-0	µg/kg	80	52	490	77	24	36	9.0	31	41	8.3
Total PAHs (b)	T_PAH (PDI)	µg/kg	428	302	2441	554	134	248	58	199	266	52
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	39	37	218	36	14	41	10	34	39	5
Metals												
Arsenic	7440-38-2	mg/kg	4.9	3.1	3.6	4.7	4.3	4.8	1.8	4.8	5.3	4.0
Cadmium	7440-43-9	mg/kg	0.25 J	0.13 J	0.21	0.22 J	0.14 J	0.17 J	0.072 J	0.20 J	0.16 J	0.069 J
Copper	7440-50-8	mg/kg	39	17	28	38 J	30	37	16	37	44	18
Lead	7439-92-1	mg/kg	12	12	25	11	8.2	10	5.0	9.7	15	9.3
Mercury	7439-97-6	mg/kg	0.083	0.046 J	< 0.039 UJ	0.082	0.093	0.13	< 0.031 U	0.17	0.044 J	0.014 J
Tri-n-butyltin	36643-28-4	µg/kg	< 2.3 U	< 1.4 U	< 1.7 U	< 2.5 U	< 2.0 U	< 2.2 U	< 1.2 U	< 2.3 U	< 2.5 U	< 1.3 U
Zinc	7440-66-6	mg/kg	99	76	93	97	87	98	46	95	110	60
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	58 J	27 J	54 J	94 J	23 J	48 J	< 590 U	93 J	72 J	18 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	360	130	330	510	170	350	600	400	520	170
Other												
Total Solids@104C - D2216 (f)	TSOLID	%		86.3	66.5			43.5	76.8	41.5	39.2	72.7
Total Solids@104C - E160.3 (f)	TSOLID	%	42.1			39.7	51.0					
Total Solids@104C - E160.3M (f)	TSOLID	%	42.9	71.7	60.0	40.1	50.0	44.5	85.7	42.6	39.0	73.3
Total Solids@70C	TSOLID70	%	44	86	75	40	50	44	86	42	39	73
Gravel	GS-Gravel	%	0	40.3	2.2	0	0	0	59.7	0	0	18.6
Sand, Coarse	GS-Csand	%	0	8.1	2.9	0.1	0	0.1	7.9	0	0.4	8.1
Sand, Medium	GS-Msand	%	0.2	10.3	10.3	0.1	0.3	0.2	12.1	0.1	1.9	31.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	27.06	20.53	51.52	18.36	49.61	26.74	14.64	24.69	22.8	33.37
Sand, Fine (#230) (d)	GS-Fsand	%	32.8	21.6	55.1	23.1	53.6	32.9	15.3	30.2	26.3	34.2
Silt (#200) (d)	GS-Silt-200	%	64.23	18.76	29.97	72.23	44.68	61.35	5.651	64.60	65.89	7.320

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B390	B391	B392	B393	B394	B395	B396	B397	B398	B399
		Sample ID	PDI-SG-B390-BL1	PDI-SG-B391-BL1	PDI-SG-B392-BL1	PDI-SG-B393-BL1	PDI-SG-B394-BL1	PDI-SG-B395-BL1	PDI-SG-B396-BL1	PDI-SG-B397-BL1	PDI-SG-B398-BL1	PDI-SG-B399-BL1
		Sample Date	01 May 2018	20 May 2018	20 May 2018	01 May 2018	26 Apr 2018	18 May 2018	30 May 2018	18 May 2018	22 May 2018	24 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-14 cm	0-20 cm	0-30 cm	0-28 cm	0-30 cm	0-14 cm	0-30 cm	0-19 cm	0-15 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	58.5	17.7	26.4	67.5	40.7	55.2	5.0	59.1	62.4	6.5
Clay	GS-Clay	%	8.5	1.9	3.2	9.1	5.4	11.7	0	10.6	8.9	1.5
Percent Fines (e)	GS-FINES	%	72.73	20.66	33.17	81.33	50.08	73.05	5.651	75.2	74.79	8.82
Total Organic Carbon	TOC	mg/kg	20000	6000	7500	25000	16000	25000	5900	23000	31000	5600

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B400	B401	B402	B403	B404	B405	B406	B407	B408	B409
		Sample ID	PDI-SG-B400-BL1	PDI-SG-B401-BL1	PDI-SG-B402-BL1	PDI-SG-B403-BL1	PDI-SG-B404-BL1	PDI-SG-B405-BL1	PDI-SG-B406-BL1	PDI-SG-B407-BL1	PDI-SG-B408-BL1	PDI-SG-B409-BL1
		Sample Date	28 Apr 2018	26 Apr 2018	18 May 2018	19 May 2018	23 May 2018	28 Apr 2018	19 May 2018	19 May 2018	28 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-29 cm	0-30 cm	0-26 cm	0-9 cm	0-12 cm	0-26 cm	0-27 cm	0-22 cm	0-16 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.049	0.026	0.043	0.051	0.077	0.14	0.096	0.066	0.011	0.018
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0090 JN	0.0050 JN	0.0093 JN	0.012	0.0090 JN	0.021	0.018	0.017	0.0019 JN	0.0019 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00053 J+	< 0.00025 U	0.0012 J+	0.0015 J+	0.00090 JN	0.0022 J+	0.0015 J+	0.0016 J+	< 0.00016 U	< 0.00046 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00071 J+	0.00055 J+	0.00092 J+	0.00090 JN	0.00058 J	0.0012 J	0.00089 JN	0.0013 J	< 0.00022 U	0.00031 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0011 J	< 0.00015 U	0.0012 JN	0.0014 J+	0.0014 J	0.0030 J	0.0020 J	0.0016 J+	0.00021 J+	0.00018 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0023 J	0.0012 J	0.0022 J	0.0024 J	0.0041 JN	0.0061	0.0031 JN	0.0042 J	0.00050 J+	0.00053 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00053 J	< 0.0014 U	0.00063 J+	0.00061 JN	0.00057 JN	0.0017 J	0.00083 JN	0.0010 J+	< 0.000080 U	0.00011 J+
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0017 J	0.0010 J	0.0026 J	0.0028 J	0.0012 J	0.0027 J	0.0025 JN	0.0038 J	0.00043 J+	0.0010 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00015 U	< 0.00010 U	0.00098 J+	< 0.00083 U	< 0.00011 U	< 0.00068 U	< 0.00087 U	0.00097 J+	< 0.00014 U	< 0.00057 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00043 J+	0.00035 J	< 0.00016 U	0.00043 JN	0.00027 J	0.00078 J	0.00051 JN	0.00080 J+	< 0.0001 U	0.00024 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00032 J+	< 0.00013 U	< 0.00012 U	0.00041 JN	0.00029 JN	0.00088 J+	< 0.00011 U	0.00041 J	< 0.00010 U	< 0.00012 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00040 J+	< 0.00010 U	0.00058 J+	< 0.00030 U	0.00059 J	0.00083 J	0.00061 J+	0.00072 JN	< 0.000059 U	0.000082 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00035 J+	< 0.00014 U	< 0.00017 U	0.00030 JN	0.00030 JN	0.00097 J	0.00030 J	0.00044 JN	< 0.00010 U	0.000094 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00023 JN	< 0.000084 U	< 0.00049 U	< 0.00083 U	0.00012 JN	0.00097	< 0.00031 U	< 0.00079 U	0.00011 JN	< 0.00010 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0011 J+	0.00029 J	0.00051 JN	0.00053 JN	0.00062 J	0.0015	0.00055 JN	0.00056 JN	< 0.00039 U	0.00017 J+
OCDD	3268-87-9	µg/kg	0.38	0.24	0.33	0.34	0.50	1.7	0.71	0.45	0.093	0.29
OCDF	39001-02-0	µg/kg	0.028	0.016	0.032	0.032	0.020	0.051	0.073	0.048	0.0057 J	0.0055 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0023	0.0011	0.0019	0.0026	0.0024	0.006	0.0032	0.0037	0.00043	0.00084
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0022	0.0011	0.0017	0.0018	0.0022	0.006	0.002	0.0035	0.00031	0.0006
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.002	0.001	0.0014	0.0014	0.0021	0.0059	0.0017	0.0031	0.00025	0.00048
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.00027 U	< 0.0013 U	0.0020 J	< 0.00049 U	0.0069 J	0.27	< 0.00066 U	0.0027 JN	< 0.0017 U	< 0.00040 U
PCB-10	33146-45-1	ng/g	0.0043 J	< 0.0027 U	< 0.00083 U	< 0.0051 U	0.0090 JN	0.48	< 0.0048 U	< 0.00089 U	0.15	< 0.0044 U
PCB-103	60145-21-3	ng/g	0.016 JN	0.0025 JN	0.0012 JN	0.0019 JN	0.36	4.2	< 0.00067 U	0.0023 J	0.43	0.0091 JN
PCB-104	56558-16-8	ng/g	0.0023 JN	< 0.00022 U	< 0.00028 U	< 0.00034 U	0.033	0.41	< 0.00051 U	< 0.00044 U	< 0.0023 U	< 0.00034 U
PCB-105	32598-14-4	ng/g	0.063	0.039	0.056	0.048	0.13	0.89	0.063	0.079	2.4	0.095
PCB-106	70424-69-0	ng/g	< 0.0012 U	< 0.0010 U	< 0.0021 U	< 0.0017 U	< 0.0015 U	< 0.0092 U	< 0.0027 U	< 0.0018 U	< 0.019 UJ	< 0.0019 U
PCB-107	70424-68-9	ng/g	0.015	0.0084 J	0.011	0.011 JN	0.050	0.60	0.014 JN	0.013	0.38 J	0.018
PCB-108/124	70362-41-3	ng/g	0.0059 JN	0.0049 J	0.0051 JN	< 0.0017 U	0.015 J	0.11	0.0085 J	0.0082 J	0.28	0.010 J
PCB-11	2050-67-1	ng/g	0.048	0.025 JN	0.32	0.063	0.015 J+	< 0.013 U	0.050	0.085	< 0.025 U	0.0064 JN
PCB-110/115	38380-03-9	ng/g	0.29	0.14	0.15	0.21	1.3	11	0.53	0.21	28	0.48
PCB-111	39635-32-0	ng/g	< 0.00029 U	< 0.00021 U	< 0.00025 U	< 0.00031 U	0.011	< 0.00076 U	< 0.00047 U	< 0.00039 U	< 0.0021 U	< 0.00031 U
PCB-112	74472-36-9	ng/g	0.0011 J	< 0.00022 U	< 0.00027 U	< 0.00033 U	0.0083 JN	< 0.00080 U	< 0.00050 U	0.0017 JN	< 0.0022 U	< 0.00033 U
PCB-114	74472-37-0	ng/g	0.0030 J	< 0.00094 U	< 0.0019 U	< 0.0016 U	0.0095 J	0.077 JN	< 0.0026 U	0.0044 J	0.16 JN	0.0043 JN
PCB-118	31508-00-6	ng/g	0.17	0.11	0.12	0.12	0.41	2.9	0.15	0.17	11 J	0.25
PCB-12/13	2974-92-7	ng/g	0.0031 JN	< 0.0024 U	< 0.00071 U	< 0.0046 U	0.0031 JN	< 0.013 U	< 0.0044 U	0.0049 J	< 0.026 U	< 0.0039 U
PCB-120	68194-12-7	ng/g	< 0.00029 U	< 0.00021 U	0.00057 JN	< 0.00032 U	0.018	0.16	< 0.00048 U	0.0010 JN	< 0.0022 U	< 0.00032 U
PCB-121	56558-18-0	ng/g	< 0.00030 U	< 0.00021 U	< 0.00026 U	< 0.00033 U	0.020 JN	0.24	< 0.00049 U	< 0.00042 U	< 0.0022 U	< 0.00033 U
PCB-122	76842-07-4	ng/g	< 0.0014 U	< 0.0012 U	< 0.0023 U	< 0.0019 U	0.0062 JN	0.032 JN	< 0.0031 U	< 0.0020 U	< 0.022 UJ	0.0047 J
PCB-123	65510-44-3	ng/g	0.0028 J	0.0029 J	0.0026 J	0.0038 J	0.0055 JN	0.052 JN	0.0050 J	0.0039 JN	0.088 J	0.0037 JN
PCB-126	57465-28-8	ng/g	< 0.0013 U	< 0.0010 U	< 0.0020 U	< 0.0016 U	< 0.0017 U	< 0.010 U	< 0.0028 U	< 0.0018 U	< 0.021 U	< 0.0020 U
PCB-127	39635-33-1	ng/g	< 0.0012 U	< 0.0010 U	< 0.0020 U	< 0.0017 U	< 0.0015 U	< 0.0092 U	< 0.0027 U	< 0.0017 U	< 0.019 UJ	< 0.0019 U
PCB-128/166	38380-07-3	ng/g	0.055	0.027 JN	0.044	0.034 JN	0.21	1.2	0.17	0.056	9.9	0.060
PCB-129/138/160/163	55215-18-4	ng/g	0.51	0.27	0.26	0.27	2.8	17	0.71	0.33	150	0.50
PCB-130	52663-66-8	ng/g	0.026	0.014	0.016	0.013 JN	0.11	0.74	0.068	0.020 JN	3.7	0.028
PCB-131	61798-70-7	ng/g	< 0.0026 U	< 0.0017 U	< 0.0027 U	< 0.0031 U	0.022 JN	< 0.058 U	0.013 JN	0.0036 J	< 0.30 U	0.0084 J
PCB-132	38380-05-1	ng/g	0.16	0.073	0.069	0.072	1.2	6.3	0.36	0.085	43	0.18
PCB-133	35694-04-3	ng/g	0.012	0.0052 J	0.0030 J	< 0.0028 U	0.11	1.2	0.011 JN	0.0051 J	< 0.27 U	0.0056 JN
PCB-134/143	52704-70-8	ng/g	0.027	0.013 J	0.0086 JN	0.012 J	0.21	1.2	0.059	0.013 JN	6.4	0.028 JN
PCB-135/151	52744-13-5	ng/g	0.22	0.072	0.072	0.088	1.8	14	0.28	0.082	81	0.18
PCB-136	38411-22-2	ng/g	0.086	0.024	0.023	0.025	0.91	7.4	0.092	0.027	27	0.071
PCB-137	35694-06-5	ng/g	0.013	0.0074 JN	0.017	0.0085 J	0.044	0.21 JN	0.042	0.013 JN	0.49	0.017
PCB-139/140	56030-56-9	ng/g	0.0060 JN	< 0.0014 U	0.0027 JN	< 0.0025 U	0.057	0.43 JN	0.017 JN	0.0040 JN	< 0.24 U	0.0085 J
PCB-14	34883-41-5	ng/g	< 0.0021 U	< 0.0021 U	< 0.00065 U	< 0.0039 U	< 0.0019 U	< 0.011 U	< 0.0037 U	< 0.00069 U	< 0.022 U	< 0.0033 U
PCB-141	52712-04-6	ng/g	0.11	0.043 JN	0.040	0.044	0.68	3.4	0.13	0.056	47	0.10
PCB-142	41411-61-4	ng/g	< 0.0024 U	< 0.0016 U	< 0.0026 U	< 0.0028 U	< 0.0043 U	< 0.052 U	< 0.0063 U	< 0.0016 U	< 0.27 U	< 0.0043 U
PCB-144	68194-14-9	ng/g	0.021	0.0057 JN	0.0089 JN	0.0090 J	0.16	0.83 JN	0.032 JN	0.0086 JN	11	0.021 JN
PCB-145	74472-40-5	ng/g	< 0.00031 U	< 0.00010 U	< 0.000024 U	< 0.00024 U	0.0032 JN	0.023 J	< 0.00053 U	0.00016 JN	< 0.0025 U	< 0.00047 U
PCB-146	51908-16-8	ng/g	0.096	0.037	0.032	0.036 JN	0.72	6.3	0.10	0.043	20	0.079
PCB-147/149	68194-13-8	ng/g	0.61	0.22	0.15	0.20	4.8	30	0.83	0.19	170	0.56
PCB-148	74472-41-6	ng/g	< 0.00043 U	< 0.00015 U	< 0.000031 U	< 0.00034 U	0.034	0.57	< 0.00075 U	0.00030 JN	< 0.0035 U	0.0026 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B400	B401	B402	B403	B404	B405	B406	B407	B408	B409
		Sample ID	PDI-SG-B400-BL1	PDI-SG-B401-BL1	PDI-SG-B402-BL1	PDI-SG-B403-BL1	PDI-SG-B404-BL1	PDI-SG-B405-BL1	PDI-SG-B406-BL1	PDI-SG-B407-BL1	PDI-SG-B408-BL1	PDI-SG-B409-BL1
		Sample Date	28 Apr 2018	26 Apr 2018	18 May 2018	19 May 2018	23 May 2018	28 Apr 2018	19 May 2018	19 May 2018	28 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-29 cm	0-30 cm	0-26 cm	0-9 cm	0-12 cm	0-26 cm	0-27 cm	0-22 cm	0-16 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.015	0.0073 JN	0.011 JN	0.010 JN	0.011 JN	0.11	0.0093 JN	0.0081 JN	0.12 JN	0.021
PCB-150	68194-08-1	ng/g	0.0038 J	0.00034 JN	< 0.000021 U	< 0.00023 U	0.054	0.76	< 0.00051 U	0.00021 JN	< 0.0024 U	< 0.00045 U
PCB-152	68194-09-2	ng/g	0.0020 JN	< 0.00011 U	0.00015 JN	< 0.00025 U	0.012 JN	0.16	< 0.00054 U	< 0.000067 U	< 0.0026 U	< 0.00048 U
PCB-153/168	35065-27-1	ng/g	0.48	0.21	0.18	0.20	3.0	19	0.45	0.23	160	0.45
PCB-154	60145-22-4	ng/g	0.0083 JN	0.0017 JN	0.0022 JN	0.0018 JN	0.16	2.0	0.0072 J	0.0036 JN	0.54	0.0063 JN
PCB-155	33979-03-2	ng/g	< 0.00029 U	< 0.00010 U	< 0.000022 U	< 0.00023 U	0.0047 J	0.090	< 0.00051 U	< 0.000063 U	< 0.0024 U	< 0.00045 U
PCB-156/157	38380-08-4	ng/g	0.034	0.022 JN	0.030	0.025	0.13	0.78	0.050 JN	0.036	9.1	0.037
PCB-158	74472-42-7	ng/g	0.042	0.022	0.026	0.025	0.23	1.2	0.072 JN	0.032	13	0.046
PCB-159	39635-35-3	ng/g	< 0.0016 U	< 0.0010 U	< 0.0016 U	< 0.0019 U	0.018 JN	< 0.035 U	< 0.0042 U	0.0033 J	2.5	< 0.0029 U
PCB-16	38444-78-9	ng/g	0.0067 J	0.0041 JN	0.0080 J	0.0072 JN	0.0091 JN	0.15	0.0074 JN	0.0099 J	0.042 J	0.024 JN
PCB-161	74472-43-8	ng/g	< 0.0016 U	< 0.0010 U	< 0.0017 U	< 0.0019 U	< 0.0029 U	< 0.035 U	< 0.0042 U	< 0.0011 U	< 0.18 U	< 0.0029 U
PCB-162	39635-34-2	ng/g	< 0.0016 U	< 0.0010 U	< 0.0016 U	< 0.0018 U	< 0.0028 U	< 0.034 U	< 0.0042 U	< 0.0010 U	< 0.18 U	< 0.0028 U
PCB-164	74472-45-0	ng/g	0.037	0.018	0.017 JN	0.019	0.21	1.3	0.067 JN	0.023	11	0.036
PCB-165	74472-46-1	ng/g	< 0.0018 U	< 0.0012 U	< 0.0019 U	< 0.0021 U	0.0091 JN	< 0.039 U	< 0.0048 U	< 0.0012 U	< 0.20 U	< 0.0032 U
PCB-167	52663-72-6	ng/g	0.013	0.0073 J	0.010 J	0.011	0.047	0.28 JN	0.028	0.012 JN	3.2	0.013
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.00078 U	< 0.0012 U	< 0.0015 U	< 0.0023 U	0.10 JN	< 0.0036 U	< 0.00078 U	< 0.14 U	< 0.0023 U
PCB-17	37680-66-3	ng/g	0.046 JN	0.010 JN	0.0089 J	0.013 JN	0.20	2.5	0.0086 JN	0.011 J	1.0	0.036 JN
PCB-170	35065-30-6	ng/g	0.15	0.066	0.061	0.080	0.63	5.6	0.25	0.082	82	0.10
PCB-171/173	52663-71-5	ng/g	0.044	0.017 J	0.018 J	0.017 JN	0.21	2.0	0.064 JN	0.023 J	26	0.037
PCB-172	52663-74-8	ng/g	0.026	0.0078 JN	0.012	0.011	0.11	1.0	0.036	0.014 JN	14	0.016
PCB-174	38411-25-5	ng/g	0.17	0.070	0.066	0.073	0.84	6.6	0.20	0.084	90	0.13
PCB-175	40186-70-7	ng/g	0.0050 JN	0.0019 J	0.0021 JN	< 0.00088 U	0.031	0.29	0.0065 J	0.0032 J	3.5	0.0063 J
PCB-176	52663-65-7	ng/g	0.020	0.0070 J	0.0056 J	0.0071 J	0.13	1.0	0.022	0.0068 JN	12	0.018 JN
PCB-177	52663-70-4	ng/g	0.093	0.037	0.037	0.044	0.53	4.8	0.12	0.050	49	0.075
PCB-178	52663-67-9	ng/g	0.043	0.016	0.012	0.017	0.24	2.7	0.038	0.020	16	0.033
PCB-179	52663-64-6	ng/g	0.088	0.032	0.027	0.032	0.56	4.6	0.080	0.030	38	0.077
PCB-18/30	37680-65-2	ng/g	0.027	0.014 J	0.017 J	0.027 JN	0.041 JN	0.84	0.018 J	0.019 J	0.20	0.073 JN
PCB-180/193	35065-29-3	ng/g	0.32	0.14	0.13	0.15	1.4	13	0.45	0.17	190	0.21
PCB-181	74472-47-2	ng/g	< 0.00095 U	< 0.00066 U	0.00072 JN	< 0.00088 U	< 0.00062 U	< 0.0017 U	< 0.0020 U	< 0.000030 U	< 0.0073 U	< 0.0011 U
PCB-182	60145-23-5	ng/g	< 0.00092 U	< 0.00063 U	< 0.000013 U	< 0.00085 U	0.014	0.21	< 0.0019 U	< 0.000029 U	< 0.0070 U	< 0.0010 U
PCB-183/185	52663-69-1	ng/g	0.11	0.043	0.038	0.050	0.56	4.9	0.15	0.044 JN	65	0.099
PCB-184	74472-48-3	ng/g	< 0.00078 U	< 0.00054 U	< 0.000011 U	< 0.00072 U	< 0.00051 U	< 0.0014 U	< 0.0016 U	< 0.000025 U	< 0.0060 U	< 0.00088 U
PCB-186	74472-49-4	ng/g	< 0.00076 U	< 0.00052 U	< 0.000011 U	< 0.00070 U	< 0.00050 U	< 0.0014 U	< 0.0016 U	< 0.000024 U	< 0.0058 U	< 0.00085 U
PCB-187	52663-68-0	ng/g	0.23	0.091	0.081	0.10	1.2	11	0.22	0.11	99	0.17
PCB-188	74487-85-7	ng/g	< 0.00064 U	< 0.00044 U	< 0.000010 U	< 0.00059 U	0.0077 JN	0.20	< 0.0013 U	< 0.000022 U	< 0.0052 U	< 0.00070 U
PCB-189	39635-31-9	ng/g	0.0053 JN	< 0.0016 U	0.0026 J	< 0.0022 U	0.018	0.16	0.012	0.0041 J	2.4	< 0.0023 U
PCB-19	38444-73-4	ng/g	0.18	0.019	0.0032 JN	0.0065 J	0.69	11	0.0024 JN	0.0043 JN	5.5	0.031
PCB-190	41411-64-7	ng/g	0.023	0.011	0.014	0.012 JN	0.11	1.2	0.035 JN	0.016 JN	17	0.015 JN
PCB-191	74472-50-7	ng/g	0.0062 J	< 0.00050 U	0.0032 JN	0.0022 JN	0.025	0.25	0.013	0.0032 JN	4.1	0.0040 JN
PCB-192	74472-51-8	ng/g	< 0.00080 U	< 0.00055 U	< 0.000011 U	< 0.00074 U	< 0.00053 U	< 0.0014 U	< 0.0017 U	< 0.000024 U	< 0.0061 U	< 0.00090 U
PCB-194	35694-08-7	ng/g	0.087	0.050	0.030	0.035	0.31	5.5	0.080	0.044	39	0.041
PCB-195	52663-78-2	ng/g	0.033 JN	0.018	0.013 JN	0.014	0.15	2.8	0.041	0.017	17	0.021 JN
PCB-196	42740-50-1	ng/g	0.034	0.018	0.014	0.014 JN	0.14	2.4	0.037	0.019	20	0.017 JN
PCB-197	33091-17-7	ng/g	< 0.00075 U	< 0.00031 U	0.00093 JN	0.0017 JN	0.012 JN	0.27	0.0026 JN	0.0010 J	1.4	0.0013 JN
PCB-198/199	68194-17-2	ng/g	0.083	0.045	0.041	0.048	0.28	4.3	0.082	0.057	37	0.056
PCB-2	2051-61-8	ng/g	< 0.00031 U	< 0.0019 U	0.0039 J	0.0049 J	< 0.00027 U	< 0.0024 U	< 0.00076 U	0.0040 J	< 0.0020 U	< 0.00043 U
PCB-20/28	38444-84-7	ng/g	0.055	0.033	0.039	0.042	0.074	0.96	0.041	0.043	0.34	0.11
PCB-200	52663-73-7	ng/g	0.0089 JN	0.0051 J	0.0034 JN	0.0039 JN	0.036	0.43	0.0062 JN	0.0060 J	4.2	0.0065 J
PCB-201	40186-71-8	ng/g	0.0081 JN	0.0053 J	0.0033 JN	0.0044 J	0.043	0.57	0.0094 J	0.0049 JN	4.2	0.0080 J
PCB-202	2136-99-4	ng/g	0.018	0.010 JN	0.0082 JN	0.0090 JN	0.075	0.84	0.011 JN	0.013	5.1	0.014
PCB-203	52663-76-0	ng/g	0.047	0.029 JN	0.021 JN	0.028	0.17	3.4	0.0039 JN	0.030 JN	23	0.031
PCB-204	74472-52-9	ng/g	< 0.00076 U	< 0.00031 U	< 0.000062 U	< 0.00066 U	< 0.00052 U	< 0.0013 U	< 0.0011 U	< 0.00022 U	< 0.0090 U	< 0.00049 U
PCB-205	74472-53-0	ng/g	< 0.0025 U	0.0024 JN	0.0016 JN	< 0.0021 U	0.015	0.36	< 0.0058 U	0.0022 JN	2.1	< 0.0033 U
PCB-206	40186-72-9	ng/g	0.045	0.036	0.027	0.037	0.080	2.0	0.034	0.036	6.1	0.035 JN
PCB-207	52663-79-3	ng/g	< 0.0021 U	< 0.0013 U	0.0023 JN	< 0.0013 U	0.0089 JN	0.30	< 0.0027 U	0.0042 JN	0.82	< 0.0021 U
PCB-208	52663-77-1	ng/g	0.013	0.0082 JN	0.0092 J	0.012	0.019	0.29	< 0.0026 U	0.015	0.86	0.014
PCB-209	2051-24-3	ng/g	0.076	0.026	0.031	0.044	0.017 JN	0.14	0.043 JN	0.042	0.096 JN	0.043
PCB-21/33	55702-46-0	ng/g	0.016 J	0.011 JN	0.016 J	0.014 J	0.018 JN	0.42	0.011 JN	0.017 J	0.14 J	0.040
PCB-22	38444-85-8	ng/g	0.012	0.0080 J	0.012	0.015	0.0072 JN	0.14 JN	0.012	0.014	0.043 J	0.027 JN
PCB-23	55720-44-0	ng/g	< 0.00068 U	< 0.00048 U	< 0.00073 U	< 0.0010 U	< 0.00079 U	< 0.0066 U	< 0.0019 U	< 0.00076 U	< 0.0051 U	< 0.0013 U
PCB-24	55702-45-9	ng/g	< 0.00050 U	< 0.00033 U	< 0.00015 U	< 0.00070 U	0.0028 JN	0.012 JN	0.0012 JN	< 0.00018 U	< 0.0034 U	0.0020 JN
PCB-25	55712-37-3	ng/g	0.0088 J	0.0027 JN	0.0030 JN	0.0035 JN	0.036	0.55	< 0.0017 U	0.0048 J	0.12	0.0085 J

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B400	B401	B402	B403	B404	B405	B406	B407	B408	B409
		Sample ID	PDI-SG-B400-BL1	PDI-SG-B401-BL1	PDI-SG-B402-BL1	PDI-SG-B403-BL1	PDI-SG-B404-BL1	PDI-SG-B405-BL1	PDI-SG-B406-BL1	PDI-SG-B407-BL1	PDI-SG-B408-BL1	PDI-SG-B409-BL1
		Sample Date	28 Apr 2018	26 Apr 2018	18 May 2018	19 May 2018	23 May 2018	28 Apr 2018	19 May 2018	19 May 2018	28 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-29 cm	0-30 cm	0-26 cm	0-9 cm	0-12 cm	0-26 cm	0-27 cm	0-22 cm	0-16 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.010 J	0.0056 J	0.0063 JN	0.0084 J	0.031	0.41	0.0068 JN	0.0082 J	0.039 JN	0.015 J
PCB-27	38444-76-7	ng/g	0.016	0.0024 J	0.0019 JN	0.0029 J	0.069	1.0	< 0.00051 U	0.0015 JN	0.36	0.018
PCB-3	2051-62-9	ng/g	< 0.00036 U	< 0.00096 U	0.0025 J	< 0.00059 U	0.0021 JN	0.026 JN	< 0.00086 U	0.0020 JN	< 0.0022 U	< 0.00045 U
PCB-31	16606-02-3	ng/g	0.036	0.026	0.029	0.029 JN	0.045	0.69	0.031	0.034	0.23	0.087
PCB-32	38444-77-8	ng/g	0.031	0.0075 J	0.0058 J	0.0088 JN	0.12	1.6	0.0082 J	0.0075 J	0.82	0.056
PCB-34	37680-68-5	ng/g	< 0.00071 U	< 0.00050 U	< 0.00076 U	< 0.0011 U	< 0.00082 U	< 0.0069 U	< 0.0020 U	< 0.00079 U	< 0.0053 U	< 0.0014 U
PCB-35	37680-69-6	ng/g	0.0014 J	< 0.00049 U	0.0042 J	< 0.0010 U	0.0021 J	< 0.0067 U	< 0.0019 U	< 0.00075 U	< 0.0052 U	< 0.0013 U
PCB-36	38444-87-0	ng/g	< 0.00066 U	< 0.00047 U	0.0037 JN	< 0.00099 U	< 0.00076 U	< 0.0064 U	< 0.0019 U	< 0.00068 U	< 0.0050 U	< 0.0013 U
PCB-37	38444-90-5	ng/g	0.015	0.0089 J	0.011	0.013	0.0070 JN	0.19	0.013	0.015	0.047 J	0.030
PCB-38	53555-66-1	ng/g	< 0.00071 U	< 0.00050 U	< 0.00071 U	< 0.0011 U	< 0.00082 U	< 0.0069 U	< 0.0020 U	0.00083 JN	< 0.0054 U	< 0.0014 U
PCB-39	38444-88-1	ng/g	< 0.00064 U	< 0.00045 U	< 0.00065 U	< 0.00095 U	< 0.00074 U	< 0.0062 U	< 0.0018 U	< 0.00067 U	< 0.0048 U	< 0.0012 U
PCB-4	13029-08-8	ng/g	0.062	0.0086 JN	0.0056 JN	0.0087 JN	0.23	14	< 0.0067 U	0.0063 J	2.3	0.015 J
PCB-40/41/71	38444-93-8	ng/g	0.048	0.022 J	0.023 J	0.026 J	0.27	3.5	0.018 J	0.024 J	0.99	0.12
PCB-42	36559-22-5	ng/g	0.017	0.0060 JN	0.013	0.0091 JN	0.052	0.59	0.0062 JN	0.013	0.21	0.051
PCB-43/73	70362-46-8	ng/g	0.0084 JN	< 0.0011 U	< 0.00084 U	< 0.0011 U	0.086	0.98	< 0.0021 U	0.0039 J	0.27	0.0071 JN
PCB-44/47/65	41464-39-5	ng/g	0.23	0.064	0.052	0.064	1.3	13	0.047	0.064	6.2	0.22
PCB-45/51	70362-45-7	ng/g	0.10	0.015 J	0.0077 JN	< 0.0012 U	0.67	8.6	0.0074 J	0.011 J	3.3	0.053
PCB-46	41464-47-5	ng/g	0.0065 J	< 0.0016 U	< 0.0011 U	< 0.0015 U	0.044 JN	0.87	< 0.0029 U	0.0033 J	0.24	0.018
PCB-48	70362-47-9	ng/g	0.0079 J	0.0050 JN	0.0083 J	0.0089 J	0.027	< 0.046 U	< 0.0023 U	0.0076 J	0.085 JN	0.025 JN
PCB-49/69	41464-40-8	ng/g	0.14	0.042	0.033	0.041	1.2	15	0.030	0.038	3.5	0.13
PCB-5	16605-91-7	ng/g	< 0.0027 U	< 0.0027 U	< 0.00078 U	< 0.0052 U	< 0.0025 U	< 0.015 U	< 0.0049 U	< 0.00083 U	< 0.029 U	< 0.0044 U
PCB-50/53	62796-65-0	ng/g	0.11	0.016 J	0.0071 JN	0.0080 J	0.84	15	< 0.0022 U	0.0087 J	3.3	0.056
PCB-52	35693-99-3	ng/g	0.20	0.072	0.070	0.090	1.8	22	0.069	0.096	5.8	0.34
PCB-54	15968-05-5	ng/g	0.039	0.0043 JN	0.00028 JN	< 0.000053 U	0.20	2.5	< 0.000055 U	0.0011 J	1.2	0.0034 JN
PCB-55	74338-24-2	ng/g	< 0.0015 U	< 0.00089 U	< 0.00064 U	< 0.00084 U	0.0034 J	< 0.034 U	< 0.0017 U	< 0.00070 U	< 0.0089 U	0.0038 JN
PCB-56	41464-43-1	ng/g	0.023	0.018	0.019	0.016 JN	0.027	0.53	0.016	0.023	0.21	0.068
PCB-57	70424-67-8	ng/g	< 0.0015 U	< 0.00090 U	< 0.00065 U	< 0.00085 U	< 0.0032 U	< 0.034 U	< 0.0017 U	< 0.00072 U	< 0.0091 U	< 0.0018 U
PCB-58	41464-49-7	ng/g	0.0083 J	< 0.00092 U	< 0.00063 U	< 0.00086 U	0.0048 J	< 0.035 U	< 0.0017 U	< 0.00069 U	0.037 J	< 0.0018 U
PCB-59/62/75	74472-33-6	ng/g	0.0092 J	0.0051 J	0.0048 J	0.0053 J	0.053	0.52	< 0.0016 U	0.0046 J	0.16 JN	0.019 JN
PCB-6	25569-80-6	ng/g	0.0027 JN	0.0029 JN	0.0020 JN	0.0055 JN	0.0067 JN	0.091	0.0047 JN	0.0032 J	0.030 JN	0.0061 JN
PCB-60	33025-41-1	ng/g	0.0082 JN	0.0058 JN	0.0088 J	0.0089 J	0.0096	< 0.034 U	0.0048 JN	0.010 JN	0.096 J	0.036
PCB-61/70/74/76	33284-53-6	ng/g	0.12	0.087	0.082	0.10	0.20	2.6	0.074	0.11	2.0	0.27
PCB-63	74472-34-7	ng/g	< 0.0014 U	< 0.00083 U	0.00080 JN	0.0028 J	0.0038 JN	< 0.031 U	< 0.0015 U	0.0022 J	< 0.0083 U	0.0042 J
PCB-64	52663-58-8	ng/g	0.025	0.016	0.019	0.023	0.042	0.68	0.016	0.026	0.27	0.085
PCB-66	32598-10-0	ng/g	0.070	0.048	0.045	0.053	0.11	1.6	0.048	0.060	0.81	0.16
PCB-67	73575-53-8	ng/g	< 0.0013 U	< 0.00078 U	0.00097 JN	< 0.00074 U	< 0.0028 U	< 0.030 U	< 0.0015 U	< 0.00066 U	< 0.0079 U	0.0023 JN
PCB-68	73575-52-7	ng/g	< 0.0013 U	< 0.00080 U	0.00097 J+	< 0.00075 U	0.020 JN	0.17	< 0.0015 U	< 0.00062 U	0.037 J	< 0.0016 U
PCB-7	33284-50-3	ng/g	< 0.0024 U	< 0.0025 U	< 0.00073 U	< 0.0047 U	< 0.0023 U	< 0.014 U	< 0.0044 U	< 0.00078 U	< 0.027 U	< 0.0040 U
PCB-72	41464-42-0	ng/g	< 0.0015 U	< 0.00089 U	0.00092 J	< 0.00083 U	0.016	0.24	< 0.0016 U	< 0.00070 U	< 0.0089 U	< 0.0018 U
PCB-77	32598-13-3	ng/g	0.0053 JN	0.0043 J	0.0092 J	0.0069 J	0.0062 J	< 0.033 U	0.0070 JN	0.011 J	< 0.0087 U	0.013
PCB-78	70362-49-1	ng/g	< 0.0015 U	< 0.00092 U	< 0.00063 U	< 0.00086 U	< 0.0032 U	< 0.035 U	< 0.0017 U	< 0.00069 U	< 0.0092 U	< 0.0018 U
PCB-79	41464-48-6	ng/g	< 0.0013 U	< 0.00079 U	0.0011 JN	< 0.00075 U	0.0072 J	< 0.030 U	< 0.0015 U	0.0014 J	< 0.0080 U	< 0.0016 U
PCB-8	34883-43-7	ng/g	0.014 J	0.0094 JN	0.0085 J	0.011 JN	0.014 JN	0.30	0.0097 JN	0.012 J	0.13 JN	0.023
PCB-80	33284-52-5	ng/g	< 0.0013 U	< 0.00078 U	< 0.00056 U	< 0.00073 U	< 0.0027 U	< 0.030 U	< 0.0014 U	< 0.00061 U	< 0.0078 U	< 0.0016 U
PCB-81	70362-50-4	ng/g	< 0.0014 U	< 0.00083 U	< 0.00060 U	< 0.00078 U	< 0.0029 U	< 0.031 U	< 0.0015 U	< 0.00064 U	< 0.0084 U	< 0.0016 U
PCB-82	52663-62-4	ng/g	0.018	0.0083 JN	0.018 JN	0.018	0.052	0.53	0.025 JN	0.021 JN	0.61 JN	0.050 JN
PCB-83/99	60145-20-2	ng/g	0.15	0.070	0.081	0.11	0.81	8.3	0.12	0.10	4.3	0.22
PCB-84	52663-60-2	ng/g	0.053	0.024	0.023 JN	0.037	0.26	2.6	0.17	0.040	2.3	0.13
PCB-85/116/117	65510-45-4	ng/g	0.038	0.022 J	0.027 J	0.035	0.10	1.0	0.030 JN	0.033 J	0.88	0.063
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.13	0.070	0.089	0.11	0.57	5.4	0.11	0.11	9.3	0.23
PCB-88/91	55215-17-3	ng/g	0.082	0.020	0.016 JN	0.024	0.74	7.4	0.078	0.022 J	2.2	0.077
PCB-89	73575-57-2	ng/g	< 0.00046 U	< 0.00033 U	< 0.00041 U	< 0.00050 U	< 0.00022 U	< 0.0012 U	0.0042 JN	< 0.00065 U	< 0.0034 U	0.0062 J
PCB-9	34883-39-1	ng/g	0.0027 JN	< 0.0025 U	< 0.00086 U	< 0.0048 U	0.0030 J	< 0.014 U	< 0.0045 U	< 0.00091 U	< 0.027 U	< 0.0041 U
PCB-90/101/113	68194-07-0	ng/g	0.31	0.14	0.12	0.17	2.2	17	0.21	0.17	59	0.40
PCB-92	52663-61-3	ng/g	0.057	0.025	0.022	0.030	0.40	4.4	0.047	0.034	5.6	0.078
PCB-93/100	73575-56-1	ng/g	0.030	0.0054 JN	0.0015 JN	0.0041 JN	0.36	4.0	0.0059 J	0.0045 J	1.3	0.011 JN
PCB-94	73575-55-0	ng/g	0.0088 JN	0.0015 JN	0.00098 JN	< 0.00050 U	0.079	0.81	< 0.00076 U	< 0.00066 U	< 0.0034 U	< 0.00050 U
PCB-95	38379-99-6	ng/g	0.33	0.11	0.087	0.13	3.2	25	0.50	0.12	47	0.47
PCB-96	73575-54-9	ng/g	0.011 J	0.0020 J	< 0.00031 U	< 0.00038 U	0.12	1.5	< 0.00057 U	< 0.00049 U	0.37	0.0038 JN
PCB-98/102	60233-25-2	ng/g	0.013 JN	0.0034 JN	0.0017 JN	0.0027 JN	0.12 JN	1.3	0.013 J	0.0056 JN	0.61	0.015 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	7.9	3.3	3.5	3.8	46	424	8.3	4.2	1854	8.7

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B400	B401	B402	B403	B404	B405	B406	B407	B408	B409
		Sample ID	PDI-SG-B400-BL1	PDI-SG-B401-BL1	PDI-SG-B402-BL1	PDI-SG-B403-BL1	PDI-SG-B404-BL1	PDI-SG-B405-BL1	PDI-SG-B406-BL1	PDI-SG-B407-BL1	PDI-SG-B408-BL1	PDI-SG-B409-BL1
		Sample Date	28 Apr 2018	26 Apr 2018	18 May 2018	19 May 2018	23 May 2018	28 Apr 2018	19 May 2018	19 May 2018	28 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-29 cm	0-30 cm	0-26 cm	0-9 cm	0-12 cm	0-26 cm	0-27 cm	0-22 cm	0-16 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.65 U	< 0.46 UJ	< 1.7 U	< 1.5 U	< 1.6 U	0.81	< 1.7 U	< 2.4 U	< 1.6 U	< 2.0 U
2,4-DDE	3424-82-6	µg/kg	< 0.65 U	< 0.46 UJ	< 1.7 U	< 1.5 U	< 1.6 U	< 0.64 U	< 1.7 U	< 2.4 U	< 1.6 U	< 2.0 U
2,4-DDT	789-02-6	µg/kg	< 0.65 U	< 0.47 UJ	< 1.7 UJ	< 1.5 UJ	< 1.6 U	< 0.64 UJ	< 1.7 UJ	< 2.4 UJ	< 1.6 U	< 2.0 U
4,4'-DDD	72-54-8	µg/kg	0.78	0.51 J	0.77 J	0.95 J	1.0 J	2.4	4.7	0.96 J	< 1.6 U	2.7
4,4'-DDE	72-55-9	µg/kg	1.6	1.2 J	1.5 J	1.6	1.7	2.2	3.7	2.0 J	< 1.6 U	< 2.0 U
4,4'-DDT	50-29-3	µg/kg	< 0.65 U	0.28 J	< 1.7 U	< 1.5 U	< 1.6 U	1.2	1.4 J	< 2.4 U	< 1.6 U	< 2.0 U
Total DDx (b)	T_DDx (PDI)	µg/kg	2.7	2.2	3.1	3.3	3.5	6.9	11	4.2	< 1.6 U	3.7
Aldrin	309-00-2	µg/kg	< 0.65 U	< 0.46 UJ	< 1.7 U	< 1.5 U	< 1.6 U	< 0.64 U	< 1.7 U	< 2.4 U	< 1.6 U	< 2.0 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.3 U	< 0.92 UJ	< 3.4 U	< 3.0 U	< 3.2 U	< 1.3 U	< 3.3 U	< 4.9 U	< 3.2 U	< 4.1 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.65 U	< 0.49 UJ	< 1.7 U	< 1.5 U	< 1.6 U	< 0.64 U	< 1.7 U	< 2.4 U	< 1.6 U	< 2.0 U
Dieldrin	60-57-1	µg/kg	< 1.3 U	< 1.0 UJ	< 3.4 U	< 3.0 U	< 3.2 U	< 1.3 U	< 3.3 U	< 4.9 U	< 3.2 U	< 4.1 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.65 U	< 0.46 UJ	< 1.7 U	< 1.5 U	< 1.6 U	< 0.64 U	< 1.7 U	< 2.4 U	< 1.6 U	< 2.0 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.3 U	< 0.92 UJ	< 3.4 U	< 3.0 U	< 3.2 U	< 1.3 U	< 3.3 U	< 4.9 U	< 3.2 U	< 4.1 U
Heptachlor	76-44-8	µg/kg	< 0.65 U	< 0.46 UJ	< 1.7 U	< 1.5 U	< 1.6 U	< 0.64 U	< 1.7 U	< 2.4 U	< 1.6 U	< 2.0 U
Oxychlordane	27304-13-8	µg/kg	< 1.3 U	< 1.0 UJ	< 3.4 U	< 3.0 U	< 3.2 U	< 1.3 U	< 3.3 U	< 4.9 U	< 3.2 U	< 4.1 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.3 U	< 0.92 UJ	< 3.4 U	< 3.0 U	< 3.2 U	< 1.3 U	< 3.3 U	< 4.9 U	< 3.2 U	< 4.1 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.3 U	< 1 UJ	< 3.4 U	< 3 U	< 3.2 U	< 1.3 U	< 3.3 U	< 4.9 U	< 3.2 U	< 4.1 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.1	1.5	2.1	5.6	3.0	29 J	3.9	3.3	1.9	0.52
Acenaphthene	83-32-9	µg/kg	1.0	2.0	1.8	3.4	1.5	11 J	13	2.3	1.0	0.19
Acenaphthylene	208-96-8	µg/kg	2.1	1.8	2.3	3.9	3.0	5.8 J	11	3.7	4.2	1.5
Anthracene	120-12-7	µg/kg	4.2	3.9	5.5	7.6	5.6	19 J	23	6.1	4.4	1.7
Benz(a)anthracene	56-55-3	µg/kg	11	13	27	23	34	57	72	21	21	13
Benzo(a)pyrene	50-32-8	µg/kg	12	13	42	38	38	62	65	44	33	12
Benzo(b)fluoranthene	205-99-2	µg/kg	17	16	36	32	40	82	77	33	43	17
Benzo(g,h,i)perylene	191-24-2	µg/kg	14	11	16	19	29	72	32	22	22	8.1
Benzo(k)fluoranthene	207-08-9	µg/kg	4.9	5.1	13	11	15	26	27	11	15	6.2
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	100 J	77 J	110 J	88 J	62 J	170 J	130	450	50 J	22 J
Chrysene	218-01-9	µg/kg	20	18	32	33	46	81	110	36	28	14
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.6	1.8	4.0	3.8	6.1	18 J	6.6	4.1	6.4	2.7
Fluoranthene	206-44-0	µg/kg	27	32	47	52	70	110	190	42	42	9.9
Fluorene	86-73-7	µg/kg	2.1	1.9	2.5	3.9	2.6	12 J	12	3.5	1.9	0.27
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	11	9.7	15	16	27	53	30	16	26	8.1
Naphthalene	91-20-3	µg/kg	3.9	5.9	2.6	5.1	8.5	< 37 U	4.6	4.3	2.0	1.1
Phenanthrene	85-01-8	µg/kg	13	16	19	32	32	54	91	24	16	3.1
Pyrene	129-00-0	µg/kg	32	33	52	60	85	170	170	54	42	16
Total PAHs (b)	T_PAH (PDI)	µg/kg	181	186	320	349	446	880	938	330	310	115
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	19	19	54	49	54	100	90	55	49	19
Metals												
Arsenic	7440-38-2	mg/kg	5.0	4.2	4.2	3.9	4.6	4.7 J	4.7	4.4	3.2	2.8
Cadmium	7440-43-9	mg/kg	0.15 J	0.11 J	0.22 J	0.16 J	0.12 J	0.23	0.20 J	0.16 J	0.11 J	0.049 J
Copper	7440-50-8	mg/kg	42	30	33	29	27	39	35	36	27	14
Lead	7439-92-1	mg/kg	12	9.0	9.3	9.2	130	42 J	9.5	10	9.4	13
Mercury	7439-97-6	mg/kg	0.058	0.044 J	0.090	0.057 J	< 0.041 U	0.11 J	0.071	0.038 J	0.029 J	0.041 J
Tri-n-butyltin	36643-28-4	µg/kg	< 2.5 U	< 1.8 U	< 2.2 U	< 2.1 U	39	4.2	< 2.2 U	< 2.4 U	2.0	0.88 J
Zinc	7440-66-6	mg/kg	96	90	86	80	82	130	91	94	71	44
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	47 J	45 J	29 J	32 J	< 710 U	210 J	110	140	38 J	14 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	300	210	240	220	990	1500 J	550	730	200	72
Other												
Total Solids@104C - D2216 (f)	TSOLID	%			45.2	46.9	69.4	62.3	43.5	39.9		81.9
Total Solids@104C - E160.3 (f)	TSOLID	%	40.0	53.7							62.2	
Total Solids@104C - E160.3M (f)	TSOLID	%	38.7	53.6	45.6	47.9	58.6	67.3	44.5	40.5	59.5	84.7
Total Solids@70C	TSOLID70	%	40	56	45	49	76	73	44	41	64	87
Gravel	GS-Gravel	%	0.3	0	0	0	28.5	38.3	0	0	5.2	45.5
Sand, Coarse	GS-Csand	%	0.1	0	0	0.2	9.8	5.8	0	0.1	5.8	17.6
Sand, Medium	GS-Msand	%	0.5	0.2	0.1	0.2	11.6	14.7	0.1	0.2	10.2	19.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	16.89	58.57	29.42	38.67	35.24	20.66	22.71	18.23	40.97	10.7
Sand, Fine (#230) (d)	GS-Fsand	%	20.3	61.9	35.5	43.9	36.9	21.6	27.7	22.9	44.1	10.9
Silt (#200) (d)	GS-Silt-200	%	69.90	35.72	56.77	50.42	11.95	19.13	66.08	71.56	30.72	6.991

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B400	B401	B402	B403	B404	B405	B406	B407	B408	B409
		Sample ID	PDI-SG-B400-BL1	PDI-SG-B401-BL1	PDI-SG-B402-BL1	PDI-SG-B403-BL1	PDI-SG-B404-BL1	PDI-SG-B405-BL1	PDI-SG-B406-BL1	PDI-SG-B407-BL1	PDI-SG-B408-BL1	PDI-SG-B409-BL1
		Sample Date	28 Apr 2018	26 Apr 2018	18 May 2018	19 May 2018	23 May 2018	28 Apr 2018	19 May 2018	19 May 2018	28 Apr 2018	29 Apr 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-29 cm	0-30 cm	0-26 cm	0-9 cm	0-12 cm	0-26 cm	0-27 cm	0-22 cm	0-16 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	66.5	32.4	50.7	45.2	10.3	18.2	61.1	66.9	27.6	6.8
Clay	GS-Clay	%	12.2	5.5	13.6	10.5	2.8	1.4	11.1	9.8	7.1	0
Percent Fines (e)	GS-FINES	%	82.1	41.22	70.37	60.92	14.75	20.53	77.18	81.36	37.82	6.991
Total Organic Carbon	TOC	mg/kg	27000	14000	23000	20000	8600	14000	26000	31000	11000	2200

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B410	B411	B412	B413	B414	B415	B416	B417	B419	B420
		Sample ID	PDI-SG-B410-BL1	PDI-SG-B411-BL1	PDI-SG-B412-BL1	PDI-SG-B413-BL1	PDI-SG-B414-BL1	PDI-SG-B415-BL1	PDI-SG-B416-BL1	PDI-SG-B417-BL1	PDI-SG-B419-BL1	PDI-SG-B420-BL1
		Sample Date	23 May 2018	19 May 2018	18 May 2018	19 May 2018	30 Apr 2018	22 May 2018	19 May 2018	22 May 2018	23 May 2018	23 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-19 cm	0-30 cm	0-27 cm	0-30 cm	0-10 cm	0-11 cm	0-28 cm	0-23 cm	0-11 cm	0-10 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.044	0.056	0.024	0.055	0.079	0.0027 J	0.012	0.0030 JN	0.0015 J	0.0019 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0052 JN	0.014	0.0049	0.012	0.0089	0.00056 JN	0.0024 JN	0.0010 J	0.00041 JN	0.00047 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00084 JN	0.0016 J+	0.00095 J+	0.0015 J+	0.0011 J+	< 0.00017 U	0.0013 J+	0.00059 J+	< 0.00018 U	< 0.000059 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00047 J+	0.0010 J+	0.00047 JN	0.0013 J	0.0013 J	< 0.000094 U	0.00029 J+	< 0.00011 U	< 0.000064 U	0.00013 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00059 J+	0.0016 J+	0.00063 J+	< 0.00028 U	0.00096 J+	< 0.000050 U	0.00031 J+	< 0.000083 U	< 0.000065 U	0.000074 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0021 JN	0.0039 JN	0.0011 JN	0.0025 JN	0.0044 J	< 0.000088 U	0.00056 JN	0.00021 JN	< 0.000061 U	0.00019 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00039 J+	0.0010 J+	< 0.00019 U	0.00078 JN	0.00068 J	< 0.000047 U	0.00018 J+	0.00013 JN	< 0.000064 U	0.000084 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0012 J	0.0027 JN	0.00092 JN	0.0030 J	0.0027 J	< 0.000078 U	0.00047 J	0.00018 JN	< 0.000053 U	0.00015 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00054 U	0.0015 J+	< 0.00040 U	0.0013 J+	0.0010 J+	< 0.00020 U	< 0.00070 U	0.00070 JN	< 0.00024 U	< 0.000039 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00013 U	0.0016 JN	< 0.00015 U	< 0.00019 U	0.00056 J	< 0.000078 U	0.00012 JN	< 0.000080 U	< 0.000065 U	< 0.000049 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00033 J+	0.00075 J	0.00027 JN	0.00050 J	0.00047 J+	< 0.000060 U	0.00017 J+	< 0.000071 U	< 0.000063 U	< 0.000036 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00025 J+	0.00073 JN	< 0.00021 U	0.00050 JN	0.00046 J	< 0.000044 U	0.000074 JN	< 0.000072 U	< 0.000058 U	< 0.000026 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00024 J+	< 0.00022 U	< 0.00016 U	< 0.00016 U	0.00034 JN	< 0.000068 U	0.000099 J	< 0.000081 U	< 0.000071 U	< 0.000040 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00017 U	< 0.00087 U	< 0.00034 U	< 0.00036 U	0.00032 JN	< 0.000069 U	0.00015 JN	< 0.00010 U	< 0.000068 U	< 0.000031 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00035 J+	0.00051 JN	0.00030 J+	0.00047 J+	0.00077 J	< 0.000061 U	0.00026 J+	0.00018 JN	< 0.000057 U	< 0.000024 U
OCDD	3268-87-9	µg/kg	0.38	0.35	0.19	0.34	0.67	0.020	0.11	0.023	0.012	0.024
OCDF	39001-02-0	µg/kg	0.012	0.040	0.015	0.035	0.014	0.0015 J	0.0075 J	0.0015 J+	0.00079 JN	0.0014 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0013	0.0042	0.00088	0.002	0.0033	0.000078	0.00075	0.00024	0.000057	0.00012
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0011	0.0022	0.00062	0.0016	0.0031	0.000072	0.00043	0.000073	0.000053	0.000066
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.001	0.0014	0.00045	0.0014	0.0029	0.000033	0.00035	0.000023	0.000019	0.000042
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0059 JN	0.0020 JN	0.0030 JN	0.0029 J	0.015	0.00074 JN	0.00038 JN	0.00043 JN	< 0.00027 U	0.00068 JN
PCB-10	33146-45-1	ng/g	0.012 JN	0.0018 J	< 0.00060 U	< 0.00053 U	0.017 JN	< 0.0027 U	< 0.00042 U	< 0.00042 U	< 0.0024 U	< 0.0043 U
PCB-103	60145-21-3	ng/g	0.064	0.00074 JN	0.0081 J	< 0.00035 U	0.084	0.0018 J	0.0032 JN	0.0017 J	< 0.00018 U	< 0.00030 U
PCB-104	56558-16-8	ng/g	0.010	< 0.00032 U	0.00061 JN	< 0.00027 U	< 0.00021 U	< 0.00013 U	< 0.00017 U	< 0.00030 U	< 0.00014 U	< 0.00023 U
PCB-105	32598-14-4	ng/g	0.12	0.050	0.047	0.071	0.21	0.017	0.019	0.0070 JN	0.0043 J	0.013 J
PCB-106	70424-69-0	ng/g	< 0.0022 U	< 0.0013 U	< 0.0011 U	< 0.0018 U	< 0.0040 U	< 0.00055 U	< 0.00062 U	< 0.00040 U	< 0.00042 U	< 0.00064 U
PCB-107	70424-68-9	ng/g	0.025 JN	0.0092 J	0.010	0.012 J	0.067	0.0037 J	0.0035 JN	0.0022 J	< 0.00045 U	0.0022 JN
PCB-108/124	70362-41-3	ng/g	0.016 JN	0.0049 J	0.0043 JN	0.0074 J	0.022 JN	0.0017 JN	0.0018 JN	0.00056 JN	< 0.00043 U	< 0.00066 U
PCB-11	2050-67-1	ng/g	0.031 JN	0.053	0.042	0.047	0.025 JN	0.0058 JN	0.025	0.019 J	< 0.0024 U	0.0059 JN
PCB-110/115	38380-03-9	ng/g	0.96	0.15	0.15	0.20	1.3	0.070	0.071	0.036	0.022	0.052
PCB-111	39635-32-0	ng/g	< 0.00021 U	< 0.00028 U	< 0.00025 U	< 0.00024 U	< 0.00020 U	< 0.00012 U	< 0.00015 U	< 0.00026 U	< 0.00013 U	< 0.00021 U
PCB-112	74472-36-9	ng/g	< 0.00022 U	< 0.00031 U	0.00099 JN	< 0.00027 U	< 0.00021 U	< 0.00012 U	< 0.00017 U	< 0.00029 U	< 0.00014 U	< 0.00022 U
PCB-114	74472-37-0	ng/g	0.0081 JN	0.0018 JN	0.0028 J	< 0.0016 U	0.013	< 0.00051 U	0.0012 JN	< 0.00034 U	< 0.00042 U	< 0.00059 U
PCB-118	31508-00-6	ng/g	0.52	0.11	0.12	0.16	0.54	0.038	0.047	0.025	0.0094 JN	0.027
PCB-12/13	2974-92-7	ng/g	0.0074 JN	0.0045 J	0.0041 J	0.0031 J	0.088	< 0.0024 U	< 0.00036 U	< 0.00036 U	< 0.0021 U	< 0.0039 U
PCB-120	68194-12-7	ng/g	< 0.00021 U	< 0.00028 U	0.0014 J	0.00090 J	0.0081 JN	< 0.00012 U	0.00075 JN	< 0.00026 U	< 0.00013 U	< 0.00021 U
PCB-121	56558-18-0	ng/g	< 0.00022 U	< 0.00030 U	< 0.00026 U	< 0.00026 U	< 0.00020 U	< 0.00012 U	< 0.00016 U	< 0.00028 U	< 0.00014 U	< 0.00022 U
PCB-122	76842-07-4	ng/g	< 0.0026 U	< 0.0015 U	< 0.0012 U	< 0.0020 U	0.010	< 0.00064 U	< 0.00068 U	< 0.00044 U	< 0.00048 U	< 0.00075 U
PCB-123	65510-44-3	ng/g	0.0067 J	0.0022 JN	0.0026 JN	0.0035 J	0.0063 JN	0.0012 JN	0.0014 J	< 0.00035 U	< 0.00040 U	< 0.00064 U
PCB-126	57465-28-8	ng/g	< 0.0023 U	< 0.0013 U	< 0.0011 U	< 0.0018 U	0.021 JN	< 0.00061 U	< 0.00060 U	< 0.00039 U	< 0.00041 U	< 0.00069 U
PCB-127	39635-33-1	ng/g	< 0.0022 U	< 0.0013 U	< 0.0010 U	< 0.0018 U	< 0.0040 U	< 0.00055 U	< 0.00059 U	< 0.00038 U	< 0.00042 U	< 0.00064 U
PCB-128/166	38380-07-3	ng/g	0.45	0.033	0.038	0.050	0.26	0.015 JN	0.017 J	0.0094 J	0.0044 J	0.011 J
PCB-129/138/160/163	55215-18-4	ng/g	6.7	0.21	0.25	0.33	2.8	0.15	0.11	0.072	0.034 J	0.090
PCB-130	52663-66-8	ng/g	0.19	0.014	0.018	0.020	0.099 JN	0.0066 J	0.0059 JN	0.0042 J	0.0022 JN	0.0058 JN
PCB-131	61798-70-7	ng/g	< 0.013 U	< 0.0016 U	< 0.00068 U	0.0035 J	0.026 JN	< 0.0012 U	< 0.00058 U	< 0.00080 U	< 0.00083 U	< 0.0015 U
PCB-132	38380-05-1	ng/g	1.9	0.050	0.075	0.081	1.0	0.040	0.033	0.022	< 0.00078 U	0.024 JN
PCB-133	35694-04-3	ng/g	0.095	0.0031 J	0.0054 J	0.0046 J	0.092	0.0021 J	0.0031 JN	0.0014 JN	< 0.00075 U	< 0.0014 U
PCB-134/143	52704-70-8	ng/g	0.28 JN	0.0077 JN	0.014 J	0.015 J	0.17	0.0080 J	0.0073 J	0.0050 JN	0.0014 JN	0.0049 J
PCB-135/151	52744-13-5	ng/g	2.7	0.058	0.092	0.082	1.3	0.046	0.047	0.032	0.013 J	0.032 J
PCB-136	38411-22-2	ng/g	0.91	0.018	0.035	0.026	0.47	0.016	0.018	0.0091 JN	0.0043 J	0.011 J
PCB-137	35694-06-5	ng/g	0.044 JN	0.0086 J	0.0091 J	0.013 J	0.051 JN	0.0048 J	0.0036 J	0.0019 J	< 0.00068 U	0.0033 JN
PCB-139/140	56030-56-9	ng/g	< 0.010 U	< 0.0013 U	0.0031 JN	0.0041 J	0.045	0.0018 JN	0.0013 JN	0.0010 JN	< 0.00067 U	< 0.0012 U
PCB-14	34883-41-5	ng/g	< 0.0038 U	< 0.00091 U	< 0.00047 U	< 0.00041 U	< 0.0030 U	< 0.0020 U	< 0.00033 U	< 0.00033 U	< 0.0018 U	< 0.0033 U
PCB-141	52712-04-6	ng/g	2.0	0.036	0.050	0.059	0.64	0.030 JN	0.023	0.019	0.0064 JN	0.012 JN
PCB-142	41411-61-4	ng/g	< 0.012 U	< 0.0015 U	< 0.00064 U	< 0.00094 U	< 0.010 U	< 0.0010 U	< 0.00055 U	< 0.00075 U	< 0.00075 U	< 0.0014 U
PCB-144	68194-14-9	ng/g	0.38	0.0063 JN	0.0095 JN	0.013 J	0.12	0.0060 J	0.0045 JN	0.0039 J	0.0012 J	0.0045 J
PCB-145	74472-40-5	ng/g	0.0069 JN	< 0.000027 U	< 0.00012 U	< 0.00012 U	0.0015 JN	< 0.000086 U	0.00013 JN	< 0.000059 U	< 0.00011 U	< 0.000062 U
PCB-146	51908-16-8	ng/g	0.97	0.030	0.042	0.043	0.77	0.023	0.023	0.012	0.0054 J	0.016 J
PCB-147/149	68194-13-8	ng/g	7.6	0.12	0.20	0.20	3.9	0.12	0.099	0.067	0.030 JN	0.083
PCB-148	74472-41-6	ng/g	0.0059 JN	< 0.000037 U	0.00044 JN	< 0.00016 U	0.021	0.00049 JN	0.0013 J	0.00020 JN	< 0.00015 U	< 0.000088 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B410	B411	B412	B413	B414	B415	B416	B417	B419	B420
		Sample ID	PDI-SG-B410-BL1	PDI-SG-B411-BL1	PDI-SG-B412-BL1	PDI-SG-B413-BL1	PDI-SG-B414-BL1	PDI-SG-B415-BL1	PDI-SG-B416-BL1	PDI-SG-B417-BL1	PDI-SG-B419-BL1	PDI-SG-B420-BL1
		Sample Date	23 May 2018	19 May 2018	18 May 2018	19 May 2018	30 Apr 2018	22 May 2018	19 May 2018	22 May 2018	23 May 2018	23 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-19 cm	0-30 cm	0-27 cm	0-30 cm	0-10 cm	0-11 cm	0-28 cm	0-23 cm	0-11 cm	0-10 cm
Chemical	CAS_RN	Units										
PCB-15	2050-68-2	ng/g	0.016 JN	0.016 JN	0.015	0.011 JN	0.58	< 0.0027 U	0.0022 J	0.0017 JN	< 0.0023 U	< 0.0043 U
PCB-150	68194-08-1	ng/g	0.011 JN	0.000097 JN	0.00058 JN	< 0.00011 U	0.021 JN	< 0.000082 U	0.0014 J	0.00019 JN	< 0.00010 U	< 0.000060 U
PCB-152	68194-09-2	ng/g	0.011	< 0.000026 U	< 0.00011 U	< 0.00012 U	0.0033 J	< 0.000088 U	0.00012 JN	< 0.000057 U	< 0.00011 U	< 0.000064 U
PCB-153/168	35065-27-1	ng/g	7.5	0.16	0.21	0.25	3.0	0.12	0.098	0.065	0.029	0.072
PCB-154	60145-22-4	ng/g	0.037 JN	0.0014 JN	0.0047 JN	0.0048 JN	0.088	0.0041 JN	0.0058 J	0.0013 J	< 0.00012 U	0.0028 JN
PCB-155	33979-03-2	ng/g	< 0.00028 U	0.000073 JN	< 0.00011 U	< 0.00011 U	< 0.00037 U	< 0.000082 U	0.00024 J	< 0.000054 U	< 0.00010 U	< 0.000060 U
PCB-156/157	38380-08-4	ng/g	0.39	0.023 J	0.023	0.035	0.14	0.013 J	0.0099 J	0.0072 J	0.0022 JN	0.0062 JN
PCB-158	74472-42-7	ng/g	0.61	0.020	0.024	0.031	0.24	0.015	0.011	0.0069 J	0.0025 JN	0.0070 JN
PCB-159	39635-35-3	ng/g	0.083 JN	0.0017 J	0.0035 J	0.0032 JN	0.024	0.0012 JN	0.0015 JN	< 0.00047 U	< 0.00050 U	< 0.00092 U
PCB-16	38444-78-9	ng/g	0.0070 JN	0.020	0.016	0.0064 J	1.2	< 0.000094 U	< 0.0014 U	< 0.00020 U	0.00044 JN	< 0.0010 UJ
PCB-161	74472-43-8	ng/g	< 0.0077 U	< 0.00097 U	< 0.00042 U	< 0.00061 U	< 0.0068 U	< 0.00070 U	< 0.00036 U	< 0.00049 U	< 0.00050 U	< 0.00091 U
PCB-162	39635-34-2	ng/g	< 0.0076 U	< 0.00092 U	< 0.00040 U	< 0.00058 U	0.010 JN	< 0.00069 U	< 0.00034 U	< 0.00046 U	< 0.00049 U	< 0.00090 U
PCB-164	74472-45-0	ng/g	0.50	0.013 JN	0.019	0.024	0.21	0.0091 JN	0.0089 J	0.0057 JN	0.0029 J	0.0060 J
PCB-165	74472-46-1	ng/g	< 0.0087 U	< 0.0011 U	< 0.00048 U	< 0.00070 U	< 0.0078 U	< 0.00079 U	< 0.00041 U	< 0.00056 U	< 0.00057 U	< 0.0010 U
PCB-167	52663-72-6	ng/g	0.12 JN	0.0091 J	0.0093 J	0.012 J	0.064	0.0042 JN	0.0037 J	0.0023 J	< 0.00037 U	< 0.00070 U
PCB-169	32774-16-6	ng/g	0.014 JN	< 0.00073 U	< 0.00031 U	< 0.00045 U	< 0.0055 U	< 0.00053 U	< 0.00027 U	< 0.00036 U	< 0.00037 U	< 0.00068 U
PCB-17	37680-66-3	ng/g	0.16	0.022	0.025	0.0079 J	1.1	< 0.000085 U	0.0033 J	0.0016 JN	0.00073 JN	< 0.00090 UJ
PCB-170	35065-30-6	ng/g	3.4	0.050	0.072	0.10	0.82	0.064	0.032	0.024	0.011	0.028 JN
PCB-171/173	52663-71-5	ng/g	1.0	0.016 J	0.023	0.033	0.26	0.017 JN	0.0092 J	0.0067 JN	0.0031 JN	0.0072 JN
PCB-172	52663-74-8	ng/g	0.54	0.0074 JN	0.013	0.018 JN	0.13	0.011	0.0062 J	0.0036 J	0.0025 JN	0.0041 JN
PCB-174	38411-25-5	ng/g	3.7	0.053	0.083	0.11	0.90	0.063	0.036	0.028	0.012 JN	0.033
PCB-175	40186-70-7	ng/g	0.15	< 0.00051 U	0.0041 J	0.0040 J	0.028 JN	0.0024 J	0.00086 JN	0.0012 JN	< 0.00039 U	0.00079 JN
PCB-176	52663-65-7	ng/g	0.47	0.0048 J	0.0093 J	0.0091 JN	0.13	0.0063 JN	0.0036 JN	0.0027 JN	< 0.00030 U	0.0031 J
PCB-177	52663-70-4	ng/g	2.0	0.033	0.049	0.063	0.54	0.034	0.019 JN	0.017	0.0066 J	0.015 JN
PCB-178	52663-67-9	ng/g	0.67	0.012 J	0.016 JN	0.020	0.21	0.012	0.0083 J	0.0064 J	0.0026 J	0.0070 J
PCB-179	52663-64-6	ng/g	1.4	0.018 JN	0.033	0.038	0.47	0.026	0.013 JN	0.011	0.0044 JN	0.011 JN
PCB-18/30	37680-65-2	ng/g	0.036	0.043	0.037	0.014 JN	2.6	0.0023 JN	0.0050 J	0.0030 J	0.0012 JN	< 0.00079 UJ
PCB-180/193	35065-29-3	ng/g	7.3	0.11	0.16	0.23	1.7	0.15	0.070	0.055	0.024	0.069
PCB-181	74472-47-2	ng/g	< 0.00060 U	< 0.00049 U	< 0.00030 U	< 0.00020 U	< 0.00057 U	< 0.00015 U	< 0.00022 U	< 0.00049 U	< 0.00039 U	< 0.00033 U
PCB-182	60145-23-5	ng/g	0.012 JN	< 0.00046 U	0.00082 J	< 0.00019 U	< 0.00055 U	< 0.00014 U	< 0.00021 U	< 0.00047 U	< 0.00038 U	< 0.00032 U
PCB-183/185	52663-69-1	ng/g	2.6	0.033	0.047	0.072	0.60	0.048	0.022	0.019 J	0.0085 JN	0.023 J
PCB-184	74472-48-3	ng/g	< 0.00050 U	0.0011 J	< 0.00025 U	< 0.00017 U	< 0.00047 U	< 0.00012 U	< 0.00018 U	< 0.00040 U	< 0.00032 U	< 0.00027 U
PCB-186	74472-49-4	ng/g	< 0.00048 U	< 0.00038 U	< 0.00024 U	< 0.00016 U	< 0.00045 U	< 0.00012 U	< 0.00017 U	< 0.00038 U	< 0.00031 U	< 0.00027 U
PCB-187	52663-68-0	ng/g	4.1	0.072	0.10	0.13	1.2	0.076	0.045	0.034	0.016	0.042
PCB-188	74487-85-7	ng/g	< 0.00040 U	< 0.00037 U	< 0.00022 U	< 0.00015 U	< 0.00034 U	< 0.00010 U	< 0.00016 U	< 0.00036 U	< 0.00028 U	< 0.00024 U
PCB-189	39635-31-9	ng/g	0.099	0.0013 JN	0.0027 J	0.0042 J	0.022 JN	0.0024 J	0.0012 JN	0.00071 JN	< 0.00066 U	< 0.00047 U
PCB-19	38444-73-4	ng/g	0.46	0.0055 J	0.037	0.0036 J	0.41	0.0053 J	0.00077 JN	0.00054 JN	0.00073 JN	< 0.0011 UJ
PCB-190	41411-64-7	ng/g	0.57	0.012 J	0.015	0.022	0.11 JN	0.012 JN	0.0075 J	0.0055 J	0.0023 JN	0.0051 J
PCB-191	74472-50-7	ng/g	0.12 JN	0.0022 J	0.0039 JN	0.0043 J	0.022 JN	0.0032 JN	0.0014 JN	0.0022 J	< 0.00029 U	0.0024 JN
PCB-192	74472-51-8	ng/g	< 0.00051 U	< 0.00039 U	< 0.00024 U	< 0.00016 U	< 0.00048 U	< 0.00012 U	< 0.00017 U	< 0.00039 U	< 0.00033 U	< 0.00028 U
PCB-194	35694-08-7	ng/g	1.8	0.028	0.041	0.056	0.30	0.036	0.016	0.013	0.0074 J	0.014 JN
PCB-195	52663-78-2	ng/g	0.85	0.010 J	0.019	0.023	0.16	0.015 JN	0.0068 J	0.0040 JN	0.0028 J	0.0072 JN
PCB-196	42740-50-1	ng/g	0.71	0.013	0.020	0.026	0.14	0.019	0.0083 J	0.0055 J	0.0021 JN	0.011 J
PCB-197	33091-17-7	ng/g	0.059	0.00057 JN	0.0012 J	0.0014 JN	0.014	0.0013 JN	0.00073 J	0.00050 JN	< 0.00039 U	< 0.000087 U
PCB-198/199	68194-17-2	ng/g	1.3	0.037 JN	0.059	0.067	0.24	0.035	0.020	0.014 J	0.0063 J	0.021 JN
PCB-2	2051-61-8	ng/g	< 0.00040 U	0.0016 JN	0.0080 JN	0.0033 J	0.0063 JN	0.00091 J	0.00054 JN	< 0.000092 U	< 0.00030 U	< 0.00014 U
PCB-20/28	38444-84-7	ng/g	0.073	0.055	0.055	0.037	2.9	0.0045 J	0.012 J	0.0067 J	0.0032 J	0.0091 JN
PCB-200	52663-73-7	ng/g	0.17	0.0039 JN	0.0039 JN	0.0070 J	0.030 JN	0.0036 J	0.0021 J	0.0019 J	< 0.00035 U	0.0024 JN
PCB-201	40186-71-8	ng/g	0.17	0.0026 JN	0.0058 J	0.0068 JN	0.033 JN	0.0035 JN	0.0023 J	0.0017 JN	< 0.00036 U	0.0010 JN
PCB-202	2136-99-4	ng/g	0.23	0.0087 J	0.012	0.012 J	0.063	0.0055 J	0.0049 J	0.0030 J	< 0.00040 U	0.0038 JN
PCB-203	52663-76-0	ng/g	0.83	0.022	0.031 JN	0.042	0.16	0.021	0.011	0.0074 JN	0.0030 JN	0.014 J
PCB-204	74472-52-9	ng/g	< 0.00026 U	< 0.00012 U	< 0.00022 U	< 0.00030 U	< 0.00048 U	< 0.000088 U	< 0.00013 U	< 0.00012 U	< 0.00039 U	< 0.000088 U
PCB-205	74472-53-0	ng/g	0.097	0.0018 J	0.0017 JN	0.0030 J	0.016	0.0021 JN	0.00038 JN	< 0.00053 U	< 0.00092 U	< 0.00010 U
PCB-206	40186-72-9	ng/g	0.23 JN	0.038 JN	0.037 JN	0.040	0.096	0.012	0.019 JN	0.058 JN	0.0039 J	0.0073 JN
PCB-207	52663-79-3	ng/g	0.035 JN	0.0027 J	0.0030 J	0.0032 J	0.011 JN	0.0021 JN	0.0014 J	< 0.00094 U	< 0.00070 U	0.0013 J
PCB-208	52663-77-1	ng/g	0.046	0.0082 JN	0.0089 J	0.012 J	0.031	0.0035 J	0.0036 J	< 0.0010 U	< 0.00070 U	< 0.00055 U
PCB-209	2051-24-3	ng/g	0.019 JN	0.040	0.027	0.041	0.075	0.0045 JN	0.010	0.0026 JN	0.0030 J	0.0062 J
PCB-21/33	55702-46-0	ng/g	0.020	0.024 J	0.027	0.012 J	1.7	0.0016 JN	0.0044 J	0.0023 JN	0.00095 JN	0.0022 JN
PCB-22	38444-85-8	ng/g	0.012	0.020	0.019	0.010 JN	1.1	0.0012 JN	0.0025 JN	0.0018 JN	< 0.00018 U	0.0021 J
PCB-23	55720-44-0	ng/g	< 0.0012 U	< 0.00090 U	< 0.00065 U	< 0.00091 U	< 0.0020 U	< 0.00023 U	< 0.00037 U	< 0.00043 U	< 0.00017 U	< 0.00058 U
PCB-24	55702-45-9	ng/g	0.0011 JN	0.00035 JN	< 0.00036 U	< 0.00017 U	0.062	< 0.000071 U	< 0.000057 U	< 0.00011 U	< 0.000048 U	< 0.00076 UJ
PCB-25	55712-37-3	ng/g	0.020	0.0052 J	0.0056 JN	0.0040 J	0.22	0.00054 J	0.0011 JN	0.00063 JN	< 0.00016 U	< 0.00053 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B410	B411	B412	B413	B414	B415	B416	B417	B419	B420
		Sample ID	PDI-SG-B410-BL1	PDI-SG-B411-BL1	PDI-SG-B412-BL1	PDI-SG-B413-BL1	PDI-SG-B414-BL1	PDI-SG-B415-BL1	PDI-SG-B416-BL1	PDI-SG-B417-BL1	PDI-SG-B419-BL1	PDI-SG-B420-BL1
		Sample Date	23 May 2018	19 May 2018	18 May 2018	19 May 2018	30 Apr 2018	22 May 2018	19 May 2018	22 May 2018	23 May 2018	23 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-19 cm	0-30 cm	0-27 cm	0-30 cm	0-10 cm	0-11 cm	0-28 cm	0-23 cm	0-11 cm	0-10 cm
Chemical	CAS_RN	Units										
PCB-26/29	38444-81-4	ng/g	0.014 J	0.011 J	0.011 J	0.0065 J	0.55	0.0013 J+	0.0022 J	0.0014 J+	0.00050 JN	< 0.00056 U
PCB-27	38444-76-7	ng/g	0.049	0.0035 JN	0.0049 JN	0.0013 JN	0.21	0.00062 JN	0.00069 J	0.00035 JN	< 0.000042 U	< 0.00066 UJ
PCB-3	2051-62-9	ng/g	0.0039 JN	0.0020 JN	0.0032 J	0.0039 J	0.024	0.0016 J+	0.0012 JN	0.00077 JN	< 0.00086 U	< 0.00016 U
PCB-31	16606-02-3	ng/g	0.048	0.045	0.041	0.029	2.8	0.0033 J	0.0078 J	0.0045 J	0.0025 J	0.0054 J
PCB-32	38444-77-8	ng/g	0.11	0.014	0.016 JN	0.0054 J	0.81	0.0017 J+	0.0030 J	0.0021 J+	< 0.00056 U	< 0.00063 UJ
PCB-34	37680-68-5	ng/g	< 0.0013 U	< 0.00094 U	< 0.00067 U	< 0.00095 U	< 0.0021 U	< 0.00024 U	< 0.00039 U	< 0.00044 U	< 0.00018 U	< 0.00061 U
PCB-35	37680-69-6	ng/g	< 0.0012 U	0.0011 JN	0.0013 JN	0.0018 J	0.028	< 0.00023 U	0.00072 J	< 0.00042 U	< 0.00018 U	< 0.00059 U
PCB-36	38444-87-0	ng/g	< 0.0012 U	< 0.00081 U	< 0.00058 U	< 0.00082 U	< 0.0020 U	< 0.00022 U	< 0.00034 U	< 0.00038 U	< 0.00017 U	< 0.00057 U
PCB-37	38444-90-5	ng/g	0.013	0.010 JN	0.015	0.012 J	0.42	0.00095 JN	0.0033 J	0.0020 J	0.0011 J	0.0028 JN
PCB-38	53555-66-1	ng/g	< 0.0013 U	< 0.00088 U	< 0.00063 U	< 0.00089 U	< 0.0021 U	< 0.00024 U	< 0.00036 U	< 0.00042 U	< 0.00018 U	< 0.00061 U
PCB-39	38444-88-1	ng/g	< 0.0011 U	< 0.00080 U	< 0.00058 U	< 0.00081 U	0.011	< 0.00021 U	< 0.00033 U	< 0.00038 U	< 0.00016 U	< 0.00055 U
PCB-4	13029-08-8	ng/g	0.18	0.017 J	0.015 J	0.0080 J	0.20	< 0.0031 U	0.0033 J	0.0026 J	< 0.0028 U	< 0.0050 U
PCB-40/41/71	38444-93-8	ng/g	0.14	0.019 J	0.030	0.020 J	1.2	0.0029 JN	0.0075 J	0.0060 J	0.0028 J	0.0031 JN
PCB-42	36559-22-5	ng/g	0.033 JN	0.012 J	0.015	0.012 J	0.53	0.0019 J	0.0043 J	0.0025 JN	0.00099 J	0.0022 JN
PCB-43/73	70362-46-8	ng/g	0.024 JN	0.0020 J	0.0047 JN	< 0.0015 U	0.099	0.00092 J	< 0.00047 U	< 0.00048 U	< 0.000066 U	< 0.0011 U
PCB-44/47/65	41464-39-5	ng/g	0.80	0.051	0.095	0.079	2.1	0.013 J	0.029	0.026 J	0.0060 J	0.019 J+
PCB-45/51	70362-45-7	ng/g	0.35	0.0087 J	0.028 JN	0.0092 J	0.71	0.0021 JN	0.0064 J	0.0068 JN	0.0018 JN	< 0.0012 U
PCB-46	41464-47-5	ng/g	0.020 JN	0.0029 JN	0.0042 J	0.0029 J	0.24	0.0010 JN	< 0.00064 U	< 0.00065 U	< 0.000090 U	< 0.0015 U
PCB-48	70362-47-9	ng/g	0.022	0.0085 J	0.0093 J	0.0064 J	0.59	0.00092 J	0.0015 JN	< 0.00051 U	0.00065 JN	< 0.0012 U
PCB-49/69	41464-40-8	ng/g	0.42	0.035	0.059	0.036	1.3	0.0085 J	0.019	0.013 J	0.0041 J	0.0086 JN
PCB-5	16605-91-7	ng/g	< 0.0050 U	< 0.0011 U	0.00076 J	< 0.00049 U	0.019 JN	< 0.0027 U	< 0.00040 U	< 0.00039 U	< 0.0024 U	< 0.0043 U
PCB-50/53	62796-65-0	ng/g	0.36	0.0085 J	0.028	0.0047 JN	0.57	0.0040 JN	0.0038 J	0.0045 J	0.00069 JN	0.0025 JN
PCB-52	35693-99-3	ng/g	0.45	0.080	0.10	0.088	2.3	0.016 JN	0.031	0.016	0.0079 JN	0.018 J
PCB-54	15968-05-5	ng/g	0.10 JN	0.00061 J	0.0096 JN	0.00029 JN	0.047	0.0011 JN	0.00068 J	0.0011 J	< 0.000072 U	< 0.000051 U
PCB-55	74338-24-2	ng/g	< 0.0034 U	< 0.00084 U	0.0021 J	< 0.0011 U	< 0.0043 U	< 0.00035 U	< 0.00036 U	< 0.00036 U	< 0.000051 U	< 0.00085 U
PCB-56	41464-43-1	ng/g	0.022 JN	0.020	0.023	0.020	0.076	0.0041 J	0.0064 J	0.0030 J	0.0019 JN	0.0036 J+
PCB-57	70424-67-8	ng/g	< 0.0035 U	< 0.00086 U	< 0.00047 U	< 0.0012 U	< 0.0044 U	< 0.00035 U	< 0.00036 U	< 0.00037 U	< 0.000052 U	< 0.00086 U
PCB-58	41464-49-7	ng/g	0.0042 JN	< 0.00083 U	0.00046 JN	< 0.0011 U	< 0.0045 U	< 0.00036 U	< 0.00035 U	< 0.00035 U	< 0.000053 U	< 0.00087 U
PCB-59/62/75	74472-33-6	ng/g	0.027 J	0.0045 J	0.0055 JN	0.0030 JN	0.22	0.0011 JN	0.0014 J	0.0011 JN	0.00040 JN	< 0.00083 U
PCB-6	25569-80-6	ng/g	0.0065 JN	0.0099 J	0.0065 J	0.0026 J	0.14	< 0.0024 U	0.0013 JN	< 0.00039 U	< 0.0021 U	< 0.0038 U
PCB-60	33025-41-1	ng/g	0.012	0.0076 JN	0.0096	0.0092 J	0.034	0.0021 J	0.0030 J	0.0012 JN	0.00070 JN	0.0032 J
PCB-61/70/74/76	33284-53-6	ng/g	0.18	0.086	0.092	0.098	0.58	0.016 J	0.027 JN	0.013 JN	0.0065 JN	0.018 JN
PCB-63	74472-34-7	ng/g	0.0064 J	0.0015 J	< 0.00041 U	< 0.0010 U	0.020	< 0.00032 U	0.00059 JN	< 0.00032 U	< 0.000048 U	< 0.00079 U
PCB-64	52663-58-8	ng/g	0.043	0.020 JN	0.019 JN	0.021	0.74	0.0031 J	0.0060 J	0.0030 J	0.0019 J	0.0050 JN
PCB-66	32598-10-0	ng/g	0.11	0.051	0.058	0.053	0.27	0.0098	0.018	0.0095 J	0.0049 J	0.013 J
PCB-67	73575-53-8	ng/g	< 0.0030 U	0.0011 J	0.0017 J	< 0.0011 U	0.022	< 0.00030 U	< 0.00034 U	< 0.00034 U	< 0.000045 U	< 0.00075 U
PCB-68	73575-52-7	ng/g	0.012	0.00094 J+	0.00088 JN	0.0049 JN	0.0084 JN	< 0.00031 U	0.0015 J+	< 0.00032 U	0.00032 JN	< 0.00076 U
PCB-7	33284-50-3	ng/g	< 0.0045 U	0.0019 JN	0.0015 JN	< 0.00047 U	0.031 JN	< 0.0024 U	< 0.00037 U	< 0.00037 U	< 0.0022 U	< 0.0039 U
PCB-72	41464-42-0	ng/g	0.0084 J	< 0.00085 U	0.0010 J	< 0.0011 U	0.011 JN	< 0.00034 U	0.00048 JN	< 0.00036 U	< 0.000051 U	< 0.00085 U
PCB-77	32598-13-3	ng/g	0.0070 J	0.0066 J	0.0076 JN	0.0076 J	0.015 JN	0.0011 JN	0.0019 JN	< 0.00034 U	0.00050 JN	< 0.00081 U
PCB-78	70362-49-1	ng/g	< 0.0035 U	< 0.00083 U	< 0.00045 U	< 0.0011 U	< 0.0045 U	< 0.00036 U	< 0.00035 U	< 0.00036 U	< 0.000053 U	< 0.00087 U
PCB-79	41464-48-6	ng/g	< 0.0030 U	< 0.00071 U	0.0012 J	< 0.00095 U	< 0.0039 U	< 0.00031 U	0.00046 J	< 0.00030 U	< 0.000046 U	< 0.00076 U
PCB-8	34883-43-7	ng/g	0.021	0.041	0.027	0.0085 JN	0.48	< 0.0022 U	0.0048 J	0.0018 JN	< 0.0020 U	< 0.0035 U
PCB-80	33284-52-5	ng/g	< 0.0030 U	< 0.00074 U	< 0.00040 U	< 0.00099 U	< 0.0038 U	< 0.00030 U	< 0.00031 U	< 0.00032 U	< 0.000045 U	< 0.00074 U
PCB-81	70362-50-4	ng/g	< 0.0032 U	< 0.00077 U	< 0.00043 U	< 0.0010 U	< 0.0041 U	< 0.00031 U	< 0.00033 U	< 0.00033 U	< 0.000050 U	< 0.00081 U
PCB-82	52663-62-4	ng/g	0.015 JN	0.017	0.015	0.023	0.094	0.0085 J	0.0063 JN	0.0025 JN	0.0025 J	0.0015 JN
PCB-83/99	60145-20-2	ng/g	0.43	0.072	0.084	0.10	0.76	0.034	0.048	0.021	0.0094 JN	0.021 JN
PCB-84	52663-60-2	ng/g	0.12	0.028	0.028	0.035	0.32	0.011	0.010 JN	0.0059 J	0.0029 JN	0.0078 JN
PCB-85/116/117	65510-45-4	ng/g	0.065	0.026 J	0.016 JN	0.032 J	0.17	0.013 J	0.0098 JN	0.0050 J	0.0025 JN	0.0089 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.38	0.077	0.081	0.10	0.56	0.035 J	0.040 J	0.018 J	0.0099 J	0.022 J
PCB-88/91	55215-17-3	ng/g	0.27	0.014 JN	0.026	0.020 J	0.36	0.012 J	0.018 J	0.011 J	0.0038 JN	0.0060 JN
PCB-89	73575-57-2	ng/g	< 0.00033 U	< 0.00047 U	0.00089 JN	0.0019 JN	< 0.00031 U	< 0.00019 U	< 0.00025 U	< 0.00044 U	< 0.00021 U	< 0.00034 U
PCB-9	34883-39-1	ng/g	0.0047 JN	0.0043 J	0.0020 JN	0.00087 JN	0.040 JN	< 0.0025 U	< 0.00044 U	< 0.00043 U	< 0.0022 U	< 0.0040 U
PCB-90/101/113	68194-07-0	ng/g	1.8	0.12	0.14	0.16	1.5	0.059	0.074	0.039	0.019 J	0.034 JN
PCB-92	52663-61-3	ng/g	0.22	0.023	0.033	0.027	0.35	0.0089 JN	0.016	0.0084 J	0.0037 JN	0.010 J
PCB-93/100	73575-56-1	ng/g	0.091 JN	< 0.00044 U	0.0087 JN	0.0013 JN	0.080 JN	0.0026 JN	0.0048 J	0.0033 J	< 0.00018 U	0.0018 JN
PCB-94	73575-55-0	ng/g	0.043	< 0.00047 U	0.0020 JN	< 0.00041 U	0.026	< 0.00019 U	0.00081 JN	0.0018 J	< 0.00021 U	< 0.00034 U
PCB-95	38379-99-6	ng/g	1.4	0.084	0.12	0.11	1.8	0.045	0.050	0.030	0.019 JN	0.037
PCB-96	73575-54-9	ng/g	0.047	0.00094 J	0.0026 J	0.0010 J	0.026 JN	0.00058 JN	0.0011 J	0.00084 JN	< 0.00016 U	< 0.00025 U
PCB-98/102	60233-25-2	ng/g	0.084	0.0020 JN	0.0064 J	0.0056 JN	0.060	0.0030 JN	0.0030 J	0.0022 J	< 0.00018 U	0.0012 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	79	3.1	4.0	4.3	62	1.8	1.6	1.1	0.42	1.1

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B410	B411	B412	B413	B414	B415	B416	B417	B419	B420
		Sample ID	PDI-SG-B410-BL1	PDI-SG-B411-BL1	PDI-SG-B412-BL1	PDI-SG-B413-BL1	PDI-SG-B414-BL1	PDI-SG-B415-BL1	PDI-SG-B416-BL1	PDI-SG-B417-BL1	PDI-SG-B419-BL1	PDI-SG-B420-BL1
		Sample Date	23 May 2018	19 May 2018	18 May 2018	19 May 2018	30 Apr 2018	22 May 2018	19 May 2018	22 May 2018	23 May 2018	23 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-19 cm	0-30 cm	0-27 cm	0-30 cm	0-10 cm	0-11 cm	0-28 cm	0-23 cm	0-11 cm	0-10 cm
Chemical	**CAS_RN**	**Units**										
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.85 U	< 2.1 U	< 1.4 U	< 2.1 U	< 0.76 U	< 1.2 U	< 1.5 U	< 0.66 U	< 1.2 U	< 0.21 U
2,4-DDE	3424-82-6	µg/kg	< 0.85 U	< 2.1 U	< 1.4 U	< 2.1 U	< 0.76 U	< 1.2 U	< 1.5 U	< 0.79 U	< 1.2 U	< 0.21 U
2,4-DDT	789-02-6	µg/kg	< 0.94 U	< 2.1 UJ	< 1.4 UJ	< 2.1 UJ	< 0.76 UJ	< 1.2 U	< 1.5 UJ	< 0.94 U	< 1.2 U	< 0.21 UJ
4,4'-DDD	72-54-8	µg/kg	0.43 J	1.0 J	< 1.4 U	< 2.1 U	1.8	< 1.2 U	< 1.5 U	< 0.66 U	0.52 J	< 0.21 U
4,4'-DDE	72-55-9	µg/kg	0.77 J	2.3	< 1.4 U	< 2.1 U	1.7	< 1.2 U	< 1.5 U	< 0.70 U	< 1.2 U	< 0.21 U
4,4'-DDT	50-29-3	µg/kg	< 0.85 U	< 2.1 U	< 1.4 U	< 2.1 U	0.56 J	< 1.2 U	< 1.5 U	< 0.66 U	< 1.2 U	< 0.21 U
Total DDx (b)	T_DDx (PDI)	µg/kg	1.7	4.4	< 1.4 UJ	< 2.1 UJ	4.4	< 1.2 U	< 1.5 UJ	< 0.94 U	1.1	< 0.21 UJ
Aldrin	309-00-2	µg/kg	< 0.85 U	< 2.1 U	< 1.4 U	< 2.1 U	< 0.76 U	< 1.2 U	< 1.5 U	< 0.79 U	< 1.2 U	< 0.21 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.7 U	< 4.2 U	< 2.7 U	< 4.3 U	< 1.5 U	< 2.4 U	< 2.9 U	< 1.3 U	< 2.3 U	< 0.42 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.97 U	< 2.1 U	< 1.4 U	< 2.1 U	< 0.76 U	< 1.2 U	< 1.5 U	< 0.97 UJ	< 1.2 U	< 0.21 U
Dieldrin	60-57-1	µg/kg	< 2.0 U	< 4.2 U	< 2.7 U	< 4.3 U	< 1.5 U	< 2.4 U	< 2.9 U	< 2.0 U	< 2.3 U	< 0.42 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.85 U	< 2.1 U	< 1.4 U	< 2.1 U	< 0.76 U	< 1.2 U	< 1.5 U	< 0.66 U	< 1.2 U	< 0.21 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.7 U	< 4.2 U	< 2.7 U	< 4.3 U	< 1.5 U	< 2.4 U	< 2.9 U	< 1.3 U	< 2.3 U	< 0.42 U
Heptachlor	76-44-8	µg/kg	< 0.85 U	< 2.1 U	< 1.4 U	< 2.1 U	< 0.76 U	< 1.2 U	< 1.5 U	< 0.66 U	< 1.2 U	< 0.21 U
Oxychlordane	27304-13-8	µg/kg	< 2.0 U	< 4.2 U	< 2.7 U	< 4.3 U	< 1.5 U	< 2.4 U	< 2.9 U	< 2.0 U	< 2.3 U	< 0.42 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.7 U	< 4.2 U	< 2.7 U	< 4.3 U	< 1.5 U	< 2.4 U	< 2.9 U	< 1.3 U	< 2.3 U	< 0.42 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2 U	< 4.2 U	< 2.7 U	< 4.3 U	< 1.5 U	< 2.4 U	< 2.9 U	< 2 U	< 2.3 U	< 0.42 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	1.8	1.3 J	1.0	2.2	34 J	0.25 J	1.2	2.1	0.34 J	0.18 J
Acenaphthene	83-32-9	µg/kg	1.5	1.8	1.5	2.3	9.3 J	0.74	8.6	23	4.8	0.30
Acenaphthylene	208-96-8	µg/kg	2.0	1.3	1.3	1.4	< 21 U	2.9	2.9	3.6	0.34	0.32
Anthracene	120-12-7	µg/kg	4.2	3.3	2.5	3.9	8.3 J	2.2	4.6	8.2	0.65	1.7
Benz(a)anthracene	56-55-3	µg/kg	17	6.7	7.8	8.1	39	8.1	12	21	1.7	2.0
Benzo(a)pyrene	50-32-8	µg/kg	21	22	15	23	52	22	25	35	2.2	2.3
Benzo(b)fluoranthene	205-99-2	µg/kg	30	14	13	17	88	21	20	32	2.5	2.4
Benzo(g,h,i)perylene	191-24-2	µg/kg	17	7.9	7.2	9.3	110	24	14	25 J	1.9	1.8
Benzo(k)fluoranthene	207-08-9	µg/kg	11	4.5	4.7	5.4	24	7.3	6.3	11	0.85	0.89
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	67 J	110 J	40 J	110 J	< 2000 U	68	30 J	29 J	12 J	13 J
Chrysene	218-01-9	µg/kg	33	12	11	14	57	14	14	23	2.2	3.0
Dibenz(a,h)anthracene	53-70-3	µg/kg	3.5	1.3	1.3	1.8	32	3.0	1.9	2.9 J	0.26 J	0.28 J
Fluoranthene	206-44-0	µg/kg	59	16	18	22	77	11	35	57	3.6	3.3
Fluorene	86-73-7	µg/kg	3.0	2.3	1.8	3.0	12 J	0.44	2.4	3.9	0.83	0.29 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	17	6.4	6.2	7.6	46	22	12	22	1.6	1.4
Naphthalene	91-20-3	µg/kg	3.7	1.5	1.9	2.9	120	0.48 J	4.9	3.5	2.5	0.27 J
Phenanthrene	85-01-8	µg/kg	35	9.4	9.5	14	55	4.5	27	46	4.4	2.6
Pyrene	129-00-0	µg/kg	64	18	19	22	130	16	45	78	15	5.2
Total PAHs (b)	T_PAH (PDI)	µg/kg	324	130	123	160	904	160	237	397	46	28
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	31	26	19	28	102	30	31	46	3	3
Metals												
Arsenic	7440-38-2	mg/kg	3.4	4.6	3.6	4.4	3.2 J	3.0	4.0	4.6	3.0	3.2
Cadmium	7440-43-9	mg/kg	0.13 J	0.18 J	0.17 J	0.19 J	0.17 J	0.032 J	0.11 J	0.043 J	< 0.17 U	0.039 J
Copper	7440-50-8	mg/kg	33	35	23	36	23 J	16	22	18	13	12
Lead	7439-92-1	mg/kg	19	8.8	7.6	9.2	21 J	8.5	6.8	7.7	7.9	6.5
Mercury	7439-97-6	mg/kg	0.029 J	0.035 J	0.045	0.043 J	0.16 J	0.026 J	0.036	0.028 J	0.026 J	0.029 J
Tri-n-butyltin	36643-28-4	µg/kg	5.3	< 2.5 U	< 1.7 U	< 2.6 U	1.0 J	< 1.3 U	< 1.5 U	< 1.3 U	< 1.2 U	< 1.1 U
Zinc	7440-66-6	mg/kg	85	86	79	91	66 J	45	69	71	44	43
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	61 J	120	< 74 U	120 J	300 J	< 55 U	< 69 U	< 66 U	< 52 U	< 54 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	310	400	130	620	1200 J	55	110	63 J	44 J	45 J
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	59.9	39.0	58.4	36.6	54.9 J	85.0	66.2	71.2	88.1	87.5
Total Solids@104C - E160.3 (f)	TSOLID	%										
Total Solids@104C - E160.3M (f)	TSOLID	%	59.1	39.3	59.4	37.5	61.3	77.7	67.3	73.8	82.6	87.6
Total Solids@70C	TSOLID70	%	61	39	60	37	79	86	68	74	86	85
Gravel	GS-Gravel	%	0	0	0	0	61.1	89.4	0	0	71.1	67.1
Sand, Coarse	GS-Csand	%	0.3	0	0	0.1	4.3	3.8	0	0.9	6.2	20.2
Sand, Medium	GS-Msand	%	3.0	0.2	0.4	0.3	4.7	1.3	16.6	49.7	13.1	11.6
Sand, Fine (#200) (d)	GS-Fsand-200	%	66.99	16.52	70.37	18.99	9.44	2.559	67.12	47.67	8.371	6.499
Sand, Fine (#230) (d)	GS-Fsand	%	70.4	20.6	73.7	22.6	10.1	2.6	67.8	47.8	8.4	6.6
Silt (#200) (d)	GS-Silt-200	%	26.10	67.57	22.92	69.10	19.45	2.940	11.27	1.729	1.128	0

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B410	B411	B412	B413	B414	B415	B416	B417	B419	B420
		Sample ID	PDI-SG-B410-BL1	PDI-SG-B411-BL1	PDI-SG-B412-BL1	PDI-SG-B413-BL1	PDI-SG-B414-BL1	PDI-SG-B415-BL1	PDI-SG-B416-BL1	PDI-SG-B417-BL1	PDI-SG-B419-BL1	PDI-SG-B420-BL1
		Sample Date	23 May 2018	19 May 2018	18 May 2018	19 May 2018	30 Apr 2018	22 May 2018	19 May 2018	22 May 2018	23 May 2018	23 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-19 cm	0-30 cm	0-27 cm	0-30 cm	0-10 cm	0-11 cm	0-28 cm	0-23 cm	0-11 cm	0-10 cm
Chemical	**CAS_RN**	**Units**										
Silt (#230) (d)	GS-Silt	%	22.7	63.5	19.6	65.5	18.8	2.9	10.6	1.6	1.1	-8.7
Clay	GS-Clay	%	3.7	15.7	6.3	11.5	1.0	0	5.0	0	0	3.1
Percent Fines (e)	GS-FINES	%	29.8	83.27	29.22	80.6	20.45	2.94	16.27	1.729	1.128	3.1
Total Organic Carbon	TOC	mg/kg	11000	34000	9600	33000	47000 J	2300	5500	1600 J	2000	2400

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B421	B422	B423	B424	B425	B426	B427	B428
		Sample ID	PDI-SG-B421-BL1	PDI-SG-B422-BL1	PDI-SG-B423-BL1	PDI-SG-B424-BL1	PDI-SG-B425-BL1	PDI-SG-B426-BL1	PDI-SG-B427-BL1	PDI-SG-B428-BL1
		Sample Date	24 May 2018	24 May 2018	19 Jun 2018	24 May 2018	19 Jun 2018	21 May 2018	21 May 2018	21 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-11 cm	0-13 cm	0-23 cm	0-30 cm	0-10 cm	0-14 cm	0-12 cm
Chemical	**CAS_RN**	**Units**								
Dioxin and Furans										
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.018	0.065	0.0028 J	0.0024 J	0.030	0.0075	0.0061	0.0015 J+
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.00071 JN	0.012	0.00075 JN	0.00041 JN	0.0052 JN	0.0016 J	0.00070 JN	0.00036 J+
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00035 JN	0.0010 J+	< 0.00017 U	< 0.00036 U	0.00055 J	0.00053 J+	< 0.00015 U	< 0.00011 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00031 JN	0.00020 J	0.00014 J+	< 0.00012 U	0.00044 JN	0.00024 JN	< 0.00012 U	< 0.000068 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00020 JN	0.00059 JN	0.00010 J	< 0.00011 U	0.00060 J	0.00015 JN	< 0.000079 U	< 0.00013 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00039 JN	0.0028 J	0.00019 JN	0.00022 J+	0.0013 J	0.00055 JN	0.00019 JN	< 0.000061 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00021 J	0.00032 JN	0.000072 JN	< 0.000068 U	0.00035 J	0.00010 JN	< 0.000082 U	< 0.00013 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00046 JN	0.00033 J	0.00012 J	0.00021 J+	0.0013 J	0.00045 J	0.00021 J+	< 0.000061 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00019 U	0.00033 J+	< 0.000041 U	< 0.00032 U	< 0.00015 U	0.00034 J+	< 0.00012 U	< 0.00015 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00010 U	< 0.000098 U	< 0.000043 U	< 0.000035 U	0.00030 J	< 0.000083 U	< 0.000060 U	< 0.000077 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.000087 U	< 0.000079 U	< 0.000029 U	< 0.00010 U	0.00036 J	< 0.000075 U	< 0.000035 U	< 0.000065 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.000066 U	< 0.000095 U	0.00011 J	< 0.000027 U	0.00022 JN	< 0.000064 U	< 0.000057 U	< 0.000087 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00011 U	< 0.000087 U	< 0.000032 U	< 0.000069 U	0.00018 J	< 0.000082 U	< 0.000036 U	< 0.000071 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000083 U	< 0.000047 U	< 0.000025 U	< 0.00011 U	< 0.000087 U	< 0.000074 U	0.00010 J	< 0.000074 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00014 JN	0.00023 J	< 0.000025 U	< 0.00015 U	0.00033 J	< 0.000077 U	0.000089 J+	< 0.000048 U
OCDD	3268-87-9	µg/kg	0.35	0.94	0.025	0.019	0.28	0.047	0.070	0.017
OCDF	39001-02-0	µg/kg	0.0014 JN	0.029	0.0019 J	0.00099 J+	0.019	0.0031 J	0.0033 J	0.0012 J+
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00052	0.0016	0.00014	0.00013	0.0013	0.00034	0.00027	0.000063
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00036	0.0015	0.0001	0.00013	0.0012	0.00023	0.00024	0.000063
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00031	0.0015	0.000083	0.000073	0.0012	0.00019	0.00021	0.000024
Polychlorinated Biphenyls (PCBs) Congeners										
PCB-1	2051-60-7	ng/g	< 0.00013 U	< 0.00021 U	< 0.000099 U	< 0.00021 U	0.0012 JN	< 0.000093 U	0.00072 JN	0.0022 J
PCB-10	33146-45-1	ng/g	< 0.0035 U	< 0.0025 U	< 0.0024 U	< 0.0066 U	< 0.0012 U	< 0.0025 U	< 0.0029 U	< 0.0031 U
PCB-103	60145-21-3	ng/g	< 0.00019 U	0.0019 JN	< 0.00012 U	0.0037 J	0.0015 J	< 0.00015 U	0.0084 JN	< 0.00032 U
PCB-104	56558-16-8	ng/g	< 0.00014 U	< 0.00013 U	< 0.000088 U	< 0.00029 U	< 0.00019 U	< 0.00011 U	< 0.00016 U	< 0.00025 U
PCB-105	32598-14-4	ng/g	0.0028 JN	0.020	0.012	0.014	0.043	0.011	0.032	0.0091 JN
PCB-106	70424-69-0	ng/g	< 0.00034 U	< 0.00083 U	< 0.00032 U	< 0.00067 U	< 0.00080 U	< 0.00043 U	< 0.00097 U	< 0.00067 U
PCB-107	70424-68-9	ng/g	< 0.00037 U	0.0035 JN	0.0020 JN	< 0.00072 U	0.011	0.0014 J	0.011	0.0031 JN
PCB-108/124	70362-41-3	ng/g	< 0.00035 U	0.0025 J	0.0014 JN	< 0.00069 U	0.0044 J	< 0.00044 U	0.0035 J	0.0011 JN
PCB-11	2050-67-1	ng/g	0.0043 JN	0.0098 JN	< 0.0088 U	0.014 JN	0.042	0.0050 JN	0.0054 JN	0.0039 JN
PCB-110/115	38380-03-9	ng/g	0.016 J	0.13	0.043	0.084	0.13	0.034	0.19	0.060
PCB-111	39635-32-0	ng/g	< 0.00013 U	< 0.00012 U	< 0.000082 U	< 0.00027 U	< 0.00017 U	< 0.00010 U	< 0.00015 U	< 0.00023 U
PCB-112	74472-36-9	ng/g	< 0.00014 U	0.00074 JN	0.00036 JN	< 0.00028 U	< 0.00018 U	< 0.00011 U	< 0.00016 U	< 0.00024 U
PCB-114	74472-37-0	ng/g	< 0.00031 U	< 0.00075 U	< 0.00031 U	< 0.00063 U	0.0023 J	< 0.00039 U	0.0027 J	< 0.00064 U
PCB-118	31508-00-6	ng/g	0.0092 J	0.042	0.028	0.046	0.11	0.027	0.10	0.026 JN
PCB-12/13	2974-92-7	ng/g	< 0.0031 U	< 0.0022 U	< 0.0022 U	< 0.0060 U	0.0031 JN	< 0.0023 U	< 0.0026 U	< 0.0029 U
PCB-120	68194-12-7	ng/g	< 0.00013 U	< 0.00012 U	< 0.000083 U	< 0.00027 U	< 0.00018 U	< 0.00011 U	< 0.00015 U	< 0.00023 U
PCB-121	56558-18-0	ng/g	< 0.00014 U	< 0.00013 U	< 0.000085 U	< 0.00028 U	< 0.00018 U	< 0.00011 U	< 0.00016 U	< 0.00024 U
PCB-122	76842-07-4	ng/g	< 0.00039 U	< 0.00096 U	0.00084 JN	< 0.00077 U	< 0.00093 U	< 0.00050 U	0.0022 J	< 0.00078 U
PCB-123	65510-44-3	ng/g	< 0.00034 U	< 0.00080 U	0.0011 JN	< 0.00069 U	0.0016 JN	0.00073 JN	0.0017 JN	< 0.00067 U
PCB-126	57465-28-8	ng/g	< 0.00037 U	< 0.00090 U	< 0.00037 U	< 0.00066 U	< 0.00086 U	< 0.00048 U	< 0.0011 U	< 0.00072 U
PCB-127	39635-33-1	ng/g	< 0.00034 U	< 0.00083 U	< 0.00032 U	< 0.00067 U	< 0.00080 U	< 0.00043 U	< 0.00097 U	< 0.00067 U
PCB-128/166	38380-07-3	ng/g	0.0023 JN	0.026	0.0092 J	0.015 J	0.031	0.0058 JN	0.023	0.0082 JN
PCB-129/138/160/163	55215-18-4	ng/g	0.025 J	0.17	0.065	0.18	0.21	0.049	0.15	0.061
PCB-130	52663-66-8	ng/g	< 0.00069 U	0.0093 JN	0.0028 JN	0.0048 JN	0.012	0.0032 JN	0.0088 JN	0.0034 J
PCB-131	61798-70-7	ng/g	< 0.00072 U	< 0.0020 U	< 0.00064 U	< 0.0021 U	< 0.0013 U	< 0.0016 U	< 0.0020 U	< 0.0017 U
PCB-132	38380-05-1	ng/g	0.0085 J	0.069	0.018	0.051	0.051	0.013 JN	0.050	0.021
PCB-133	35694-04-3	ng/g	< 0.00066 U	< 0.0018 U	0.0017 J	0.0024 JN	< 0.0012 U	< 0.0015 U	0.0034 J	< 0.0015 U
PCB-134/143	52704-70-8	ng/g	< 0.00069 U	0.011 JN	0.0021 JN	0.0081 JN	0.0075 JN	< 0.0015 U	0.011 JN	0.0044 J
PCB-135/151	52744-13-5	ng/g	0.0063 JN	0.078	0.027	0.084	0.045	0.016 J	0.067	0.026
PCB-136	38411-22-2	ng/g	0.0032 JN	0.026	0.0089 J	0.029	0.015	0.0055 J	0.029	0.0099
PCB-137	35694-06-5	ng/g	< 0.00059 U	0.0068 J	0.0022 JN	0.0032 JN	0.0085 J	0.0019 JN	0.0063 JN	0.0028 JN
PCB-139/140	56030-56-9	ng/g	< 0.00058 U	< 0.0016 U	< 0.00051 U	< 0.0017 U	< 0.0011 U	< 0.0013 U	0.0040 JN	< 0.0013 U
PCB-14	34883-41-5	ng/g	< 0.0027 U	< 0.0019 U	< 0.0019 U	< 0.0051 U	< 0.00096 U	< 0.0019 U	< 0.0022 U	< 0.0024 U
PCB-141	52712-04-6	ng/g	0.0038 JN	0.040	0.010 JN	0.037 JN	0.034	0.0079 J	0.026	0.011 JN
PCB-142	41411-61-4	ng/g	< 0.00065 U	< 0.0018 U	< 0.00058 U	< 0.0019 U	< 0.0012 U	< 0.0015 U	< 0.0018 U	< 0.0015 U
PCB-144	68194-14-9	ng/g	0.0017 JN	0.0097 J	0.0020 JN	0.010 JN	0.0056 J	< 0.000025 U	0.0051 JN	0.0029 JN
PCB-145	74472-40-5	ng/g	< 0.000046 U	< 0.00014 U	0.00015 JN	< 0.00010 U	< 0.00015 U	< 0.000019 U	< 0.000052 U	< 0.00014 U
PCB-146	51908-16-8	ng/g	0.0060 J	0.032	0.010	0.029	0.027	0.0060 JN	0.023	0.0077 JN
PCB-147/149	68194-13-8	ng/g	0.029	0.20	0.056	0.20	0.15	0.040 JN	0.15	0.061
PCB-148	74472-41-6	ng/g	< 0.000065 U	< 0.00020 U	< 0.000062 U	< 0.00014 U	< 0.00021 U	< 0.000027 U	0.0011 JN	< 0.00019 U

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B421	B422	B423	B424	B425	B426	B427	B428
		Sample ID	PDI-SG-B421-BL1	PDI-SG-B422-BL1	PDI-SG-B423-BL1	PDI-SG-B424-BL1	PDI-SG-B425-BL1	PDI-SG-B426-BL1	PDI-SG-B427-BL1	PDI-SG-B428-BL1
		Sample Date	24 May 2018	24 May 2018	19 Jun 2018	24 May 2018	19 Jun 2018	21 May 2018	21 May 2018	21 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-11 cm	0-13 cm	0-23 cm	0-30 cm	0-10 cm	0-14 cm	0-12 cm
Chemical	CAS_RN	Units								
PCB-15	2050-68-2	ng/g	< 0.0034 U	0.0026 JN	< 0.0025 U	< 0.0059 U	0.012	< 0.0024 U	0.0033 JN	< 0.0030 U
PCB-150	68194-08-1	ng/g	< 0.000044 U	< 0.00014 U	< 0.000042 U	< 0.000098 U	< 0.00014 U	< 0.000018 U	0.0012 J	< 0.00013 U
PCB-152	68194-09-2	ng/g	< 0.000048 U	< 0.00015 U	< 0.000045 U	< 0.00011 U	< 0.00015 U	< 0.000020 U	< 0.000054 U	< 0.00014 U
PCB-153/168	35065-27-1	ng/g	0.023	0.14	0.051	0.17	0.15	0.036	0.12	0.056
PCB-154	60145-22-4	ng/g	0.0011 JN	0.0012 JN	0.00042 JN	0.0048 JN	0.0015 JN	< 0.000022 U	0.0046 J	0.0024 JN
PCB-155	33979-03-2	ng/g	< 0.000044 U	< 0.00014 U	< 0.000042 U	< 0.000099 U	< 0.00014 U	< 0.000018 U	< 0.000050 U	< 0.00013 U
PCB-156/157	38380-08-4	ng/g	0.0013 JN	0.0091 JN	0.0050 JN	0.0090 JN	0.016 JN	0.0047 JN	0.014 JN	0.0025 JN
PCB-158	74472-42-7	ng/g	0.0025 JN	0.020	0.0059 JN	0.012 JN	0.018	0.0043 JN	0.014 JN	0.0043 JN
PCB-159	39635-35-3	ng/g	< 0.00044 U	< 0.0012 U	0.00081 JN	< 0.0013 U	< 0.00081 U	< 0.00098 U	< 0.0012 U	< 0.0010 U
PCB-16	38444-78-9	ng/g	< 0.00019 U	0.0019 JN	< 0.00022 U	< 0.00066 U	0.0078 J	< 0.000093 U	< 0.00013 U	< 0.00011 U
PCB-161	74472-43-8	ng/g	< 0.00043 U	< 0.0012 U	< 0.00038 U	< 0.0013 U	< 0.00080 U	< 0.00097 U	< 0.0012 U	< 0.00099 U
PCB-162	39635-34-2	ng/g	< 0.00043 U	< 0.0012 U	< 0.00038 U	< 0.0013 U	< 0.00079 U	< 0.00096 U	< 0.0012 U	< 0.00098 U
PCB-164	74472-45-0	ng/g	0.0014 JN	0.013 JN	0.0039 JN	0.012 JN	0.014	0.0042 J	0.012	0.0054 J
PCB-165	74472-46-1	ng/g	< 0.00049 U	< 0.0014 U	< 0.00043 U	< 0.0014 U	< 0.00091 U	< 0.0011 U	< 0.0014 U	< 0.0011 U
PCB-167	52663-72-6	ng/g	0.00039 JN	0.0052 J	0.0019 JN	0.0048 J	0.0061 J	< 0.00072 U	0.0065 J	< 0.00073 U
PCB-169	32774-16-6	ng/g	< 0.00033 U	< 0.00095 U	< 0.00029 U	< 0.00092 U	< 0.00062 U	< 0.00072 U	< 0.00090 U	< 0.00073 U
PCB-17	37680-66-3	ng/g	0.00085 J	0.0029 JN	0.0012 J	0.0072 J	0.011	0.0012 JN	0.012 JN	0.0026 J
PCB-170	35065-30-6	ng/g	0.0073 J	0.048	0.021	0.058 JN	0.046	0.013	0.041	0.015 JN
PCB-171/173	52663-71-5	ng/g	0.0022 J	0.018 J	0.0073 JN	0.018 J	0.013 JN	0.0036 JN	0.0096 JN	0.0063 J
PCB-172	52663-74-8	ng/g	0.00094 JN	0.0090 J	0.0037 JN	0.010 JN	0.0066 JN	0.0019 JN	0.0064 J	0.0027 JN
PCB-174	38411-25-5	ng/g	0.0078 J	0.054	0.022	0.056	0.044	0.016 JN	0.039	0.014 JN
PCB-175	40186-70-7	ng/g	< 0.00026 U	0.0020 JN	< 0.00021 U	< 0.00085 U	0.0016 J	< 0.00026 U	< 0.00028 U	< 0.00073 U
PCB-176	52663-65-7	ng/g	0.0014 JN	0.0073 J	0.0027 J	0.0066 JN	0.0050 J	0.0017 JN	0.0049 J	0.0021 JN
PCB-177	52663-70-4	ng/g	0.0063 J	0.029	0.011 JN	0.029 JN	0.027	0.0068 J	0.020 JN	0.010
PCB-178	52663-67-9	ng/g	0.0019 JN	0.012 JN	0.0032 JN	0.011 JN	0.010	< 0.00029 U	0.0072 JN	0.0040 JN
PCB-179	52663-64-6	ng/g	0.0034 JN	0.028	0.0086 JN	0.029	0.021	0.0044 JN	0.018	0.0083 JN
PCB-18/30	37680-65-2	ng/g	< 0.00015 U	0.0026 JN	0.0015 JN	0.013 J	0.021	< 0.000073 U	0.0065 J	0.0058 JN
PCB-180/193	35065-29-3	ng/g	0.015 JN	0.092	0.048	0.15	0.093	0.029	0.079	0.042
PCB-181	74472-47-2	ng/g	< 0.00026 U	< 0.00029 U	< 0.00021 U	< 0.00085 U	< 0.00048 U	< 0.00026 U	< 0.00028 U	< 0.00072 U
PCB-182	60145-23-5	ng/g	< 0.00025 U	< 0.00028 U	< 0.00020 U	< 0.00082 U	< 0.00046 U	< 0.00025 U	< 0.00027 U	< 0.00070 U
PCB-183/185	52663-69-1	ng/g	0.0068 J	0.042	0.015 JN	0.045	0.029	0.010 JN	0.025 JN	0.016 J
PCB-184	74472-48-3	ng/g	< 0.00022 U	< 0.00024 U	< 0.00017 U	< 0.00069 U	< 0.00039 U	< 0.00022 U	< 0.00023 U	< 0.00059 U
PCB-186	74472-49-4	ng/g	< 0.00021 U	< 0.00023 U	< 0.00017 U	< 0.00068 U	< 0.00038 U	< 0.00021 U	< 0.00022 U	< 0.00058 U
PCB-187	52663-68-0	ng/g	0.011	0.063	0.029	0.074	0.064	0.021	0.049	0.025
PCB-188	74487-85-7	ng/g	< 0.00019 U	< 0.00020 U	< 0.00015 U	< 0.00060 U	< 0.00032 U	< 0.00019 U	< 0.00020 U	< 0.00052 U
PCB-189	39635-31-9	ng/g	< 0.00030 U	< 0.00078 U	0.0011 JN	0.0030 JN	< 0.0012 U	< 0.00054 U	< 0.00064 U	< 0.00098 U
PCB-19	38444-73-4	ng/g	< 0.00021 U	0.0076 JN	0.0016 JN	< 0.00072 U	0.0034 JN	0.0011 JN	0.0062 JN	< 0.00012 U
PCB-190	41411-64-7	ng/g	0.00085 JN	0.0069 J	0.0044 J	0.013	0.0074 JN	0.0017 JN	0.0067 JN	0.0030 J
PCB-191	74472-50-7	ng/g	< 0.00020 U	0.0022 JN	< 0.00016 U	0.0032 J	0.0020 J	< 0.00020 U	0.0015 J	< 0.00055 U
PCB-192	74472-51-8	ng/g	< 0.00022 U	< 0.00025 U	< 0.00018 U	< 0.00071 U	< 0.00040 U	< 0.00022 U	< 0.00024 U	< 0.00061 U
PCB-194	35694-08-7	ng/g	0.0030 JN	0.019	0.012	0.040	0.028	0.0052 J	0.013 JN	0.0091 JN
PCB-195	52663-78-2	ng/g	< 0.0010 U	0.010 JN	0.0045 J	0.018 JN	0.013	< 0.00056 U	0.0050 JN	< 0.0020 U
PCB-196	42740-50-1	ng/g	0.0017 JN	0.011	0.0046 JN	0.021	0.0091 JN	0.0018 JN	0.0069 J	0.0036 JN
PCB-197	33091-17-7	ng/g	< 0.00010 U	0.00070 JN	< 0.000032 U	< 0.00020 U	0.00093 JN	< 0.000061 U	0.00069 JN	< 0.00045 U
PCB-198/199	68194-17-2	ng/g	0.0039 JN	0.021	0.012 J	0.031	0.030 JN	0.0098 J	0.016 JN	0.011 J
PCB-2	2051-61-8	ng/g	0.0010 JN	< 0.00022 U	< 0.00012 U	< 0.00024 U	0.0030 J	0.0015 J	0.00067 JN	0.0016 J
PCB-20/28	38444-84-7	ng/g	0.0026 J	0.0057 JN	0.0057 JN	0.018 J	0.043	0.0030 J	0.056	0.018 J
PCB-200	52663-73-7	ng/g	0.00051 JN	0.0017 JN	0.0014 JN	0.0021 JN	0.0027 J	0.00072 JN	0.0018 J	< 0.00040 U
PCB-201	40186-71-8	ng/g	< 0.000096 U	0.0021 JN	0.0013 JN	0.0031 J	0.0029 J	< 0.000056 U	0.0023 JN	0.00097 JN
PCB-202	2136-99-4	ng/g	< 0.00011 U	0.0032 JN	0.0027 J	0.0064 J	0.0070 J	0.0016 JN	0.0037 J	0.0025 J
PCB-203	52663-76-0	ng/g	0.0029 J	0.012	0.0079 J	0.019	0.018	0.0043 JN	0.0070 JN	0.0056 JN
PCB-204	74472-52-9	ng/g	< 0.00011 U	< 0.00022 U	< 0.000032 U	< 0.00020 U	< 0.00029 U	< 0.000061 U	< 0.00014 U	< 0.00045 U
PCB-205	74472-53-0	ng/g	< 0.00078 U	< 0.00098 U	< 0.00054 U	< 0.00061 U	< 0.00085 U	< 0.00043 U	< 0.00092 U	< 0.0015 U
PCB-206	40186-72-9	ng/g	0.0028 JN	0.0098 J	0.0065 JN	0.014	0.023	< 0.0015 U	0.0056 JN	0.0055 J
PCB-207	52663-79-3	ng/g	< 0.00073 U	< 0.0016 U	0.00085 JN	< 0.00065 U	< 0.0011 U	< 0.0011 U	< 0.00098 U	< 0.0014 U
PCB-208	52663-77-1	ng/g	< 0.00076 U	< 0.0015 U	0.0025 J	0.0023 JN	0.014 JN	< 0.0011 U	0.0029 JN	< 0.0015 U
PCB-209	2051-24-3	ng/g	0.0041 JN	0.0049 JN	0.0046 JN	0.0033 JN	0.030	0.0038 JN	0.0033 JN	0.0043 JN
PCB-21/33	55702-46-0	ng/g	< 0.00029 U	0.0024 JN	0.0022 J	0.0030 JN	0.015 J	0.00095 J	0.0058 JN	0.0086 J
PCB-22	38444-85-8	ng/g	< 0.00030 U	0.0015 J	0.0015 JN	0.0044 JN	0.012	< 0.00028 U	0.0024 J	0.0053 J
PCB-23	55720-44-0	ng/g	< 0.00030 U	< 0.00045 U	< 0.00040 U	< 0.00080 U	< 0.00040 U	< 0.00028 U	< 0.00061 U	< 0.00047 U
PCB-24	55702-45-9	ng/g	< 0.00014 U	< 0.00015 U	< 0.00017 U	< 0.00049 U	0.00054 JN	< 0.000070 U	< 0.00010 U	< 0.000085 U
PCB-25	55712-37-3	ng/g	< 0.00027 U	< 0.00041 U	< 0.00037 U	0.0012 JN	0.0065 J	< 0.00025 U	0.0086 JN	0.0025 JN

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B421	B422	B423	B424	B425	B426	B427	B428
		Sample ID	PDI-SG-B421-BL1	PDI-SG-B422-BL1	PDI-SG-B423-BL1	PDI-SG-B424-BL1	PDI-SG-B425-BL1	PDI-SG-B426-BL1	PDI-SG-B427-BL1	PDI-SG-B428-BL1
		Sample Date	24 May 2018	24 May 2018	19 Jun 2018	24 May 2018	19 Jun 2018	21 May 2018	21 May 2018	21 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-11 cm	0-13 cm	0-23 cm	0-30 cm	0-10 cm	0-14 cm	0-12 cm
Chemical	CAS_RN	Units								
PCB-26/29	38444-81-4	ng/g	< 0.00029 U	< 0.00043 U	< 0.00039 U	0.0031 JN	0.0095 J	< 0.00027 U	0.012 J	0.0033 JN
PCB-27	38444-76-7	ng/g	< 0.00012 U	0.0017 JN	< 0.00015 U	< 0.00043 U	0.0028 J	< 0.000061 U	0.0036 JN	< 0.000074 U
PCB-3	2051-62-9	ng/g	0.0017 JN	0.0011 JN	0.00065 JN	< 0.00027 U	0.0017 J	< 0.00012 U	< 0.00088 U	0.0020 J+
PCB-31	16606-02-3	ng/g	0.0016 JN	0.0045 J	0.0043 J	0.0096 J	0.035	0.0012 JN	0.021	0.013 J
PCB-32	38444-77-8	ng/g	< 0.00012 U	0.0026 JN	< 0.00014 U	0.0042 JN	0.0080 J	< 0.000058 U	0.017 JN	0.0024 J+
PCB-34	37680-68-5	ng/g	< 0.00031 U	< 0.00046 U	< 0.00042 U	< 0.00083 U	< 0.00041 U	< 0.00029 U	< 0.00063 U	< 0.00049 U
PCB-35	37680-69-6	ng/g	< 0.00030 U	< 0.00045 U	< 0.00041 U	< 0.00081 U	0.0015 J	< 0.00028 U	< 0.00061 U	< 0.00048 U
PCB-36	38444-87-0	ng/g	< 0.00029 U	< 0.00043 U	< 0.00039 U	< 0.00078 U	< 0.00038 U	< 0.00027 U	< 0.00059 U	< 0.00046 U
PCB-37	38444-90-5	ng/g	0.00040 JN	< 0.00045 U	0.0020 J	0.0029 J	0.014	0.00091 JN	0.0025 J	0.0044 J
PCB-38	53555-66-1	ng/g	< 0.00031 U	< 0.00047 U	< 0.00042 U	< 0.00084 U	< 0.00041 U	< 0.00029 U	< 0.00063 U	< 0.00049 U
PCB-39	38444-88-1	ng/g	< 0.00028 U	< 0.00042 U	< 0.00038 U	< 0.00075 U	< 0.00037 U	< 0.00026 U	< 0.00057 U	< 0.00044 U
PCB-4	13029-08-8	ng/g	< 0.0042 U	0.0032 JN	< 0.0029 U	< 0.0091 U	0.0079 J	< 0.0032 U	< 0.0036 U	< 0.0039 U
PCB-40/41/71	38444-93-8	ng/g	0.0015 J	0.0093 J	0.0063 J	0.013 JN	0.020 J	0.0024 JN	0.15	0.013 J
PCB-42	36559-22-5	ng/g	< 0.00058 U	0.0018 JN	0.0032 J	0.0043 JN	0.011	< 0.00040 U	0.026 JN	0.0083 JN
PCB-43/73	70362-46-8	ng/g	< 0.00055 U	< 0.0012 U	< 0.00033 U	0.0022 JN	0.0022 JN	< 0.00037 U	0.0080 J	< 0.00082 U
PCB-44/47/65	41464-39-5	ng/g	0.0027 JN	0.019 JN	0.013 J	0.058	0.054	0.0058 JN	0.24	0.030
PCB-45/51	70362-45-7	ng/g	< 0.00061 U	0.0082 J	0.0026 JN	0.015 J	0.0073 J	< 0.00042 U	0.042	0.0046 JN
PCB-46	41464-47-5	ng/g	< 0.00074 U	< 0.0016 U	< 0.00045 U	< 0.0010 U	< 0.00089 U	< 0.00051 U	0.020	0.0020 JN
PCB-48	70362-47-9	ng/g	< 0.00058 U	< 0.0013 U	0.0022 J	0.0039 J	0.0066 JN	< 0.00040 U	0.0043 JN	0.0053 JN
PCB-49/69	41464-40-8	ng/g	0.0030 JN	0.011 J	0.0085 JN	0.029	0.033	0.0029 JN	0.21	0.023
PCB-5	16605-91-7	ng/g	< 0.0035 U	< 0.0025 U	< 0.0025 U	< 0.0067 U	< 0.0013 U	< 0.0025 U	< 0.0030 U	< 0.0032 U
PCB-50/53	62796-65-0	ng/g	< 0.00056 U	0.0078 JN	0.0023 J	0.0094 J	0.0063 J	0.0017 J	0.058	0.0032 JN
PCB-52	35693-99-3	ng/g	0.0048 J	0.021 JN	0.016	0.027 JN	0.070	0.011 JN	0.27	0.036 JN
PCB-54	15968-05-5	ng/g	< 0.000058 U	< 0.00011 U	< 0.000021 U	< 0.000034 U	< 0.000062 U	< 0.000021 U	0.00090 JN	< 0.000020 U
PCB-55	74338-24-2	ng/g	< 0.00042 U	< 0.00094 U	0.00073 JN	< 0.00060 U	0.0013 JN	< 0.00029 U	0.0037 JN	< 0.00064 U
PCB-56	41464-43-1	ng/g	0.0018 JN	0.0045 JN	0.0057 J	0.0061 JN	0.018	0.0033 J	0.013	0.012
PCB-57	70424-67-8	ng/g	< 0.00043 U	< 0.00096 U	< 0.00026 U	< 0.00061 U	< 0.00052 U	< 0.00030 U	< 0.0021 U	< 0.00065 U
PCB-58	41464-49-7	ng/g	< 0.00044 U	< 0.00097 U	< 0.00027 U	< 0.00062 U	< 0.00053 U	< 0.00030 U	< 0.0022 U	< 0.00066 U
PCB-59/62/75	74472-33-6	ng/g	< 0.00041 U	< 0.00092 U	0.0014 J	0.0025 J	0.0033 J	< 0.00028 U	0.012 J	< 0.00062 U
PCB-6	25569-80-6	ng/g	< 0.0031 U	< 0.0022 U	< 0.0022 U	< 0.0059 U	0.0052 J	< 0.0022 U	< 0.0026 U	< 0.0028 U
PCB-60	33025-41-1	ng/g	< 0.00043 U	0.0026 J	0.0033 J	0.0025 J	0.0076 JN	0.0012 JN	< 0.0021 U	0.0034 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.0054 JN	0.021 J	0.022 J	0.028 J	0.090	0.014 JN	0.13	0.046
PCB-63	74472-34-7	ng/g	< 0.00039 U	< 0.00088 U	< 0.00024 U	< 0.00056 U	0.0015 J	< 0.00027 U	< 0.0020 U	< 0.00059 U
PCB-64	52663-58-8	ng/g	< 0.00039 U	0.0056 JN	0.0056 J+	0.0076 J	0.020	0.0026 J	0.012	0.012
PCB-66	32598-10-0	ng/g	0.0041 J	0.013	0.014	0.016	0.053	0.0062 JN	0.055	0.030
PCB-67	73575-53-8	ng/g	< 0.00037 U	< 0.00083 U	< 0.00023 U	< 0.00053 U	0.00098 JN	< 0.00026 U	< 0.0018 U	< 0.00056 U
PCB-68	73575-52-7	ng/g	< 0.00038 U	< 0.00085 U	< 0.00023 U	< 0.00054 U	0.00080 JN	0.00058 J	0.0040 J	< 0.00057 U
PCB-7	33284-50-3	ng/g	< 0.0032 U	< 0.0023 U	< 0.0022 U	< 0.0060 U	< 0.0011 U	< 0.0023 U	< 0.0027 U	< 0.0029 U
PCB-72	41464-42-0	ng/g	< 0.00042 U	< 0.00094 U	< 0.00026 U	< 0.00060 U	< 0.00051 U	< 0.00029 U	0.0057 J	< 0.00064 U
PCB-77	32598-13-3	ng/g	< 0.00042 U	0.0012 JN	0.0025 J	0.0023 J	0.0068 JN	< 0.00029 U	0.0044 J	< 0.00063 U
PCB-78	70362-49-1	ng/g	< 0.00044 U	< 0.00097 U	< 0.00027 U	< 0.00062 U	< 0.00053 U	< 0.00030 U	< 0.0022 U	< 0.00066 U
PCB-79	41464-48-6	ng/g	< 0.00038 U	< 0.00084 U	< 0.00023 U	< 0.00053 U	< 0.00046 U	< 0.00026 U	< 0.0019 U	< 0.00057 U
PCB-8	34883-43-7	ng/g	< 0.0029 U	< 0.0020 U	< 0.0020 U	< 0.0054 U	0.015 J	< 0.0021 U	0.0025 JN	< 0.0026 U
PCB-80	33284-52-5	ng/g	< 0.00037 U	< 0.00083 U	< 0.00023 U	< 0.00052 U	< 0.00045 U	< 0.00025 U	< 0.0018 U	< 0.00056 U
PCB-81	70362-50-4	ng/g	< 0.00038 U	< 0.00084 U	< 0.00024 U	< 0.00056 U	< 0.00048 U	< 0.00027 U	< 0.0020 U	< 0.00059 U
PCB-82	52663-62-4	ng/g	0.0020 JN	0.011	0.0047 JN	0.0032 JN	0.011 JN	0.0036 JN	0.018	0.0050 JN
PCB-83/99	60145-20-2	ng/g	0.0081 JN	0.040	0.014 JN	0.046 JN	0.068	0.015 J	0.11	0.023 JN
PCB-84	52663-60-2	ng/g	0.0021 JN	0.037	0.0095 J	0.014	0.023	0.0052 JN	0.082 JN	0.012 JN
PCB-85/116/117	65510-45-4	ng/g	0.0015 JN	0.012 JN	0.0060 JN	0.010 J	0.023 J	0.0057 JN	0.028 J	0.0087 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.010 J	0.041 JN	0.020 J	0.038 JN	0.070	0.019 J	0.10	0.030 JN
PCB-88/91	55215-17-3	ng/g	0.0013 JN	0.021 JN	0.0049 JN	0.029	0.015 J	0.0028 JN	0.055	0.0066 JN
PCB-89	73575-57-2	ng/g	< 0.00021 U	< 0.00019 U	< 0.00013 U	< 0.00043 U	0.0012 JN	< 0.00017 U	< 0.00025 U	< 0.00037 U
PCB-9	34883-39-1	ng/g	< 0.0033 U	< 0.0023 U	< 0.0023 U	< 0.0062 U	0.0014 JN	< 0.0023 U	< 0.0027 U	< 0.0030 U
PCB-90/101/113	68194-07-0	ng/g	0.016 J	0.076	0.031	0.095	0.11	0.030	0.21	0.048
PCB-92	52663-61-3	ng/g	0.0028 J	0.019	0.0031 JN	0.019 JN	0.019	0.0054 J	0.062	0.0075 JN
PCB-93/100	73575-56-1	ng/g	< 0.00019 U	0.0015 JN	0.0020 J	0.0055 JN	0.0039 JN	< 0.00015 U	0.014 JN	0.00086 JN
PCB-94	73575-55-0	ng/g	< 0.00021 U	< 0.00019 U	< 0.00013 U	< 0.00043 U	< 0.00028 U	< 0.00017 U	0.0067 JN	< 0.00036 U
PCB-95	38379-99-6	ng/g	0.0094 JN	0.13	0.030	0.071	0.079	0.024 JN	0.29	0.045 JN
PCB-96	73575-54-9	ng/g	< 0.00016 U	0.0020 J	< 0.000099 U	0.0029 JN	< 0.00021 U	< 0.00013 U	0.0055 JN	< 0.00028 U
PCB-98/102	60233-25-2	ng/g	< 0.00018 U	0.0064 JN	0.0016 J+	0.0040 JN	0.0044 JN	< 0.00014 U	0.020	0.0010 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	0.32	2.15	0.87	2.3	2.8	0.59	3.9	1.1

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B421	B422	B423	B424	B425	B426	B427	B428
		Sample ID	PDI-SG-B421-BL1	PDI-SG-B422-BL1	PDI-SG-B423-BL1	PDI-SG-B424-BL1	PDI-SG-B425-BL1	PDI-SG-B426-BL1	PDI-SG-B427-BL1	PDI-SG-B428-BL1
		Sample Date	24 May 2018	24 May 2018	19 Jun 2018	24 May 2018	19 Jun 2018	21 May 2018	21 May 2018	21 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-11 cm	0-13 cm	0-23 cm	0-30 cm	0-10 cm	0-14 cm	0-12 cm
Chemical	**CAS_RN**	**Units**								
Pesticides										
2,4-DDD	53-19-0	µg/kg	< 1.3 U	< 1.2 U	0.43	< 0.65 U	< 0.43 U	< 1.1 U	< 1.2 U	< 1.2 U
2,4-DDE	3424-82-6	µg/kg	< 1.3 U	< 1.2 U	< 0.21 U	< 0.79 U	< 0.43 U	< 1.1 U	< 1.2 U	< 1.2 U
2,4-DDT	789-02-6	µg/kg	< 1.3 U	< 1.2 U	< 0.21 UJ	< 0.94 U	< 0.43 U	< 1.1 U	< 1.2 U	< 1.2 U
4,4'-DDD	72-54-8	µg/kg	< 1.3 U	< 1.2 U	1.3	< 0.65 U	0.54	< 1.1 U	< 1.2 U	< 1.2 U
4,4'-DDE	72-55-9	µg/kg	< 1.3 U	< 1.2 U	0.29	< 0.70 U	1.1	< 1.1 U	< 1.2 U	< 1.2 U
4,4'-DDT	50-29-3	µg/kg	< 1.3 U	< 1.2 U	0.11 J	< 0.65 U	0.28 J	< 1.1 U	< 1.2 U	< 1.2 U
Total DDx (b)	T_DDx (PDI)	µg/kg	< 1.3 U	< 1.2 U	2.2	< 0.94 U	2.1	< 1.1 U	< 1.2 U	< 1.2 U
Aldrin	309-00-2	µg/kg	< 1.3 U	< 1.2 U	< 0.21 U	< 0.79 U	< 0.43 U	< 1.1 U	< 1.2 U	< 1.2 U
alpha-Chlordane	5103-71-9	µg/kg	< 2.6 U	< 2.3 U	< 0.43 U	< 1.3 U	< 0.86 U	< 2.3 U	< 2.4 U	< 2.3 U
cis-Nonachlor	5103-73-1	µg/kg	< 1.3 U	< 1.2 U	< 0.21 U	< 0.97 U	< 0.43 U	< 1.2 U	< 1.2 U	< 1.2 U
Dieldrin	60-57-1	µg/kg	< 2.6 U	< 2.3 U	< 0.43 U	< 2.0 U	< 0.86 U	< 2.3 U	< 2.4 U	< 2.3 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 1.3 U	< 1.2 U	< 0.21 U	< 0.65 U	< 0.43 U	< 1.1 U	< 1.2 U	< 1.2 U
gamma-Chlordane	5566-34-7	µg/kg	< 2.6 U	< 2.3 U	< 0.43 U	< 1.3 U	< 0.86 U	< 2.3 U	< 2.4 U	< 2.3 U
Heptachlor	76-44-8	µg/kg	< 1.3 U	< 1.2 U	< 0.21 U	< 0.65 U	< 0.43 U	< 1.1 U	< 1.2 U	< 1.2 U
Oxychlordane	27304-13-8	µg/kg	< 2.6 U	< 2.3 U	< 0.43 U	< 2.0 U	< 0.86 U	< 2.3 U	< 2.4 U	< 2.3 U
trans-Nonachlor	39765-80-5	µg/kg	< 2.6 U	< 2.3 U	< 0.43 U	< 1.3 U	< 0.86 U	< 2.3 U	< 2.4 U	< 2.3 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 2.6 U	< 2.3 U	< 0.43 U	< 2 U	< 0.86 U	< 2.3 U	< 2.4 U	< 2.3 U
Semivolatile Organics										
2-Methylnaphthalene	91-57-6	µg/kg	< 0.68 U	0.42 J	< 1.1 U	2.0	2.7 J	0.34 J	0.58 J	0.28 J
Acenaphthene	83-32-9	µg/kg	0.44	0.50	< 1.1 U	17	1.8 J	0.30 J	1.1	6.1
Acenaphthylene	208-96-8	µg/kg	0.24 J	0.50	< 1.1 U	3.8	2.8 J	0.69	0.42	2.2
Anthracene	120-12-7	µg/kg	0.54	1.3	< 1.1 U	11	3.6 J	2.1	0.85	6.2
Benz(a)anthracene	56-55-3	µg/kg	2.5	23	0.97 J	30	8.1 J	6.5	4.7	13
Benzo(a)pyrene	50-32-8	µg/kg	3.6	38	0.84 J	35	7.6 J	6.6	7.4	11
Benzo(b)fluoranthene	205-99-2	µg/kg	4.1	82	1.5	28	17	9.5	8.9	8.7
Benzo(g,h,i)perylene	191-24-2	µg/kg	3.1	28	0.94 J	20	7.7 J	4.7	9.2	4.5
Benzo(k)fluoranthene	207-08-9	µg/kg	1.7	28	0.40 J	10	3.9 J	3.2	3.1	3.5
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	16 J	22 J	< 340 U	13 J	< 330 U	12 J	55 J	11 J
Chrysene	218-01-9	µg/kg	3.5	43	1.3 J	34	15	12	6.1	14
Dibenz(a,h)anthracene	53-70-3	µg/kg	0.42	8.5	0.26 J	3.7	< 11 U	0.72	2.0	1.0
Fluoranthene	206-44-0	µg/kg	3.9	19	2.9	53 J	22	29	11	14
Fluorene	86-73-7	µg/kg	0.15 J	0.56	< 1.1 U	4.4	2.7 J	0.48	0.40	1.6
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	2.9	31	0.96 J	21	8.8 J	4.3	7.0	4.2
Naphthalene	91-20-3	µg/kg	0.33 J	0.78	4.9	8.8	5.3 J	0.70	0.34 J	0.64
Phenanthrene	85-01-8	µg/kg	1.4	4.3	1.8	46 J	11	11	4.8	41
Pyrene	129-00-0	µg/kg	5.2	44	3.2	79 J	21	28	14	44
Total PAHs (b)	T_PAH (PDI)	µg/kg	34	353	21	407	147	120	82	176
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	5	60	1	47	17	9	11	15
Metals										
Arsenic	7440-38-2	mg/kg	2.8	3.0	6.0	3.6	3.7	3.9	2.4	2.5
Cadmium	7440-43-9	mg/kg	0.053 J	0.035 J	0.068 J	< 0.15 U	0.13 J	0.089 J	0.054 J	0.041 J
Copper	7440-50-8	mg/kg	11	20	22	14 J	30	18	14	14
Lead	7439-92-1	mg/kg	6.5	24	11	6.9 J	7.9	9.2	14	8.6
Mercury	7439-97-6	mg/kg	0.039 J	< 0.027 U	0.029 J	0.014 J	0.060	< 0.027 UJ	0.031 J	0.025 J
Tri-n-butyltin	36643-28-4	µg/kg	< 1.4 U	0.53 J	< 86 U	< 1.3 U	< 150 U	< 1.2 U	6.2	< 1.2 U
Zinc	7440-66-6	mg/kg	59	82	73	56	78	61	42	49
TPH										
TPH-Diesel Range Organics	68334-30-5	mg/kg	< 59 U	17 J	560	< 58 U	58 J	15 J	18 J	< 58 U
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	44 J	100	1100	130	340	84	170	40 J
Other										
Total Solids@104C - D2216 (f)	TSOLID	%	79.1	82.1	85.7	81.2	49.0 44.8	83.2	86.0	78.6
Total Solids@104C - E160.3 (f)	TSOLID	%								
Total Solids@104C - E160.3M (f)	TSOLID	%	73.2	83.1	88.2	76.3	46.0	80.8	77.8	81.7
Total Solids@70C	TSOLID70	%	79	89	81	80	47	90	87	86
Gravel	GS-Gravel	%	2.3	63.7	69.0	0	0	70.6	69.2	40.0
Sand, Coarse	GS-Csand	%	0.7	13.1	15.3	3.5	0	11.9 L	9.1	9.7
Sand, Medium	GS-Msand	%	38.3	9.5	13.8	73.2	0.2	10.8	5.7	42.0
Sand, Fine (#200) (d)	GS-Fsand-200	%	53.57	11.43	8.1	20.77	45.82	7.022	5.714	6.189
Sand, Fine (#230) (d)	GS-Fsand	%	53.6	11.5	8.3	20.9	50.0	7.1	5.8	6.2
Silt (#200) (d)	GS-Silt-200	%	5.120	2.260	0	2.524	49.67	0	10.38	2.110

Table A.1a-1. Chemical Results for PDI Surface Sediment Samples - Stratified Random Samples

		Location	B421	B422	B423	B424	B425	B426	B427	B428
		Sample ID	PDI-SG-B421-BL1	PDI-SG-B422-BL1	PDI-SG-B423-BL1	PDI-SG-B424-BL1	PDI-SG-B425-BL1	PDI-SG-B426-BL1	PDI-SG-B427-BL1	PDI-SG-B428-BL1
		Sample Date	24 May 2018	24 May 2018	19 Jun 2018	24 May 2018	19 Jun 2018	21 May 2018	21 May 2018	21 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-11 cm	0-13 cm	0-23 cm	0-30 cm	0-10 cm	0-14 cm	0-12 cm
Chemical	**CAS_RN**	**Units**								
Silt (#230) (d)	GS-Silt	%	5.1	2.2	-9.5	2.4	45.5	-0.9	10.3	2.1
Clay	GS-Clay	%	0	0	3.0	0	4.4	0.6	0	0
Percent Fines (e)	GS-FINES	%	5.12	2.26	3	2.524	54.07	0.6	10.38	2.11
Total Organic Carbon	TOC	mg/kg	1300 J	2000	3900	7800	17000	2000	1900 J	200 J

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S001	S003	S004	S005	S006	S007	S008	S009	S010
		Sample ID	PDI-SG-S001	PDI-SG-S003	PDI-SG-S004	PDI-SG-S005	PDI-SG-S006	PDI-SG-S007	PDI-SG-S008	PDI-SG-S009	PDI-SG-S010
		Sample Date	13 Jun 2018	09 May 2018	09 May 2018	04 May 2018	04 May 2018	10 May 2018	04 May 2018	04 May 2018	09 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-29 cm	0-27 cm	0-30 cm	0-27 cm	0-29 cm	0-26 cm	0-28 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.027	0.027	0.030	0.075	0.088	0.031	0.061	0.063	0.014
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0043 JN	0.0051 J	0.0057	0.014	0.015	0.0048	0.011 JN	0.012 JN	0.0053
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00045 JN	0.00029 JN	0.00055 J	0.0013 J+	0.0013 JN	0.00039 J+	< 0.00047 U	0.0013 J	0.00084 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00056 J+	0.00039 JN	0.00042 JN	0.0010 J+	0.0012 J+	0.00059 JN	0.00079 JN	0.00082 JN	0.00027 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00055 J	0.00067 J	0.0014 J	0.0018 JN	0.0026 JN	0.0016 J	0.0019 J	0.0025 J	0.0026 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0013 J	0.0011 J	0.0014 J	0.0029 J	0.0044 J	0.0015 JN	0.0025 J	0.0031 J	0.00073 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.00014 U	0.00030 J	0.00059 JN	0.00099 J	0.0015 J	0.00074 J	0.00085 J	< 0.00030 U	0.0012 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00096 JN	0.00087 JN	0.0012 J	0.0024 J	0.0024 JN	0.0014 J	0.0015 JN	0.0017 JN	0.00057 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00021 U	< 0.000052 U	0.00021 J+	< 0.00071 U	0.00076 JN	< 0.000072 U	< 0.00058 U	< 0.00025 U	< 0.00041 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00031 J	< 0.000078 U	0.00029 J	0.00065 J	0.00063 JN	0.00047 J	0.00049 J	0.00039 JN	< 0.000066 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00025 J+	0.00028 JN	0.00088 J	0.00096 J	0.00085 JN	0.0011 J	0.00085 J	0.0012 J	0.0018 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00019 J+	0.00017 J	0.00045 J	0.00050 JN	0.00053 JN	0.00058 J	0.00039 J	0.00052 JN	0.0018 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00017 JN	< 0.000069 U	0.0013 J	0.00063 JN	0.0014 J	0.0019 J	0.00059 J	0.00060 JN	0.0040
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00029 JN	0.00019 JN	0.00018 JN	0.00023 JN	0.00034 JN	0.00017 JN	< 0.00012 U	< 0.00029 U	< 0.000088 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00056 J	0.00066 J	0.0018	0.0012 J	0.0015 J+	0.0033	0.0012 J	0.0010 J+	0.0037
OCDD	3268-87-9	µg/kg	0.22	0.24	0.24	0.64	0.58	0.29	0.47	0.43	0.12
OCDF	39001-02-0	µg/kg	0.016	0.017	0.013	0.050	0.060	0.012	0.042	0.043	0.0061 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0015	0.0011	0.0021	0.0033	0.0041	0.0027	0.0025	0.0026	0.0026
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0012	0.00078	0.0019	0.0028	0.0028	0.0024	0.0023	0.0018	0.0025
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.001	0.00069	0.0018	0.0026	0.0025	0.0023	0.0023	0.0016	0.0025
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0053 JN	0.013	0.024 J	0.023 J	0.018	0.038 JN	0.0085 J	0.015	0.035
PCB-10	33146-45-1	ng/g	0.0021 JN	< 0.0033 U	0.015 JN	0.013 JN	0.0069 J	< 0.059 U	0.0025 J+	< 0.0011 U	0.014 JN
PCB-103	60145-21-3	ng/g	0.012	0.012	< 0.00098 U	0.037 J	0.031	0.32 JN	0.0063 J	0.0045 JN	0.080
PCB-104	56558-16-8	ng/g	< 0.00013 U	< 0.00076 U	< 0.00075 U	< 0.00070 U	< 0.00064 U	< 0.0053 U	< 0.00031 U	< 0.00052 U	< 0.00021 U
PCB-105	32598-14-4	ng/g	0.39	0.68	14	1.4	1.4	13	0.14	0.18	6.2
PCB-106	70424-69-0	ng/g	< 0.0017 U	0.0021 J	< 0.015 U	< 0.0065 U	< 0.0063 U	< 0.032 U	< 0.0016 U	< 0.0017 U	0.0094 JN
PCB-107	70424-68-9	ng/g	0.066	0.11	2.0	0.22	0.22	2.3	0.024	0.030 JN	0.90
PCB-108/124	70362-41-3	ng/g	0.033	0.052	1.0	0.10 J	0.12	0.93	0.010 J	0.014 J	0.47
PCB-11	2050-67-1	ng/g	0.023	0.044 JN	0.056 JN	0.085 J	0.075	0.091 JN	0.10	0.082	0.0088 JN
PCB-110/115	38380-03-9	ng/g	0.91	1.4	28	2.8	3.8	38	0.48	0.45	15
PCB-111	39635-32-0	ng/g	< 0.00012 U	< 0.00070 U	< 0.00069 U	< 0.00063 U	< 0.00057 U	< 0.0049 U	< 0.00028 U	< 0.00046 U	0.034
PCB-112	74472-36-9	ng/g	< 0.00013 U	0.0079 JN	0.17 JN	0.012 JN	< 0.00062 U	< 0.0052 U	0.0040 JN	< 0.00051 U	0.075 JN
PCB-114	74472-37-0	ng/g	0.027	0.039	0.92	0.090 J	0.095	0.77	0.0071 J	0.0075 JN	0.35
PCB-118	31508-00-6	ng/g	0.70	1.3	23	2.6	2.7	25	0.30	0.38	10
PCB-12/13	2974-92-7	ng/g	0.0081 J	0.023 JN	0.076	0.076 JN	0.033	0.15 JN	0.021 J	0.0062 JN	0.058
PCB-120	68194-12-7	ng/g	< 0.00011 U	< 0.00072 U	< 0.00070 U	< 0.00062 U	0.015 JN	< 0.0050 U	0.0028 JN	0.0026 JN	0.029 JN
PCB-121	56558-18-0	ng/g	< 0.00012 U	< 0.00074 U	< 0.00072 U	< 0.00067 U	< 0.00061 U	< 0.0052 U	< 0.00030 U	< 0.00050 U	< 0.00020 U
PCB-122	76842-07-4	ng/g	0.020	0.028	0.59	0.068 J	0.072	0.62	< 0.0018 U	0.0080 J	0.29
PCB-123	65510-44-3	ng/g	0.023	0.034 JN	0.78	0.075 J	0.079	0.57	0.0064 J	0.0071 JN	0.36
PCB-126	57465-28-8	ng/g	0.0020 JN	0.0066 J	0.084 JN	0.011 JN	< 0.0058 U	0.11 J	< 0.0014 U	0.0015 J	0.045
PCB-127	39635-33-1	ng/g	< 0.0016 U	< 0.0017 U	< 0.015 U	< 0.0062 U	< 0.0060 U	< 0.031 U	< 0.0016 U	< 0.0016 U	< 0.0045 U
PCB-128/166	38380-07-3	ng/g	0.098	0.15	2.8	0.29	0.40	3.3	0.067	0.075	1.5
PCB-129/138/160/163	55215-18-4	ng/g	0.56	0.95	16	1.7	2.4	23	0.44	0.52	9.7
PCB-130	52663-66-8	ng/g	0.042	0.060	1.1	0.13	0.16	1.4	0.028	0.031	0.61
PCB-131	61798-70-7	ng/g	0.0091	0.012 JN	0.26 JN	0.030 J	0.034	0.34	0.0034 JN	0.0045 JN	0.16
PCB-132	38380-05-1	ng/g	0.18	0.29	5.5	0.59	0.77	7.2	0.12	0.13	3.6
PCB-133	35694-04-3	ng/g	0.0096	0.011 JN	0.18	0.030 J	0.031	0.26	0.0074 J	0.0070 J	0.11
PCB-134/143	52704-70-8	ng/g	0.037	0.046	0.88	0.10 J	0.12	1.2	0.023 J	0.023 J	0.61
PCB-135/151	52744-13-5	ng/g	0.16	0.25	3.8	0.55	0.73	8.5	0.15	0.17	3.1
PCB-136	38411-22-2	ng/g	0.061	0.096	1.7	0.22	0.30	3.0	0.051	0.051	1.1
PCB-137	35694-06-5	ng/g	0.030	0.054	1.1	0.092 J	0.11	0.88 JN	0.018	0.018	0.51
PCB-139/140	56030-56-9	ng/g	0.011 J	0.017 J	0.35	0.036 J	0.044	0.23 JN	0.0060 JN	0.0074 J	0.17

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S001	S003	S004	S005	S006	S007	S008	S009	S010
		Sample ID	PDI-SG-S001	PDI-SG-S003	PDI-SG-S004	PDI-SG-S005	PDI-SG-S006	PDI-SG-S007	PDI-SG-S008	PDI-SG-S009	PDI-SG-S010
		Sample Date	13 Jun 2018	09 May 2018	09 May 2018	04 May 2018	04 May 2018	10 May 2018	04 May 2018	04 May 2018	09 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-29 cm	0-27 cm	0-30 cm	0-27 cm	0-29 cm	0-26 cm	0-28 cm	0-23 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.00022 U	< 0.0026 U	< 0.011 U	< 0.0017 U	< 0.00076 U	< 0.045 U	< 0.00037 U	< 0.00084 U	< 0.0032 U
PCB-141	52712-04-6	ng/g	0.10	0.16	2.7	0.30	0.49	4.8	0.076	0.093	2.1
PCB-142	41411-61-4	ng/g	< 0.00061 U	< 0.0032 U	< 0.014 U	< 0.0024 U	< 0.0030 U	< 0.058 U	< 0.0012 U	< 0.0015 U	< 0.0070 U
PCB-144	68194-14-9	ng/g	0.018	0.033	0.63	0.074 J	0.11	1.1	0.019	0.022	0.46
PCB-145	74472-40-5	ng/g	0.00061 JN	< 0.00054 U	0.012 JN	0.0022 JN	< 0.00057 U	0.047 J	0.00021 JN	< 0.00046 U	0.0075 JN
PCB-146	51908-16-8	ng/g	0.076	0.13	1.8	0.25	0.32	3.2	0.072	0.072	1.2
PCB-147/149	68194-13-8	ng/g	0.39	0.69	11	1.2	1.7	20	0.31	0.32	8.3
PCB-148	74472-41-6	ng/g	0.00075 JN	< 0.00076 U	0.0093 JN	0.0046 J	< 0.00076 U	0.025 JN	0.0014 J	0.0022 JN	< 0.00035 U
PCB-15	2050-68-2	ng/g	0.15	0.27	0.86	1.3	0.37	1.8	0.14	0.042	0.42
PCB-150	68194-08-1	ng/g	0.00095 JN	0.0022 J	0.0092 JN	0.0043 JN	0.0022 JN	0.051 JN	0.0018 J	0.00072 JN	0.0060 J
PCB-152	68194-09-2	ng/g	0.00079 J+	< 0.00056 U	0.014 J	0.0017 JN	0.0032 JN	0.020 JN	0.00089 JN	0.00076 J	0.0076 JN
PCB-153/168	35065-27-1	ng/g	0.39	0.68	9.6	1.2	1.8	19	0.34	0.38	7.0
PCB-154	60145-22-4	ng/g	0.0077 J	0.0091 JN	0.13	0.031 JN	0.033	0.29	0.0096 J	0.0079 JN	0.055 JN
PCB-155	33979-03-2	ng/g	< 0.000035 U	< 0.00052 U	< 0.00059 U	< 0.00050 U	< 0.00052 U	< 0.0048 U	0.00036 JN	< 0.00042 U	< 0.00024 U
PCB-156/157	38380-08-4	ng/g	0.067	0.13	2.5	0.24 J	0.33	2.8	0.046	0.057	1.2
PCB-158	74472-42-7	ng/g	0.058	0.10	1.9	0.18	0.26	2.2	0.042	0.050	1.1
PCB-159	39635-35-3	ng/g	0.0050 J	0.0063 JN	0.083	0.011 J	0.026	0.24	0.0041 J	0.0043 JN	0.058
PCB-16	38444-78-9	ng/g	0.042 JN	0.041 JN	0.33	0.20	0.16	0.87	0.025	0.015 JN	0.37
PCB-161	74472-43-8	ng/g	< 0.00040 U	< 0.0021 U	< 0.0095 U	< 0.0016 U	< 0.0019 U	< 0.039 U	< 0.00079 U	< 0.0010 U	< 0.0047 U
PCB-162	39635-34-2	ng/g	< 0.00038 U	< 0.0021 U	0.051 JN	< 0.0015 U	< 0.0018 U	0.081 JN	< 0.00075 U	< 0.00096 U	0.029
PCB-164	74472-45-0	ng/g	0.038	0.064	1.0	0.12 J	0.18	1.7	0.028	0.032	0.68
PCB-165	74472-46-1	ng/g	< 0.00046 U	< 0.0024 U	< 0.011 U	< 0.0018 U	< 0.0022 U	< 0.044 U	< 0.00090 U	< 0.0012 U	< 0.0053 U
PCB-167	52663-72-6	ng/g	0.022	0.039	0.66	0.070 J	0.097	0.81	0.014	0.020	0.35
PCB-169	32774-16-6	ng/g	< 0.00029 U	< 0.0016 U	0.0069 J	< 0.0012 U	< 0.0015 U	< 0.029 U	< 0.00064 U	< 0.00072 U	0.020 JN
PCB-17	37680-66-3	ng/g	0.38	0.18	0.72	1.0	0.28	3.6	0.073	0.030 JN	0.99
PCB-170	35065-30-6	ng/g	0.11	0.22	2.6	0.34	0.72	8.3	0.12	0.14	2.1
PCB-171/173	52663-71-5	ng/g	0.035	0.063	0.84	0.10 JN	0.24	2.7	0.038	0.045	0.66
PCB-172	52663-74-8	ng/g	0.019 JN	0.036	0.42	0.058 J	0.13	1.5	0.020	0.026	0.32
PCB-174	38411-25-5	ng/g	0.12	0.20	2.4	0.37	0.81	9.1	0.13	0.15	2.2
PCB-175	40186-70-7	ng/g	0.0049 JN	0.0075 JN	0.088	0.012 JN	0.031	0.37	0.0053 J	0.0059 J	0.091
PCB-176	52663-65-7	ng/g	0.012	0.026	0.31	0.043 J	0.085	1.1	0.014	0.017	0.29
PCB-177	52663-70-4	ng/g	0.073	0.11	1.3	0.22	0.46	5.1	0.081	0.086 JN	1.2
PCB-178	52663-67-9	ng/g	0.025	0.039	0.40	0.072 J	0.14	1.7	0.028	0.031	0.41
PCB-179	52663-64-6	ng/g	0.046	0.091	0.97	0.16	0.30	3.9	0.058	0.061	1.0
PCB-18/30	37680-65-2	ng/g	0.44	0.29	1.1	1.6	0.48	4.1	0.10	0.049	1.3
PCB-180/193	35065-29-3	ng/g	0.24	0.44	4.9	0.66	1.5	20	0.24	0.30	4.0
PCB-181	74472-47-2	ng/g	0.0013 JN	0.0035 J	0.053	< 0.000087 U	< 0.00026 U	< 0.020 U	< 0.000042 U	0.0017 J	< 0.00071 U
PCB-182	60145-23-5	ng/g	< 0.000041 U	< 0.00044 U	0.034	< 0.000083 U	< 0.00025 U	< 0.020 U	< 0.000040 U	0.0017 J	0.019 JN
PCB-183/185	52663-69-1	ng/g	0.073	0.14	1.6	0.22 J	0.49	6.3	0.080	0.097	1.5
PCB-184	74472-48-3	ng/g	< 0.000036 U	< 0.00037 U	< 0.00066 U	< 0.000071 U	< 0.00022 U	< 0.017 U	< 0.000034 U	< 0.00049 U	< 0.00058 U
PCB-186	74472-49-4	ng/g	< 0.000034 U	< 0.00036 U	< 0.00064 U	< 0.000068 U	< 0.00021 U	< 0.016 U	< 0.000033 U	< 0.00047 U	< 0.00057 U
PCB-187	52663-68-0	ng/g	0.15	0.24	2.4	0.42	0.87	10	0.17	0.19	2.5
PCB-188	74487-85-7	ng/g	< 0.000032 U	< 0.00031 U	< 0.00058 U	< 0.000063 U	< 0.00019 U	< 0.015 U	< 0.000028 U	< 0.00042 U	< 0.00047 U
PCB-189	39635-31-9	ng/g	0.0041 J	0.0075 J	0.10	0.015 J	0.027	0.27	0.0042 JN	0.0049 JN	0.069
PCB-19	38444-73-4	ng/g	0.055	0.033	0.23	0.20	0.096	1.0	0.025	0.018	0.35
PCB-190	41411-64-7	ng/g	0.023	0.039	0.47	0.064 J	0.16	1.7	0.022	0.031	0.35
PCB-191	74472-50-7	ng/g	0.0064 J	0.0073 J	0.11	0.011 JN	0.034	0.40	0.0040 JN	0.0058 J	0.078
PCB-192	74472-51-8	ng/g	< 0.000035 U	< 0.00038 U	< 0.00067 U	< 0.000070 U	< 0.00021 U	< 0.017 U	< 0.000034 U	< 0.00048 U	< 0.00060 U
PCB-194	35694-08-7	ng/g	0.052	0.095	0.80	0.17	0.34	4.3	0.063	0.065	0.93
PCB-195	52663-78-2	ng/g	0.023	0.042	0.35	0.066 JN	0.14	1.8	0.026	0.029	0.44
PCB-196	42740-50-1	ng/g	0.022 JN	0.043	0.42	0.075 J	0.17	2.2	0.032	0.030	0.42
PCB-197	33091-17-7	ng/g	0.0013 JN	0.0029 J	0.029 JN	0.0051 JN	0.0091 JN	0.19	0.0020 J	0.0019 JN	0.034
PCB-198/199	68194-17-2	ng/g	0.060	0.094	0.90	0.18 J	0.36	4.5	0.068	0.083	0.95
PCB-2	2051-61-8	ng/g	0.0082 J	0.014	0.0098 JN	0.026 J	0.026	0.017 JN	0.015	0.013	0.0071 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S001	S003	S004	S005	S006	S007	S008	S009	S010
		Sample ID	PDI-SG-S001	PDI-SG-S003	PDI-SG-S004	PDI-SG-S005	PDI-SG-S006	PDI-SG-S007	PDI-SG-S008	PDI-SG-S009	PDI-SG-S010
		Sample Date	13 Jun 2018	09 May 2018	09 May 2018	04 May 2018	04 May 2018	10 May 2018	04 May 2018	04 May 2018	09 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-29 cm	0-27 cm	0-30 cm	0-27 cm	0-29 cm	0-26 cm	0-28 cm	0-23 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	1.2	1.1	8.6	3.5	2.1	16	0.20	0.15	3.2
PCB-200	52663-73-7	ng/g	0.0066 J	0.012	0.11	0.018 JN	0.045	0.53	0.0073 J	0.0088 JN	0.11
PCB-201	40186-71-8	ng/g	0.0057 JN	0.0076 JN	0.12	0.020 J	0.042	0.55	0.0077 J	0.0074 JN	0.12
PCB-202	2136-99-4	ng/g	0.012	0.018	0.17	0.034 J	0.065	0.78	0.016	0.022	0.19
PCB-203	52663-76-0	ng/g	0.037	0.058	0.58	0.12 J	0.23	2.7	0.046	0.055	0.56
PCB-204	74472-52-9	ng/g	< 0.00012 U	< 0.00028 U	< 0.00067 U	< 0.00038 U	< 0.0010 U	< 0.011 U	< 0.00021 U	< 0.00040 U	< 0.00097 U
PCB-205	74472-53-0	ng/g	0.0029 J	0.0052 JN	0.038	0.0073 JN	0.017	0.21	0.0034 J	0.0041 J	0.048
PCB-206	40186-72-9	ng/g	0.029	0.048	0.29	0.10 J	0.28 JN	1.2	0.055	0.089 JN	0.40
PCB-207	52663-79-3	ng/g	0.0031 J	0.0048 J	0.042	0.013 J	0.012	0.15	0.0065 J	0.0050 JN	0.058
PCB-208	52663-77-1	ng/g	0.0093	0.012	0.076	0.034 J	0.042	0.26	0.017 JN	0.018	0.11
PCB-209	2051-24-3	ng/g	0.024	0.024 JN	0.061 JN	0.064 JN	0.11	0.20	0.11	0.057	0.17
PCB-21/33	55702-46-0	ng/g	0.11	0.12	1.1	0.42	0.34	2.7	0.045	0.041	0.87
PCB-22	38444-85-8	ng/g	0.094	0.17	2.0	0.56	0.46	2.4	0.043	0.037	0.61
PCB-23	55720-44-0	ng/g	< 0.0041 U	< 0.0016 U	< 0.011 U	< 0.011 U	< 0.0074 U	< 0.025 U	< 0.0011 U	< 0.0013 U	< 0.0039 U
PCB-24	55702-45-9	ng/g	< 0.00018 U	0.0042 J	0.023 JN	0.015 J	0.0084 J	0.055 JN	< 0.00032 U	< 0.00036 U	0.022 JN
PCB-25	55712-37-3	ng/g	0.11	0.054	0.17 JN	0.42	0.095	0.52	0.032	0.016	0.21
PCB-26/29	38444-81-4	ng/g	0.13	0.11	0.48	0.75	0.19	0.90	0.057	0.027	0.41
PCB-27	38444-76-7	ng/g	0.051	0.032	0.21	0.16	0.073	0.55	0.012 JN	0.0074 JN	0.24
PCB-3	2051-62-9	ng/g	0.010	0.018	0.021 JN	0.055 J	0.026	0.082 J	0.015	0.0093 J	0.051
PCB-31	16606-02-3	ng/g	0.65	0.58	4.3	2.5	1.1	7.3	0.15	0.10	1.9
PCB-32	38444-77-8	ng/g	0.31	0.17	1.4	0.85	0.32	4.2	0.052	0.030	1.2
PCB-34	37680-68-5	ng/g	0.012	0.0073 J	< 0.011 U	0.033 JN	< 0.0076 U	0.16	< 0.0011 U	< 0.0013 U	0.014 JN
PCB-35	37680-69-6	ng/g	< 0.0041 U	0.011	0.047 JN	0.022 JN	0.021	0.074 JN	0.0034 J	0.0029 J	0.019
PCB-36	38444-87-0	ng/g	< 0.0037 U	< 0.0016 U	0.017 JN	< 0.0098 U	< 0.0066 U	< 0.024 U	< 0.00097 U	< 0.0011 U	< 0.0038 U
PCB-37	38444-90-5	ng/g	0.12	0.51	3.4	0.74	0.74	4.3	0.052	0.050	1.1
PCB-38	53555-66-1	ng/g	< 0.0040 U	< 0.0017 U	0.012 JN	< 0.011 U	< 0.0072 U	< 0.026 U	< 0.0011 U	< 0.0012 U	< 0.0041 U
PCB-39	38444-88-1	ng/g	< 0.0037 U	0.0053 JN	0.048 JN	0.036 J	0.013	0.13 J	0.0018 JN	< 0.0011 U	0.025
PCB-4	13029-08-8	ng/g	0.070	0.041	0.13	0.35	0.14	0.41	0.052	0.027	0.39
PCB-40/41/71	38444-93-8	ng/g	0.87	0.57	8.5	2.3	1.2	14	0.12	0.098	5.3
PCB-42	36559-22-5	ng/g	0.30	0.24	4.1	0.87	0.61	7.1	0.050	0.051	2.5
PCB-43/73	70362-46-8	ng/g	0.066	0.031	0.45	0.19 J	0.073 JN	0.66 JN	0.0065 J	0.0068 J	0.28
PCB-44/47/65	41464-39-5	ng/g	1.2	0.97	15	3.5	2.3	26	0.26	0.22	9.4
PCB-45/51	70362-45-7	ng/g	0.26	0.14	2.2	0.70	0.38	4.0	0.044	0.037	1.5
PCB-46	41464-47-5	ng/g	0.14	0.053	0.56 JN	0.34	0.10 JN	1.1 JN	0.013	0.0094 J	0.46
PCB-48	70362-47-9	ng/g	0.16	0.13	1.9	0.46	0.33	3.4	0.028	0.027	1.4
PCB-49/69	41464-40-8	ng/g	1.1	0.72	9.7	2.9	1.4	18	0.16	0.14	5.9
PCB-5	16605-91-7	ng/g	< 0.00026 U	< 0.0034 U	< 0.015 U	0.0043 J	< 0.00091 U	< 0.060 U	< 0.00045 U	< 0.0010 U	0.0064 JN
PCB-50/53	62796-65-0	ng/g	0.29	0.13	1.8	0.67	0.33	3.3	0.036	0.031	1.3
PCB-52	35693-99-3	ng/g	1.7	1.1	16	4.5	2.7	27	0.28	0.26	11
PCB-54	15968-05-5	ng/g	0.0044 J	0.0024 J	0.021 JN	0.011 JN	0.0083 JN	0.036 JN	0.0038 J	0.0037 JN	0.022
PCB-55	74338-24-2	ng/g	0.037	0.022	0.46	0.059 J	0.11	0.63	< 0.00050 U	0.0065 J	0.17
PCB-56	41464-43-1	ng/g	0.48	0.64	9.8	1.5	1.7	14	0.11	0.14	5.1
PCB-57	70424-67-8	ng/g	< 0.0025 U	< 0.0024 U	0.061 JN	0.018 J	< 0.0037 U	0.090 J	< 0.00051 U	< 0.0010 U	0.028
PCB-58	41464-49-7	ng/g	< 0.0024 U	0.0043 J	0.053 JN	0.014 J	0.0062 JN	0.10 JN	0.0012 JN	< 0.0010 U	0.032
PCB-59/62/75	74472-33-6	ng/g	0.10	0.082	1.3	0.28 J	0.20	2.1	0.017 J	0.018 J	0.80
PCB-6	25569-80-6	ng/g	0.050	0.046	0.080	0.34	0.060	0.29	0.046	0.013	0.13
PCB-60	33025-41-1	ng/g	0.26	0.35	5.9	0.82	0.72	5.4	0.050	0.058	2.6
PCB-61/70/74/76	33284-53-6	ng/g	1.5	2.1	29	5.1	4.3	44	0.36	0.37	15
PCB-63	74472-34-7	ng/g	0.053	0.051	0.67	0.13	0.087	0.73 JN	0.0081 J	0.0078 JN	0.30
PCB-64	52663-58-8	ng/g	0.43	0.44	7.9	1.2	1.1	12	0.081	0.086	4.7
PCB-66	32598-10-0	ng/g	1.1	1.6	22	3.4	3.5	34	0.26	0.28	12
PCB-67	73575-53-8	ng/g	0.022	0.025	0.27 JN	0.074 J	0.046 JN	0.46	0.0050 JN	0.0045 JN	0.16
PCB-68	73575-52-7	ng/g	0.010	< 0.0022 U	0.056	0.045 J	< 0.0032 U	0.21	0.0062 J	< 0.0019 U	0.021 JN
PCB-7	33284-50-3	ng/g	0.0054 J	0.0035 J	< 0.013 U	0.021 J	0.0058 JN	0.056 JN	0.0034 J	0.0030 JN	0.016 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S001	S003	S004	S005	S006	S007	S008	S009	S010
		Sample ID	PDI-SG-S001	PDI-SG-S003	PDI-SG-S004	PDI-SG-S005	PDI-SG-S006	PDI-SG-S007	PDI-SG-S008	PDI-SG-S009	PDI-SG-S010
		Sample Date	13 Jun 2018	09 May 2018	09 May 2018	04 May 2018	04 May 2018	10 May 2018	04 May 2018	04 May 2018	09 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-29 cm	0-27 cm	0-30 cm	0-27 cm	0-29 cm	0-26 cm	0-28 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.015	< 0.0024 U	0.12	0.066 J	< 0.0037 U	0.30 JN	0.0038 J	0.0026 J	0.054
PCB-77	32598-13-3	ng/g	0.10	0.25	2.4	0.39	0.41	3.2	0.028	0.035	1.2
PCB-78	70362-49-1	ng/g	< 0.0024 U	< 0.0025 U	< 0.013 U	< 0.0054 U	< 0.0036 U	< 0.048 U	< 0.00049 U	< 0.0010 U	< 0.0058 U
PCB-79	41464-48-6	ng/g	< 0.0020 U	0.013	0.24	0.023 J	0.034	0.37	0.0032 J	< 0.00086 U	0.084
PCB-8	34883-43-7	ng/g	0.22	0.13	0.38	0.99	0.19	1.6	0.090	0.038	0.39
PCB-80	33284-52-5	ng/g	< 0.0021 U	< 0.0021 U	0.015 JN	< 0.0048 U	< 0.0032 U	< 0.041 U	< 0.00043 U	< 0.00089 U	< 0.0050 U
PCB-81	70362-50-4	ng/g	< 0.0023 U	< 0.0023 U	0.11	< 0.0050 U	< 0.0035 U	< 0.045 U	< 0.00046 U	< 0.00093 U	0.029 JN
PCB-82	52663-62-4	ng/g	0.17	0.20 JN	5.1	0.48	0.67	6.1	0.065	0.060	2.9
PCB-83/99	60145-20-2	ng/g	0.63	0.84	16	1.8	2.4	23	0.28	0.27	8.5
PCB-84	52663-60-2	ng/g	0.31	0.33	6.7	0.85	1.0	10	0.10	0.093	3.9
PCB-85/116/117	65510-45-4	ng/g	0.24	0.32	7.3	0.65	0.87	8.6	0.096	0.084	4.0
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.65	0.87	19	1.9	2.6	24	0.28	0.27	10
PCB-88/91	55215-17-3	ng/g	0.21	0.22	4.4	0.55	0.62	6.5	0.069	0.066	2.5
PCB-89	73575-57-2	ng/g	0.025	0.029	0.64	0.068 J	0.090	0.74 JN	0.0068 J	0.0084 J	0.38
PCB-9	34883-39-1	ng/g	0.0058 J	0.0052 JN	0.018 JN	0.028 JN	0.0086 JN	0.077 JN	0.0053 J	0.0024 J	0.025
PCB-90/101/113	68194-07-0	ng/g	0.74	1.0	21	2.3	3.3	30	0.40	0.39	11
PCB-92	52663-61-3	ng/g	0.17	0.19	3.5	0.48	0.62	5.0	0.085	0.078	2.0
PCB-93/100	73575-56-1	ng/g	0.011 JN	0.029	0.43	0.074 J	0.092	0.66 JN	0.012 JN	0.013 JN	0.25
PCB-94	73575-55-0	ng/g	0.016	< 0.0011 U	< 0.0011 U	0.031 J	0.028	< 0.0079 U	0.0031 JN	< 0.00077 U	0.11
PCB-95	38379-99-6	ng/g	0.70	0.81	16	2.0	2.5	25	0.29	0.29	9.3
PCB-96	73575-54-9	ng/g	0.021	0.014	0.32	0.049 J	0.041	0.49	0.0050 J	0.0039 JN	0.18
PCB-98/102	60233-25-2	ng/g	0.081	0.063	1.1	0.20 J	0.18	1.9	0.021 J	0.018 J	0.65
Total PCBs (b)	T_PCBCg (PDI)	ng/g	24	28	427	76	71	697	9.4	9.2	250
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 0.33 U	0.26 J	0.55	< 1.3 UJ	< 1.2 UJ	0.64	< 1.4 UJ	< 1.3 UJ	< 0.66 U
2,4-DDE	3424-82-6	µg/kg	< 0.33 U	< 0.33 U	< 0.31 U	< 1.3 UJ	< 1.2 UJ	< 0.32 U	< 1.4 UJ	< 1.3 UJ	< 0.79 U
2,4-DDT	789-02-6	µg/kg	< 0.33 U	< 0.33 U	< 0.31 U	< 1.3 UJ	< 1.2 UJ	< 0.32 U	< 1.4 UJ	< 1.3 UJ	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	0.50	0.78	1.3	1.4 J	1.2 J	2.0	1.0 J	1.1 J	< 0.66 U
4,4'-DDE	72-55-9	µg/kg	0.63 J	1.2	1.8	3.4 J	2.9 J	5.0	2.9 J	2.9 J	< 0.70 U
4,4'-DDT	50-29-3	µg/kg	0.25 J	< 0.34 U	0.19 J	< 1.3 UJ	< 1.2 UJ	0.35	< 1.4 UJ	4.3 J	< 0.66 U
DDx (b)	T_DDx (PDI)	µg/kg	1.5	2.4	4.0	5.5	4.7	8.2	4.6	9.0	< 0.94 U
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	4.3 J	2.2	4.3	10	4.1	5.3	3.4	3.8	3.2
Acenaphthene	83-32-9	µg/kg	2.0 J	1.4	5.3	8.0	4.3	11	3.8	3.9	5.6
Acenaphthylene	208-96-8	µg/kg	5.1 J	3.1	10	8.7	6.8	16	3.9	3.7	3.3
Anthracene	120-12-7	µg/kg	11	3.5	10	17	14	37	10	9.2	5.6
Benz(a)anthracene	56-55-3	µg/kg	15	14	91	53	53	100	32	28	35
Benzo(a)pyrene	50-32-8	µg/kg	13 J	23	140	77	71	140	39	34	56
Benzo(b)fluoranthene	205-99-2	µg/kg	21	24	130	81	99	130	52	45	61
Benzo(g,h,i)perylene	191-24-2	µg/kg	14	21	100	63	58	100	33	31	52
Benzo(k)fluoranthene	207-08-9	µg/kg	6.6 J	8.7	46	26	33	45	16	13	21
Chrysene	218-01-9	µg/kg	29	21	120	78	110	130	55	56	60
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.8 J	3.0	18	11	11	19	6.1	5.5	6.5
Fluoranthene	206-44-0	µg/kg	52	31	110	110	180	150	82	73	140
Fluorene	86-73-7	µg/kg	4.3 J	1.9	5.5	11	7.1	7.8	6.2	6.6	7.0
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	14	19	110	62	59	100	32	29	48
Naphthalene	91-20-3	µg/kg	7.9 J	5.5	14	16	7.2	14	5.4	5.9	8.6
Phenanthrene	85-01-8	µg/kg	20	11	31	59	57	100	34	36	100
Pyrene	129-00-0	µg/kg	45	39	170	130	190	210	86	75	160
Total PAHs (b)	T_PAH (PDI)	µg/kg	267	232	1115	821	965	1315	500	459	773
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	21	32	192	108	104	193	57	50	77
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	57.7 55.2	59.0	62.0	38.7	40.6	60.4	40.5	38.7	74.9
Total Solids@104C - E160.3M (f)	TSOLID	%	58.4	58.2	61.5	39.5	40.6	61.0	36.5	37.5	75.9
Total Solids@70C	TSOLID70	%	56	58	62	39	46	61	36	38	76
Gravel	GS-Gravel	%	0.3	0.1	0.3	0	0	0	0	0	6.6
Sand, Coarse	GS-Csand	%	0.3	0.1	0.2	0.1	0	0.3	0.1	0.1	5.8

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S001	S003	S004	S005	S006	S007	S008	S009	S010
		Sample ID	PDI-SG-S001	PDI-SG-S003	PDI-SG-S004	PDI-SG-S005	PDI-SG-S006	PDI-SG-S007	PDI-SG-S008	PDI-SG-S009	PDI-SG-S010
		Sample Date	13 Jun 2018	09 May 2018	09 May 2018	04 May 2018	04 May 2018	10 May 2018	04 May 2018	04 May 2018	09 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-29 cm	0-27 cm	0-30 cm	0-27 cm	0-29 cm	0-26 cm	0-28 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.8	0.2	5.0	0.3	0.1	11.8	0.1	0.2	26.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	51.09	67.41	74.01	12.87	8.205	49.93	3.673	4.072	51.23
Sand, Fine (#230) (d)	GS-Fsand	%	58.7	71.9	77.0	14.5	11.1	51.5	5.0	5.5	51.4
Silt (#200) (d)	GS-Silt-200	%	43.50	25.98	15.88	72.92	82.79	30.06	82.72	81.62	8.268
Silt (#230) (d)	GS-Silt	%	35.9	21.5	12.9	71.3	79.9	28.5	81.4	80.2	8.1
Clay	GS-Clay	%	4.0	6.3	4.7	13.9	8.9	7.9	13.4	14.0	1.4
Percent Fines (e)	GS-FINES	%	47.5	32.28	20.58	86.82	91.69	37.96	96.12	95.62	9.668
Total Organic Carbon	TOC	mg/kg	10000	9900	12000	27000	26000	9300	27000	27000	2200

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S011	S012	S013	S015	S016	S017	S018	S019	S019
		Sample ID	PDI-SG-S011	PDI-SG-S012	PDI-SG-S013	PDI-SG-S015	PDI-SG-S016	PDI-SG-S017	PDI-SG-S018	PDI-SG-S019	PDI-SG-S019-D
		Sample Date	29 May 2018	10 May 2018	11 May 2018	02 Jun 2018	28 Aµg 2018	28 Aµg 2018	04 May 2018	15 Jun 2018	15 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-20 cm	0-30 cm	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-26 cm	0-29 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.090	0.15	0.057	0.095	0.11	0.043	0.097	0.064	0.054
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0097	0.018	0.0080	0.013 JN	0.014 JN	0.0064	0.014	0.011	0.0096 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00092 J+	0.0016 J	0.00076 J+	0.0017 J+	0.0010 J	0.00078 J	0.0013 J+	0.0013 J+	0.0011 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00073 J+	0.0012 J	0.00050 JN	0.00083 J	0.00096 J	0.00051 J+	0.00097 J+	0.00091 J	0.00087 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0035 J	0.019	0.0011 J	0.0019 J	0.0019 J	0.00090 J	0.0019 J	0.0020 J	0.0012 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0026 J	0.0038 J	0.0020 JN	0.0027 J	0.0032 J	0.0012 J	0.0032 J	0.0033 J	0.0026 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0014 J	0.0053 J	0.00045 J	0.00072 J	0.00086 J	0.00044 J	0.00076 J	0.00087 JN	0.00080 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0016 J	0.0032 J	0.0012 J	0.0019 J	0.0024 J	0.0012 J	0.0025 J	0.0021 J	0.0018 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00017 U	< 0.00012 U	0.0011 J+	0.0011 J+	0.00060 J+	< 0.00023 U	< 0.00056 U	0.00076 J+	0.00049 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00043 JN	0.00054 J	0.00020 JN	0.00045 J	0.00044 J	0.00019 JN	0.00044 JN	0.00044 J	0.00031 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0014 J	0.0090	0.00045 J+	0.00080 J	0.00067 J	0.00028 J	0.00084 J	0.00081 J	0.00030 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00076 J	0.0012 J	0.00026 J	0.00040 J	0.00046 J	0.00023 J	0.00041 J	0.00040 JN	< 0.00012 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0018 J	0.0027 J	0.00053 J	0.00052 J	0.00053 J	0.00025 J	0.00060 J	0.00048 J	0.00035 JN
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00024 JN	0.00029 JN	0.000071 JN	0.00025 JN	0.00020 JN	0.000074 JN	0.00037 J	0.00045 JN	0.00024 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0022	0.0019	0.00078 J	0.0011 J+	0.0012 J	0.00058 J+	0.0012 J	0.0011	0.00060 J
OCDD	3268-87-9	µg/kg	0.79	1.2	0.48	0.76	0.89	0.40	0.80	0.52	0.41
OCDF	39001-02-0	µg/kg	0.019	0.048	0.025	0.057	0.053	0.022	0.056	0.036	0.027
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0038	0.0075	0.002	0.0033	0.0035	0.0015	0.0035	0.0031	0.0023
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0033	0.0074	0.0016	0.0032	0.0034	0.0013	0.0033	0.0028	0.0017
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0031	0.0073	0.0015	0.003	0.0033	0.0012	0.003	0.0026	0.0015
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.23 JN	0.026 JN	2.1	0.0059 J+	0.0028 JN	0.032 J	0.0075 J	0.0058 J+	0.0048 JN
PCB-10	33146-45-1	ng/g	0.10 JN	0.021 JN	0.43	< 0.0025 U	< 0.0042 U	< 0.012 U	0.0021 JN	< 0.00066 U	0.0010 J
PCB-103	60145-21-3	ng/g	0.41	0.71	0.077	0.0074 JN	0.0071 J	0.014 JN	0.0097 JN	0.019	0.022
PCB-104	56558-16-8	ng/g	< 0.0010 U	< 0.0016 U	< 0.00024 U	< 0.0017 U	< 0.00039 U	< 0.00089 U	< 0.00040 U	< 0.00044 U	< 0.00059 U
PCB-105	32598-14-4	ng/g	15	19	2.5	0.15	0.15	0.24	0.14	0.11	0.12
PCB-106	70424-69-0	ng/g	< 0.018 U	< 0.096 U	< 0.011 U	< 0.0029 U	< 0.0023 U	< 0.0034 U	< 0.0016 U	< 0.00077 U	< 0.0013 U
PCB-107	70424-68-9	ng/g	2.6	2.7	0.40	0.033 J	0.030	0.066	0.034 JN	0.043	0.047
PCB-108/124	70362-41-3	ng/g	1.3	1.5	0.20	0.013 JN	0.013 J	0.033 J	0.010 JN	0.012 J	0.014 J
PCB-11	2050-67-1	ng/g	0.17	0.051 J	0.12	0.11 J	0.093	0.042 J	0.11	0.10 J	0.045 J
PCB-110/115	38380-03-9	ng/g	40	48	5.9	0.43	0.41	1.2	0.43	0.50	0.54
PCB-111	39635-32-0	ng/g	< 0.00095 U	< 0.0014 U	0.024	< 0.0015 U	< 0.00036 U	< 0.00082 U	0.0018 JN	0.0032 JN	0.0034 JN
PCB-112	74472-36-9	ng/g	0.20	< 0.0015 U	< 0.00023 U	< 0.0016 U	< 0.00038 U	< 0.00086 U	0.0015 JN	< 0.00043 U	< 0.00058 U
PCB-114	74472-37-0	ng/g	1.1	1.6	0.21	0.012 J	0.0076 JN	0.018 J	0.0068 JN	0.0068 J	0.0082 JN
PCB-118	31508-00-6	ng/g	30	31	4.6	0.33	0.34	0.70	0.33	0.34	0.38
PCB-12/13	2974-92-7	ng/g	2.8	0.089 JN	3.2	0.0068 JN	0.0065 J	0.013 JN	0.010 JN	0.0097 J	0.0056 J
PCB-120	68194-12-7	ng/g	< 0.00097 U	< 0.0014 U	0.023	< 0.0015 U	0.0027 JN	< 0.00083 U	0.0054 J	0.013	0.0095 J
PCB-121	56558-18-0	ng/g	< 0.00099 U	< 0.0015 U	< 0.00022 U	< 0.0016 U	< 0.00038 U	< 0.00086 U	< 0.00038 U	< 0.00042 U	< 0.00056 U
PCB-122	76842-07-4	ng/g	0.57 JN	1.0	0.14	0.0090 J	0.0070 J	0.0081 JN	0.0054 JN	0.0059 J	< 0.0014 U
PCB-123	65510-44-3	ng/g	0.79	1.1	0.16	0.0066 JN	0.0056 JN	0.010 JN	0.0052 JN	0.0051 JN	0.0057 JN
PCB-126	57465-28-8	ng/g	< 0.018 U	< 0.098 U	< 0.011 U	< 0.0030 U	< 0.0025 U	< 0.0032 U	< 0.0016 U	< 0.00075 U	< 0.0012 U
PCB-127	39635-33-1	ng/g	< 0.018 U	< 0.092 U	< 0.011 U	< 0.0028 U	< 0.0023 U	< 0.0034 U	< 0.0015 U	< 0.00074 U	< 0.0012 U
PCB-128/166	38380-07-3	ng/g	3.4	2.7	0.50	0.083 J	0.080	0.11	0.078	0.082	0.088
PCB-129/138/160/163	55215-18-4	ng/g	20	14	2.6	0.52	0.58	0.59	0.54	0.55	0.59
PCB-130	52663-66-8	ng/g	1.5	1.1	0.21	0.035 JN	0.034 JN	0.034 J	0.035	0.049	0.056
PCB-131	61798-70-7	ng/g	0.40	0.34	0.053	0.0045 JN	< 0.0039 U	< 0.0054 U	0.0058 J	0.0064 J	< 0.0020 U
PCB-132	38380-05-1	ng/g	7.5	5.3	0.95	0.16	0.18	0.24	0.15	0.18	0.20
PCB-133	35694-04-3	ng/g	0.25 JN	0.18 JN	0.038	0.0079 JN	0.0094 J	0.0096 J	0.011 J	0.030	0.025
PCB-134/143	52704-70-8	ng/g	1.4	1.0	0.19	0.029 JN	0.037	0.051 JN	0.027	0.032	0.037
PCB-135/151	52744-13-5	ng/g	5.3	4.2	0.76	0.17 J	0.15	0.20	0.18	0.24	0.26
PCB-136	38411-22-2	ng/g	2.3	1.8	0.32	0.057 J	0.056	0.083 JN	0.063	0.089	0.099
PCB-137	35694-06-5	ng/g	1.2 JN	0.87	0.16	0.023 J	0.024 JN	0.027 JN	0.019	0.018	0.021
PCB-139/140	56030-56-9	ng/g	0.51	0.36	0.067	0.0083 JN	< 0.0031 U	0.012 JN	0.0095 J	0.015 JN	0.015 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S011	S012	S013	S015	S016	S017	S018	S019	S019
		Sample ID	PDI-SG-S011	PDI-SG-S012	PDI-SG-S013	PDI-SG-S015	PDI-SG-S016	PDI-SG-S017	PDI-SG-S018	PDI-SG-S019	PDI-SG-S019-D
		Sample Date	29 May 2018	10 May 2018	11 May 2018	02 Jun 2018	28 Aµg 2018	28 Aµg 2018	04 May 2018	15 Jun 2018	15 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-20 cm	0-30 cm	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-26 cm	0-29 cm	0-29 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.011 U	< 0.0030 U	< 0.00057 U	< 0.0019 U	< 0.0032 U	< 0.0092 U	< 0.00060 U	< 0.00052 U	< 0.00045 U
PCB-141	52712-04-6	ng/g	3.5	3.0	0.46	0.096 J	0.093	0.11	0.095	0.086	0.096
PCB-142	41411-61-4	ng/g	< 0.016 U	< 0.019 U	< 0.0024 U	< 0.0030 U	< 0.0035 U	< 0.0048 U	< 0.0014 U	< 0.0017 U	< 0.0019 U
PCB-144	68194-14-9	ng/g	0.82	0.74	0.12	0.018 JN	0.022	0.021 JN	0.019	0.020	0.019
PCB-145	74472-40-5	ng/g	0.016 J	0.016 JN	0.0031 JN	< 0.00012 U	< 0.00012 U	< 0.00019 U	< 0.00031 U	< 0.00020 U	< 0.00032 U
PCB-146	51908-16-8	ng/g	2.4	1.6	0.33	0.090 J	0.091	0.076	0.10	0.21	0.19
PCB-147/149	68194-13-8	ng/g	15	9.5	1.8	0.41	0.49	0.51	0.40	0.57	0.63
PCB-148	74472-41-6	ng/g	0.015 JN	0.014 JN	0.0045 J	< 0.00016 U	0.00073 JN	< 0.00027 U	0.0018 JN	0.0098 J	0.0073 J
PCB-15	2050-68-2	ng/g	13	0.76	13	0.054 J	0.041	0.11	0.059	0.038	0.037
PCB-150	68194-08-1	ng/g	0.026 J	0.020 JN	0.0048 J	0.0012 JN	< 0.00012 U	< 0.00019 U	0.0023 JN	0.0073 J	0.0068 J
PCB-152	68194-09-2	ng/g	0.025 JN	0.027 JN	0.0045 JN	< 0.00012 U	< 0.00013 U	< 0.00020 U	0.00069 JN	0.00065 JN	< 0.00031 U
PCB-153/168	35065-27-1	ng/g	13	9.8	1.7	0.43	0.50	0.38	0.45	0.57	0.63
PCB-154	60145-22-4	ng/g	0.19	0.10 JN	0.041	0.0096 J	0.0091 JN	0.0057 JN	0.015	0.048	0.043
PCB-155	33979-03-2	ng/g	< 0.00061 U	< 0.00041 U	< 0.00027 U	< 0.00011 U	< 0.00012 U	< 0.00019 U	< 0.00028 U	0.00041 JN	< 0.00030 U
PCB-156/157	38380-08-4	ng/g	2.9	2.0	0.40	0.057 J	0.055	0.074	0.052	0.045	0.046
PCB-158	74472-42-7	ng/g	2.4	1.8	0.31	0.053 J	0.051	0.062 JN	0.047	0.038	0.045
PCB-159	39635-35-3	ng/g	< 0.011 U	0.12	0.017	0.0046 JN	< 0.0023 U	< 0.0032 U	0.0050 J	0.0083 J	0.0090 J
PCB-16	38444-78-9	ng/g	1.7	1.3	0.65	0.025 J	0.018	0.079	0.030	0.039	0.035
PCB-161	74472-43-8	ng/g	< 0.011 U	< 0.012 U	< 0.0015 U	< 0.0019 U	< 0.0023 U	< 0.0032 U	< 0.00089 U	< 0.0011 U	< 0.0012 U
PCB-162	39635-34-2	ng/g	< 0.010 U	< 0.012 U	< 0.0015 U	< 0.0018 U	< 0.0023 U	< 0.0032 U	< 0.00084 U	< 0.0011 U	< 0.0012 U
PCB-164	74472-45-0	ng/g	1.4	0.95	0.18	0.039 J	0.039	0.038 JN	0.041	0.040	0.046
PCB-165	74472-46-1	ng/g	< 0.012 U	< 0.014 U	< 0.0018 U	< 0.0022 U	< 0.0026 U	< 0.0037 U	< 0.0010 U	< 0.0013 U	< 0.0014 U
PCB-167	52663-72-6	ng/g	0.84	0.55	0.11	0.017 JN	0.013 JN	0.030 J	0.016	0.015	0.018
PCB-169	32774-16-6	ng/g	< 0.0083 U	< 0.0091 U	< 0.0011 U	< 0.0015 U	< 0.0018 U	< 0.0023 U	< 0.00069 U	< 0.00082 U	< 0.00089 U
PCB-17	37680-66-3	ng/g	13	10	15	0.046 J	0.035	0.29	0.045	0.060	0.059
PCB-170	35065-30-6	ng/g	2.9	3.4	0.43	0.13 JN	0.16	0.12	0.16	0.16	0.18
PCB-171/173	52663-71-5	ng/g	0.87	1.1	0.15	0.044 J	0.043	0.024 JN	0.049	0.051	0.057
PCB-172	52663-74-8	ng/g	0.40	0.57	0.074	0.024 J	0.025	0.014 JN	0.028	0.033	0.035
PCB-174	38411-25-5	ng/g	2.3	3.5	0.48	0.17	0.18	0.11	0.18	0.20	0.22
PCB-175	40186-70-7	ng/g	0.093 JN	0.14	0.017	0.0030 JN	0.0039 JN	< 0.0017 U	0.0071 J	0.0084 J	0.0081 J
PCB-176	52663-65-7	ng/g	0.28 JN	0.39	0.051	0.016 JN	0.016 JN	0.012 JN	0.018	0.025	0.026
PCB-177	52663-70-4	ng/g	1.3	1.9	0.26	0.090 J	0.099	0.054	0.11	0.14	0.14
PCB-178	52663-67-9	ng/g	0.42	0.60	0.090	0.034 JN	0.032 JN	0.019 JN	0.039	0.054	0.056
PCB-179	52663-64-6	ng/g	0.95	1.3	0.19	0.072 J	0.067 JN	0.035 J	0.079 J-	0.10	0.10
PCB-18/30	37680-65-2	ng/g	12	9.2	3.1	0.049 JN	0.045 JN	0.26	0.073 J-	0.086	0.087
PCB-180/193	35065-29-3	ng/g	4.9	7.3	0.92	0.32	0.32	0.21 JN	0.35	0.36	0.40
PCB-181	74472-47-2	ng/g	0.043 JN	0.036 J	0.0073 J	0.0021 JN	< 0.00013 U	< 0.0017 U	< 0.00059 U	< 0.00023 U	0.0029 J
PCB-182	60145-23-5	ng/g	0.019 JN	< 0.00023 U	< 0.00016 U	< 0.00051 U	0.0033 JN	< 0.0016 U	0.0025 JN	0.0047 J	0.0039 JN
PCB-183/185	52663-69-1	ng/g	1.6	2.2	0.30	0.11 J	0.11	0.054 JN	0.11	0.12	0.13
PCB-184	74472-48-3	ng/g	< 0.00097 U	< 0.00020 U	< 0.00014 U	< 0.00044 U	< 0.00011 U	< 0.0014 U	< 0.00048 U	< 0.00019 U	< 0.00038 U
PCB-186	74472-49-4	ng/g	< 0.00095 U	< 0.00019 U	< 0.00013 U	< 0.00042 U	< 0.00010 U	< 0.0013 U	< 0.00046 U	< 0.00018 U	< 0.00036 U
PCB-187	52663-68-0	ng/g	2.5	3.6	0.52	0.23	0.22	0.14	0.24	0.28	0.30
PCB-188	74487-85-7	ng/g	< 0.00081 U	< 0.00018 U	< 0.00012 U	< 0.00039 U	< 0.000088 U	< 0.0012 U	< 0.00041 U	< 0.00017 U	< 0.00034 U
PCB-189	39635-31-9	ng/g	0.076 JN	0.13	0.018	0.0051 JN	< 0.0023 U	< 0.00093 U	0.0067 JN	0.0057 J	0.0061 JN
PCB-19	38444-73-4	ng/g	3.7	3.6	7.0	0.021 J	0.018 JN	0.047	0.022 JN	0.014	0.017
PCB-190	41411-64-7	ng/g	0.50	0.69	0.093	0.028 J	0.035	0.016 JN	0.031	0.030	0.031
PCB-191	74472-50-7	ng/g	0.099 JN	0.18	0.023	0.0057 JN	0.0038 JN	< 0.0013 U	0.0063 JN	0.0068 JN	0.011
PCB-192	74472-51-8	ng/g	< 0.0010 U	< 0.00019 U	< 0.00013 U	< 0.00043 U	< 0.00011 U	< 0.0014 U	< 0.00047 U	< 0.00019 U	< 0.00037 U
PCB-194	35694-08-7	ng/g	0.70	1.7	0.23	0.091 J	0.11	0.049	0.12	0.10	0.12
PCB-195	52663-78-2	ng/g	0.27 JN	0.70	0.091	0.034 J	0.033 JN	0.019 JN	0.045	0.042	0.048
PCB-196	42740-50-1	ng/g	0.42	0.81	0.11	0.034 JN	0.046	0.017 JN	0.051	0.052	0.057
PCB-197	33091-17-7	ng/g	0.025 JN	0.057 J	0.0073 J	0.0030 J	0.0034 JN	< 0.00020 U	0.0031 JN	0.0042 J	0.0045 JN
PCB-198/199	68194-17-2	ng/g	0.88	1.6	0.27	0.20 J	0.12	0.038 JN	0.15	0.13	0.14
PCB-2	2051-61-8	ng/g	0.10	0.033 JN	0.15	0.015 JN	0.0090 JN	0.0092 JN	0.019	0.011 J+	0.0096 J+

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S011	S012	S013	S015	S016	S017	S018	S019	S019
		Sample ID	PDI-SG-S011	PDI-SG-S012	PDI-SG-S013	PDI-SG-S015	PDI-SG-S016	PDI-SG-S017	PDI-SG-S018	PDI-SG-S019	PDI-SG-S019-D
		Sample Date	29 May 2018	10 May 2018	11 May 2018	02 Jun 2018	28 Aµg 2018	28 Aµg 2018	04 May 2018	15 Jun 2018	15 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-20 cm	0-30 cm	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-26 cm	0-29 cm	0-29 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	27	67	4.6	0.17 J	0.12	1.3	0.20	0.26	0.31
PCB-200	52663-73-7	ng/g	0.099	0.19	0.031	0.011 JN	0.011 JN	0.0026 JN	0.013 JN	0.015	0.016
PCB-201	40186-71-8	ng/g	0.086 JN	0.20	0.030	0.018 JN	0.0082 JN	0.0061 JN	0.014	0.015	0.016
PCB-202	2136-99-4	ng/g	0.16	0.26	0.053	0.066 JN	0.016 JN	0.011 J	0.036	0.029	0.029
PCB-203	52663-76-0	ng/g	0.55	0.98	0.17	0.13	0.071	0.018 JN	0.087	0.073	0.079
PCB-204	74472-52-9	ng/g	< 0.00064 U	< 0.0022 U	< 0.00018 U	< 0.00020 U	< 0.00013 U	< 0.00020 U	< 0.00076 U	< 0.00039 U	< 0.00047 U
PCB-205	74472-53-0	ng/g	0.045 J	0.089 J	0.011	0.0067 J	0.0029 JN	< 0.0011 U	0.0055 J	0.0047 J	0.0043 JN
PCB-206	40186-72-9	ng/g	0.36	0.41	0.12	0.20	0.097	0.025 J	0.13	0.092 JN	0.093 JN
PCB-207	52663-79-3	ng/g	0.035 JN	0.048 J	0.014	0.016 J	0.013	< 0.0017 U	0.012 J-	0.0062 J	0.0080 J
PCB-208	52663-77-1	ng/g	0.084	0.080 J	0.028	0.092 J	0.033	0.011 J	0.037	0.024	0.023
PCB-209	2051-24-3	ng/g	0.094 JN	0.10 J	0.039	0.082 J	0.080	0.029 JN	0.073	0.070 J	0.13 J
PCB-21/33	55702-46-0	ng/g	2.5	1.2	0.79	0.056 J	0.036	0.23	0.065	0.10	0.11
PCB-22	38444-85-8	ng/g	3.8	13	1.1	0.042 J	0.024	0.26	0.051	0.059	0.073
PCB-23	55720-44-0	ng/g	< 0.018 U	< 0.10 U	< 0.016 U	< 0.0032 U	< 0.0012 U	< 0.0035 U	< 0.0010 U	< 0.0010 U	< 0.0019 U
PCB-24	55702-45-9	ng/g	0.14	0.25	< 0.00038 U	< 0.00053 U	0.0014 J	0.0048 JN	0.0014 JN	< 0.00047 U	0.0014 J
PCB-25	55712-37-3	ng/g	3.3	1.6	1.0	0.015 J	0.0089 JN	0.13	0.018	0.021	0.025
PCB-26/29	38444-81-4	ng/g	6.1	0.52	2.3	0.027 J	0.022 J	0.20	0.032	0.031	0.036
PCB-27	38444-76-7	ng/g	2.3	2.6	2.6	0.0078 JN	0.0037 JN	0.036	0.0099 J	0.011	0.0098
PCB-3	2051-62-9	ng/g	0.87	0.11 J	2.9	0.0078 JN	0.0051 JN	0.0085 J	0.010 J	0.0072 JN	0.0059 JN
PCB-31	16606-02-3	ng/g	14	6.5	5.0	0.11 J	0.071	0.53	0.13	0.15	0.19
PCB-32	38444-77-8	ng/g	16	25	9.9	0.029 J	0.027	0.19 JN	0.034	0.043	0.040
PCB-34	37680-68-5	ng/g	0.43	0.48	0.21	< 0.0033 U	< 0.0013 U	0.019 J	0.0012 JN	0.0032 J	< 0.0020 U
PCB-35	37680-69-6	ng/g	< 0.019 U	< 0.10 U	< 0.016 U	< 0.0032 U	< 0.0012 U	< 0.0036 U	0.0030 JN	0.0036 JN	0.0041 J
PCB-36	38444-87-0	ng/g	< 0.018 U	< 0.093 U	< 0.015 U	< 0.0029 U	< 0.0012 U	< 0.0034 U	< 0.00092 U	< 0.00091 U	< 0.0017 U
PCB-37	38444-90-5	ng/g	5.2	5.8	1.2	0.043 JN	0.040	0.18 JN	0.061	0.064	0.086
PCB-38	53555-66-1	ng/g	< 0.019 U	< 0.10 U	< 0.016 U	< 0.0031 U	< 0.0013 U	< 0.0037 U	< 0.0010 U	< 0.00099 U	< 0.0018 U
PCB-39	38444-88-1	ng/g	0.18	0.42	0.065	< 0.0029 U	< 0.0011 U	< 0.0033 U	0.0017 J	0.0029 J	0.0037 J
PCB-4	13029-08-8	ng/g	3.5	0.50	14	0.024 JN	0.024 JN	0.13	0.038	0.016 JN	0.022
PCB-40/41/71	38444-93-8	ng/g	24	82	5.6	0.11 J	0.098	0.96	0.12	0.16	0.18
PCB-42	36559-22-5	ng/g	9.5	41	2.4	0.053 J	0.049	0.57	0.062	0.098	0.11
PCB-43/73	70362-46-8	ng/g	1.2	5.3	0.29	0.0070 J	0.0052 JN	0.076	0.011 JN	0.012 J	0.011 J
PCB-44/47/65	41464-39-5	ng/g	42	160	15	0.24 J	0.21	2.0	0.27	0.36	0.40
PCB-45/51	70362-45-7	ng/g	9.8	31	4.0	0.049 J	0.035	0.33	0.048	0.062	0.068
PCB-46	41464-47-5	ng/g	3.6	12	0.79	0.011 JN	0.0090 JN	0.099 JN	0.013	0.017	0.018
PCB-48	70362-47-9	ng/g	4.5	19	1.1	0.028 J	0.026	0.36	0.036	0.052	0.056
PCB-49/69	41464-40-8	ng/g	34	110	6.9	0.16 J	0.14	1.4	0.17	0.28	0.30
PCB-5	16605-91-7	ng/g	< 0.015 U	< 0.0036 U	< 0.00068 U	< 0.0023 U	< 0.0043 U	< 0.012 U	< 0.00072 U	< 0.00062 U	< 0.00054 U
PCB-50/53	62796-65-0	ng/g	10	33	2.7	0.041 J	0.026	0.23	0.039	0.053	0.060
PCB-52	35693-99-3	ng/g	47	170	10	0.29	0.26	2.0	0.29	0.41	0.47
PCB-54	15968-05-5	ng/g	0.39	0.66	0.38	0.0047 JN	0.0036 J	< 0.000039 U	0.0052 JN	0.0017 JN	0.0028 J
PCB-55	74338-24-2	ng/g	0.52	2.4	< 0.0090 U	0.014 J	< 0.00021 U	0.016 JN	0.0065 J	< 0.00091 U	0.010
PCB-56	41464-43-1	ng/g	15	47	3.4	0.10 J	0.088	0.63	0.11	0.13	0.15
PCB-57	70424-67-8	ng/g	< 0.027 U	< 0.048 U	< 0.0093 U	< 0.0020 U	< 0.00021 U	< 0.00044 U	< 0.00087 U	< 0.00093 U	< 0.00091 U
PCB-58	41464-49-7	ng/g	0.12	< 0.046 U	< 0.0089 U	< 0.0020 U	< 0.00021 U	< 0.00045 U	0.0016 J	0.0025 J	0.0018 J
PCB-59/62/75	74472-33-6	ng/g	2.8	13	0.72	0.019 J	0.017 J	0.19	0.021 J	0.032	0.034
PCB-6	25569-80-6	ng/g	2.2	0.070 JN	2.7	0.011 JN	0.0083 JN	0.052 JN	0.015	0.012	0.013
PCB-60	33025-41-1	ng/g	7.3	32	1.7	0.046 J	0.041 JN	0.14	0.046	0.031	0.041
PCB-61/70/74/76	33284-53-6	ng/g	48	72	9.1	0.34 J	0.32	2.0	0.41	0.47	0.55
PCB-63	74472-34-7	ng/g	1.3	6.1	0.12 JN	0.0075 J	0.0085 J	0.070 JN	0.010 J	0.011	0.013
PCB-64	52663-58-8	ng/g	14	63	3.3	0.083 J	0.076	0.88	0.094	0.12	0.14
PCB-66	32598-10-0	ng/g	35	110	8.0	0.25	0.23	1.4	0.29	0.35	0.40
PCB-67	73575-53-8	ng/g	0.57	1.6	0.15	0.0057 J	0.0046 JN	0.031 JN	0.0057 J	0.0060 JN	0.0069 J
PCB-68	73575-52-7	ng/g	0.44	< 0.042 U	0.19	< 0.0018 U	< 0.00019 U	0.023 J	0.0046 J	0.014	0.012
PCB-7	33284-50-3	ng/g	0.14 JN	0.0076 JN	0.086	< 0.0022 U	< 0.0039 U	< 0.011 U	0.0022 J	0.0023 J	0.0024 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S011	S012	S013	S015	S016	S017	S018	S019	S019
		Sample ID	PDI-SG-S011	PDI-SG-S012	PDI-SG-S013	PDI-SG-S015	PDI-SG-S016	PDI-SG-S017	PDI-SG-S018	PDI-SG-S019	PDI-SG-S019-D
		Sample Date	29 May 2018	10 May 2018	11 May 2018	02 Jun 2018	28 Aµg 2018	28 Aµg 2018	04 May 2018	15 Jun 2018	15 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-20 cm	0-30 cm	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-26 cm	0-29 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.59	1.4	0.19	0.0048 JN	0.0045 J	0.029 JN	0.0043 J	0.013	0.014
PCB-77	32598-13-3	ng/g	3.2	5.7	0.70	0.020 JN	0.025	0.091	0.028	0.026	0.032
PCB-78	70362-49-1	ng/g	< 0.028 U	< 0.046 U	< 0.0089 U	< 0.0020 U	< 0.00021 U	< 0.00045 U	< 0.00084 U	< 0.00090 U	< 0.00088 U
PCB-79	41464-48-6	ng/g	< 0.024 U	< 0.040 U	< 0.0076 U	0.0048 J	0.00094 JN	< 0.00039 U	0.0036 JN	0.0071 J	0.0074 J
PCB-8	34883-43-7	ng/g	4.5	1.2	6.3	0.050 J	0.031	0.14 JN	0.047 J-	0.047	0.046
PCB-80	33284-52-5	ng/g	< 0.024 U	< 0.041 U	< 0.0079 U	< 0.0017 U	< 0.00018 U	< 0.00038 U	< 0.00074 U	< 0.00079 U	< 0.00078 U
PCB-81	70362-50-4	ng/g	< 0.025 U	< 0.047 U	< 0.0086 U	< 0.0018 U	< 0.00019 U	< 0.00040 U	< 0.00082 U	< 0.00086 U	0.0010 JN
PCB-82	52663-62-4	ng/g	6.8	12	1.2	0.059 JN	0.050	0.10 JN	0.050	0.052	0.056
PCB-83/99	60145-20-2	ng/g	24	33	4.0	0.28	0.23	0.74	0.28	0.40	0.42
PCB-84	52663-60-2	ng/g	12	20	1.9	0.097 J	0.079 JN	0.45	0.094	0.13	0.13
PCB-85/116/117	65510-45-4	ng/g	9.4	14	1.5	0.083 J	0.066	0.19	0.071	0.073	0.077
PCB-86/87/97/109/119/125	55312-69-1	ng/g	28	39	4.0	0.26 J	0.23	0.68	0.24	0.26	0.28
PCB-88/91	55215-17-3	ng/g	7.0	12	1.2	0.072 J	0.059	0.26	0.075	0.11	0.12
PCB-89	73575-57-2	ng/g	0.89	2.0	0.18	< 0.0025 U	0.0058 JN	0.021 JN	0.0063 J	0.0058 J	0.0066 J
PCB-9	34883-39-1	ng/g	0.27	0.018 J	0.58	< 0.0026 U	< 0.0039 U	< 0.011 U	0.0038 J	0.0015 JN	0.0021 J
PCB-90/101/113	68194-07-0	ng/g	34	36	4.5	0.40	0.35	1.1	0.38	0.51	0.53
PCB-92	52663-61-3	ng/g	6.1	7.8	0.92	0.082 J	0.062	0.23	0.083	0.12	0.13
PCB-93/100	73575-56-1	ng/g	1.2	1.6	0.28	0.0071 JN	0.011 JN	0.037 JN	0.017 J	0.020	0.020
PCB-94	73575-55-0	ng/g	0.35 JN	0.67	0.069	0.0037 JN	< 0.00058 U	< 0.0013 U	0.0048 J	0.0041 JN	0.0048 J
PCB-95	38379-99-6	ng/g	29	39	3.7	0.31	0.26	1.1	0.30	0.39	0.42
PCB-96	73575-54-9	ng/g	0.59	1.1	0.10	< 0.0018 U	0.0036 J	0.025 J	0.0040 JN	0.0061 J	0.0071 J
PCB-98/102	60233-25-2	ng/g	2.2	3.9	0.41	0.019 JN	0.014 J	0.087 JN	0.022 J	0.024	0.024
Total PCBs (b)	T_PCBCg (PDI)	ng/g	817	1595	231	10	9.2	29	10	12	13
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.22 J	0.59	< 0.36 U	< 1.3 U	< 0.43 U	< 0.27 U	< 1.3 UJ	0.74	0.61
2,4-DDE	3424-82-6	µg/kg	< 0.30 U	< 0.48 U	< 0.40 U	< 1.3 U	< 0.43 U	< 0.27 U	< 1.3 UJ	< 0.36 U	< 0.34 U
2,4-DDT	789-02-6	µg/kg	< 0.30 U	< 0.48 U	< 0.47 U	< 1.3 U	< 0.43 U	< 0.27 U	< 1.3 UJ	< 0.36 U	< 0.34 U
4,4'-DDD	72-54-8	µg/kg	1.5	1.7	0.23 J	1.1 J	0.97	0.33	1.3 J	2.1	1.8
4,4'-DDE	72-55-9	µg/kg	0.75 J	3.8	0.84	2.9	2.0 J	0.50 J	3.1 J	6.4	5.4
4,4'-DDT	50-29-3	µg/kg	0.53	0.27 J	< 0.36 U	0.61 J	0.31 J	< 0.27 U	< 1.3 UJ	0.30 J	0.25 J
DDx (b)	T_DDx (PDI)	µg/kg	3.2	6.6	1.3	5.3	3.5	1.0	5.1	9.7	8.2
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	5.9	11	1.6	7.4	19 J	9.2 J	8.4	25	27
Acenaphthene	83-32-9	µg/kg	24	54	2.4	8.8	18 J	25 J	9.5	69	78
Acenaphthylene	208-96-8	µg/kg	12	23	1.7	4.2	< 130 U	< 34 U	8.2	24	22
Anthracene	120-12-7	µg/kg	66	86	3.3	11	36 J	12 J	20	76	98
Benz(a)anthracene	56-55-3	µg/kg	300	320	22	28	53 J	19 J	80	120	100
Benzo(a)pyrene	50-32-8	µg/kg	210	230	24	38	56 J	16 J	76	150 J	84 J
Benzo(b)fluoranthene	205-99-2	µg/kg	460	460	52	49	75 J	31 J	97	160	100
Benzo(g,h,i)perylene	191-24-2	µg/kg	120	120	15	32	60 J	20 J	53	110 J	59 J
Benzo(k)fluoranthene	207-08-9	µg/kg	150	160	17	17	35 J	7.3 J	31	50	37
Chrysene	218-01-9	µg/kg	610	660	52	48	99 J	29 J	110	140	130
Dibenz(a,h)anthracene	53-70-3	µg/kg	28	35	3.6	5.8	27 J	8.9 J	11	23	16
Fluoranthene	206-44-0	µg/kg	1600	1300	61	65	160	73 J	160	280	320
Fluorene	86-73-7	µg/kg	67	77	1.6	8.9	22 J	12 J	14	62	72
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	140	150	17	31	64 J	15 J	56	130 J	74 J
Naphthalene	91-20-3	µg/kg	9.6	13	3.0	7.8	28 J	12 J	13	52	55
Phenanthrene	85-01-8	µg/kg	810	480	14	38	94 J	48 J	77	330	450
Pyrene	129-00-0	µg/kg	1300	1300	71	71 J	140	70 J	170	340	380
Total PAHs (b)	T_PAH (PDI)	µg/kg	5913	5479	362	471	1051	424	994	2141	2102
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	330	360	37	55	103	32	111	215	128
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	64.5	40.2	60.8	37.7	37.4	68.0	38.6	55.4 55.5	57.3 56.8
Total Solids@104C - E160.3M (f)	TSOLID	%	64.8	40.2	68.3	39.2	44.1	68.9	38.8	55.0	56.3
Total Solids@70C	TSOLID70	%	66	40	70	39	37	69	39	42	40
Gravel	GS-Gravel	%	1.0	0	0.2	0	0	4.7	0	57.3	
Sand, Coarse	GS-Csand	%	2.9	0.1	0.5	0	0	0.8	0	6.9	

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S011	S012	S013	S015	S016	S017	S018	S019	S019
		Sample ID	PDI-SG-S011	PDI-SG-S012	PDI-SG-S013	PDI-SG-S015	PDI-SG-S016	PDI-SG-S017	PDI-SG-S018	PDI-SG-S019	PDI-SG-S019-D
		Sample Date	29 May 2018	10 May 2018	11 May 2018	02 Jun 2018	28 Aµg 2018	28 Aµg 2018	04 May 2018	15 Jun 2018	15 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-20 cm	0-30 cm	0-25 cm	0-30 cm	0-30 cm	0-24 cm	0-26 cm	0-29 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	29.4	0.3	25.0	0.3	0.1	21.0	0.2	6.6	
Sand, Fine (#200) (d)	GS-Fsand-200	%	53.73	11.1	51.77	6.151	5.598	60.21	9.011	10.89	
Sand, Fine (#230) (d)	GS-Fsand	%	54.5	14.3	52.7	8.3	7.5	61.5	9.7	13.5	
Silt (#200) (d)	GS-Silt-200	%	9.566	66.39	17.82	84.34	79.10	9.385	75.78	3.600	
Silt (#230) (d)	GS-Silt	%	8.8	63.2	16.9	82.2	77.2	8.1	75.1	1.0	
Clay	GS-Clay	%	3.4	22.2	4.6	9.2	15.2	4.0	15.0	14.7	
Percent Fines (e)	GS-FINES	%	12.966	88.59	22.42	93.54	94.3	13.385	90.78	18.3	
Total Organic Carbon	TOC	mg/kg	4900	30000	4400	30000	39000	10000	28000	31000	40000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S020	S021	S023	S024	S025	S026	S027	S028	S029
		Sample ID	PDI-SG-S020	PDI-SG-S021	PDI-SG-S023	PDI-SG-S024	PDI-SG-S025	PDI-SG-S026	PDI-SG-S027	PDI-SG-S028	PDI-SG-S029
		Sample Date	21 Jun 2018	10 May 2018	04 May 2018	10 May 2018	10 May 2018	10 May 2018	10 May 2018	09 May 2018	08 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.24	0.11	0.048	0.069	0.069	0.068	0.067	0.025	0.10
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.024	0.013	0.010	0.0095 JN	0.013 JN	0.0094 JN	0.012 JN	0.0057 JN	0.015 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0020 J	0.0013 J	0.0011 J+	0.00063 J	0.0013 J	< 0.00045 U	0.00074 J	< 0.00022 U	0.0010 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0017 J	0.0010 JN	0.00077 JN	0.00098 J+	0.00091 J+	< 0.00015 U	0.0011 J	0.00035 J+	0.00098 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0053	0.0059	0.0017 J	0.0014 J	0.0040 J	0.0015 J	0.0018 J	0.00057 JN	0.0021 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0060	0.0037 J	0.0020 J	0.0029 J	0.0028 J	0.0024 J	0.0026 J	0.00075 JN	0.0031 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0024 J	0.0022 J	0.00076 J	0.00071 J	0.0013 J	0.00065 J	0.00080 J	0.00029 J	0.00095 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0043 J	0.0025 J	0.0017 J	0.0027 J	0.0022 J	0.0022 J	0.0024 J	0.00076 J	0.0027 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00024 J+	0.00020 J+	0.00075 JN	< 0.00012 U	< 0.00013 U	< 0.00011 U	< 0.00013 U	< 0.000055 U	0.00019 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00096 J	0.00051 J	< 0.00010 U	0.00053 J	0.00051 J	0.00042 J	0.00030 JN	0.00010 JN	0.00051 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0030 J	0.0049	0.0010 J	0.00055 JN	0.00096 J	0.00058 J	0.00058 JN	0.00023 JN	0.00068 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00085 J	0.00063 J	0.00031 JN	0.00035 JN	0.00041 JN	0.00034 JN	0.00044 JN	0.00016 JN	0.00061 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0015 J	0.0018 J	0.00062 J	0.00048 JN	0.00070 J	0.00057 J	0.00067 J	0.00022 J	0.00076 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00068 J	0.00095	0.00016 JN	0.00024 JN	0.00018 JN	0.00032 JN	0.00017 JN	0.00010 JN	0.00025 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0039	0.0024	0.0010 J	0.0011 J	0.00095 J	0.00097 J	0.0013	0.00041 J+	0.0012
OCDD	3268-87-9	µg/kg	2.7	1.0	0.39	0.56	0.57	0.51	0.54	0.23	0.89
OCDF	39001-02-0	µg/kg	0.069	0.031	0.038	0.029	0.039	0.033	0.038	0.013	0.054
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0081	0.0056	0.002	0.0029	0.0032	0.0027	0.0027	0.00098	0.0036
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0081	0.0055	0.0017	0.0026	0.0031	0.0025	0.0023	0.00068	0.0034
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0081	0.0055	0.0017	0.0025	0.003	0.0023	0.0022	0.00063	0.0031
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.023 JN	0.042 J	0.0044 J	0.018	< 0.0018 U	0.025	0.031 J	0.022 JN	0.030
PCB-10	33146-45-1	ng/g	0.0091 JN	< 0.014 U	0.0016 JN	0.0069 JN	< 0.025 U	0.010 JN	< 0.011 U	< 0.0052 U	0.0084 JN
PCB-103	60145-21-3	ng/g	0.044	0.028 JN	0.0079 J	0.023 JN	< 0.0024 U	0.024	4.3	0.011	0.038
PCB-104	56558-16-8	ng/g	< 0.00064 U	< 0.00089 U	< 0.00036 U	< 0.00039 U	< 0.0019 U	< 0.00039 U	1.4	< 0.00032 U	< 0.0013 U
PCB-105	32598-14-4	ng/g	0.49	0.29	0.13	0.47	0.35	0.68	0.92	0.24	1.4
PCB-106	70424-69-0	ng/g	< 0.0028 U	< 0.0053 U	< 0.0022 U	< 0.0026 U	< 0.0098 U	< 0.0028 U	< 0.0072 U	< 0.0022 U	< 0.0048 U
PCB-107	70424-68-9	ng/g	0.15	0.084 JN	0.023	0.13	0.076	0.14	0.53	0.047	0.31 JN
PCB-108/124	70362-41-3	ng/g	0.048	0.033 J	0.013 J	0.056	0.027 JN	0.070	0.065 JN	0.024	0.17
PCB-11	2050-67-1	ng/g	0.044	0.036 JN	0.069	0.10	0.086 JN	0.078	0.063 J	0.059	0.053
PCB-110/115	38380-03-9	ng/g	2.0	1.5	0.56	2.0	1.4	2.5	3.8	0.93	4.1
PCB-111	39635-32-0	ng/g	0.0081 J	< 0.00083 U	< 0.00032 U	< 0.00036 U	< 0.0017 U	< 0.00036 U	0.079	< 0.00030 U	< 0.0012 U
PCB-112	74472-36-9	ng/g	0.0078 JN	< 0.00087 U	0.0045 J	< 0.00038 U	< 0.0018 U	< 0.00038 U	0.070	< 0.00031 U	< 0.0012 U
PCB-114	74472-37-0	ng/g	0.032	0.019 J	0.0080 J	0.027	< 0.0092 U	0.028 JN	0.10	0.011	0.075
PCB-118	31508-00-6	ng/g	1.4	0.89	0.39	1.4	0.92	1.8	2.5	0.60	3.6
PCB-12/13	2974-92-7	ng/g	0.034	0.017 JN	0.0052 JN	0.030	< 0.022 U	0.042	0.041 JN	0.0099 JN	0.058
PCB-120	68194-12-7	ng/g	0.014	0.012 JN	0.0034 J	< 0.00036 U	0.011 JN	< 0.00036 U	0.18	< 0.00030 U	< 0.0012 U
PCB-121	56558-18-0	ng/g	< 0.00062 U	< 0.00087 U	< 0.00034 U	< 0.00038 U	< 0.0018 U	< 0.00038 U	0.19	< 0.00031 U	< 0.0012 U
PCB-122	76842-07-4	ng/g	0.021	0.011 J	< 0.0024 U	0.017 JN	< 0.011 U	0.019 JN	< 0.0083 U	0.0074 JN	0.062
PCB-123	65510-44-3	ng/g	0.024	0.014 JN	0.0060 J	0.023	0.020 J	0.028	0.047 JN	0.0084 JN	0.065
PCB-126	57465-28-8	ng/g	0.015 JN	< 0.0052 U	< 0.0020 U	0.0033 JN	< 0.011 U	0.0063 J	< 0.0072 U	< 0.0023 U	< 0.0070 U
PCB-127	39635-33-1	ng/g	< 0.0028 U	< 0.0053 U	< 0.0021 U	< 0.0026 U	< 0.0098 U	< 0.0028 U	< 0.0072 U	< 0.0022 U	< 0.0048 U
PCB-128/166	38380-07-3	ng/g	0.26	0.30	0.24	0.39	0.24	0.45	1.5	0.19	1.0
PCB-129/138/160/163	55215-18-4	ng/g	2.0	1.8	2.8	2.9	1.6	3.1	15	1.2	7.4
PCB-130	52663-66-8	ng/g	0.15	0.14	0.099	0.17	0.085 JN	0.18	0.85	0.064	0.47
PCB-131	61798-70-7	ng/g	0.018 JN	0.018 JN	< 0.0035 U	0.032	< 0.018 U	0.042	< 0.13 U	0.013 JN	0.12 JN
PCB-132	38380-05-1	ng/g	0.69	0.62	0.71	0.90	0.47	1.0	3.2	0.39	2.9
PCB-133	35694-04-3	ng/g	0.057	0.044 JN	0.029	0.037	< 0.016 U	0.037 JN	1.3	0.011 JN	0.095
PCB-134/143	52704-70-8	ng/g	0.11	0.097	0.12	0.14	0.069 JN	0.17	0.65	0.065	0.52
PCB-135/151	52744-13-5	ng/g	0.81	0.62	1.4	0.82	0.52	0.83	9.2	0.37	1.3
PCB-136	38411-22-2	ng/g	0.29	0.24	0.44	0.31	0.18	0.32	2.8	0.13	0.55
PCB-137	35694-06-5	ng/g	0.065	0.062 JN	0.026	0.11	0.070	0.14	0.55	0.047 JN	0.35
PCB-139/140	56030-56-9	ng/g	0.042	0.034 JN	< 0.0029 U	0.039	< 0.015 U	0.053	0.39	0.022	0.15

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S020	S021	S023	S024	S025	S026	S027	S028	S029
		Sample ID	PDI-SG-S020	PDI-SG-S021	PDI-SG-S023	PDI-SG-S024	PDI-SG-S025	PDI-SG-S026	PDI-SG-S027	PDI-SG-S028	PDI-SG-S029
		Sample Date	21 Jun 2018	10 May 2018	04 May 2018	10 May 2018	10 May 2018	10 May 2018	10 May 2018	09 May 2018	08 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.0021 U	< 0.011 U	< 0.00058 U	< 0.0023 U	< 0.019 U	< 0.0023 U	< 0.0085 U	< 0.0040 U	< 0.0027 U
PCB-141	52712-04-6	ng/g	0.37	0.31	0.83	0.53	0.29	0.53	2.5	0.22	1.4
PCB-142	41411-61-4	ng/g	< 0.0059 U	< 0.0090 U	< 0.0033 U	< 0.0048 U	< 0.016 U	< 0.0054 U	< 0.12 U	< 0.0044 U	< 0.013 U
PCB-144	68194-14-9	ng/g	0.078	0.058	0.21	0.10	0.075	0.10	0.61	0.051	0.13
PCB-145	74472-40-5	ng/g	< 0.00079 U	< 0.00043 U	0.0022 JN	< 0.00030 U	< 0.0022 U	0.0019 J	< 0.00078 U	< 0.00024 U	< 0.0014 U
PCB-146	51908-16-8	ng/g	0.51	0.37	0.37	0.43	0.25	0.43	7.1	0.18	1.0
PCB-147/149	68194-13-8	ng/g	2.0	1.6	2.4	2.4	1.3	2.5	26	1.1	7.0
PCB-148	74472-41-6	ng/g	0.016	0.016 J	< 0.00053 U	0.0033 JN	< 0.0031 U	0.0055 JN	0.54	< 0.00034 U	0.0073 J
PCB-15	2050-68-2	ng/g	0.19	0.055 JN	0.027	0.21	0.17	0.31	0.40	0.13	0.54
PCB-150	68194-08-1	ng/g	0.0060 JN	0.0070 JN	0.0014 JN	0.0017 JN	< 0.0021 U	0.0038 J	0.52	< 0.00023 U	0.0048 JN
PCB-152	68194-09-2	ng/g	0.0027 JN	< 0.00045 U	< 0.00038 U	0.0014 JN	< 0.0022 U	0.0031 J	0.49	0.0015 J	0.0048 JN
PCB-153/168	35065-27-1	ng/g	1.9	1.5	2.9	2.4	1.2	2.3	22	1.0	5.7
PCB-154	60145-22-4	ng/g	0.056 JN	0.051 JN	0.019	0.038 JN	0.033 J	0.037 JN	4.1	0.014 JN	0.053
PCB-155	33979-03-2	ng/g	< 0.00076 U	< 0.00042 U	< 0.00036 U	< 0.00028 U	< 0.0021 U	< 0.00034 U	0.12	< 0.00023 U	< 0.0013 U
PCB-156/157	38380-08-4	ng/g	0.19	0.22	0.21	0.28	0.18	0.34	0.69	0.13	0.69
PCB-158	74472-42-7	ng/g	0.16	0.18	0.28	0.26	0.14 JN	0.29	0.97	0.11 JN	0.70
PCB-159	39635-35-3	ng/g	0.013 JN	0.014 JN	0.053	0.028	< 0.011 U	0.023	0.58	0.011 JN	< 0.0085 U
PCB-16	38444-78-9	ng/g	0.32 J	0.078	0.019	0.13	0.091	0.25	0.27	0.10	0.30
PCB-161	74472-43-8	ng/g	< 0.0039 U	< 0.0060 U	< 0.0022 U	< 0.0032 U	< 0.011 U	< 0.0036 U	< 0.080 U	< 0.0029 U	< 0.0084 U
PCB-162	39635-34-2	ng/g	0.0053 J	< 0.0059 U	< 0.0020 U	0.0075 J	< 0.011 U	0.0082 JN	< 0.080 U	0.0039 J	< 0.0083 U
PCB-164	74472-45-0	ng/g	0.15	0.13	0.20	0.20	0.11	0.21	1.0	0.085	0.48
PCB-165	74472-46-1	ng/g	< 0.0044 U	< 0.0068 U	< 0.0025 U	< 0.0036 U	< 0.012 U	< 0.0041 U	< 0.092 U	< 0.0033 U	< 0.0096 U
PCB-167	52663-72-6	ng/g	0.058	0.071	0.075	0.092	0.053 J	0.10	0.27	0.041	0.22
PCB-169	32774-16-6	ng/g	0.0076 JN	< 0.0044 U	< 0.0016 U	0.012 JN	< 0.0083 U	< 0.0029 U	< 0.058 U	0.0061 JN	< 0.0084 U
PCB-17	37680-66-3	ng/g	0.44 J	0.11	0.023 JN	0.23	0.11 JN	0.32	0.57	0.13	0.39
PCB-170	35065-30-6	ng/g	0.60	0.49	1.6	0.81	0.45	0.76	12	0.38	1.4
PCB-171/173	52663-71-5	ng/g	0.18	0.13	0.62	0.25	0.14 JN	0.21	4.5	0.11	0.34
PCB-172	52663-74-8	ng/g	0.12	0.081	0.37	0.14	0.074	0.12	2.2	0.049 JN	0.18
PCB-174	38411-25-5	ng/g	0.65	0.47	2.0	0.85	0.43	0.71	21	0.37	1.2
PCB-175	40186-70-7	ng/g	0.025	0.016 JN	0.077	0.028	0.024 JN	0.026 JN	0.53	0.012 JN	0.042 JN
PCB-176	52663-65-7	ng/g	0.088	0.058	0.22	0.10	0.041 J	0.085	2.5	0.043	0.17
PCB-177	52663-70-4	ng/g	0.40	0.28	1.1	0.48	0.26	0.42	11	0.20	0.68
PCB-178	52663-67-9	ng/g	0.15	0.14	0.34	0.16	0.077 JN	0.15	4.1	0.082	0.24
PCB-179	52663-64-6	ng/g	0.29	0.25	0.71 J-	0.34	0.20	0.32	9.3	0.17	0.63
PCB-18/30	37680-65-2	ng/g	0.91 J	0.19	0.038	0.32	0.24	0.58	0.81	0.24	0.74
PCB-180/193	35065-29-3	ng/g	1.3	0.97	4.4	1.8	0.93	1.5	34	0.83	2.3
PCB-181	74472-47-2	ng/g	< 0.0016 U	0.0069 JN	< 0.00030 U	< 0.00064 U	< 0.010 U	< 0.0012 U	< 0.0022 U	< 0.00051 U	0.015 JN
PCB-182	60145-23-5	ng/g	0.010 JN	< 0.0012 U	< 0.00028 U	< 0.00061 U	< 0.010 U	0.0078 J	0.48	0.0049 JN	< 0.0037 U
PCB-183/185	52663-69-1	ng/g	0.43	0.34	1.3	0.59	0.28	0.49	12	0.28	0.84
PCB-184	74472-48-3	ng/g	< 0.0013 U	< 0.0010 U	< 0.00024 U	< 0.00052 U	< 0.0085 U	< 0.00095 U	< 0.0018 U	< 0.00042 U	< 0.0032 U
PCB-186	74472-49-4	ng/g	< 0.0013 U	< 0.0010 U	< 0.00023 U	< 0.00051 U	< 0.0083 U	< 0.00093 U	< 0.0017 U	< 0.00040 U	< 0.0031 U
PCB-187	52663-68-0	ng/g	0.83	0.63	2.1	1.0	0.57	0.89	28	0.49	1.4
PCB-188	74487-85-7	ng/g	< 0.0011 U	< 0.00090 U	< 0.00022 U	< 0.00044 U	< 0.0076 U	< 0.00078 U	< 0.0016 U	< 0.00034 U	< 0.0023 U
PCB-189	39635-31-9	ng/g	0.019	0.016 J	0.056	0.019 JN	< 0.0092 U	0.019 JN	0.27	0.012	0.048
PCB-19	38444-73-4	ng/g	0.089 J	0.022 JN	0.021	0.095	0.050 JN	0.11	0.34	0.043	0.13
PCB-190	41411-64-7	ng/g	0.11	0.080	0.38	0.15	0.098	0.12	2.6	0.061	0.16 JN
PCB-191	74472-50-7	ng/g	0.025	0.019 J	0.098	0.034	0.017 JN	0.031	0.56	0.014 JN	0.040
PCB-192	74472-51-8	ng/g	< 0.0014 U	< 0.0011 U	< 0.00024 U	< 0.00054 U	< 0.0088 U	< 0.00098 U	< 0.0018 U	< 0.00043 U	< 0.0033 U
PCB-194	35694-08-7	ng/g	0.32	0.21	0.84	0.38	0.21	0.37	15	0.30	0.80
PCB-195	52663-78-2	ng/g	0.13	0.088	0.36	0.16	0.093	0.13	7.3	0.11 JN	0.38
PCB-196	42740-50-1	ng/g	0.16	0.10 JN	0.41	0.17	0.12	0.17	9.0	0.11	0.24
PCB-197	33091-17-7	ng/g	0.014	0.0070 JN	0.034	0.013 JN	0.019 J	0.013	0.76	0.0056 J	0.021
PCB-198/199	68194-17-2	ng/g	0.35	0.25	0.77	0.39	0.28	0.39	19	0.28	0.62
PCB-2	2051-61-8	ng/g	0.020	0.0099 J	0.010 J	0.015 JN	0.013 JN	0.015	0.014 JN	0.011	0.019

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S020	S021	S023	S024	S025	S026	S027	S028	S029
		Sample ID	PDI-SG-S020	PDI-SG-S021	PDI-SG-S023	PDI-SG-S024	PDI-SG-S025	PDI-SG-S026	PDI-SG-S027	PDI-SG-S028	PDI-SG-S029
		Sample Date	21 Jun 2018	10 May 2018	04 May 2018	10 May 2018	10 May 2018	10 May 2018	10 May 2018	09 May 2018	08 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	1.4 J	0.35	0.099	0.67	0.53	1.0	1.8	0.39	1.7
PCB-200	52663-73-7	ng/g	0.035	0.029 J	0.12	0.041	0.022 JN	0.043	2.5	0.028	0.074
PCB-201	40186-71-8	ng/g	0.037 JN	0.028 JN	0.11	0.045	0.023 JN	0.039	2.3	0.029	0.069
PCB-202	2136-99-4	ng/g	0.068	0.046 JN	0.13	0.081	0.060	0.076	3.1	0.057	0.18 JN
PCB-203	52663-76-0	ng/g	0.19	0.14 JN	0.50	0.25	0.15	0.24	10	0.17	0.37
PCB-204	74472-52-9	ng/g	< 0.0013 U	< 0.00082 U	< 0.00043 U	< 0.00068 U	< 0.0042 U	< 0.00092 U	< 0.0024 U	< 0.00025 U	< 0.0048 U
PCB-205	74472-53-0	ng/g	0.014	0.0094 JN	0.045	0.018	< 0.013 U	0.019	0.79	0.012 JN	0.043
PCB-206	40186-72-9	ng/g	0.14	0.11	0.22	0.23	0.22	0.29	6.1	0.22	0.49
PCB-207	52663-79-3	ng/g	0.014	0.014 J	0.023	0.023	< 0.015 U	0.031	0.93	0.020 JN	0.047 JN
PCB-208	52663-77-1	ng/g	0.047	0.035 J	0.041	0.070	0.070	0.092	1.2	0.064	0.13
PCB-209	2051-24-3	ng/g	0.16	0.090	0.065	0.16	0.17	0.40	0.37	0.14	0.25
PCB-21/33	55702-46-0	ng/g	0.56 J	0.17	0.037	0.28	0.24	0.46	1.7	0.18	0.73
PCB-22	38444-85-8	ng/g	0.35 J	0.094	0.032	0.18	0.17	0.31	0.39	0.13	0.52
PCB-23	55720-44-0	ng/g	< 0.0018 UJ	< 0.0035 U	< 0.00083 U	< 0.0014 U	< 0.0062 U	< 0.0018 U	< 0.0051 U	< 0.0014 U	< 0.0030 U
PCB-24	55702-45-9	ng/g	0.012 JN	< 0.0014 U	< 0.00027 U	0.0079 J	< 0.0029 U	0.013	0.012 JN	0.0054 JN	0.023
PCB-25	55712-37-3	ng/g	0.074 J	0.033 J	0.0097 J	0.057	0.053 J	0.074	0.52	0.030	0.13
PCB-26/29	38444-81-4	ng/g	0.15 J	0.053 J	0.017 J	0.11	0.10 J	0.15	0.21	0.060	0.24
PCB-27	38444-76-7	ng/g	0.061 J	0.014 J	0.0067 J	0.054	0.038 J	0.068	0.071 JN	0.029 JN	0.090
PCB-3	2051-62-9	ng/g	0.025	0.012 J	0.0051 JN	0.014	0.015 J	0.018	0.021 J	0.024	0.032
PCB-31	16606-02-3	ng/g	1.1 J	0.27	0.067	0.46	0.36	0.76	1.2	0.29	1.2
PCB-32	38444-77-8	ng/g	0.17 J	0.071	0.017	0.15	0.091	0.23	2.3	0.11	0.34
PCB-34	37680-68-5	ng/g	0.013 J	< 0.0036 U	< 0.00086 U	0.0022 JN	< 0.0064 U	< 0.0019 U	< 0.0053 U	< 0.0014 U	< 0.0031 U
PCB-35	37680-69-6	ng/g	0.012 J	< 0.0035 U	0.0025 J	0.0086 J	< 0.0062 U	0.013	< 0.0052 U	0.0068 J	0.028
PCB-36	38444-87-0	ng/g	< 0.0017 UJ	< 0.0034 U	< 0.00074 U	< 0.0013 U	< 0.0060 U	< 0.0017 U	< 0.0050 U	< 0.0013 U	< 0.0029 U
PCB-37	38444-90-5	ng/g	0.30	0.090	0.037	0.22	0.17	0.32	0.36	0.13	0.60
PCB-38	53555-66-1	ng/g	< 0.0018 UJ	< 0.0036 U	< 0.00080 U	< 0.0014 U	< 0.0064 U	< 0.0019 U	0.015 J	< 0.0014 U	< 0.0031 U
PCB-39	38444-88-1	ng/g	0.0096 J	< 0.0033 U	< 0.00073 U	0.0034 JN	< 0.0058 U	0.0052 J	< 0.0048 U	0.0025 JN	< 0.0028 U
PCB-4	13029-08-8	ng/g	0.18	0.031 JN	0.024	0.13	0.074 JN	0.17	0.25 JN	0.065 JN	0.18
PCB-40/41/71	38444-93-8	ng/g	0.78	0.23	0.067	0.39	0.25	0.54	6.8	0.23	1.2
PCB-42	36559-22-5	ng/g	0.39	0.13 JN	0.033	0.18	0.12	0.25	0.68	0.10	0.55
PCB-43/73	70362-46-8	ng/g	0.053	0.016 JN	0.0078 J	0.025	0.021 JN	0.029 JN	1.2	0.016 J	0.091
PCB-44/47/65	41464-39-5	ng/g	1.5	0.54	0.16	0.81	0.54	1.1	46	0.40	2.2
PCB-45/51	70362-45-7	ng/g	0.26	0.084 J	0.030	0.17	0.079 JN	0.19	37	0.082	0.39
PCB-46	41464-47-5	ng/g	0.084	0.026 JN	0.0056 JN	0.039	< 0.018 U	0.051	0.78	0.026	0.13
PCB-48	70362-47-9	ng/g	0.31	0.090	0.020	0.12	0.090	0.19	0.35	0.076	0.40
PCB-49/69	41464-40-8	ng/g	0.98	0.38	0.098	0.53	0.35	0.64	16	0.27	1.3
PCB-5	16605-91-7	ng/g	0.0098	< 0.014 U	< 0.00069 U	0.0046 JN	< 0.025 U	0.0068 JN	< 0.011 U	< 0.0053 U	0.0069 JN
PCB-50/53	62796-65-0	ng/g	0.20	0.075 J	0.024	0.12	0.077 J	0.14	12	0.071	0.29
PCB-52	35693-99-3	ng/g	1.7	0.68	0.19	1.0	0.72	1.5	4.7	0.60	3.2
PCB-54	15968-05-5	ng/g	0.0057 J	0.0031 JN	0.0049 JN	0.012	< 0.00027 U	0.011 J	5.6	0.0025 JN	0.0097 J
PCB-55	74338-24-2	ng/g	0.015 JN	< 0.0042 U	0.0015 JN	0.0087 J	< 0.010 U	0.011 JN	< 0.033 U	0.0062 JN	0.055
PCB-56	41464-43-1	ng/g	0.68	0.078	0.043	0.20	0.13 JN	0.24	0.26	0.10	0.56
PCB-57	70424-67-8	ng/g	0.0039 JN	< 0.0043 U	< 0.0013 U	0.0035 J	< 0.010 U	0.0037 JN	0.096	< 0.0018 U	< 0.0053 U
PCB-58	41464-49-7	ng/g	0.0088 J	0.0070 JN	< 0.0012 U	0.0060 J	< 0.011 U	0.0046 J	< 0.034 U	< 0.0019 U	0.011 JN
PCB-59/62/75	74472-33-6	ng/g	0.12	0.046 JN	0.012 J	0.061	0.046 JN	0.083	0.98	0.037 JN	0.22
PCB-6	25569-80-6	ng/g	0.087	0.025 JN	0.0062 J	0.055	0.047 JN	0.076	0.093 JN	0.033	0.096
PCB-60	33025-41-1	ng/g	0.23	0.11	0.018	0.071	0.057 JN	0.11	0.11	0.045	0.25
PCB-61/70/74/76	33284-53-6	ng/g	2.5	0.85	0.19	1.0	0.67	1.3	1.7	0.46	2.8
PCB-63	74472-34-7	ng/g	0.061	0.018 J	0.0042 J	0.021	< 0.0095 U	0.027	0.13	0.0098	0.054
PCB-64	52663-58-8	ng/g	0.59	0.19	0.051	0.26	0.19	0.40	0.53	0.16	0.89
PCB-66	32598-10-0	ng/g	1.5	0.51	0.12	0.58	0.37	0.64	2.2	0.24	1.5
PCB-67	73575-53-8	ng/g	0.035	0.0071 JN	0.0037 J	0.018	< 0.0090 U	0.026	0.13	0.0090 J	0.049
PCB-68	73575-52-7	ng/g	0.013 JN	0.010 JN	0.0018 JN	0.0098 JN	< 0.0092 U	< 0.0024 U	0.33	< 0.0016 U	< 0.0047 U
PCB-7	33284-50-3	ng/g	0.020 JN	< 0.013 U	0.0017 J	0.010 JN	< 0.023 U	0.016 JN	0.020 JN	0.0080 J	0.021 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S020	S021	S023	S024	S025	S026	S027	S028	S029
		Sample ID	PDI-SG-S020	PDI-SG-S021	PDI-SG-S023	PDI-SG-S024	PDI-SG-S025	PDI-SG-S026	PDI-SG-S027	PDI-SG-S028	PDI-SG-S029
		Sample Date	21 Jun 2018	10 May 2018	04 May 2018	10 May 2018	10 May 2018	10 May 2018	10 May 2018	09 May 2018	08 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.029	0.021 J	0.0024 J	0.015	< 0.010 U	0.012 JN	0.11	< 0.0018 U	< 0.0052 U
PCB-77	32598-13-3	ng/g	0.12	0.041 J	0.011	0.048	0.037 J	0.057	< 0.032 U	0.020	0.12
PCB-78	70362-49-1	ng/g	< 0.0028 U	< 0.0044 U	< 0.0012 U	< 0.0022 U	< 0.011 U	< 0.0027 U	< 0.034 U	< 0.0019 U	< 0.0053 U
PCB-79	41464-48-6	ng/g	0.018	0.011 JN	0.0022 J	0.011	< 0.0091 U	0.012 JN	< 0.029 U	0.0031 JN	0.029
PCB-8	34883-43-7	ng/g	0.35	0.071 J	0.024 J-	0.19	0.13 JN	0.33	0.45	0.16	0.43
PCB-80	33284-52-5	ng/g	< 0.0023 U	< 0.0037 U	< 0.0011 U	< 0.0019 U	< 0.0090 U	< 0.0023 U	< 0.029 U	< 0.0016 U	< 0.0045 U
PCB-81	70362-50-4	ng/g	< 0.0025 U	< 0.0035 U	< 0.0012 U	< 0.0020 U	< 0.0094 U	< 0.0025 U	< 0.030 U	< 0.0017 U	< 0.0047 U
PCB-82	52663-62-4	ng/g	0.23	0.14	0.039	0.18	0.096 JN	0.23	0.25 JN	0.091	0.42
PCB-83/99	60145-20-2	ng/g	1.3	0.84	0.23	0.98	0.66	1.2	15	0.43	2.0
PCB-84	52663-60-2	ng/g	0.48	0.33	0.069	0.41	0.24 JN	0.53	0.84	0.20	1.0
PCB-85/116/117	65510-45-4	ng/g	0.33	0.19	0.052	0.26	0.17 JN	0.33	1.0	0.12	0.56
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.1	0.72	0.24	1.0	0.71	1.4	6.0	0.49	2.4
PCB-88/91	55215-17-3	ng/g	0.31	0.23	0.053	0.25	0.18	0.29	5.0	0.11	0.53
PCB-89	73575-57-2	ng/g	0.028	< 0.0013 U	< 0.00053 U	< 0.00058 U	0.018 JN	0.019	< 0.0015 U	0.0082 J	0.036
PCB-9	34883-39-1	ng/g	0.028	< 0.013 U	0.0020 JN	0.015 JN	< 0.023 U	0.022	0.031 J	0.0093 JN	0.026 JN
PCB-90/101/113	68194-07-0	ng/g	1.9	1.3	0.96	1.7	1.2	2.1	14	0.81	3.9
PCB-92	52663-61-3	ng/g	0.41	0.10	0.13	0.32	0.21 JN	0.38	3.4	0.14	0.70
PCB-93/100	73575-56-1	ng/g	0.035 JN	0.037 J	0.015 JN	0.032 JN	0.045 J	0.043 JN	13	0.014 JN	0.14
PCB-94	73575-55-0	ng/g	0.011 JN	< 0.0013 U	0.0043 J	0.0094 JN	0.015 J	< 0.00058 U	2.2	< 0.00048 U	< 0.0019 U
PCB-95	38379-99-6	ng/g	1.5	1.1	0.57	1.5	0.87 JN	1.9	3.3	0.71	3.6
PCB-96	73575-54-9	ng/g	0.020 JN	< 0.0010 U	0.0035 J	0.013	< 0.0021 U	0.015	1.2	0.0082 J	0.026 JN
PCB-98/102	60233-25-2	ng/g	0.078	0.037 JN	0.015 J	0.048 JN	0.035 JN	0.068	6.1	0.023 JN	0.14
Total PCBs (b)	T_PCBCg (PDI)	ng/g	48	28	38	42	26	49	562	21	96
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.94	2.3	< 1.2 UJ	0.68	0.65	0.59	0.63	< 0.30 U	< 1.1 U
2,4-DDE	3424-82-6	µg/kg	< 0.35 U	0.29 J	< 1.2 UJ	< 0.45 U	< 0.45 U	< 0.47 U	< 0.44 U	< 0.30 U	< 1.1 U
2,4-DDT	789-02-6	µg/kg	0.47	< 0.32 U	< 1.2 UJ	< 0.45 U	< 0.45 U	< 0.47 U	< 0.44 U	< 0.30 U	< 1.1 U
4,4'-DDD	72-54-8	µg/kg	2.5	4.6	0.99 J	2.0	1.7	1.6	1.5	0.46	1.3
4,4'-DDE	72-55-9	µg/kg	6.2	4.4	2.5 J	3.8	3.2	3.1	3.1	0.60	2.6
4,4'-DDT	50-29-3	µg/kg	1.0	0.34	0.60 J	0.40 J	0.30 J	0.42 J	0.60	0.28 J	0.59 J
DDx (b)	T_DDx (PDI)	µg/kg	11.3	12.1	4.7	7.1	6.1	5.9	6.1	1.5	5.0
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	94	32	2.9	7.9	6.2	2.6	3.6	1.4	12
Acenaphthene	83-32-9	µg/kg	180	44	3.2	6.6	2.8	3.0	4.1	1.9	6.2
Acenaphthylene	208-96-8	µg/kg	23	28	4.4	5.3	3.4	4.2	4.9	1.8	7.8
Anthracene	120-12-7	µg/kg	160	40	10	13	11	9.8	11	5.2	20
Benz(a)anthracene	56-55-3	µg/kg	180	200	34	46	35	38	44	22	62
Benzo(a)pyrene	50-32-8	µg/kg	140	300	46	63	42	47	64	25	86
Benzo(b)fluoranthene	205-99-2	µg/kg	190	270	51	79	51	64	78	32	120
Benzo(g,h,i)perylene	191-24-2	µg/kg	92	230	37	55	36	44	59	21	64
Benzo(k)fluoranthene	207-08-9	µg/kg	48	90	16	26	16	21	26	11	40
Chrysene	218-01-9	µg/kg	210	260	56	66	50	67	66	28	92
Dibenz(a,h)anthracene	53-70-3	µg/kg	14	34	6.7	11	6.6	8.2	11	3.9	12
Fluoranthene	206-44-0	µg/kg	540	430	71	85	65	91	82	42	110
Fluorene	86-73-7	µg/kg	170	22	4.6	5.9	4.2	4.0	4.3	2.6	11
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	100	220	36	53	34	41	55	20	60
Naphthalene	91-20-3	µg/kg	150	76	7.0	22	8.4	5.3	6.8	4.3	23
Phenanthrene	85-01-8	µg/kg	690	220	29	41	28	28	32	20	78
Pyrene	129-00-0	µg/kg	550	590	84	100	81	110	100	54	140
Total PAHs (b)	T_PAH (PDI)	µg/kg	3531	3086	499	686	481	588	652	296	944
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	202	404	65	92	61	70	93	36	123
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	52.8 55.5	56.8	43.1	43.2	43.5	41.9	43.0	66.9	42.8
Total Solids@104C - E160.3M (f)	TSOLID	%	53.5	61.3	40.1	43.8	44.3	42.1	44.4	65.7	43.9
Total Solids@70C	TSOLID70	%	53	56	40	45	44	43	45	66	43
Gravel	GS-Gravel	%	0	6.4	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	1.0	5.2	0	0.2	0	0	0	0.1	0

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S020	S021	S023	S024	S025	S026	S027	S028	S029
		Sample ID	PDI-SG-S020	PDI-SG-S021	PDI-SG-S023	PDI-SG-S024	PDI-SG-S025	PDI-SG-S026	PDI-SG-S027	PDI-SG-S028	PDI-SG-S029
		Sample Date	21 Jun 2018	10 May 2018	04 May 2018	10 May 2018	10 May 2018	10 May 2018	10 May 2018	09 May 2018	08 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	5.7	13.3	0.1	4.1	5.3	3.4	5.7	6.5	0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	36.56	37.19	12.04	24.14	28.33	25.16	31.68	72.98	26.78
Sand, Fine (#230) (d)	GS-Fsand	%	40.3	39.6	13.3	25.2	29.2	26.1	33.0	75.1	29.5
Silt (#200) (d)	GS-Silt-200	%	48.63	31.20	74.45	51.55	52.16	50.93	43.91	16.11	57.51
Silt (#230) (d)	GS-Silt	%	44.9	28.8	73.2	50.5	51.3	50.0	42.6	14.0	54.8
Clay	GS-Clay	%	8.1	6.6	13.4	20.0	14.2	20.5	18.7	4.4	15.2
Percent Fines (e)	GS-FINES	%	56.73	37.8	87.85	71.55	66.36	71.43	62.61	20.51	72.71
Total Organic Carbon	TOC	mg/kg	26000	14000	25000	19000	17000	20000	16000	6800	17000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S030	S031	S031	S032	S035	S037	S037	S038	S039
		Sample ID	PDI-SG-S030	PDI-SG-S031	PDI-SG-S031-D	PDI-SG-S032	PDI-SG-S035	PDI-SG-S037	PDI-SG-S037-D	PDI-SG-S038	PDI-SG-S039
		Sample Date	08 May 2018	08 May 2018	08 May 2018	08 May 2018	04 May 2018	02 May 2018	02 May 2018	02 May 2018	02 May 2018
		Sample Type Code	N	N	FD	N	N	N	FD	N	N
		Depth	0-23 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm	0-25 cm	0-25 cm	0-24 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	1.1	0.22	0.22	0.021	0.13	0.038	0.043	0.028	0.051
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.058 JN	0.035	0.036	0.0039 JN	0.014 JN	0.0080	0.0092	0.0047 JN	0.030
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0029 J	0.0023 J	0.0023 J	0.00025 J	0.0011 J+	0.00056 J+	0.00057 J+	< 0.00031 U	< 0.00026 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0042 J	0.0021 J	0.0022 J	0.00030 JN	0.00092 J+	0.00042 J+	0.00053 J+	0.00035 J+	0.00060 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0045 J	0.0048 J	0.0053 J	0.00033 JN	0.0020 J	0.0014 J	0.0016 J	0.00093 J	0.0016 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.022	0.0073	0.0076	0.0010 J	0.0033 J	0.0013 J	0.0015 J	0.0011 J	< 0.000073 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0029 J	0.0022 J	0.0022 J	0.00023 J	0.00085 J	0.00069 J+	0.00069 J+	< 0.00015 U	0.0021 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.011	0.0059 J	0.0060 J	0.00062 J	0.0023 J	0.00085 J+	0.00092 J+	0.00066 JN	0.0013 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00030 J	0.00023 J	0.00023 JN	0.000091 J	< 0.00056 U	< 0.00019 U	< 0.00017 U	< 0.00029 U	< 0.00020 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0022 J	0.0011 JN	0.0014 J	0.00016 J	< 0.00015 U	0.00036 J	0.00024 JN	0.00025 JN	0.00051 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0019 J	0.0016 J	0.0018 J	0.00013 JN	0.00096 JN	0.00079 J	0.00090 J	0.00031 J+	0.00065 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0022 J	0.0014 J	0.0015 J	0.00014 JN	0.00047 J	< 0.00011 U	0.00031 J+	< 0.000095 U	0.00086 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0024 J	0.0017 J	0.0018 J	0.00020 JN	0.00084 J	0.00044 J+	0.00047 J+	0.00030 J+	0.00078 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00061 J	0.00031 JN	0.00047 JN	< 0.000055 U	0.00027 JN	0.00016 JN	< 0.000058 U	0.00018 JN	< 0.000067 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0034	0.0026	0.0027	0.00032 J+	0.0014	0.0011	0.00088 J	0.00031 JN	0.0012
OCDD	3268-87-9	µg/kg	7.3	1.8	1.8	0.19	0.92	0.30	0.36	0.22	0.50
OCDF	39001-02-0	µg/kg	0.16	0.13	0.13	0.010	0.046	0.016	0.018	0.0083 J	0.032
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.022	0.0078	0.0084	0.00087	0.0035	0.0018	0.0017	0.0013	0.0025
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.022	0.0069	0.0081	0.00073	0.0033	0.0017	0.0016	0.00086	0.0025
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.022	0.0064	0.0079	0.0007	0.0031	0.0017	0.0015	0.00073	0.0025
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.089	0.18	0.24	0.059	0.078	< 0.00075 U	< 0.00075 U	< 0.00092 U	< 0.0021 U
PCB-10	33146-45-1	ng/g	0.021 JN	0.085	0.082	< 0.0029 U	0.0026 JN	< 0.0073 U	< 0.0041 U	< 0.0033 U	< 0.0085 U
PCB-103	60145-21-3	ng/g	< 0.0019 U	0.19	0.18	< 0.00011 U	0.11	0.0074 JN	0.0069 J	< 0.00056 U	0.030 JN
PCB-104	56558-16-8	ng/g	< 0.0014 U	< 0.00036 U	< 0.0018 U	< 0.000084 U	< 0.00080 U	< 0.00054 U	< 0.00059 U	< 0.00043 U	< 0.00075 U
PCB-105	32598-14-4	ng/g	3.8	12	12	0.97	2.3	0.15	0.16	0.067 J	0.18
PCB-106	70424-69-0	ng/g	< 0.013 U	< 0.023 U	< 0.024 U	< 0.0027 U	< 0.019 U	< 0.0023 U	< 0.0025 U	< 0.0031 U	< 0.0056 U
PCB-107	70424-68-9	ng/g	0.76 JN	2.9	2.4	0.19	0.62	0.044	0.047	0.015 JN	0.063 JN
PCB-108/124	70362-41-3	ng/g	0.41	1.4	1.4	0.11	0.31	0.015 JN	0.020	0.0099 J	0.018 JN
PCB-11	2050-67-1	ng/g	0.075 J	0.23	0.24	0.0085 J	0.13	0.033 JN	0.033 JN	0.025 JN	0.031 JN
PCB-110/115	38380-03-9	ng/g	16	22	22	4.1	7.0	0.56	0.61	0.24	0.96
PCB-111	39635-32-0	ng/g	< 0.0013 U	< 0.00033 U	< 0.0016 U	< 0.000077 U	< 0.00072 U	< 0.00050 U	< 0.00055 U	< 0.00040 U	< 0.00070 U
PCB-112	74472-36-9	ng/g	< 0.0014 U	0.056	0.061	0.015 JN	< 0.00078 U	< 0.00052 U	< 0.00058 U	< 0.00042 U	< 0.00073 U
PCB-114	74472-37-0	ng/g	0.22	0.62	0.63	0.064	0.15	0.0050 JN	0.0060 JN	< 0.0029 U	< 0.0057 U
PCB-118	31508-00-6	ng/g	9.5	29	31	2.5	6.1	0.47	0.48	0.21	0.62
PCB-12/13	2974-92-7	ng/g	0.12	0.41	0.43	0.0070 J	0.019	< 0.0066 U	< 0.0037 U	< 0.0030 U	< 0.0077 U
PCB-120	68194-12-7	ng/g	< 0.0013 U	< 0.00033 U	< 0.0017 U	< 0.000079 U	0.045	0.0056 J	0.0039 J	< 0.00040 U	0.014 JN
PCB-121	56558-18-0	ng/g	< 0.0014 U	< 0.00034 U	< 0.0017 U	< 0.000081 U	< 0.00077 U	< 0.00052 U	< 0.00057 U	< 0.00041 U	< 0.00073 U
PCB-122	76842-07-4	ng/g	0.19	0.43	0.47 JN	0.053	0.13	0.0049 JN	0.0056 JN	< 0.0035 U	< 0.0064 U
PCB-123	65510-44-3	ng/g	0.18 JN	0.50	0.53	0.044	0.10	0.0047 JN	0.0065 J	< 0.0031 U	< 0.0055 U
PCB-126	57465-28-8	ng/g	< 0.014 U	0.076	< 0.030 U	< 0.0031 U	0.059	< 0.0025 U	< 0.0029 U	< 0.0033 U	< 0.0056 U
PCB-127	39635-33-1	ng/g	< 0.013 U	< 0.023 U	< 0.024 U	0.0085 J	< 0.018 U	< 0.0023 U	< 0.0025 U	< 0.0030 U	< 0.0055 U
PCB-128/166	38380-07-3	ng/g	3.2	7.1	7.5	0.64	1.8	0.11	0.11	0.057 J	0.19 J
PCB-129/138/160/163	55215-18-4	ng/g	23	45	47	3.7	11	0.80	0.85	0.39	1.4
PCB-130	52663-66-8	ng/g	1.2	3.0	3.1	0.25	0.83	0.049	0.053	0.021 JN	0.064 JN
PCB-131	61798-70-7	ng/g	< 0.052 U	0.72	0.67	0.062	0.21	0.0099 J	< 0.0076 U	< 0.010 U	< 0.015 U
PCB-132	38380-05-1	ng/g	7.5	16	17	1.3	4.8	0.24	0.27	0.11	0.42
PCB-133	35694-04-3	ng/g	< 0.048 U	0.56	0.58	0.042	0.22	0.014	0.021	< 0.0092 U	0.034 JN
PCB-134/143	52704-70-8	ng/g	1.2	2.9	3.0	0.22	0.89	0.029	0.039	< 0.0096 U	0.055 JN
PCB-135/151	52744-13-5	ng/g	7.4	7.6	7.9	0.83	3.0	0.21	0.19	0.066 J	0.51
PCB-136	38411-22-2	ng/g	2.5	4.0	4.1	0.37	1.4	0.069	0.078	0.025 J	0.21
PCB-137	35694-06-5	ng/g	0.79	2.1 JN	2.5	0.21	0.50	0.030	0.032	0.023 J	0.042 J
PCB-139/140	56030-56-9	ng/g	0.30 JN	0.86	0.86	0.069 JN	0.26	0.013 JN	0.015 JN	< 0.0082 U	0.030 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S030	S031	S031	S032	S035	S037	S037	S038	S039
		Sample ID	PDI-SG-S030	PDI-SG-S031	PDI-SG-S031-D	PDI-SG-S032	PDI-SG-S035	PDI-SG-S037	PDI-SG-S037-D	PDI-SG-S038	PDI-SG-S039
		Sample Date	08 May 2018	08 May 2018	08 May 2018	08 May 2018	04 May 2018	02 May 2018	02 May 2018	02 May 2018	02 May 2018
		Sample Type Code	N	N	FD	N	N	N	FD	N	N
		Depth	0-23 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm	0-25 cm	0-25 cm	0-24 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.013 U	< 0.0019 U	< 0.0025 U	< 0.0022 U	< 0.00062 U	< 0.0056 U	< 0.0032 U	< 0.0025 U	< 0.0065 U
PCB-141	52712-04-6	ng/g	5.0	8.1	8.6	0.63	1.8	0.14	0.16	0.048 J	0.20 JN
PCB-142	41411-61-4	ng/g	< 0.047 U	< 0.061 U	< 0.055 U	< 0.0036 U	< 0.0054 U	< 0.0051 U	< 0.0068 U	< 0.0091 U	< 0.014 U
PCB-144	68194-14-9	ng/g	0.92	1.1	1.1	0.13	0.37	0.019	0.012 JN	0.0078 J	0.035 JN
PCB-145	74472-40-5	ng/g	< 0.0014 U	0.013 JN	< 0.0028 U	0.0042 JN	< 0.0020 U	< 0.00078 U	< 0.00090 U	< 0.00047 U	< 0.0010 U
PCB-146	51908-16-8	ng/g	3.2	5.7	6.1	0.44	1.6	0.15	0.16	0.049 J	0.40
PCB-147/149	68194-13-8	ng/g	21	35	40	2.7	9.4	0.66	0.77	0.25	1.6
PCB-148	74472-41-6	ng/g	0.017 JN	0.025	0.032	0.0031 J	0.031	< 0.0011 U	< 0.0013 U	< 0.00066 U	0.010 JN
PCB-15	2050-68-2	ng/g	1.1	3.9	4.0	0.045	0.076	0.017 JN	0.019 JN	0.013 JN	0.011 JN
PCB-150	68194-08-1	ng/g	0.027 J	0.032 JN	0.033	0.0023 J	0.029	< 0.00074 U	< 0.00086 U	< 0.00045 U	0.014 JN
PCB-152	68194-09-2	ng/g	0.012 JN	0.019 JN	0.030 JN	0.0019 JN	0.013 JN	< 0.00080 U	< 0.00092 U	< 0.00048 U	< 0.0011 U
PCB-153/168	35065-27-1	ng/g	19	31	33	2.4	7.5	0.71	0.74	0.26	1.5
PCB-154	60145-22-4	ng/g	0.21	0.21	0.22	0.025 JN	0.21	0.016	0.012	0.0035 JN	0.072 JN
PCB-155	33979-03-2	ng/g	< 0.0014 U	< 0.00023 U	< 0.0027 U	< 0.00017 U	< 0.0018 U	< 0.00075 U	< 0.00086 U	< 0.00045 U	< 0.00098 U
PCB-156/157	38380-08-4	ng/g	2.1	5.4	5.4	0.45	1.1	0.067	0.066	0.031 JN	0.12 J
PCB-158	74472-42-7	ng/g	2.2	4.9	5.0	0.42	1.1	0.066	0.066	0.032 J	0.10
PCB-159	39635-35-3	ng/g	0.24	0.17 JN	< 0.036 U	0.016	< 0.0034 U	0.0070 JN	< 0.0046 U	< 0.0061 U	< 0.0093 U
PCB-16	38444-78-9	ng/g	0.89	2.6	2.4	0.036	0.065	0.012 JN	0.012 JN	0.015 J	< 0.0012 UJ
PCB-161	74472-43-8	ng/g	< 0.031 U	< 0.040 U	< 0.036 U	< 0.0024 U	< 0.0035 U	< 0.0034 U	< 0.0045 U	< 0.0061 U	< 0.0092 U
PCB-162	39635-34-2	ng/g	< 0.031 U	0.16 JN	< 0.036 UJ	0.0043 J	< 0.0033 U	< 0.0034 U	< 0.0045 U	< 0.0060 U	< 0.0091 U
PCB-164	74472-45-0	ng/g	1.5	3.1	3.3	0.25	0.80	0.048 JN	0.054	0.025 J	0.093 JN
PCB-165	74472-46-1	ng/g	< 0.036 U	< 0.046 U	< 0.041 U	< 0.0028 U	< 0.0040 U	< 0.0039 U	< 0.0052 U	< 0.0069 U	< 0.010 U
PCB-167	52663-72-6	ng/g	0.68	1.6	1.6	0.13	0.36	0.021	0.019 JN	0.014 J	0.034 J
PCB-169	32774-16-6	ng/g	< 0.026 U	0.17 JN	< 0.034 UJ	< 0.0020 U	< 0.0027 U	< 0.0024 U	< 0.0042 U	< 0.0041 U	0.020 J
PCB-17	37680-66-3	ng/g	1.0	3.1	2.9	0.043	0.093	0.021 JN	0.018 JN	0.016 J	0.018 J
PCB-170	35065-30-6	ng/g	7.4	8.1	8.4	0.54	1.9	0.14	0.14	0.041 JN	0.32
PCB-171/173	52663-71-5	ng/g	2.2	2.3	2.3	0.16	0.52	0.041	0.040	0.013 JN	0.098 J
PCB-172	52663-74-8	ng/g	1.3	1.1	1.2	0.074	0.28	0.017 JN	0.020	0.0078 JN	0.044 J
PCB-174	38411-25-5	ng/g	8.4	7.4	7.2	0.45	1.6	0.14	0.14	0.038 J	0.31
PCB-175	40186-70-7	ng/g	0.30	0.29	0.29	0.015 JN	0.068	< 0.0034 U	0.0070 JN	< 0.0019 U	0.019 JN
PCB-176	52663-65-7	ng/g	1.0	0.90	0.91	0.058	0.22	0.020	0.019	0.0047 JN	0.044 J
PCB-177	52663-70-4	ng/g	4.4	4.0	4.0	0.26	1.0	0.079	0.080	0.027 J	0.20
PCB-178	52663-67-9	ng/g	1.6	1.4	1.4	0.086	0.34	0.037	0.037	0.0086 JN	0.092 JN
PCB-179	52663-64-6	ng/g	3.7	3.1	3.3	0.18	0.66	0.076	0.072	0.017 JN	0.21
PCB-18/30	37680-65-2	ng/g	2.2	6.9	6.7	0.091	0.14	0.034 J	0.045 J	0.028 JN	0.024 JN
PCB-180/193	35065-29-3	ng/g	17	15	14	0.92	3.0	0.27	0.24	0.083 J	0.72
PCB-181	74472-47-2	ng/g	< 0.0048 U	< 0.00049 UJ	0.085 JN	0.0091 JN	0.023	< 0.0034 U	< 0.0026 U	< 0.0019 U	< 0.0046 U
PCB-182	60145-23-5	ng/g	0.12	< 0.00047 UJ	0.034 J	0.0058 J	0.021	< 0.0033 U	< 0.0025 U	< 0.0018 U	< 0.0044 U
PCB-183/185	52663-69-1	ng/g	5.9	5.1	4.9	0.31	0.99	0.11	0.080 JN	0.025 JN	0.24
PCB-184	74472-48-3	ng/g	< 0.0039 U	< 0.00040 U	< 0.0057 U	< 0.00029 U	< 0.0013 U	< 0.0028 U	< 0.0022 U	< 0.0015 U	< 0.0038 U
PCB-186	74472-49-4	ng/g	< 0.0038 U	< 0.00039 U	< 0.0055 U	< 0.00029 U	< 0.0013 U	< 0.0027 U	< 0.0021 U	< 0.0015 U	< 0.0037 U
PCB-187	52663-68-0	ng/g	10	8.4	8.4	0.50	1.7	0.18	0.18	0.054 JN	0.52
PCB-188	74487-85-7	ng/g	< 0.0032 U	< 0.00033 U	< 0.0044 U	< 0.00024 U	< 0.0011 U	< 0.0022 U	< 0.0016 U	< 0.0012 U	< 0.0031 U
PCB-189	39635-31-9	ng/g	0.22	0.29	0.32	0.019	0.082	< 0.0041 U	< 0.0039 U	< 0.0039 U	0.013 J
PCB-19	38444-73-4	ng/g	0.31	1.1	1.0	0.014	0.051	0.015 J	0.016 J	0.0069 JN	< 0.0013 UJ
PCB-190	41411-64-7	ng/g	1.2	1.3	1.1	0.086	0.27	0.022	0.017	0.0094 J	0.053 JN
PCB-191	74472-50-7	ng/g	0.30	0.28	0.27	0.022	0.077	< 0.0026 U	< 0.0020 U	< 0.0014 U	0.012 J
PCB-192	74472-51-8	ng/g	< 0.0040 U	< 0.00041 U	< 0.0058 U	< 0.00030 U	< 0.0013 U	< 0.0029 U	< 0.0022 U	< 0.0016 U	< 0.0039 U
PCB-194	35694-08-7	ng/g	4.9	4.4	4.2	0.18	0.76	0.061	0.061	0.027 J	0.21
PCB-195	52663-78-2	ng/g	2.1	1.6	1.7	0.079	0.32	0.023 JN	0.024	< 0.0074 U	< 0.013 U
PCB-196	42740-50-1	ng/g	1.9	1.8	1.6	0.072	0.26	0.026	0.020	0.013 JN	0.12
PCB-197	33091-17-7	ng/g	0.15	0.091	0.11	0.0060 J	0.021	0.0031 J	< 0.0023 U	0.0075 JN	0.0098 J
PCB-198/199	68194-17-2	ng/g	4.4	4.2	3.8	0.18	0.64	0.053 JN	0.051 JN	0.031 J	0.31
PCB-2	2051-61-8	ng/g	0.024 JN	0.086	0.091	0.0018 J	0.037	0.0055 JN	0.0075 J	0.0060 JN	< 0.0022 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S030	S031	S031	S032	S035	S037	S037	S038	S039
		Sample ID	PDI-SG-S030	PDI-SG-S031	PDI-SG-S031-D	PDI-SG-S032	PDI-SG-S035	PDI-SG-S037	PDI-SG-S037-D	PDI-SG-S038	PDI-SG-S039
		Sample Date	08 May 2018	08 May 2018	08 May 2018	08 May 2018	04 May 2018	02 May 2018	02 May 2018	02 May 2018	02 May 2018
		Sample Type Code	N	N	FD	N	N	N	FD	N	N
		Depth	0-23 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm	0-25 cm	0-25 cm	0-24 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	4.0	15	15	0.16	0.50	0.070 J	0.088 J	0.052 J	0.073 J
PCB-200	52663-73-7	ng/g	0.48	0.43	0.42	0.018	0.067	0.0053 JN	< 0.0020 U	0.0021 JN	0.031 J
PCB-201	40186-71-8	ng/g	0.52	0.46	0.45	0.018 JN	0.076	0.0080 J	0.033 JN	0.0023 J	0.026 JN
PCB-202	2136-99-4	ng/g	0.82	0.82	0.95	0.035	0.15	0.014 JN	0.014	0.0069 JN	0.067 J
PCB-203	52663-76-0	ng/g	2.5	2.6	2.3	0.11	0.34	0.038	0.024 JN	0.017 JN	0.13 JN
PCB-204	74472-52-9	ng/g	< 0.0066 U	< 0.00027 U	< 0.0066 U	< 0.00026 U	< 0.0014 U	< 0.0021 U	< 0.0023 U	< 0.00071 U	< 0.0024 U
PCB-205	74472-53-0	ng/g	0.23	0.21	0.20	0.0092 J	0.033	< 0.0069 U	< 0.0091 U	< 0.0057 U	< 0.010 U
PCB-206	40186-72-9	ng/g	1.9	2.7	2.6	0.082	2.6 JN	0.068 JN	0.061	0.073 J	0.62
PCB-207	52663-79-3	ng/g	0.24	0.29	0.27	0.0080 JN	0.041	< 0.0030 U	< 0.0033 U	< 0.0034 U	0.029 JN
PCB-208	52663-77-1	ng/g	0.44	0.67	0.71	0.022	0.10	0.029	0.023	0.029 J	0.25
PCB-209	2051-24-3	ng/g	0.52	1.7	1.8	0.027	0.14	0.082	0.070	0.093 J	1.1
PCB-21/33	55702-46-0	ng/g	1.8	5.5	5.7	0.089	0.25	0.028 J	0.033 J	0.024 J	0.028 JN
PCB-22	38444-85-8	ng/g	1.3	4.1	4.1	0.044	0.10	0.021 J	0.023 J	0.019 J	0.017 J
PCB-23	55720-44-0	ng/g	< 0.0092 U	< 0.016 U	< 0.014 U	< 0.0012 U	< 0.0033 U	< 0.0019 UJ	< 0.0016 UJ	< 0.0018 UJ	< 0.0036 UJ
PCB-24	55702-45-9	ng/g	0.053 JN	0.17	0.16	0.0016 JN	< 0.00064 U	0.0011 JN	< 0.00072 UJ	0.0048 JN	< 0.00088 UJ
PCB-25	55712-37-3	ng/g	0.28	1.0	1.1	0.014	0.052	0.0041 JN	0.0065 JN	0.0052 J	0.0083 JN
PCB-26/29	38444-81-4	ng/g	0.52	2.1	2.2	0.024	0.076	0.013 J	0.016 J	0.0084 J	0.020 J
PCB-27	38444-76-7	ng/g	0.23	0.84	0.81	0.0097	0.019	0.0042 J	0.0055 J	< 0.00051 UJ	0.0033 JN
PCB-3	2051-62-9	ng/g	0.056 JN	0.18	0.19	0.0063 J	0.052	< 0.00096 U	< 0.00073 U	< 0.0011 U	< 0.0023 U
PCB-31	16606-02-3	ng/g	2.8	11	11	0.12	0.29	0.055 J	0.071 J	0.042 J	0.057 J
PCB-32	38444-77-8	ng/g	0.96	1.7	1.6	0.035	0.10	0.0080 J	0.0058 JN	0.0042 J	0.0031 JN
PCB-34	37680-68-5	ng/g	< 0.0095 U	< 0.017 U	< 0.015 U	< 0.0012 U	< 0.0034 U	< 0.0020 UJ	< 0.0017 UJ	< 0.0019 UJ	< 0.0038 UJ
PCB-35	37680-69-6	ng/g	< 0.0093 U	0.19	0.20	0.0024 JN	0.016	< 0.0019 UJ	< 0.0016 UJ	< 0.0018 UJ	< 0.0037 UJ
PCB-36	38444-87-0	ng/g	< 0.0089 U	< 0.016 U	< 0.014 U	< 0.0012 U	< 0.0029 U	< 0.0019 UJ	< 0.0016 UJ	< 0.0017 UJ	< 0.0035 UJ
PCB-37	38444-90-5	ng/g	1.4	4.5	4.5	0.061	0.12	0.023	0.027	0.019 J	0.024 J
PCB-38	53555-66-1	ng/g	< 0.0096 U	< 0.017 U	< 0.015 U	< 0.0012 U	< 0.0032 U	< 0.0020 UJ	< 0.0017 UJ	< 0.0019 UJ	< 0.0038 UJ
PCB-39	38444-88-1	ng/g	< 0.0086 U	< 0.015 U	< 0.014 U	0.0011 JN	0.0065 J	< 0.0018 UJ	< 0.0015 UJ	< 0.0017 UJ	< 0.0034 UJ
PCB-4	13029-08-8	ng/g	0.54	1.1	1.1	0.024 JN	0.057	0.011 JN	0.010 JN	< 0.0037 U	< 0.010 U
PCB-40/41/71	38444-93-8	ng/g	2.0	15	15	0.17	0.59	0.045 J	0.066 J	0.024 J	0.051 J
PCB-42	36559-22-5	ng/g	0.90	7.2	7.3	0.083	0.35	0.022 J	0.035 J	0.013 J	0.032 J
PCB-43/73	70362-46-8	ng/g	< 0.027 U	0.98	1.0	0.019	0.11	0.0061 J	< 0.0024 UJ	< 0.0034 U	< 0.0056 UJ
PCB-44/47/65	41464-39-5	ng/g	3.9	27	28	0.60	2.4	0.12 J	0.19 J	0.17 J	0.24 J
PCB-45/51	70362-45-7	ng/g	0.58 JN	5.8	5.8	0.045	0.32	0.016 J	0.017 JN	0.013 JN	< 0.0063 UJ
PCB-46	41464-47-5	ng/g	0.13 JN	1.9	1.9	0.0064 JN	0.081	< 0.0034 UJ	< 0.0032 UJ	< 0.0045 U	< 0.0076 UJ
PCB-48	70362-47-9	ng/g	0.62	5.4	5.5	0.044	0.13	0.013 J	0.020 J	0.0090 JN	< 0.0060 UJ
PCB-49/69	41464-40-8	ng/g	2.2	18	18	0.36	1.6	0.089 J	0.12 J	0.042 J	0.21 J
PCB-5	16605-91-7	ng/g	< 0.017 U	0.066	0.056 JN	< 0.0029 U	0.0031 JN	< 0.0074 U	< 0.0042 U	< 0.0033 U	< 0.0086 U
PCB-50/53	62796-65-0	ng/g	0.52	4.1	4.3	0.052	0.35	0.016 J	0.022 J	< 0.0035 U	0.011 J
PCB-52	35693-99-3	ng/g	5.9	45	47	1.5	4.9	0.20 J	0.32 J	0.090 J	0.34 J
PCB-54	15968-05-5	ng/g	0.010 JN	0.058	0.056	0.00035 JN	0.020	0.0021 J	< 0.00039 UJ	< 0.00020 U	< 0.00042 UJ
PCB-55	74338-24-2	ng/g	0.16	0.21	0.21	0.017 JN	< 0.0027 U	0.0020 JN	< 0.0018 UJ	0.057 J	< 0.0044 UJ
PCB-56	41464-43-1	ng/g	1.2	5.8	5.7	0.16	0.39	0.039 J	0.055 J	0.022 J	0.067 J
PCB-57	70424-67-8	ng/g	< 0.021 U	< 0.075 U	< 0.077 U	< 0.0029 U	< 0.0028 U	< 0.0020 UJ	< 0.0019 UJ	< 0.0026 U	< 0.0044 UJ
PCB-58	41464-49-7	ng/g	0.089	< 0.076 U	< 0.078 U	< 0.0030 U	< 0.0027 U	< 0.0020 UJ	0.0026 JN	< 0.0027 U	< 0.0045 UJ
PCB-59/62/75	74472-33-6	ng/g	0.35	2.7	2.7	0.029	0.12	0.0046 JN	0.011 J	< 0.0025 U	< 0.0042 UJ
PCB-6	25569-80-6	ng/g	0.27	0.71	0.70	0.015	0.035	< 0.0065 U	0.0057 JN	< 0.0029 U	< 0.0076 U
PCB-60	33025-41-1	ng/g	0.59	2.4	2.4	0.060	0.10	0.014 J	0.023 J	< 0.0027 U	0.017 J
PCB-61/70/74/76	33284-53-6	ng/g	5.7	29	29	1.2	3.0	0.24 J	0.33 J	0.12 J	0.37 J
PCB-63	74472-34-7	ng/g	0.047 JN	0.53	0.51	0.012	0.042 JN	< 0.0018 UJ	0.0053 J	< 0.0024 U	< 0.0041 UJ
PCB-64	52663-58-8	ng/g	1.6	11	11	0.19	0.52	0.041 J	0.059 J	0.019 JN	0.048 J
PCB-66	32598-10-0	ng/g	3.1	14	14	0.43	1.3	0.13 J	0.15 J	< 0.0025 U	0.15 J
PCB-67	73575-53-8	ng/g	0.083	0.57	0.50	0.0059 JN	0.031	< 0.0017 UJ	0.0024 JN	< 0.0023 U	< 0.0038 UJ
PCB-68	73575-52-7	ng/g	< 0.019 U	< 0.067 U	< 0.068 U	< 0.0026 U	0.035 JN	0.0043 JN	< 0.0017 UJ	0.015 J+	0.029 J
PCB-7	33284-50-3	ng/g	0.053	0.14	0.13	0.0039 J	0.0075 J	< 0.0067 U	< 0.0038 U	< 0.0030 U	< 0.0078 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S030	S031	S031	S032	S035	S037	S037	S038	S039
		Sample ID	PDI-SG-S030	PDI-SG-S031	PDI-SG-S031-D	PDI-SG-S032	PDI-SG-S035	PDI-SG-S037	PDI-SG-S037-D	PDI-SG-S038	PDI-SG-S039
		Sample Date	08 May 2018	08 May 2018	08 May 2018	08 May 2018	04 May 2018	02 May 2018	02 May 2018	02 May 2018	02 May 2018
		Sample Type Code	N	N	FD	N	N	N	FD	N	N
		Depth	0-23 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm	0-25 cm	0-25 cm	0-24 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	< 0.021 U	< 0.074 U	< 0.076 U	0.0075 J	0.059	0.0045 JN	0.0051 J	< 0.0026 U	0.027 J
PCB-77	32598-13-3	ng/g	0.31	0.80 JN	0.79	0.022	0.18	0.0098 J	0.0098 J	0.0054 JN	< 0.0041 U
PCB-78	70362-49-1	ng/g	< 0.021 U	< 0.076 U	< 0.078 U	< 0.0030 U	< 0.0027 U	< 0.0020 UJ	< 0.0019 UJ	< 0.0027 U	< 0.0045 UJ
PCB-79	41464-48-6	ng/g	0.078 JN	0.20 JN	0.15 JN	0.022	0.054 JN	0.0040 JN	< 0.0016 UJ	< 0.0023 U	< 0.0039 UJ
PCB-8	34883-43-7	ng/g	1.1	3.1	3.1	0.055	0.11	0.015 JN	0.015 JN	0.012 J	0.013 JN
PCB-80	33284-52-5	ng/g	< 0.018 U	< 0.065 U	< 0.067 U	< 0.0025 U	< 0.0024 U	< 0.0017 UJ	< 0.0016 UJ	< 0.0023 U	< 0.0038 UJ
PCB-81	70362-50-4	ng/g	< 0.019 U	< 0.067 U	< 0.068 U	< 0.0027 U	< 0.0027 U	< 0.0018 U	< 0.0017 U	< 0.0025 U	< 0.0042 U
PCB-82	52663-62-4	ng/g	1.6	2.4	2.2	0.41	0.80	0.040	0.040 JN	0.019 JN	0.061 J
PCB-83/99	60145-20-2	ng/g	6.6	12	11	1.7	3.6	0.32	0.34	0.13 J	0.65
PCB-84	52663-60-2	ng/g	3.3	7.6	7.1	0.89	2.2	0.066 JN	0.12 J	0.031 J	0.10 JN
PCB-85/116/117	65510-45-4	ng/g	2.0	3.4	3.4	0.52	0.89	0.072	0.080	0.035 J	0.096 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	7.9	14	14	2.1	4.1	0.27	0.30	0.10 J	0.42 J
PCB-88/91	55215-17-3	ng/g	1.6	3.7	3.6	0.42	1.2	0.057	0.070	0.027 J	0.14 JN
PCB-89	73575-57-2	ng/g	< 0.0021 U	0.26	0.24	< 0.00012 U	0.067	< 0.00080 U	< 0.00088 U	< 0.00064 U	< 0.0011 U
PCB-9	34883-39-1	ng/g	0.081	0.21	0.20	0.0042 JN	0.0082 J	< 0.0069 U	< 0.0039 U	< 0.0031 U	< 0.0080 U
PCB-90/101/113	68194-07-0	ng/g	13	22	23	3.3	6.4	< 0.00062 UJ	0.56 J	0.17 J	0.99
PCB-92	52663-61-3	ng/g	2.2	4.3	4.2	0.57	1.6	0.098	0.085 JN	0.034 J	0.19 JN
PCB-93/100	73575-56-1	ng/g	0.35	0.33	0.27	0.045	0.19	0.0088 JN	0.015 J	< 0.00056 U	0.019 JN
PCB-94	73575-55-0	ng/g	< 0.0021 U	0.14 J	< 0.0026 UJ	< 0.00012 U	0.056	< 0.00080 U	< 0.00088 U	< 0.00064 U	< 0.0011 U
PCB-95	38379-99-6	ng/g	11	24	24	2.9	7.2	0.36	0.47	0.13	0.77
PCB-96	73575-54-9	ng/g	< 0.0016 U	0.25	0.26	< 0.000094 U	0.075	< 0.00060 U	< 0.00067 U	< 0.00048 U	< 0.00085 U
PCB-98/102	60233-25-2	ng/g	0.35	0.87	0.83	0.080	0.28	0.0059 JN	0.011 JN	0.0025 JN	0.016 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	322	700	713	47	132	9.0	11	4.2	20
Pesticides											
2,4-DDD	53-19-0	µg/kg	1.9	1.4	1.6	< 0.67 U	4.7 J	6.9 J	5.6 J	0.86 J	11 J
2,4-DDE	3424-82-6	µg/kg	< 0.86 U	< 1.3 U	< 1.3 U	< 0.79 U	< 1.0 UJ	< 0.92 UJ	< 0.90 UJ	< 0.90 UJ	< 0.91 UJ
2,4-DDT	789-02-6	µg/kg	< 0.94 U	< 1.3 U	< 1.3 U	< 0.94 U	< 1.0 UJ	< 0.94 UJ	< 0.94 UJ	< 0.94 UJ	< 0.94 UJ
4,4'-DDD	72-54-8	µg/kg	4.2	3.7	3.9	< 0.67 U	10 J	19 J	13 J	1.4 J	16 J
4,4'-DDE	72-55-9	µg/kg	4.3	6.2	6.4	< 0.70 U	3.4 J	2.4 J	2.1 J	< 0.90 UJ	3.2 J
4,4'-DDT	50-29-3	µg/kg	0.66 J	1.2 J	1.3 J	< 0.67 U	0.69 J	0.49 J	0.96 J	0.57 J	2.8 J
DDx (b)	T_DDx (PDI)	µg/kg	12	13	14	< 0.94 U	19	29	22	3.3	33
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	18	10	10	0.66 J	140	150	140	110	320
Acenaphthene	83-32-9	µg/kg	37	15	12	2.1	150	200	170	190	650
Acenaphthylene	208-96-8	µg/kg	15	15	15	3.7	220	83	84	160	230
Anthracene	120-12-7	µg/kg	67	36	33	3.9	340	280	260	330	650
Benz(a)anthracene	56-55-3	µg/kg	280	170	170	20	3400	480	550	890	2200
Benzo(a)pyrene	50-32-8	µg/kg	350	250	250	29	5500	580	620	1600	3400
Benzo(b)fluoranthene	205-99-2	µg/kg	540	350	340	41	4400	540	570	1400	2900
Benzo(g,h,i)perylene	191-24-2	µg/kg	220	200 J	190 J	30	3600	390	370	1300	2400
Benzo(k)fluoranthene	207-08-9	µg/kg	180	110	100	14	1600	170	180	450	910
Chrysene	218-01-9	µg/kg	410	290	260	29	4000	630	670	1200	2800
Dibenz(a,h)anthracene	53-70-3	µg/kg	53	32	32	5.2	610	44	47	130	270
Fluoranthene	206-44-0	µg/kg	570	300	290	23	4400	1700	1700	2700	6900
Fluorene	86-73-7	µg/kg	38	16	14	1.4	110	180	150	150	540
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	240	190	180	30	3700	330	320	1100	2000
Naphthalene	91-20-3	µg/kg	24	13	13	1.6	380	450	440	600	910
Phenanthrene	85-01-8	µg/kg	290	110	100	14	940	1600	1400	1700	5400
Pyrene	129-00-0	µg/kg	560	390	380	46	6500	2100	2200	3500	8700
Total PAHs (b)	T_PAH (PDI)	µg/kg	3892	2497	2389	295	39990	9907	9871	17510	41180
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	511	354	352	43	7280	761	813	2075	4392
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	53.7	36.7	36.8	74.8	53.7	53.7	55.5	54.0	53.8
Total Solids@104C - E160.3M (f)	TSOLID	%	57.8	38.0	37.8	73.5	49.0	53.8	54.6	55.4	54.2
Total Solids@70C	TSOLID70	%	57	37	37	71	47	54	56	57	55
Gravel	GS-Gravel	%	0.4	0		0	0	0.2		0	0
Sand, Coarse	GS-Csand	%	1.7	0		1.1	0.3	0		0.1	0.2

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S030	S031	S031	S032	S035	S037	S037	S038	S039
		Sample ID	PDI-SG-S030	PDI-SG-S031	PDI-SG-S031-D	PDI-SG-S032	PDI-SG-S035	PDI-SG-S037	PDI-SG-S037-D	PDI-SG-S038	PDI-SG-S039
		Sample Date	08 May 2018	08 May 2018	08 May 2018	08 May 2018	04 May 2018	02 May 2018	02 May 2018	02 May 2018	02 May 2018
		Sample Type Code	N	N	FD	N	N	N	FD	N	N
		Depth	0-23 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm	0-25 cm	0-25 cm	0-24 cm	0-23 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	2.7	0.1		37.1	1.5	7.7		0.2	0.6
Sand, Fine (#200) (d)	GS-Fsand-200	%	56.28	10.58		59.45	47.24	59.38		31.47	36.42
Sand, Fine (#230) (d)	GS-Fsand	%	60.8	12.2		59.8	51.3	62.1		37.3	41.9
Silt (#200) (d)	GS-Silt-200	%	29.11	65.21		0	43.05	28.41		59.42	53.97
Silt (#230) (d)	GS-Silt	%	24.6	63.6		-0.8	39.0	25.7		53.6	48.5
Clay	GS-Clay	%	9.8	24.1		2.7	8.0	4.3		8.7	8.8
Percent Fines (e)	GS-FINES	%	38.91	89.31		2.7	51.05	32.71		68.12	62.77
Total Organic Carbon	TOC	mg/kg	17000	24000	25000	1700 J	31000	15000	24000	17000	19000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S040	S041	S043	S044	S046	S047	S048	S049	S050
		Sample ID	PDI-SG-S040	PDI-SG-S041	PDI-SG-S043	PDI-SG-S044	PDI-SG-S046	PDI-SG-S047	PDI-SG-S048	PDI-SG-S049	PDI-SG-S050
		Sample Date	02 May 2018	02 May 2018	02 May 2018	02 May 2018	11 May 2018	11 May 2018	05 May 2018	13 Jun 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.061	0.11	0.12	5.8	0.16	0.077	0.12	0.35	2.1
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.010 JN	0.016 JN	0.015 JN	0.45	0.019	0.035	0.027	0.071	0.36
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00019 U	0.0011 J+	0.0012 J+	0.072	0.0018 J	0.0011 J+	0.0028 J	0.0048 J	0.019
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00054 J+	0.00092 J+	< 0.00013 U	< 0.0050 U	0.0011 J	0.0010 J	0.0016 J+	0.0018 J	0.0034 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0014 J	0.0019 J	0.0022 J	0.35	0.0044 J	0.0036 J	0.0053 JN	0.0068	0.023
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0018 J	0.0034 J	0.0033 J	0.072	0.0036 J	0.0035 J	0.0051 JN	0.0093	0.052
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00055 J+	0.00077 J	0.00092 J	0.061	0.0014 J	0.0022 J	0.0018 JN	0.0022 J	0.0060 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0013 J	0.0019 J	0.0022 J	0.013	0.0029 J	0.0023 J	0.0037 J	0.0045 J	0.0094
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00021 U	< 0.00018 U	< 0.00024 U	0.0056	0.0010 J+	0.0016 J+	0.00034 JN	0.00041 J+	0.00069 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00036 J	0.00055 J	0.00050 J	0.0011 J	0.00047 J	0.00042 JN	0.0011 J	0.0011 J	0.0017 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00060 J+	0.00067 J+	0.00064 J+	0.013	0.0017 J	0.0027 J	0.0015 J	0.00098 JN	0.0037 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00030 J+	0.00042 J+	0.00052 J+	0.020	0.00052 J	0.0017 J	0.00045 JN	0.00096 J	0.0028 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00049 J+	0.00054 J+	0.00057 J+	0.085	0.0012 J	0.0012 J	0.0018 J	0.0021 J	0.0061
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000050 U	0.00047 J	0.00028 JN	0.00049 JN	0.00041 J	0.00040 J	0.00068 J	0.00066 JN	0.00066 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00076 J	0.0010 J	0.0010 J	0.0042	0.0028	0.0029	0.0016 J+	0.0012 J	0.0013
OCDD	3268-87-9	µg/kg	0.58	0.97	0.92	50 J	1.8	0.57	0.82	3.5	26
OCDF	39001-02-0	µg/kg	0.052	0.074	0.067	0.67 J	0.059	0.029	0.10	0.38	2.3
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0021	0.0038	0.0037	0.16	0.0054	0.0045	0.0061	0.011	0.047
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0021	0.0038	0.0035	0.16	0.0054	0.0042	0.0051	0.01	0.047
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0021	0.0038	0.0034	0.16	0.0054	0.004	0.0048	0.0099	0.047
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.011 JN	0.043	0.013 JN	0.82	0.0056 J+	< 0.0025 U	0.0068 J	0.0060 JN	0.016
PCB-10	33146-45-1	ng/g	0.0059 JN	0.010 JN	< 0.0042 U	0.38	0.00088 JN	< 0.00060 U	< 0.0016 U	0.0018 JN	0.0048 J
PCB-103	60145-21-3	ng/g	< 0.00057 U	0.0083 JN	< 0.00053 U	< 0.0027 U	0.0072 J	0.0047 JN	0.0084 JN	0.0091 J	0.014 JN
PCB-104	56558-16-8	ng/g	< 0.00043 U	< 0.00027 U	< 0.00040 U	< 0.0020 U	< 0.00033 U	< 0.00035 U	< 0.00056 U	< 0.00022 U	< 0.00030 U
PCB-105	32598-14-4	ng/g	0.95	0.33	1.1	5.8	0.11	0.059	0.11	0.15	0.25
PCB-106	70424-69-0	ng/g	< 0.0037 U	< 0.0033 U	< 0.0033 U	< 0.020 U	< 0.0015 U	< 0.0014 U	< 0.0021 U	< 0.0019 U	< 0.0023 U
PCB-107	70424-68-9	ng/g	0.24	0.066	0.20	0.95	0.024	0.016	0.023	0.032	0.049
PCB-108/124	70362-41-3	ng/g	0.11	0.026 JN	0.12	0.57	0.013 J	0.0062 JN	0.011 J	0.017 J	0.025
PCB-11	2050-67-1	ng/g	0.029 JN	0.055	0.063	0.32	0.037	0.028	0.094	0.057	0.054
PCB-110/115	38380-03-9	ng/g	3.4	1.0	3.5	16	0.37	0.22	0.36	0.45	0.80
PCB-111	39635-32-0	ng/g	< 0.00040 U	< 0.00025 U	< 0.00037 U	< 0.0019 U	< 0.00029 U	0.00087 JN	0.0014 JN	< 0.00019 U	< 0.00027 U
PCB-112	74472-36-9	ng/g	< 0.00042 U	< 0.00027 U	0.014	0.073	< 0.00032 U	< 0.00034 U	0.0034 JN	< 0.00021 U	< 0.00030 U
PCB-114	74472-37-0	ng/g	0.056	0.015 JN	0.064	0.31	0.0060 J	0.0029 J	0.0047 JN	0.0079 J	0.015
PCB-118	31508-00-6	ng/g	2.3	0.80	2.7	14	0.27	0.16	0.28	0.36	0.60
PCB-12/13	2974-92-7	ng/g	0.031 JN	0.040	0.066	1.7	0.0055 JN	0.0027 JN	0.012 J	0.013 J	0.028
PCB-120	68194-12-7	ng/g	< 0.00041 U	< 0.00026 U	< 0.00038 U	< 0.0019 U	0.0021 JN	0.0022 J	0.0019 JN	< 0.00019 U	0.0051 JN
PCB-121	56558-18-0	ng/g	< 0.00042 U	< 0.00027 U	< 0.00039 U	< 0.0020 U	< 0.00031 U	< 0.00033 U	< 0.00054 U	< 0.00021 U	< 0.00029 U
PCB-122	76842-07-4	ng/g	0.034 JN	< 0.0038 U	0.040	0.22	0.0049 JN	< 0.0015 U	0.0051 JN	0.0074 J	0.0096 J
PCB-123	65510-44-3	ng/g	0.046	0.014	0.044 JN	0.24	0.0051 JN	0.0031 J	0.0045 J	0.0069 J	0.012
PCB-126	57465-28-8	ng/g	< 0.0043 U	< 0.0032 U	< 0.0037 U	0.030 JN	< 0.0014 U	< 0.0013 U	< 0.0019 U	0.0023 J	0.0025 J
PCB-127	39635-33-1	ng/g	< 0.0037 U	< 0.0033 U	< 0.0033 U	< 0.020 U	< 0.0015 U	< 0.0013 U	< 0.0020 U	< 0.0019 U	< 0.0022 U
PCB-128/166	38380-07-3	ng/g	0.72	0.19	0.54	2.7	0.087	0.049	0.069	0.11	0.18
PCB-129/138/160/163	55215-18-4	ng/g	5.1	1.3	3.5	17	0.57	0.34	0.47	0.68	1.0
PCB-130	52663-66-8	ng/g	0.30	0.077	0.21	1.1	0.038	0.021	0.028 JN	0.047	0.071
PCB-131	61798-70-7	ng/g	0.071	0.018	0.061	0.32	0.0060 JN	0.0034 J	< 0.0016 U	0.0084 J	0.013 JN
PCB-132	38380-05-1	ng/g	1.7	0.38	1.2	5.4	0.19	0.098	0.13	0.21	0.34
PCB-133	35694-04-3	ng/g	0.061	0.013 JN	0.040	0.15 JN	0.012	0.0076 J	0.0092 J	0.013 JN	0.019
PCB-134/143	52704-70-8	ng/g	0.29	0.053 JN	0.18 JN	0.95	0.031	0.016 J	0.022 JN	0.040	0.061
PCB-135/151	52744-13-5	ng/g	1.2	0.33	0.68	3.4	0.22	0.13	0.19	0.20	0.20
PCB-136	38411-22-2	ng/g	0.45	0.12	0.32	1.5	0.075	0.045	0.063	0.071	0.11
PCB-137	35694-06-5	ng/g	0.22	0.061	0.16 JN	0.91	0.022	0.011	0.018	0.028	0.046
PCB-139/140	56030-56-9	ng/g	0.084	0.021 J	0.057 JN	0.28	0.0077 JN	0.0055 J	0.0072 J	0.012 J	0.019 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S040	S041	S043	S044	S046	S047	S048	S049	S050
		Sample ID	PDI-SG-S040	PDI-SG-S041	PDI-SG-S043	PDI-SG-S044	PDI-SG-S046	PDI-SG-S047	PDI-SG-S048	PDI-SG-S049	PDI-SG-S050
		Sample Date	02 May 2018	02 May 2018	02 May 2018	02 May 2018	11 May 2018	11 May 2018	05 May 2018	13 Jun 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0026 U	< 0.0035 U	< 0.0032 U	< 0.014 U	< 0.00043 U	< 0.00047 U	< 0.0012 U	< 0.00053 U	< 0.00036 U
PCB-141	52712-04-6	ng/g	1.0	0.21	0.56	2.9	0.10	0.065	0.083	0.12	0.19
PCB-142	41411-61-4	ng/g	< 0.0077 U	< 0.0048 U	< 0.0065 U	< 0.038 U	< 0.0018 U	< 0.0013 U	< 0.0015 U	< 0.0015 U	< 0.0020 U
PCB-144	68194-14-9	ng/g	0.16	0.033 JN	0.098	0.52	0.025	0.012 JN	0.020	0.022	0.033
PCB-145	74472-40-5	ng/g	< 0.00054 U	< 0.00026 U	0.0034 JN	< 0.0022 U	0.00039 JN	< 0.00028 U	< 0.00034 U	0.00059 JN	< 0.00032 U
PCB-146	51908-16-8	ng/g	0.67	0.17	0.41	1.8	0.097	0.065	0.079	0.11	0.16
PCB-147/149	68194-13-8	ng/g	4.3	0.96	2.6	12	0.46	0.27	0.36	0.52	0.77
PCB-148	74472-41-6	ng/g	0.0037 J	0.0033 JN	0.0027 J	< 0.0030 U	0.0025 JN	0.0015 JN	0.0021 JN	0.0012 JN	0.0033 J
PCB-15	2050-68-2	ng/g	0.29	0.34	0.61	12	0.031	0.015 JN	0.058	0.059	0.15
PCB-150	68194-08-1	ng/g	0.0027 JN	0.0027 JN	0.0035 JN	0.015 J	0.0020 J	0.0016 J	0.0018 JN	0.0015 JN	0.0023 J
PCB-152	68194-09-2	ng/g	0.0036 JN	< 0.00027 U	0.0021 JN	0.013 J	0.00031 JN	< 0.00027 U	0.00048 JN	0.00055 JN	0.0014 JN
PCB-153/168	35065-27-1	ng/g	3.8	0.94	2.2	11	0.46	0.29	0.39	0.55	0.81
PCB-154	60145-22-4	ng/g	0.025 JN	0.012 JN	0.024 JN	0.091 JN	0.012	0.010 JN	0.013 JN	0.0086 JN	0.088
PCB-155	33979-03-2	ng/g	< 0.00052 U	< 0.00025 U	< 0.00045 U	< 0.0021 U	< 0.00015 U	0.00037 J	0.00037 JN	< 0.00025 U	0.00037 JN
PCB-156/157	38380-08-4	ng/g	0.49	0.14	0.41	2.1	0.054	0.033	0.052	0.074	0.12
PCB-158	74472-42-7	ng/g	0.52	0.13	0.36	1.9	0.054	0.028	0.044	0.068	0.11
PCB-159	39635-35-3	ng/g	0.033	< 0.0032 U	< 0.0043 U	< 0.025 U	0.0069 J	0.0039 J	0.0054 J	0.0081 J	0.0091 J
PCB-16	38444-78-9	ng/g	0.25	0.33	0.42	15	0.036 JN	0.016	0.039	0.064	0.14
PCB-161	74472-43-8	ng/g	< 0.0051 U	< 0.0032 U	< 0.0043 U	< 0.025 U	< 0.0012 U	< 0.00084 U	< 0.00096 U	< 0.00097 U	< 0.0013 U
PCB-162	39635-34-2	ng/g	< 0.0051 U	< 0.0031 U	< 0.0042 U	< 0.025 U	< 0.0011 U	< 0.00080 U	< 0.00091 U	< 0.00092 U	< 0.0012 U
PCB-164	74472-45-0	ng/g	0.37	0.083	0.21	1.0	0.044	0.024	0.034	0.048	0.072
PCB-165	74472-46-1	ng/g	< 0.0058 U	< 0.0036 U	< 0.0049 U	< 0.029 U	< 0.0013 U	< 0.00096 U	< 0.0011 U	< 0.0011 U	< 0.0015 U
PCB-167	52663-72-6	ng/g	0.16	0.048	0.12	0.61	0.021	0.011	0.019	0.024	0.039
PCB-169	32774-16-6	ng/g	< 0.0043 U	< 0.0025 U	< 0.0035 U	< 0.020 U	< 0.00089 U	< 0.00062 U	< 0.00068 U	< 0.00073 U	< 0.00099 U
PCB-17	37680-66-3	ng/g	0.29	0.34	0.48	17	0.045	0.020	0.042	0.062	0.16
PCB-170	35065-30-6	ng/g	1.2	0.28	0.46	2.9	0.18	0.094	0.17	0.19	0.28
PCB-171/173	52663-71-5	ng/g	0.31	0.085	0.12	0.72	0.057	0.031	0.041 JN	0.060	0.087
PCB-172	52663-74-8	ng/g	0.17	0.045	0.066	0.36 JN	0.031	0.019	0.032	0.033	0.047
PCB-174	38411-25-5	ng/g	1.0	0.27	0.39	2.4	0.20	0.11	0.16	0.20	0.29
PCB-175	40186-70-7	ng/g	0.043	0.0099 JN	0.021	0.078 JN	0.0076 J	0.0040 J	0.0051 JN	0.0075 JN	0.012
PCB-176	52663-65-7	ng/g	0.13	0.031	0.049	0.28	0.020	0.013	0.018	0.023	0.032
PCB-177	52663-70-4	ng/g	0.58	0.15	0.21	1.3	0.11	0.067	0.099	0.12	0.17
PCB-178	52663-67-9	ng/g	0.21	0.051	0.064 JN	0.45	0.039	0.025	0.035	0.043	0.058
PCB-179	52663-64-6	ng/g	0.48	0.12	0.17	1.0	0.073	0.045	0.070	0.082	0.11
PCB-18/30	37680-65-2	ng/g	0.64	0.76	1.1	36	0.085	0.032	0.074	0.12	0.28
PCB-180/193	35065-29-3	ng/g	2.2	0.56	0.78	5.2	0.40	0.21	0.38	0.40	0.56
PCB-181	74472-47-2	ng/g	< 0.0016 U	< 0.00055 U	0.0076 J	0.033 JN	< 0.000076 U	0.0015 JN	< 0.00075 U	0.0019 JN	0.0029 JN
PCB-182	60145-23-5	ng/g	< 0.0016 U	< 0.00053 U	0.0055 JN	0.015 JN	0.0017 JN	< 0.00046 U	< 0.00071 U	< 0.00018 U	0.0030 JN
PCB-183/185	52663-69-1	ng/g	0.74	0.18	0.27	1.7	0.13	0.068	0.097	0.12	0.18
PCB-184	74472-48-3	ng/g	< 0.0013 U	< 0.00045 U	< 0.0011 U	< 0.0027 U	< 0.000062 U	< 0.00039 U	< 0.00061 U	< 0.00016 U	< 0.00025 U
PCB-186	74472-49-4	ng/g	< 0.0013 U	< 0.00044 U	< 0.0011 U	< 0.0026 U	< 0.000059 U	< 0.00038 U	< 0.00058 U	< 0.00015 U	< 0.00024 U
PCB-187	52663-68-0	ng/g	1.3	0.34	0.45	2.8	0.24	0.14	0.21	0.25	0.34
PCB-188	74487-85-7	ng/g	< 0.0010 U	< 0.00037 U	< 0.00088 U	< 0.0023 U	0.0013 JN	< 0.00036 U	< 0.00058 U	< 0.00014 U	< 0.00022 U
PCB-189	39635-31-9	ng/g	0.030	< 0.0027 U	0.021	0.085 JN	0.0063 JN	0.0038 J	0.0071 J	0.0068 J	0.010 J
PCB-19	38444-73-4	ng/g	0.079 JN	0.094	0.094	3.0	0.027	0.013	0.027 JN	0.037	0.049
PCB-190	41411-64-7	ng/g	0.19	0.048	0.064	0.44	0.034	0.020	0.040	0.037	0.051
PCB-191	74472-50-7	ng/g	0.039	0.0068 J	0.014 JN	0.083	0.0090 J	0.0046 J	0.0083 J	0.0093 J	0.011 JN
PCB-192	74472-51-8	ng/g	< 0.0014 U	< 0.00047 U	< 0.0011 U	< 0.0028 U	< 0.000060 U	< 0.00038 U	< 0.00059 U	< 0.00015 U	< 0.00024 U
PCB-194	35694-08-7	ng/g	0.58	0.17	0.19	1.5	0.13	0.052	0.087	0.10	0.15
PCB-195	52663-78-2	ng/g	0.25	0.059	0.091	0.49	0.045	0.022	0.039	0.042	0.060
PCB-196	42740-50-1	ng/g	0.20	0.072	0.071 JN	0.61	0.065	0.025	0.051	0.044	0.062
PCB-197	33091-17-7	ng/g	0.019	0.0027 JN	0.0071 J	0.047 J	0.0086 J	0.0014 JN	0.0033 J	0.0031 J	0.0047 J
PCB-198/199	68194-17-2	ng/g	0.46	0.18	0.20	1.6	0.17	0.064	0.12	0.11	0.16
PCB-2	2051-61-8	ng/g	0.0079 JN	0.012	0.013	0.099 JN	0.010 J+	0.0065 JN	0.013 JN	0.014	0.019

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S040	S041	S043	S044	S046	S047	S048	S049	S050
		Sample ID	PDI-SG-S040	PDI-SG-S041	PDI-SG-S043	PDI-SG-S044	PDI-SG-S046	PDI-SG-S047	PDI-SG-S048	PDI-SG-S049	PDI-SG-S050
		Sample Date	02 May 2018	02 May 2018	02 May 2018	02 May 2018	11 May 2018	11 May 2018	05 May 2018	13 Jun 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	1.1	1.0	2.1	42	0.18	0.089	0.17	0.24	0.57
PCB-200	52663-73-7	ng/g	0.053 JN	0.012 JN	0.020	0.13	0.014	0.0061 JN	0.014	0.013	0.017
PCB-201	40186-71-8	ng/g	0.049	0.016 JN	0.025	0.16	0.021	0.0074 J	0.012 J	0.012 J	0.017
PCB-202	2136-99-4	ng/g	0.099	0.030 JN	0.046	0.35	0.032	0.014	0.021	0.024	0.034
PCB-203	52663-76-0	ng/g	0.30	0.11	0.13	1.0	0.091	0.039	0.074	0.067	0.10
PCB-204	74472-52-9	ng/g	< 0.0020 U	< 0.00048 U	< 0.00077 U	< 0.0052 U	< 0.00034 U	< 0.00033 U	< 0.00059 U	< 0.00040 U	< 0.0012 U
PCB-205	74472-53-0	ng/g	0.025	0.0096 J	0.0088 JN	0.074	0.0047 JN	0.0024 JN	0.0037 JN	0.0046 J	0.0063 J
PCB-206	40186-72-9	ng/g	0.26	0.17	0.20	1.5	0.26	0.24 JN	0.12 JN	0.11 JN	0.30 JN
PCB-207	52663-79-3	ng/g	0.028	0.017 JN	0.017 JN	0.13 JN	0.055	0.0032 JN	0.0070 JN	0.0080 J	0.0053 JN
PCB-208	52663-77-1	ng/g	0.064	0.055	0.061	0.36	0.062	0.014	0.029	0.033	0.041
PCB-209	2051-24-3	ng/g	0.080	0.15	0.11	0.55 JN	0.44	0.035 JN	0.091	0.10	0.14
PCB-21/33	55702-46-0	ng/g	0.53	0.53	0.96	24	0.086	0.040	0.081	0.12	0.30
PCB-22	38444-85-8	ng/g	0.33	0.36	0.67	15	0.059	0.028	0.058	0.084	0.18
PCB-23	55720-44-0	ng/g	< 0.0024 U	< 0.0029 U	< 0.0032 U	< 0.025 U	< 0.0013 U	< 0.00090 U	< 0.0014 U	< 0.0013 U	< 0.0018 U
PCB-24	55702-45-9	ng/g	0.011 JN	0.018	0.014 JN	0.77	< 0.00053 U	0.00063 JN	< 0.00045 U	0.0020 JN	0.0056 J
PCB-25	55712-37-3	ng/g	0.067	0.067	0.11	3.2	0.014	0.0070 J	0.016	0.022	0.065
PCB-26/29	38444-81-4	ng/g	0.14	0.14	0.23	7.1	0.030	0.015 J	0.028	0.040	0.12
PCB-27	38444-76-7	ng/g	0.056 JN	0.055	0.085	2.7	0.010	0.0045 J	0.012 J	0.013	0.028
PCB-3	2051-62-9	ng/g	0.014	0.022	0.018	0.51	0.0052 J+	< 0.0030 U	0.0083 J	0.0082 J	0.017 JN
PCB-31	16606-02-3	ng/g	0.85	0.84	1.7	37	0.13	0.062	0.13	0.18	0.38
PCB-32	38444-77-8	ng/g	0.23	0.25	0.34	11	0.028	0.011	0.028	0.040	0.13
PCB-34	37680-68-5	ng/g	< 0.0025 U	< 0.0030 U	< 0.0033 U	< 0.026 U	< 0.0014 U	< 0.00094 U	< 0.0015 U	< 0.0014 U	0.0042 J
PCB-35	37680-69-6	ng/g	0.010 JN	0.010 JN	0.034	0.41	0.0027 JN	< 0.00089 U	< 0.0014 U	0.0042 JN	0.010 J
PCB-36	38444-87-0	ng/g	< 0.0023 U	< 0.0029 U	< 0.0031 U	< 0.024 U	< 0.0012 U	< 0.00081 U	< 0.0013 U	< 0.0012 U	< 0.0016 U
PCB-37	38444-90-5	ng/g	0.38	0.40	1.1	9.2	0.057	0.028	0.062	0.082	0.18
PCB-38	53555-66-1	ng/g	< 0.0025 U	< 0.0031 U	< 0.0034 U	< 0.026 U	< 0.0013 U	< 0.00088 U	< 0.0014 U	< 0.0013 U	< 0.0018 U
PCB-39	38444-88-1	ng/g	< 0.0022 U	< 0.0028 U	0.0083 JN	0.14	< 0.0012 U	< 0.00080 U	< 0.0013 U	< 0.0012 U	0.0025 J
PCB-4	13029-08-8	ng/g	0.11 JN	0.17	0.13	7.3	0.027	0.0099 J	0.036	0.040	0.070
PCB-40/41/71	38444-93-8	ng/g	0.61	0.43	0.97	15	0.11	0.052	0.078	0.14	0.32
PCB-42	36559-22-5	ng/g	0.28	0.20	0.41	6.7	0.053	0.024 JN	0.038	0.068	0.15
PCB-43/73	70362-46-8	ng/g	0.045	0.026	0.053 JN	1.1	0.0057 JN	0.0033 J	0.0059 J	0.011 J	0.020 JN
PCB-44/47/65	41464-39-5	ng/g	1.2	0.76	1.8	23	0.21	0.11	0.19	0.28	0.64
PCB-45/51	70362-45-7	ng/g	0.20	0.15 JN	0.24	5.6	0.044	0.020	0.035	0.057	0.14
PCB-46	41464-47-5	ng/g	0.063	0.057	0.061 JN	1.9	0.012	0.0051 J	0.0057 J	0.012 JN	0.048
PCB-48	70362-47-9	ng/g	0.22	0.16	0.35	6.7	0.039	0.017	0.027	0.048	0.097
PCB-49/69	41464-40-8	ng/g	0.69	0.45	1.0	14	0.13	0.072	0.11	0.17	0.45
PCB-5	16605-91-7	ng/g	0.0063 JN	0.0094 JN	0.0072 JN	0.50 JN	0.0010 JN	< 0.00056 U	0.0016 J	0.0011 JN	0.0041 JN
PCB-50/53	62796-65-0	ng/g	0.16	0.12	0.19	3.6	0.036	0.018 J	0.030	0.046	0.18
PCB-52	35693-99-3	ng/g	1.7	0.83	2.7	26	0.28	0.13	0.20	0.33	0.93
PCB-54	15968-05-5	ng/g	0.0066 JN	0.0059 JN	0.0060 JN	0.054	0.0039 JN	0.0028 J	0.0069 J	0.0053 JN	0.014
PCB-55	74338-24-2	ng/g	0.020	0.019 JN	0.041	0.38	0.0047 JN	0.0022 JN	0.0086 J	0.0099 JN	0.014
PCB-56	41464-43-1	ng/g	0.35	0.21	0.57	4.6	0.082	0.046	0.058	0.086	0.15
PCB-57	70424-67-8	ng/g	< 0.0037 U	< 0.0032 U	< 0.0034 U	< 0.024 U	< 0.00078 U	< 0.00049 U	< 0.0012 U	< 0.00085 U	< 0.0017 U
PCB-58	41464-49-7	ng/g	0.022	< 0.0033 U	< 0.0035 U	0.036 JN	0.0011 JN	< 0.00047 U	< 0.0011 U	0.0015 JN	< 0.0017 U
PCB-59/62/75	74472-33-6	ng/g	0.099	0.072	0.13	2.5	0.017 JN	0.0088 J	0.014 J	0.025 J	0.053
PCB-6	25569-80-6	ng/g	0.075	0.087	0.087 JN	5.1	0.010	0.0049 J	0.013	0.018	0.070
PCB-60	33025-41-1	ng/g	0.19	0.11	0.32	2.8	0.042	0.019	0.023 JN	0.041	0.069
PCB-61/70/74/76	33284-53-6	ng/g	1.7	0.90	2.9	22	0.31	0.18	0.24	0.36	0.64
PCB-63	74472-34-7	ng/g	0.029	0.017	0.047	0.52	0.0070 J	0.0039 J	0.0047 J	0.0076 JN	0.015
PCB-64	52663-58-8	ng/g	0.48	0.31	0.70	10	0.080	0.039	0.057	0.097	0.20
PCB-66	32598-10-0	ng/g	0.85	0.53	1.4	11	0.18	0.11	0.15	0.21	0.38
PCB-67	73575-53-8	ng/g	0.024	0.015	0.037	0.58	0.0068 J	0.0030 J	0.0039 JN	0.0063 JN	0.011 JN
PCB-68	73575-52-7	ng/g	< 0.0033 U	< 0.0029 U	< 0.0030 U	< 0.022 U	0.0026 J	0.0021 J	0.0029 J+	0.0029 JN	< 0.0015 U
PCB-7	33284-50-3	ng/g	0.012 JN	0.020 JN	0.013 JN	1.0	0.0020 J	0.00066 JN	0.0034 JN	0.0038 JN	0.011 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S040	S041	S043	S044	S046	S047	S048	S049	S050
		Sample ID	PDI-SG-S040	PDI-SG-S041	PDI-SG-S043	PDI-SG-S044	PDI-SG-S046	PDI-SG-S047	PDI-SG-S048	PDI-SG-S049	PDI-SG-S050
		Sample Date	02 May 2018	02 May 2018	02 May 2018	02 May 2018	11 May 2018	11 May 2018	05 May 2018	13 Jun 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	< 0.0036 U	< 0.0032 U	< 0.0033 U	< 0.024 U	0.0032 JN	0.0025 J	0.0030 J	0.0039 J	0.0062 J
PCB-77	32598-13-3	ng/g	0.097	0.073	0.12	0.88	0.018	0.012	0.019	0.026	0.037
PCB-78	70362-49-1	ng/g	< 0.0038 U	< 0.0033 U	< 0.0035 U	< 0.025 U	< 0.00075 U	< 0.00047 U	< 0.0011 U	< 0.00081 U	< 0.0017 U
PCB-79	41464-48-6	ng/g	0.019	< 0.0028 U	0.018 JN	0.12	0.0022 J	0.0018 J	0.0023 JN	0.0039 J	0.0047 JN
PCB-8	34883-43-7	ng/g	0.31	0.37	0.41	24	0.048	0.018 J	0.063	0.071	0.23
PCB-80	33284-52-5	ng/g	< 0.0032 U	< 0.0028 U	< 0.0029 U	< 0.021 U	< 0.00067 U	< 0.00042 U	< 0.0010 U	< 0.00072 U	< 0.0015 U
PCB-81	70362-50-4	ng/g	< 0.0035 U	< 0.0029 U	0.0053 JN	< 0.023 U	0.00097 JN	< 0.00045 U	< 0.0011 U	< 0.00077 U	< 0.0016 U
PCB-82	52663-62-4	ng/g	0.34	0.11	0.35	1.9	0.040	0.022	0.037	0.052	0.089
PCB-83/99	60145-20-2	ng/g	1.4	0.52	1.6	7.4	0.22	0.14	0.20	0.25	0.44
PCB-84	52663-60-2	ng/g	0.73	0.20	0.81	3.8	0.084	0.041	0.062 JN	0.096	0.20
PCB-85/116/117	65510-45-4	ng/g	0.45	0.17	0.48	2.5	0.062	0.033	0.053	0.068	0.12
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.8	0.57	2.1	9.9	0.21	0.12	0.18	0.25	0.43
PCB-88/91	55215-17-3	ng/g	0.37	0.12	0.39	2.0	0.055	0.034	0.049	0.067	0.12
PCB-89	73575-57-2	ng/g	< 0.00064 U	0.0098 JN	< 0.00060 U	0.20	0.0038 JN	0.0021 JN	0.0039 J	< 0.00032 U	0.0060 JN
PCB-9	34883-39-1	ng/g	0.019 JN	0.024 JN	0.020 JN	1.8	0.0037 JN	0.00094 JN	0.0048 J	0.0052 J	0.017
PCB-90/101/113	68194-07-0	ng/g	2.8	0.84	3.1	14	0.34	0.21	0.31	0.40	0.71
PCB-92	52663-61-3	ng/g	0.50	0.15	0.51	2.2	0.073	0.045	0.067	0.085	0.16
PCB-93/100	73575-56-1	ng/g	0.044	0.020 JN	0.038 JN	0.20 JN	0.011 JN	0.0084 J	0.016 J	0.022 JN	0.027
PCB-94	73575-55-0	ng/g	< 0.00064 U	< 0.00041 U	< 0.00060 U	< 0.0030 U	0.0028 J	0.0019 J	0.0032 JN	0.0040 JN	0.0055 JN
PCB-95	38379-99-6	ng/g	2.6	0.66	2.7	12	0.29	0.15	0.23	0.31	0.66
PCB-96	73575-54-9	ng/g	0.021	0.0098 JN	< 0.00045 U	0.19	0.0028 JN	0.0021 JN	0.0048 J	0.0055 J	0.0084 JN
PCB-98/102	60233-25-2	ng/g	0.076	0.035 JN	0.088	0.58	0.015 J	0.0054 JN	0.014 JN	0.020 J	0.037
Total PCBs (b)	T_PCBCg (PDI)	ng/g	66	26	63	629	10	5.6	8.6	11	20
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.99 J	< 1.1 UJ	< 1.1 UJ	3.7 J	1.9	1.5	< 1.3 UJ	0.36 J	0.83
2,4-DDE	3424-82-6	µg/kg	< 0.90 UJ	< 1.1 UJ	< 1.1 UJ	< 1.1 UJ	< 0.49 U	< 0.53 U	< 1.3 UJ	< 0.49 U	< 0.46 U
2,4-DDT	789-02-6	µg/kg	2.7 J	< 1.1 UJ	< 1.1 UJ	4.0 J	< 0.49 U	1.5	< 1.3 UJ	< 0.49 U	< 0.46 U
4,4'-DDD	72-54-8	µg/kg	1.8 J	1.6 J	1.2 J	14 J	4.0	3.7	1.3 J	1.3	3.4
4,4'-DDE	72-55-9	µg/kg	3.4 J	2.9 J	3.0 J	8.8 J	3.0	3.0	3.4 J	2.3 J	1.1 J
4,4'-DDT	50-29-3	µg/kg	3.6 J	0.77 J	< 1.1 UJ	9.2 J	1.9	2.0	< 1.3 UJ	1.1	0.67
DDx (b)	T_DDx (PDI)	µg/kg	13	5.8	4.8	40	11	12	5.4	5.3	6.2
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	3.7	3.9	4.2	64	34	23	3.6	9.4 J	28
Acenaphthene	83-32-9	µg/kg	4.3	4.4	5.7	45	41	26	4.1	9.2 J	36
Acenaphthylene	208-96-8	µg/kg	5.0	5.4	3.5	12	72	18	3.9	13	53
Anthracene	120-12-7	µg/kg	8.8	11	11	130	110	39	11	38	68
Benz(a)anthracene	56-55-3	µg/kg	39	42	35	800	530	130	41	63	130
Benzo(a)pyrene	50-32-8	µg/kg	59	78	53	670	650	200	51	66 J	130 J
Benzo(b)fluoranthene	205-99-2	µg/kg	66	92	71	930	690	210	66	91	210
Benzo(g,h,i)perylene	191-24-2	µg/kg	38	65	42	330	430	150	43	60	130
Benzo(k)fluoranthene	207-08-9	µg/kg	21	32	23	330	230	68	19	26	68
Chrysene	218-01-9	µg/kg	57	59	52	950	830	190	60	81	190
Dibenz(a,h)anthracene	53-70-3	µg/kg	6.8	10	7.1	88	72	25	8.4	9.8 J	23
Fluoranthene	206-44-0	µg/kg	79	82	74	1500	1500	280	88	170	270
Fluorene	86-73-7	µg/kg	4.3	5.3	6.3	61	44	21	5.7	13	32
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	37	60	40	350	450	140	42	78	170
Naphthalene	91-20-3	µg/kg	5.3	8.0	5.8	35	87	40	6.8	18	330
Phenanthrene	85-01-8	µg/kg	27	34	35	590	420	180	33	60	140
Pyrene	129-00-0	µg/kg	92	92	81	1500	1600	340	95	160	350
Total PAHs (b)	T_PAH (PDI)	µg/kg	553	684	550	8385	7790	2080	582	965	2358
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	80	108	75	970	892	274	75	99	205
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	53.2	43.9	41.6	45.8	54.0	51.0	37.1	37.1 37.4	40.4 43.8
Total Solids@104C - E160.3M (f)	TSOLID	%	54.4	44.8	42.9	46.7	50.9	46.0	37.9	37.4	40.8
Total Solids@70C	TSOLID70	%	56	45	43	49	52	45	39	38	40
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0.7	0	0	0.1	0.6	0	0	0	0.2

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S040	S041	S043	S044	S046	S047	S048	S049	S050
		Sample ID	PDI-SG-S040	PDI-SG-S041	PDI-SG-S043	PDI-SG-S044	PDI-SG-S046	PDI-SG-S047	PDI-SG-S048	PDI-SG-S049	PDI-SG-S050
		Sample Date	02 May 2018	02 May 2018	02 May 2018	02 May 2018	11 May 2018	11 May 2018	05 May 2018	13 Jun 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	15.2	0.1	0.1	3.1	5.5	0.2	0.2	0.1	6.7
Sand, Fine (#200) (d)	GS-Fsand-200	%	43.09	21.82	14.23	26.61	37.11	27.86	5.266	3.299	25.33
Sand, Fine (#230) (d)	GS-Fsand	%	46.2	27.8	18.8	31.2	40.7	34.6	6.9	4.3	26.3
Silt (#200) (d)	GS-Silt-200	%	34.90	64.87	74.16	62.48	50.18	64.53	79.03	82.40	56.66
Silt (#230) (d)	GS-Silt	%	31.8	58.9	69.6	57.9	46.6	57.8	77.4	81.4	55.7
Clay	GS-Clay	%	6.1	13.1	11.4	7.7	6.6	7.4	15.6	14.2	11.0
Percent Fines (e)	GS-FINES	%	41	77.97	85.56	70.18	56.78	71.93	94.63	96.6	67.66
Total Organic Carbon	TOC	mg/kg	11000	20000	21000	22000	20000	20000	28000	28000	22000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S051	S052	S053	S054	S055	S056	S057	S057	S058
		Sample ID	PDI-SG-S051	PDI-SG-S052	PDI-SG-S053	PDI-SG-S054	PDI-SG-S055	PDI-SG-S056	PDI-SG-S057	PDI-SG-S057-D	PDI-SG-S058
		Sample Date	13 Jun 2018	13 Jun 2018	12 May 2018	11 May 2018	11 May 2018	05 May 2018	11 May 2018	11 May 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-27 cm	0-28 cm	0-22 cm	0-30 cm	0-25 cm	0-30 cm	0-27 cm	0-27 cm	0-21 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.41	1.9	0.11	0.12	0.34	0.027	0.012	0.014	0.0098
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.096	0.34	0.035	0.014	0.029	0.0045 JN	0.0019 J	0.0025 J	0.0018 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0084	0.034	0.0042	0.0011 J+	0.0024 J	0.00042 JN	0.00031 JN	0.00047 J+	< 0.00030 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0021 J	0.0061 J	0.00096 J	0.00094 J	0.0012 J	0.00045 J+	< 0.000048 U	0.00019 JN	0.00019 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.021	0.089	0.014	0.0017 J	0.0036 J	0.00063 JN	0.00034 J	0.00068 J	0.00024 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.012	0.048	0.0042 JN	0.0029 J	0.0056	0.0017 J	0.00048 J	0.00051 J	0.00032 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0052 J	0.020	0.0066	< 0.00029 U	0.0011 J	0.00039 JN	0.00016 J	0.00027 J	0.000099 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0054 J	0.012	0.0024 J	0.0022 J	0.0035 J	0.0014 J	0.00034 J	0.00035 J	0.00026 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00070 J+	< 0.00062 U	0.0011 J+	0.0015 J+	0.0018 J+	< 0.000093 U	0.00093 J+	< 0.00087 U	< 0.00025 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0011 J	0.0029 J	0.00054 J	0.00045 J	0.00051 J	< 0.00018 U	< 0.000046 U	< 0.000085 U	< 0.000036 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0019 J	0.0056 J	0.010	0.00064 J+	0.00093 J	0.00031 J	0.00026 J+	0.00034 J+	0.00014 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0021 J	0.0078	0.0011 J	0.00039 JN	0.00054 J	0.00025 J	< 0.000040 U	< 0.000083 U	0.000086 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0059 J	0.024	0.0044	0.00048 J	0.00073 J	< 0.00011 U	0.000077 J	0.00012 JN	< 0.000032 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.0013 J	0.0041	0.00026 JN	0.00034 JN	0.00041 JN	< 0.00017 U	0.00012 JN	< 0.000073 U	< 0.000034 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0016	0.0030	0.0079	0.00071 J	0.00086 J	< 0.00055 U	0.00010 J	0.00013 J	0.00020 J+
OCDD	3268-87-9	µg/kg	4.0	16 J	1.8	1.0	2.5	0.20	0.12	0.14	0.13
OCDF	39001-02-0	µg/kg	0.42	1.1	0.11	0.044	0.11	0.016	0.0056 J	0.0062 J	0.010
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.016	0.061	0.0083	0.0037	0.0075	0.00097	0.00059	0.00052	0.00032
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.016	0.061	0.0082	0.0034	0.0073	0.00086	0.0005	0.00046	0.00025
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.016	0.061	0.0081	0.0033	0.0071	0.00077	0.00044	0.00042	0.00023
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0098 J	0.037	0.024 J	0.0063 JN	0.0076 J+	0.0031 J+	< 0.0014 U	< 0.00081 U	0.0024 J+
PCB-10	33146-45-1	ng/g	0.0036 J	0.011 J	0.0020 JN	< 0.00052 U	0.0022 J	< 0.00066 U	0.00037 JN	< 0.00023 U	0.00064 JN
PCB-103	60145-21-3	ng/g	0.011 J	0.045	0.029 J	0.0063 JN	0.011	0.010	0.0060 J	0.0060 J	0.0098
PCB-104	56558-16-8	ng/g	< 0.00037 U	< 0.00013 U	< 0.00058 U	< 0.00036 U	< 0.00038 U	< 0.00036 U	< 0.00022 U	< 0.00023 U	< 0.00017 U
PCB-105	32598-14-4	ng/g	0.19	1.0	0.23	0.083	0.13	0.040	0.015	0.016	0.082
PCB-106	70424-69-0	ng/g	< 0.0024 U	< 0.0062 U	< 0.0031 U	< 0.0015 U	< 0.0021 U	< 0.0011 U	< 0.00062 U	< 0.00056 U	< 0.00073 U
PCB-107	70424-68-9	ng/g	0.041	0.22	0.094 J	0.019	0.029	0.018	0.0091 J	0.010	0.023
PCB-108/124	70362-41-3	ng/g	0.020 J	0.11	0.026 J	0.0090 J	0.011 JN	0.0053 J	0.0020 JN	0.0020 J	0.0094 J
PCB-11	2050-67-1	ng/g	0.070	0.10	0.019 J	0.032	0.037 JN	0.030 J+	0.0048 J+	0.0041 J+	0.0062 J+
PCB-110/115	38380-03-9	ng/g	0.59	2.8	1.1	0.29	0.44	0.19	0.13	0.15	0.38
PCB-111	39635-32-0	ng/g	0.0025 JN	< 0.00012 U	< 0.00052 U	< 0.00032 U	0.0016 JN	< 0.00032 U	0.00085 JN	< 0.00020 U	< 0.00016 U
PCB-112	74472-36-9	ng/g	< 0.00036 U	< 0.00013 U	0.0063 J	< 0.00035 U	< 0.00037 U	0.00086 JN	< 0.00022 U	< 0.00022 U	< 0.00017 U
PCB-114	74472-37-0	ng/g	0.012 J	0.057	0.011 JN	0.0052 J	0.0065 J	0.0023 J	< 0.00057 U	0.0013 JN	0.0059 J
PCB-118	31508-00-6	ng/g	0.48	2.6	0.74	0.21	0.33	0.13	0.069	0.081	0.24
PCB-12/13	2974-92-7	ng/g	0.017 J	0.072	0.011 JN	0.0034 JN	0.0056 JN	0.0032 J	0.0013 JN	< 0.00020 U	0.0050 J
PCB-120	68194-12-7	ng/g	0.0064 J	0.021	0.014 J	0.0036 J	0.0038 J	0.0020 JN	0.0032 J	0.0030 J	< 0.00015 U
PCB-121	56558-18-0	ng/g	< 0.00035 U	< 0.00012 U	< 0.00056 U	< 0.00034 U	< 0.00036 U	< 0.00034 U	< 0.00021 U	< 0.00022 U	< 0.00017 U
PCB-122	76842-07-4	ng/g	0.0092 J	0.042	< 0.0035 U	0.0039 JN	0.0046 J	< 0.0012 U	< 0.00069 U	< 0.00062 U	0.0043 J
PCB-123	65510-44-3	ng/g	0.0084 J	0.041 JN	0.010 J	< 0.0014 U	0.0047 JN	0.0036 J	0.0014 JN	0.00074 JN	0.0047 J
PCB-126	57465-28-8	ng/g	0.0032 J	0.012 JN	< 0.0031 U	< 0.0015 U	< 0.0020 U	< 0.0011 U	< 0.00059 U	< 0.00054 U	< 0.00072 U
PCB-127	39635-33-1	ng/g	< 0.0023 U	< 0.0059 U	< 0.0030 U	< 0.0015 U	< 0.0021 U	< 0.0011 U	< 0.00060 U	< 0.00054 U	< 0.00070 U
PCB-128/166	38380-07-3	ng/g	0.14	0.67	0.19	0.079	0.12	0.035	0.015 J	0.018 J	0.043
PCB-129/138/160/163	55215-18-4	ng/g	0.89	4.2	1.4	0.51	0.84	0.27	0.12	0.14	0.32
PCB-130	52663-66-8	ng/g	0.061	0.28	0.11	0.035	0.053	0.017 JN	0.010	0.012	0.025
PCB-131	61798-70-7	ng/g	0.011 J	0.059	0.016 JN	0.0049 JN	0.0080 J	< 0.00080 U	< 0.00082 U	0.0018 JN	0.0049 J
PCB-132	38380-05-1	ng/g	0.28	1.4	0.51	0.16	0.25	0.092	0.047	0.056	0.13
PCB-133	35694-04-3	ng/g	0.017	0.080	0.055 J	0.011	0.018	0.0084 J	0.0062 J	0.0072 J	0.0075
PCB-134/143	52704-70-8	ng/g	0.054	0.25	0.080 JN	0.028	0.042	0.019	0.010 J	0.013 J	0.024
PCB-135/151	52744-13-5	ng/g	0.27	1.1	0.69	0.19	0.29	0.14	0.079	0.092	0.16
PCB-136	38411-22-2	ng/g	0.093	0.41	0.22	0.068	0.10	0.053	0.027	0.033	0.061
PCB-137	35694-06-5	ng/g	0.038	0.19	0.045 J	0.016 JN	0.025 JN	0.0081 J	0.0029 JN	0.0037 J	0.010
PCB-139/140	56030-56-9	ng/g	0.016 J	0.084	0.028 JN	0.0090 J	0.014 J	0.0042 JN	0.0031 JN	0.0047 J	0.0060 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S051	S052	S053	S054	S055	S056	S057	S057	S058
		Sample ID	PDI-SG-S051	PDI-SG-S052	PDI-SG-S053	PDI-SG-S054	PDI-SG-S055	PDI-SG-S056	PDI-SG-S057	PDI-SG-S057-D	PDI-SG-S058
		Sample Date	13 Jun 2018	13 Jun 2018	12 May 2018	11 May 2018	11 May 2018	05 May 2018	11 May 2018	11 May 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-27 cm	0-28 cm	0-22 cm	0-30 cm	0-25 cm	0-30 cm	0-27 cm	0-27 cm	0-21 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.00049 U	< 0.00045 U	< 0.0010 U	< 0.00041 U	< 0.00039 U	< 0.00051 U	0.00019 JN	< 0.00018 U	< 0.00015 U
PCB-141	52712-04-6	ng/g	0.17	0.77	0.27	0.098	0.16	0.051	0.024	0.027	0.072
PCB-142	41411-61-4	ng/g	< 0.0022 U	< 0.0047 U	< 0.0039 U	< 0.0012 U	< 0.0017 U	< 0.00075 U	< 0.00077 U	< 0.0011 U	< 0.00060 U
PCB-144	68194-14-9	ng/g	0.029	0.10	0.070 J	0.021 JN	0.033	0.015	0.0059 JN	0.0066 JN	0.010 JN
PCB-145	74472-40-5	ng/g	< 0.00071 U	0.0023 JN	< 0.00090 U	0.00025 JN	< 0.00025 U	< 0.000043 U	< 0.00019 U	< 0.00012 U	< 0.000079 U
PCB-146	51908-16-8	ng/g	0.15	0.69	0.40	0.088	0.15	0.067	0.043	0.047	0.061
PCB-147/149	68194-13-8	ng/g	0.68	3.2	1.4	0.41	0.67	0.29	0.15	0.18	0.33
PCB-148	74472-41-6	ng/g	0.0030 JN	0.011 J	0.016 JN	0.0022 J	0.0036 JN	0.0021 J	0.0020 JN	0.0016 J	0.0014 J+
PCB-15	2050-68-2	ng/g	0.089	0.46	0.038 J	0.027	0.043	0.011 JN	0.0038 J	0.0048 J	0.017 JN
PCB-150	68194-08-1	ng/g	0.0025 JN	0.010 J	0.011 J	0.0014 JN	0.0019 JN	0.0019 J	0.0012 JN	0.0012 J	0.00069 J
PCB-152	68194-09-2	ng/g	0.0016 J+	0.0025 JN	< 0.00087 U	0.00050 JN	0.00045 JN	0.00044 JN	< 0.00018 U	< 0.00012 U	< 0.000076 U
PCB-153/168	35065-27-1	ng/g	0.73	3.3	1.4	0.43	0.73	0.28	0.14	0.16	0.28
PCB-154	60145-22-4	ng/g	0.020	0.069	0.071 J	0.011 JN	0.020	0.015	0.010 JN	0.011	0.0054 J
PCB-155	33979-03-2	ng/g	< 0.00065 U	< 0.00034 U	< 0.00083 U	< 0.00019 U	< 0.00023 U	< 0.000039 U	< 0.00017 U	< 0.00011 U	< 0.000072 U
PCB-156/157	38380-08-4	ng/g	0.092	0.45	0.11 J	0.051	0.069	0.021	0.010 J	0.010 J	0.027
PCB-158	74472-42-7	ng/g	0.085	0.43	0.11	0.049	0.075	0.024	0.0090 J	0.011	0.030
PCB-159	39635-35-3	ng/g	0.011 J	0.040	0.019 J	0.0054 J	0.0080 J	0.0032 J	0.0020 J	0.0013 JN	0.0028 JN
PCB-16	38444-78-9	ng/g	0.061	0.46	0.033 JN	0.018 JN	0.035	0.010 JN	0.0047 J	0.0047 JN	0.055
PCB-161	74472-43-8	ng/g	< 0.0014 U	< 0.0030 U	< 0.0025 U	< 0.00079 U	< 0.0011 U	< 0.00049 U	< 0.00050 U	< 0.00070 U	< 0.00039 U
PCB-162	39635-34-2	ng/g	< 0.0014 U	< 0.0029 U	< 0.0024 U	< 0.00075 U	< 0.0010 U	< 0.00047 U	< 0.00048 U	< 0.00066 U	< 0.00037 U
PCB-164	74472-45-0	ng/g	0.067	0.30	0.11	0.038	0.061	0.022	0.010	0.012	0.025
PCB-165	74472-46-1	ng/g	< 0.0016 U	< 0.0035 U	< 0.0029 U	< 0.00091 U	< 0.0012 U	< 0.00056 U	< 0.00057 U	< 0.00079 U	< 0.00045 U
PCB-167	52663-72-6	ng/g	0.032	0.15	0.041 J	0.019	0.025	0.0074 J	0.0034 J	0.0039 J	0.0091
PCB-169	32774-16-6	ng/g	< 0.0011 U	< 0.0023 U	< 0.0019 U	< 0.00059 U	< 0.00077 U	< 0.00040 U	< 0.00036 U	< 0.00050 U	< 0.00029 U
PCB-17	37680-66-3	ng/g	0.070	0.45	0.047 J	0.021 JN	0.044	0.016 JN	0.0064 JN	0.0077 J	0.077
PCB-170	35065-30-6	ng/g	0.26	1.1	0.41	0.14	0.22	0.087	0.038	0.044	0.073
PCB-171/173	52663-71-5	ng/g	0.081	0.32	0.13 J	0.044	0.070	0.027	0.012 J	0.016 J	0.027
PCB-172	52663-74-8	ng/g	0.046	0.18	0.080 J	0.021 JN	0.040	0.016	0.0075 J	0.0089 J	0.015
PCB-174	38411-25-5	ng/g	0.29	1.1	0.52	0.16	0.26	0.11	0.046	0.057	0.099
PCB-175	40186-70-7	ng/g	0.0076 JN	0.041	0.021 J	0.0066 J	0.0087 J	0.0036 J	0.0018 JN	0.0022 JN	0.0022 JN
PCB-176	52663-65-7	ng/g	0.030	0.12	0.063 J	0.017	0.028	0.013	0.0065 J	0.0065 J	0.011 JN
PCB-177	52663-70-4	ng/g	0.18	0.65	0.30	0.089	0.15	0.064	0.033	0.037	0.051
PCB-178	52663-67-9	ng/g	0.056	0.22	0.12	0.032	0.055	0.022	0.013	0.012	0.020
PCB-179	52663-64-6	ng/g	0.11	0.33	0.23	0.061	0.10	0.051	0.023	0.026	0.042
PCB-18/30	37680-65-2	ng/g	0.13	0.88	0.10 J	0.043	0.075	0.021 JN	0.0094 JN	0.014 J	0.13
PCB-180/193	35065-29-3	ng/g	0.56	2.3	0.93	0.31	0.50	0.20	0.088	0.094	0.16
PCB-181	74472-47-2	ng/g	< 0.00077 U	0.011 J	0.0098 J	0.0018 J	< 0.00029 U	< 0.00017 U	< 0.00045 U	< 0.00042 U	0.0010 JN
PCB-182	60145-23-5	ng/g	< 0.00073 U	0.0092 JN	0.0082 JN	0.0026 J	0.0023 JN	0.0014 J	< 0.00042 U	< 0.00039 U	0.0010 JN
PCB-183/185	52663-69-1	ng/g	0.17	0.71	0.30	0.092	0.15	0.067	0.029	0.032	0.058
PCB-184	74472-48-3	ng/g	< 0.00063 U	< 0.00032 U	< 0.0010 U	< 0.00032 U	< 0.00023 U	< 0.00014 U	< 0.00037 U	< 0.00034 U	< 0.0000099 U
PCB-186	74472-49-4	ng/g	< 0.00060 U	< 0.00031 U	< 0.0010 U	< 0.00031 U	< 0.00022 U	< 0.00014 U	< 0.00035 U	< 0.00032 U	< 0.0000095 U
PCB-187	52663-68-0	ng/g	0.34	1.4	0.63	0.19	0.31	0.14	0.065	0.067	0.10
PCB-188	74487-85-7	ng/g	< 0.00056 U	< 0.00028 U	0.0025 JN	< 0.00028 U	< 0.00020 U	< 0.00012 U	< 0.00033 U	< 0.00030 U	< 0.0000088 U
PCB-189	39635-31-9	ng/g	0.010 J	0.038	0.012 JN	0.0058 J	0.0073 JN	0.0030 J	0.0019 J	0.0014 JN	0.0026 J
PCB-19	38444-73-4	ng/g	0.039	0.15	0.0089 J	0.020	0.024	0.013	0.0016 J	0.0021 J	0.012
PCB-190	41411-64-7	ng/g	0.051	0.20	0.079 J	0.028	0.044	0.016	0.0066 JN	0.0074 JN	0.014
PCB-191	74472-50-7	ng/g	0.012 J	0.043	0.014 JN	0.0062 JN	0.010	0.0040 J	< 0.00034 U	0.0015 JN	0.0036 J
PCB-192	74472-51-8	ng/g	< 0.00061 U	< 0.00032 U	< 0.0010 U	< 0.00031 U	< 0.00023 U	< 0.00014 U	< 0.00036 U	< 0.00033 U	< 0.0000097 U
PCB-194	35694-08-7	ng/g	0.14	0.58	0.22	0.074	0.13	0.048	0.019	0.020	0.030
PCB-195	52663-78-2	ng/g	0.063	0.25	0.10	0.031	0.053	0.021	0.0074 J	0.0099	0.013
PCB-196	42740-50-1	ng/g	0.060	0.24	0.11	0.037	0.063	0.018	0.011	0.011	0.015
PCB-197	33091-17-7	ng/g	0.0053 JN	0.016	0.010 J	0.0029 JN	0.0043 J	0.0017 J	0.00068 JN	0.0011 J	0.00097 JN
PCB-198/199	68194-17-2	ng/g	0.16	0.59	0.29	0.098	0.14	0.042 JN	0.025	0.025	0.033
PCB-2	2051-61-8	ng/g	0.025	0.050	0.0065 JN	0.0078 J+	0.013 J+	0.0064 J+	< 0.0011 U	< 0.00021 U	0.0022 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S051	S052	S053	S054	S055	S056	S057	S057	S058
		Sample ID	PDI-SG-S051	PDI-SG-S052	PDI-SG-S053	PDI-SG-S054	PDI-SG-S055	PDI-SG-S056	PDI-SG-S057	PDI-SG-S057-D	PDI-SG-S058
		Sample Date	13 Jun 2018	13 Jun 2018	12 May 2018	11 May 2018	11 May 2018	05 May 2018	11 May 2018	11 May 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-27 cm	0-28 cm	0-22 cm	0-30 cm	0-25 cm	0-30 cm	0-27 cm	0-27 cm	0-21 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.30	1.9	0.23	0.099	0.17	0.070	0.033	0.033	0.28
PCB-200	52663-73-7	ng/g	0.019	0.061	0.033 J	0.0091 J	0.013	0.0058 JN	0.0024 JN	0.0028 JN	0.0037 J
PCB-201	40186-71-8	ng/g	0.017 JN	0.067	0.031 JN	0.0089 JN	0.014	0.0049 JN	0.0037 J	0.0024 JN	0.0041 J
PCB-202	2136-99-4	ng/g	0.030	0.12	0.051 JN	0.021	0.026	0.011	0.0048 J	0.0051 J	0.0067
PCB-203	52663-76-0	ng/g	0.095	0.37	0.16	0.058	0.077	0.027	0.014	0.017	0.020
PCB-204	74472-52-9	ng/g	< 0.0018 U	< 0.0012 U	< 0.0012 U	< 0.00057 U	< 0.00040 U	< 0.00013 U	< 0.00024 U	< 0.00021 U	< 0.000015 U
PCB-205	74472-53-0	ng/g	0.0047 J	0.026	0.013 J	0.0041 J	0.0056 J	0.0032 J	0.0012 JN	< 0.00057 U	0.0015 J
PCB-206	40186-72-9	ng/g	0.69 JN	0.43 JN	0.19	0.15 JN	0.14 JN	0.044 J	0.62 JN	0.032 JN	0.021
PCB-207	52663-79-3	ng/g	< 0.0075 U	0.029	0.018 JN	0.0082 J	0.0083 J	0.0043 J	< 0.0016 U	0.0013 J	0.0013 J
PCB-208	52663-77-1	ng/g	< 0.0081 U	0.11	0.056 J	0.035	0.038	0.015	0.0056 J	0.0046 JN	0.0079
PCB-209	2051-24-3	ng/g	0.12	0.24	0.36	0.081	0.10	0.042	0.018	0.017	0.015
PCB-21/33	55702-46-0	ng/g	0.14	0.92	0.10 J	0.045	0.081	0.028	0.013 J	0.012 J	0.11
PCB-22	38444-85-8	ng/g	0.11	0.65	0.058 J	0.032	0.056	0.017	0.0071 J	0.0059 J	0.060
PCB-23	55720-44-0	ng/g	< 0.0013 U	< 0.0062 U	< 0.0021 U	< 0.0010 U	< 0.0017 U	< 0.00072 U	< 0.00059 U	< 0.00056 U	< 0.0015 U
PCB-24	55702-45-9	ng/g	0.0022 J	0.021	< 0.00060 U	0.0011 J	0.0017 JN	< 0.00013 U	0.00019 JN	< 0.000065 U	0.0020 J
PCB-25	55712-37-3	ng/g	0.027	0.16	0.016 J	0.0082 JN	0.016	0.0082 J	0.0082 JN	0.013	0.029
PCB-26/29	38444-81-4	ng/g	0.048	0.31	0.036 J	0.016 J	0.029	0.011 JN	0.019	0.022	0.053
PCB-27	38444-76-7	ng/g	0.015	0.099	0.0095 J	0.0039 JN	0.0070 JN	0.0025 JN	0.00051 JN	0.00053 JN	0.0093 JN
PCB-3	2051-62-9	ng/g	0.012 J	0.039	0.016 JN	0.0053 J+	0.0075 J+	0.0030 JN	< 0.0015 U	< 0.0011 U	0.0022 JN
PCB-31	16606-02-3	ng/g	0.22	1.4	0.16 J	0.069	0.12	0.044	0.023	0.023	0.19
PCB-32	38444-77-8	ng/g	0.044	0.31	0.030 J	0.014 JN	0.026	0.0087 JN	0.0056 J	0.0075 JN	0.047
PCB-34	37680-68-5	ng/g	< 0.0013 U	< 0.0064 U	< 0.0022 U	< 0.0011 U	< 0.0018 U	< 0.00075 U	< 0.00061 U	< 0.00059 U	0.0039 J
PCB-35	37680-69-6	ng/g	0.0038 JN	0.039	0.0047 JN	0.0021 JN	< 0.0017 U	0.0017 J	< 0.00058 U	< 0.00056 U	< 0.0015 U
PCB-36	38444-87-0	ng/g	< 0.0012 U	< 0.0055 U	< 0.0019 U	< 0.00094 U	< 0.0015 U	< 0.00065 U	< 0.00053 U	< 0.00051 U	< 0.0014 U
PCB-37	38444-90-5	ng/g	0.12	0.69	0.069 J	0.035	0.058	0.018	0.0091 J	0.0087 J	0.050
PCB-38	53555-66-1	ng/g	< 0.0013 U	< 0.0060 U	< 0.0020 U	< 0.0010 U	< 0.0017 U	< 0.00071 U	< 0.00057 U	< 0.00055 U	< 0.0015 U
PCB-39	38444-88-1	ng/g	< 0.0012 U	< 0.0055 U	< 0.0018 U	< 0.00093 U	< 0.0015 U	< 0.00064 U	< 0.00052 U	< 0.00050 U	0.0022 JN
PCB-4	13029-08-8	ng/g	0.047	0.22	0.020 JN	0.027	0.031	0.013 J	0.0022 J	0.0011 JN	0.014
PCB-40/41/71	38444-93-8	ng/g	0.16	1.2	0.15 J	0.057	0.094	0.036	0.024 J	0.025 J	0.19
PCB-42	36559-22-5	ng/g	0.080	0.54	0.089 J	0.028	0.047	0.020	0.014	0.017	0.098
PCB-43/73	70362-46-8	ng/g	0.011 J	0.081	< 0.0030 U	0.0047 J	0.0050 JN	0.0044 JN	< 0.0012 U	0.0021 J	0.016
PCB-44/47/65	41464-39-5	ng/g	0.34	2.0	0.40	0.14	0.21	0.11	0.065	0.078	0.37
PCB-45/51	70362-45-7	ng/g	0.058	0.41	0.045 J	0.030	0.043	0.032	0.0096 JN	0.011 J	0.072
PCB-46	41464-47-5	ng/g	0.012 J	0.14	0.010 JN	0.0053 JN	0.0097 JN	0.0041 JN	< 0.0017 U	0.0036 J	0.025
PCB-48	70362-47-9	ng/g	0.055	0.41	0.044 J	0.020	0.032	0.011	0.0075 J	0.0072 J	0.072
PCB-49/69	41464-40-8	ng/g	0.20	1.2	0.28	0.089	0.13	0.070	0.069	0.077	0.24
PCB-5	16605-91-7	ng/g	< 0.00059 U	0.0099 J	< 0.0012 U	< 0.00049 U	< 0.00047 U	< 0.00061 U	< 0.00018 U	< 0.00022 U	0.00045 JN
PCB-50/53	62796-65-0	ng/g	0.050	0.30	0.033 JN	0.026	0.032	0.023	0.010 J	0.012 J	0.060
PCB-52	35693-99-3	ng/g	0.40	2.5	0.66	0.16	0.25	0.11	0.11	0.12	0.49
PCB-54	15968-05-5	ng/g	0.0071 J	0.019	< 0.00021 U	0.0063 J	0.0071 J	0.0049 J	0.00073 JN	0.00092 J	0.0020 JN
PCB-55	74338-24-2	ng/g	0.0055 JN	0.039	< 0.0022 U	< 0.00094 U	< 0.00065 U	0.0013 JN	< 0.00092 U	< 0.00063 U	0.0059 JN
PCB-56	41464-43-1	ng/g	0.10	0.52	0.17	0.040	0.066	0.026	0.017 JN	0.017	0.12
PCB-57	70424-67-8	ng/g	< 0.00097 U	< 0.0058 U	< 0.0023 U	< 0.00096 U	< 0.00067 U	< 0.00053 U	< 0.00094 U	0.0011 JN	< 0.00054 U
PCB-58	41464-49-7	ng/g	0.0019 J+	0.0079 JN	0.0054 J	< 0.00093 U	0.0011 JN	< 0.00051 U	< 0.00090 U	0.00069 JN	0.0020 J+
PCB-59/62/75	74472-33-6	ng/g	0.030 J	0.21	0.029 J	0.0094 JN	0.017 J	0.0068 J	0.0041 JN	0.0048 JN	0.031
PCB-6	25569-80-6	ng/g	0.024	0.13	0.0098 J	0.0065 JN	0.013	0.0030 JN	0.0017 JN	0.0016 J	0.014
PCB-60	33025-41-1	ng/g	0.047	0.29	0.047 J	0.019	0.029	0.0068 JN	0.0040 J	0.0037 J	0.031
PCB-61/70/74/76	33284-53-6	ng/g	0.44	2.4	0.76	0.18	0.29	0.12	0.089	0.089	0.49
PCB-63	74472-34-7	ng/g	0.0082 JN	0.058	0.015 J	0.0038 J	0.0067 J	0.0030 J	0.0019 JN	0.0023 J	0.013
PCB-64	52663-58-8	ng/g	0.12	0.80	0.12	0.043	0.066	0.024	0.019	0.019	0.13
PCB-66	32598-10-0	ng/g	0.27	1.3	0.40	0.11	0.17	0.080	0.061	0.059	0.27
PCB-67	73575-53-8	ng/g	0.0083 JN	0.062	0.0088 JN	0.0031 J	0.0058 J	0.0015 JN	0.0044 JN	0.0072 J	0.0080
PCB-68	73575-52-7	ng/g	0.0022 JN	0.018	0.010 J	0.0026 J	0.0037 J	0.0044 J+	0.0027 J	0.0025 JN	0.0033 J
PCB-7	33284-50-3	ng/g	0.0045 J	0.023	0.0025 JN	0.0017 J	0.0023 JN	< 0.00058 U	< 0.00017 U	0.00045 JN	0.0018 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S051	S052	S053	S054	S055	S056	S057	S057	S058
		Sample ID	PDI-SG-S051	PDI-SG-S052	PDI-SG-S053	PDI-SG-S054	PDI-SG-S055	PDI-SG-S056	PDI-SG-S057	PDI-SG-S057-D	PDI-SG-S058
		Sample Date	13 Jun 2018	13 Jun 2018	12 May 2018	11 May 2018	11 May 2018	05 May 2018	11 May 2018	11 May 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-27 cm	0-28 cm	0-22 cm	0-30 cm	0-25 cm	0-30 cm	0-27 cm	0-27 cm	0-21 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0029 JN	0.025	0.024 J	< 0.00094 U	0.0046 J	0.0032 J	0.0031 JN	0.0054 J	0.0076
PCB-77	32598-13-3	ng/g	0.031	0.15	0.031 J	0.014	0.021	0.0071 J	< 0.00085 U	0.0049 J	0.020
PCB-78	70362-49-1	ng/g	< 0.00093 U	< 0.0055 U	< 0.0022 U	< 0.00093 U	< 0.00064 U	< 0.00051 U	< 0.00090 U	< 0.00062 U	< 0.00052 U
PCB-79	41464-48-6	ng/g	0.0047 J	0.021	0.013 J	0.0028 J	0.0022 JN	0.0014 JN	< 0.00077 U	0.0016 J	0.0036 J
PCB-8	34883-43-7	ng/g	0.088	0.52	0.043 JN	0.037	0.060	0.014 J	0.0051 J	0.0046 J	0.034
PCB-80	33284-52-5	ng/g	< 0.00083 U	< 0.0049 U	< 0.0019 U	< 0.00082 U	< 0.00057 U	< 0.00046 U	< 0.00080 U	< 0.00055 U	< 0.00046 U
PCB-81	70362-50-4	ng/g	< 0.00088 U	< 0.0053 U	< 0.0021 U	< 0.00089 U	< 0.00063 U	< 0.00049 U	< 0.00086 U	< 0.00058 U	< 0.00050 U
PCB-82	52663-62-4	ng/g	0.071	0.33	0.082 JN	0.032	0.043	0.016	0.011	0.013	0.048
PCB-83/99	60145-20-2	ng/g	0.34	1.8	0.74	0.18	0.26	0.13	0.10	0.12	0.22
PCB-84	52663-60-2	ng/g	0.13	0.71	0.23	0.059	0.085	0.036	0.031	0.034	0.12
PCB-85/116/117	65510-45-4	ng/g	0.088	0.46	0.15 J	0.043	0.066	0.027 J	0.013 J	0.015 J	0.059
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.34	1.7	0.60	0.16	0.23	0.10	0.059	0.068	0.23
PCB-88/91	55215-17-3	ng/g	0.084	0.47	0.15 J	0.044	0.063	0.034	0.026	0.031	0.059
PCB-89	73575-57-2	ng/g	0.0043 JN	0.030	0.010 J	0.0030 JN	0.0028 JN	< 0.00053 U	< 0.00033 U	< 0.00034 U	0.0061 JN
PCB-9	34883-39-1	ng/g	0.0059 JN	0.041	0.0051 JN	0.0015 JN	0.0048 J	< 0.00067 U	< 0.00020 U	< 0.00024 U	0.0022 J+
PCB-90/101/113	68194-07-0	ng/g	0.53	2.6	1.2	0.27	0.40	0.20	0.13	0.15	0.39
PCB-92	52663-61-3	ng/g	0.11	0.55	0.30	0.056	0.088	0.050	0.036	0.040	0.068
PCB-93/100	73575-56-1	ng/g	0.029	0.078 JN	0.032 J	0.011 JN	0.011 J	0.011 J	0.0041 JN	0.0052 J	0.012 J
PCB-94	73575-55-0	ng/g	0.0060 J	0.021	< 0.00087 U	0.0037 JN	0.0032 JN	0.0024 JN	< 0.00033 U	< 0.00034 U	0.0033 JN
PCB-95	38379-99-6	ng/g	0.40	2.2	0.88	0.21	0.31	0.16	0.10	0.11	0.38
PCB-96	73575-54-9	ng/g	0.0060 J	0.027	< 0.00065 U	0.0024 JN	0.0038 J	0.0015 JN	0.0010 JN	< 0.00025 U	0.0052 J
PCB-98/102	60233-25-2	ng/g	0.022 JN	0.13	0.022 JN	0.010 J	0.015 J	0.0097 J	0.0043 J	0.0059 JN	0.017
Total PCBs (b)	T_PCBCg (PDI)	ng/g	15	73	24	7.5	12	4.8	3.3	3.0	8.9
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.50 J	0.91	2.7	0.42 J	< 1.1 U	< 0.82 UJ	0.42	< 0.34 U	< 0.27 U
2,4-DDE	3424-82-6	µg/kg	< 0.55 U	< 0.45 U	< 0.79 U	< 0.56 U	< 1.1 U	< 0.82 UJ	< 0.40 U	< 0.40 U	< 0.27 U
2,4-DDT	789-02-6	µg/kg	< 0.55 U	< 0.45 U	< 0.94 U	< 0.56 U	< 1.1 U	< 0.94 UJ	< 0.47 U	< 0.47 U	< 0.27 U
4,4'-DDD	72-54-8	µg/kg	2.0	4.5	8.2	1.1	1.3	0.85 J	0.70	0.35	0.14 J
4,4'-DDE	72-55-9	µg/kg	2.7 J	2.8 J	5.7	2.7	2.0	1.3 J	< 0.35 U	< 0.35 U	< 0.27 UJ
4,4'-DDT	50-29-3	µg/kg	0.89	0.92	0.86	0.45 J	< 1.1 U	< 0.82 UJ	< 0.34 U	< 0.34 U	< 0.27 U
DDx (b)	T_DDx (PDI)	µg/kg	6.4	9.4	18	5.0	3.9	2.6	1.4	0.59	0.28
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	12 J	68	71	5.1	24	7.1	12 J	4.4 J	4.6
Acenaphthene	83-32-9	µg/kg	15	280	130	11	140	10	13	10	14
Acenaphthylene	208-96-8	µg/kg	24	100	39	5.7	21	5.7	4.5	4.9	4.0
Anthracene	120-12-7	µg/kg	57	440	110	20	160	17	24	25	24
Benz(a)anthracene	56-55-3	µg/kg	160	2000	320	100	1300	52	67	71	90
Benzo(a)pyrene	50-32-8	µg/kg	100 J	1900 J	330	160	1600	67	94	98	95 J
Benzo(b)fluoranthene	205-99-2	µg/kg	180	2800	300	170	1800	68	93	97	110
Benzo(g,h,i)perylene	191-24-2	µg/kg	91	1400	240	80	1000	48	51	52	75
Benzo(k)fluoranthene	207-08-9	µg/kg	55	970	110	56	640	22	32	34	36
Chrysene	218-01-9	µg/kg	210	2400	410	140	1400	64	77	80	91
Dibenz(a,h)anthracene	53-70-3	µg/kg	28	400	42	20	270	8.8	11	11	18
Fluoranthene	206-44-0	µg/kg	320	5400	640	200	1700	120	130	160	170
Fluorene	86-73-7	µg/kg	19	250	78	9.9	83	11	13	14	14
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	120	1800	220	87	1200	49	52	53	88
Naphthalene	91-20-3	µg/kg	25	160	130	9.4	49	13	43 J	12 J	13
Phenanthrene	85-01-8	µg/kg	85	2000	530	76	710	67	86	99	79
Pyrene	129-00-0	µg/kg	600	4700	980	210	1800	140	180	200	190
Total PAHs (b)	T_PAH (PDI)	µg/kg	2101	27068	4680	1360	13897	770	983	1025	1116
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	175	2972	458	216	2308	93	127	132	142
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	33.7 34.4	40.8 45.3	67.4	48.7	46.2	63.7	70.3	72.0	73.7 74.7
Total Solids@104C - E160.3M (f)	TSOLID	%	33.8	41.2	66.3	44.5	43.7	59.8	73.1	72.5	73.2
Total Solids@70C	TSOLID70	%	34	40	69	44	43	59	72	73	77
Gravel	GS-Gravel	%	0	0	0.6	0.3	0	0	0		0
Sand, Coarse	GS-Csand	%	0	0.5	0.6	0	0	0.1	0.7		0.1

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S051	S052	S053	S054	S055	S056	S057	S057	S058
		Sample ID	PDI-SG-S051	PDI-SG-S052	PDI-SG-S053	PDI-SG-S054	PDI-SG-S055	PDI-SG-S056	PDI-SG-S057	PDI-SG-S057-D	PDI-SG-S058
		Sample Date	13 Jun 2018	13 Jun 2018	12 May 2018	11 May 2018	11 May 2018	05 May 2018	11 May 2018	11 May 2018	13 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-27 cm	0-28 cm	0-22 cm	0-30 cm	0-25 cm	0-30 cm	0-27 cm	0-27 cm	0-21 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.1	4.1	2.0	0.1	0.3	22.1	44.9		50.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	1.401	34.51	48.1	19.32	21.34	41.33	49.92		45.41
Sand, Fine (#230) (d)	GS-Fsand	%	1.7	37.0	53.3	24.6	26.1	43.4	50.1		45.5
Silt (#200) (d)	GS-Silt-200	%	78.59	52.48	43.69	70.07	68.15	29.76	2.979		2.788
Silt (#230) (d)	GS-Silt	%	78.3	50.0	38.5	64.8	63.4	27.7	2.8		2.7
Clay	GS-Clay	%	20.0	8.4	5.1	10.1	10.2	6.7	1.5		1.4
Percent Fines (e)	GS-FINES	%	98.59	60.88	48.79	80.17	78.35	36.46	4.479		4.188
Total Organic Carbon	TOC	mg/kg	30000	39000	11000	28000	26000	12000	1400 J	1500 J	720 J

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S059	S060	S062	S063	S065	S067	S068	S069	S070
		Sample ID	PDI-SG-S059	PDI-SG-S060	PDI-SG-S062	PDI-SG-S063	PDI-SG-S065	PDI-SG-S067	PDI-SG-S068	PDI-SG-S069	PDI-SG-S070
		Sample Date	14 Jun 2018	14 Jun 2018	02 May 2018	03 May 2018	12 May 2018	05 May 2018	05 May 2018	05 May 2018	12 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-23 cm	0-22 cm	0-24 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.065	0.11	0.13	0.11	0.053	0.014	0.010	0.029	0.037
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0093	0.015	0.014 JN	0.012 JN	0.012	0.0022 J	0.0015 J	0.0040	0.0064
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00086 J+	0.0013 J+	0.0013 J+	0.0010 J+	0.0016 J	< 0.00022 U	< 0.00022 U	< 0.00030 U	0.00081 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00052 J+	0.00091 J+	< 0.00013 U	0.00095 J+	0.00077 J+	< 0.00018 U	< 0.00019 U	< 0.00020 U	0.00041 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0017 J	0.0032 J	0.0048 J	0.0037 J	0.0042 J	0.0011 J	0.0015 J	0.0011 JN	0.0016 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0020 J	0.0033 J	0.0037 J	0.0032 J	0.0021 J	0.00071 JN	0.00027 JN	0.0010 J	0.0016 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00059 J	0.0011 J	0.0012 J	0.0012 J	0.0014 J	0.00045 J+	0.00052 J+	< 0.00025 U	0.00057 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0013 J	0.0020 J	0.0032 J	0.0025 J	0.0019 J	0.00045 J	0.00036 JN	0.00088 J	0.0012 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00024 U	0.00044 J+	< 0.00023 U	< 0.00011 U	0.0016 J+	< 0.00013 U	0.00040 JN	< 0.000098 U	< 0.00084 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00034 J	0.00054 JN	0.00066 J	0.00050 J	0.00041 J	< 0.00016 U	< 0.00021 U	< 0.00019 U	< 0.000089 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00050 J+	0.00094 J	0.0019 J	0.0018 J	0.0016 J	0.0019 J	0.0022 JN	0.00052 JN	0.0010 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00027 J+	0.00055 J	0.00053 J+	0.00048 J+	0.00044 J	< 0.00013 U	< 0.00012 U	0.00017 JN	0.00023 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00041 J+	0.00081 J	0.00098 J	0.00090 J+	0.00074 J	0.0010 JN	0.0010 J	0.00043 J	0.00051 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00017 U	< 0.000087 U	0.00025 JN	0.00044 J	0.00023 J	< 0.00016 U	< 0.00017 U	< 0.00020 U	0.00012 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00070 J	0.00072 J	0.0014	0.0015	0.0013	0.0024 J+	0.0032 J+	< 0.00063 U	0.0011
OCDD	3268-87-9	µg/kg	0.56	0.93	0.89	0.77	0.49	0.10	0.072	0.21	0.31
OCDF	39001-02-0	µg/kg	0.025	0.040	0.046	0.039	0.033	0.0076	0.0037 J	0.010	0.023
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0022	0.0036	0.0045	0.0041	0.0031	0.0011	0.0012	0.00096	0.0016
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0022	0.0033	0.0044	0.0041	0.0031	0.00084	0.0011	0.00081	0.0015
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0021	0.003	0.0042	0.0041	0.0031	0.00069	0.00096	0.00071	0.0014
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0035 J+	0.0037 J	0.0029 J	0.0020 JN	0.0064 J	0.0023 J+	0.0011 JN	0.0023 J	0.0037 JN
PCB-10	33146-45-1	ng/g	0.0012 J	0.0010 J	< 0.0038 U	< 0.0047 U	< 0.00061 U	< 0.0010 U	< 0.00087 U	< 0.00049 U	< 0.00056 U
PCB-103	60145-21-3	ng/g	0.0086 JN	0.0095	0.0072 J	0.0055 J	0.0066 J	< 0.00081 U	0.0018 JN	0.0021 J	0.0054 JN
PCB-104	56558-16-8	ng/g	< 0.00046 U	< 0.00029 U	< 0.00051 U	< 0.00042 U	< 0.00020 U	< 0.00063 U	< 0.00041 U	< 0.00020 U	< 0.00031 U
PCB-105	32598-14-4	ng/g	0.070	0.076	0.13	0.11	0.13	0.028 J	0.021	0.025	0.045
PCB-106	70424-69-0	ng/g	< 0.00094 U	< 0.0011 U	< 0.0020 U	< 0.0021 U	< 0.0011 U	< 0.0012 U	< 0.00069 U	< 0.00049 U	< 0.00073 U
PCB-107	70424-68-9	ng/g	0.021	0.021	0.030	0.022	0.028	0.0044 JN	0.0044 J	0.0054 JN	0.013
PCB-108/124	70362-41-3	ng/g	0.0067 J	0.0079 J	0.015 J	0.012 J	0.015 J	0.0025 JN	0.0024 J	0.0032 J	0.0056 J
PCB-11	2050-67-1	ng/g	0.015	0.026	0.069	0.047 JN	0.040	0.017 JN	0.0091 JN	0.0099 J	0.024
PCB-110/115	38380-03-9	ng/g	0.27	0.29	0.43	0.35	0.47	0.11 J	0.097	0.13	0.18
PCB-111	39635-32-0	ng/g	0.0017 JN	0.0013 JN	< 0.00047 U	< 0.00039 U	< 0.00018 U	< 0.00057 U	< 0.00036 U	< 0.00017 U	0.00083 JN
PCB-112	74472-36-9	ng/g	< 0.00045 U	< 0.00029 U	< 0.00050 U	< 0.00041 U	< 0.00020 U	0.00087 JN	< 0.00040 U	< 0.00019 U	< 0.00030 U
PCB-114	74472-37-0	ng/g	0.0047 J	0.0045 J	0.0076 J	0.0051 J	0.0088 J	0.0016 JN	0.0015 JN	0.0018 J	0.0020 JN
PCB-118	31508-00-6	ng/g	0.19	0.22	0.32	0.27	0.33	0.073 J	0.056	0.070	0.13
PCB-12/13	2974-92-7	ng/g	0.0023 JN	0.0046 J	0.0038 JN	0.0070 JN	0.0046 J	< 0.00085 U	0.0014 JN	0.0013 JN	0.0020 JN
PCB-120	68194-12-7	ng/g	0.0050 J	0.0031 JN	0.0026 J	< 0.00040 U	0.0021 JN	< 0.00056 U	< 0.00036 U	0.00059 JN	0.0018 J
PCB-121	56558-18-0	ng/g	< 0.00044 U	< 0.00028 U	< 0.00049 U	< 0.00041 U	< 0.00019 U	< 0.00060 U	< 0.00039 U	< 0.00019 U	< 0.00029 U
PCB-122	76842-07-4	ng/g	0.0034 J	0.0033 JN	0.0046 J	0.0043 JN	0.0050 J	< 0.0014 U	< 0.00076 U	< 0.00054 U	0.0017 J
PCB-123	65510-44-3	ng/g	0.0037 J	0.0028 JN	0.0053 JN	0.0039 JN	0.0064 JN	< 0.0011 U	< 0.00062 U	0.00075 JN	0.0022 JN
PCB-126	57465-28-8	ng/g	0.0013 JN	0.0013 J+	< 0.0021 U	< 0.0024 U	< 0.0010 U	< 0.0012 U	< 0.00063 U	< 0.00045 U	< 0.00070 U
PCB-127	39635-33-1	ng/g	< 0.00090 U	< 0.0010 U	< 0.0020 U	< 0.0021 U	< 0.0010 U	< 0.0012 U	< 0.00066 U	< 0.00047 U	< 0.00070 U
PCB-128/166	38380-07-3	ng/g	0.069	0.067	0.085	0.062 JN	0.10	0.064 J	0.015 J	0.021	0.038
PCB-129/138/160/163	55215-18-4	ng/g	0.63	0.51	0.57	0.50	0.62	0.62	0.13	0.18	0.30
PCB-130	52663-66-8	ng/g	0.036	0.034	0.035 JN	0.027	0.043	0.014 JN	0.0056 JN	0.0087 J	0.020
PCB-131	61798-70-7	ng/g	< 0.0012 U	0.0051 J	0.0070 J	< 0.0042 U	0.0075 JN	< 0.0035 U	< 0.00090 U	< 0.00069 U	< 0.0011 U
PCB-132	38380-05-1	ng/g	0.19	0.16	0.17	0.14	0.20	0.16	0.042	0.065	0.095
PCB-133	35694-04-3	ng/g	0.017	0.012	0.0093 JN	0.0074 J	0.013	< 0.0033 U	0.0020 J	0.0030 J	0.0099 J
PCB-134/143	52704-70-8	ng/g	0.036	0.027	0.034	0.023 J	0.039	0.026 J	0.0068 J	0.010 J	0.015 J
PCB-135/151	52744-13-5	ng/g	0.25	0.13 JN	0.17	0.12 JN	0.20	0.41	0.061	0.094	0.14
PCB-136	38411-22-2	ng/g	0.086	0.067	0.061	0.048	0.074	0.10	0.024	0.033	0.038 JN
PCB-137	35694-06-5	ng/g	0.012	0.015	0.024 JN	0.016 JN	0.025 JN	0.0034 JN	0.0027 JN	0.0042 J	0.0076 J
PCB-139/140	56030-56-9	ng/g	0.010 J	0.0083 J	0.0099 JN	0.0072 JN	0.013 J	< 0.0029 U	0.0011 JN	0.0023 J	0.0057 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S059	S060	S062	S063	S065	S067	S068	S069	S070
		Sample ID	PDI-SG-S059	PDI-SG-S060	PDI-SG-S062	PDI-SG-S063	PDI-SG-S065	PDI-SG-S067	PDI-SG-S068	PDI-SG-S069	PDI-SG-S070
		Sample Date	14 Jun 2018	14 Jun 2018	02 May 2018	03 May 2018	12 May 2018	05 May 2018	05 May 2018	05 May 2018	12 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-23 cm	0-22 cm	0-24 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.00027 U	< 0.00032 U	< 0.0029 U	< 0.0036 U	< 0.00048 U	< 0.00078 U	< 0.00068 U	< 0.00039 U	< 0.00044 U
PCB-141	52712-04-6	ng/g	0.16	0.11	0.10	0.080	0.11	0.23	0.032	0.042	0.056
PCB-142	41411-61-4	ng/g	< 0.0011 U	< 0.00089 U	< 0.0039 U	< 0.0038 U	< 0.0012 U	< 0.0033 U	< 0.00084 U	< 0.00065 U	< 0.0011 U
PCB-144	68194-14-9	ng/g	0.030	0.021	0.022	0.016	0.023 JN	0.054 J	0.0050 JN	0.0096 JN	0.015
PCB-145	74472-40-5	ng/g	< 0.00027 U	< 0.000084 U	< 0.00049 U	< 0.00019 U	< 0.00037 U	< 0.00043 U	< 0.000080 U	< 0.00011 U	< 0.00016 U
PCB-146	51908-16-8	ng/g	0.14	0.10	0.091	0.086	0.11	0.094 J	0.020	0.027	0.071
PCB-147/149	68194-13-8	ng/g	0.59	0.44	0.47	0.40	0.47	0.75	0.13	0.19	0.26
PCB-148	74472-41-6	ng/g	0.0039 JN	0.0018 JN	< 0.00069 U	< 0.00027 U	0.0017 JN	< 0.00057 U	< 0.00011 U	< 0.00014 U	0.0031 J
PCB-15	2050-68-2	ng/g	0.014	0.018	0.030	0.027 JN	0.021	0.0071 J	0.0074 J	0.0056 J	0.011
PCB-150	68194-08-1	ng/g	0.0036 J	0.0023 J	0.0020 J	0.0014 JN	0.0015 JN	< 0.00039 U	0.00012 JN	0.00021 JN	0.0015 JN
PCB-152	68194-09-2	ng/g	< 0.00026 U	< 0.000081 U	< 0.00050 U	< 0.00020 U	0.00043 JN	< 0.00041 U	< 0.000077 U	< 0.00010 U	0.00021 JN
PCB-153/168	35065-27-1	ng/g	0.63	0.48	0.46	0.40	0.47	0.84	0.13	0.17	0.28
PCB-154	60145-22-4	ng/g	0.022 JN	0.011 JN	0.0086 JN	0.0078 JN	0.014 JN	0.0041 JN	0.0014 JN	0.0020 JN	0.010
PCB-155	33979-03-2	ng/g	< 0.00025 U	< 0.00023 U	< 0.00047 U	< 0.00018 U	< 0.00034 U	< 0.00039 U	< 0.000073 U	< 0.000097 U	< 0.00015 U
PCB-156/157	38380-08-4	ng/g	0.048	0.048	0.065	0.043	0.066	0.035 J	0.011 J	0.015 J	0.025
PCB-158	74472-42-7	ng/g	0.057	0.046	0.057	0.047	0.061	0.058 J	0.013 J	0.017	0.025
PCB-159	39635-35-3	ng/g	0.012	0.0078 J	0.0056 J	< 0.0025 U	0.0037 JN	0.019 J	0.0024 J	0.0025 J	0.0032 JN
PCB-16	38444-78-9	ng/g	0.020	0.017	0.036 JN	0.029	0.019 JN	0.0035 JN	0.0093 JN	0.0089 J	0.012
PCB-161	74472-43-8	ng/g	< 0.00072 U	< 0.00058 U	< 0.0026 U	< 0.0025 U	< 0.00076 U	< 0.0022 U	< 0.00055 U	< 0.00042 U	< 0.00070 U
PCB-162	39635-34-2	ng/g	< 0.00068 U	< 0.00055 U	< 0.0026 U	< 0.0025 U	< 0.00072 U	< 0.0021 U	< 0.00052 U	< 0.00040 U	< 0.00066 U
PCB-164	74472-45-0	ng/g	0.047	0.038	0.037 JN	0.033	0.045	0.045 J	0.0093 J	0.014	0.021
PCB-165	74472-46-1	ng/g	< 0.00082 U	< 0.00066 U	< 0.0029 U	< 0.0029 U	< 0.00086 U	< 0.0025 U	< 0.00063 U	< 0.00048 U	< 0.00080 U
PCB-167	52663-72-6	ng/g	0.019	0.019	0.021	0.015	0.022	0.011 JN	0.0043 J	0.0045 J	0.0094 J
PCB-169	32774-16-6	ng/g	< 0.00054 U	< 0.00044 U	< 0.0020 U	< 0.0021 U	< 0.00056 U	< 0.0016 U	< 0.00042 U	< 0.00031 U	< 0.00050 U
PCB-17	37680-66-3	ng/g	0.021 JN	0.021 JN	0.052	0.044 JN	0.023	0.0082 J	0.013 J	0.0087 JN	0.013
PCB-170	35065-30-6	ng/g	0.31	0.18	0.13	0.11 JN	0.13	0.54	0.052	0.073	0.096
PCB-171/173	52663-71-5	ng/g	0.10	0.057	0.047	0.031 JN	0.046	0.15 J	0.017 J	0.026	0.033
PCB-172	52663-74-8	ng/g	0.060	0.034	0.026	0.024	0.024	0.11	0.010 J	0.013	0.019
PCB-174	38411-25-5	ng/g	0.37	0.21	0.14	0.12	0.16	0.68	0.068	0.092	0.11
PCB-175	40186-70-7	ng/g	0.013 JN	0.0077 J	0.0075 J	0.0034 JN	0.0059 J	0.025 J	0.0018 JN	0.0037 J	0.0046 J
PCB-176	52663-65-7	ng/g	0.039	0.025	0.018	0.013	0.015	0.060 JN	0.0071 JN	0.011	0.015
PCB-177	52663-70-4	ng/g	0.22	0.12	0.087	0.071	0.093	0.31	0.037	0.051	0.070
PCB-178	52663-67-9	ng/g	0.075	0.043	0.035	0.031 JN	0.036	0.12	0.012 J	0.017	0.027
PCB-179	52663-64-6	ng/g	0.14	0.081	0.071	0.060	0.062	0.27	0.026	0.040	0.051
PCB-18/30	37680-65-2	ng/g	0.044	0.031 JN	0.099	0.085 JN	0.043	0.012 JN	0.022 JN	0.017 JN	0.023
PCB-180/193	35065-29-3	ng/g	0.72	0.40	0.27	0.25	0.30	1.7	0.12	0.17	0.22
PCB-181	74472-47-2	ng/g	< 0.00027 U	< 0.000042 U	< 0.0012 U	< 0.0012 U	0.0030 J	< 0.000082 U	< 0.00018 U	< 0.00017 U	0.0023 J
PCB-182	60145-23-5	ng/g	0.0063 JN	< 0.000040 U	< 0.0012 U	< 0.0012 U	< 0.00027 U	< 0.000078 U	< 0.00018 U	< 0.00016 U	0.0012 JN
PCB-183/185	52663-69-1	ng/g	0.22	0.13	0.095	0.082	0.090	0.46	0.047	0.057	0.072
PCB-184	74472-48-3	ng/g	< 0.00022 U	< 0.000034 U	< 0.0010 U	< 0.0010 U	< 0.00023 U	< 0.000067 U	< 0.00015 U	< 0.00014 U	< 0.00045 U
PCB-186	74472-49-4	ng/g	< 0.00021 U	< 0.000033 U	< 0.00097 U	< 0.00099 U	< 0.00022 U	< 0.000064 U	< 0.00014 U	< 0.00013 U	< 0.00043 U
PCB-187	52663-68-0	ng/g	0.42	0.25	0.18	0.18	0.19	0.88	0.068 JN	0.10	0.14
PCB-188	74487-85-7	ng/g	< 0.00020 U	< 0.000031 U	< 0.00083 U	< 0.00082 U	< 0.00021 U	< 0.000061 U	< 0.00013 U	< 0.00012 U	< 0.00041 U
PCB-189	39635-31-9	ng/g	0.011	0.0058 J	0.0064 J	0.0059 J	0.0056 J	0.016 J	0.0017 J	0.0027 J	0.0034 JN
PCB-19	38444-73-4	ng/g	0.0091 JN	0.013	0.020 JN	0.018	0.012	0.0030 JN	0.0049 JN	0.0053 J	0.0079 JN
PCB-190	41411-64-7	ng/g	0.068	0.036	0.026	0.015 JN	0.029	0.14	0.012 J	0.016	0.020
PCB-191	74472-50-7	ng/g	0.016	0.0086 JN	0.0067 J	0.0037 J	0.0054 JN	0.035 J	0.0021 JN	0.0039 J	0.0039 J
PCB-192	74472-51-8	ng/g	< 0.00022 U	< 0.000034 U	< 0.0010 U	< 0.0010 U	< 0.00023 U	< 0.000065 U	< 0.00015 U	< 0.00013 U	< 0.00044 U
PCB-194	35694-08-7	ng/g	0.18	0.088	0.069	0.074	0.068	0.61	0.027	0.033	0.048
PCB-195	52663-78-2	ng/g	0.072	0.039	0.034	0.040	0.029	0.21	0.011 J	0.017	0.018 JN
PCB-196	42740-50-1	ng/g	0.075	0.041	0.027 JN	0.025 JN	0.033	0.28	0.010 JN	0.019	0.024
PCB-197	33091-17-7	ng/g	0.0051 JN	0.0033 J	0.0033 J+	0.0036 J+	0.0032 J	0.013 J	0.00045 JN	0.0014 JN	0.0014 JN
PCB-198/199	68194-17-2	ng/g	0.17	0.11	0.078	0.068	0.083	0.57	0.025 J	0.040	0.060
PCB-2	2051-61-8	ng/g	0.0038 JN	0.0057 JN	0.0055 JN	0.0050 J	0.011 JN	< 0.0028 U	< 0.00068 U	0.0028 JN	0.0081 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S059	S060	S062	S063	S065	S067	S068	S069	S070
		Sample ID	PDI-SG-S059	PDI-SG-S060	PDI-SG-S062	PDI-SG-S063	PDI-SG-S065	PDI-SG-S067	PDI-SG-S068	PDI-SG-S069	PDI-SG-S070
		Sample Date	14 Jun 2018	14 Jun 2018	02 May 2018	03 May 2018	12 May 2018	05 May 2018	05 May 2018	05 May 2018	12 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-23 cm	0-22 cm	0-24 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.10	0.095	0.14	0.16	0.097	0.025 J	0.042	0.032	0.057
PCB-200	52663-73-7	ng/g	0.018	0.0097	0.0070 J	0.0065 JN	0.0076 JN	0.057 J	0.0027 JN	0.0052 J	0.0057 JN
PCB-201	40186-71-8	ng/g	0.020	0.011	0.0078 JN	0.0067 JN	0.0085 J	0.048 J	0.0026 JN	0.0042 JN	0.0068 J
PCB-202	2136-99-4	ng/g	0.029	0.022	0.019	0.014 JN	0.015 JN	0.074 J	0.0051 JN	0.0093 J	0.012 JN
PCB-203	52663-76-0	ng/g	0.089	0.059	0.044	0.044	0.052	0.34	0.015 J	0.025	0.036
PCB-204	74472-52-9	ng/g	< 0.00052 U	< 0.00037 U	< 0.0011 U	< 0.0011 U	< 0.00054 U	< 0.00056 U	< 0.00030 U	< 0.00017 U	< 0.00032 U
PCB-205	74472-53-0	ng/g	0.0086	0.0049 J	< 0.0039 U	< 0.0040 U	0.0037 J	0.037 J	0.0014 J	0.0015 JN	0.0022 JN
PCB-206	40186-72-9	ng/g	0.11 JN	0.16 JN	0.047	0.044 JN	0.077 JN	0.17	0.076 JN	0.020 JN	0.045 JN
PCB-207	52663-79-3	ng/g	0.0057 J	0.0088	0.0056 JN	< 0.0040 U	0.0055 J	0.013 JN	< 0.0027 U	0.0024 J	0.0033 JN
PCB-208	52663-77-1	ng/g	0.028	0.062	0.017	0.018	0.020	0.023 J	< 0.0029 U	0.0053 J	0.014
PCB-209	2051-24-3	ng/g	0.073	0.16	0.069	0.058	0.073	0.0090 J	0.0063 J	0.012 JN	0.042
PCB-21/33	55702-46-0	ng/g	0.043	0.037	0.070	0.082	0.044	0.0086 J	0.016 J	0.011 J	0.023
PCB-22	38444-85-8	ng/g	0.025 JN	0.024	0.050	0.054	0.032	0.0069 J	0.011 J	0.0091 J	0.017
PCB-23	55720-44-0	ng/g	< 0.00068 U	< 0.00069 U	< 0.0011 U	< 0.0013 U	< 0.00088 U	< 0.00062 U	< 0.00070 U	< 0.00050 U	< 0.00053 U
PCB-24	55702-45-9	ng/g	< 0.00044 U	< 0.00045 U	0.0021 JN	0.0022 J	0.00094 JN	< 0.00010 U	0.00021 JN	0.00046 JN	0.00044 JN
PCB-25	55712-37-3	ng/g	0.0079 JN	0.0092	0.013	0.014	0.012	0.0019 J	0.0034 J	0.0023 JN	0.0052 J
PCB-26/29	38444-81-4	ng/g	0.016	0.017	0.025	0.020 JN	0.020	0.0046 J	0.0061 JN	0.0051 J	0.0095 J
PCB-27	38444-76-7	ng/g	0.0048 J	0.0041 JN	0.010 JN	0.0087 JN	0.0056 J	0.0011 JN	0.0018 JN	0.0017 JN	0.0030 J
PCB-3	2051-62-9	ng/g	0.0038 J+	0.0039 J+	0.0034 JN	0.0023 JN	0.0053 JN	0.0023 JN	0.0021 JN	0.0025 J+	0.0047 J
PCB-31	16606-02-3	ng/g	0.078	0.064	0.12	0.14	0.074	0.019 J	0.032 J	0.023	0.041
PCB-32	38444-77-8	ng/g	0.015 JN	0.016	0.034	0.032	0.015	0.0041 J-	0.0097 J-	0.0047 JN	0.0080 J
PCB-34	37680-68-5	ng/g	< 0.00070 U	< 0.00072 U	< 0.0011 U	< 0.0013 U	< 0.00091 U	< 0.00064 U	< 0.00073 U	< 0.00051 U	< 0.00055 U
PCB-35	37680-69-6	ng/g	0.0019 JN	0.0032 J	0.0034 J	< 0.0013 U	0.0017 JN	< 0.00061 U	< 0.00069 U	< 0.00049 U	0.0016 JN
PCB-36	38444-87-0	ng/g	< 0.00061 U	< 0.00062 U	< 0.0011 U	< 0.0012 U	< 0.00079 U	< 0.00056 U	< 0.00063 U	< 0.00044 U	< 0.00047 U
PCB-37	38444-90-5	ng/g	0.030	0.031	0.048	0.067	0.031	0.0073 JN	0.012 J	0.011	0.019
PCB-38	53555-66-1	ng/g	< 0.00066 U	< 0.00068 U	< 0.0011 U	< 0.0013 U	< 0.00086 U	< 0.00061 U	< 0.00069 U	< 0.00048 U	< 0.00051 U
PCB-39	38444-88-1	ng/g	< 0.00060 U	0.0011 JN	0.0018 J	< 0.0012 U	< 0.00078 U	< 0.00055 U	< 0.00062 U	< 0.00044 U	< 0.00047 U
PCB-4	13029-08-8	ng/g	0.0096 J	0.011 J	0.018 JN	0.016 JN	0.014 J	0.0091 JN	0.0052 JN	0.0047 JN	0.0062 JN
PCB-40/41/71	38444-93-8	ng/g	0.079	0.060	0.081	0.087	0.060	0.016 J	0.024 J	0.028 J	0.034
PCB-42	36559-22-5	ng/g	0.038	0.029	0.034 JN	0.033 JN	0.031	0.0071 JN	0.011 JN	0.012	0.016
PCB-43/73	70362-46-8	ng/g	0.0049 JN	0.0041 JN	0.0057 JN	0.0052 JN	0.0090 J	< 0.00068 U	0.0014 JN	0.0012 JN	0.0020 J
PCB-44/47/65	41464-39-5	ng/g	0.16	0.14	0.17	0.17	0.17	0.038 J	0.33	0.056	0.073
PCB-45/51	70362-45-7	ng/g	0.029	0.023	0.031	0.016 JN	0.024	0.0070 JN	0.052	0.013 J+	0.015 J
PCB-46	41464-47-5	ng/g	0.0071 JN	0.0060 JN	0.0070 J	< 0.0042 U	0.0075 J	< 0.00093 U	0.0032 JN	0.0034 J	0.0039 J
PCB-48	70362-47-9	ng/g	0.026	0.018	0.028	0.031	0.020	0.0038 JN	0.0086 J	0.0085 J	0.010 JN
PCB-49/69	41464-40-8	ng/g	0.11	0.099	0.11	0.10	0.099	0.020 J	0.034 J	0.036	0.050
PCB-5	16605-91-7	ng/g	< 0.00032 U	0.00089 J	< 0.0039 U	< 0.0048 U	< 0.00057 U	< 0.00094 U	< 0.00082 U	< 0.00046 U	< 0.00052 U
PCB-50/53	62796-65-0	ng/g	0.022	0.020 JN	0.028	0.022 J	0.020 JN	0.0052 JN	0.011 J	0.0097 J	0.013 J
PCB-52	35693-99-3	ng/g	0.19	0.18	0.24	0.19	0.28	0.055 J	0.070	0.077	0.11
PCB-54	15968-05-5	ng/g	0.0015 JN	0.0028 J	0.0018 JN	0.00093 JN	0.0027 JN	0.00026 JN	< 0.000061 U	0.00031 J	0.00091 JN
PCB-55	74338-24-2	ng/g	< 0.00087 U	0.0022 JN	0.0047 JN	0.0089 JN	0.0022 JN	< 0.00051 U	0.0010 J	< 0.00029 U	0.0011 J
PCB-56	41464-43-1	ng/g	0.052	0.042	0.066	0.098	0.055	0.012 J	0.018 J	0.023	0.027
PCB-57	70424-67-8	ng/g	< 0.00089 U	< 0.00064 U	< 0.0020 U	< 0.0024 U	< 0.00049 U	< 0.00053 U	< 0.00041 U	< 0.00030 U	< 0.00047 U
PCB-58	41464-49-7	ng/g	0.0014 J+	0.00077 JN	< 0.0021 U	< 0.0025 U	< 0.00047 U	< 0.00051 U	< 0.00040 U	0.00075 J	0.0019 JN
PCB-59/62/75	74472-33-6	ng/g	0.012 J	0.011 J	0.012 JN	0.014 J	0.010 JN	0.0019 JN	0.0064 J	0.0035 J	0.0053 JN
PCB-6	25569-80-6	ng/g	0.0045 J	0.0053 J	0.0085 JN	0.0068 JN	0.0062 JN	< 0.00093 U	0.0028 J	0.00080 JN	0.0035 JN
PCB-60	33025-41-1	ng/g	0.027	0.016	0.035	0.055	0.022	0.0046 J	0.0091 J	0.0083 JN	0.010
PCB-61/70/74/76	33284-53-6	ng/g	0.23	0.19	0.28	0.33	0.26	0.048 J	0.070 J	0.089	0.11
PCB-63	74472-34-7	ng/g	0.0043 JN	0.0040 J	0.0047 JN	0.0071 J	0.0047 J	0.00095 JN	0.0014 JN	0.0015 JN	0.0023 J
PCB-64	52663-58-8	ng/g	0.054	0.039	0.062	0.067	0.051	0.012 J	0.017 J	0.022	0.026
PCB-66	32598-10-0	ng/g	0.15	0.12	0.15	0.20	0.14	0.026 J	0.038	0.050	0.067
PCB-67	73575-53-8	ng/g	0.0033 J	0.0026 JN	0.0047 J	0.0050 JN	0.0033 JN	< 0.00048 U	0.0011 JN	0.00093 JN	0.0013 JN
PCB-68	73575-52-7	ng/g	0.0034 J	0.0039 J	0.0027 JN	< 0.0021 U	0.0014 JN	< 0.0011 U	0.037	0.0023 J+	0.0013 JN
PCB-7	33284-50-3	ng/g	0.00067 JN	< 0.00036 U	< 0.0035 U	< 0.0043 U	< 0.00054 U	0.0014 JN	0.0011 JN	< 0.00044 U	< 0.00049 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S059	S060	S062	S063	S065	S067	S068	S069	S070
		Sample ID	PDI-SG-S059	PDI-SG-S060	PDI-SG-S062	PDI-SG-S063	PDI-SG-S065	PDI-SG-S067	PDI-SG-S068	PDI-SG-S069	PDI-SG-S070
		Sample Date	14 Jun 2018	14 Jun 2018	02 May 2018	03 May 2018	12 May 2018	05 May 2018	05 May 2018	05 May 2018	12 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-23 cm	0-22 cm	0-24 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0050 J	0.0047 J	< 0.0020 U	< 0.0024 U	0.0035 J	< 0.00052 U	< 0.00041 U	0.00045 JN	0.0018 J
PCB-77	32598-13-3	ng/g	0.012	0.013	0.019	0.023 JN	0.015	0.0030 J	0.0042 J	0.0045 J	0.0068 J
PCB-78	70362-49-1	ng/g	< 0.00086 U	< 0.00061 U	< 0.0021 U	< 0.0025 U	< 0.00047 U	< 0.00051 U	< 0.00040 U	< 0.00029 U	< 0.00045 U
PCB-79	41464-48-6	ng/g	0.0028 J	0.0023 J	0.0025 JN	0.0034 J	0.0034 JN	0.00056 JN	0.00091 J	0.00075 J	0.0011 JN
PCB-8	34883-43-7	ng/g	0.016	0.020	0.035	0.035	0.025	0.0079 J	0.0082 J	0.0053 JN	0.013 J
PCB-80	33284-52-5	ng/g	< 0.00076 U	< 0.00054 U	< 0.0017 U	< 0.0021 U	< 0.00042 U	< 0.00045 U	< 0.00035 U	< 0.00026 U	< 0.00040 U
PCB-81	70362-50-4	ng/g	< 0.00083 U	< 0.00059 U	< 0.0019 U	< 0.0022 U	< 0.00045 U	< 0.00049 U	< 0.00038 U	< 0.00028 U	< 0.00043 U
PCB-82	52663-62-4	ng/g	0.028	0.027	0.042	0.030 JN	0.043 JN	0.0071 JN	0.0072 JN	0.0095 JN	0.014 JN
PCB-83/99	60145-20-2	ng/g	0.19	0.18	0.21	0.19	0.24	0.046 J	0.047	0.059	0.12
PCB-84	52663-60-2	ng/g	0.055	0.056	0.093	0.064	0.11	0.016 J	0.022	0.023 JN	0.034 JN
PCB-85/116/117	65510-45-4	ng/g	0.037	0.041	0.071	0.047 JN	0.068	0.0099 JN	0.013 J	0.017 J	0.026 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.15	0.15	0.24	0.17 JN	0.27	0.051 J	0.050 J	0.068	0.097
PCB-88/91	55215-17-3	ng/g	0.046	0.044 JN	0.057	0.044 JN	0.056	0.010 J	0.011 J	0.015 J	0.028
PCB-89	73575-57-2	ng/g	0.0032 J	0.0035 J	0.0033 JN	< 0.00063 U	< 0.00030 U	< 0.00094 U	< 0.00061 U	< 0.00029 U	0.0019 J
PCB-9	34883-39-1	ng/g	0.0012 J+	0.0011 JN	< 0.0036 U	< 0.0044 U	0.0015 JN	< 0.0010 U	< 0.00090 U	0.00086 J	0.0013 J
PCB-90/101/113	68194-07-0	ng/g	0.29	0.29	0.38	0.30	0.42	0.19 J	0.11	0.13	0.19
PCB-92	52663-61-3	ng/g	0.068	0.070	0.072	0.052	0.087	0.025 J	0.021	0.023	0.045
PCB-93/100	73575-56-1	ng/g	0.011 J	0.013 JN	0.010 J	0.0079 J	0.0096 J	0.0029 JN	0.0020 JN	0.0085 J	0.0061 JN
PCB-94	73575-55-0	ng/g	< 0.00069 U	0.0027 J	< 0.00076 U	< 0.00063 U	< 0.00030 U	< 0.00094 U	0.00069 JN	< 0.00029 U	< 0.00046 U
PCB-95	38379-99-6	ng/g	0.21	0.23	0.31	0.22	0.36	0.16	0.096	0.11	0.15
PCB-96	73575-54-9	ng/g	0.0021 JN	0.0028 J	0.0020 JN	< 0.00048 U	0.0033 J	< 0.00071 U	< 0.00045 U	0.0012 J	0.0019 JN
PCB-98/102	60233-25-2	ng/g	0.011 J	0.010 JN	0.013 JN	0.0061 JN	0.013 J	0.0028 JN	0.0029 JN	0.0029 JN	0.0049 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	10	8.0	8.8	7.8	8.9	13	2.9	3.1	4.7
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.42	0.74	< 1.2 UJ	< 1.3 UJ	1.3	3.1 J	< 0.67 UJ	1.2	2.7 J
2,4-DDE	3424-82-6	µg/kg	< 0.31 U	< 0.33 U	< 1.2 UJ	< 1.3 UJ	< 1.0 U	< 0.79 UJ	< 0.79 UJ	< 0.25 U	< 0.40 UJ
2,4-DDT	789-02-6	µg/kg	< 0.31 U	0.41	< 1.2 UJ	< 1.3 UJ	< 1.0 U	< 0.94 UJ	< 0.94 UJ	< 0.25 U	< 0.47 UJ
4,4'-DDD	72-54-8	µg/kg	2.5	4.2	1.9 J	1.8 J	3.0	7.0 J	2.6 J	4.1	4.2 J
4,4'-DDE	72-55-9	µg/kg	1.0 J	1.7 J	3.1 J	3.2 J	2.5	0.82 J	1.1 J	0.42	2.1 J
4,4'-DDT	50-29-3	µg/kg	0.93	9.1	< 1.2 UJ	< 1.3 UJ	0.76 J	< 0.66 UJ	< 0.67 UJ	< 0.25 U	0.32 J
DDx (b)	T_DDx (PDI)	µg/kg	5.0	16	5.6	5.7	8.1	11	4.2	5.8	9.6
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	50	71	6.6	7.1	13	14 J	17	15 J	29
Acenaphthene	83-32-9	µg/kg	120 J	130	12	12	18	82	17	160	46
Acenaphthylene	208-96-8	µg/kg	83	140	6.7	18	20	220	250	290	16
Anthracene	120-12-7	µg/kg	320	470	22	24	40	220	160	450	48
Benz(a)anthracene	56-55-3	µg/kg	1300	1300	77	170	180	1700	1800	2200	160
Benzo(a)pyrene	50-32-8	µg/kg	1300 J	1400 J	130	170	260	2300	2600	3000	280
Benzo(b)fluoranthene	205-99-2	µg/kg	1600	1500	160	330	250	2000	2200	2600	230
Benzo(g,h,i)perylene	191-24-2	µg/kg	1000 J	1200	91	92	220	1700	1800	2100	160 J
Benzo(k)fluoranthene	207-08-9	µg/kg	540 J	560	53	120	83	660	760	830	82
Chrysene	218-01-9	µg/kg	1200	1300	130	350	230	2000	2100	2600	210
Dibenz(a,h)anthracene	53-70-3	µg/kg	230 J	210	14	18	31	230	270	300	20
Fluoranthene	206-44-0	µg/kg	2700	3300	220	1800	330	3200	2100	4200	350
Fluorene	86-73-7	µg/kg	140 J	210	15	14	18	60	20	110	34
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	1200	1200	88	100	210	1700	1800	2100	150
Naphthalene	91-20-3	µg/kg	160 J	250	9.3	8.6	34	52	70	65	50
Phenanthrene	85-01-8	µg/kg	1000 J	1400	130	90	170	320	54	720	240
Pyrene	129-00-0	µg/kg	3000	4000	220	1200	420	4600	3400	6100	470
Total PAHs (b)	T_PAH (PDI)	µg/kg	15943	18641	1385	4524	2527	21058	19418	27840	2575
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	1947	2017	177	250	356	3079	3460	4001	355
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	65.0 61.8	56.3 59.2	39.7	38.9	51.6	68.6	71.1	71.1	65.6
Total Solids@104C - E160.3M (f)	TSOLID	%	60.9	55.6	39.8	39.3	48.5	74.4	73.4	74.2	61.1
Total Solids@70C	TSOLID70	%	60	56	42	40	49	74	73	74	60
Gravel	GS-Gravel	%	0	0	0	0	0	0.6	0.6	1.0	0
Sand, Coarse	GS-Csand	%	0.3	0.1	0	0	0	0.9	0.9	1.2	0.7

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S059	S060	S062	S063	S065	S067	S068	S069	S070
		Sample ID	PDI-SG-S059	PDI-SG-S060	PDI-SG-S062	PDI-SG-S063	PDI-SG-S065	PDI-SG-S067	PDI-SG-S068	PDI-SG-S069	PDI-SG-S070
		Sample Date	14 Jun 2018	14 Jun 2018	02 May 2018	03 May 2018	12 May 2018	05 May 2018	05 May 2018	05 May 2018	12 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-23 cm	0-22 cm	0-24 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	19.4	14.2	0.1	0.1	0.1	55.8	49.6	51.2	22.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	52.66	48.61	13.31	7.708	22.82	34.09	44.33	34.76	44.9
Sand, Fine (#230) (d)	GS-Fsand	%	53.6	49.7	17.4	10.1	29.4	34.4	44.5	35.1	47.5
Silt (#200) (d)	GS-Silt-200	%	20.13	29.48	71.18	76.29	70.47	7.003	2.963	10.23	27.29
Silt (#230) (d)	GS-Silt	%	19.2	28.4	67.1	73.9	63.9	6.7	2.8	9.9	24.7
Clay	GS-Clay	%	7.5	7.7	15.4	15.9	6.5	1.6	1.6	1.6	4.3
Percent Fines (e)	GS-FINES	%	27.63	37.18	86.58	92.19	76.97	8.603	4.563	11.83	31.59
Total Organic Carbon	TOC	mg/kg	11000	12000	25000	25000	21000	2800	1900 J	4200	11000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S071	S072	S073	S074	S075	S076	S077	S078	S079
		Sample ID	PDI-SG-S071	PDI-SG-S072	PDI-SG-S073	PDI-SG-S074	PDI-SG-S075	PDI-SG-S076	PDI-SG-S077	PDI-SG-S078	PDI-SG-S079
		Sample Date	05 May 2018	02 Jun 2018	07 May 2018	12 May 2018	07 May 2018	07 May 2018	07 May 2018	12 May 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-13 cm	0-27 cm	0-30 cm	0-25 cm	0-22 cm	0-22 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.41	0.0018 J	0.053	0.079	0.014	0.0023 J	0.070	0.035	0.33
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.019 J	0.00014 JN	0.0064	0.0085 JN	0.0021 J	0.00023 JN	0.0061	0.0055 JN	0.051
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0018 U	< 0.000057 U	0.0011 J	0.0012 J+	0.00021 J	< 0.000048 U	0.00050 JN	0.0010 JN	0.0032 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00092 U	0.00012 J+	0.00037 J	0.00070 J+	0.00026 J	0.00015 J	0.00030 JN	0.00042 J+	0.0017 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0068 J	< 0.000034 U	0.0035	0.0042 J	0.00062 J	< 0.000045 U	0.0017 J	0.0017 J	0.0066
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0064 JN	0.000062 JN	0.00093 J	0.0028 J	0.00057 JN	0.00019 J	0.0014 J	0.0014 J	0.013
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.00077 U	< 0.000030 U	0.0021 J	0.0012 J	0.00021 JN	< 0.000040 U	0.00049 JN	0.00058 J	0.0027 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0044 J	0.00014 JN	0.0010 J	0.0019 J	0.00040 JN	0.00020 JN	0.0010 J	0.0010 J	0.0042 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00059 U	< 0.000088 U	0.00041 JN	0.0011 J+	0.000090 J	< 0.000020 U	< 0.000041 U	< 0.00053 U	0.00081 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00060 U	< 0.000036 U	< 0.00017 U	0.00040 J	0.00015 J	< 0.000056 U	< 0.00013 U	0.00020 J	0.00084 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0049 JN	0.00010 J+	0.0013 J	0.0034 J	0.00028 J	< 0.000033 U	0.0010 J	0.00099 J	0.0026 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00069 U	< 0.000019 U	0.00045 J	0.00035 J	0.000086 J	< 0.000025 U	0.00017 J	0.00024 J	0.0012 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0028 JN	< 0.000025 U	0.00092 J	0.0012 J	0.00018 J	< 0.000039 U	0.00064 J	0.00054 J	0.0019 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00051 U	< 0.000024 U	< 0.000092 U	0.00032 J	< 0.000042 U	< 0.000034 U	< 0.000084 U	0.00019 JN	0.00039 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0051 J	< 0.000071 U	0.0011	0.0023	0.00035 J+	< 0.000083 U	0.0014	0.0011	0.0023
OCDD	3268-87-9	µg/kg	3.5 J	0.019	0.41	0.74	0.12	0.031	0.55	0.28	3.0
OCDF	39001-02-0	µg/kg	0.11 J	0.00050 J+	0.014	0.028	0.0076	0.00090 J	0.020	0.013	0.14
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0089	0.000078	0.0021	0.0038	0.00069	0.00012	0.0019	0.0018	0.0099
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0074	0.000057	0.0021	0.0038	0.00058	0.000095	0.0018	0.0016	0.0095
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.007	0.000039	0.002	0.0038	0.00055	0.000067	0.0017	0.0015	0.0093
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	< 0.0010 U	< 0.00013 U	< 0.00093 U	0.0039 J	0.00069 JN	< 0.000053 U	0.0046 JN	< 0.00041 U	0.0097 JN
PCB-10	33146-45-1	ng/g	< 0.00048 U	< 0.0034 U	< 0.0010 U	0.00094 JN	< 0.00034 U	< 0.00035 U	< 0.0037 U	< 0.0022 U	0.0044 JN
PCB-103	60145-21-3	ng/g	0.0092 JN	< 0.00025 U	0.0038 J	0.0041 JN	0.0030 J	< 0.00018 U	0.0072 J	0.0043 J	0.031
PCB-104	56558-16-8	ng/g	< 0.00042 U	< 0.00019 U	< 0.00097 U	< 0.00038 U	< 0.00026 U	< 0.00014 U	< 0.00016 U	< 0.00030 U	< 0.00049 U
PCB-105	32598-14-4	ng/g	0.11	0.0025 JN	0.10	0.069	0.013	0.0013 JN	0.083	0.062	0.24
PCB-106	70424-69-0	ng/g	< 0.00098 U	< 0.0011 U	< 0.0017 U	< 0.0011 U	< 0.00053 U	< 0.00013 U	< 0.0011 U	< 0.0013 U	< 0.0031 U
PCB-107	70424-68-9	ng/g	0.031	< 0.0012 U	0.015 JN	0.014 JN	0.0037 J	0.00044 JN	0.024	0.016	0.064 JN
PCB-108/124	70362-41-3	ng/g	0.012 J	< 0.0011 U	0.013 J	0.0065 J	0.0015 J	0.00026 JN	0.0078 JN	0.0068 J	0.024
PCB-11	2050-67-1	ng/g	0.0061 J+	0.0060 JN	0.014 J+	0.038	0.020 J+	0.0081 JN	0.0087 JN	0.025	0.10 JN
PCB-110/115	38380-03-9	ng/g	0.93	0.0077 J	0.31	0.22	0.062	0.0041 J+	0.41	0.25	1.1
PCB-111	39635-32-0	ng/g	< 0.00038 U	< 0.00017 U	< 0.00087 U	< 0.00034 U	< 0.00023 U	< 0.00013 U	< 0.00015 U	< 0.00028 U	0.013
PCB-112	74472-36-9	ng/g	< 0.00041 U	< 0.00018 U	< 0.00095 U	< 0.00056 U	< 0.00025 U	< 0.00014 U	0.00091 JN	< 0.00029 U	< 0.00048 U
PCB-114	74472-37-0	ng/g	0.0061 J	< 0.00098 U	0.0049 JN	0.0044 J	< 0.00049 U	< 0.00011 U	0.0063 J	0.0034 J	0.014
PCB-118	31508-00-6	ng/g	0.35	0.0045 JN	0.25	0.18	0.040	0.0027 J+	0.22	0.17	0.73
PCB-12/13	2974-92-7	ng/g	0.0013 JN	< 0.0031 U	< 0.00088 U	0.0030 J	< 0.00029 U	< 0.00030 U	0.0050 JN	< 0.0020 U	0.014 J
PCB-120	68194-12-7	ng/g	< 0.00037 U	< 0.00018 U	< 0.00086 U	0.0015 JN	< 0.00023 U	< 0.00012 U	0.0023 J	< 0.00028 U	< 0.00046 U
PCB-121	56558-18-0	ng/g	< 0.00041 U	< 0.00018 U	< 0.00093 U	< 0.00036 U	< 0.00025 U	< 0.00013 U	< 0.00016 U	< 0.00029 U	< 0.00047 U
PCB-122	76842-07-4	ng/g	0.0042 JN	< 0.0012 U	< 0.0019 U	< 0.0013 U	< 0.00058 U	< 0.00014 U	0.0030 JN	0.0026 J	0.0096 JN
PCB-123	65510-44-3	ng/g	0.0039 JN	< 0.0011 U	0.0045 JN	0.0039 J	0.0011 J	< 0.00012 U	0.0029 JN	0.0037 J	0.011 JN
PCB-126	57465-28-8	ng/g	< 0.00089 U	< 0.0012 U	< 0.0016 U	< 0.0011 U	< 0.00048 U	< 0.00012 U	< 0.0011 U	< 0.0014 U	0.0040 JN
PCB-127	39635-33-1	ng/g	< 0.00093 U	< 0.0011 U	< 0.0016 U	< 0.0011 U	< 0.00050 U	< 0.00012 U	< 0.0011 U	< 0.0013 U	< 0.0031 U
PCB-128/166	38380-07-3	ng/g	0.029	< 0.0013 U	0.058 J	0.047	0.011 J	0.00099 JN	0.052	0.054	0.23
PCB-129/138/160/163	55215-18-4	ng/g	0.22	0.0088 JN	0.36 J	0.32	0.080	0.0053 J	0.50	0.37	2.1
PCB-130	52663-66-8	ng/g	0.013	< 0.0018 U	0.022 J	0.023	0.0057 J	< 0.000075 U	0.027	0.024	0.14
PCB-131	61798-70-7	ng/g	0.0039 J	< 0.0019 U	< 0.0052 U	< 0.0012 U	< 0.00038 U	< 0.000076 U	0.0048 JN	< 0.0043 U	0.022
PCB-132	38380-05-1	ng/g	0.11	< 0.0018 U	0.13	0.093	0.026	0.0013 JN	0.16	0.12	0.61
PCB-133	35694-04-3	ng/g	0.0030 J	< 0.0017 U	< 0.0049 U	0.0068 JN	0.0013 J	0.00028 JN	0.0074 JN	< 0.0039 U	0.067
PCB-134/143	52704-70-8	ng/g	0.020	< 0.0018 U	0.023 JN	0.016 JN	0.0044 J	0.00025 J+	0.030	0.019 JN	0.091
PCB-135/151	52744-13-5	ng/g	0.11	0.0025 JN	0.14 J	0.12	0.042	0.0018 JN	0.24	0.11	0.70
PCB-136	38411-22-2	ng/g	0.056	0.0011 J+	0.058 J	0.035	0.015	0.00096 JN	0.077	0.031 JN	0.25
PCB-137	35694-06-5	ng/g	0.0039 JN	< 0.0016 U	0.016 J	0.012	0.0025 J	< 0.000061 U	0.0098 JN	0.013 JN	0.047
PCB-139/140	56030-56-9	ng/g	0.0029 JN	< 0.0015 U	< 0.0044 U	0.0053 JN	0.00069 JN	< 0.000063 U	0.0061 J	< 0.0035 U	0.036

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S071	S072	S073	S074	S075	S076	S077	S078	S079
		Sample ID	PDI-SG-S071	PDI-SG-S072	PDI-SG-S073	PDI-SG-S074	PDI-SG-S075	PDI-SG-S076	PDI-SG-S077	PDI-SG-S078	PDI-SG-S079
		Sample Date	05 May 2018	02 Jun 2018	07 May 2018	12 May 2018	07 May 2018	07 May 2018	07 May 2018	12 May 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-13 cm	0-27 cm	0-30 cm	0-25 cm	0-22 cm	0-22 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.00038 U	< 0.0026 U	< 0.00081 U	< 0.00038 U	< 0.00027 U	< 0.00028 U	< 0.0028 U	< 0.0017 U	< 0.0025 U
PCB-141	52712-04-6	ng/g	0.044	< 0.0016 U	0.078 J	0.054 JN	0.016	0.00075 J	0.13	0.067	0.38
PCB-142	41411-61-4	ng/g	< 0.00058 U	< 0.0017 U	< 0.0049 U	< 0.0011 U	< 0.00035 U	< 0.000071 U	< 0.0023 U	< 0.0039 U	< 0.0096 U
PCB-144	68194-14-9	ng/g	0.015	< 0.000032 U	0.022 J	0.013	0.0043 JN	< 0.000029 U	0.031	0.010 JN	0.0094 JN
PCB-145	74472-40-5	ng/g	< 0.00029 U	< 0.000024 U	< 0.00032 U	< 0.00016 U	< 0.000060 U	< 0.000022 U	< 0.00019 U	< 0.00033 U	< 0.00077 U
PCB-146	51908-16-8	ng/g	0.033	< 0.0015 U	0.043 J	0.062	0.017	0.00073 J	0.081	0.061	0.51
PCB-147/149	68194-13-8	ng/g	0.25	0.0082 J	0.30	0.27	0.071	0.0026 JN	0.52	0.34	1.8
PCB-148	74472-41-6	ng/g	< 0.00039 U	< 0.000034 U	< 0.00043 U	0.00091 JN	0.00025 JN	< 0.000030 U	< 0.00027 U	< 0.00046 U	0.012
PCB-15	2050-68-2	ng/g	0.0099	< 0.0034 U	0.012 JN	0.016	0.0050 JN	< 0.00084 U	0.041	0.011 JN	0.049 JN
PCB-150	68194-08-1	ng/g	0.00045 JN	< 0.000023 U	< 0.00029 U	0.0012 JN	0.00013 JN	< 0.000020 U	< 0.00019 U	< 0.00032 U	0.0052 JN
PCB-152	68194-09-2	ng/g	< 0.00028 U	< 0.000025 U	0.00087 JN	0.00040 JN	0.000089 JN	< 0.000022 U	< 0.00020 U	< 0.00034 U	0.0013 JN
PCB-153/168	35065-27-1	ng/g	0.18	0.0082 J	0.30	0.29	0.082	0.0040 J	0.48	0.32	1.9
PCB-154	60145-22-4	ng/g	0.0039 JN	< 0.000027 U	0.0025 JN	0.0099 JN	0.0021 JN	0.000052 JN	0.0092 J	0.0064 JN	0.080
PCB-155	33979-03-2	ng/g	< 0.00027 U	< 0.000023 U	< 0.00029 U	< 0.00014 U	< 0.000055 U	< 0.000020 U	< 0.00019 U	< 0.00032 U	< 0.00074 U
PCB-156/157	38380-08-4	ng/g	0.016 J	< 0.0016 U	0.041 J	0.030	0.0077 J	0.00063 J	0.042	0.032	0.16
PCB-158	74472-42-7	ng/g	0.021	< 0.0011 U	0.039 J	0.029	0.0064 J	0.00041 JN	0.048	0.034	0.16
PCB-159	39635-35-3	ng/g	0.0021 J	< 0.0012 U	< 0.0031 U	0.0027 JN	< 0.00022 U	< 0.000045 U	0.0074 J	< 0.0026 U	0.018 JN
PCB-16	38444-78-9	ng/g	0.016	< 0.00028 U	0.017 JN	0.017	0.0040 J	0.00023 JN	< 0.00081 U	0.011	0.041 JN
PCB-161	74472-43-8	ng/g	< 0.00038 U	< 0.0011 U	< 0.0032 U	< 0.00072 U	< 0.00023 U	< 0.000047 U	< 0.0016 U	< 0.0026 U	< 0.0064 U
PCB-162	39635-34-2	ng/g	< 0.00036 U	< 0.0011 U	< 0.0031 U	< 0.00069 U	< 0.00022 U	< 0.000044 U	< 0.0015 U	< 0.0026 U	< 0.0063 U
PCB-164	74472-45-0	ng/g	0.017	< 0.0012 U	0.024 JN	0.024	0.0066 J	0.00023 JN	0.042	0.025	0.13
PCB-165	74472-46-1	ng/g	< 0.00044 U	< 0.0013 U	< 0.0037 U	< 0.00083 U	< 0.00026 U	< 0.000053 U	< 0.0018 U	< 0.0030 U	< 0.0072 U
PCB-167	52663-72-6	ng/g	0.0053 J	< 0.00086 U	0.011 JN	0.010	0.0022 JN	0.000064 JN	0.016	0.012	0.054
PCB-169	32774-16-6	ng/g	< 0.00028 U	< 0.00084 U	< 0.0022 U	< 0.00053 U	< 0.00018 U	< 0.000033 U	< 0.0012 U	< 0.0021 U	< 0.0045 U
PCB-17	37680-66-3	ng/g	0.015	0.00049 JN	0.020 J	0.020	0.0056 JN	0.00077 JN	0.056	0.015	0.083
PCB-170	35065-30-6	ng/g	0.049 JN	0.0022 JN	0.089 J	0.086	0.035	0.0019 J	0.21	0.076	0.71
PCB-171/173	52663-71-5	ng/g	0.018 J	< 0.00051 U	0.035 J	0.028	0.0092 JN	0.00051 J	0.068	0.023	0.22
PCB-172	52663-74-8	ng/g	0.0099	< 0.00051 U	0.015 J	0.019	0.0059 JN	0.00016 JN	0.040	0.014	0.11
PCB-174	38411-25-5	ng/g	0.065	< 0.00048 U	0.096 JN	0.10	0.037	0.0016 JN	0.21	0.083	0.69
PCB-175	40186-70-7	ng/g	0.0019 JN	< 0.00046 U	0.0035 JN	0.0045 J	0.0011 JN	< 0.000018 U	0.0087 J	< 0.0016 U	0.021 JN
PCB-176	52663-65-7	ng/g	0.0078 J	< 0.00035 U	0.012 JN	0.011	0.0044 J	< 0.000012 U	0.029	0.013	0.091
PCB-177	52663-70-4	ng/g	0.032	0.0020 JN	0.050 JN	0.063	0.022	0.00076 JN	0.13	0.047	0.42
PCB-178	52663-67-9	ng/g	0.011	< 0.00050 U	0.015 JN	0.023	0.0087 J	0.00023 J	0.047	0.019 JN	0.16
PCB-179	52663-64-6	ng/g	0.029	0.00094 JN	0.036 JN	0.044	0.017	0.00041 JN	0.088	0.041	0.30
PCB-18/30	37680-65-2	ng/g	0.035	< 0.00022 U	0.049 J	0.033	0.0097 J	< 0.00056 U	0.28	0.027	0.10 JN
PCB-180/193	35065-29-3	ng/g	0.12	0.0065 J	0.17 J	0.19	0.074	0.0037 J	0.45	0.15	1.5
PCB-181	74472-47-2	ng/g	0.0010 JN	< 0.00046 U	< 0.0010 U	< 0.00040 U	< 0.000047 U	< 0.000017 U	< 0.00030 U	< 0.0016 U	< 0.0028 U
PCB-182	60145-23-5	ng/g	< 0.00019 U	< 0.00045 U	< 0.00099 U	0.0013 JN	< 0.000044 U	< 0.000016 U	< 0.00029 U	0.0017 JN	0.014
PCB-183/185	52663-69-1	ng/g	0.035	0.0024 J+	0.069 J	0.061	0.024	0.00070 JN	0.15	0.056	0.48
PCB-184	74472-48-3	ng/g	< 0.00016 U	< 0.00038 U	< 0.00085 U	< 0.00033 U	< 0.000038 U	< 0.000014 U	< 0.00025 U	< 0.0013 U	< 0.0023 U
PCB-186	74472-49-4	ng/g	< 0.00015 U	< 0.00037 U	< 0.00082 U	< 0.00031 U	< 0.000037 U	< 0.000013 U	< 0.00024 U	< 0.0013 U	< 0.0022 U
PCB-187	52663-68-0	ng/g	0.076	0.0035 JN	0.11	0.14	0.050	0.0026 J	0.24	0.12	0.90
PCB-188	74487-85-7	ng/g	< 0.00014 U	< 0.00033 U	< 0.00076 U	< 0.00030 U	< 0.000033 U	< 0.000012 U	< 0.00022 U	< 0.0010 U	< 0.0018 U
PCB-189	39635-31-9	ng/g	0.0017 JN	< 0.0011 U	0.0018 JN	0.0033 JN	0.0017 J	< 0.000076 U	0.0059 JN	< 0.0021 U	0.020
PCB-19	38444-73-4	ng/g	0.0044 JN	< 0.00031 U	0.0053 J	0.014	0.0051 J	< 0.00041 U	0.018 JN	0.0066 J	0.076
PCB-190	41411-64-7	ng/g	0.011	< 0.00033 U	0.013 JN	0.019	0.0069 J	0.000052 JN	0.044	0.011 JN	0.11
PCB-191	74472-50-7	ng/g	0.0020 JN	< 0.00035 U	0.0037 JN	0.0044 J	0.0011 JN	0.000076 JN	0.010	< 0.0012 U	0.026
PCB-192	74472-51-8	ng/g	< 0.00016 U	< 0.00039 U	0.0012 JN	< 0.00032 U	< 0.000037 U	< 0.000013 U	< 0.00025 U	< 0.0013 U	< 0.0023 U
PCB-194	35694-08-7	ng/g	0.024	< 0.0018 U	0.044 J	0.045	0.018	0.00048 JN	0.10	0.033	0.32
PCB-195	52663-78-2	ng/g	0.0095 JN	< 0.0020 U	0.018 J	0.018	0.0062 JN	< 0.000081 U	0.047	0.018	0.14
PCB-196	42740-50-1	ng/g	0.012	0.0016 JN	0.019 J	0.019 JN	0.0097 J	0.00022 JN	0.044	0.016	0.17
PCB-197	33091-17-7	ng/g	0.00084 J	< 0.00044 U	< 0.00086 U	0.0014 JN	0.00079 JN	< 0.000021 U	0.0042 JN	< 0.00087 U	0.015 JN
PCB-198/199	68194-17-2	ng/g	0.026	< 0.00058 U	0.042 J	0.056	0.021	0.00090 JN	0.099	0.041	0.45
PCB-2	2051-61-8	ng/g	< 0.0011 U	< 0.00015 U	< 0.00095 U	0.0096 J	0.0023 J	< 0.0003 U	0.0058 JN	0.0064 JN	0.032

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S071	S072	S073	S074	S075	S076	S077	S078	S079
		Sample ID	PDI-SG-S071	PDI-SG-S072	PDI-SG-S073	PDI-SG-S074	PDI-SG-S075	PDI-SG-S076	PDI-SG-S077	PDI-SG-S078	PDI-SG-S079
		Sample Date	05 May 2018	02 Jun 2018	07 May 2018	12 May 2018	07 May 2018	07 May 2018	07 May 2018	12 May 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-13 cm	0-27 cm	0-30 cm	0-25 cm	0-22 cm	0-22 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	0.081	0.0023 JN	0.070 J	0.084	0.019 J	0.0028 J+	0.43	0.052	0.26
PCB-200	52663-73-7	ng/g	0.0039 J	< 0.00039 U	0.0069 J	0.0060 JN	0.0030 J	< 0.000023 U	0.012	0.0033 JN	0.036 JN
PCB-201	40186-71-8	ng/g	0.0029 JN	< 0.00040 U	0.0039 JN	0.0061 J	0.0033 J	0.00045 J	0.011	0.0050 JN	0.038
PCB-202	2136-99-4	ng/g	0.0050 J	< 0.00045 U	0.0070 JN	0.013	0.0040 JN	< 0.000025 U	0.015	0.010	0.12
PCB-203	52663-76-0	ng/g	0.017	< 0.00052 U	0.027 J	0.034	0.015	0.00049 JN	0.056 JN	0.022	0.23
PCB-204	74472-52-9	ng/g	< 0.00019 U	< 0.00044 U	< 0.00094 U	< 0.00035 U	< 0.000065 U	< 0.000023 U	< 0.00021 U	< 0.00087 U	< 0.0017 U
PCB-205	74472-53-0	ng/g	0.00099 JN	< 0.0015 U	< 0.0032 U	0.0021 J	0.00081 JN	< 0.000054 U	0.0066 J	< 0.0032 U	0.015
PCB-206	40186-72-9	ng/g	0.024 JN	< 0.0021 U	3.1 JN	0.058 JN	0.018	< 0.00095 U	0.040	0.032	0.91
PCB-207	52663-79-3	ng/g	< 0.00079 U	< 0.0015 U	< 0.0070 U	0.0037 J	0.0017 J	< 0.00062 U	0.0039 JN	< 0.0021 U	0.046
PCB-208	52663-77-1	ng/g	0.0030 J	< 0.0015 U	< 0.0072 U	0.012	0.0044 JN	< 0.00067 U	0.013	0.0098 J	0.36
PCB-209	2051-24-3	ng/g	0.014	< 0.0010 U	0.0094 J	0.058	0.016	0.00049 J+	0.043	0.033	0.86
PCB-21/33	55702-46-0	ng/g	0.019 J	< 0.00054 U	0.024 J	0.033	0.0085 J	0.00079 JN	0.11	0.021	0.097
PCB-22	38444-85-8	ng/g	0.017	< 0.00056 U	0.021 J	0.025	0.0049 J	< 0.00043 U	0.085	0.015	0.062
PCB-23	55720-44-0	ng/g	< 0.0014 U	< 0.00056 U	< 0.0014 U	< 0.00080 U	< 0.00030 U	< 0.00012 U	0.0059 J	< 0.00073 U	< 0.0020 U
PCB-24	55702-45-9	ng/g	0.00057 J	< 0.00021 U	0.00078 JN	0.00038 JN	0.00046 J	< 0.000032 U	< 0.00061 U	0.00098 JN	0.0030 JN
PCB-25	55712-37-3	ng/g	0.017	< 0.00051 U	0.0047 JN	0.0069 J	0.0017 JN	0.00018 JN	0.022	0.0041 J	0.018
PCB-26/29	38444-81-4	ng/g	0.029	< 0.00054 U	0.010 JN	0.013 J	0.0024 J	0.00043 J+	0.046	0.0083 J	0.035
PCB-27	38444-76-7	ng/g	0.0028 JN	< 0.00018 U	0.0015 JN	0.0046 J	0.0017 JN	< 0.000032 U	< 0.00053 U	0.0032 JN	0.018 JN
PCB-3	2051-62-9	ng/g	0.0016 JN	0.00068 JN	< 0.0010 U	0.0032 J	0.00091 J	0.00041 JN	0.0041 JN	0.0020 JN	0.012
PCB-31	16606-02-3	ng/g	0.073	< 0.00054 U	0.058 J	0.059	0.012 J	< 0.0013 U	0.34	0.038	0.17
PCB-32	38444-77-8	ng/g	0.0098 JN	0.00041 JN	0.014 J	0.012 JN	0.0044 JN	0.00050 J+	0.0076 JN	0.0096 J	0.045 JN
PCB-34	37680-68-5	ng/g	< 0.0015 U	< 0.00058 U	< 0.0014 U	< 0.00083 U	< 0.00031 U	< 0.00012 U	< 0.0012 U	< 0.00076 U	< 0.0021 U
PCB-35	37680-69-6	ng/g	< 0.0014 U	< 0.00057 U	< 0.0014 U	0.0021 J	0.00041 JN	< 0.00012 U	0.0060 J	< 0.00074 U	0.0040 J
PCB-36	38444-87-0	ng/g	< 0.0013 U	< 0.00054 U	< 0.0012 U	< 0.00072 U	< 0.00027 U	< 0.00011 U	< 0.0012 U	< 0.00071 U	< 0.0020 U
PCB-37	38444-90-5	ng/g	0.026	< 0.00056 U	0.018 JN	0.024	0.0065 J	0.00031 JN	0.089	0.017	0.089
PCB-38	53555-66-1	ng/g	< 0.0014 U	< 0.00059 U	< 0.0013 U	< 0.00078 U	< 0.00029 U	< 0.00012 U	< 0.0012 U	< 0.00077 U	< 0.0021 U
PCB-39	38444-88-1	ng/g	< 0.0013 U	< 0.00053 U	< 0.0012 U	< 0.00071 U	< 0.00027 U	< 0.00011 U	0.0048 J	< 0.00069 U	< 0.0019 U
PCB-4	13029-08-8	ng/g	0.0029 J	< 0.0040 U	0.012 J	0.012 J	0.0035 JN	< 0.00045 U	0.014 JN	0.0070 JN	0.046
PCB-40/41/71	38444-93-8	ng/g	0.13	< 0.00064 U	0.049 J	0.058	0.013 J	0.00080 JN	0.21	0.033 JN	0.24
PCB-42	36559-22-5	ng/g	0.073	< 0.00064 U	0.022 J	0.028 JN	0.0050 JN	0.00025 JN	0.093	0.015 JN	0.10 JN
PCB-43/73	70362-46-8	ng/g	0.026 JN	< 0.00060 U	0.0023 JN	0.0033 JN	< 0.00030 U	0.00024 JN	0.011 JN	< 0.0013 U	0.023
PCB-44/47/65	41464-39-5	ng/g	0.74	0.0038 JN	0.11 J	0.13	0.034	< 0.0021 U	0.41	0.088	0.65
PCB-45/51	70362-45-7	ng/g	0.025	< 0.00068 U	0.018 J	0.025	0.0065 J	0.00056 JN	0.081	0.014 J	0.12
PCB-46	41464-47-5	ng/g	< 0.0083 U	< 0.00082 U	0.0070 J	0.0063 J	0.00091 JN	< 0.000062 U	0.027	0.0053 J	0.030
PCB-48	70362-47-9	ng/g	0.032 JN	< 0.00064 U	0.013 JN	0.018	0.0029 JN	0.00035 J	0.097	0.011 JN	0.072
PCB-49/69	41464-40-8	ng/g	0.45	0.0023 JN	0.058 J	0.078	0.020	0.0021 J	0.21	0.059	0.38
PCB-5	16605-91-7	ng/g	< 0.00045 U	< 0.0034 U	< 0.00097 U	< 0.00046 U	< 0.00032 U	< 0.00033 U	< 0.0037 U	< 0.0022 U	< 0.0033 U
PCB-50/53	62796-65-0	ng/g	0.047	< 0.00062 U	0.016 J	0.020	0.0064 JN	0.00041 JN	0.064	0.013 J	0.11
PCB-52	35693-99-3	ng/g	2.0	0.0043 J	0.17	0.16	0.034	0.0029 J+	0.50	0.12	0.70
PCB-54	15968-05-5	ng/g	0.00026 J	< 0.000046 U	< 0.00011 U	0.0029 J	0.00080 JN	< 0.000037 U	< 0.0043 U	0.0014 J	0.013
PCB-55	74338-24-2	ng/g	< 0.0046 U	< 0.00047 U	< 0.0013 U	0.0023 J	< 0.00022 U	0.00011 JN	< 0.0013 U	< 0.0010 U	< 0.011 U
PCB-56	41464-43-1	ng/g	0.10	< 0.00047 U	0.032 J	0.047	0.0099 J	0.00048 JN	0.15	0.029	0.16 JN
PCB-57	70424-67-8	ng/g	< 0.0047 U	< 0.00048 U	< 0.0013 U	< 0.00073 U	< 0.00023 U	< 0.000035 U	< 0.0014 U	< 0.0010 U	< 0.011 U
PCB-58	41464-49-7	ng/g	< 0.0045 U	< 0.00048 U	< 0.0012 U	0.00076 JN	< 0.00022 U	< 0.000034 U	0.0017 JN	< 0.0011 U	< 0.011 U
PCB-59/62/75	74472-33-6	ng/g	0.019 J	< 0.00046 U	0.0080 J	0.0096 J	0.0024 J	< 0.00026 U	0.031	0.0076 J	0.039
PCB-6	25569-80-6	ng/g	0.0014 J	< 0.0030 U	0.0024 JN	0.0053 J	0.0013 JN	< 0.00033 U	0.0063 JN	< 0.0019 U	0.021 JN
PCB-60	33025-41-1	ng/g	0.029	0.00092 JN	0.014 J	0.019	0.0035 J	< 0.000097 U	0.039	0.0063 J	0.045 JN
PCB-61/70/74/76	33284-53-6	ng/g	1.0	0.0052 J+	0.17 J	0.18	0.040	0.0020 JN	0.57	0.13	0.82
PCB-63	74472-34-7	ng/g	0.011	< 0.00044 U	< 0.0011 U	0.0039 JN	0.00096 JN	< 0.000031 U	0.013 JN	0.0024 JN	0.018
PCB-64	52663-58-8	ng/g	0.20	< 0.00043 U	0.038 J	0.043	0.0094 J	0.00074 J+	0.16	0.031	0.17
PCB-66	32598-10-0	ng/g	0.35	0.0029 JN	0.076 J	0.11	0.025	0.0019 J+	0.32	0.075	0.50
PCB-67	73575-53-8	ng/g	0.012	< 0.00041 U	< 0.0012 U	0.0029 J	0.00095 J	< 0.000033 U	0.0074 JN	0.0012 JN	0.010
PCB-68	73575-52-7	ng/g	< 0.0041 U	< 0.00042 U	< 0.0011 U	0.0022 J	< 0.00056 U	< 0.00016 U	0.0038 J+	0.0014 JN	< 0.0099 U
PCB-7	33284-50-3	ng/g	< 0.00043 U	< 0.0031 U	< 0.00092 U	< 0.00043 U	< 0.00030 U	< 0.00031 U	< 0.0034 U	< 0.0020 U	0.0038 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S071	S072	S073	S074	S075	S076	S077	S078	S079
		Sample ID	PDI-SG-S071	PDI-SG-S072	PDI-SG-S073	PDI-SG-S074	PDI-SG-S075	PDI-SG-S076	PDI-SG-S077	PDI-SG-S078	PDI-SG-S079
		Sample Date	05 May 2018	02 Jun 2018	07 May 2018	12 May 2018	07 May 2018	07 May 2018	07 May 2018	12 May 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-13 cm	0-27 cm	0-30 cm	0-25 cm	0-22 cm	0-22 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.010	< 0.00047 U	< 0.0013 U	0.0016 JN	0.0010 J	< 0.000035 U	0.0052 JN	0.0021 JN	< 0.011 U
PCB-77	32598-13-3	ng/g	0.011	< 0.00048 U	0.0048 JN	0.012	0.0026 JN	< 0.00019 U	0.025	0.0074 JN	0.032 JN
PCB-78	70362-49-1	ng/g	< 0.0045 U	< 0.00048 U	< 0.0012 U	< 0.00071 U	< 0.00022 U	< 0.000034 U	< 0.0014 U	< 0.0011 U	< 0.011 U
PCB-79	41464-48-6	ng/g	0.0062 J	< 0.00042 U	< 0.0011 U	0.0021 J	0.00045 J	< 0.000029 U	0.0041 J	< 0.00091 U	< 0.0098 U
PCB-8	34883-43-7	ng/g	0.0059 J	< 0.0028 U	0.014 J	0.018 JN	0.0048 J	0.0011 J	0.029	0.010 J	0.042 JN
PCB-80	33284-52-5	ng/g	< 0.0040 U	< 0.00041 U	< 0.0011 U	< 0.00063 U	< 0.00019 U	< 0.000030 U	< 0.0012 U	< 0.00090 U	< 0.0096 U
PCB-81	70362-50-4	ng/g	< 0.0042 U	< 0.00042 U	< 0.0012 U	< 0.00066 U	< 0.00021 U	< 0.000032 U	< 0.0013 U	< 0.00093 U	< 0.011 U
PCB-82	52663-62-4	ng/g	0.094	< 0.00029 U	0.033 J	0.023	0.0035 JN	0.00039 JN	0.050	0.026	0.085
PCB-83/99	60145-20-2	ng/g	0.43	0.0048 J	0.14 J	0.12	0.043	0.0018 JN	0.20	0.12	0.61
PCB-84	52663-60-2	ng/g	0.40	< 0.00029 U	0.072 J	0.046	0.013 JN	0.00054 JN	0.12	0.052	0.23
PCB-85/116/117	65510-45-4	ng/g	0.11	0.0018 J+	0.047 J	0.034	0.0096 J	0.00036 JN	0.069	0.036	0.13
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.51	0.0043 JN	0.18 J	0.12	0.035 J	0.0017 JN	0.22	0.12	0.50
PCB-88/91	55215-17-3	ng/g	0.14	0.0014 J	0.035 J	0.031	0.011 J	0.00041 JN	0.057	0.032	0.16
PCB-89	73575-57-2	ng/g	< 0.00063 U	< 0.00028 U	< 0.0014 U	0.0018 JN	< 0.00038 U	< 0.00021 U	< 0.00024 U	< 0.00045 U	< 0.00073 U
PCB-9	34883-39-1	ng/g	0.0011 J	< 0.0032 U	< 0.0011 U	0.0012 J	< 0.00035 U	< 0.00036 U	< 0.0034 U	< 0.0020 U	< 0.0030 U
PCB-90/101/113	68194-07-0	ng/g	0.79	0.0059 JN	0.30	0.19	0.063	0.0034 JN	0.37	0.22	1.1
PCB-92	52663-61-3	ng/g	0.15	< 0.00025 U	0.060 J	0.041	0.015	0.00058 JN	0.068	0.032	0.20
PCB-93/100	73575-56-1	ng/g	0.022	< 0.00025 U	< 0.0014 U	0.0048 JN	0.0039 J	< 0.00020 U	0.0062 JN	0.0059 J	0.043
PCB-94	73575-55-0	ng/g	0.0059 J	< 0.00028 U	< 0.0014 U	< 0.00057 U	0.00090 JN	< 0.00021 U	< 0.00024 U	< 0.00045 U	0.011
PCB-95	38379-99-6	ng/g	1.1	0.0037 JN	0.26	0.15	0.053	0.0035 J	0.39	0.18	0.91
PCB-96	73575-54-9	ng/g	0.0089 J	< 0.00021 U	< 0.0011 U	0.0022 J	0.00081 JN	< 0.00016 U	0.0056 J	0.0019 JN	0.014
PCB-98/102	60233-25-2	ng/g	0.036	< 0.00024 U	0.0078 JN	0.0078 JN	0.0033 J	< 0.00019 U	0.014 JN	0.0062 J	0.034 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	13	0.12	8.7	5.3	1.5	0.087	12	4.8	31
Pesticides											
2,4-DDD	53-19-0	µg/kg	2.0 J	< 0.30 U	< 1.1 U	0.97 J	< 0.68 U	< 0.65 U	< 1.2 U	1.0	0.83 J
2,4-DDE	3424-82-6	µg/kg	< 0.79 UJ	< 0.30 U	< 1.1 U	< 0.50 UJ	< 0.79 U	< 0.79 U	< 1.2 U	< 0.90 U	< 0.97 U
2,4-DDT	789-02-6	µg/kg	< 0.94 UJ	< 0.30 U	< 1.1 U	< 0.50 UJ	< 0.94 U	< 0.94 U	< 1.2 U	< 0.94 U	< 0.97 U
4,4'-DDD	72-54-8	µg/kg	4.4 J	< 0.30 U	1.7	2.1 J	0.72	< 0.65 U	2.4	2.8	2.6
4,4'-DDE	72-55-9	µg/kg	1.5 J	< 0.30 UJ	< 1.1 U	2.2 J	< 0.70 U	< 0.70 U	< 1.2 U	1.2	1.9
4,4'-DDT	50-29-3	µg/kg	0.63 J	< 0.30 U	< 1.1 U	0.90 J	< 0.68 U	< 0.65 U	< 1.2 U	< 0.90 U	< 0.97 U
DDx (b)	T_DDx (PDI)	µg/kg	9.0	< 0.3 UJ	2.3	6.4	1.2	< 0.94 U	3.0	5.5	5.8
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	33 J	0.23 J	180	12	5.4	0.15 J	70 J	9.4	42
Acenaphthene	83-32-9	µg/kg	160	0.32 J	1700	24	9.0	0.64	2600	17	69
Acenaphthylene	208-96-8	µg/kg	510	0.26 J	2200	16	28	1.4	900	7.9	34
Anthracene	120-12-7	µg/kg	760	0.61	4700	39	24	1.0	5400	28	100
Benz(a)anthracene	56-55-3	µg/kg	4100	2.0	19000	170	150	5.3	8100	94	520
Benzo(a)pyrene	50-32-8	µg/kg	5700	4.5	24000	270	290	11	11000	130	690
Benzo(b)fluoranthene	205-99-2	µg/kg	4800	3.8	20000	260	260	9.9	9000	130	660
Benzo(g,h,i)perylene	191-24-2	µg/kg	3800	3.3	11000	150 J	170	9.1	5100	100	460
Benzo(k)fluoranthene	207-08-9	µg/kg	1600	1.3	6400	87	83	3.5	3100	45	240
Chrysene	218-01-9	µg/kg	5000	3.1	24000	230	200	7.2	9900	120	750
Dibenz(a,h)anthracene	53-70-3	µg/kg	570	0.41	1600	21	24	1.2	690	16	89
Fluoranthene	206-44-0	µg/kg	8400	3.1	45000	400	180	5.5	24000	190	780
Fluorene	86-73-7	µg/kg	140	0.30 J	1200	24	7.1	0.38	2200	20	62
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	3800	2.8	11000	150	170	8.7	5000	99	460
Naphthalene	91-20-3	µg/kg	130	0.41 J	460	28	14	0.62 J	210	21	76
Phenanthrene	85-01-8	µg/kg	1000	1.8	4400	190	35	2.0	23000	110	430
Pyrene	129-00-0	µg/kg	11000	4.4	65000	460	320	21	28000	240	1100
Total PAHs (b)	T_PAH (PDI)	µg/kg	51503	33	241840	2531	1970	89	138270	1377	6562
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	7561	6	30688	350	373	15	13941	179	946
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	69.2	62.1	73.7	52.6	72.6	75.9	70.0	60.4	50.5
Total Solids@104C - E160.3M (f)	TSOLID	%	71.5	64.8	72.5	48.9	72.7	76.2	71.8	55.1	51.4
Total Solids@70C	TSOLID70	%	71	65	74	48	73	75	71	62	50
Gravel	GS-Gravel	%	1.6	0	8.4 L	0	0	7.3	1.1	4.4	0.2
Sand, Coarse	GS-Csand	%	1.4	0.7	3.7	0.2	0.6	2.3	1.8	4.1	0.4

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S071	S072	S073	S074	S075	S076	S077	S078	S079
		Sample ID	PDI-SG-S071	PDI-SG-S072	PDI-SG-S073	PDI-SG-S074	PDI-SG-S075	PDI-SG-S076	PDI-SG-S077	PDI-SG-S078	PDI-SG-S079
		Sample Date	05 May 2018	02 Jun 2018	07 May 2018	12 May 2018	07 May 2018	07 May 2018	07 May 2018	12 May 2018	29 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-13 cm	0-27 cm	0-30 cm	0-25 cm	0-22 cm	0-22 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	44.6	2.2	37.0	7.4	43.6	44.4	49.3	28.8	3.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	47.15	9.864	47.65	38.08	46.42	45.8	35.08	28.37	49.64
Sand, Fine (#230) (d)	GS-Fsand	%	47.4	12.8	47.8	42.9	46.6	45.9	35.6	30.0	56.8
Silt (#200) (d)	GS-Silt-200	%	3.742	71.33	0	45.11	5.872	0	8.510	27.62	39.85
Silt (#230) (d)	GS-Silt	%	3.5	68.4	-0.4	40.3	5.7	-3.1	8.0	26.0	32.7
Clay	GS-Clay	%	1.6	15.9	3.5	9.2	3.6	3.3	4.3	6.8	6.5
Percent Fines (e)	GS-FINES	%	5.342	87.23	3.5	54.31	9.472	3.3	12.81	34.42	46.35
Total Organic Carbon	TOC	mg/kg	11000	4300	2900	18000	3300	610 J	7900	17000	31000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S080	S081	S083	S084	S085	S086	S087	S088	S089
		Sample ID	PDI-SG-S080	PDI-SG-S081	PDI-SG-S083	PDI-SG-S084	PDI-SG-S085	PDI-SG-S086	PDI-SG-S087	PDI-SG-S088	PDI-SG-S089
		Sample Date	13 May 2018	08 May 2018	08 May 2018	08 May 2018	29 May 2018	09 May 2018	09 May 2018	09 May 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-22 cm	0-23 cm	0-22 cm	0-20 cm	0-26 cm	0-21 cm	0-30 cm	0-10 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.022	0.0086	0.041	0.0037	0.26	0.033	0.15	0.30	0.20
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0025 J	0.00078 J	0.0051	0.00050 J+	0.078	0.0036 J	0.011	0.042	0.037
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00096 J+	< 0.000077 U	0.00070 J	0.00063 J+	0.0031 J+	0.00034 J+	0.0029 J	0.0026 J	0.00083 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00023 J	0.00019 JN	0.00037 J	< 0.00010 U	0.0013 J	0.00035 J+	0.00035 J+	0.0026 J	0.00099 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0013 J	0.00044 J	0.0034 J	0.00022 J+	0.0038 J	0.0011 J	0.020	0.0038 J	0.0027 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00081 J	0.00033 J	0.0012 J	0.00011 JN	0.0083	0.00095 J	0.0018 J	0.018	0.0068
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00042 JN	< 0.000064 U	0.00092 J	0.000069 JN	0.0020 J	0.00042 J	0.0075	0.0022 J	0.0015 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00072 J	0.00047 J	0.0011 J	0.00012 JN	0.0036 J	0.00089 J	0.0012 J	0.0059	0.0025 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00030 U	0.000094 J	0.00015 JN	< 0.00055 U	0.00082 J+	< 0.000065 U	0.00039 J	< 0.00021 U	< 0.00018 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00011 U	< 0.000062 U	0.00021 J	< 0.000023 U	0.00093 J	0.00013 JN	< 0.000055 U	0.0015 J	0.00061 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00091 J	0.00037 J	0.0017 J	0.00021 J+	0.0017 J	0.00082 J	0.014	0.0014 J	0.00066 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00015 JN	< 0.000040 U	0.00030 J	< 0.000030 U	0.00086 J	0.00014 JN	0.00088 J	0.0012 J	0.00067 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00010 U	0.00016 J	0.00067 JN	0.000080 J+	0.0011 J	0.00040 J	0.0031 J	0.0014 J	0.00067 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000082 U	< 0.000048 U	0.00011 JN	< 0.000080 U	0.0032	0.000075 JN	0.00011 JN	0.00032 JN	0.00014 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00046 J+	0.00028 J+	0.0014	0.00020 J+	0.0013	0.0013	0.0021 J	0.0011	0.00072 J
OCDD	3268-87-9	µg/kg	0.19	0.061	0.33	0.031	2.8	0.25	0.89	2.3	1.6
OCDF	39001-02-0	µg/kg	0.0072	0.0027 J	0.017	0.0015 J	0.21	0.013	0.026	0.082	0.17
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00081	0.00038	0.002	0.0002	0.011	0.0013	0.0068	0.0099	0.0055
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00075	0.00036	0.0018	0.00017	0.011	0.0012	0.0067	0.0098	0.0054
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00069	0.00033	0.0017	0.00013	0.011	0.0011	0.0067	0.0096	0.0053
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	< 0.00047 U	< 0.00034 U	0.045 JN	< 0.00046 U	0.022	0.0065 JN	< 0.00064 U	0.0058 JN	0.0050 JN
PCB-10	33146-45-1	ng/g	< 0.0042 U	< 0.0025 U	< 0.094 U	< 0.0051 U	0.0088 J	< 0.0019 U	< 0.0047 U	< 0.019 U	< 0.0024 U
PCB-103	60145-21-3	ng/g	0.0022 J	< 0.0010 U	< 0.0043 U	< 0.00057 U	0.052	0.0029 JN	< 0.00026 U	0.023 JN	0.023
PCB-104	56558-16-8	ng/g	< 0.00015 U	< 0.00079 U	< 0.0033 U	< 0.00044 U	< 0.00032 U	< 0.0012 U	< 0.00020 U	< 0.0012 U	< 0.00084 U
PCB-105	32598-14-4	ng/g	0.022	0.012	0.11	< 0.0013 U	2.0	0.047 J	0.016	0.23	0.18
PCB-106	70424-69-0	ng/g	< 0.00079 U	< 0.0015 U	< 0.0067 U	< 0.0013 U	< 0.0041 U	< 0.0018 U	< 0.00072 U	< 0.0047 U	< 0.0017 U
PCB-107	70424-68-9	ng/g	0.0062 J	< 0.0017 U	0.017 JN	< 0.0014 U	0.39 JN	0.010 JN	0.0031 JN	0.061	0.062
PCB-108/124	70362-41-3	ng/g	0.0021 J	< 0.0016 U	< 0.0069 U	< 0.0013 U	0.22	0.0047 JN	0.0019 J+	0.024 J	0.023
PCB-11	2050-67-1	ng/g	0.023	0.0037 JN	< 0.082 U	0.0055 JN	0.045	0.028 J	0.011 JN	0.087 JN	0.033 JN
PCB-110/115	38380-03-9	ng/g	0.090	0.050	0.55	0.013 J	7.9	0.16 J	0.093	0.99	0.84
PCB-111	39635-32-0	ng/g	< 0.00014 U	< 0.00073 U	< 0.0030 U	< 0.00040 U	< 0.00029 U	< 0.0011 U	< 0.00019 U	< 0.0011 U	0.0052 J
PCB-112	74472-36-9	ng/g	< 0.00015 U	< 0.00077 U	< 0.0032 U	< 0.00043 U	< 0.00031 U	< 0.0012 U	< 0.00020 U	0.0061 JN	0.0040 J
PCB-114	74472-37-0	ng/g	< 0.00076 U	< 0.0014 U	< 0.0065 U	< 0.0012 U	0.11	0.0020 J	0.0017 J	0.0073 JN	0.0095 JN
PCB-118	31508-00-6	ng/g	0.055	0.035	0.35	0.0056 JN	4.9	0.11	0.044	0.67	0.54
PCB-12/13	2974-92-7	ng/g	0.0074 JN	< 0.0023 U	< 0.085 U	< 0.0046 U	0.028 JN	< 0.0016 U	< 0.0042 U	< 0.017 U	0.0090 JN
PCB-120	68194-12-7	ng/g	< 0.00014 U	< 0.00074 U	0.012 J	< 0.00041 U	< 0.00030 U	< 0.0010 U	< 0.00019 U	< 0.0011 U	0.0087 JN
PCB-121	56558-18-0	ng/g	< 0.00015 U	< 0.00076 U	< 0.0032 U	< 0.00042 U	< 0.00031 U	< 0.0011 U	< 0.00019 U	< 0.0011 U	< 0.00081 U
PCB-122	76842-07-4	ng/g	< 0.00092 U	< 0.0018 U	< 0.0078 U	< 0.0015 U	0.072	< 0.0019 U	< 0.00083 U	< 0.0054 U	0.010
PCB-123	65510-44-3	ng/g	< 0.00077 U	< 0.0016 U	< 0.0064 U	< 0.0013 U	0.076	0.0017 JN	< 0.00073 U	0.014 J	0.0092 JN
PCB-126	57465-28-8	ng/g	< 0.00081 U	< 0.0017 U	< 0.0066 U	< 0.0013 U	< 0.0041 U	< 0.0017 U	< 0.00072 U	0.0058 JN	< 0.0018 U
PCB-127	39635-33-1	ng/g	< 0.00079 U	< 0.0015 U	< 0.0067 U	< 0.0013 U	< 0.0041 U	< 0.0017 U	< 0.00072 U	< 0.0047 U	< 0.0017 U
PCB-128/166	38380-07-3	ng/g	0.013 JN	0.0066 JN	0.11 J	< 0.0029 U	1.5	0.024 JN	0.016 J	0.22 JN	0.19
PCB-129/138/160/163	55215-18-4	ng/g	0.11	0.058	1.3	0.017 J	8.9	0.20 J	0.15	2.0	1.6
PCB-130	52663-66-8	ng/g	0.0062 JN	< 0.0038 U	0.044 JN	< 0.0039 U	0.57	0.013 J	0.0071 JN	0.11	0.10
PCB-131	61798-70-7	ng/g	< 0.0016 U	< 0.0039 U	< 0.023 U	< 0.0041 U	0.14	< 0.0024 U	< 0.0025 U	0.017 J	0.015 JN
PCB-132	38380-05-1	ng/g	0.033	0.016 JN	0.38	< 0.0038 U	3.2	0.065 J	0.042	0.58	0.50
PCB-133	35694-04-3	ng/g	< 0.0014 U	< 0.0036 U	< 0.020 U	< 0.0037 U	0.11	< 0.0023 U	< 0.0023 U	0.037 J	0.040
PCB-134/143	52704-70-8	ng/g	0.0048 JN	0.0049 JN	0.051 JN	< 0.0039 U	0.55	0.012 J	0.0052 JN	0.10	0.080
PCB-135/151	52744-13-5	ng/g	0.036	0.021	0.65	0.0084 JN	2.2	0.085 J	0.055	0.77	0.58
PCB-136	38411-22-2	ng/g	0.012 JN	0.0069 JN	0.17 JN	0.0023 JN	1.0	0.034 J	0.020	0.24	0.18
PCB-137	35694-06-5	ng/g	< 0.0013 U	< 0.0032 U	< 0.018 U	< 0.0033 U	0.47	0.0055 JN	0.0022 JN	0.040 JN	0.039
PCB-139/140	56030-56-9	ng/g	< 0.0013 U	< 0.0032 U	< 0.018 U	< 0.0033 U	0.15	< 0.0020 U	< 0.0020 U	0.019 JN	0.027 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S080	S081	S083	S084	S085	S086	S087	S088	S089
		Sample ID	PDI-SG-S080	PDI-SG-S081	PDI-SG-S083	PDI-SG-S084	PDI-SG-S085	PDI-SG-S086	PDI-SG-S087	PDI-SG-S088	PDI-SG-S089
		Sample Date	13 May 2018	08 May 2018	08 May 2018	08 May 2018	29 May 2018	09 May 2018	09 May 2018	09 May 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-22 cm	0-23 cm	0-22 cm	0-20 cm	0-26 cm	0-21 cm	0-30 cm	0-10 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0032 U	< 0.0019 U	< 0.072 U	< 0.0039 U	< 0.0030 U	< 0.0015 U	< 0.0036 U	< 0.015 U	< 0.0018 U
PCB-141	52712-04-6	ng/g	0.017 JN	0.013	0.34	< 0.0035 U	1.5	0.033 J	0.033	0.41	0.30
PCB-142	41411-61-4	ng/g	< 0.0014 U	< 0.0036 U	< 0.020 U	< 0.0037 U	< 0.0085 U	< 0.0023 U	< 0.0023 U	< 0.010 U	< 0.0038 U
PCB-144	68194-14-9	ng/g	0.0046 JN	0.0046 J	0.074 JN	0.0021 JN	0.31	0.010 JN	0.0078 J	0.047 J	0.060
PCB-145	74472-40-5	ng/g	< 0.000080 U	< 0.00072 U	< 0.00090 U	< 0.00045 U	< 0.00051 U	< 0.00021 U	< 0.000074 U	< 0.00097 U	< 0.00055 U
PCB-146	51908-16-8	ng/g	0.016 JN	0.0062 JN	0.20	< 0.0033 U	1.2	0.034 J	0.025	0.35	0.35
PCB-147/149	68194-13-8	ng/g	0.10	0.056	1.4	0.020	6.6	0.17 J	0.16	1.9	1.5
PCB-148	74472-41-6	ng/g	< 0.00011 U	< 0.0010 U	< 0.0013 U	< 0.00063 U	0.012	< 0.00029 U	< 0.00010 U	0.0031 JN	0.0062 JN
PCB-15	2050-68-2	ng/g	0.0083 JN	< 0.0025 U	< 0.12 U	< 0.0043 U	0.17	0.0061 JN	< 0.0042 U	0.059 JN	0.036 JN
PCB-150	68194-08-1	ng/g	< 0.000076 U	< 0.00068 U	< 0.00087 U	< 0.00043 U	0.0095 J	< 0.00019 U	< 0.000071 U	0.0037 JN	0.0055 J
PCB-152	68194-09-2	ng/g	< 0.000082 U	< 0.00074 U	< 0.00093 U	< 0.00046 U	0.0063 JN	< 0.00021 U	< 0.000076 U	0.0024 JN	< 0.00057 U
PCB-153/168	35065-27-1	ng/g	0.091	0.046	1.4	0.016 J	5.9	0.15 J	0.14	1.9	1.4
PCB-154	60145-22-4	ng/g	0.0019 JN	< 0.00081 U	0.021 J	< 0.00051 U	0.066 JN	0.0044 JN	0.0014 JN	0.037 JN	0.042
PCB-155	33979-03-2	ng/g	< 0.000076 U	< 0.00069 U	< 0.00087 U	< 0.00043 U	< 0.00049 U	< 0.00020 U	< 0.000071 U	< 0.00093 U	< 0.00053 U
PCB-156/157	38380-08-4	ng/g	0.0089 J	0.0040 JN	0.087 JN	< 0.0033 U	1.0	0.019 J	0.0089 JN	0.17	0.12
PCB-158	74472-42-7	ng/g	0.010	0.0073 J	0.10 JN	< 0.0023 U	0.94	0.019 J	0.014	0.18	0.14
PCB-159	39635-35-3	ng/g	< 0.00095 U	< 0.0024 U	0.016 JN	< 0.0025 U	< 0.0057 U	0.0027 J	0.0027 J	0.034 J	0.018
PCB-16	38444-78-9	ng/g	0.015	< 0.00053 U	< 0.0080 U	< 0.00073 U	0.26	0.0069 JN	< 0.00051 U	0.035 JN	0.039
PCB-161	74472-43-8	ng/g	< 0.00095 U	< 0.0024 U	< 0.014 U	< 0.0024 U	< 0.0056 U	< 0.0015 U	< 0.0015 U	< 0.0067 U	< 0.0025 U
PCB-162	39635-34-2	ng/g	< 0.00094 U	< 0.0023 U	< 0.013 U	< 0.0024 U	< 0.0056 U	< 0.0014 U	< 0.0015 U	0.0066 JN	< 0.0025 U
PCB-164	74472-45-0	ng/g	0.0077 J	< 0.0025 U	0.094 JN	< 0.0026 U	0.59	0.011 JN	0.011 JN	0.17	0.12
PCB-165	74472-46-1	ng/g	< 0.0011 U	< 0.0027 U	< 0.015 U	< 0.0028 U	< 0.0064 U	< 0.0017 U	< 0.0017 U	< 0.0076 U	< 0.0029 U
PCB-167	52663-72-6	ng/g	0.0024 JN	< 0.0018 U	0.033 J	< 0.0019 U	0.33	0.0078 J	0.0026 J	0.067	0.047
PCB-169	32774-16-6	ng/g	< 0.00074 U	< 0.0019 U	< 0.010 U	< 0.0017 U	< 0.0041 U	< 0.0011 U	< 0.0011 U	< 0.0048 U	< 0.0020 U
PCB-17	37680-66-3	ng/g	0.014 JN	0.0021 JN	0.051 JN	< 0.00065 U	0.29	0.012 JN	0.0024 JN	0.061 JN	0.058
PCB-170	35065-30-6	ng/g	0.031	0.022	0.64	< 0.0025 U	1.5	0.041 J	0.047	0.92	0.56
PCB-171/173	52663-71-5	ng/g	0.0068 JN	< 0.0020 U	0.20	< 0.0024 U	0.49	0.015 JN	0.012 J	0.28	0.17
PCB-172	52663-74-8	ng/g	0.0060 J	< 0.0019 U	0.11	< 0.0024 U	0.24	0.0068 JN	0.0061 JN	0.16	0.092
PCB-174	38411-25-5	ng/g	0.036	0.012 JN	0.63 JN	0.0067 JN	1.3	0.050 J	0.053	0.87	0.57
PCB-175	40186-70-7	ng/g	< 0.00059 U	< 0.0018 U	< 0.0079 U	< 0.0022 U	0.046 JN	0.0013 JN	< 0.00055 U	0.034 JN	0.022
PCB-176	52663-65-7	ng/g	0.0038 J	< 0.0013 U	0.076 JN	< 0.0017 U	0.17	0.0062 JN	0.0065 J	0.083	0.074
PCB-177	52663-70-4	ng/g	0.018 JN	0.010	0.33 JN	< 0.0023 U	0.80	0.030 JN	0.032	0.49	0.34
PCB-178	52663-67-9	ng/g	0.0063 JN	< 0.0019 U	0.092 JN	< 0.0024 U	0.26	0.011 JN	0.010	0.16	0.12
PCB-179	52663-64-6	ng/g	0.017	0.0059 JN	0.33	< 0.0018 U	0.55	0.025 J	0.023	0.34	0.25
PCB-18/30	37680-65-2	ng/g	0.041	0.0027 JN	0.12 JN	< 0.00058 U	0.66	0.024 J	0.0060 JN	0.096 JN	0.096
PCB-180/193	35065-29-3	ng/g	0.063	0.043	1.5	0.013 J	2.9	0.11 J	0.11	2.0	1.1
PCB-181	74472-47-2	ng/g	< 0.00059 U	< 0.0018 U	< 0.0079 U	< 0.0022 U	0.020	0.0015 JN	< 0.00055 U	< 0.0033 U	< 0.00043 U
PCB-182	60145-23-5	ng/g	< 0.00057 U	< 0.0017 U	< 0.0076 U	< 0.0021 U	< 0.0013 U	< 0.0010 U	< 0.00053 U	< 0.0032 U	< 0.00041 U
PCB-183/185	52663-69-1	ng/g	0.019	0.015 J	0.55	0.0047 JN	0.95	0.038 J	0.032	0.65	0.40
PCB-184	74472-48-3	ng/g	< 0.00048 U	< 0.0014 U	< 0.0065 U	< 0.0018 U	< 0.0011 U	< 0.00088 U	< 0.00045 U	< 0.0027 U	< 0.00035 U
PCB-186	74472-49-4	ng/g	< 0.00047 U	< 0.0014 U	< 0.0063 U	< 0.0018 U	< 0.0011 U	< 0.00084 U	< 0.00044 U	< 0.0026 U	< 0.00034 U
PCB-187	52663-68-0	ng/g	0.044	0.022 JN	0.83	0.0065 J	1.5	0.067 J	0.055 JN	0.95	0.70
PCB-188	74487-85-7	ng/g	< 0.00041 U	< 0.0013 U	< 0.0054 U	< 0.0016 U	< 0.00095 U	< 0.00081 U	< 0.00036 U	< 0.0023 U	< 0.00029 U
PCB-189	39635-31-9	ng/g	< 0.0011 U	< 0.0020 U	0.016 JN	< 0.0022 U	0.053	0.00077 JN	0.0020 JN	0.034 J	0.015 JN
PCB-19	38444-73-4	ng/g	0.0082 JN	< 0.00058 U	0.014 JN	< 0.00080 U	0.13	0.0082 JN	< 0.00056 U	0.061	0.026
PCB-190	41411-64-7	ng/g	0.0056 J	0.0029 JN	0.12 JN	< 0.0016 U	0.27	0.011 J	0.0090 J	0.18	0.098
PCB-191	74472-50-7	ng/g	< 0.00045 U	< 0.0013 U	0.027 JN	< 0.0017 U	0.054 JN	< 0.00081 U	0.0017 JN	0.033 J	0.021
PCB-192	74472-51-8	ng/g	< 0.00050 U	< 0.0015 U	< 0.0066 U	< 0.0019 U	< 0.0011 U	< 0.00086 U	< 0.00046 U	< 0.0028 U	< 0.00036 U
PCB-194	35694-08-7	ng/g	0.015	< 0.0063 U	0.33	< 0.0055 U	0.56	0.023 J	0.023	0.38	0.28
PCB-195	52663-78-2	ng/g	< 0.0024 U	< 0.0069 U	0.15	< 0.0061 U	0.23	0.012 JN	0.011	0.18	0.13
PCB-196	42740-50-1	ng/g	0.0073 J	< 0.0023 U	0.12	< 0.0035 U	0.35	0.011 JN	0.0098	0.19 JN	0.13
PCB-197	33091-17-7	ng/g	< 0.00059 U	< 0.0018 U	0.011 J	< 0.0027 U	0.025	< 0.00018 U	< 0.00017 U	0.016 J	0.0097
PCB-198/199	68194-17-2	ng/g	0.013 JN	0.0092 JN	0.28 JN	< 0.0035 U	1.2	0.033 JN	0.020 JN	0.43	0.30
PCB-2	2051-61-8	ng/g	0.0037 J	< 0.00039 U	0.030 JN	< 0.00051 U	0.012	< 0.0044 U	< 0.00074 U	0.019 JN	0.0072 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S080	S081	S083	S084	S085	S086	S087	S088	S089
		Sample ID	PDI-SG-S080	PDI-SG-S081	PDI-SG-S083	PDI-SG-S084	PDI-SG-S085	PDI-SG-S086	PDI-SG-S087	PDI-SG-S088	PDI-SG-S089
		Sample Date	13 May 2018	08 May 2018	08 May 2018	08 May 2018	29 May 2018	09 May 2018	09 May 2018	09 May 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-22 cm	0-23 cm	0-22 cm	0-20 cm	0-26 cm	0-21 cm	0-30 cm	0-10 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.024	0.0071 J	0.15 J	0.0037 J	0.78	0.055 J	0.014 J	0.23	0.17
PCB-200	52663-73-7	ng/g	< 0.00052 U	< 0.0016 U	0.043 JN	< 0.0024 U	0.067	0.0026 JN	0.0030 JN	0.034 J	0.030
PCB-201	40186-71-8	ng/g	< 0.00054 U	< 0.0016 U	0.024 JN	< 0.0024 U	0.080	0.0010 JN	0.0012 J	0.039 J	0.034
PCB-202	2136-99-4	ng/g	0.0022 JN	< 0.0018 U	0.052 J	< 0.0027 U	0.28	0.0046 JN	0.0036 JN	0.075	0.066
PCB-203	52663-76-0	ng/g	0.0066 JN	0.0078 J	0.14 JN	< 0.0032 U	0.52	0.020 J	0.012	0.24	0.16
PCB-204	74472-52-9	ng/g	< 0.00059 U	< 0.0018 U	< 0.0027 U	< 0.0027 U	< 0.0016 U	< 0.00020 U	< 0.00017 U	< 0.0014 U	< 0.00048 U
PCB-205	74472-53-0	ng/g	< 0.0018 U	< 0.0053 U	0.021 JN	< 0.0047 U	0.032	< 0.00044 U	< 0.00089 U	0.014 JN	0.014 JN
PCB-206	40186-72-9	ng/g	0.013 JN	< 0.0046 U	0.091 J	< 0.0040 U	3.9	0.029 JN	0.0051 JN	0.35	0.53
PCB-207	52663-79-3	ng/g	< 0.0030 U	< 0.0029 U	< 0.020 U	< 0.0028 U	0.18	< 0.0025 U	< 0.0011 U	0.028 J	0.034
PCB-208	52663-77-1	ng/g	< 0.0029 U	< 0.0027 U	< 0.020 U	< 0.0029 U	1.7	0.0060 J	< 0.0010 U	0.13	0.22
PCB-209	2051-24-3	ng/g	0.0080 JN	< 0.0032 U	0.038 JN	0.0021 JN	3.7	0.015 JN	0.0057 J	0.34	0.49
PCB-21/33	55702-46-0	ng/g	0.012 J	0.0029 J	0.061 JN	< 0.00078 U	0.29	0.018 J	0.0029 J	0.094 J	0.070
PCB-22	38444-85-8	ng/g	0.0071 J	< 0.00065 U	0.058 J	< 0.00082 U	0.19	0.014 J	0.0032 J	0.050 JN	0.047
PCB-23	55720-44-0	ng/g	< 0.00050 U	< 0.00064 U	< 0.0061 U	< 0.00082 U	< 0.0026 U	< 0.0015 U	< 0.00090 U	< 0.0031 U	< 0.00088 U
PCB-24	55702-45-9	ng/g	< 0.00036 U	< 0.00040 U	< 0.0060 U	< 0.00055 U	0.0072 JN	< 0.00055 U	< 0.00038 U	< 0.0022 U	< 0.00043 U
PCB-25	55712-37-3	ng/g	0.0036 J	< 0.00059 U	< 0.0055 U	< 0.00074 U	0.062	0.0062 J	< 0.00082 U	0.012 JN	0.015 JN
PCB-26/29	38444-81-4	ng/g	0.0080 J	< 0.00062 U	0.028 J	< 0.00079 U	0.12	0.0071 JN	0.0023 J	0.032 J	0.030
PCB-27	38444-76-7	ng/g	0.0038 JN	< 0.00035 U	< 0.0052 U	< 0.00048 U	0.055	0.0035 J	< 0.00033 U	0.016 J	0.011
PCB-3	2051-62-9	ng/g	< 0.00045 U	< 0.00045 U	0.036 J	< 0.00054 U	0.016	0.0058 J+	< 0.00083 U	0.0087 JN	0.0064 J
PCB-31	16606-02-3	ng/g	0.021	0.0052 J	0.15 J	0.0021 JN	0.64	0.034 J	0.0085 J	0.16	0.13
PCB-32	38444-77-8	ng/g	0.0096 J	0.0016 JN	< 0.0050 U	< 0.00046 U	0.19	0.012 J	0.0031 J	0.049 J	0.035 JN
PCB-34	37680-68-5	ng/g	< 0.00052 U	< 0.00067 U	< 0.0063 U	< 0.00085 U	< 0.0027 U	< 0.0015 U	< 0.00094 U	< 0.0032 U	< 0.00092 U
PCB-35	37680-69-6	ng/g	0.0018 J	< 0.00065 U	< 0.0061 U	< 0.00082 U	0.0069 JN	< 0.0015 U	< 0.00091 U	< 0.0031 U	0.0019 J
PCB-36	38444-87-0	ng/g	< 0.00048 U	< 0.00063 U	< 0.0059 U	< 0.00079 U	< 0.0026 U	< 0.0013 U	< 0.00088 U	< 0.0030 U	< 0.00086 U
PCB-37	38444-90-5	ng/g	0.0081 J	0.0032 J	0.033 J	< 0.00082 U	0.22	0.014 J	0.0041 JN	0.071	0.049
PCB-38	53555-66-1	ng/g	< 0.00052 U	< 0.00067 U	< 0.0063 U	< 0.00085 U	< 0.0028 U	< 0.0014 U	< 0.00095 U	< 0.0032 U	< 0.00092 U
PCB-39	38444-88-1	ng/g	< 0.00047 U	< 0.00060 U	< 0.0057 U	< 0.00076 U	< 0.0025 U	< 0.0013 U	< 0.00085 U	< 0.0029 U	< 0.00083 U
PCB-4	13029-08-8	ng/g	0.018 JN	< 0.0030 U	< 0.090 U	< 0.0075 U	0.18	< 0.0025 U	< 0.0063 U	0.052 JN	0.019 JN
PCB-40/41/71	38444-93-8	ng/g	0.014 J	0.0060 J	0.10 J	< 0.0012 U	0.59	0.043 J	0.011 J	0.13 J	0.11
PCB-42	36559-22-5	ng/g	0.0064 JN	< 0.0012 U	0.049 J	< 0.0012 U	0.25	0.022 J	0.0053 JN	0.066	0.052
PCB-43/73	70362-46-8	ng/g	< 0.00056 U	< 0.0011 U	< 0.0093 U	< 0.0011 U	0.14	0.0076 JN	0.0017 J	0.013 JN	< 0.0024 U
PCB-44/47/65	41464-39-5	ng/g	0.033	0.011 JN	0.24 J	0.0039 JN	1.7	0.093 J	0.032	0.40	0.26
PCB-45/51	70362-45-7	ng/g	0.0072 J	< 0.0012 U	0.051 J	< 0.0013 U	0.19	0.019 JN	< 0.00086 U	0.098 JN	0.054
PCB-46	41464-47-5	ng/g	< 0.00076 U	< 0.0015 U	0.017 JN	< 0.0015 U	0.066	0.0081 J	< 0.0010 U	0.013 JN	0.0093 J
PCB-48	70362-47-9	ng/g	0.0027 JN	< 0.0012 U	0.020 JN	< 0.0012 U	0.18	0.010 JN	0.0033 JN	0.044 JN	0.036
PCB-49/69	41464-40-8	ng/g	0.022	0.0054 J	0.13 J	0.0029 JN	0.92	0.067 J	0.021 JN	0.22	0.18
PCB-5	16605-91-7	ng/g	< 0.0043 U	< 0.0025 U	< 0.095 U	< 0.0052 U	< 0.0040 U	< 0.0018 U	< 0.0047 U	< 0.019 U	< 0.0024 U
PCB-50/53	62796-65-0	ng/g	0.0071 J	< 0.0012 U	0.033 J	< 0.0012 U	0.20	0.023 J	0.0039 J	0.071 J	0.049
PCB-52	35693-99-3	ng/g	0.045	0.016	0.31	0.0056 JN	3.8	0.12	0.050	0.40	0.31
PCB-54	15968-05-5	ng/g	< 0.000060 U	< 0.00024 U	< 0.0038 UJ	< 0.000050 U	0.0097 JN	0.0070 JN	< 0.000028 U	0.019 JN	0.0079 J
PCB-55	74338-24-2	ng/g	< 0.00043 U	< 0.00086 U	< 0.0072 U	< 0.00087 U	< 0.0061 U	< 0.0016 U	< 0.00059 U	0.0079 J	0.0029 JN
PCB-56	41464-43-1	ng/g	0.0082 JN	0.0027 JN	0.080 J	< 0.00087 U	0.47	0.033 J	0.011	0.12	0.078
PCB-57	70424-67-8	ng/g	< 0.00044 U	< 0.00088 U	< 0.0073 U	< 0.00088 U	< 0.0062 U	< 0.0017 U	< 0.00060 U	< 0.0054 U	< 0.0019 U
PCB-58	41464-49-7	ng/g	< 0.00045 U	< 0.00089 U	0.012 J	< 0.00090 U	0.039	< 0.0016 U	< 0.00061 U	< 0.0055 U	0.0036 J
PCB-59/62/75	74472-33-6	ng/g	0.0027 J	< 0.00084 U	0.012 JN	< 0.00085 U	0.078	0.0091 J	0.0025 J+	0.027 JN	0.021 J
PCB-6	25569-80-6	ng/g	0.0091 JN	< 0.0022 U	< 0.084 U	< 0.0045 U	0.088	0.0027 J	< 0.0042 U	< 0.017 U	0.012
PCB-60	33025-41-1	ng/g	0.0022 JN	0.0020 JN	0.037 J	< 0.00089 U	0.20	0.018 J	0.0033 JN	0.040 JN	0.032
PCB-61/70/74/76	33284-53-6	ng/g	0.045	0.019 J	0.37 J	0.0061 JN	3.3	0.12 J	0.050	0.50	0.37
PCB-63	74472-34-7	ng/g	< 0.00040 U	< 0.00080 U	< 0.0067 U	< 0.00081 U	0.039	0.0046 J	0.0013 J	0.011 JN	0.0086 JN
PCB-64	52663-58-8	ng/g	0.010	0.0034 JN	0.073 J	< 0.00080 U	0.55	0.031 J	0.0098 JN	0.10	0.081
PCB-66	32598-10-0	ng/g	0.027	0.0087 JN	0.17	0.0031 J	1.0	0.082 J	0.026	0.30	0.22
PCB-67	73575-53-8	ng/g	< 0.00038 U	< 0.00076 U	< 0.0063 U	< 0.00076 U	0.019	< 0.0015 U	0.0010 J	0.0068 JN	0.0061 J
PCB-68	73575-52-7	ng/g	< 0.00039 U	< 0.00078 U	0.011 JN	< 0.00078 U	< 0.0055 U	< 0.0014 U	< 0.00053 U	0.0078 JN	0.0065 J
PCB-7	33284-50-3	ng/g	< 0.0039 U	< 0.0023 U	< 0.086 U	< 0.0047 U	0.0078 JN	< 0.0017 U	< 0.0043 U	< 0.017 U	0.0036 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S080	S081	S083	S084	S085	S086	S087	S088	S089
		Sample ID	PDI-SG-S080	PDI-SG-S081	PDI-SG-S083	PDI-SG-S084	PDI-SG-S085	PDI-SG-S086	PDI-SG-S087	PDI-SG-S088	PDI-SG-S089
		Sample Date	13 May 2018	08 May 2018	08 May 2018	08 May 2018	29 May 2018	09 May 2018	09 May 2018	09 May 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-22 cm	0-23 cm	0-22 cm	0-20 cm	0-26 cm	0-21 cm	0-30 cm	0-10 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0012 J	< 0.00086 U	< 0.0072 U	< 0.00087 U	< 0.0061 U	< 0.0016 U	< 0.00059 U	< 0.0053 U	0.0074 J
PCB-77	32598-13-3	ng/g	0.0022 J	< 0.00082 U	0.012 JN	< 0.00082 U	0.073	0.011 J	0.0019 JN	0.029 J	0.024
PCB-78	70362-49-1	ng/g	< 0.00045 U	< 0.00089 U	< 0.0074 U	< 0.00090 U	< 0.0063 U	< 0.0016 U	< 0.00061 U	< 0.0055 U	< 0.0019 U
PCB-79	41464-48-6	ng/g	0.0011 JN	< 0.00077 U	< 0.0064 U	< 0.00078 U	0.024 JN	< 0.0014 U	< 0.00053 U	0.0052 J	0.0037 JN
PCB-8	34883-43-7	ng/g	0.014 J	< 0.0021 U	0.12 JN	< 0.0042 U	0.21	0.0056 JN	< 0.0038 U	0.058 J	0.038
PCB-80	33284-52-5	ng/g	< 0.00038 U	< 0.00076 U	< 0.0063 U	< 0.00076 U	< 0.0054 U	< 0.0014 U	< 0.00052 U	< 0.0047 U	< 0.0016 U
PCB-81	70362-50-4	ng/g	< 0.00040 U	< 0.00082 U	< 0.0065 U	< 0.00084 U	< 0.0058 U	< 0.0015 U	< 0.00058 U	< 0.0046 U	< 0.0017 U
PCB-82	52663-62-4	ng/g	0.0052 JN	0.0054 JN	0.035 JN	< 0.00066 U	0.79	0.014 JN	0.0075 J	0.088	0.074
PCB-83/99	60145-20-2	ng/g	0.047	0.019 JN	0.30	0.0073 JN	3.4	0.091 J	0.040	0.56	0.48
PCB-84	52663-60-2	ng/g	0.012 JN	0.0082 J	0.12	0.0022 JN	2.1	0.031 JN	0.017 JN	0.18	0.16
PCB-85/116/117	65510-45-4	ng/g	0.0088 JN	0.0062 JN	0.044 JN	< 0.00049 U	1.0	0.025 J	0.0065 JN	0.13 J	0.11
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.041 J	0.025 JN	0.25 J	0.0049 JN	4.6	0.10 J	0.045 J	0.49	0.40
PCB-88/91	55215-17-3	ng/g	0.010 J	< 0.0011 U	0.056 JN	< 0.00060 U	0.87	0.032 J	0.010 J	0.12 JN	0.093
PCB-89	73575-57-2	ng/g	< 0.00022 U	< 0.0012 U	< 0.0049 U	< 0.00065 U	< 0.00047 U	< 0.0018 U	< 0.00030 U	< 0.0018 U	< 0.0013 U
PCB-9	34883-39-1	ng/g	< 0.0040 U	< 0.0024 U	< 0.088 U	< 0.0048 U	0.012 JN	< 0.0020 U	< 0.0044 U	< 0.018 U	0.0035 JN
PCB-90/101/113	68194-07-0	ng/g	0.072	0.045	0.61	0.0094 JN	6.9	0.16 J	0.095	1.0	0.80
PCB-92	52663-61-3	ng/g	0.015	0.0064 JN	0.12	< 0.00057 U	1.2	0.032 J	0.016	0.19	0.18
PCB-93/100	73575-56-1	ng/g	0.0020 J	< 0.0010 U	< 0.0043 U	< 0.00058 U	0.77	0.0052 JN	< 0.00026 U	0.053 J	0.031
PCB-94	73575-55-0	ng/g	< 0.00022 U	< 0.0012 U	< 0.0049 U	< 0.00065 U	< 0.00047 U	< 0.0018 U	< 0.00030 U	0.011 J	< 0.0013 U
PCB-95	38379-99-6	ng/g	0.062	0.033	0.48 JN	0.011	6.8	0.13	0.096	0.76	0.61
PCB-96	73575-54-9	ng/g	0.0011 JN	< 0.00089 U	< 0.0037 U	< 0.00049 U	< 0.00036 U	< 0.0013 U	< 0.00023 U	0.011 J	< 0.00095 U
PCB-98/102	60233-25-2	ng/g	0.0030 JN	< 0.0010 U	< 0.0042 U	< 0.00056 U	0.16	0.0041 J	0.0028 JN	0.029 JN	0.022 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	1.8	0.75	19	0.19	124	3.4	2.0	29	22
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.35 J	< 0.66 U	< 1.3 U	< 0.59 U	2.1	1.3	0.69	1.9	1.1
2,4-DDE	3424-82-6	µg/kg	< 0.40 UJ	< 0.79 U	< 1.3 U	< 0.59 U	< 0.80 U	< 0.30 U	< 0.26 U	< 0.38 U	< 0.35 U
2,4-DDT	789-02-6	µg/kg	< 0.47 UJ	< 0.94 U	< 1.3 U	< 0.59 U	< 0.94 U	< 0.30 U	< 0.26 U	< 0.38 U	< 0.35 U
4,4'-DDD	72-54-8	µg/kg	0.68 J	0.57 J	2.9	< 0.59 U	8.0	2.7	2.3	4.6	3.9
4,4'-DDE	72-55-9	µg/kg	0.74 J	< 0.70 U	< 1.3 U	< 0.59 U	2.2	1.3	0.29	3.4	0.68 J
4,4'-DDT	50-29-3	µg/kg	0.30 J	< 0.66 U	< 1.3 U	< 0.59 U	5.4	1.5	< 0.26 U	0.47	2.1
DDx (b)	T_DDx (PDI)	µg/kg	2.3	1.0	3.6	< 0.59 U	18.2	7.0	3.4	11	8.0
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	7.3	9.2	520	5.1	79	760	7.4	58	68
Acenaphthene	83-32-9	µg/kg	10	7.8	27000	4.4	130	3000	12	190	200
Acenaphthylene	208-96-8	µg/kg	9.1	110	700	61	45	200	230	36	42
Anthracene	120-12-7	µg/kg	20	56	24000	29	200	4200	150	110	130
Benz(a)anthracene	56-55-3	µg/kg	98	630	87000	480	980	11000	1100	440	540
Benzo(a)pyrene	50-32-8	µg/kg	110	1200	110000	740	1100	14000	1800	570	630
Benzo(b)fluoranthene	205-99-2	µg/kg	120	1000	100000	630	1200	11000	1500	560	630
Benzo(g,h,i)perylene	191-24-2	µg/kg	58 J	640	45000 J	540	620	9000	1300	380	440
Benzo(k)fluoranthene	207-08-9	µg/kg	41	300	37000	180	410	3900	520	210	220
Chrysene	218-01-9	µg/kg	130	820	77000	580	1100	14000	1300	490	630
Dibenz(a,h)anthracene	53-70-3	µg/kg	9.3	92	6900	60	160	1700	150	77	77
Fluoranthene	206-44-0	µg/kg	300	660	220000	840	1600	15000	1900	840	1100
Fluorene	86-73-7	µg/kg	11	7.2	9300	6.1	140	1400	19	170	190
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	58	600	51000	510	710	8500	1200	410	450
Naphthalene	91-20-3	µg/kg	24	29	550	22	160	1900	39	140	180
Phenanthrene	85-01-8	µg/kg	110	25	120000	14	720	13000	62	430	570
Pyrene	129-00-0	µg/kg	320	1400	250000	1500	1700	25000	2700	1000	1400
Total PAHs (b)	T_PAH (PDI)	µg/kg	1436	7586	1165970	6202	11054	137560	13989	6111	7497
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	147	1519	141147	964	1554	18803	2337	791	872
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	69.7	76.1	62.7	81.2	59.9	65.8	73.4	50.9	59.9
Total Solids@104C - E160.3M (f)	TSOLID	%	73.3	74.6	64.5	82.3	61.5	65.6	75.3	51.1	57.5
Total Solids@70C	TSOLID70	%	71	75	65	81	60	67	77	51	60
Gravel	GS-Gravel	%	0.1	1.5	2.0	14.2	0	0	6.4 L	0	0.4
Sand, Coarse	GS-Csand	%	0.5	1.3	1.0	8.9	0.7	0.6	5.9	0.1	0.5

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S080	S081	S083	S084	S085	S086	S087	S088	S089
		Sample ID	PDI-SG-S080	PDI-SG-S081	PDI-SG-S083	PDI-SG-S084	PDI-SG-S085	PDI-SG-S086	PDI-SG-S087	PDI-SG-S088	PDI-SG-S089
		Sample Date	13 May 2018	08 May 2018	08 May 2018	08 May 2018	29 May 2018	09 May 2018	09 May 2018	09 May 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-22 cm	0-22 cm	0-23 cm	0-22 cm	0-20 cm	0-26 cm	0-21 cm	0-30 cm	0-10 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	38.0	39.9	25.6	51.7	1.3	15.4	47.5	2.4	1.9
Sand, Fine (#200) (d)	GS-Fsand-200	%	55.19	55.25	47.11	23.73	69.69	65.98	33.98	53.68	61.03
Sand, Fine (#230) (d)	GS-Fsand	%	55.6	55.4	48.1	23.8	75.2	67.4	34.2	58.9	66.1
Silt (#200) (d)	GS-Silt-200	%	3.002	0	19.88	0	24.60	12.81	2.916	35.11	31.26
Silt (#230) (d)	GS-Silt	%	2.6	-1.2	18.9	-1.3	19.1	11.4	2.7	29.9	26.2
Clay	GS-Clay	%	3.1	3.1	4.5	2.6	3.7	5.3	3.2	8.7	4.8
Percent Fines (e)	GS-FINES	%	6.102	3.1	24.38	2.6	28.3	18.11	6.116	43.81	36.06
Total Organic Carbon	TOC	mg/kg	3200	1200 J	8100	670 J	10000	9400	2100	23000	12000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S090	S091	S092	S093	S094	S096	S097	S098	S099
		Sample ID	PDI-SG-S090	PDI-SG-S091	PDI-SG-S092	PDI-SG-S093	PDI-SG-S094	PDI-SG-S096	PDI-SG-S097	PDI-SG-S098	PDI-SG-S099
		Sample Date	09 May 2018	09 May 2018	29 May 2018	08 May 2018	10 May 2018	12 May 2018	13 May 2018	12 May 2018	07 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-24 cm	0-14 cm	0-29 cm	0-30 cm	0-30 cm	0-16 cm	0-28.5 cm	0-22 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0028 J	1.1	0.027	0.070	0.085	0.063	0.095	0.085	0.53
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.00061 JN	0.031 J	0.010	0.012 JN	0.020	0.014 JN	0.024	0.014	0.17 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00058 J+	0.0033 J	0.00086 J+	0.00063 J	0.0037 J	0.0028 J	0.0017 J+	0.0027 J	0.0047
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00013 U	0.0014 J	0.00039 JN	0.00071 J	0.0010 J+	0.00095 J	0.00092 J	0.00071 J	0.0032 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00019 J+	0.0050 J	0.00084 J+	0.0024 J	0.017	0.015	0.0033 J	0.014	0.0024 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00015 J+	0.011 J	0.0014 J	0.0035 J	0.0047 J	0.0027 J	0.0040	0.0023 J	0.011
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.000060 JN	0.0016 J	0.00063 J	0.00096 J	0.0044 J	0.0039 J	0.0014 J	0.0039 J	0.0088
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00015 J	0.0085 J	0.00084 J	0.0018 J	0.0028 J	0.0028 J	0.0023 J	0.0025 J	0.0071
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00040 U	0.00034 JN	< 0.00065 U	0.00015 J	0.00028 JN	0.00071 J+	< 0.00047 U	0.00053 J+	0.00021 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000027 JN	< 0.00040 U	0.00024 JN	0.00041 J	0.00058 JN	0.00056 JN	0.00046 J	0.00031 JN	0.0011 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00014 J+	0.0030 J	0.00034 J+	0.00073 J	0.0093	0.0090	0.00058 J	0.0094	0.0017 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.000035 JN	0.00069 J	0.00035 J	0.00067 JN	0.00087 J	0.0012 J	0.0018 J	0.00088 J	0.0015 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000049 JN	0.0019 J	0.00032 J+	0.00088 J	0.0038 J	0.0057 J	0.0010 J	0.0036 J	0.0013 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000082 U	0.0012 J	0.00016 JN	0.000091 J	0.00048 J	< 0.00022 U	0.00019 JN	< 0.00019 U	< 0.00010 U
2,3,7,8-TCDF	51207-31-9	µg/kg	< 0.00014 U	0.0036 J	0.00052 J+	0.00083 J	0.0098	0.010	0.00078 J	0.0059	0.0012
OCDD	3268-87-9	µg/kg	0.024	7.0	0.24	0.53	0.77	0.56	0.81	0.60	6.7
OCDF	39001-02-0	µg/kg	0.0016 J	0.20	0.011	0.025	0.045	0.042	0.056	0.035	0.28
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00019	0.019	0.0015	0.0029	0.0079	0.0074	0.0039	0.006	0.014
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00014	0.019	0.0011	0.0028	0.0076	0.007	0.0038	0.0058	0.014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.000095	0.019	0.001	0.0028	0.0073	0.0067	0.0037	0.0056	0.014
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	< 0.00030 U	< 0.0067 U	< 0.00055 U	0.0035 J	0.0079 J	0.0031 J	0.0040 J	0.0032 JN	0.0046 JN
PCB-10	33146-45-1	ng/g	< 0.0051 U	< 0.045 U	< 0.0031 U	< 0.0022 U	< 0.0039 U	0.00076 JN	0.0011 JN	0.00081 JN	0.0019 JN
PCB-103	60145-21-3	ng/g	< 0.00025 U	< 0.0036 U	0.0075 J	0.0096 JN	0.032	0.0055 J	0.0096 J	0.0071 J	0.018 J
PCB-104	56558-16-8	ng/g	< 0.00019 U	< 0.0027 U	< 0.00043 U	< 0.00035 U	< 0.00040 U	< 0.00024 U	< 0.00015 U	< 0.00016 U	< 0.0014 U
PCB-105	32598-14-4	ng/g	0.0027 JN	0.089 J	0.047	0.12	0.16	0.082	0.14	0.083	0.19
PCB-106	70424-69-0	ng/g	< 0.00079 U	< 0.0055 U	< 0.0020 U	< 0.0015 U	< 0.0022 U	< 0.0013 U	< 0.0011 U	< 0.0016 U	< 0.0039 U
PCB-107	70424-68-9	ng/g	< 0.00085 U	0.015 J	0.016	0.038	0.065	0.019	0.034	0.021	0.046 J
PCB-108/124	70362-41-3	ng/g	< 0.00081 U	0.014 J	0.0056 JN	0.011 JN	0.016 JN	0.0085 J	0.016 J	0.0080 JN	0.024 J
PCB-11	2050-67-1	ng/g	0.0052 JN	< 0.039 U	0.022 JN	0.038	0.082	0.046	0.026	0.037 JN	0.041 J
PCB-110/115	38380-03-9	ng/g	0.013 J	0.31	0.24	0.49	0.77	0.24	0.59	0.29	1.2
PCB-111	39635-32-0	ng/g	< 0.00018 U	< 0.0025 U	< 0.00040 U	< 0.00032 U	< 0.00037 U	< 0.00021 U	< 0.00014 U	< 0.00014 U	< 0.0013 U
PCB-112	74472-36-9	ng/g	< 0.00019 U	< 0.0027 U	< 0.00042 U	< 0.00034 U	< 0.00039 U	0.0013 JN	< 0.00015 U	< 0.0010 U	0.0045 J+
PCB-114	74472-37-0	ng/g	< 0.00075 U	< 0.0052 U	0.0030 JN	0.0063 J	0.0062 JN	0.0045 J	0.0067 J	0.0044 J	0.011 J
PCB-118	31508-00-6	ng/g	0.0083 J	0.20	0.15	0.34	0.54	0.20	0.36	0.23	0.62
PCB-12/13	2974-92-7	ng/g	< 0.0046 U	< 0.041 U	< 0.0028 U	0.0071 J	0.0058 JN	0.0026 J	0.0041 JN	0.0027 J	0.011 J
PCB-120	68194-12-7	ng/g	< 0.00018 U	< 0.0026 U	0.0033 JN	0.0042 J	0.010 J	0.0013 JN	0.0032 J	0.0015 JN	0.0073 JN
PCB-121	56558-18-0	ng/g	< 0.00019 U	< 0.0027 U	< 0.00042 U	< 0.00034 U	< 0.00039 U	< 0.00023 U	< 0.00014 U	< 0.00015 U	< 0.0014 U
PCB-122	76842-07-4	ng/g	< 0.00091 U	< 0.0063 U	< 0.0023 U	0.0050 JN	0.0043 JN	0.0027 JN	0.0052 J	0.0028 JN	0.0071 JN
PCB-123	65510-44-3	ng/g	< 0.00079 U	< 0.0056 U	< 0.0019 U	0.0038 JN	0.0053 JN	0.0034 JN	0.0061 J	0.0043 J	0.0089 J
PCB-126	57465-28-8	ng/g	< 0.00079 U	< 0.0054 U	< 0.0021 U	< 0.0017 U	< 0.0024 U	< 0.0013 U	0.0024 JN	0.0016 J	< 0.0039 U
PCB-127	39635-33-1	ng/g	< 0.00079 U	< 0.0054 U	< 0.0020 U	< 0.0015 U	< 0.0022 U	< 0.0012 U	< 0.0011 U	< 0.0016 U	< 0.0037 U
PCB-128/166	38380-07-3	ng/g	< 0.0015 U	0.036 JN	0.078	0.20	0.15	0.054	0.16	0.057	0.51
PCB-129/138/160/163	55215-18-4	ng/g	0.018 J	0.45	0.86	2.1	1.2	0.37	1.5	0.43	6.0
PCB-130	52663-66-8	ng/g	< 0.0021 U	0.026 J	0.037	0.087	0.073 JN	0.024	0.072	0.029	0.25
PCB-131	61798-70-7	ng/g	< 0.0021 U	< 0.015 U	< 0.0065 U	< 0.0060 U	< 0.0065 U	< 0.0013 U	< 0.0032 U	< 0.0022 U	< 0.0062 U
PCB-132	38380-05-1	ng/g	0.0053 JN	0.15	0.24	0.53	0.40	0.11	0.44	0.13	1.8
PCB-133	35694-04-3	ng/g	< 0.0019 U	< 0.014 U	0.013 JN	0.027	0.028	0.0062 JN	0.023	0.0087 J	0.078
PCB-134/143	52704-70-8	ng/g	< 0.0020 U	< 0.014 U	0.028	0.080	0.064	0.019 J	0.064	0.023	0.29
PCB-135/151	52744-13-5	ng/g	0.0062 J	0.20	0.26	0.50	0.38	0.12	0.47	0.16	2.5
PCB-136	38411-22-2	ng/g	0.0022 JN	0.068 JN	0.080	0.15	0.15	0.041	0.17	0.056	0.87
PCB-137	35694-06-5	ng/g	< 0.0017 U	< 0.012 U	0.016	0.030	0.029 JN	0.012 JN	0.032	0.014 JN	0.055
PCB-139/140	56030-56-9	ng/g	< 0.0017 U	< 0.012 U	< 0.0052 U	< 0.0048 U	0.020 JN	0.0063 J	0.015 J	0.0064 JN	< 0.0052 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S090	S091	S092	S093	S094	S096	S097	S098	S099
		Sample ID	PDI-SG-S090	PDI-SG-S091	PDI-SG-S092	PDI-SG-S093	PDI-SG-S094	PDI-SG-S096	PDI-SG-S097	PDI-SG-S098	PDI-SG-S099
		Sample Date	09 May 2018	09 May 2018	29 May 2018	08 May 2018	10 May 2018	12 May 2018	13 May 2018	12 May 2018	07 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-24 cm	0-14 cm	0-29 cm	0-30 cm	0-30 cm	0-16 cm	0-28.5 cm	0-22 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0039 U	< 0.035 U	< 0.0023 U	< 0.0017 U	< 0.0030 U	< 0.00040 U	< 0.00067 U	< 0.00040 U	0.0022 J
PCB-141	52712-04-6	ng/g	0.0039 JN	0.10	0.18	0.42	0.20	0.070	0.30	0.081	1.5
PCB-142	41411-61-4	ng/g	< 0.0019 U	< 0.014 U	< 0.0059 U	< 0.0054 U	< 0.0059 U	< 0.0013 U	< 0.0029 U	< 0.0021 U	< 0.0059 U
PCB-144	68194-14-9	ng/g	0.0013 JN	0.020 JN	0.025 JN	0.060	0.028	0.015	0.061	0.019	0.38
PCB-145	74472-40-5	ng/g	< 0.00011 U	< 0.00082 U	< 0.00040 U	< 0.00038 U	< 0.00056 U	< 0.00019 U	< 0.00018 U	0.00025 JN	< 0.00033 U
PCB-146	51908-16-8	ng/g	< 0.0017 U	0.065 JN	0.15	0.28	0.32	0.065	0.23	0.082	0.82
PCB-147/149	68194-13-8	ng/g	0.015 J	0.53	0.76	1.6	1.3	0.28	1.2	0.36	5.7
PCB-148	74472-41-6	ng/g	< 0.00015 U	< 0.0012 U	< 0.00056 U	0.0028 JN	0.0072 J	0.0014 JN	0.0038 JN	0.0017 JN	< 0.00045 U
PCB-15	2050-68-2	ng/g	< 0.0043 U	< 0.044 U	0.0081 JN	0.022	0.047	0.015	0.021	0.019	0.087
PCB-150	68194-08-1	ng/g	< 0.00010 U	< 0.00079 U	0.0024 JN	0.0033 J	0.0064 J	0.00069 JN	0.0017 J	0.0012 JN	< 0.00030 U
PCB-152	68194-09-2	ng/g	< 0.00011 U	< 0.00085 U	< 0.00041 U	< 0.00039 U	< 0.00057 U	0.00042 JN	0.0010 J	< 0.00013 U	< 0.00032 U
PCB-153/168	35065-27-1	ng/g	0.016 JN	0.46	0.81	1.8	1.3	0.32	1.3	0.38	6.2
PCB-154	60145-22-4	ng/g	< 0.00012 U	0.0068 JN	0.016	0.019	0.041	0.0079 JN	0.016	0.0075 JN	0.040 J
PCB-155	33979-03-2	ng/g	< 0.00010 U	< 0.00079 U	< 0.00038 U	< 0.00036 U	< 0.00053 U	0.00020 JN	< 0.00017 U	< 0.00012 U	< 0.00031 U
PCB-156/157	38380-08-4	ng/g	0.0018 JN	0.032 JN	0.060 JN	0.15	0.088	0.035	0.11	0.033	0.33
PCB-158	74472-42-7	ng/g	0.0015 JN	0.043 JN	0.072	0.18	0.085	0.032	0.13	0.037	0.55
PCB-159	39635-35-3	ng/g	< 0.0013 U	< 0.0092 U	< 0.0039 U	0.031	0.015	0.0041 J	0.011	0.0046 J	0.070
PCB-16	38444-78-9	ng/g	< 0.00036 U	< 0.0040 U	0.0055 J	0.011 JN	0.038	0.012	0.016	0.018	0.013 JN
PCB-161	74472-43-8	ng/g	< 0.0013 U	< 0.0091 U	< 0.0039 U	< 0.0036 U	< 0.0039 U	< 0.00082 U	< 0.0019 U	< 0.0014 U	< 0.0038 U
PCB-162	39635-34-2	ng/g	< 0.0013 U	< 0.0090 U	< 0.0039 U	< 0.0036 U	0.0068 JN	< 0.00078 U	0.0019 J	< 0.0013 U	< 0.0036 U
PCB-164	74472-45-0	ng/g	< 0.0014 U	0.027 JN	0.057	0.14	0.093	0.025	0.10	0.031	0.41
PCB-165	74472-46-1	ng/g	< 0.0015 U	< 0.010 U	< 0.0044 U	< 0.0041 U	< 0.0045 U	< 0.00094 U	< 0.0022 U	< 0.0015 U	< 0.0044 U
PCB-167	52663-72-6	ng/g	< 0.00099 U	0.018 J	0.027	0.048 JN	0.035	0.013	0.043	0.014	0.15
PCB-169	32774-16-6	ng/g	< 0.00090 U	< 0.0063 U	< 0.0030 U	< 0.0032 U	< 0.0030 U	< 0.00059 U	< 0.0013 U	< 0.00095 U	< 0.0030 U
PCB-17	37680-66-3	ng/g	< 0.00032 U	0.025 J	0.0088 J	0.023	0.071	0.017	0.022 JN	0.025	0.025 J
PCB-170	35065-30-6	ng/g	0.010	0.21	0.48	1.1	0.34	0.11	0.58	0.12	2.5
PCB-171/173	52663-71-5	ng/g	0.0044 JN	0.060 J	0.13	0.31	0.11	0.035	0.17	0.038	0.87
PCB-172	52663-74-8	ng/g	< 0.00074 U	0.034 JN	0.060	0.13	0.053 JN	0.021	0.088	0.023	0.38
PCB-174	38411-25-5	ng/g	0.0087 JN	0.19 JN	0.38	0.88	0.35	0.12	0.54	0.14	2.7
PCB-175	40186-70-7	ng/g	< 0.00067 U	< 0.0037 U	0.014	0.032	0.014 JN	0.0055 JN	0.021	0.0053 J	0.12
PCB-176	52663-65-7	ng/g	< 0.00051 U	0.016 J	0.041	0.10	0.049	0.013	0.065	0.014	0.35
PCB-177	52663-70-4	ng/g	0.0048 JN	0.098 J	0.23	0.51	0.21	0.072	0.31	0.086	1.5
PCB-178	52663-67-9	ng/g	< 0.00073 U	0.027 JN	0.064	0.15	0.081	0.027	0.11	0.029	0.47
PCB-179	52663-64-6	ng/g	0.0031 J	0.089 J	0.13	0.35	0.18	0.047	0.22	0.059	1.1
PCB-18/30	37680-65-2	ng/g	< 0.00028 U	0.037 J	0.017 J	0.038	0.10	0.026	0.042	0.039	0.033 JN
PCB-180/193	35065-29-3	ng/g	0.015 J	0.38 JN	0.90	2.0	0.71	0.23	1.2	0.27	5.3
PCB-181	74472-47-2	ng/g	< 0.00067 U	< 0.0037 U	< 0.0013 U	< 0.0012 U	0.0081 J	0.0060 J	< 0.00052 U	0.0029 JN	< 0.00030 U
PCB-182	60145-23-5	ng/g	< 0.00065 U	< 0.0035 U	< 0.0013 U	< 0.0012 U	0.0070 J	0.0012 JN	0.0057 JN	0.0011 JN	< 0.00028 U
PCB-183/185	52663-69-1	ng/g	0.0058 J	0.17 J	0.28	0.66	0.24	0.068	0.40	0.083	2.0
PCB-184	74472-48-3	ng/g	< 0.00055 U	< 0.0030 U	< 0.0011 U	< 0.00098 U	< 0.0016 U	< 0.00040 U	< 0.00042 U	< 0.00067 U	< 0.00024 U
PCB-186	74472-49-4	ng/g	< 0.00054 U	< 0.0029 U	< 0.0011 U	< 0.00096 U	< 0.0015 U	< 0.00038 U	< 0.00041 U	< 0.00064 U	< 0.00023 U
PCB-187	52663-68-0	ng/g	0.0095 J	0.25	0.42	0.99	0.49	0.15	0.65	0.17	3.0
PCB-188	74487-85-7	ng/g	< 0.00050 U	< 0.0025 U	< 0.00090 U	< 0.00078 U	< 0.0012 U	< 0.00036 U	< 0.00037 U	< 0.00060 U	< 0.00021 U
PCB-189	39635-31-9	ng/g	< 0.0014 U	< 0.0048 U	0.011 JN	0.036	0.010 J	0.0048 JN	0.017	0.0047 JN	0.087
PCB-19	38444-73-4	ng/g	0.00077 JN	< 0.0044 U	0.0047 JN	0.021	0.028 JN	0.014	0.015 JN	0.014	0.024 J
PCB-190	41411-64-7	ng/g	0.0016 JN	0.034 JN	0.075	0.18	0.055	0.022	0.10	0.025	0.46
PCB-191	74472-50-7	ng/g	< 0.00051 U	< 0.0028 U	0.019	0.046	0.014	0.0044 JN	0.022	0.0053 JN	0.10
PCB-192	74472-51-8	ng/g	< 0.00057 U	< 0.0031 U	< 0.0011 U	< 0.0010 U	< 0.0016 U	< 0.00039 U	< 0.00044 U	< 0.00066 U	< 0.00024 U
PCB-194	35694-08-7	ng/g	< 0.0031 U	0.098 J	0.20	0.43	0.15	0.057	0.26	0.065	0.97
PCB-195	52663-78-2	ng/g	< 0.0033 U	< 0.014 U	0.095	0.24	0.083	0.026	0.11	0.027	0.47
PCB-196	42740-50-1	ng/g	0.0046 J	0.045 J	0.091	0.17	0.085	0.028	0.13	0.031	0.48
PCB-197	33091-17-7	ng/g	< 0.0011 U	< 0.0022 U	0.0066 JN	0.013 JN	0.0063 J	0.0025 J	0.010	0.0023 JN	0.040 J
PCB-198/199	68194-17-2	ng/g	0.0091 J	0.10 J	0.21	0.30	0.18	0.073	0.27	0.078	0.85
PCB-2	2051-61-8	ng/g	< 0.00034 U	< 0.0066 U	0.0046 J	0.012	0.014	0.0063 J	0.0063 J	0.0081 J	0.014 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S090	S091	S092	S093	S094	S096	S097	S098	S099
		Sample ID	PDI-SG-S090	PDI-SG-S091	PDI-SG-S092	PDI-SG-S093	PDI-SG-S094	PDI-SG-S096	PDI-SG-S097	PDI-SG-S098	PDI-SG-S099
		Sample Date	09 May 2018	09 May 2018	29 May 2018	08 May 2018	10 May 2018	12 May 2018	13 May 2018	12 May 2018	07 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-24 cm	0-14 cm	0-29 cm	0-30 cm	0-30 cm	0-16 cm	0-28.5 cm	0-22 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.0031 JN	0.065 J	0.036	0.083	0.25	0.071	0.091	0.095	0.12
PCB-200	52663-73-7	ng/g	< 0.00099 U	0.020 J	0.018	0.040	0.018 JN	0.0074 JN	0.027	0.0079 J	0.12
PCB-201	40186-71-8	ng/g	< 0.0010 U	< 0.0020 U	0.017 JN	0.038	0.017	0.0069 J	0.029	0.0085 J	0.12
PCB-202	2136-99-4	ng/g	< 0.0011 U	0.013 JN	0.038	0.060	0.044	0.013 JN	0.050	0.015	0.18
PCB-203	52663-76-0	ng/g	0.0034 JN	0.069 J	0.12	0.19	0.11	0.043	0.17	0.044	0.57
PCB-204	74472-52-9	ng/g	< 0.0011 U	< 0.0022 U	< 0.0012 U	< 0.00092 U	< 0.0012 U	< 0.00045 U	< 0.00041 U	< 0.00048 U	< 0.0015 U
PCB-205	74472-53-0	ng/g	< 0.0026 U	< 0.011 U	< 0.0048 U	0.019 JN	0.010 JN	0.0035 J	0.012	0.0034 J	0.042 J
PCB-206	40186-72-9	ng/g	< 0.0033 U	0.046 JN	0.43	0.22	0.12 JN	0.051 JN	0.16	0.053 JN	0.42
PCB-207	52663-79-3	ng/g	< 0.0023 U	< 0.012 U	0.026	0.021	0.012	0.0051 JN	0.013	0.0042 J	0.043 J
PCB-208	52663-77-1	ng/g	< 0.0024 U	< 0.013 U	0.17	0.076	0.033	0.013	0.054	0.014	0.14
PCB-209	2051-24-3	ng/g	< 0.0018 U	0.039 JN	0.48	0.16	0.20	0.050	0.15	0.053	0.32
PCB-21/33	55702-46-0	ng/g	< 0.00048 U	0.017 J	0.012 JN	0.033	0.084	0.025	0.041	0.037	0.046 J
PCB-22	38444-85-8	ng/g	< 0.00050 U	0.012 J	0.0095 J	0.022	0.051	0.020	0.026	0.026	0.037 J
PCB-23	55720-44-0	ng/g	< 0.00050 U	< 0.0053 U	< 0.0010 U	< 0.00078 U	< 0.0015 U	< 0.00058 U	< 0.00043 U	< 0.00068 U	< 0.0022 U
PCB-24	55702-45-9	ng/g	< 0.00027 U	< 0.0030 U	< 0.00042 U	< 0.00034 U	0.0019 J	0.00020 JN	0.00063 JN	< 0.00025 U	< 0.00040 U
PCB-25	55712-37-3	ng/g	< 0.00045 U	< 0.0048 U	0.0036 JN	0.0071 JN	0.023	0.0073 J	0.0061 J	0.0094 J	0.0079 JN
PCB-26/29	38444-81-4	ng/g	< 0.00048 U	< 0.0051 U	0.0043 JN	0.011 J	0.035	0.011 J	0.011 JN	0.015 J	0.018 J
PCB-27	38444-76-7	ng/g	< 0.00023 U	< 0.0026 U	< 0.00036 U	0.0047 JN	0.011 J	0.0033 J	0.0054 J	0.0050 J	0.0066 J
PCB-3	2051-62-9	ng/g	0.00083 J	< 0.0064 U	< 0.00061 U	0.0056 JN	0.0065 JN	0.0025 J+	0.0048 J	0.0038 J	0.0078 J
PCB-31	16606-02-3	ng/g	0.0021 JN	0.045 J	0.026	0.059	0.17	0.051	0.068	0.069	0.083 J
PCB-32	38444-77-8	ng/g	0.0013 JN	< 0.0025 U	0.0080 JN	0.015 JN	0.022	0.011	0.017	0.013 JN	0.011 JN
PCB-34	37680-68-5	ng/g	< 0.00052 U	< 0.0055 U	< 0.0011 U	< 0.00081 U	0.0020 JN	< 0.00061 U	< 0.00045 U	< 0.00070 U	< 0.0023 U
PCB-35	37680-69-6	ng/g	< 0.00050 U	< 0.0054 U	< 0.0010 U	0.0018 J	0.0043 J	0.0018 J	0.0018 JN	0.0020 J	< 0.0022 U
PCB-36	38444-87-0	ng/g	< 0.00048 U	< 0.0052 U	< 0.00099 U	< 0.00076 U	< 0.0014 U	< 0.00052 U	< 0.00042 U	< 0.00061 U	< 0.0020 U
PCB-37	38444-90-5	ng/g	< 0.00050 U	< 0.0053 U	0.011	0.026	0.074	0.021	0.029	0.028	0.055
PCB-38	53555-66-1	ng/g	< 0.00052 U	< 0.0056 U	< 0.0011 U	< 0.00082 U	< 0.0015 U	< 0.00057 U	< 0.00045 U	< 0.00066 U	< 0.0021 U
PCB-39	38444-88-1	ng/g	< 0.00047 U	< 0.0050 U	< 0.00095 U	< 0.00073 U	0.0034 J	< 0.00052 U	0.00057 JN	< 0.00060 U	< 0.0020 U
PCB-4	13029-08-8	ng/g	< 0.0076 U	< 0.055 U	0.0082 JN	0.017 J	0.036	0.011 J	0.013 J	0.012 JN	0.013 JN
PCB-40/41/71	38444-93-8	ng/g	< 0.00044 U	0.041 J	0.022 J	0.040	0.16	0.054	0.058	0.074	0.063 J
PCB-42	36559-22-5	ng/g	< 0.00044 U	0.021 JN	0.012	0.018 JN	0.089	0.027	0.029	0.038	0.028 JN
PCB-43/73	70362-46-8	ng/g	0.00093 JN	< 0.0057 U	0.011 J	0.0025 J	0.0075 JN	0.0021 JN	0.0041 J	0.0038 JN	< 0.0030 U
PCB-44/47/65	41464-39-5	ng/g	0.0042 JN	0.11 J	0.081	0.14	0.39	0.14	0.17	0.17	0.26
PCB-45/51	70362-45-7	ng/g	< 0.00046 U	0.016 JN	0.019 J	0.026	0.055	0.024	0.030	0.031	0.053 J
PCB-46	41464-47-5	ng/g	< 0.00056 U	< 0.0078 U	< 0.0028 U	0.0045 J	0.016 JN	0.0067 J	0.0056 JN	0.0077 J	< 0.0040 U
PCB-48	70362-47-9	ng/g	< 0.00044 U	< 0.0061 U	0.0060 JN	0.011 JN	0.050	0.017	0.019 JN	0.024	0.015 JN
PCB-49/69	41464-40-8	ng/g	0.0021 JN	0.067 JN	0.049	0.075	0.32	0.081	0.097	0.11	0.098
PCB-5	16605-91-7	ng/g	< 0.0052 U	< 0.046 U	< 0.0031 U	< 0.0022 U	< 0.0040 U	< 0.00048 U	< 0.00089 U	< 0.00048 U	< 0.00085 U
PCB-50/53	62796-65-0	ng/g	< 0.00043 U	0.014 J	0.014 J	0.020 JN	0.050	0.022 J	0.024	0.026	0.028 J
PCB-52	35693-99-3	ng/g	0.0040 JN	0.13 JN	0.069	0.15	0.50	0.16	0.23	0.21	0.24
PCB-54	15968-05-5	ng/g	< 0.000062 U	< 0.00033 U	0.0023 JN	0.0045 J	0.0037 JN	0.0027 JN	0.0043 J	0.0030 J	0.0073 JN
PCB-55	74338-24-2	ng/g	< 0.00032 U	< 0.0044 U	< 0.0016 U	0.0015 JN	0.0027 JN	< 0.00065 U	0.0017 J	0.0028 JN	< 0.0022 U
PCB-56	41464-43-1	ng/g	< 0.00032 U	0.035 J	0.013 JN	0.035	0.13	0.047	0.042	0.059	0.050
PCB-57	70424-67-8	ng/g	< 0.00032 U	< 0.0045 U	< 0.0016 U	< 0.0012 U	< 0.0022 U	< 0.00066 U	< 0.0011 U	< 0.00067 U	< 0.0023 U
PCB-58	41464-49-7	ng/g	< 0.00033 U	< 0.0046 U	< 0.0017 U	< 0.0013 U	0.0043 J	< 0.00064 U	< 0.0011 U	< 0.00065 U	< 0.0022 U
PCB-59/62/75	74472-33-6	ng/g	< 0.00031 U	< 0.0043 U	0.0025 JN	0.0075 J	0.028 JN	0.0092 J	0.012 J	0.013 J	0.013 J
PCB-6	25569-80-6	ng/g	< 0.0046 U	< 0.040 U	0.0032 JN	0.0057 JN	0.012	0.0047 J	0.0060 J	0.0056 JN	0.0093 J
PCB-60	33025-41-1	ng/g	< 0.00033 U	0.016 JN	0.0057 JN	0.013	0.036	0.020	0.018	0.020	0.024 J
PCB-61/70/74/76	33284-53-6	ng/g	0.0050 JN	0.17 J	0.083	0.18	0.59	0.19	0.23	0.24	0.23
PCB-63	74472-34-7	ng/g	< 0.00030 U	< 0.0041 U	< 0.0015 U	0.0027 J	0.0099 JN	0.0044 J	0.0054 J	0.0053 J	0.0041 J
PCB-64	52663-58-8	ng/g	< 0.00029 U	0.039 J	0.015	0.035	0.12	0.042	0.049	0.055	0.049
PCB-66	32598-10-0	ng/g	0.0026 JN	0.096 J	0.054	0.10	0.39	0.12	0.12	0.16	0.12
PCB-67	73575-53-8	ng/g	< 0.00028 U	< 0.0039 U	< 0.0014 U	< 0.0011 U	0.0070 JN	0.0030 J	0.0029 J	0.0027 JN	< 0.0021 U
PCB-68	73575-52-7	ng/g	< 0.00029 U	< 0.0040 U	< 0.0014 U	0.0036 J+	0.011 J	0.0025 JN	0.0028 J	0.0020 JN	0.017 J
PCB-7	33284-50-3	ng/g	< 0.0047 U	< 0.041 U	< 0.0028 U	< 0.0020 U	< 0.0036 U	0.00094 J	0.0018 JN	< 0.00045 U	< 0.00081 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S090	S091	S092	S093	S094	S096	S097	S098	S099
		Sample ID	PDI-SG-S090	PDI-SG-S091	PDI-SG-S092	PDI-SG-S093	PDI-SG-S094	PDI-SG-S096	PDI-SG-S097	PDI-SG-S098	PDI-SG-S099
		Sample Date	09 May 2018	09 May 2018	29 May 2018	08 May 2018	10 May 2018	12 May 2018	13 May 2018	12 May 2018	07 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-21 cm	0-24 cm	0-14 cm	0-29 cm	0-30 cm	0-30 cm	0-16 cm	0-28.5 cm	0-22 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	< 0.00032 U	< 0.0044 U	0.0036 J	0.0029 JN	0.017	0.0020 J	0.0023 JN	0.0035 J	0.0042 J
PCB-77	32598-13-3	ng/g	< 0.00031 U	0.0077 J	0.0064 J	0.010	0.034	0.013	0.011	0.016	0.013 J
PCB-78	70362-49-1	ng/g	< 0.00033 U	< 0.0046 U	< 0.0017 U	< 0.0012 U	< 0.0023 U	< 0.00064 U	< 0.0011 U	< 0.00065 U	< 0.0022 U
PCB-79	41464-48-6	ng/g	< 0.00028 U	< 0.0040 U	< 0.0014 U	0.0024 J	0.0064 JN	0.0020 J	0.0030 J	0.0025 J	0.0053 J
PCB-8	34883-43-7	ng/g	< 0.0042 U	< 0.037 U	0.0086 JN	0.018 J	0.041	0.013 J	0.020	0.020	0.020 J
PCB-80	33284-52-5	ng/g	< 0.00028 U	< 0.0039 U	< 0.0014 U	< 0.0011 U	< 0.0019 U	< 0.00057 U	< 0.00095 U	< 0.00057 U	< 0.0019 U
PCB-81	70362-50-4	ng/g	< 0.00030 U	< 0.0043 U	< 0.0015 U	< 0.0011 U	< 0.0021 U	< 0.00060 U	< 0.0010 U	< 0.00062 U	< 0.0020 U
PCB-82	52663-62-4	ng/g	< 0.00029 U	0.016 JN	0.014	0.040	0.059	0.023	0.046	0.031	0.057
PCB-83/99	60145-20-2	ng/g	0.0057 JN	0.15 J	0.14	0.25	0.51	0.15	0.27	0.19	0.35
PCB-84	52663-60-2	ng/g	< 0.00030 U	0.062 J	0.031	0.064 JN	0.16	0.047	0.12	0.064	0.16
PCB-85/116/117	65510-45-4	ng/g	0.0024 JN	0.020 JN	0.022 JN	0.054	0.096	0.043	0.069	0.046	0.080 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.0060 J	0.18 JN	0.11	0.22	0.37	0.14	0.27	0.16	0.46
PCB-88/91	55215-17-3	ng/g	< 0.00026 U	0.043 JN	0.026 JN	0.060	0.13	0.036	0.072	0.045	0.071 JN
PCB-89	73575-57-2	ng/g	< 0.00029 U	< 0.0041 U	< 0.00064 U	< 0.00052 U	< 0.00059 U	0.0021 J	< 0.00022 U	< 0.00023 U	< 0.0021 U
PCB-9	34883-39-1	ng/g	< 0.0048 U	< 0.042 U	< 0.0029 U	< 0.0020 U	< 0.0037 U	0.0014 JN	0.0015 JN	0.0015 J	0.0025 JN
PCB-90/101/113	68194-07-0	ng/g	0.010 J	0.31	0.25	0.47	0.75	0.22	0.57	0.28	1.7
PCB-92	52663-61-3	ng/g	< 0.00025 U	0.044 JN	0.052 JN	0.090	0.17	0.046	0.10	0.056	0.28
PCB-93/100	73575-56-1	ng/g	< 0.00025 U	< 0.0036 U	0.0063 JN	0.018 J	0.016 JN	0.0075 JN	0.019	0.0084 JN	0.032 J
PCB-94	73575-55-0	ng/g	< 0.00029 U	< 0.0041 U	< 0.00064 U	< 0.00052 U	< 0.00059 U	0.0014 JN	< 0.00022 U	0.0023 JN	< 0.0021 U
PCB-95	38379-99-6	ng/g	0.011	0.30	0.17	0.34	0.67	0.17	0.51	0.21	1.4
PCB-96	73575-54-9	ng/g	< 0.00022 U	< 0.0031 U	< 0.00049 U	< 0.00039 U	0.0065 JN	0.0024 J	< 0.00017 U	0.0032 J	< 0.0016 U
PCB-98/102	60233-25-2	ng/g	< 0.00025 U	< 0.0035 U	0.0042 JN	0.010 J	0.019 JN	0.0089 J	0.013 J	0.011 J	0.020 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	0.25	7.0	11	22	19	5.8	17	7.0	63
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 0.66 U	0.84	< 0.76 U	< 0.89 U	2.6	1.2 J	0.76 J	2.6 J	17
2,4-DDE	3424-82-6	µg/kg	< 0.79 U	< 0.27 U	< 0.79 U	< 0.89 U	< 0.46 U	< 0.61 UJ	< 0.79 U	< 0.49 UJ	< 0.80 U
2,4-DDT	789-02-6	µg/kg	< 0.94 U	< 0.27 U	< 0.94 U	< 0.94 U	< 0.46 U	< 0.61 UJ	< 0.94 U	< 0.49 UJ	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	0.81	2.0	0.60 J	1.2	8.2	2.8 J	3.3	5.2 J	30
4,4'-DDE	72-55-9	µg/kg	< 0.70 U	0.96	< 0.76 U	1.2	4.9	3.2 J	0.99	3.2 J	2.5
4,4'-DDT	50-29-3	µg/kg	< 0.66 U	< 0.26 U	< 0.76 U	< 0.89 U	2.7	0.61 J	1.2 J	0.83 J	15
DDx (b)	T_DDx (PDI)	µg/kg	1.3	3.9	1.1	2.9	19	8.1	6.7	12	65
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	13 J	89 J	17	33	71	13	17	92	99
Acenaphthene	83-32-9	µg/kg	7.2 J	1700	24	33	180	22	33	340	66
Acenaphthylene	208-96-8	µg/kg	130	1400	35	22	56	13	13	140	45
Anthracene	120-12-7	µg/kg	67	3000	53	45	120	45	36	590	120
Benz(a)anthracene	56-55-3	µg/kg	1200	10000	160	170	480	120	170	1500	330
Benzo(a)pyrene	50-32-8	µg/kg	2100	13000	250	280	680	220	200	2200	480
Benzo(b)fluoranthene	205-99-2	µg/kg	1700	11000	240	290	580	180	230	1900	450
Benzo(g,h,i)perylene	191-24-2	µg/kg	1300	8200	190	170 J	520	130 J	140	1200 J	320
Benzo(k)fluoranthene	207-08-9	µg/kg	550	3600	91	94	210	62	81	630	150
Chrysene	218-01-9	µg/kg	1500	13000	210	250	600	160	230	1700	430
Dibenz(a,h)anthracene	53-70-3	µg/kg	190	1100	32	26	69	21	28	160	44
Fluoranthene	206-44-0	µg/kg	1400	24000	350	370	950	230	360	2300	820
Fluorene	86-73-7	µg/kg	11	1100	26	36	98	20	27	210	75
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	1300	8000	180	170	480	120	140	1200	290
Naphthalene	91-20-3	µg/kg	54	410	65	75	170	24	44	170	310
Phenanthrene	85-01-8	µg/kg	34	6400	200	190	740	150	190	1500	540
Pyrene	129-00-0	µg/kg	2500	33000	410	420	1400	330	470	3200	1100
Total PAHs (b)	T_PAH (PDI)	µg/kg	14056	138999	2533	2674	7404	1860	2409	19032	5669
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	2717	17049	341	370	906	284	283	2828	633
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	73.1	71.0	66.2	56.7	42.1	43.7	61.9	52.5	60.9
Total Solids@104C - E160.3M (f)	TSOLID	%	75.2	73.2	64.7	55.9	43.0	41.0	62.5	50.7	61.4
Total Solids@70C	TSOLID70	%	75	71	68	56	42	40	64	51	61
Gravel	GS-Gravel	%	0.8	0	0	0	0	0	0.3	0	0.1
Sand, Coarse	GS-Csand	%	2.1	0.2	1.0	0	0	0	0.2	0.3	0.2

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

			Location	S090	S091	S092	S093	S094	S096	S097	S098	S099
			Sample ID	PDI-SG-S090	PDI-SG-S091	PDI-SG-S092	PDI-SG-S093	PDI-SG-S094	PDI-SG-S096	PDI-SG-S097	PDI-SG-S098	PDI-SG-S099
			Sample Date	09 May 2018	09 May 2018	29 May 2018	08 May 2018	10 May 2018	12 May 2018	13 May 2018	12 May 2018	07 May 2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	0-21 cm	0-24 cm	0-14 cm	0-29 cm	0-30 cm	0-30 cm	0-16 cm	0-28.5 cm	0-22 cm
Chemical		**CAS_RN**	**Units**									
Sand, Medium		GS-Msand	%	43.3	35.2	1.3	0.3	1.4	0.1	0.7	19.6	0.8
Sand, Fine (#200)	(d)	GS-Fsand-200	%	48.94	52.54	75.35	58.79	19.03	14.31	72.97	26.41	77.49
Sand, Fine (#230)	(d)	GS-Fsand	%	49.1	53.1	78.4	64.4	21.5	18.1	76.5	29.2	80.9
Silt (#200)	(d)	GS-Silt-200	%	1.950	8.450	19.14	35.50	66.26	71.18	20.92	42.78	13.10
Silt (#230)	(d)	GS-Silt	%	1.8	7.9	16.1	29.9	63.8	67.4	17.4	40.0	9.7
Clay		GS-Clay	%	2.9	3.6	3.1	5.3	13.2	14.4	5.0	11.0	8.2
Percent Fines	(e)	GS-FINES	%	4.85	12.05	22.24	40.8	79.46	85.58	25.92	53.78	21.3
Total Organic Carbon		TOC	mg/kg	2000	6000	6300	11000	23000	27000	9100	17000	17000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S100	S101	S102	S103	S103	S104	S104	S106	S107
		Sample ID	PDI-SG-S100	PDI-SG-S101	PDI-SG-S102	PDI-SG-S103	PDI-SG-S103-D	PDI-SG-S104	PDI-SG-S104-D	PDI-SG-S106	PDI-SG-S107
		Sample Date	07 May 2018	10 May 2018	30 May 2018	13 May 2018	13 May 2018	07 May 2018	07 May 2018	13 May 2018	13 May 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-22 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.36	0.072	0.36	0.10	0.093	0.20	0.27	0.19	0.010
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.049	0.027	0.024	0.018	0.019	0.063	0.079	0.066	0.0020 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0039 J	0.0082	0.0032 J+	0.0031 J	0.0035 J	0.0026 J	0.0026 J	0.010	0.00052 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0039 J	0.00098 J+	0.0014 J	0.0012 J	0.0011 J	0.0014 J	0.0041 JN	0.0025 J	0.00021 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.012	0.034	0.011	0.012	0.013	0.0038 J	0.0034 J	0.042	0.00057 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.015	0.0029 J	0.0082	0.0034 J	0.0033 J	0.0096 J	0.020 J	0.0062	0.00039 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0065	0.017	0.0030 J	0.0037 J	0.0039 J	0.0025 J	0.0026 J	0.020	0.00026 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0057	0.0022 J	0.0045 J	0.0027 JN	0.0030 J	0.0044 J	0.011	0.0054 J	0.00045 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00047 JN	0.0012 J	0.0012 J+	0.00052 J+	< 0.00044 U	0.00026 J	0.00023 JN	0.00098 JN	< 0.00024 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0021 J	0.00042 J	0.00082 J	0.00057 JN	0.00053 JN	0.00095 J	0.010 J	0.0011 J	< 0.000057 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0079	0.024	0.0052 J	0.0065	0.0063	0.0011 J	0.0017 J	0.011	0.00042 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0017 J	0.0032 J	0.00086 J	0.00081 J	0.00099 J	0.0013 J	0.0010 JN	0.0026 J	0.00011 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0042 J	0.0070	0.0021 J	0.0029 J	0.0025 J	0.0014 J	0.0013 J	0.0035 J	0.00021 JN
2,3,7,8-TCDD	1746-01-6	µg/kg	0.0010	0.00036 J	0.00054 JN	< 0.00013 U	< 0.00015 U	0.00032 JN	0.0076 J	< 0.00029 U	< 0.000057 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0068	0.0078	0.0054	0.0080	0.0054	0.0015	0.0018	0.0077	0.00045 J+
OCDD	3268-87-9	µg/kg	3.5	0.59	3.0	0.93	0.85	1.7	2.4	1.4	0.095
OCDF	39001-02-0	µg/kg	0.11	0.045	0.054	0.054	0.056	0.15	0.19	0.093	0.0066 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.015	0.012	0.01	0.0064	0.006	0.0074	0.027	0.014	0.0005
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.015	0.012	0.01	0.0058	0.0057	0.0073	0.026	0.014	0.00039
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.015	0.012	0.01	0.0055	0.0054	0.0071	0.026	0.014	0.00036
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.018 J	0.0025 JN	0.0067 J	0.0029 J	0.0027 JN	0.020 J	0.040 J	< 0.0019 U	< 0.00039 U
PCB-10	33146-45-1	ng/g	< 0.0028 U	< 0.0041 U	< 0.00038 U	< 0.0045 U	< 0.0038 U	< 0.0023 U	< 0.012 U	< 0.021 U	< 0.0046 U
PCB-103	60145-21-3	ng/g	0.11	0.0081 J	0.0079 J	0.0088 J	0.0071 JN	0.083	0.10 J	0.012 JN	< 0.00016 U
PCB-104	56558-16-8	ng/g	< 0.00060 U	< 0.00040 U	< 0.00033 U	< 0.00022 U	< 0.00031 U	0.025 J	0.018 JN	< 0.0021 U	< 0.00012 U
PCB-105	32598-14-4	ng/g	0.66	0.10	0.12	0.12	0.12	0.81 J	0.37 J	0.18	0.0084 J
PCB-106	70424-69-0	ng/g	< 0.0048 U	< 0.0021 U	< 0.0012 U	< 0.0017 U	< 0.0018 U	< 0.011 U	< 0.015 U	< 0.0040 U	< 0.00062 U
PCB-107	70424-68-9	ng/g	0.32	0.026	0.033	0.034	0.027 JN	0.15	0.14 JN	0.043 JN	0.0027 J
PCB-108/124	70362-41-3	ng/g	0.092 J	0.0097 J	0.012 J	0.014 J	0.014 J	0.094 J	0.075 J	0.022 J	< 0.00063 U
PCB-11	2050-67-1	ng/g	0.044 J	0.071 JN	0.077	0.058	0.072	0.094 J	0.16 J	0.052 JN	0.013 JN
PCB-110/115	38380-03-9	ng/g	4.0	0.36	0.38	0.44	0.48	4.0	3.0	0.68	0.037
PCB-111	39635-32-0	ng/g	0.018 JN	< 0.00037 U	0.0014 JN	< 0.00021 U	< 0.00029 U	< 0.00088 U	< 0.0081 U	< 0.0019 U	< 0.00011 U
PCB-112	74472-36-9	ng/g	< 0.00059 U	< 0.00039 U	< 0.00032 U	< 0.00022 U	< 0.00031 U	< 0.00097 U	< 0.0089 U	< 0.0020 U	< 0.00012 U
PCB-114	74472-37-0	ng/g	0.051 J	0.0055 J	0.0057 JN	0.0045 JN	0.0081 J	0.055 J	< 0.015 U	0.013 J	< 0.00057 U
PCB-118	31508-00-6	ng/g	2.5	0.27	0.30	0.31	0.34	2.3 J	1.3 J	0.52	0.023
PCB-12/13	2974-92-7	ng/g	0.035 J	0.0038 JN	0.0052 JN	0.0088 JN	0.0076 JN	0.021 J	0.051 J	< 0.019 U	< 0.0042 U
PCB-120	68194-12-7	ng/g	0.061 JN	0.0027 J	0.0021 JN	< 0.00021 U	0.0035 J	0.027 J	0.029 J	< 0.0019 U	< 0.00011 U
PCB-121	56558-18-0	ng/g	< 0.00057 U	< 0.00039 U	< 0.00031 U	< 0.00022 U	< 0.00030 U	< 0.00095 U	< 0.0087 U	< 0.0020 U	< 0.00012 U
PCB-122	76842-07-4	ng/g	0.038 JN	< 0.0024 U	0.0051 J	0.0041 JN	0.0062 J	0.040 J	< 0.017 U	0.0053 JN	< 0.00071 U
PCB-123	65510-44-3	ng/g	0.034 J	0.0055 JN	0.0061 JN	0.0075 J	0.0069 J	0.040 J	0.021 JN	0.0086 JN	< 0.00065 U
PCB-126	57465-28-8	ng/g	< 0.0055 U	0.0033 J	< 0.0012 U	< 0.0018 U	0.0025 JN	0.014 JN	< 0.016 U	0.0060 JN	< 0.00063 U
PCB-127	39635-33-1	ng/g	< 0.0046 U	< 0.0021 U	< 0.0012 U	< 0.0017 U	< 0.0018 U	< 0.010 U	< 0.015 U	< 0.0040 U	< 0.00062 U
PCB-128/166	38380-07-3	ng/g	0.53	0.072	0.082	0.085	0.083	1.5	1.1	0.13	0.0065 J
PCB-129/138/160/163	55215-18-4	ng/g	4.2	0.59	0.60	0.63	0.64	15	12	0.92	0.048
PCB-130	52663-66-8	ng/g	0.35	0.029	0.039	0.039	0.040	0.69	0.50	0.054 J	0.0025 JN
PCB-131	61798-70-7	ng/g	0.064	< 0.0047 U	0.0070 J	< 0.0037 U	0.0060 JN	< 0.013 U	< 0.038 U	0.012 JN	< 0.00087 U
PCB-132	38380-05-1	ng/g	1.8	0.16	0.18	0.18	0.19	4.0	2.8	0.27	0.015
PCB-133	35694-04-3	ng/g	0.14	0.012 J	0.013	0.015	0.012	0.23	0.13 J	0.019 J	< 0.00079 U
PCB-134/143	52704-70-8	ng/g	0.30	0.027	0.033	0.036	0.033	0.64	0.48 J	0.034 J	0.0028 J
PCB-135/151	52744-13-5	ng/g	2.1	0.17	0.21	0.21	0.21	4.9	4.5	0.33	0.021
PCB-136	38411-22-2	ng/g	0.74	0.048 JN	0.071	0.072	0.068	1.6	1.5	0.11	0.0051 JN
PCB-137	35694-06-5	ng/g	0.13	0.018	0.021	0.019	0.020 JN	0.26	0.16 J	0.026 JN	< 0.00072 U
PCB-139/140	56030-56-9	ng/g	0.11	0.0073 JN	0.0099 J	0.012 J	0.0098 J	0.11	0.090 J	0.017 JN	< 0.00071 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S100	S101	S102	S103	S103	S104	S104	S106	S107
		Sample ID	PDI-SG-S100	PDI-SG-S101	PDI-SG-S102	PDI-SG-S103	PDI-SG-S103-D	PDI-SG-S104	PDI-SG-S104-D	PDI-SG-S106	PDI-SG-S107
		Sample Date	07 May 2018	10 May 2018	30 May 2018	13 May 2018	13 May 2018	07 May 2018	07 May 2018	13 May 2018	13 May 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-22 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.0022 U	< 0.0031 U	< 0.00029 U	< 0.0035 U	< 0.0029 U	< 0.0018 U	< 0.0094 U	< 0.016 U	< 0.0035 U
PCB-141	52712-04-6	ng/g	0.86	0.10	0.12	0.11	0.12	3.6	2.5	0.16 JN	0.010
PCB-142	41411-61-4	ng/g	< 0.0067 U	< 0.0043 U	< 0.0011 U	< 0.0034 U	< 0.0027 U	< 0.012 U	< 0.035 U	< 0.0073 U	< 0.00079 U
PCB-144	68194-14-9	ng/g	0.23	0.018 JN	0.022	0.022	0.019 JN	0.74	0.63	0.028 J	0.0020 JN
PCB-145	74472-40-5	ng/g	< 0.0017 U	< 0.00036 U	< 0.00028 U	< 0.00023 U	< 0.00021 U	< 0.00071 U	< 0.010 U	< 0.00067 U	< 0.000065 U
PCB-146	51908-16-8	ng/g	1.0	0.11	0.10	0.12	0.12	2.3	1.4	0.17	0.0089 J
PCB-147/149	68194-13-8	ng/g	4.8	0.52	0.48	0.56	0.58	12	9.8	0.84	0.046
PCB-148	74472-41-6	ng/g	0.029 J	0.0015 JN	0.0022 J	0.0016 JN	0.0024 JN	0.017 JN	< 0.014 U	< 0.00095 U	< 0.000092 U
PCB-15	2050-68-2	ng/g	0.18	0.027 JN	0.023	0.026	0.023	0.040 JN	0.063 J	0.030 JN	< 0.0037 U
PCB-150	68194-08-1	ng/g	0.013 J	< 0.00034 U	0.0015 JN	0.0021 JN	0.0021 J	0.015 JN	< 0.0093 U	< 0.00064 U	< 0.000063 U
PCB-152	68194-09-2	ng/g	0.0039 JN	< 0.00037 U	0.00058 JN	< 0.00023 U	0.00050 J	0.0070 JN	< 0.0099 U	< 0.00069 U	< 0.000067 U
PCB-153/168	35065-27-1	ng/g	4.3	0.53	0.52	0.53	0.56	14	10	0.81	0.045
PCB-154	60145-22-4	ng/g	0.18	0.0095 JN	0.0094 JN	0.011 JN	0.010 J	0.12	0.12 JN	0.022 JN	0.0016 JN
PCB-155	33979-03-2	ng/g	< 0.0016 U	< 0.00034 U	< 0.00026 U	< 0.00022 U	< 0.00020 U	< 0.00065 U	< 0.0095 U	< 0.00065 U	< 0.000063 U
PCB-156/157	38380-08-4	ng/g	0.34	0.052	0.055	0.058	0.057	0.99	0.99	0.074 JN	0.0049 J
PCB-158	74472-42-7	ng/g	0.34	0.050	0.053	0.050	0.056	1.4	1.1	0.062 JN	0.0043 J
PCB-159	39635-35-3	ng/g	0.045 J	0.0065 JN	0.0043 JN	0.0068 J	0.0069 J	0.21	0.18 J	< 0.0049 U	< 0.00053 U
PCB-16	38444-78-9	ng/g	0.30	0.013	0.018 JN	0.018 JN	0.018	0.054	0.033 JN	0.029 J	0.0020 JN
PCB-161	74472-43-8	ng/g	< 0.0044 U	< 0.0028 U	< 0.00070 U	< 0.0022 U	< 0.0018 U	< 0.0078 U	< 0.023 U	< 0.0048 U	< 0.00052 U
PCB-162	39635-34-2	ng/g	< 0.0041 U	< 0.0028 U	< 0.00066 U	< 0.0022 U	0.0023 J	< 0.0074 U	< 0.022 U	< 0.0048 U	< 0.00052 U
PCB-164	74472-45-0	ng/g	0.34	0.040	0.042	0.043	0.043	1.0	0.84	0.053 JN	0.0035 J
PCB-165	74472-46-1	ng/g	< 0.0050 U	< 0.0032 U	< 0.00080 U	< 0.0026 U	< 0.0020 U	< 0.0089 U	< 0.026 U	< 0.0055 U	< 0.00060 U
PCB-167	52663-72-6	ng/g	0.12	0.020	0.018	0.021	0.020	0.41	0.41	0.030 J	0.0013 JN
PCB-169	32774-16-6	ng/g	< 0.0029 U	0.0054 JN	< 0.00054 U	< 0.0017 U	< 0.0014 U	< 0.0054 U	0.026 J	< 0.0037 U	< 0.00040 U
PCB-17	37680-66-3	ng/g	0.40	0.019	0.025	0.028	0.027	0.072	0.062 JN	0.038 JN	0.0026 J
PCB-170	35065-30-6	ng/g	1.5	0.20	0.18	0.18	0.19	8.0	8.6	0.26	0.016 JN
PCB-171/173	52663-71-5	ng/g	0.44	0.053	0.057	0.055	0.049	2.2	2.4	0.087 J	0.0040 JN
PCB-172	52663-74-8	ng/g	0.24	0.032	0.038	0.033	0.032	0.94	1.1	0.038 J	0.0033 J
PCB-174	38411-25-5	ng/g	1.6	0.19	0.20	0.18	0.20	7.1	6.7	0.27	0.017 JN
PCB-175	40186-70-7	ng/g	0.061	0.0096 J	0.0078 JN	0.0067 JN	0.0060 JN	0.26	0.23 J	0.018 J	< 0.00081 U
PCB-176	52663-65-7	ng/g	0.19	0.023	0.023	0.021	0.019 JN	0.76	0.69	0.029 J	0.0022 J
PCB-177	52663-70-4	ng/g	0.86	0.12	0.13	0.11	0.11	3.9	4.0	0.15 JN	0.013
PCB-178	52663-67-9	ng/g	0.34	0.051	0.045	0.051	0.044	1.1	1.0	0.052 J	0.0074 J
PCB-179	52663-64-6	ng/g	0.74	0.089	0.077	0.086	0.089	2.7	2.2	0.12	0.0078 J+
PCB-18/30	37680-65-2	ng/g	0.67	0.042	0.044 JN	0.052	0.048 JN	0.11	0.13 J	0.084 J	0.0034 JN
PCB-180/193	35065-29-3	ng/g	3.0	0.41	0.41	0.38	0.39	14	16	0.58	0.040
PCB-181	74472-47-2	ng/g	< 0.0017 U	< 0.0017 U	0.0059 J	0.0058 J	0.0046 J	< 0.00061 U	< 0.017 U	0.0091 J	< 0.00080 U
PCB-182	60145-23-5	ng/g	0.015 JN	< 0.0017 U	< 0.00045 U	0.0038 J	< 0.00031 U	< 0.00058 U	< 0.016 U	0.0071 JN	< 0.00078 U
PCB-183/185	52663-69-1	ng/g	0.94	0.13	0.13	0.12	0.13	4.6	4.7	0.19	0.013 J
PCB-184	74472-48-3	ng/g	< 0.0014 U	< 0.0014 U	< 0.00038 U	< 0.00054 U	< 0.00027 U	< 0.00050 U	< 0.014 U	< 0.0014 U	< 0.00066 U
PCB-186	74472-49-4	ng/g	< 0.0014 U	< 0.0014 U	< 0.00037 U	< 0.00052 U	< 0.00026 U	< 0.00048 U	< 0.013 U	< 0.0013 U	< 0.00064 U
PCB-187	52663-68-0	ng/g	1.8	0.25	0.26	0.24	0.25	7.0	6.5	0.33	0.023
PCB-188	74487-85-7	ng/g	< 0.0012 U	< 0.0011 U	< 0.00034 U	< 0.00044 U	< 0.00022 U	< 0.00044 U	< 0.013 U	< 0.0011 U	< 0.00058 U
PCB-189	39635-31-9	ng/g	0.054	0.0046 JN	0.0079 J	0.0080 J	0.0055 JN	0.29	0.34	0.0057 JN	< 0.00097 U
PCB-19	38444-73-4	ng/g	0.065 JN	0.011 JN	0.016	0.018	0.019	0.11	0.10 J	0.035 J	< 0.00045 U
PCB-190	41411-64-7	ng/g	0.29	0.034	0.035	0.035	0.035	1.5	1.8	0.049 JN	0.0024 JN
PCB-191	74472-50-7	ng/g	0.067	0.010 J	0.0097 J	0.0056 JN	0.0080 J	0.33	0.35	0.016 J	< 0.00061 U
PCB-192	74472-51-8	ng/g	< 0.0014 U	< 0.0014 U	< 0.00037 U	< 0.00055 U	< 0.00027 U	< 0.00049 U	< 0.014 U	< 0.0014 U	< 0.00068 U
PCB-194	35694-08-7	ng/g	0.83	0.10	0.099	0.097	0.10	3.8	4.2	0.12	0.011
PCB-195	52663-78-2	ng/g	0.36	0.044	0.043	0.046	0.042	2.4	1.9	0.052 J	0.0025 JN
PCB-196	42740-50-1	ng/g	0.40	0.042	0.046	0.038	0.034 JN	1.8	1.9	0.064	0.0046 JN
PCB-197	33091-17-7	ng/g	0.025 JN	< 0.0012 U	0.0037 J	0.0039 J	0.0045 J	0.12	0.13 J	0.011 J	< 0.00026 U
PCB-198/199	68194-17-2	ng/g	0.90	0.098	0.11	0.10	0.10	3.2	3.2	0.14	0.0093 JN
PCB-2	2051-61-8	ng/g	0.011 J	0.0060 J	0.013	0.0083 JN	0.0062 JN	0.050	0.033 JN	< 0.0019 U	0.0021 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S100	S101	S102	S103	S103	S104	S104	S106	S107
		Sample ID	PDI-SG-S100	PDI-SG-S101	PDI-SG-S102	PDI-SG-S103	PDI-SG-S103-D	PDI-SG-S104	PDI-SG-S104-D	PDI-SG-S106	PDI-SG-S107
		Sample Date	07 May 2018	10 May 2018	30 May 2018	13 May 2018	13 May 2018	07 May 2018	07 May 2018	13 May 2018	13 May 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-22 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	1.3	0.085	0.13	0.10	0.11	0.23	0.25 J	0.16	0.0097 J
PCB-200	52663-73-7	ng/g	0.10	0.0099 J	0.012	0.0095 JN	0.010 J	0.34	0.38	0.021 JN	< 0.00023 U
PCB-201	40186-71-8	ng/g	0.11	0.012 J	0.011 J	0.0069 JN	0.0093 J	0.35	0.35	0.014 JN	< 0.00024 U
PCB-202	2136-99-4	ng/g	0.15	0.021	0.023	0.023	0.017 JN	0.54	0.45	0.028 JN	0.0020 JN
PCB-203	52663-76-0	ng/g	0.55	0.065	0.067	0.057	0.061	2.3	2.4	0.076	0.0051 JN
PCB-204	74472-52-9	ng/g	< 0.0018 U	< 0.0012 U	< 0.00052 U	< 0.00035 U	< 0.00025 U	< 0.00060 U	< 0.011 U	< 0.00074 U	< 0.00026 U
PCB-205	74472-53-0	ng/g	0.036 J	< 0.0038 U	0.0054 J	0.0048 J	0.0048 J	0.19	0.18 J	0.0075 J	< 0.00070 U
PCB-206	40186-72-9	ng/g	0.37	0.072	0.13 JN	0.077	0.078	1.3	1.2 JN	0.12	0.0053 JN
PCB-207	52663-79-3	ng/g	0.047 J	0.0063 J	0.0076 J	< 0.0024 U	0.0072 J	0.14	0.12 J	0.013 J	< 0.0018 U
PCB-208	52663-77-1	ng/g	0.096 JN	0.016	0.022	0.015 JN	0.020	0.34	0.16 J	0.030 J	< 0.0018 U
PCB-209	2051-24-3	ng/g	0.21	0.082	0.086	0.11	0.079 JN	0.18	0.16 JN	0.11	0.0072 J
PCB-21/33	55702-46-0	ng/g	0.57	0.027	0.048	0.036	0.040	0.083 J	0.085 J	0.045 JN	0.0042 J+
PCB-22	38444-85-8	ng/g	0.29	0.024	0.035	0.024	0.031	0.055	0.065 J	0.038 JN	0.0024 J
PCB-23	55720-44-0	ng/g	< 0.0056 U	< 0.0011 U	< 0.0011 U	< 0.00093 U	< 0.00092 U	< 0.0024 U	< 0.0057 U	< 0.0030 U	< 0.00035 U
PCB-24	55702-45-9	ng/g	0.0073 J	< 0.00057 U	0.00067 JN	< 0.00035 U	0.0012 J	< 0.0011 U	< 0.0013 U	< 0.0022 U	< 0.00031 U
PCB-25	55712-37-3	ng/g	0.091	0.0096 JN	0.012	0.0082 JN	0.0083 JN	0.027 JN	0.027 J	0.010 JN	< 0.00032 U
PCB-26/29	38444-81-4	ng/g	0.14	0.015 J	0.021 J	0.016 J	0.018 J	0.035 JN	0.035 JN	0.025 J	0.0015 JN
PCB-27	38444-76-7	ng/g	0.057	0.0039 JN	0.0063 J	0.0072 J	0.0042 JN	0.022 J	0.017 JN	0.011 JN	< 0.00027 U
PCB-3	2051-62-9	ng/g	0.026 J	0.0027 JN	0.0079 J	0.0040 JN	0.0049 J	0.028 J	0.020 JN	< 0.0019 U	< 0.00034 U
PCB-31	16606-02-3	ng/g	0.85	0.066	0.093	0.076	0.084	0.17	0.11 JN	0.13	0.0061 JN
PCB-32	38444-77-8	ng/g	0.24	0.013 JN	0.016	0.019	0.018	0.14	0.13 J	0.018 JN	0.0024 JN
PCB-34	37680-68-5	ng/g	0.015 JN	< 0.0012 U	< 0.0011 U	< 0.00096 U	< 0.00096 U	< 0.0025 U	< 0.0059 U	< 0.0031 U	< 0.00036 U
PCB-35	37680-69-6	ng/g	0.018 J	< 0.0011 U	0.0031 JN	0.0017 J	0.0025 J	< 0.0024 U	< 0.0056 U	< 0.0030 U	< 0.00035 U
PCB-36	38444-87-0	ng/g	< 0.0050 U	< 0.0011 U	< 0.00095 U	< 0.00090 U	< 0.00090 U	< 0.0022 U	< 0.0051 U	< 0.0029 U	< 0.00034 U
PCB-37	38444-90-5	ng/g	0.34	0.027	0.037	0.036	0.036	0.050	0.064 J	0.043 J	0.0031 JN
PCB-38	53555-66-1	ng/g	< 0.0054 U	< 0.0012 U	< 0.0010 U	< 0.00097 U	< 0.00096 U	< 0.0024 U	< 0.0055 U	< 0.0031 U	< 0.00037 U
PCB-39	38444-88-1	ng/g	0.013 J	0.0014 JN	< 0.00094 U	< 0.00087 U	< 0.00086 U	< 0.0022 U	< 0.0050 U	< 0.0028 U	< 0.00033 U
PCB-4	13029-08-8	ng/g	0.070 J	0.016 JN	0.016 J	0.013 J	0.017 JN	0.064 J	0.18 JN	< 0.030 U	< 0.0075 U
PCB-40/41/71	38444-93-8	ng/g	1.0	0.058	0.085	0.070	0.067	0.26	0.15 JN	0.11 J	0.0047 J
PCB-42	36559-22-5	ng/g	0.54	0.028	0.045	0.031 JN	0.028 JN	0.093	0.040 JN	0.058 J	< 0.00077 U
PCB-43/73	70362-46-8	ng/g	0.078 J	< 0.0024 U	0.0088 JN	< 0.0022 U	0.0056 JN	0.075 J	0.035 J	0.0071 JN	< 0.00072 U
PCB-44/47/65	41464-39-5	ng/g	1.9	0.14	0.20	0.18	0.17	2.1	1.3	0.25	0.016 J+
PCB-45/51	70362-45-7	ng/g	0.30	0.021 J	0.033	0.029	0.028	0.82	0.51	0.042 J	< 0.00081 U
PCB-46	41464-47-5	ng/g	0.097	0.0070 J	0.0076 JN	< 0.0030 U	0.0066 J	0.038 J	0.014 JN	< 0.0066 U	< 0.00098 U
PCB-48	70362-47-9	ng/g	0.38	0.016	0.028	0.022	0.019 JN	0.064	0.034 J	0.034 J	0.0019 JN
PCB-49/69	41464-40-8	ng/g	1.4	0.092	0.12	0.11	0.12	0.69	0.43 J	0.17	0.010 J
PCB-5	16605-91-7	ng/g	< 0.0026 U	< 0.0041 U	0.00038 JN	< 0.0046 U	< 0.0038 U	< 0.0022 U	< 0.011 U	< 0.021 U	< 0.0047 U
PCB-50/53	62796-65-0	ng/g	0.25	0.019 J	0.028	0.025	0.023 J	0.30	0.15 J	0.029 J	0.0026 JN
PCB-52	35693-99-3	ng/g	2.6	0.17	0.25	0.21	0.22	1.3 J	0.58 J	0.38	0.014
PCB-54	15968-05-5	ng/g	0.0093 JN	0.0014 JN	0.0037 J	0.0025 JN	0.0033 JN	0.13	0.079 J	0.0049 JN	< 0.000039 U
PCB-55	74338-24-2	ng/g	< 0.0034 U	0.0026 J	0.0029 J	< 0.0017 U	0.0041 JN	< 0.0034 U	< 0.0067 U	< 0.0038 U	< 0.00056 U
PCB-56	41464-43-1	ng/g	0.75	0.062	0.075	0.073	0.069	0.13	0.096 J	0.11	0.0049 J
PCB-57	70424-67-8	ng/g	< 0.0034 U	< 0.0019 U	< 0.00059 U	< 0.0018 U	< 0.0017 U	< 0.0035 U	< 0.0069 U	< 0.0038 U	< 0.00057 U
PCB-58	41464-49-7	ng/g	0.025 J	< 0.0020 U	0.0016 JN	< 0.0018 U	< 0.0018 U	< 0.0034 U	< 0.0066 U	< 0.0039 U	< 0.00058 U
PCB-59/62/75	74472-33-6	ng/g	0.19	0.0089 JN	0.013 JN	0.012 J	0.011 J	0.088 J	0.067 J	0.020 JN	< 0.00054 U
PCB-6	25569-80-6	ng/g	0.052 JN	0.0054 JN	0.0067 J	0.0072 JN	0.0056 JN	0.019 J	0.056 JN	< 0.019 U	< 0.0041 U
PCB-60	33025-41-1	ng/g	0.16	0.025	0.031	0.025	0.031	0.058 J	0.030 JN	0.036 JN	< 0.00057 U
PCB-61/70/74/76	33284-53-6	ng/g	3.4	0.24	0.29	0.29	0.29	0.82	0.46 J	0.46	0.021 J
PCB-63	74472-34-7	ng/g	0.090	0.0052 J	0.0068 J	0.0048 JN	0.0067 J	0.016 J	0.014 JN	0.0087 J	< 0.00052 U
PCB-64	52663-58-8	ng/g	0.78	0.048	0.067	0.058	0.065	0.17	0.078 JN	0.10	0.0032 JN
PCB-66	32598-10-0	ng/g	2.2	0.15	0.18	0.18	0.17	0.40	0.29	0.27	0.012
PCB-67	73575-53-8	ng/g	0.058	0.0023 JN	0.0043 J	0.0037 J	0.0032 JN	< 0.0032 U	< 0.0063 U	< 0.0033 U	< 0.00049 U
PCB-68	73575-52-7	ng/g	0.032 JN	0.0029 JN	0.0027 J	< 0.0016 U	0.0050 J+	0.017 JN	0.015 JN	< 0.0034 U	< 0.00050 U
PCB-7	33284-50-3	ng/g	0.0092 JN	< 0.0037 U	0.0015 JN	< 0.0041 U	< 0.0034 U	0.0049 J	< 0.011 U	< 0.019 U	< 0.0042 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S100	S101	S102	S103	S103	S104	S104	S106	S107
		Sample ID	PDI-SG-S100	PDI-SG-S101	PDI-SG-S102	PDI-SG-S103	PDI-SG-S103-D	PDI-SG-S104	PDI-SG-S104-D	PDI-SG-S106	PDI-SG-S107
		Sample Date	07 May 2018	10 May 2018	30 May 2018	13 May 2018	13 May 2018	07 May 2018	07 May 2018	13 May 2018	13 May 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-22 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.076	< 0.0019 U	0.0038 J	< 0.0017 U	0.0021 JN	0.0099 J	< 0.0067 U	< 0.0037 U	< 0.00056 U
PCB-77	32598-13-3	ng/g	0.17	0.013 JN	0.019	0.019	0.019	0.038 JN	0.027 JN	0.029 JN	0.0020 JN
PCB-78	70362-49-1	ng/g	< 0.0033 U	< 0.0019 U	< 0.00057 U	< 0.0018 U	< 0.0017 U	< 0.0034 U	< 0.0066 U	< 0.0039 U	< 0.00058 U
PCB-79	41464-48-6	ng/g	0.030 J	0.0023 JN	0.0026 J	< 0.0015 U	0.0028 JN	0.014 J	0.021 J	< 0.0034 U	< 0.00050 U
PCB-8	34883-43-7	ng/g	0.27	0.020 J	0.023 J	0.022 J	0.020 JN	0.062 J	0.31 J	0.032 JN	< 0.0038 U
PCB-80	33284-52-5	ng/g	< 0.0029 U	< 0.0017 U	< 0.00051 U	< 0.0015 U	< 0.0015 U	< 0.0030 U	< 0.0059 U	< 0.0033 U	< 0.00049 U
PCB-81	70362-50-4	ng/g	< 0.0031 U	0.0019 J	< 0.00055 U	< 0.0016 U	< 0.0016 U	< 0.0032 U	< 0.0062 U	< 0.0034 U	< 0.00052 U
PCB-82	52663-62-4	ng/g	0.36	0.033	0.042	0.049	0.042	0.28 JN	0.14 JN	0.068	< 0.00018 U
PCB-83/99	60145-20-2	ng/g	2.6	0.20	0.23	0.25	0.26	1.7	1.2	0.34	0.022
PCB-84	52663-60-2	ng/g	0.93	0.066	0.078	0.084	0.088	0.75	0.48	0.11	0.0048 JN
PCB-85/116/117	65510-45-4	ng/g	0.52	0.056	0.065	0.064	0.069	0.39	0.27 J	0.093 J	0.0036 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	2.0	0.18	0.21	0.23	0.26	2.0	1.2 J	0.35 J	0.019 J
PCB-88/91	55215-17-3	ng/g	0.56	0.049	0.058	0.057 JN	0.056 JN	0.42	0.35 JN	0.086 J	0.0048 J
PCB-89	73575-57-2	ng/g	0.044 J	0.0042 J	0.0029 JN	0.0057 J	0.0035 JN	< 0.0015 U	< 0.014 U	< 0.0031 U	< 0.00018 U
PCB-9	34883-39-1	ng/g	0.0089 JN	< 0.0038 U	0.0016 JN	< 0.0042 U	< 0.0035 U	0.0061 JN	0.024 JN	< 0.020 U	< 0.0043 U
PCB-90/101/113	68194-07-0	ng/g	3.7	0.32	0.37	0.42	0.45	4.6	3.3	0.66	0.033
PCB-92	52663-61-3	ng/g	0.93	0.062	0.078	0.081	0.081	0.85	0.52 JN	0.12	0.0075 J
PCB-93/100	73575-56-1	ng/g	0.063 JN	0.0092 J	0.025	0.0095 J	0.012 J	0.33	0.28 JN	0.013 JN	0.0014 JN
PCB-94	73575-55-0	ng/g	< 0.00090 U	< 0.00059 U	< 0.00049 U	< 0.00033 U	< 0.00047 U	0.045 J	0.047 J	< 0.0031 U	< 0.00018 U
PCB-95	38379-99-6	ng/g	3.1	0.22	0.29	0.31	0.32	3.6	2.8	0.47	0.024 JN
PCB-96	73575-54-9	ng/g	0.034 J	< 0.00045 U	0.0035 J	0.0038 J	0.0034 JN	0.035 J	0.023 J	< 0.0023 U	< 0.00014 U
PCB-98/102	60233-25-2	ng/g	0.13 JN	0.0059 JN	0.014 J	0.010 JN	0.013 J	0.13 JN	0.14 J	0.0068 JN	< 0.00015 U
Total PCBs (b)	T_PCBCg (PDI)	ng/g	85	8.4	10	9.4	10	169	147	14	0.76
Pesticides											
2,4-DDD	53-19-0	µg/kg	1.9	3.1	1.6	2.9 J	2.8 J	1.3	1.5	5.3 J	< 0.33 UJ
2,4-DDE	3424-82-6	µg/kg	< 1.0 U	< 0.50 U	< 1.2 U	< 0.65 UJ	< 0.65 UJ	< 0.89 U	< 0.92 U	< 0.66 UJ	< 0.40 UJ
2,4-DDT	789-02-6	µg/kg	< 1.0 U	0.89 J	< 1.2 U	0.65 J	< 0.65 UJ	< 0.94 U	< 0.94 U	< 0.66 UJ	< 0.47 UJ
4,4'-DDD	72-54-8	µg/kg	5.6	6.9	5.4	6.3 J	6.7 J	2.5	3.3	12 J	< 0.33 UJ
4,4'-DDE	72-55-9	µg/kg	4.8	5.0	3.4	4.5 J	4.5 J	2.3	3.1	6.5 J	< 0.35 UJ
4,4'-DDT	50-29-3	µg/kg	2.3	0.69	< 1.2 U	1.3 J	3.3 J	0.63 J	< 0.92 U	2.1 J	< 0.33 UJ
DDx (b)	T_DDx (PDI)	µg/kg	15	17	11	16	18	7.2	8.4	26	< 0.47 UJ
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	200	31	38	66	56	80	59	340	1.2
Acenaphthene	83-32-9	µg/kg	180	52	96	110	95	72	90	340	5.3
Acenaphthylene	208-96-8	µg/kg	34	35	53	54	49	37	44	120	12
Anthracene	120-12-7	µg/kg	190	280	210	270	180	120	150	4000	15
Benz(a)anthracene	56-55-3	µg/kg	540	370	830	650	590	550	460	2000	85
Benzo(a)pyrene	50-32-8	µg/kg	470	510	840	1000	910	750	690	3200	130
Benzo(b)fluoranthene	205-99-2	µg/kg	640	460	950	890	820	770	730	2800	110
Benzo(g,h,i)perylene	191-24-2	µg/kg	230	400	590	590 J	550 J	420	420	1800 J	74 J
Benzo(k)fluoranthene	207-08-9	µg/kg	200	160	350	300	280	260	230	950	36
Chrysene	218-01-9	µg/kg	790	450	1000	900	750	690	610	2600	97
Dibenz(a,h)anthracene	53-70-3	µg/kg	54	61	98	82	74	80	76	250	9.9
Fluoranthene	206-44-0	µg/kg	1000	610	1800	1100	1100	940	930	3100	190
Fluorene	86-73-7	µg/kg	180	44	130	97	77	48	61	550	4.5
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	240	380	570	560	520	420	420	1800	71
Naphthalene	91-20-3	µg/kg	410	61	52	90	88	150	110	320	6.0
Phenanthrene	85-01-8	µg/kg	650	330	750	790	680	520	580	2700	30
Pyrene	129-00-0	µg/kg	1300	830	2000	1500	1400	1100	1100	4200	270
Total PAHs (b)	T_PAH (PDI)	µg/kg	7308	5064	10357	9049	8219	7007	6760	31070	1147
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	669	694	1178	1296	1181	1007	930	4122	167
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	47.9	38.5	41.3	41.0	39.3	54.9	52.6	40.2	72.0
Total Solids@104C - E160.3M (f)	TSOLID	%	48.8	39.7	40.9	37.7	38.3	55.4	54.1	38.0	74.8
Total Solids@70C	TSOLID70	%	48	39	41	39	37	55	54	38	73
Gravel	GS-Gravel	%	0.3	0	0	0		4.4		0	0
Sand, Coarse	GS-Csand	%	0.6	0.1	0	0		0.8		0	1.0

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S100	S101	S102	S103	S103	S104	S104	S106	S107
		Sample ID	PDI-SG-S100	PDI-SG-S101	PDI-SG-S102	PDI-SG-S103	PDI-SG-S103-D	PDI-SG-S104	PDI-SG-S104-D	PDI-SG-S106	PDI-SG-S107
		Sample Date	07 May 2018	10 May 2018	30 May 2018	13 May 2018	13 May 2018	07 May 2018	07 May 2018	13 May 2018	13 May 2018
		Sample Type Code	N	N	N	N	FD	N	FD	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-30 cm	0-30 cm	0-26 cm	0-26 cm	0-30 cm	0-22 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	3.0	0.4	0.3	0.1		7.6		0.4	61.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	34.14	13.34	16.69	10.95		55.61		13.5	29.24
Sand, Fine (#230) (d)	GS-Fsand	%	38.1	16.8	21.1	14.2		58.8		16.8	29.4
Silt (#200) (d)	GS-Silt-200	%	43.25	69.95	70.70	76.24		21.68		68.39	4.755
Silt (#230) (d)	GS-Silt	%	39.3	66.5	66.3	73.0		18.5		65.1	4.6
Clay	GS-Clay	%	18.7	16.3	12.2	12.7		9.7		17.7	3.7
Percent Fines (e)	GS-FINES	%	61.95	86.25	82.9	88.94		31.38		86.09	8.455
Total Organic Carbon	TOC	mg/kg	32000	29000	32000	30000	33000	18000	25000	35000	2000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S108	S109	S110	S111	S113	S114	S115	S116	S116
		Sample ID	PDI-SG-S108	PDI-SG-S109	PDI-SG-S110	PDI-SG-S111	PDI-SG-S113	PDI-SG-S114	PDI-SG-S115	PDI-SG-S116	PDI-SG-S116-D
		Sample Date	05 May 2018	01 Jun 2018	31 May 2018	30 May 2018	01 Jun 2018	18 Jun 2018	12 May 2018	01 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-30 cm	0-22 cm	0-23 cm	0-19 cm	0-28 cm	0-13 cm	0-19 cm	0-25 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.22	0.042	0.0058	0.13	0.071	0.16	0.019	0.035 J	0.018 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.087 JN	0.0055	0.0016 J	0.10	0.092	4.7 J	0.0060	0.012 J	0.0038 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0039 J	0.0015 J+	0.00076 J+	0.0018 J+	0.033	< 0.033 U	0.0012 J+	0.0031 J	0.0013 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0014 J+	0.00034 J	< 0.00016 U	0.0012 J	0.00065 JN	< 0.00054 U	0.00026 JN	0.00049 J+	0.00026 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.023	0.0033 J	0.00066 J+	0.0026 J	0.045	0.035	0.0024 J	0.015 J	0.0040 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0081	0.0012 J	0.00026 J+	0.0068	0.0025 J	0.016	0.00097 J	0.0016 JN	0.00066 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0098	0.00095 J	< 0.000056 U	0.0036 J	0.014	0.33	0.00081 J	0.0039 J	0.0012 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0034 J	0.00082 J	0.00014 JN	0.0035 J	0.0017 JN	0.0033 J	0.00066 J	0.0011 J	0.00047 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00037 JN	< 0.0010 U	< 0.00061 U	< 0.00076 U	0.0013 J+	< 0.012 U	< 0.00047 U	0.00075 J+	< 0.00065 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00077 JN	0.00027 J	< 0.000059 U	0.00091 J	0.00058 JN	0.00058 J	0.00012 JN	0.00025 J	0.00013 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.060	0.0016 J	0.00034 J+	0.0012 J	0.0074	0.014	0.0013 J	0.0082 J	0.0016 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0053	0.00021 J	< 0.000037 U	0.00078 J	0.0018 J	< 0.011 U	0.00019 JN	0.00060 J	< 0.00013 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.031	0.00068 J	0.00012 J+	0.00081 J	0.0024 J	0.0040	0.00056 J	0.0025 J	0.00059 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00035 JN	0.00024 JN	< 0.000074 U	0.00029 JN	0.00034 J	0.00018 JN	< 0.000097 U	0.00023 JN	0.00097 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.070	0.0015 J+	0.00027 J+	0.0012	0.0054	0.0017	0.00077	0.0063 J	0.0019 J
OCDD	3268-87-9	µg/kg	2.5	0.31	0.055	1.2	0.59	1.1	0.18	0.33 J	0.19 J
OCDF	39001-02-0	µg/kg	0.22	0.016	0.0039 J	0.090	0.61	1.5	0.014	0.021 J	0.011 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.028	0.0022	0.00032	0.0062	0.011	0.091	0.0013	0.0051	0.0025
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.028	0.0021	0.0003	0.006	0.011	0.091	0.0011	0.0048	0.0024
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.027	0.0019	0.00026	0.0059	0.011	0.09	0.0011	0.0047	0.0023
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.013	0.0071 JN	0.0014 J+	0.0055 J	0.019 J+	0.024	< 0.00045 U	0.0048 JN	< 0.0033 U
PCB-10	33146-45-1	ng/g	0.0034 JN	< 0.0012 U	< 0.00025 U	0.0025 J	0.0028 JN	< 0.0042 U	< 0.0028 U	< 0.00050 U	0.00076 JN
PCB-103	60145-21-3	ng/g	0.13	0.016	< 0.00040 U	0.015	0.013	0.072	< 0.00058 U	0.0049 JN	0.0052 JN
PCB-104	56558-16-8	ng/g	0.017	< 0.00039 U	< 0.00031 U	< 0.00022 U	< 0.00028 U	< 0.00018 U	< 0.00044 U	< 0.00035 U	< 0.00031 U
PCB-105	32598-14-4	ng/g	0.51	0.057	0.010	0.16	0.11	0.48	0.17	0.060	0.057
PCB-106	70424-69-0	ng/g	< 0.010 U	< 0.00085 U	< 0.00031 U	< 0.0020 U	< 0.0014 U	< 0.0026 U	< 0.0018 U	< 0.00084 U	< 0.0013 U
PCB-107	70424-68-9	ng/g	0.28	0.017	0.0025 J	0.036 JN	0.032	0.19	0.036	0.016	0.015 JN
PCB-108/124	70362-41-3	ng/g	0.067	0.0061 J	0.00095 J	0.018 J	0.0097 J	0.058	0.020 JN	0.0058 J	0.0057 JN
PCB-11	2050-67-1	ng/g	0.086	0.033	0.015 J+	0.071	0.054	0.085 JN	0.016 J	0.034	0.035
PCB-110/115	38380-03-9	ng/g	3.0	0.32	0.037	0.67	0.45	2.8	0.91	0.24	0.24
PCB-111	39635-32-0	ng/g	< 0.00040 U	0.0013 J	< 0.00028 U	< 0.00020 U	0.0021 JN	< 0.00016 U	< 0.00040 U	< 0.00032 U	0.0013 JN
PCB-112	74472-36-9	ng/g	< 0.00043 U	< 0.00038 U	< 0.00030 U	0.0046 JN	< 0.00027 U	< 0.00017 U	< 0.00043 U	< 0.00035 U	< 0.00030 U
PCB-114	74472-37-0	ng/g	0.027	0.0034 JN	< 0.00028 U	0.0078 J	0.0072 J	0.026	0.0075 JN	0.0028 JN	0.0042 J
PCB-118	31508-00-6	ng/g	1.9	0.16	0.026	0.42	0.31	1.8	0.43	0.17	0.17
PCB-12/13	2974-92-7	ng/g	0.016 JN	0.0096 J	< 0.00050 U	0.0063 J+	0.0082 J	0.016 JN	< 0.0026 U	0.0028 J	< 0.00044 U
PCB-120	68194-12-7	ng/g	0.029 JN	0.0030 J	< 0.00027 U	0.0040 JN	0.0061 JN	0.031	< 0.00041 U	0.0014 JN	0.0025 JN
PCB-121	56558-18-0	ng/g	< 0.00042 U	< 0.00037 U	< 0.00030 U	< 0.00021 U	< 0.00027 U	< 0.00017 U	< 0.00042 U	< 0.00034 U	< 0.00029 U
PCB-122	76842-07-4	ng/g	< 0.011 U	0.0026 JN	< 0.00034 U	0.0073 JN	0.0052 JN	0.011 JN	0.0043 JN	< 0.0029 U	0.0042 J
PCB-123	65510-44-3	ng/g	0.027 JN	0.0026 JN	0.00061 J	0.0076 JN	0.0046 JN	0.022 JN	0.0080 JN	0.0032 JN	0.0027 J
PCB-126	57465-28-8	ng/g	0.012	< 0.00077 U	< 0.00028 U	< 0.0020 U	< 0.0013 U	< 0.0028 U	< 0.0019 U	< 0.00082 U	< 0.0012 U
PCB-127	39635-33-1	ng/g	< 0.0097 U	< 0.00082 U	< 0.00030 U	< 0.0019 U	< 0.0013 U	< 0.0026 U	< 0.0018 U	< 0.00080 U	< 0.0012 U
PCB-128/166	38380-07-3	ng/g	1.6	0.043	0.0063 JN	0.19	0.072	0.40	0.21	0.044	0.043
PCB-129/138/160/163	55215-18-4	ng/g	20	0.33	0.048	1.4	0.48	3.0	1.6	0.28	0.29
PCB-130	52663-66-8	ng/g	0.69	0.019	0.0034 J	0.078	0.036	0.19	0.088	0.022	0.024
PCB-131	61798-70-7	ng/g	< 0.016 U	< 0.00096 U	< 0.00071 U	< 0.0019 U	0.0054 J	0.031	< 0.0055 U	< 0.0010 U	0.0026 JN
PCB-132	38380-05-1	ng/g	4.9	0.13	0.017	0.43	0.17	1.0	0.55	0.093	0.094
PCB-133	35694-04-3	ng/g	0.20	0.0091 JN	0.0011 J	0.021	0.012	0.077	0.019 JN	0.0066 J	0.0064 JN
PCB-134/143	52704-70-8	ng/g	0.77	0.023	0.0026 JN	0.073	0.030	0.17	0.087	0.019 J	0.020
PCB-135/151	52744-13-5	ng/g	6.2	0.21	0.018 J	0.55	0.20	1.1	0.60	0.10	0.11
PCB-136	38411-22-2	ng/g	2.1	0.075	0.0063 J	0.18	0.069	0.41	0.20	0.037	0.036
PCB-137	35694-06-5	ng/g	0.14	0.0067 JN	0.0023 J	0.051	0.017	0.093	0.054	0.0093 JN	0.010
PCB-139/140	56030-56-9	ng/g	< 0.014 U	0.0065 J	< 0.00059 U	0.018 J	0.010 J	0.047 JN	0.019 JN	0.0058 J	0.0047 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S108	S109	S110	S111	S113	S114	S115	S116	S116
		Sample ID	PDI-SG-S108	PDI-SG-S109	PDI-SG-S110	PDI-SG-S111	PDI-SG-S113	PDI-SG-S114	PDI-SG-S115	PDI-SG-S116	PDI-SG-S116-D
		Sample Date	05 May 2018	01 Jun 2018	31 May 2018	30 May 2018	01 Jun 2018	18 Jun 2018	12 May 2018	01 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-30 cm	0-22 cm	0-23 cm	0-19 cm	0-28 cm	0-13 cm	0-19 cm	0-25 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.00096 U	< 0.00095 U	< 0.00020 U	< 0.00030 U	< 0.00074 U	< 0.0032 U	< 0.0022 U	< 0.00039 U	< 0.00040 U
PCB-141	52712-04-6	ng/g	4.7	0.073	0.0096 J	0.33	0.091	0.49	0.37	0.053	0.054
PCB-142	41411-61-4	ng/g	< 0.015 U	< 0.00090 U	< 0.00067 U	< 0.0018 U	< 0.0013 U	< 0.0081 U	< 0.0050 U	< 0.00096 U	< 0.0014 U
PCB-144	68194-14-9	ng/g	0.83	0.018	0.0023 J	0.075	0.021	0.091 JN	0.078	0.0088 JN	0.011
PCB-145	74472-40-5	ng/g	< 0.00046 U	< 0.00019 U	< 0.000052 U	< 0.000050 U	< 0.00027 U	< 0.00014 U	< 0.00066 U	< 0.00012 U	< 0.00013 U
PCB-146	51908-16-8	ng/g	2.4	0.074	0.0084 J	0.21	0.10	0.70	0.23	0.057	0.059
PCB-147/149	68194-13-8	ng/g	16	0.39	0.040	1.2	0.44	2.8	1.7	0.24	0.25
PCB-148	74472-41-6	ng/g	0.026	0.0022 JN	0.00053 J	0.0028 JN	0.0020 JN	0.021 JN	< 0.00093 U	0.00065 JN	< 0.00017 U
PCB-15	2050-68-2	ng/g	0.036	0.027	0.0013 JN	0.020 JN	0.039	0.11	0.0085 JN	0.017	0.014
PCB-150	68194-08-1	ng/g	0.055	0.0022 J	0.00033 J	0.0028 J	0.0020 JN	0.014	< 0.00063 U	0.0011 J	0.00072 JN
PCB-152	68194-09-2	ng/g	< 0.00044 U	< 0.00018 U	< 0.000050 U	0.00071 JN	0.00062 JN	0.0029 JN	< 0.00068 U	< 0.00012 U	0.00044 J
PCB-153/168	35065-27-1	ng/g	21	0.32	0.039	1.2	0.45	2.7	1.4	0.25	0.26
PCB-154	60145-22-4	ng/g	0.35	0.0078 JN	0.00082 JN	0.015 JN	0.015 JN	0.10	0.011	0.0079 JN	0.0077 J
PCB-155	33979-03-2	ng/g	< 0.00042 U	< 0.00017 U	< 0.000047 U	< 0.000046 U	< 0.00028 U	< 0.00013 U	< 0.00063 U	< 0.00011 U	< 0.00011 U
PCB-156/157	38380-08-4	ng/g	1.5	0.023	0.0042 J	0.13	0.043	0.27	0.12	0.025	0.026
PCB-158	74472-42-7	ng/g	1.9	0.028	0.0037 JN	0.14	0.042	0.24	0.14	0.025	0.026
PCB-159	39635-35-3	ng/g	0.31	0.0036 JN	< 0.00042 U	0.020	0.0061 J	0.019	< 0.0033 U	0.0032 J	0.0032 JN
PCB-16	38444-78-9	ng/g	0.023 JN	0.12	0.0016 JN	0.017	0.10	0.15	0.026	0.021 JN	0.018
PCB-161	74472-43-8	ng/g	< 0.010 U	< 0.00059 U	< 0.00044 U	< 0.0012 U	< 0.00084 U	< 0.0054 U	< 0.0033 U	< 0.00063 U	< 0.00091 U
PCB-162	39635-34-2	ng/g	< 0.0095 U	< 0.00056 U	< 0.00041 U	< 0.0011 U	< 0.00080 U	< 0.0053 U	< 0.0033 U	< 0.00060 U	< 0.00087 U
PCB-164	74472-45-0	ng/g	1.4	0.025	0.0040 J	0.10	0.035	0.21	0.12	0.020	0.020
PCB-165	74472-46-1	ng/g	< 0.011 U	< 0.00067 U	< 0.00050 U	< 0.0013 U	< 0.00096 U	< 0.0061 U	< 0.0037 U	< 0.00072 U	< 0.0010 U
PCB-167	52663-72-6	ng/g	0.60	0.0086 J	0.0018 J	0.048	0.015	0.093	0.045	0.0093 J	0.0099
PCB-169	32774-16-6	ng/g	< 0.0073 U	< 0.00043 U	< 0.00032 U	< 0.00088 U	< 0.00062 U	0.013 JN	< 0.0026 U	< 0.00046 U	< 0.00067 U
PCB-17	37680-66-3	ng/g	0.047	0.22	0.0012 JN	0.028	0.10	0.18	0.019	0.029	0.024
PCB-170	35065-30-6	ng/g	12	0.10	0.014	0.53	0.17	0.86	0.50	0.087	0.096
PCB-171/173	52663-71-5	ng/g	3.5	0.033	0.0046 JN	0.17	0.052	0.26	0.15	0.030	0.031
PCB-172	52663-74-8	ng/g	1.6	0.020	0.0020 JN	0.096	0.033	0.15	0.085	0.019	0.018
PCB-174	38411-25-5	ng/g	9.8	0.15	0.015	0.65	0.20	0.83	0.60	0.11	0.12
PCB-175	40186-70-7	ng/g	0.37	0.0053 J	0.00070 JN	0.026	0.0073 J	0.033	0.023	0.0044 JN	0.0041 JN
PCB-176	52663-65-7	ng/g	1.1	0.018	0.0015 JN	0.074	0.023	0.11	0.078	0.011	0.013
PCB-177	52663-70-4	ng/g	5.6	0.084	0.0094 J	0.35	0.12	0.53	0.32	0.065	0.066
PCB-178	52663-67-9	ng/g	1.5	0.032	0.0032 JN	0.12	0.042	0.20	0.13	0.022	0.024
PCB-179	52663-64-6	ng/g	3.5	0.073	0.0063 J	0.25	0.081	0.39	0.30	0.045	0.047
PCB-18/30	37680-65-2	ng/g	0.068	0.34	0.0023 JN	0.042	0.22	0.37	0.059	0.052	0.040
PCB-180/193	35065-29-3	ng/g	25	0.23	0.030	1.2	0.37	2.0	1.1	0.20	0.22
PCB-181	74472-47-2	ng/g	< 0.00025 U	0.0015 J	0.00049 JN	< 0.00015 U	0.0034 J	< 0.00025 U	< 0.0016 U	0.0020 J	0.0018 JN
PCB-182	60145-23-5	ng/g	< 0.00024 U	0.0013 JN	< 0.00029 U	< 0.00014 U	< 0.00026 U	0.0095 J	< 0.0015 U	< 0.00036 U	0.0013 J
PCB-183/185	52663-69-1	ng/g	7.1	0.083	0.011 J	0.42	0.12	0.61	0.41	0.065	0.070
PCB-184	74472-48-3	ng/g	< 0.00020 U	< 0.00021 U	< 0.00025 U	< 0.00012 U	< 0.00022 U	< 0.00020 U	< 0.0013 U	< 0.00031 U	< 0.000083 U
PCB-186	74472-49-4	ng/g	< 0.00019 U	< 0.00020 U	< 0.00024 U	< 0.00012 U	< 0.00021 U	< 0.00020 U	< 0.0012 U	< 0.00030 U	< 0.000080 U
PCB-187	52663-68-0	ng/g	10	0.19	0.019	0.73	0.24	1.2	0.73	0.14	0.13
PCB-188	74487-85-7	ng/g	< 0.00018 U	< 0.00019 U	< 0.00022 U	< 0.00011 U	< 0.00020 U	< 0.00018 U	< 0.0010 U	< 0.00027 U	< 0.000075 U
PCB-189	39635-31-9	ng/g	0.47	0.0032 J	0.00057 JN	0.017	0.0059 J	0.028	0.013 JN	0.0037 J	0.0035 J
PCB-19	38444-73-4	ng/g	0.059 JN	0.091 J	0.0018 JN	0.052	0.035	0.068	0.014	0.0089 JN	0.0099
PCB-190	41411-64-7	ng/g	2.4	0.021	0.0030 J	0.10	0.034	0.16	0.099	0.018	0.019
PCB-191	74472-50-7	ng/g	0.59	0.0042 JN	0.00068 JN	0.026	0.0084 J	0.030 JN	0.019 JN	0.0049 JN	0.0047 J
PCB-192	74472-51-8	ng/g	< 0.00020 U	< 0.00020 U	< 0.00024 U	< 0.00012 U	< 0.00022 U	< 0.00021 U	< 0.0013 U	< 0.00030 U	< 0.000081 U
PCB-194	35694-08-7	ng/g	5.2	0.050	0.0068 J	0.24	0.088	0.55	0.25	0.053	0.060
PCB-195	52663-78-2	ng/g	2.4	0.022	0.0028 J	0.11	0.038	0.21	0.13	0.021	0.023
PCB-196	42740-50-1	ng/g	2.6	0.024	0.0037 J	0.14	0.041	0.31	0.12	0.023	0.027
PCB-197	33091-17-7	ng/g	0.17	0.0017 JN	< 0.00017 U	0.011	0.0035 J	0.019	0.011 JN	0.0016 JN	0.0021 J
PCB-198/199	68194-17-2	ng/g	4.1	0.062	0.0073 JN	0.30	0.10	0.79	0.24 JN	0.065	0.063
PCB-2	2051-61-8	ng/g	0.045	0.0062 JN	0.0020 JN	0.015	0.016	0.014	< 0.00048 U	0.0058 J+	0.0050 J+

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S108	S109	S110	S111	S113	S114	S115	S116	S116
		Sample ID	PDI-SG-S108	PDI-SG-S109	PDI-SG-S110	PDI-SG-S111	PDI-SG-S113	PDI-SG-S114	PDI-SG-S115	PDI-SG-S116	PDI-SG-S116-D
		Sample Date	05 May 2018	01 Jun 2018	31 May 2018	30 May 2018	01 Jun 2018	18 Jun 2018	12 May 2018	01 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-30 cm	0-22 cm	0-23 cm	0-19 cm	0-28 cm	0-13 cm	0-19 cm	0-25 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	0.13	0.70	0.0084 J	0.10	0.28	0.64	0.035	0.12	0.096
PCB-200	52663-73-7	ng/g	0.53	0.0061 JN	0.00095 JN	0.034	0.012	0.056	0.030 JN	0.0068 J	0.0069 J
PCB-201	40186-71-8	ng/g	0.47	0.0066 JN	0.0011 J	0.035	0.011	0.064	0.035	0.0075 J	0.0069 J
PCB-202	2136-99-4	ng/g	0.60	0.013	0.0020 J	0.062	0.019	0.14	0.048 JN	0.013	0.014
PCB-203	52663-76-0	ng/g	3.0	0.037	0.0039 JN	0.17	0.060	0.44	0.15	0.041	0.040
PCB-204	74472-52-9	ng/g	< 0.00049 U	< 0.00023 U	< 0.00019 U	< 0.00041 U	< 0.00048 U	< 0.00015 U	< 0.0019 U	< 0.00028 U	< 0.00027 U
PCB-205	74472-53-0	ng/g	0.28	0.0028 J	< 0.00044 U	0.012	0.0041 J	0.024 JN	0.013	0.0028 JN	0.0024 J
PCB-206	40186-72-9	ng/g	1.1	0.046 JN	0.031 JN	0.40	0.068	1.6	0.11	0.059 JN	0.053 JN
PCB-207	52663-79-3	ng/g	0.12	0.0033 J	< 0.00090 U	0.025	0.0040 JN	0.10	0.0095 JN	0.0047 JN	0.0026 JN
PCB-208	52663-77-1	ng/g	0.22	0.0086 J	< 0.00097 U	0.16	0.016	0.65	0.035	0.012 JN	0.010
PCB-209	2051-24-3	ng/g	0.22	0.022	0.0059 J	0.60	0.060	1.8	0.091	0.037	0.038
PCB-21/33	55702-46-0	ng/g	0.066	0.13	0.0026 JN	0.042	0.12	0.26	0.019 J	0.041	0.028
PCB-22	38444-85-8	ng/g	0.038	0.20	0.0021 J	0.028	0.090	0.16	0.012	0.030	0.022
PCB-23	55720-44-0	ng/g	< 0.0014 U	< 0.0013 U	< 0.00023 U	< 0.00067 U	< 0.0015 U	< 0.0018 U	< 0.00082 U	< 0.00085 U	< 0.00083 U
PCB-24	55702-45-9	ng/g	< 0.00042 U	< 0.00068 U	< 0.000043 U	0.0012 J	0.0025 JN	0.0070 J	< 0.00053 U	< 0.00034 U	< 0.00035 U
PCB-25	55712-37-3	ng/g	0.015	0.16	< 0.00022 U	0.012	0.032	0.044	0.0035 J	0.014	0.0086 J
PCB-26/29	38444-81-4	ng/g	0.022	0.17	0.0017 J	0.022	0.054	0.086	0.0063 JN	0.025	0.016 J
PCB-27	38444-76-7	ng/g	0.014	0.038	0.00043 JN	0.010	0.018	0.034	0.0044 J	0.0068 J	0.0036 JN
PCB-3	2051-62-9	ng/g	0.022	0.0087 J+	0.0016 JN	0.0092 J	0.0092 JN	0.015	0.0020 JN	0.0039 JN	0.0035 JN
PCB-31	16606-02-3	ng/g	0.094	0.54	0.0052 J	0.073	0.22	0.45	0.033	0.077	0.057
PCB-32	38444-77-8	ng/g	0.032	0.075	0.0011 J+	0.017	0.052	0.12 J-	0.015	0.015 JN	0.014
PCB-34	37680-68-5	ng/g	< 0.0015 U	0.0089 J	< 0.00024 U	< 0.00069 U	0.0016 JN	0.0065 J	< 0.00085 U	< 0.00088 U	0.0013 JN
PCB-35	37680-69-6	ng/g	0.0020 JN	0.0077 J	< 0.00023 U	0.0029 J	0.0045 JN	< 0.0019 U	< 0.00083 U	0.0023 JN	0.0018 JN
PCB-36	38444-87-0	ng/g	< 0.0013 U	< 0.0012 U	< 0.00021 U	< 0.00060 U	< 0.0013 U	< 0.0018 U	< 0.00080 U	< 0.00076 U	< 0.00075 U
PCB-37	38444-90-5	ng/g	0.041	0.060	0.0025 J	0.032	0.053	0.16	0.013	0.030	0.025
PCB-38	53555-66-1	ng/g	< 0.0014 U	< 0.0013 U	< 0.00023 U	< 0.00065 U	< 0.0014 U	< 0.0019 U	< 0.00086 U	< 0.00083 U	< 0.00081 U
PCB-39	38444-88-1	ng/g	0.0018 J	< 0.0012 U	< 0.00021 U	0.00081 JN	0.0024 J	0.0058 J	< 0.00077 U	< 0.00075 U	< 0.00074 U
PCB-4	13029-08-8	ng/g	0.048	0.037	0.00080 JN	0.033	0.065	0.084	0.013 JN	0.014 J	0.014 J
PCB-40/41/71	38444-93-8	ng/g	0.12	0.30	0.0053 J	0.087	0.16	0.37	0.067	0.077	0.066
PCB-42	36559-22-5	ng/g	0.052	0.18	0.0029 J	0.038	0.084	0.21	0.029	0.042	0.036
PCB-43/73	70362-46-8	ng/g	0.028	0.021	< 0.00030 U	0.012 J	0.012 J	0.014 JN	0.011 J	0.0066 J	0.0039 JN
PCB-44/47/65	41464-39-5	ng/g	0.60	0.65	0.018 J	0.26	0.32	1.0	0.16	0.19	0.14
PCB-45/51	70362-45-7	ng/g	0.24	0.14	0.0028 J	0.057	0.071	0.17	0.037	0.032	0.021 JN
PCB-46	41464-47-5	ng/g	0.0080 JN	0.077	0.00044 JN	0.0078 JN	0.023	0.046	0.013	0.010	0.0062 JN
PCB-48	70362-47-9	ng/g	0.029	0.050	0.0013 JN	0.018 JN	0.059	0.11	0.021	0.029	0.018 JN
PCB-49/69	41464-40-8	ng/g	0.25	0.42	0.0098 J	0.14	0.21	0.76	0.087	0.11	0.094
PCB-5	16605-91-7	ng/g	< 0.0011 U	< 0.0011 U	< 0.00024 U	0.00067 J	0.0038 J	< 0.0042 U	< 0.0029 U	< 0.00047 U	< 0.00048 U
PCB-50/53	62796-65-0	ng/g	0.081	0.19	0.0026 J	0.049	0.064	0.15	0.032	0.024	0.022
PCB-52	35693-99-3	ng/g	0.75	0.79	0.022	0.30	0.41	1.5	0.28	0.21	0.18
PCB-54	15968-05-5	ng/g	0.081	0.0040 JN	< 0.000032 U	0.015	0.0034 JN	0.0051 JN	0.0020 JN	0.0011 JN	0.0016 J
PCB-55	74338-24-2	ng/g	< 0.0027 U	< 0.00050 U	< 0.00023 U	0.0051 J	0.0078 J	< 0.00020 U	< 0.0016 U	< 0.00074 U	< 0.00079 U
PCB-56	41464-43-1	ng/g	0.083	0.12	0.0047 J	0.049	0.11	0.24	0.041	0.072	0.063
PCB-57	70424-67-8	ng/g	< 0.0027 U	< 0.00051 U	< 0.00023 U	< 0.00055 U	< 0.00082 U	< 0.00020 U	< 0.0016 U	< 0.00075 U	< 0.00081 U
PCB-58	41464-49-7	ng/g	0.0042 JN	< 0.00049 U	< 0.00023 U	0.0051 JN	0.0044 J	0.011	< 0.0017 U	< 0.00073 U	0.00090 JN
PCB-59/62/75	74472-33-6	ng/g	0.026 J	0.040	0.00042 JN	0.016 J	0.024 JN	0.069	0.0099 JN	0.013 JN	0.012 J
PCB-6	25569-80-6	ng/g	0.020	0.030	0.00044 JN	0.0072 J	0.026	0.033 JN	0.0038 JN	0.0044 JN	0.0033 JN
PCB-60	33025-41-1	ng/g	0.030 JN	0.033	0.0019 J	0.021	0.039	0.062	0.016 JN	0.022	0.014
PCB-61/70/74/76	33284-53-6	ng/g	0.54	0.46	0.022 J	0.25	0.40	1.4	0.20	0.23	0.20
PCB-63	74472-34-7	ng/g	0.0094 J	0.021	< 0.00020 U	0.0042 JN	0.0087 J	0.028	< 0.0015 U	0.0063 J	0.0055 J
PCB-64	52663-58-8	ng/g	0.096	0.17	0.0041 JN	0.053	0.11	0.29	0.047	0.061	0.051
PCB-66	32598-10-0	ng/g	0.26	0.27	0.013	0.15	0.25	0.79	0.098	0.17	0.15
PCB-67	73575-53-8	ng/g	< 0.0025 U	0.0082 J	< 0.00022 U	0.0037 JN	0.0067 J	0.014	< 0.0014 U	0.0036 JN	0.0029 J
PCB-68	73575-52-7	ng/g	0.0034 JN	0.0055 J	< 0.00042 U	0.0041 J	0.0043 JN	0.023	< 0.0014 U	0.0061 J	0.0018 J
PCB-7	33284-50-3	ng/g	0.0025 J	0.0022 JN	< 0.00022 U	0.0015 JN	0.0048 JN	< 0.0038 U	< 0.0026 U	0.0014 J	< 0.00046 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S108	S109	S110	S111	S113	S114	S115	S116	S116
		Sample ID	PDI-SG-S108	PDI-SG-S109	PDI-SG-S110	PDI-SG-S111	PDI-SG-S113	PDI-SG-S114	PDI-SG-S115	PDI-SG-S116	PDI-SG-S116-D
		Sample Date	05 May 2018	01 Jun 2018	31 May 2018	30 May 2018	01 Jun 2018	18 Jun 2018	12 May 2018	01 Jun 2018	01 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-30 cm	0-22 cm	0-23 cm	0-19 cm	0-28 cm	0-13 cm	0-19 cm	0-25 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0065 JN	0.0081 J	< 0.00023 U	0.0045 J	0.011	0.041	< 0.0016 U	0.0034 J	0.0028 J
PCB-77	32598-13-3	ng/g	0.025	0.020	0.0013 JN	0.014	0.020	0.063	0.0088 JN	0.016	0.012 JN
PCB-78	70362-49-1	ng/g	< 0.0026 U	< 0.00049 U	< 0.00023 U	< 0.00053 U	< 0.00079 U	< 0.00021 U	< 0.0017 U	< 0.00073 U	< 0.00078 U
PCB-79	41464-48-6	ng/g	0.026	< 0.00042 U	0.00029 JN	0.0042 J	0.0060 J	0.023	0.0042 JN	0.0019 JN	0.0027 J
PCB-8	34883-43-7	ng/g	0.046	0.082	0.0018 J+	0.026	0.11	0.11	0.010 J	0.022	0.018 J
PCB-80	33284-52-5	ng/g	< 0.0023 U	< 0.00044 U	< 0.00020 U	< 0.00047 U	< 0.00070 U	< 0.00017 U	< 0.0014 U	< 0.00064 U	< 0.00069 U
PCB-81	70362-50-4	ng/g	< 0.0025 U	< 0.00048 U	< 0.00022 U	< 0.00052 U	0.00089 JN	< 0.00018 U	< 0.0015 U	< 0.00068 U	< 0.00073 U
PCB-82	52663-62-4	ng/g	0.16	0.026 JN	0.0042 J	0.062	0.051	0.21	0.076	0.030	0.028
PCB-83/99	60145-20-2	ng/g	2.3	0.20	0.021	0.34	0.31	1.7	0.36	0.15	0.15
PCB-84	52663-60-2	ng/g	0.41	0.10	0.0075 J	0.15	0.12	0.61	0.21	0.057	0.056
PCB-85/116/117	65510-45-4	ng/g	0.22	0.045	0.0053 J	0.086	0.069	0.32	0.12	0.038	0.038
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.4	0.16	0.019 JN	0.34	0.26	1.4	0.44	0.13	0.12
PCB-88/91	55215-17-3	ng/g	0.49	0.071	0.0045 JN	0.096	0.078	0.44	0.11	0.038	0.035
PCB-89	73575-57-2	ng/g	< 0.00066 U	0.0026 JN	< 0.00046 U	0.0056 JN	0.0052 J	< 0.00026 U	< 0.00065 U	0.0046 J	0.0038 J
PCB-9	34883-39-1	ng/g	0.0035 JN	0.0018 JN	< 0.00026 U	0.0022 J	0.0070 JN	0.0087 JN	< 0.0026 U	0.0013 JN	< 0.00053 U
PCB-90/101/113	68194-07-0	ng/g	4.2	0.33	0.034	0.62	0.43	2.6	0.75	0.22	0.21
PCB-92	52663-61-3	ng/g	0.68	0.094	0.0081 J	0.12	0.093	0.54	0.14	0.051	0.049
PCB-93/100	73575-56-1	ng/g	0.26	0.0051 J	0.0041 JN	0.035	0.045	0.040	0.036 JN	0.0082 JN	0.0081 J
PCB-94	73575-55-0	ng/g	< 0.00066 U	0.0045 J	< 0.00046 U	0.0065 JN	0.0035 JN	< 0.00026 U	< 0.00065 U	< 0.00053 U	0.0022 J
PCB-95	38379-99-6	ng/g	2.7	0.39	0.028	0.60	0.36	2.4	0.81	0.17	0.17
PCB-96	73575-54-9	ng/g	< 0.00049 U	0.0073 J	< 0.00035 U	0.0064 J	0.0053 JN	0.019	< 0.00049 U	0.0027 JN	0.0023 JN
PCB-98/102	60233-25-2	ng/g	0.087	0.013 JN	0.00084 JN	0.026 JN	0.019 JN	0.076	0.017 JN	0.012 J	0.0091 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	216	12	0.79	20	11	55	20	5.8	5.5
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 0.87 UJ	2.5	< 0.67 U	1.2	2.9	1.2	2.2	< 0.75 U	0.83
2,4-DDE	3424-82-6	µg/kg	< 0.87 UJ	< 0.79 U	< 0.79 U	< 0.80 U	< 0.87 U	< 0.30 U	< 0.79 U	< 0.79 U	< 0.79 U
2,4-DDT	789-02-6	µg/kg	< 0.94 UJ	< 0.94 U	< 0.94 U	< 0.94 U	< 0.94 U	0.40 J	1.7	< 0.94 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	0.74 J	7.9	< 0.67 U	3.5	6.5	1.9	4.4	1.4	2.1
4,4'-DDE	72-55-9	µg/kg	2.0 J	1.1	< 0.70 U	2.6	3.4	0.77	0.74	1.6	2.0
4,4'-DDT	50-29-3	µg/kg	0.55 J	1.3	0.55 J	< 0.80 U	0.75 J	1.1	33 J	< 0.75 U	< 0.77 U
DDx (b)	T_DDx (PDI)	µg/kg	3.8	13	1.0	7.8	14	5.5	42	3.5	5.4
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	140	170	55	36	180	610	40	14	12
Acenaphthene	83-32-9	µg/kg	140	2900	320	76	940	1100	12	680	700
Acenaphthylene	208-96-8	µg/kg	30	690	220	72	160	190	38	19	19
Anthracene	120-12-7	µg/kg	140	2900	680	130	600	330	56	230	220
Benz(a)anthracene	56-55-3	µg/kg	410	4900	1600	790	1500	1900	230	69	78
Benzo(a)pyrene	50-32-8	µg/kg	500	6800	2000	1100	2000	2500	300	97	110
Benzo(b)fluoranthene	205-99-2	µg/kg	530	6000	1800	1100	1700	3000	290	95	100
Benzo(g,h,i)perylene	191-24-2	µg/kg	390	3400	1400	820	1500	1800	230	84	94
Benzo(k)fluoranthene	207-08-9	µg/kg	170	1600	590	400	590	1100	98	33	36
Chrysene	218-01-9	µg/kg	520	5700	2100	990	1700	2800	310	93	99
Dibenz(a,h)anthracene	53-70-3	µg/kg	80	460	180	140	220	340	44	12	13
Fluoranthene	206-44-0	µg/kg	830	19000	4600	1300	3200	3400	400	430	520
Fluorene	86-73-7	µg/kg	190	2200	290	55	650	400	17	370	360
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	370	3400	1400	810	1400	2200	220	83	92
Naphthalene	91-20-3	µg/kg	180	860	320	87	210	6200	62	37	39
Phenanthrene	85-01-8	µg/kg	820	19000	2400	620	4600	1800	210	2000	2100
Pyrene	129-00-0	µg/kg	950	22000	5900	1700	5200	4300	540	460	580
Total PAHs (b)	T_PAH (PDI)	µg/kg	6390	101980	25855	10226	26350	33970	3097	4806	5172
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	713	8712	2668	1515	2688	3564	419	134	150
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	57.7	62.7	72.2	60.8	56.2	66.4	71.9	64.6	64.5
Total Solids@104C - E160.3M (f)	TSOLID	%	56.0	63.9	74.0	62.3	56.3	62.8	74.0	65.1	64.6
Total Solids@70C	TSOLID70	%	57	63	74	60	57	78	74	65	64
Gravel	GS-Gravel	%	0	0.1	3.8	0.8	0	50.2	0.1	0	
Sand, Coarse	GS-Csand	%	0	0.3	1.5	0.8	0.4	3.3	0.9	0	

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

			Location	S108	S109	S110	S111	S113	S114	S115	S116	S116
			Sample ID	PDI-SG-S108	PDI-SG-S109	PDI-SG-S110	PDI-SG-S111	PDI-SG-S113	PDI-SG-S114	PDI-SG-S115	PDI-SG-S116	PDI-SG-S116-D
			Sample Date	05 May 2018	01 Jun 2018	31 May 2018	30 May 2018	01 Jun 2018	18 Jun 2018	12 May 2018	01 Jun 2018	01 Jun 2018
			Sample Type Code	N	N	N	N	N	N	N	N	FD
			Depth	0-30 cm	0-22 cm	0-23 cm	0-19 cm	0-28 cm	0-13 cm	0-19 cm	0-25 cm	0-25 cm
Chemical		**CAS_RN**	**Units**									
Sand, Medium		GS-Msand	%	0.4	25.1	45.9	6.5	12.9	9.2	33.3	13.6	
Sand, Fine (#200)	(d)	GS-Fsand-200	%	61.32	51.92	44.12	65.42	45.95	27.82	56.36	55.48	
Sand, Fine (#230)	(d)	GS-Fsand	%	68.6	53.1	44.3	70.5	47.7	29.0	57.1	56.5	
Silt (#200)	(d)	GS-Silt-200	%	31.57	17.57	3.972	23.07	34.74	4.278	6.430	22.21	
Silt (#230)	(d)	GS-Silt	%	24.3	16.4	3.8	18.0	33.0	3.1	5.7	21.2	
Clay		GS-Clay	%	6.7	5.0	0.8	3.5	6.0	5.2	3.0	8.7	
Percent Fines	(e)	GS-FINES	%	38.27	22.57	4.772	26.57	40.74	9.478	9.43	30.91	
Total Organic Carbon		TOC	mg/kg	20000	12000	2200	19000	13000	23000	4600	6200	6100

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S118	S120	S122	S123	S124	S125	S126	S126	S128
		Sample ID	PDI-SG-S118	PDI-SG-S120	PDI-SG-S122	PDI-SG-S123	PDI-SG-S124	PDI-SG-S125	PDI-SG-S126	PDI-SG-S126-D	PDI-SG-S128
		Sample Date	31 May 2018	03 Jun 2018	11 May 2018	03 May 2018	12 May 2018	03 May 2018	03 May 2018	03 May 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-11 cm	0-30 cm	0-23 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.11	0.0050	0.11	0.13	28	0.34	2.9 J	2.8 J	0.010
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.035	0.00085 J	0.017	0.018	3.2	0.056	0.37 J	0.29	0.0020 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0097	< 0.000059 U	0.0013 J	0.0015 J+	< 0.020 U	0.0040 J	0.025	0.021	< 0.00034 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00099 J	0.00014 JN	0.0013 J	0.0011 JN	0.50	0.0032 J	0.011	0.012	< 0.00024 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.11	0.00011 JN	0.0024 J	0.0036 J	0.028	0.0039 J	0.085	0.080	0.00032 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0031 J	0.00036 J	0.0098	0.0050	16	0.014	0.091	0.092	0.00043 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.027	0.000060 J	0.0014 J	0.0024 J	0.030	0.0073	0.025	0.023	< 0.00014 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0024 J	0.00033 J	0.0060	0.0036 J	8.5	0.0073	0.024	0.022	0.00036 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0031 J+	< 0.000067 U	0.0018 J+	< 0.00029 U	< 0.0042 U	0.00091 J+	0.0023 J+	0.0028 J+	< 0.00035 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00071 J	0.00011 J	0.0018 J	0.00074 J	0.91	0.0018 J	0.0041 J	0.0047 J	< 0.00012 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.093	< 0.000028 U	0.00076 J+	0.0013 J	0.0036 J	0.0027 J	0.021	0.021	< 0.00017 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0044 J	0.000050 J	0.00082 J	0.00062 J+	0.027	0.0018 J	0.0091	0.0089	< 0.000069 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.029	< 0.000030 U	0.00073 J	0.00080 J+	0.0092	0.0020 J	0.022	0.021	< 0.000053 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00036 JN	< 0.000020 U	0.00048 J	0.00047 JN	0.016	0.0012 JN	0.0022	0.0022	< 0.000052 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.027	< 0.000044 U	0.0011	0.00093 J+	0.0012	0.0027	0.015	0.015	0.00020 JN
OCDD	3268-87-9	µg/kg	0.94	0.037	0.86	1.8	8.2	4.9 J	28 J	27 J	0.090
OCDF	39001-02-0	µg/kg	0.068	0.0020 J	0.031	0.059	1.2	0.18	0.85	0.56	0.0053 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.032	0.0003	0.0065	0.0053	3.8	0.013	0.081	0.079	0.00034
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.032	0.00027	0.0065	0.0049	3.8	0.013	0.081	0.079	0.00029
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.032	0.00026	0.0065	0.0047	3.8	0.013	0.081	0.079	0.00023
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0093 J	< 0.00015 U	0.0066 J	0.037	0.0066 J	0.073	0.22	0.27	0.00065 JN
PCB-10	33146-45-1	ng/g	< 0.00040 U	< 0.0026 U	0.0023 JN	0.0094 J	0.0045 J	0.015	0.013 J	< 0.0091 U	< 0.00063 U
PCB-103	60145-21-3	ng/g	0.013	< 0.00027 U	0.023	0.10	0.015	0.22	0.16	0.12 JN	0.0012 JN
PCB-104	56558-16-8	ng/g	< 0.00014 U	< 0.00021 U	< 0.00020 U	< 0.00014 U	0.0035 J	< 0.00042 U	< 0.0013 U	< 0.0023 U	< 0.00031 U
PCB-105	32598-14-4	ng/g	0.13	0.0054 J	0.23	0.65	0.066 JN	1.2	1.7	1.6	0.0095
PCB-106	70424-69-0	ng/g	< 0.0017 U	< 0.0012 U	< 0.0028 U	< 0.0027 U	< 0.0012 U	< 0.0055 U	< 0.012 U	< 0.010 U	< 0.00053 U
PCB-107	70424-68-9	ng/g	0.039	< 0.0013 U	0.059	0.30	0.017	0.64	0.60	0.56	0.0018 JN
PCB-108/124	70362-41-3	ng/g	0.012 JN	< 0.0012 U	0.027	0.071	0.0058 JN	0.15	0.21	0.22	0.0011 JN
PCB-11	2050-67-1	ng/g	0.065	0.0046 JN	0.046	0.024	0.053	0.025	0.053 J	0.070 JN	0.0030 J+
PCB-110/115	38380-03-9	ng/g	0.45	0.020	0.83	3.7	0.24	8.7	8.9	7.9	0.044
PCB-111	39635-32-0	ng/g	< 0.00013 U	< 0.00019 U	< 0.00018 U	< 0.00013 U	0.0013 JN	0.031 JN	< 0.0011 U	< 0.0021 U	< 0.00027 U
PCB-112	74472-36-9	ng/g	0.0027 J	< 0.00020 U	0.0084 J	< 0.00014 U	0.0057 JN	< 0.00041 U	0.036 JN	< 0.0023 U	< 0.00030 U
PCB-114	74472-37-0	ng/g	0.0081 J	< 0.0011 U	0.015	0.042	0.0032 JN	0.090	0.14	0.12	< 0.00046 U
PCB-118	31508-00-6	ng/g	0.34	0.011	0.63	2.5	0.18	4.5	5.5	5.4	0.024
PCB-12/13	2974-92-7	ng/g	0.0076 JN	< 0.0024 U	0.0051 JN	0.059	0.0077 J	0.072	0.070 JN	0.066 JN	< 0.00053 U
PCB-120	68194-12-7	ng/g	0.0031 JN	< 0.00019 U	0.0084 J	0.032	0.0021 JN	0.092	0.078	0.055 JN	< 0.00027 U
PCB-121	56558-18-0	ng/g	< 0.00014 U	< 0.00020 U	< 0.00019 U	< 0.00014 U	0.0017 J	< 0.00040 U	< 0.0012 U	< 0.0022 U	< 0.00029 U
PCB-122	76842-07-4	ng/g	0.0070 J	< 0.0014 U	0.0090 JN	0.038	< 0.0013 U	0.075 JN	0.099	0.11	< 0.00059 U
PCB-123	65510-44-3	ng/g	0.0069 JN	< 0.0012 U	0.011	0.032	0.0035 J	0.076	0.098	0.086 J	0.00060 JN
PCB-126	57465-28-8	ng/g	< 0.0017 U	< 0.0013 U	< 0.0028 U	0.0072 J	< 0.0012 U	0.012	0.018 JN	< 0.010 U	< 0.00052 U
PCB-127	39635-33-1	ng/g	< 0.0017 U	< 0.0012 U	< 0.0027 U	< 0.0027 U	< 0.0011 U	< 0.0052 U	< 0.011 U	< 0.010 U	< 0.00051 U
PCB-128/166	38380-07-3	ng/g	0.089	0.0038 J	0.18	0.51	0.063	1.1	1.4	1.1	0.0091 J
PCB-129/138/160/163	55215-18-4	ng/g	0.66	0.029	1.1	4.6	0.55	8.6	11	8.2	0.064
PCB-130	52663-66-8	ng/g	0.045	< 0.0019 U	0.087	0.33	0.030	0.68	0.76	0.60	< 0.0013 U
PCB-131	61798-70-7	ng/g	0.0076 J	< 0.0019 U	0.015	< 0.014 U	< 0.0030 U	0.094	0.13	0.10 JN	< 0.0013 U
PCB-132	38380-05-1	ng/g	0.21	0.0063 JN	0.38	1.5	0.15	2.9	3.7	3.1	0.018
PCB-133	35694-04-3	ng/g	0.013 JN	< 0.0018 U	0.029	0.10	0.012	0.22	0.22	0.18	< 0.0012 U
PCB-134/143	52704-70-8	ng/g	0.036	< 0.0018 U	0.073	0.24	0.028 JN	0.50	0.59	0.53	0.0036 J
PCB-135/151	52744-13-5	ng/g	0.24	0.0079 JN	0.38	2.2	0.22	4.3	4.4	3.6	0.024
PCB-136	38411-22-2	ng/g	0.082	0.0025 JN	0.14	0.75	0.069	1.5	1.3	1.2	0.0072 JN
PCB-137	35694-06-5	ng/g	0.022	< 0.0016 U	0.054	0.095	0.012 JN	0.22	0.35	0.26	0.0016 JN
PCB-139/140	56030-56-9	ng/g	0.012 J	< 0.0016 U	0.025	0.070	< 0.0025 U	0.15	0.19	0.15 JN	< 0.0011 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S118	S120	S122	S123	S124	S125	S126	S126	S128
		Sample ID	PDI-SG-S118	PDI-SG-S120	PDI-SG-S122	PDI-SG-S123	PDI-SG-S124	PDI-SG-S125	PDI-SG-S126	PDI-SG-S126-D	PDI-SG-S128
		Sample Date	31 May 2018	03 Jun 2018	11 May 2018	03 May 2018	12 May 2018	03 May 2018	03 May 2018	03 May 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-11 cm	0-30 cm	0-23 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-24 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.00031 U	< 0.0020 U	< 0.00047 U	< 0.0014 U	< 0.00038 U	< 0.0013 U	< 0.0041 U	< 0.0071 U	< 0.00049 U
PCB-141	52712-04-6	ng/g	0.12	0.0052 J	0.20	0.88	0.12	1.6	2.2	1.7	0.014
PCB-142	41411-61-4	ng/g	< 0.0014 U	< 0.0018 U	< 0.0018 U	< 0.013 U	< 0.0028 U	< 0.0062 U	< 0.011 U	< 0.011 U	< 0.0012 U
PCB-144	68194-14-9	ng/g	0.026	0.00075 J	0.042	0.20	0.025	0.45	0.34	0.40 JN	0.0027 J
PCB-145	74472-40-5	ng/g	< 0.00019 U	< 0.00014 U	0.00055 JN	< 0.00017 U	0.00033 JN	0.0059 JN	< 0.00055 U	< 0.0014 U	< 0.00010 U
PCB-146	51908-16-8	ng/g	0.13	< 0.0016 U	0.23	1.2	0.098	2.0	2.1	1.6	0.012
PCB-147/149	68194-13-8	ng/g	0.56	0.023	0.94	5.5	0.49	8.8	9.3	8.0	0.050
PCB-148	74472-41-6	ng/g	0.0034 J	< 0.00020 U	0.0069 J	0.022	0.0029 J	0.043	0.031 JN	0.026 JN	< 0.00014 U
PCB-15	2050-68-2	ng/g	0.041	< 0.0025 U	0.021 JN	0.34	0.016	0.36	0.36	0.44	0.0020 JN
PCB-150	68194-08-1	ng/g	0.0025 J	< 0.00014 U	0.0058 JN	0.015	0.0027 J	0.038	0.017 J	0.019 JN	0.00073 J
PCB-152	68194-09-2	ng/g	0.00048 JN	< 0.00015 U	0.0011 JN	< 0.00018 U	0.00096 JN	< 0.000096 U	0.0078 JN	0.0044 JN	< 0.000099 U
PCB-153/168	35065-27-1	ng/g	0.58	0.023	0.94	5.0	0.56	8.6	9.6	7.4	0.057
PCB-154	60145-22-4	ng/g	0.017	0.00040 JN	0.044	0.14	0.015	0.35	0.21 JN	0.19	0.0016 JN
PCB-155	33979-03-2	ng/g	0.00036 JN	< 0.00014 U	< 0.00020 U	< 0.00016 U	< 0.00019 U	< 0.000091 U	< 0.00051 U	< 0.0013 U	< 0.000094 U
PCB-156/157	38380-08-4	ng/g	0.054	0.0042 J	0.12	0.33	0.045	0.69	0.89	0.77	0.0057 J
PCB-158	74472-42-7	ng/g	0.057	0.0027 J+	0.11	0.30	0.050	0.57	0.87	0.66	0.0060 J
PCB-159	39635-35-3	ng/g	0.0078 J	< 0.0012 U	0.0090 J	0.057	0.0082 J	0.12	0.13	0.11	< 0.00077 U
PCB-16	38444-78-9	ng/g	0.039	< 0.00021 U	0.025	0.85	0.010	1.0	0.80 J	0.86 J	0.0015 JN
PCB-161	74472-43-8	ng/g	< 0.00091 U	< 0.0012 U	< 0.0012 U	< 0.0085 U	< 0.0018 U	< 0.0041 U	< 0.0075 U	< 0.0074 U	< 0.00080 U
PCB-162	39635-34-2	ng/g	< 0.00087 U	< 0.0012 U	< 0.0011 U	< 0.0084 U	< 0.0017 U	< 0.0039 U	< 0.0071 U	< 0.0070 U	< 0.00076 U
PCB-164	74472-45-0	ng/g	0.045	< 0.0012 U	0.082	0.35	0.041	0.66	0.80	0.62	0.0057 J
PCB-165	74472-46-1	ng/g	< 0.0010 U	< 0.0013 U	< 0.0013 U	< 0.0096 U	< 0.0021 U	< 0.0046 U	< 0.0085 U	< 0.0084 U	< 0.00091 U
PCB-167	52663-72-6	ng/g	0.020	< 0.00087 U	0.043	0.11	0.017	0.24	0.28	0.26	0.0023 JN
PCB-169	32774-16-6	ng/g	< 0.00069 U	< 0.00086 U	< 0.00083 U	< 0.0063 U	0.076 JN	< 0.0030 U	< 0.0052 U	< 0.0056 U	< 0.00062 U
PCB-17	37680-66-3	ng/g	0.048	< 0.00019 U	0.048	1.3	0.029	1.4	0.66 J	1.0 J	0.0017 JN
PCB-170	35065-30-6	ng/g	0.21	0.0092	0.25	1.7	0.24	3.4	3.2	2.7	0.024
PCB-171/173	52663-71-5	ng/g	0.063	< 0.00096 U	0.079	0.53	0.075	1.2	1.1	0.90	0.0080 J
PCB-172	52663-74-8	ng/g	0.038	< 0.00095 U	0.044	0.32	0.042	0.70	0.55	0.50	0.0055 J
PCB-174	38411-25-5	ng/g	0.23	0.0070 JN	0.28	1.9	0.26	4.2	4.1	3.2	0.027
PCB-175	40186-70-7	ng/g	0.0091 J	< 0.00087 U	0.012	0.077	0.0098 JN	0.17	0.17	0.11 JN	0.0020 J
PCB-176	52663-65-7	ng/g	0.025	< 0.00065 U	0.034	0.25	0.028	0.48	0.46	0.39	0.0031 J
PCB-177	52663-70-4	ng/g	0.14	0.0066	0.18	1.1	0.16	2.6	2.4	1.8	0.017
PCB-178	52663-67-9	ng/g	0.048	< 0.00094 U	0.070	0.44	0.052	0.83	0.81	0.65	0.0066 J
PCB-179	52663-64-6	ng/g	0.087	0.0032 JN	0.13	0.96	0.10	1.7	1.7	1.4	0.0098 JN
PCB-18/30	37680-65-2	ng/g	0.089	0.00076 JN	0.062	2.3	0.028	2.4	1.5 J	1.8 J	0.0038 J
PCB-180/193	35065-29-3	ng/g	0.45	0.017	0.54	4.1	0.55	8.7	7.0	6.0	0.049
PCB-181	74472-47-2	ng/g	0.0086 J	< 0.00086 U	0.0030 J	< 0.00052 U	< 0.00034 U	< 0.000041 U	< 0.00037 U	< 0.00038 U	< 0.00052 U
PCB-182	60145-23-5	ng/g	0.0013 JN	< 0.00083 U	0.0024 JN	< 0.00050 U	0.0025 JN	0.041	< 0.00035 U	0.030 JN	< 0.00049 U
PCB-183/185	52663-69-1	ng/g	0.14	0.0073 J	0.17	1.3	0.17	2.6	2.5	2.0	0.017 J
PCB-184	74472-48-3	ng/g	< 0.00017 U	< 0.00071 U	< 0.00014 U	< 0.00042 U	< 0.00028 U	< 0.000034 U	< 0.00030 U	< 0.00031 U	< 0.00042 U
PCB-186	74472-49-4	ng/g	< 0.00016 U	< 0.00069 U	< 0.00013 U	< 0.00041 U	< 0.00026 U	< 0.000032 U	< 0.00029 U	< 0.00030 U	< 0.00040 U
PCB-187	52663-68-0	ng/g	0.29	0.010	0.35	2.5	0.33	5.0	4.8	3.9	0.034
PCB-188	74487-85-7	ng/g	< 0.00015 U	< 0.00062 U	< 0.00013 U	< 0.00036 U	< 0.00025 U	< 0.000031 U	< 0.00027 U	< 0.00026 U	< 0.00038 U
PCB-189	39635-31-9	ng/g	0.0068 J	< 0.0013 U	0.010	0.049	< 0.011 U	0.11	0.11	0.093 J	0.00074 JN
PCB-19	38444-73-4	ng/g	0.023	0.0015 J	0.060	0.18	0.097	0.20	0.16 J	0.15 JN	0.0020 JN
PCB-190	41411-64-7	ng/g	0.039	< 0.00063 U	0.047	0.30	0.048	0.66	0.67	0.50	0.0048 J
PCB-191	74472-50-7	ng/g	0.0088 JN	< 0.00065 U	0.010 JN	0.064	0.012	0.16	0.13	0.12	0.00048 JN
PCB-192	74472-51-8	ng/g	< 0.00017 U	< 0.00073 U	< 0.00014 U	< 0.00044 U	< 0.00027 U	< 0.000033 U	< 0.00029 U	< 0.00030 U	< 0.00041 U
PCB-194	35694-08-7	ng/g	0.12	0.0082	0.12	1.0	0.14	2.0	1.8	1.4	0.013
PCB-195	52663-78-2	ng/g	0.053	< 0.0031 U	0.052	0.43	0.062	0.81	0.78	0.59	0.0056 J
PCB-196	42740-50-1	ng/g	0.058	0.0019 JN	0.058	0.46	0.068	0.96	0.79	0.65	0.0048 JN
PCB-197	33091-17-7	ng/g	0.0053 J	< 0.00075 U	0.0037 JN	0.035	0.0068 J	0.065	0.056	0.049 J	< 0.00028 U
PCB-198/199	68194-17-2	ng/g	0.14	0.0053 JN	0.13	0.97	0.15	2.0	1.8	1.4	0.017 J
PCB-2	2051-61-8	ng/g	0.014	< 0.00017 U	0.012	0.0078 JN	0.017	0.019	0.12 J	0.21	0.0010 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S118	S120	S122	S123	S124	S125	S126	S126	S128
		Sample ID	PDI-SG-S118	PDI-SG-S120	PDI-SG-S122	PDI-SG-S123	PDI-SG-S124	PDI-SG-S125	PDI-SG-S126	PDI-SG-S126-D	PDI-SG-S128
		Sample Date	31 May 2018	03 Jun 2018	11 May 2018	03 May 2018	12 May 2018	03 May 2018	03 May 2018	03 May 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-11 cm	0-30 cm	0-23 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	0.23	0.0022 JN	0.14	3.3	0.064	5.0	3.8 J	3.9 J	0.012 J
PCB-200	52663-73-7	ng/g	0.015	< 0.00067 U	0.012 JN	0.11	0.016	0.24	0.22	0.19	0.0014 JN
PCB-201	40186-71-8	ng/g	0.015	< 0.00068 U	0.014	0.093	0.015	0.16	0.20	0.20	0.0018 JN
PCB-202	2136-99-4	ng/g	0.028	0.0014 J	0.026	0.17	0.030	0.40	0.35	0.29	0.0025 JN
PCB-203	52663-76-0	ng/g	0.081	0.0035 JN	0.074	0.57	0.090	1.2	1.0	0.79	0.0089 JN
PCB-204	74472-52-9	ng/g	< 0.00043 U	< 0.00075 U	< 0.00048 U	< 0.00097 U	< 0.00054 U	< 0.000078 U	< 0.0034 U	< 0.00076 U	< 0.00030 U
PCB-205	74472-53-0	ng/g	0.0068 J	< 0.0024 U	0.0058 J	0.051	0.0075 J	0.093	0.085	0.069 JN	< 0.00096 U
PCB-206	40186-72-9	ng/g	0.085	< 0.0026 U	0.074 JN	0.30	0.14 JN	0.80	0.73	0.57	0.36 JN
PCB-207	52663-79-3	ng/g	0.010 J	< 0.0018 U	0.0054 JN	0.036	0.024	0.087	0.079	0.074 J	< 0.0023 U
PCB-208	52663-77-1	ng/g	0.023	< 0.0018 U	0.018	0.077	0.035	0.21	0.17	0.15	< 0.0025 U
PCB-209	2051-24-3	ng/g	0.089	0.0037 JN	0.062	0.21	0.11	0.65	0.40	0.31	0.0092
PCB-21/33	55702-46-0	ng/g	0.087	< 0.00060 U	0.066	1.7	0.026	2.5	1.4 J	1.4 J	0.0053 JN
PCB-22	38444-85-8	ng/g	0.062	< 0.00063 U	0.034	0.85	0.019	1.4	0.94 J	0.98 J	0.0036 J
PCB-23	55720-44-0	ng/g	< 0.0011 U	< 0.00062 U	< 0.0011 U	< 0.0036 U	0.00088 J	< 0.018 U	< 0.020 UJ	< 0.020 UJ	< 0.00058 U
PCB-24	55702-45-9	ng/g	0.00066 JN	< 0.00016 U	0.0010 JN	0.029	< 0.00032 U	0.036 JN	0.018 J	< 0.0055 UJ	< 0.000052 U
PCB-25	55712-37-3	ng/g	0.022	< 0.00056 U	0.015	0.22	0.0080 J	0.38	0.11 JN	0.23 J	0.00081 JN
PCB-26/29	38444-81-4	ng/g	0.037	< 0.00060 U	0.021	0.41	0.012 J	0.62	0.46 J	0.48 J	0.0017 JN
PCB-27	38444-76-7	ng/g	0.0090 JN	< 0.00014 U	0.011 JN	0.14	0.012 JN	0.17	0.12 J	0.13 J	< 0.000051 U
PCB-3	2051-62-9	ng/g	0.0098 J	< 0.00019 U	0.0063 J	0.030	0.012	0.063	0.19 J	0.24	< 0.00061 U
PCB-31	16606-02-3	ng/g	0.17	0.0022 J	0.094	2.6	0.044	3.7	2.7 J	2.8 J	0.0070 J
PCB-32	38444-77-8	ng/g	0.032	< 0.00013 U	0.030	0.54 J-	0.016	0.70	0.13 J	0.23 J	0.0015 JN
PCB-34	37680-68-5	ng/g	0.0019 J	< 0.00064 U	0.0018 J	0.039	< 0.00078 U	0.059	0.054 J	0.046 J	< 0.00060 U
PCB-35	37680-69-6	ng/g	0.0036 JN	< 0.00063 U	0.0027 J	< 0.0036 U	0.0029 JN	0.048	0.072 J	0.075 J	< 0.00058 U
PCB-36	38444-87-0	ng/g	< 0.0010 U	< 0.00060 U	< 0.00098 U	< 0.0035 U	< 0.00067 U	< 0.016 U	< 0.018 UJ	< 0.018 UJ	< 0.00052 U
PCB-37	38444-90-5	ng/g	0.061	< 0.00062 U	0.036	0.71	0.022	0.89	0.97	0.95	0.0036 JN
PCB-38	53555-66-1	ng/g	< 0.0011 U	< 0.00065 U	< 0.0011 U	< 0.0037 U	< 0.00073 U	< 0.018 U	< 0.020 UJ	< 0.019 UJ	< 0.00057 U
PCB-39	38444-88-1	ng/g	0.0014 JN	< 0.00058 U	0.0016 J	0.027	< 0.00067 U	0.058	0.043 J	0.035 JN	< 0.00052 U
PCB-4	13029-08-8	ng/g	0.025	< 0.0033 U	0.039	0.20	0.047	0.24	0.22	0.24	0.0022 JN
PCB-40/41/71	38444-93-8	ng/g	0.16	< 0.00044 U	0.12	1.5	0.053	2.4	2.4 J	2.2 J	0.0058 J
PCB-42	36559-22-5	ng/g	0.080	< 0.00044 U	0.062	0.85	0.025	1.4	1.2 J	1.2 J	0.0039 J
PCB-43/73	70362-46-8	ng/g	0.019 J	< 0.00041 U	0.010 J	0.086	0.011 JN	0.18	0.16 JN	0.13 JN	0.0010 JN
PCB-44/47/65	41464-39-5	ng/g	0.33	0.0075 J	0.42	2.9	0.25	4.7	4.8 J	4.6 J	0.028 J+
PCB-45/51	70362-45-7	ng/g	0.061	< 0.00046 U	0.10	0.55	0.078	0.86	< 0.010 UJ	0.73 J	0.0052 JN
PCB-46	41464-47-5	ng/g	0.017	< 0.00055 U	0.012 JN	0.18	0.0060 JN	0.27	< 0.012 UJ	0.22 JN	0.0011 J
PCB-48	70362-47-9	ng/g	0.049	< 0.00043 U	0.034	0.67	0.016	0.98	0.98 J	0.96 J	0.0018 JN
PCB-49/69	41464-40-8	ng/g	0.21	0.0025 JN	0.25	2.1	0.10	3.7	3.2 J	3.1 J	0.010 J
PCB-5	16605-91-7	ng/g	0.00062 JN	< 0.0026 U	< 0.00057 U	0.012 JN	0.00071 JN	0.014	0.012 J	< 0.0085 U	< 0.00059 U
PCB-50/53	62796-65-0	ng/g	0.057	< 0.00042 U	0.074	0.39	0.054	0.64	0.19 J	0.61 J	0.0020 JN
PCB-52	35693-99-3	ng/g	0.41	0.0054 J	0.48	3.3	0.16	6.2	6.2 J	6.0 J	0.018
PCB-54	15968-05-5	ng/g	0.0038 JN	< 0.000046 U	0.019 JN	0.0077 JN	0.034	0.011 J	0.0097 JN	0.016 JN	0.00055 JN
PCB-55	74338-24-2	ng/g	0.0076 J	< 0.00032 U	< 0.00079 U	< 0.0045 U	< 0.00029 U	0.11	< 0.0066 UJ	< 0.0066 UJ	0.0010 JN
PCB-56	41464-43-1	ng/g	0.12	0.0015 JN	0.086	1.3	0.031	2.1	2.5 J	2.5 J	0.0047 JN
PCB-57	70424-67-8	ng/g	< 0.0011 U	< 0.00032 U	< 0.00081 U	< 0.0046 U	< 0.00030 U	< 0.0033 U	< 0.0067 UJ	< 0.0067 UJ	< 0.00062 U
PCB-58	41464-49-7	ng/g	0.0017 JN	< 0.00033 U	0.0017 JN	0.027 JN	0.0064 JN	0.046	< 0.0065 UJ	0.023 JN	< 0.00059 U
PCB-59/62/75	74472-33-6	ng/g	0.027 J	< 0.00031 U	0.024 J	0.27	0.017 J	0.43	0.44 J	0.40 J	0.00092 JN
PCB-6	25569-80-6	ng/g	0.011	< 0.0023 U	0.0078 JN	0.19	0.0059 J	0.22	0.10	0.14	< 0.00058 U
PCB-60	33025-41-1	ng/g	0.048	0.00055 JN	0.029	0.20	0.013 JN	0.40	0.50 J	0.55 J	0.0023 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.46	0.0067 J	0.45	5.0	0.15	7.9	9.2 J	8.3 J	0.022 J
PCB-63	74472-34-7	ng/g	0.0091 J	< 0.00029 U	0.0093 J	0.11	0.0035 J	0.18	0.22 J	0.18 J	0.00057 J
PCB-64	52663-58-8	ng/g	0.11	0.0015 JN	0.084	1.2	0.034	1.8	1.8 J	1.8 J	0.0041 JN
PCB-66	32598-10-0	ng/g	0.30	0.0033 J	0.25	3.1	0.097	4.9	5.3 J	4.9 J	0.017
PCB-67	73575-53-8	ng/g	0.0069 J	< 0.00028 U	0.0050 J	0.066	0.0033 J	0.11	0.13 J	0.11 J	< 0.00057 U
PCB-68	73575-52-7	ng/g	0.0033 J	< 0.00028 U	0.0080 J	< 0.0040 U	0.0038 J	0.068	0.061 J	0.045 J	< 0.0017 U
PCB-7	33284-50-3	ng/g	0.0027 JN	< 0.0024 U	0.0022 J	0.033	0.0015 JN	0.039	0.033 J	0.025 JN	< 0.00055 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S118	S120	S122	S123	S124	S125	S126	S126	S128
		Sample ID	PDI-SG-S118	PDI-SG-S120	PDI-SG-S122	PDI-SG-S123	PDI-SG-S124	PDI-SG-S125	PDI-SG-S126	PDI-SG-S126-D	PDI-SG-S128
		Sample Date	31 May 2018	03 Jun 2018	11 May 2018	03 May 2018	12 May 2018	03 May 2018	03 May 2018	03 May 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-11 cm	0-30 cm	0-23 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0053 J	< 0.00032 U	0.0097 J	0.068	0.0027 J	0.13	0.11 JN	0.10 J	< 0.00060 U
PCB-77	32598-13-3	ng/g	0.028	< 0.00033 U	0.021	0.22	0.011	0.38	0.49	0.44	0.0017 JN
PCB-78	70362-49-1	ng/g	< 0.0010 U	< 0.00033 U	< 0.00078 U	< 0.0046 U	< 0.00029 U	< 0.0032 U	< 0.0065 UJ	< 0.0065 UJ	< 0.00059 U
PCB-79	41464-48-6	ng/g	0.0017 JN	< 0.00028 U	0.0062 JN	0.021 JN	0.0022 J	0.045 JN	0.081 J	0.074 J	< 0.00051 U
PCB-8	34883-43-7	ng/g	0.043	< 0.0022 U	0.035	0.90	0.018 J	0.90	0.44	0.46	0.0033 JN
PCB-80	33284-52-5	ng/g	< 0.00091 U	< 0.00028 U	< 0.00069 U	< 0.0039 U	< 0.00026 U	< 0.0028 U	< 0.0057 UJ	< 0.0058 UJ	< 0.00053 U
PCB-81	70362-50-4	ng/g	< 0.00098 U	< 0.00028 U	< 0.00072 U	< 0.0042 U	< 0.00027 U	0.0068 JN	0.0066 J	< 0.0063 U	< 0.00054 U
PCB-82	52663-62-4	ng/g	0.052	0.0013 JN	0.080	0.34	0.021	0.87	1.0	0.97	0.0029 JN
PCB-83/99	60145-20-2	ng/g	0.29	0.011 J	0.54	2.5	0.17	5.5	5.0	4.9	0.024
PCB-84	52663-60-2	ng/g	0.10	0.0037 J	0.19	0.90	0.049	1.9	2.1	1.9	0.0077 JN
PCB-85/116/117	65510-45-4	ng/g	0.072	0.0026 JN	0.12	0.52	0.039	1.2	1.4	1.2	0.0067 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.25	0.010 JN	0.48	1.9	0.13	4.5	4.9	4.6	0.023 J
PCB-88/91	55215-17-3	ng/g	0.073	< 0.00028 U	0.14	0.63	0.048	1.3	1.1	1.1	0.0074 JN
PCB-89	73575-57-2	ng/g	0.0056 JN	< 0.00031 U	< 0.00030 U	0.042	< 0.00036 U	0.089	< 0.0019 U	0.098 JN	0.00063 J
PCB-9	34883-39-1	ng/g	0.0029 J	< 0.0024 U	0.0020 JN	0.048	0.0031 J	0.050 JN	0.035 JN	0.047 J	< 0.00064 U
PCB-90/101/113	68194-07-0	ng/g	0.43	0.016 J	0.82	3.9	0.27	8.3	8.2	7.4	0.041
PCB-92	52663-61-3	ng/g	0.097	0.0029 JN	0.18	0.84	0.061	1.9	1.6	1.8	0.0089 J
PCB-93/100	73575-56-1	ng/g	0.034	0.00091 JN	0.046	0.058	0.042	0.16	0.18 JN	0.095 JN	0.0023 J
PCB-94	73575-55-0	ng/g	< 0.00021 U	< 0.00031 U	0.0081 JN	< 0.00021 U	0.0092 J	< 0.00063 U	< 0.0019 U	< 0.0035 U	< 0.00046 U
PCB-95	38379-99-6	ng/g	0.35	0.012 JN	0.61	3.1	0.21	6.4	6.6	6.0	0.031
PCB-96	73575-54-9	ng/g	0.0057 J	< 0.00023 U	0.011	0.033 JN	0.0059 J	0.072	0.075	0.055 JN	< 0.00034 U
PCB-98/102	60233-25-2	ng/g	0.018 J	< 0.00026 U	0.030 JN	0.14	0.024	0.32	0.32	0.29	0.00089 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	12	0.33	17	108	9.0	198	195	175	1.3
Pesticides											
2,4-DDD	53-19-0	µg/kg	3.8	< 0.26 U	< 0.91 U	0.71	< 0.95 U	1.4	2.5	3.0	< 0.34 U
2,4-DDE	3424-82-6	µg/kg	< 1.1 U	< 0.26 U	< 0.91 U	< 0.40 U	< 0.95 U	0.57	0.56	0.56	< 0.40 U
2,4-DDT	789-02-6	µg/kg	< 1.1 U	< 0.26 U	< 0.94 U	0.54	< 0.95 U	0.96	< 0.51 U	< 0.52 U	< 0.47 U
4,4'-DDD	72-54-8	µg/kg	12	< 0.26 U	2.0	1.8	1.0	4.5	2.6	3.6	< 0.34 U
4,4'-DDE	72-55-9	µg/kg	4.1	< 0.26 UJ	3.6	3.7	2.2	9.0	7.9	9.2	< 0.35 U
4,4'-DDT	50-29-3	µg/kg	1.2	0.28	0.88 J	1.3	0.85 J	1.8	0.73	2.4	< 0.34 U
DDx (b)	T_DDx (PDI)	µg/kg	22	0.41	7.0	8.3	4.5	18	15	19	< 0.47 U
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	34	1.1	11	62	8.8	25	600	550	0.40 J
Acenaphthene	83-32-9	µg/kg	99	0.22 J	49	620	3.1	69	19000	19000	1.1
Acenaphthylene	208-96-8	µg/kg	86	0.62	5.7	6.5	5.3	12	100	100	0.46
Anthracene	120-12-7	µg/kg	180	0.67	29	78	130	30	7100	7500	1.0
Benz(a)anthracene	56-55-3	µg/kg	910	3.9	49	100	61	81	4600	4900	3.3
Benzo(a)pyrene	50-32-8	µg/kg	1100	5.7	72	70	77	94	1500	1500	3.6
Benzo(b)fluoranthene	205-99-2	µg/kg	980	6.6	73	74	88	110	2900	3000	5.6
Benzo(g,h,i)perylene	191-24-2	µg/kg	730	4.6	41	37	36	67	350	380	3.1
Benzo(k)fluoranthene	207-08-9	µg/kg	350	2.4	25	24	30	41	920	910	2.0
Chrysene	218-01-9	µg/kg	1100	5.7	60	120	100	100	5000	5200	4.9
Dibenz(a,h)anthracene	53-70-3	µg/kg	120	0.82	8.4	7.2	8.5	11	160	160	0.49
Fluoranthene	206-44-0	µg/kg	1200	6.9	150	360	120	150	25000	27000	9.4
Fluorene	86-73-7	µg/kg	98	0.30 J	23	270	8.4	33	20000	20000	1.2
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	710	4.1	39	33	37	59	410	430	2.7
Naphthalene	91-20-3	µg/kg	53	1.8	19	88	7.1	53	490	470	0.76
Phenanthrene	85-01-8	µg/kg	670	5.5	140	620	45	160	48000	52000	4.6
Pyrene	129-00-0	µg/kg	1800	9.3	130	330	130	200	14000	16000	8.9
Total PAHs (b)	T_PAH (PDI)	µg/kg	10220	60	924	2900	895	1295	150130	159100	54
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	1485	8	97	98	105	131	2465	2507	5
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	45.0	76.5	53.7	60.8	56.5	40.8	47.3	48.3	72.1
Total Solids@104C - E160.3M (f)	TSOLID	%	44.7	74.1	54.6	62.0	52.3	45.2	48.8	47.6	72.5
Total Solids@70C	TSOLID70	%	44	78	54	63	52	47	58	48	73
Gravel	GS-Gravel	%	0	8.9	0	0	0	0	0.6		0
Sand, Coarse	GS-Csand	%	0.1	2.8	0	1.0	0.1	0.2	0.4		1.6

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

			Location	S118	S120	S122	S123	S124	S125	S126	S126	S128
			Sample ID	PDI-SG-S118	PDI-SG-S120	PDI-SG-S122	PDI-SG-S123	PDI-SG-S124	PDI-SG-S125	PDI-SG-S126	PDI-SG-S126-D	PDI-SG-S128
			Sample Date	31 May 2018	03 Jun 2018	11 May 2018	03 May 2018	12 May 2018	03 May 2018	03 May 2018	03 May 2018	03 May 2018
			Sample Type Code	N	N	N	N	N	N	N	FD	N
			Depth	0-30 cm	0-11 cm	0-30 cm	0-23 cm	0-30 cm	0-28 cm	0-27 cm	0-27 cm	0-24 cm
Chemical		**CAS_RN**	**Units**									
Sand, Medium		GS-Msand	%	0.6	28.2	0.2	18.9	6.4	1.3	1.5		47.0
Sand, Fine (#200)	(d)	GS-Fsand-200	%	21.52	55.86	38.94	43.45	49.46	12.26	21.47		37.53
Sand, Fine (#230)	(d)	GS-Fsand	%	25.5	56.0	45.7	44.7	53.8	14.4	24.2		38.1
Silt (#200)	(d)	GS-Silt-200	%	65.27	3.535	51.25	29.64	37.83	71.53	61.92		10.16
Silt (#230)	(d)	GS-Silt	%	61.3	3.4	44.5	28.4	33.5	69.4	59.2		9.6
Clay		GS-Clay	%	12.5	0.7	9.5	7.0	6.2	14.8	14.2		3.8
Percent Fines	(e)	GS-FINES	%	77.77	4.235	60.75	36.64	44.03	86.33	76.12		13.96
Total Organic Carbon		TOC	mg/kg	23000	< 2000 U	18000	11000	19000	31000	35000	32000	3400

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S130	S131	S132	S133	S134	S135	S136	S137	S138
		Sample ID	PDI-SG-S130	PDI-SG-S131	PDI-SG-S132	PDI-SG-S133	PDI-SG-S134	PDI-SG-S135	PDI-SG-S136	PDI-SG-S137	PDI-SG-S138
		Sample Date	05 May 2018	05 May 2018	20 May 2018	05 May 2018	05 May 2018	14 May 2018	17 May 2018	17 May 2018	17 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-20 cm	0-30 cm	0-30 cm	0-17 cm	0-22 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.98	0.065	0.013	0.18	0.11	0.070	0.074	0.084	0.040
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.20	0.012 JN	0.0018 JN	0.050	0.015 JN	0.039	0.053	0.022	0.065
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.013 JN	0.0011 J+	0.00064 J+	0.0041 J	< 0.00049 U	0.011	0.019	0.0035 J	0.029
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0089	0.00080 JN	0.00022 J	0.0026 J	0.0014 J+	0.00050 J+	< 0.00030 U	0.0011 JN	0.00069 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.033	0.0015 JN	0.00041 J	0.0083	0.0025 J	0.060	0.14	0.015	0.19
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.055	0.0035 J	0.00054 J	0.011	0.0066	0.0017 J	0.0076	0.0047 J	0.0019 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.015	0.00070 JN	0.00017 J	< 0.00044 U	0.0012 J+	0.0091	0.036	0.0042 J	0.055
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.026	0.0027 J	0.00045 J	0.0054 J	0.0040 J	0.0014 J	0.0047	0.0028 J	0.0015 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0013 U	< 0.00059 U	0.00038 J+	< 0.00033 U	< 0.00011 U	0.00071 J+	0.0023 J+	< 0.00028 U	0.0042 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0090	0.00058 J	0.00011 JN	0.0016 JN	0.00091 J	0.00033 J	0.00082 J	0.00048 JN	0.00040 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.0043 U	0.00078 J	0.00020 J	0.0016 J	0.00075 JN	0.011	0.11	0.010	0.15
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.016 JN	0.00043 J	0.000074 JN	0.0049 J	0.00066 J	0.0011 J	0.0068	0.0012 JN	0.0091
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.013	0.00058 J	0.000088 J	0.0039 J	0.00072 J	0.0042	0.068	0.0067	0.063
2,3,7,8-TCDD	1746-01-6	µg/kg	0.0017	0.00027 JN	0.000088 JN	0.00061 JN	0.00018 JN	0.00038 J+	0.0011	0.00034 JN	0.00037 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0085	0.0010 J	0.00015 J	0.0032 J+	0.0011 J+	0.0098	0.15	0.013	0.085
OCDD	3268-87-9	µg/kg	8.9 J	0.54	0.12	1.5	0.92	0.40	0.42	0.61	0.31
OCDF	39001-02-0	µg/kg	0.93	0.033	0.0058 J	0.084	0.030	0.046	0.13	0.057	0.13
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.046	0.0031	0.00066	0.0098	0.0046	0.012	0.062	0.0086	0.06
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.046	0.0026	0.00049	0.0084	0.0045	0.012	0.062	0.0078	0.06
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.046	0.0025	0.00044	0.0076	0.0044	0.012	0.062	0.0076	0.059
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.042 J	0.0037 JN	< 0.00042 U	0.097	0.013	0.0046 JN	0.0065 JN	< 0.00040 U	0.0047 J
PCB-10	33146-45-1	ng/g	0.42	0.014	< 0.0061 U	0.62	0.021 JN	< 0.0019 U	< 0.0034 U	< 0.0043 U	< 0.0045 U
PCB-103	60145-21-3	ng/g	3.3	0.037	< 0.00039 U	2.4	0.089	0.0025 JN	0.010	0.0042 JN	0.0073 JN
PCB-104	56558-16-8	ng/g	1.8	0.0085 JN	< 0.00029 U	1.1	0.035	< 0.00023 U	< 0.00021 U	< 0.00032 U	< 0.00031 U
PCB-105	32598-14-4	ng/g	1.0	0.089	0.019	0.86	0.12	0.063	0.25	0.10	0.19
PCB-106	70424-69-0	ng/g	0.022 JN	< 0.0024 U	< 0.0012 U	0.024 JN	< 0.0019 U	< 0.0012 U	< 0.0020 U	< 0.0020 U	< 0.0018 U
PCB-107	70424-68-9	ng/g	0.42	0.025	0.0064 JN	0.34	0.048	0.011	0.053	0.022 JN	0.038
PCB-108/124	70362-41-3	ng/g	0.15	0.010 J	< 0.0012 U	0.12	0.012 J	0.0053 JN	0.018 J	0.0089 J	0.018 J
PCB-11	2050-67-1	ng/g	0.36	0.063	0.0091 JN	0.18	0.077	0.014 JN	0.038	0.056	0.023
PCB-110/115	38380-03-9	ng/g	5.7	0.37	0.11	4.7	0.58	0.30	0.86	0.34	0.63
PCB-111	39635-32-0	ng/g	< 0.0019 U	< 0.00024 U	< 0.00027 U	0.059 JN	< 0.00039 U	< 0.00022 U	< 0.00020 U	< 0.00030 U	0.0040 J
PCB-112	74472-36-9	ng/g	0.96	0.0070 J	< 0.00029 U	0.84	0.033	< 0.00023 U	< 0.00021 U	< 0.00031 U	< 0.00030 U
PCB-114	74472-37-0	ng/g	0.071 JN	0.0047 JN	< 0.0011 U	0.082	0.0071 JN	< 0.0011 U	0.017 JN	0.0062 J	0.010 JN
PCB-118	31508-00-6	ng/g	3.4	0.29	0.065 JN	3.1	0.40	0.13	0.52	0.25	0.40 J+
PCB-12/13	2974-92-7	ng/g	0.075 J	0.0047 JN	< 0.0056 U	0.10 J	0.015 J	0.0026 JN	0.0087 J	0.0088 JN	< 0.0041 U
PCB-120	68194-12-7	ng/g	0.12	0.0069 J	< 0.00028 U	0.11	0.012	< 0.00022 U	0.012	< 0.00030 U	0.0061 JN
PCB-121	56558-18-0	ng/g	0.23	0.0040 J	< 0.00029 U	0.21	0.0090 J	< 0.00023 U	< 0.00021 U	< 0.00031 U	< 0.00030 U
PCB-122	76842-07-4	ng/g	< 0.021 U	< 0.0027 U	< 0.0013 U	0.040 JN	0.0054 JN	< 0.0013 U	0.0097 JN	< 0.0023 U	0.0074 JN
PCB-123	65510-44-3	ng/g	0.086	0.0051 J	< 0.0012 U	0.071 JN	0.0057 JN	0.0037 J	0.010 JN	0.0029 JN	0.0085 J
PCB-126	57465-28-8	ng/g	< 0.018 U	< 0.0022 U	< 0.0012 U	< 0.020 U	< 0.0019 U	< 0.0011 U	< 0.0020 U	< 0.0020 U	< 0.0018 U
PCB-127	39635-33-1	ng/g	< 0.019 U	< 0.0023 U	< 0.0012 U	< 0.019 U	< 0.0018 U	< 0.0012 U	< 0.0020 U	< 0.0020 U	< 0.0017 U
PCB-128/166	38380-07-3	ng/g	1.7	0.26	0.017 J	2.0	0.14	0.078	0.23	0.063	0.11
PCB-129/138/160/163	55215-18-4	ng/g	23	3.2	0.14	27	1.5	0.90	2.5	0.46	0.84
PCB-130	52663-66-8	ng/g	1.1	0.12	0.0091 JN	1.2	0.090	0.036	0.16	0.029	0.050
PCB-131	61798-70-7	ng/g	< 0.016 U	< 0.0034 U	< 0.0040 U	< 0.023 U	< 0.0021 U	< 0.0035 U	< 0.012 U	< 0.0038 U	< 0.0051 U
PCB-132	38380-05-1	ng/g	5.9	0.65	0.042	6.6	0.40	0.25	0.50	0.13	0.27
PCB-133	35694-04-3	ng/g	0.76	0.049	< 0.0036 U	0.73	0.047	0.0095 J	0.079	0.0081 J	0.015
PCB-134/143	52704-70-8	ng/g	2.0	0.15	< 0.0038 U	1.8	0.10	0.034	0.077	0.024 J	0.040
PCB-135/151	52744-13-5	ng/g	12	1.3	0.041 JN	13	0.74	0.28	0.77	0.16	0.28
PCB-136	38411-22-2	ng/g	4.2	0.28	0.021	4.1	0.21	0.090	0.16	0.053	0.093
PCB-137	35694-06-5	ng/g	0.48	0.043	< 0.0033 U	0.52	0.038	0.011 JN	0.040	0.014 JN	0.034
PCB-139/140	56030-56-9	ng/g	0.38	< 0.0028 U	< 0.0032 U	< 0.019 U	0.025	< 0.0028 U	0.045	< 0.0030 U	0.016 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S130	S131	S132	S133	S134	S135	S136	S137	S138
		Sample ID	PDI-SG-S130	PDI-SG-S131	PDI-SG-S132	PDI-SG-S133	PDI-SG-S134	PDI-SG-S135	PDI-SG-S136	PDI-SG-S137	PDI-SG-S138
		Sample Date	05 May 2018	05 May 2018	20 May 2018	05 May 2018	05 May 2018	14 May 2018	17 May 2018	17 May 2018	17 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-20 cm	0-30 cm	0-30 cm	0-17 cm	0-22 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0042 U	< 0.00043 U	< 0.0047 U	< 0.0036 U	< 0.00059 U	< 0.0015 U	< 0.0027 U	< 0.0033 U	< 0.0035 U
PCB-141	52712-04-6	ng/g	5.9	0.94	0.022	7.0	0.35	0.21	0.60	0.085	0.18
PCB-142	41411-61-4	ng/g	< 0.015 U	< 0.0032 U	< 0.0036 U	< 0.022 U	< 0.0020 U	< 0.0032 U	< 0.011 U	< 0.0034 U	< 0.0046 U
PCB-144	68194-14-9	ng/g	1.0	0.16	0.0047 JN	1.2	0.064	0.037	0.098	0.017	0.029
PCB-145	74472-40-5	ng/g	< 0.0063 U	0.0024 JN	< 0.00022 U	< 0.0045 U	0.0024 JN	< 0.00028 U	< 0.00031 U	< 0.00034 U	< 0.00021 U
PCB-146	51908-16-8	ng/g	4.8	0.51	0.029	5.0	0.33	0.12	0.77	0.079	0.15
PCB-147/149	68194-13-8	ng/g	28	2.6	0.13	26	1.5	0.81	1.8	0.39	0.80
PCB-148	74472-41-6	ng/g	0.27	0.012	< 0.00031 U	0.24	0.014	< 0.00040 U	0.021	< 0.00048 U	0.0027 JN
PCB-15	2050-68-2	ng/g	0.22	0.021	0.0062 JN	0.35	0.044	0.018	0.052	0.020 JN	0.020 JN
PCB-150	68194-08-1	ng/g	0.23	0.015	< 0.00021 U	0.22	0.011 JN	0.00076 J	0.0013 JN	0.0022 J	0.0019 JN
PCB-152	68194-09-2	ng/g	0.29	0.014	< 0.00023 U	0.27	0.012	< 0.00029 U	< 0.00032 U	< 0.00035 U	< 0.00022 U
PCB-153/168	35065-27-1	ng/g	27	3.8	0.13	29	1.7	0.81	2.9	0.38	0.71
PCB-154	60145-22-4	ng/g	1.1	0.059	0.0023 JN	1.1	0.085	0.0054 JN	0.079	0.0073 J	0.016 JN
PCB-155	33979-03-2	ng/g	0.16	0.0015 JN	< 0.00021 U	0.12	0.0064 J	< 0.00027 U	< 0.00030 U	< 0.00032 U	< 0.00020 U
PCB-156/157	38380-08-4	ng/g	1.2	0.24	0.0069 JN	1.6	0.11	0.063	0.21	0.042	0.068
PCB-158	74472-42-7	ng/g	1.9	0.30	0.011	2.4	0.13	0.081	0.22	0.040	0.076
PCB-159	39635-35-3	ng/g	0.34	0.069	< 0.0024 U	0.42	0.024	0.012	0.056	0.0047 J	0.0071 J
PCB-16	38444-78-9	ng/g	0.20	0.0083 JN	0.0057 J	0.22	0.021 JN	0.021	0.092	0.024 JN	0.018
PCB-161	74472-43-8	ng/g	< 0.0096 U	< 0.0021 U	< 0.0024 U	< 0.014 U	< 0.0013 U	< 0.0021 U	< 0.0072 U	< 0.0023 U	< 0.0031 U
PCB-162	39635-34-2	ng/g	< 0.0091 U	< 0.0020 U	< 0.0024 U	< 0.013 U	< 0.0012 U	< 0.0021 U	< 0.0072 U	< 0.0022 U	< 0.0030 U
PCB-164	74472-45-0	ng/g	1.9	0.22	0.011	2.1	0.12	0.069	0.16	0.031	0.063
PCB-165	74472-46-1	ng/g	< 0.011 U	< 0.0024 U	< 0.0027 U	< 0.016 U	< 0.0015 U	< 0.0024 U	< 0.0082 U	< 0.0026 U	< 0.0035 U
PCB-167	52663-72-6	ng/g	0.54	0.084	< 0.0018 U	0.69	0.044	0.023 JN	0.092	0.016	0.027
PCB-169	32774-16-6	ng/g	< 0.0087 U	< 0.0015 U	< 0.0018 U	< 0.012 U	< 0.00099 U	< 0.0016 U	< 0.0059 U	< 0.0017 U	< 0.0025 U
PCB-17	37680-66-3	ng/g	3.5	0.039	0.012	2.8	0.14	0.020	0.10	0.040	0.020 JN
PCB-170	35065-30-6	ng/g	8.6	2.2	0.057	12	0.78	0.47	2.4	0.14	0.29
PCB-171/173	52663-71-5	ng/g	2.9	0.60	0.017 JN	3.7	0.21	0.12	0.66	0.040	0.089
PCB-172	52663-74-8	ng/g	1.6	0.34	0.0082 J	1.8	0.13	0.066	0.39	0.021 JN	0.045
PCB-174	38411-25-5	ng/g	11	2.1	0.047 JN	13	0.74	0.37	1.9	0.15	0.26
PCB-175	40186-70-7	ng/g	0.38	0.084	< 0.0020 U	0.49	0.029	0.014 JN	0.092	0.0067 J	0.012
PCB-176	52663-65-7	ng/g	1.3	0.27	0.0046 JN	1.5	0.090	0.042	0.24	0.019	0.036
PCB-177	52663-70-4	ng/g	5.8	1.2	0.030	7.3	0.42	0.22	1.2	0.096	0.16
PCB-178	52663-67-9	ng/g	2.2	0.39	0.0088 JN	2.8	0.16	0.070	0.45	0.033	0.051
PCB-179	52663-64-6	ng/g	4.9	0.99	0.020 JN	5.6	0.33	0.14	0.70	0.069	0.12
PCB-18/30	37680-65-2	ng/g	0.74	0.026	0.018 JN	0.65	0.066	0.041 JN	0.25	0.082	0.045
PCB-180/193	35065-29-3	ng/g	19	4.6	0.12	24	1.6	0.91	5.1	0.30	0.52
PCB-181	74472-47-2	ng/g	< 0.0047 U	< 0.00032 U	< 0.0020 U	< 0.0057 U	< 0.00060 U	< 0.00071 U	0.065	0.0086 J	0.033
PCB-182	60145-23-5	ng/g	0.084 JN	< 0.00031 U	< 0.0019 U	0.14	< 0.00057 U	< 0.00068 U	< 0.0013 U	< 0.0013 U	< 0.00085 U
PCB-183/185	52663-69-1	ng/g	6.8	1.4	0.042	8.5	0.49	0.27	1.6	0.099	0.19
PCB-184	74472-48-3	ng/g	< 0.0038 U	< 0.00026 U	< 0.0016 U	< 0.0047 U	< 0.00049 U	< 0.00058 U	< 0.0011 U	< 0.0011 U	< 0.00072 U
PCB-186	74472-49-4	ng/g	< 0.0036 U	< 0.00025 U	< 0.0016 U	< 0.0045 U	< 0.00046 U	< 0.00056 U	< 0.0011 U	< 0.0011 U	< 0.00070 U
PCB-187	52663-68-0	ng/g	12	2.4	0.071 JN	14	0.89	0.39	2.5	0.20	0.33
PCB-188	74487-85-7	ng/g	< 0.0032 U	< 0.00022 U	< 0.0014 U	< 0.0039 U	< 0.00042 U	< 0.00048 U	< 0.00093 U	< 0.00091 U	< 0.00059 U
PCB-189	39635-31-9	ng/g	0.32	0.078	< 0.0018 U	0.45	0.030	0.019	0.089	< 0.0025 U	0.012
PCB-19	38444-73-4	ng/g	15	0.31	0.0016 JN	14	0.57	0.0086 J	0.040	0.020 JN	0.0082 J
PCB-190	41411-64-7	ng/g	1.3	0.43	0.011 JN	2.0	0.15	0.089	0.41	0.026	0.053
PCB-191	74472-50-7	ng/g	0.35	0.093	< 0.0015 U	0.55	0.030 JN	0.013 JN	0.11	0.0056 J	0.013
PCB-192	74472-51-8	ng/g	< 0.0037 U	< 0.00026 U	< 0.0016 U	< 0.0046 U	< 0.00047 U	< 0.00060 U	< 0.0012 U	< 0.0011 U	< 0.00074 U
PCB-194	35694-08-7	ng/g	4.4	1.2	0.026	5.9	0.50	0.23	1.4	0.079	0.13
PCB-195	52663-78-2	ng/g	2.1	0.57	0.012 JN	2.5	0.22	0.10	0.66	0.038	0.087
PCB-196	42740-50-1	ng/g	1.7	0.60	0.010 JN	2.1	0.23	0.085	0.57	0.029 JN	0.055
PCB-197	33091-17-7	ng/g	0.18	0.042	< 0.0015 U	0.16	0.016	0.0049 JN	0.053	< 0.00077 U	0.0057 JN
PCB-198/199	68194-17-2	ng/g	3.3	1.1	0.029	3.6	0.41	0.17	1.0	0.088 JN	0.13
PCB-2	2051-61-8	ng/g	0.055 JN	0.0093 J	< 0.00048 U	0.035 JN	0.015 J+	0.0019 JN	0.0055 JN	0.0077 J	0.0077 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S130	S131	S132	S133	S134	S135	S136	S137	S138
		Sample ID	PDI-SG-S130	PDI-SG-S131	PDI-SG-S132	PDI-SG-S133	PDI-SG-S134	PDI-SG-S135	PDI-SG-S136	PDI-SG-S137	PDI-SG-S138
		Sample Date	05 May 2018	05 May 2018	20 May 2018	05 May 2018	05 May 2018	14 May 2018	17 May 2018	17 May 2018	17 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-20 cm	0-30 cm	0-30 cm	0-17 cm	0-22 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	1.6	0.070	0.042	1.3	0.18	0.065	0.36	0.12	0.13
PCB-200	52663-73-7	ng/g	0.47	0.14	< 0.0013 U	0.48	0.045	0.020	0.13	0.0073 J	0.018
PCB-201	40186-71-8	ng/g	0.53	0.13	< 0.0014 U	0.49	0.048	0.018	0.13	0.0082 JN	0.017
PCB-202	2136-99-4	ng/g	0.86	0.19	0.0042 J	0.72	0.070	0.023	0.16	0.020	0.025
PCB-203	52663-76-0	ng/g	1.9	0.71	0.016 JN	2.3	0.27	0.11	0.65	0.051	0.083
PCB-204	74472-52-9	ng/g	< 0.0081 U	< 0.00073 U	< 0.0015 U	< 0.0075 U	< 0.0011 U	< 0.00077 U	< 0.0012 U	< 0.00077 U	< 0.00064 U
PCB-205	74472-53-0	ng/g	0.22	0.065	< 0.0033 U	0.26	0.026	< 0.0030 U	0.081	< 0.0021 U	0.0098
PCB-206	40186-72-9	ng/g	5.8 JN	0.29 JN	< 0.0056 U	1.0	0.20 JN	0.15	0.50	0.074	0.12
PCB-207	52663-79-3	ng/g	0.44	0.038	< 0.0040 U	0.14	0.016	0.010	0.076	0.0088 J	0.020
PCB-208	52663-77-1	ng/g	1.9	0.053	< 0.0041 U	0.18	0.034	0.021	0.097	0.024 JN	0.030
PCB-209	2051-24-3	ng/g	5.5	0.083	0.011 JN	0.18	0.065	0.27	0.39	0.10	0.13
PCB-21/33	55702-46-0	ng/g	1.3	0.027	0.017 J	0.85	0.075	0.022	0.13	0.045	0.036
PCB-22	38444-85-8	ng/g	0.15 JN	0.018	0.010	0.15	0.032	0.020	0.11	0.036	0.034
PCB-23	55720-44-0	ng/g	< 0.015 U	< 0.00064 U	< 0.00086 U	< 0.011 U	< 0.0011 U	< 0.00052 U	< 0.0014 U	< 0.0013 U	< 0.0012 U
PCB-24	55702-45-9	ng/g	< 0.0025 U	< 0.00038 U	< 0.00048 U	< 0.0032 U	< 0.00031 U	< 0.00025 U	0.0040 JN	0.0015 JN	< 0.00057 U
PCB-25	55712-37-3	ng/g	0.75	0.011 J	0.0030 JN	0.56	0.030	0.0033 JN	0.023	0.011 J	0.013 JN
PCB-26/29	38444-81-4	ng/g	0.34	0.012 J	0.0048 JN	0.29	0.017 J	0.0080 J	0.046	0.020 J	0.018 J
PCB-27	38444-76-7	ng/g	2.7	0.023	< 0.00041 U	2.0	0.078	0.0038 J	0.025	0.0057 J	0.0038 JN
PCB-3	2051-62-9	ng/g	0.038 JN	0.0038 J	< 0.00053 U	0.067	0.016	0.0029 JN	0.0052 J	0.0027 J	0.0075 J
PCB-31	16606-02-3	ng/g	0.45	0.045	0.027	0.50	0.099	0.049	0.28	0.10	0.084
PCB-32	38444-77-8	ng/g	3.0	0.020	0.0056 JN	2.2	0.074	0.019	0.14	0.028	0.025
PCB-34	37680-68-5	ng/g	0.021 J	< 0.00066 U	< 0.00089 U	0.014 J	< 0.0011 U	< 0.00054 U	< 0.0014 U	< 0.0013 U	< 0.0012 U
PCB-35	37680-69-6	ng/g	< 0.015 U	0.0022 J	< 0.00087 U	< 0.011 U	0.0036 J	0.0012 J	0.0022 JN	0.0018 JN	0.0012 JN
PCB-36	38444-87-0	ng/g	< 0.013 U	< 0.00057 U	< 0.00084 U	< 0.0097 U	< 0.00099 U	< 0.00051 U	< 0.0013 U	< 0.0012 U	< 0.0011 U
PCB-37	38444-90-5	ng/g	0.17	0.019	0.010	0.17	0.043	0.022	0.080	0.031	0.042
PCB-38	53555-66-1	ng/g	0.044 JN	< 0.00062 U	< 0.00090 U	< 0.011 U	< 0.0011 U	< 0.00055 U	< 0.0014 U	< 0.0013 U	< 0.0012 U
PCB-39	38444-88-1	ng/g	< 0.013 U	< 0.00057 U	< 0.00081 U	< 0.0096 U	0.0019 J	< 0.00049 U	0.0026 JN	< 0.0012 U	< 0.0011 U
PCB-4	13029-08-8	ng/g	4.1	0.15	< 0.0080 U	6.2	0.25	0.012 JN	0.035	0.028 JN	0.012 JN
PCB-40/41/71	38444-93-8	ng/g	6.1	0.059	0.021 J	3.7	0.16	0.063	0.41	0.077	0.14
PCB-42	36559-22-5	ng/g	1.2	0.020	0.010 JN	0.70	0.061	0.031	0.19	0.038	0.068
PCB-43/73	70362-46-8	ng/g	2.4	0.014 J	< 0.0011 U	1.6	0.060	0.0068 JN	0.027	0.0052 JN	0.0070 J
PCB-44/47/65	41464-39-5	ng/g	70	0.35	0.046	45	1.3	0.11	0.75	0.16	0.30
PCB-45/51	70362-45-7	ng/g	42	0.10	0.0070 JN	25	0.51	0.025 JN	0.16	0.035	0.038 JN
PCB-46	41464-47-5	ng/g	1.4	0.0029 JN	< 0.0015 U	0.77	0.025	0.010	0.049 JN	0.0044 JN	0.014
PCB-48	70362-47-9	ng/g	0.49	0.0063 JN	0.0047 JN	0.33	0.028 JN	0.017	0.11	0.026 JN	0.034
PCB-49/69	41464-40-8	ng/g	15	0.11	0.030 JN	9.2	0.39	0.061	0.44	0.11	0.19
PCB-5	16605-91-7	ng/g	< 0.0051 U	< 0.00052 U	< 0.0062 U	< 0.0044 U	< 0.00071 U	< 0.0020 U	< 0.0035 U	< 0.0043 U	< 0.0046 U
PCB-50/53	62796-65-0	ng/g	16	0.063	0.0047 JN	9.8	0.25	0.019 J	0.11	0.028	0.034
PCB-52	35693-99-3	ng/g	8.0	0.13	0.057	4.5	0.39	0.13	0.85	0.20	0.34
PCB-54	15968-05-5	ng/g	9.5	0.078	< 0.000092 U	6.3	0.19	< 0.000072 U	0.0022 JN	0.0035 JN	0.00039 JN
PCB-55	74338-24-2	ng/g	< 0.039 U	< 0.0012 U	< 0.00089 U	< 0.025 U	< 0.0040 U	< 0.00080 U	0.011 JN	< 0.0014 U	< 0.0016 U
PCB-56	41464-43-1	ng/g	0.38	0.030	0.018	0.18	0.070	0.048	0.30	0.064	0.16
PCB-57	70424-67-8	ng/g	< 0.040 U	< 0.0012 U	< 0.00090 U	< 0.025 U	< 0.0041 U	< 0.00082 U	< 0.0026 U	< 0.0015 U	< 0.0016 U
PCB-58	41464-49-7	ng/g	0.39	< 0.0012 U	< 0.00091 U	0.27	0.0084 J	< 0.00083 U	< 0.0027 U	< 0.0015 U	< 0.0017 U
PCB-59/62/75	74472-33-6	ng/g	3.0	0.014 J	0.0056 J	1.9	0.065	0.012 J	0.055 JN	0.013 J	0.019 JN
PCB-6	25569-80-6	ng/g	0.094	0.0057 J	< 0.0055 U	0.13	0.011	0.0024 JN	0.015	0.0096 JN	< 0.0041 U
PCB-60	33025-41-1	ng/g	< 0.039 U	0.011 J	0.0032 JN	< 0.025 U	0.017 JN	0.022	0.16	0.026 JN	0.077
PCB-61/70/74/76	33284-53-6	ng/g	1.9	0.15	0.084	1.2	0.32	0.13	0.84	0.24	0.43
PCB-63	74472-34-7	ng/g	< 0.035 U	0.0033 J	< 0.00082 U	0.097	0.0071 JN	0.0031 J	0.017 JN	0.0042 JN	0.010
PCB-64	52663-58-8	ng/g	0.64	0.029	0.017	0.28 JN	0.068	0.048	0.32	0.059	0.12
PCB-66	32598-10-0	ng/g	2.2	0.10	0.054	1.5	0.25	0.096	0.63	0.14	0.34
PCB-67	73575-53-8	ng/g	< 0.037 U	0.0020 J	< 0.00078 U	< 0.023 U	0.0052 J	< 0.00071 U	0.0089 JN	0.0043 J	0.0081 JN
PCB-68	73575-52-7	ng/g	0.73	0.0069 J	< 0.00080 U	0.50	0.019 JN	< 0.00072 U	< 0.0023 U	0.0019 JN	0.011 JN
PCB-7	33284-50-3	ng/g	0.024 JN	0.00083 JN	< 0.0056 U	0.035 J	0.0040 JN	< 0.0018 U	< 0.0032 U	< 0.0039 U	< 0.0042 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S130	S131	S132	S133	S134	S135	S136	S137	S138
		Sample ID	PDI-SG-S130	PDI-SG-S131	PDI-SG-S132	PDI-SG-S133	PDI-SG-S134	PDI-SG-S135	PDI-SG-S136	PDI-SG-S137	PDI-SG-S138
		Sample Date	05 May 2018	05 May 2018	20 May 2018	05 May 2018	05 May 2018	14 May 2018	17 May 2018	17 May 2018	17 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-20 cm	0-30 cm	0-30 cm	0-17 cm	0-22 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	< 0.039 U	0.0030 J	< 0.00088 U	< 0.025 U	0.011	< 0.00080 U	< 0.0026 U	< 0.0014 U	0.0079 J
PCB-77	32598-13-3	ng/g	< 0.038 U	0.010 J	0.0049 J	< 0.023 U	0.014 JN	0.011 JN	0.046	0.015	0.035
PCB-78	70362-49-1	ng/g	< 0.039 U	< 0.0012 U	< 0.00091 U	< 0.024 U	< 0.0040 U	< 0.00083 U	< 0.0027 U	< 0.0015 U	< 0.0017 U
PCB-79	41464-48-6	ng/g	< 0.033 U	< 0.0010 U	< 0.00079 U	< 0.021 U	< 0.0034 U	< 0.00072 U	0.0063 J	0.0024 J	0.011 JN
PCB-8	34883-43-7	ng/g	0.14	0.020 J	0.0076 JN	0.26	0.032	0.024	0.055 JN	0.031	0.011 JN
PCB-80	33284-52-5	ng/g	< 0.034 U	< 0.0011 U	< 0.00078 U	< 0.021 U	< 0.0035 U	< 0.00070 U	< 0.0023 U	< 0.0013 U	< 0.0014 U
PCB-81	70362-50-4	ng/g	< 0.035 U	< 0.0011 U	< 0.00082 U	< 0.023 U	< 0.0038 U	< 0.00076 U	< 0.0023 U	< 0.0013 U	< 0.0015 U
PCB-82	52663-62-4	ng/g	0.38	0.029	0.0083 JN	0.23 JN	0.051	0.029	0.11	0.028 JN	0.075
PCB-83/99	60145-20-2	ng/g	9.7	0.36	0.057 JN	10	0.64	0.11	0.52	0.19	0.35
PCB-84	52663-60-2	ng/g	2.1	0.058	0.020	1.5	0.15	0.048 JN	0.20	0.067	0.13
PCB-85/116/117	65510-45-4	ng/g	1.0	0.061	0.014 JN	0.50 JN	0.086	0.042	0.16	0.052 JN	0.11
PCB-86/87/97/109/119/125	55312-69-1	ng/g	5.5	0.19	0.051 JN	4.6	0.36	0.13	0.51	0.18	0.36
PCB-88/91	55215-17-3	ng/g	3.8	0.12	0.0098 JN	3.2	0.19	0.036	0.12	0.049	0.077
PCB-89	73575-57-2	ng/g	< 0.0032 U	0.0037 J	< 0.00044 U	< 0.0042 U	0.0065 J	< 0.00035 U	0.021	< 0.00048 U	0.0090 J
PCB-9	34883-39-1	ng/g	0.025 JN	0.0013 JN	< 0.0058 U	0.034 JN	0.0033 JN	< 0.0018 U	0.0058 JN	< 0.0040 U	< 0.0043 U
PCB-90/101/113	68194-07-0	ng/g	14	0.53	0.10	13	0.76	0.27	0.80	0.30	0.52
PCB-92	52663-61-3	ng/g	4.3	0.099	0.023	4.0	0.23	0.042	0.15	0.055	0.098
PCB-93/100	73575-56-1	ng/g	14	0.14	0.0028 JN	10	0.39	0.0071 J	< 0.00028 U	0.0079 JN	0.0088 JN
PCB-94	73575-55-0	ng/g	2.2	0.025	< 0.00044 U	1.7	0.059	< 0.00035 U	< 0.00032 U	< 0.00048 U	< 0.00046 U
PCB-95	38379-99-6	ng/g	11	0.28	0.090	8.5	0.61	0.25	0.66	0.22	0.39
PCB-96	73575-54-9	ng/g	1.1	0.0075 JN	< 0.00033 U	0.82	0.028	< 0.00026 U	0.0087 JN	0.0027 J	< 0.00035 U
PCB-98/102	60233-25-2	ng/g	4.0	0.065	0.0029 JN	3.6	0.13	0.0063 JN	0.036	0.011 J	0.020
Total PCBs (b)	T_PCBCg (PDI)	ng/g	541	43	2.3	475	27	11	48	8	13
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 1.1 UJ	< 1.2 UJ	< 0.65 U	18 J	13 J	12 J	38	1.9	150
2,4-DDE	3424-82-6	µg/kg	< 1.1 UJ	< 1.2 UJ	< 0.79 U	< 1.2 UJ	< 1.1 UJ	2.8	5.4	< 1.3 U	1.8
2,4-DDT	789-02-6	µg/kg	< 1.1 UJ	< 1.2 UJ	< 0.94 U	5.1 J	2.4 J	8.4 J	12	< 1.3 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	0.85 J	1.6 J	< 0.65 U	71 J	37 J	21 J	54	4.5	380
4,4'-DDE	72-55-9	µg/kg	1.9 J	4.2 J	< 0.70 U	43 J	27 J	56	35	2.7	19
4,4'-DDT	50-29-3	µg/kg	2.0 J	0.98 J	< 0.65 U	3.0 J	26 J	19 J	760	2.5	410 J
DDx (b)	T_DDx (PDI)	µg/kg	5.3	7.4	< 0.94 U	141	106	119	904	12	961
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	49	5.4	0.79	100	30	6.8 J	4.9	3.8	11
Acenaphthene	83-32-9	µg/kg	50	4.1	1.6	33	19	12	4.2	7.0	16
Acenaphthylene	208-96-8	µg/kg	78 J	2.7	0.63	31	13	83	6.3	5.3	15
Anthracene	120-12-7	µg/kg	130 J	7.9	1.5	71	31	60	12	14	27
Benz(a)anthracene	56-55-3	µg/kg	670	26	5.9	160	68	550	48	54	93
Benzo(a)pyrene	50-32-8	µg/kg	920	29	6.0	140	60	800	65	65	120
Benzo(b)fluoranthene	205-99-2	µg/kg	870	43	15	190	76	750	78	78	130
Benzo(g,h,i)perylene	191-24-2	µg/kg	760	24	3.4	110	44	600	51	50	89
Benzo(k)fluoranthene	207-08-9	µg/kg	280 J	14	5.3	65	25	270	25	23	43
Chrysene	218-01-9	µg/kg	830	47	16	230	88	680	72	87	120
Dibenz(a,h)anthracene	53-70-3	µg/kg	230 J	4.9	0.80	26	7.8	82	9.7	8.3	16
Fluoranthene	206-44-0	µg/kg	1100	67	51	490	160	1200	100	140	200
Fluorene	86-73-7	µg/kg	60	6.3	2.4	69	24	13	5.4	6.2	13
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	630	23	3.8	110	42	610	51	48	88
Naphthalene	91-20-3	µg/kg	320 J	7.5	1.1	290	87	46	12	7.2	34
Phenanthrene	85-01-8	µg/kg	350 J	27	30	350	100	180	44	47	100
Pyrene	129-00-0	µg/kg	1400	66	34	540	190	1600	120	150	250
Total PAHs (b)	T_PAH (PDI)	µg/kg	8727	405	179	3005	1065	7543	709	794	1365
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	1371	43	9	213	87	1076	93	92	168
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	45.1	40.1	73.2	42.5	48.0	67.7	61.4	38.1	57.5
Total Solids@104C - E160.3M (f)	TSOLID	%	47.0	40.4	75.3	40.4	46.2	70.5	62.7	39.4	59.4
Total Solids@70C	TSOLID70	%	47	40	74	40	46	71	63	38	59
Gravel	GS-Gravel	%	0.3	0	0	0	0.3	5.1	0	0	0
Sand, Coarse	GS-Csand	%	0.7	0	8.3 L	0.3	0.4	3.1	0.2	0	0

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S130	S131	S132	S133	S134	S135	S136	S137	S138
		Sample ID	PDI-SG-S130	PDI-SG-S131	PDI-SG-S132	PDI-SG-S133	PDI-SG-S134	PDI-SG-S135	PDI-SG-S136	PDI-SG-S137	PDI-SG-S138
		Sample Date	05 May 2018	05 May 2018	20 May 2018	05 May 2018	05 May 2018	14 May 2018	17 May 2018	17 May 2018	17 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-20 cm	0-30 cm	0-30 cm	0-17 cm	0-22 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	3.8	0.1	47.8	2.6	1.5	30.6	2.3	0.2	0.9
Sand, Fine (#200) (d)	GS-Fsand-200	%	43.07	9.864	34.14	19.09	18	49.86	69.08	11.64	49.75
Sand, Fine (#230) (d)	GS-Fsand	%	47.0	13.0	34.7	22.7	22.3	50.4	71.9	15.3	54.7
Silt (#200) (d)	GS-Silt-200	%	45.42	77.63	8.951	67.10	70.59	11.23	22.91	74.95	42.34
Silt (#230) (d)	GS-Silt	%	41.5	74.5	8.4	63.5	66.3	10.7	20.1	71.3	37.4
Clay	GS-Clay	%	6.7	12.4	0.8	10.8	9.1	0	5.6	13.3	7.0
Percent Fines (e)	GS-FINES	%	52.12	90.03	9.751	77.9	79.69	11.23	28.51	88.25	49.34
Total Organic Carbon	TOC	mg/kg	64000	26000	2300	76000	21000	6700	6900	28000	12000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S139	S141	S142	S143	S144	S145	S145	S146	S147
		Sample ID	PDI-SG-S139	PDI-SG-S141	PDI-SG-S142	PDI-SG-S143	PDI-SG-S144	PDI-SG-S145	PDI-SG-S145-D	PDI-SG-S146	PDI-SG-S147
		Sample Date	17 May 2018	17 May 2018	18 May 2018	05 May 2018	13 May 2018	05 May 2018	05 May 2018	17 May 2018	04 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-26 cm	0-29 cm	0-23 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-29 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.14	0.082	0.071	0.043	2.6 J	4.1 J	2.2 J	0.17	0.20
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.14	0.034	0.39	0.0072	0.18	0.73	0.57	0.33	0.040
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.044	0.012	0.21	0.00094 J+	0.010	0.045	0.036	0.11	0.0029 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0011 J	0.0011 J	0.0021 JN	0.00069 JN	0.019	0.011	0.0096	0.0010 J	0.0018 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.57	0.057	0.73	0.0015 J	0.020	0.067	0.061	0.56	0.0038 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0053 J	0.0030 J	0.0053	0.0022 J	0.12	0.075	0.058	0.0037 J	0.0083
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.15	0.013	0.19	0.00061 J	0.0084	0.022	0.020	0.18	0.0016 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0032 J	0.0025 J	0.0024 JN	0.0016 J	0.051	0.021	0.016	0.0032 J	0.0038 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0025 U	0.0014 J+	0.0098	< 0.00054 U	< 0.0013 U	0.0021 J+	0.0021 J+	0.010	< 0.00058 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00067 J	0.00048 JN	< 0.00064 U	0.00028 JN	0.012	0.0029 J	0.0029 J	0.00063 J	0.0011 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.39	0.029	0.49	0.00031 JN	0.0053 J	0.0076	0.0074	0.26	0.00075 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.030	0.0020 JN	0.038	0.00030 JN	0.0081	0.0070	0.0062	0.036	0.00078 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.14	0.014	0.26	0.00047 JN	0.0049 J	0.0093	0.0093	0.092	0.00087 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00057 J	< 0.00019 U	0.00050 JN	< 0.000079 U	0.0023	0.0011	0.0012	< 0.00012 U	0.00040 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.13	0.027	0.49 J	0.00060 J+	0.0029	0.0045	0.0043	0.094	0.00067 J+
OCDD	3268-87-9	µg/kg	1.3	0.70	0.47	0.36	20 J	33 J	21 J	1.9	1.6
OCDF	39001-02-0	µg/kg	0.21	0.089	1.1	0.019	0.43	2.4	1.8	0.48	0.11
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.15	0.018	0.25	0.0018	0.073	0.087	0.06	0.13	0.0068
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.15	0.017	0.25	0.0014	0.073	0.087	0.06	0.13	0.0066
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.15	0.017	0.25	0.0013	0.073	0.087	0.06	0.13	0.0064
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0059 J	0.0039 J	0.015 J	0.0039 JN	< 0.00045 U	0.046 J	0.044 J	0.0068 JN	0.0035 JN
PCB-10	33146-45-1	ng/g	< 0.0035 U	< 0.00077 U	< 0.019 U	< 0.0020 U	< 0.0056 U	0.0062 J	< 0.0027 U	< 0.00077 U	< 0.0017 U
PCB-103	60145-21-3	ng/g	0.025	0.0066 JN	< 0.0022 U	0.013 JN	0.014	0.30	0.35	0.017	0.010 JN
PCB-104	56558-16-8	ng/g	< 0.00041 U	< 0.00026 U	< 0.0017 U	< 0.0017 U	< 0.00033 U	< 0.00083 U	< 0.00095 U	< 0.00048 U	< 0.00022 U
PCB-105	32598-14-4	ng/g	0.30	0.38	1.3	0.067	0.094	0.72	0.80	0.89	0.087
PCB-106	70424-69-0	ng/g	< 0.0026 U	< 0.0034 U	< 0.010 U	< 0.0032 U	< 0.0020 U	< 0.013 U	< 0.0082 U	< 0.0039 U	< 0.0018 U
PCB-107	70424-68-9	ng/g	0.087	0.057	0.25	0.018 JN	0.027	0.56	0.65	0.13	0.024
PCB-108/124	70362-41-3	ng/g	0.030	0.031	0.080 JN	< 0.0033 U	0.0096 J	0.091 J	0.095 J	0.067	0.0080 J
PCB-11	2050-67-1	ng/g	0.074	0.057 JN	0.065 J	0.046	0.063	0.032 JN	0.032 J+	0.078	0.042
PCB-110/115	38380-03-9	ng/g	1.1	0.88	4.0	0.30	0.47	4.6	4.5	1.7	0.38
PCB-111	39635-32-0	ng/g	0.0060 J	< 0.00023 U	< 0.0015 U	< 0.0015 U	< 0.00030 U	0.054 J	0.054 J	< 0.00043 U	< 0.00021 U
PCB-112	74472-36-9	ng/g	< 0.00040 U	< 0.00025 U	< 0.0016 U	< 0.0017 U	< 0.00032 U	< 0.00081 U	0.035 J	< 0.00047 U	< 0.00022 U
PCB-114	74472-37-0	ng/g	0.019 JN	0.024	0.071	< 0.0030 U	< 0.0019 U	0.060 J	0.068 J	0.075	0.0043 J
PCB-118	31508-00-6	ng/g	0.83	0.67	2.5	0.19	0.29	2.9	3.1	1.5	0.24
PCB-12/13	2974-92-7	ng/g	0.013 JN	0.0067 J	0.033 JN	< 0.0017 U	< 0.0051 U	0.033 JN	0.033 J	0.010 JN	0.0037 JN
PCB-120	68194-12-7	ng/g	0.0082 J	< 0.00023 U	0.027 JN	< 0.0015 U	< 0.00031 U	0.15	0.16	< 0.00042 U	0.0043 J
PCB-121	56558-18-0	ng/g	< 0.00040 U	< 0.00024 U	< 0.0016 U	< 0.0016 U	< 0.00032 U	< 0.00079 U	0.026 J	< 0.00046 U	< 0.00021 U
PCB-122	76842-07-4	ng/g	0.015 JN	0.024	0.045 JN	< 0.0036 U	< 0.0024 U	0.039 J	0.045 JN	0.049	0.0039 J
PCB-123	65510-44-3	ng/g	0.016 JN	0.022 JN	0.046 JN	< 0.0029 U	0.0056 JN	0.027 JN	0.034 J	0.048	0.0025 JN
PCB-126	57465-28-8	ng/g	< 0.0028 U	< 0.0035 U	< 0.011 U	< 0.0031 U	< 0.0022 U	< 0.013 U	< 0.0079 U	0.0049 JN	< 0.0018 U
PCB-127	39635-33-1	ng/g	< 0.0026 U	< 0.0033 U	< 0.010 U	< 0.0031 U	< 0.0020 U	< 0.012 U	< 0.0078 U	< 0.0037 U	< 0.0018 U
PCB-128/166	38380-07-3	ng/g	0.14	0.087	0.47	0.086	0.089	0.74	0.79	0.18	< 0.0027 U
PCB-129/138/160/163	55215-18-4	ng/g	1.1	0.56	4.9	0.95	0.74	7.7	7.7	1.2	0.70
PCB-130	52663-66-8	ng/g	0.075	0.039	0.28	0.052	0.046 JN	0.63	0.65	0.082	0.038
PCB-131	61798-70-7	ng/g	0.016	0.0057 JN	< 0.033 U	< 0.0073 U	< 0.0041 U	< 0.0077 U	< 0.0094 U	0.016	< 0.0038 U
PCB-132	38380-05-1	ng/g	0.36	0.18	1.5	0.30	0.21	2.7	2.8	0.22 JN	0.20
PCB-133	35694-04-3	ng/g	0.031	0.010 J	0.086	0.018	0.014 JN	0.68	0.69	0.024	0.016
PCB-134/143	52704-70-8	ng/g	0.052 JN	0.035	0.22	0.045	0.032	0.47	0.47	0.080	0.026 JN
PCB-135/151	52744-13-5	ng/g	0.41	0.19	2.1	0.51	0.26	5.3	8.7	0.46	0.29
PCB-136	38411-22-2	ng/g	0.15	0.066	0.62	0.16	0.089	1.5 J	2.6 J	0.16	0.085
PCB-137	35694-06-5	ng/g	0.047	0.023	0.13	0.014	0.022	0.16	0.16	0.052 JN	0.013 JN
PCB-139/140	56030-56-9	ng/g	0.029	0.0099 J	0.079 J	0.010 J	0.0092 JN	0.36	0.35	0.031	0.0097 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S139	S141	S142	S143	S144	S145	S145	S146	S147
		Sample ID	PDI-SG-S139	PDI-SG-S141	PDI-SG-S142	PDI-SG-S143	PDI-SG-S144	PDI-SG-S145	PDI-SG-S145-D	PDI-SG-S146	PDI-SG-S147
		Sample Date	17 May 2018	17 May 2018	18 May 2018	05 May 2018	13 May 2018	05 May 2018	05 May 2018	17 May 2018	04 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-26 cm	0-29 cm	0-23 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-29 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.0027 U	< 0.00060 U	< 0.015 U	< 0.0016 U	< 0.0043 U	< 0.0019 U	< 0.0021 U	< 0.00060 U	< 0.0013 U
PCB-141	52712-04-6	ng/g	0.21	0.11	1.1	0.26	0.12	1.4	1.4	0.28	0.14
PCB-142	41411-61-4	ng/g	< 0.0061 U	< 0.0020 U	< 0.030 U	< 0.0069 U	< 0.0037 U	< 0.0073 U	< 0.0088 U	0.027	< 0.0034 U
PCB-144	68194-14-9	ng/g	0.039	0.023 JN	0.26	0.053 JN	0.025	0.32	0.40 J-	0.073	0.027
PCB-145	74472-40-5	ng/g	< 0.00073 U	0.00032 JN	< 0.0012 U	< 0.00096 U	< 0.00024 U	< 0.00020 U	< 0.0035 U	0.0032 J	< 0.00026 U
PCB-146	51908-16-8	ng/g	0.27	0.088	1.0	0.17	0.16	4.3	4.6	0.19	0.15
PCB-147/149	68194-13-8	ng/g	1.2	0.42	4.5	0.90	0.76	9.7	9.6	1.0	0.69
PCB-148	74472-41-6	ng/g	0.0075 J	0.0012 J	0.027 J	0.0021 JN	0.0046 JN	0.26	0.49	0.0036 J	0.0025 JN
PCB-15	2050-68-2	ng/g	0.058	0.019	0.15 JN	0.013 JN	0.031	0.14	0.16	0.048	0.022
PCB-150	68194-08-1	ng/g	0.0057 J	0.0017 J	< 0.0011 U	0.0021 J	0.0026 J	0.14	0.25	0.0025 JN	0.0022 JN
PCB-152	68194-09-2	ng/g	< 0.00075 U	0.00021 JN	< 0.0012 U	< 0.00092 U	< 0.00024 U	< 0.00019 U	< 0.0034 U	0.0025 JN	0.00052 JN
PCB-153/168	35065-27-1	ng/g	1.1	0.45	4.4	0.95	0.73	9.7	9.8	1.1	0.65
PCB-154	60145-22-4	ng/g	0.039	0.0084 JN	0.093	0.023	0.027	1.1	1.8	0.023	0.017 JN
PCB-155	33979-03-2	ng/g	< 0.00070 U	< 0.000077 U	< 0.0011 U	< 0.00088 U	< 0.00023 U	0.0070 JN	0.0095 JN	< 0.00053 U	< 0.00025 U
PCB-156/157	38380-08-4	ng/g	0.11	0.055	0.38	0.073	0.054 JN	0.48	0.49	0.13	0.053
PCB-158	74472-42-7	ng/g	0.093	0.055	0.44	0.086	0.053	0.46	0.47	0.13	0.054
PCB-159	39635-35-3	ng/g	0.010 J	0.0060 JN	0.050	0.019	0.0077 JN	0.090 J	0.084 J	0.014	0.0055 J
PCB-16	38444-78-9	ng/g	0.056	0.048	0.41	0.0080 JN	0.0093 JN	0.25	0.24	0.054	0.020
PCB-161	74472-43-8	ng/g	< 0.0041 U	< 0.0013 U	< 0.020 U	< 0.0045 U	< 0.0025 U	< 0.0048 U	< 0.0058 U	< 0.0021 U	< 0.0023 U
PCB-162	39635-34-2	ng/g	0.0048 J	< 0.0012 U	< 0.020 U	< 0.0043 U	< 0.0024 U	< 0.0045 U	< 0.0055 U	< 0.0020 U	0.0028 JN
PCB-164	74472-45-0	ng/g	0.085	0.041	0.35	0.071	0.057	0.64	0.66	0.079 JN	0.050
PCB-165	74472-46-1	ng/g	< 0.0046 U	< 0.0015 U	< 0.023 U	< 0.0051 U	< 0.0028 U	< 0.0054 U	< 0.0066 U	< 0.0024 U	< 0.0026 U
PCB-167	52663-72-6	ng/g	0.035	0.019	0.13	0.026	0.024	0.17	0.16	0.047	0.021
PCB-169	32774-16-6	ng/g	< 0.0032 U	< 0.00099 U	0.031 JN	< 0.0033 U	< 0.0020 U	< 0.0036 U	< 0.0041 U	< 0.0016 U	< 0.0017 U
PCB-17	37680-66-3	ng/g	0.12	0.037	0.55	0.013 JN	0.025	0.35	0.35	0.066	0.037
PCB-170	35065-30-6	ng/g	0.42	0.15	2.2	0.48	0.26	2.7	2.8	0.40	0.21
PCB-171/173	52663-71-5	ng/g	0.13	0.054	0.71	0.14	0.077	0.90	0.94	0.15	0.059 JN
PCB-172	52663-74-8	ng/g	0.065	0.027	0.37	0.084	0.045	0.51	0.55	0.073	0.038
PCB-174	38411-25-5	ng/g	0.40	0.18	1.9	0.54	0.27	3.4	3.4	0.45	0.23
PCB-175	40186-70-7	ng/g	0.024	0.0077 JN	0.10	0.020	0.0071 JN	0.14	0.13	0.019	0.0075 JN
PCB-176	52663-65-7	ng/g	0.053	0.018	0.26	0.064	0.036	0.46	0.44	0.055	0.025
PCB-177	52663-70-4	ng/g	0.24	0.10	1.2	0.31	0.16	2.5	2.6	0.25	0.13
PCB-178	52663-67-9	ng/g	0.094	0.034	0.39	0.095	0.064	1.0	1.0	0.086	0.054
PCB-179	52663-64-6	ng/g	0.18	0.067	0.81	0.22	0.14	1.9	2.0	0.18	0.11
PCB-18/30	37680-65-2	ng/g	0.17	0.075	1.3	0.019 J	0.040	0.57	0.58	0.12	0.066
PCB-180/193	35065-29-3	ng/g	0.85	0.33	4.2	1.0	0.57	6.0	6.3	0.87	0.49
PCB-181	74472-47-2	ng/g	0.048 JN	0.0078 J	0.22 JN	< 0.0034 U	< 0.00056 U	< 0.00098 U	< 0.0016 U	0.19	< 0.00034 U
PCB-182	60145-23-5	ng/g	0.010 J	< 0.00021 U	0.029 J	< 0.0032 U	0.0041 J	0.066 JN	0.068 J	< 0.00048 U	< 0.00032 U
PCB-183/185	52663-69-1	ng/g	0.29	0.097	1.4	0.31	0.19	2.0	2.0	0.30	0.16
PCB-184	74472-48-3	ng/g	< 0.0017 U	< 0.00018 U	< 0.0049 U	< 0.0028 U	< 0.00046 U	< 0.00080 U	< 0.0013 U	< 0.00041 U	< 0.00028 U
PCB-186	74472-49-4	ng/g	< 0.0017 U	< 0.00018 U	< 0.0048 U	< 0.0027 U	< 0.00045 U	< 0.00076 U	< 0.0012 U	0.0083 JN	< 0.00027 U
PCB-187	52663-68-0	ng/g	0.51	0.20	2.2	0.59	0.37	5.1	5.3	0.51	0.30
PCB-188	74487-85-7	ng/g	< 0.0014 U	< 0.00017 U	< 0.0043 U	< 0.0025 U	< 0.00038 U	0.037 J	0.036 J	< 0.00037 U	< 0.00024 U
PCB-189	39635-31-9	ng/g	0.011	0.0052 J	0.11	0.017 JN	< 0.0025 U	0.10	0.10	0.016	0.0068 J
PCB-19	38444-73-4	ng/g	0.028	0.019	0.11	0.019	0.030	0.072 J	0.063 J	0.032	0.033
PCB-190	41411-64-7	ng/g	0.078	0.033	0.47	0.10	0.043	0.52	0.55	0.092	0.039
PCB-191	74472-50-7	ng/g	0.017	0.0072 JN	0.15 JN	0.026 JN	0.013	0.11	0.10	0.025	0.010
PCB-192	74472-51-8	ng/g	< 0.0018 U	< 0.00018 U	< 0.0050 U	< 0.0027 U	< 0.00047 U	< 0.00078 U	< 0.0013 U	< 0.00040 U	< 0.00028 U
PCB-194	35694-08-7	ng/g	0.23	0.083	1.1	0.26	0.16	1.6	1.7	0.25	0.10
PCB-195	52663-78-2	ng/g	0.13	0.040	0.76	0.10	0.063	0.66	0.67	0.14	0.041
PCB-196	42740-50-1	ng/g	0.10	0.040	0.61	0.12	0.064	0.67	0.80	0.11	0.049
PCB-197	33091-17-7	ng/g	0.010 JN	0.0031 J	0.080	0.0099 JN	0.0048 JN	0.058 J	0.068 J	0.012 JN	0.0032 JN
PCB-198/199	68194-17-2	ng/g	0.22	0.094	1.2	0.27	0.15	1.5	1.7	0.25	0.12
PCB-2	2051-61-8	ng/g	0.011	0.0072 J	0.017 J	0.010 JN	0.015	0.032 J	0.029 JN	0.012	0.013

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S139	S141	S142	S143	S144	S145	S145	S146	S147
		Sample ID	PDI-SG-S139	PDI-SG-S141	PDI-SG-S142	PDI-SG-S143	PDI-SG-S144	PDI-SG-S145	PDI-SG-S145-D	PDI-SG-S146	PDI-SG-S147
		Sample Date	17 May 2018	17 May 2018	18 May 2018	05 May 2018	13 May 2018	05 May 2018	05 May 2018	17 May 2018	04 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-26 cm	0-29 cm	0-23 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-29 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	0.52	0.24	2.7	0.058	0.099	1.6	1.7	0.37	0.12
PCB-200	52663-73-7	ng/g	0.027	0.0094 J	0.17	0.033	0.011 JN	0.16 JN	0.20	0.041	0.013
PCB-201	40186-71-8	ng/g	0.024	0.0096 J	0.20	0.026 JN	0.020	0.21	0.21	0.032	0.012
PCB-202	2136-99-4	ng/g	0.047	0.021	0.20	0.043	0.029	0.31	0.32	0.044	0.024
PCB-203	52663-76-0	ng/g	0.15	0.056	0.80	0.19	0.082	0.88	0.94	0.18	0.065
PCB-204	74472-52-9	ng/g	< 0.0011 U	< 0.00018 U	0.032 JN	< 0.0023 U	< 0.00049 U	< 0.0019 U	< 0.0037 U	0.0042 JN	< 0.00079 U
PCB-205	74472-53-0	ng/g	0.024	0.0063 J	0.24 JN	0.013	0.010 J	0.074 J	0.083 J	0.021 JN	0.0048 JN
PCB-206	40186-72-9	ng/g	0.23	0.057	1.9	2.7 JN	0.086	0.48	0.71 JN	0.26	0.060
PCB-207	52663-79-3	ng/g	0.047	0.0071 JN	0.48	< 0.011 U	0.011	0.063 J	0.060 J	0.046	0.0057 JN
PCB-208	52663-77-1	ng/g	0.064	0.014 JN	0.55	< 0.012 U	< 0.0023 U	0.14	0.14	0.066	0.022
PCB-209	2051-24-3	ng/g	0.32	0.063	2.4	0.038	0.066	0.39	0.41	0.27	0.055
PCB-21/33	55702-46-0	ng/g	0.13	0.053	0.61	0.021	0.041	0.52	0.57	0.11	0.052
PCB-22	38444-85-8	ng/g	0.11	0.056	0.84	0.013 JN	0.024	0.35	0.37	0.11	0.033
PCB-23	55720-44-0	ng/g	< 0.0017 U	< 0.0016 U	< 0.0064 U	< 0.0014 U	< 0.0011 U	< 0.0070 U	< 0.0095 U	< 0.0024 U	< 0.00086 U
PCB-24	55702-45-9	ng/g	0.0014 JN	< 0.00078 U	< 0.0024 U	< 0.00021 U	< 0.00053 U	0.0053 J	0.0051 JN	0.0017 JN	0.0015 JN
PCB-25	55712-37-3	ng/g	0.030 JN	0.014 JN	0.16	0.0063 J	0.0093 J	0.10	0.11	0.037	0.0082 J
PCB-26/29	38444-81-4	ng/g	0.050	0.029	0.26	0.0081 JN	0.014 J	0.18 J	0.19 J	0.052	0.016 J
PCB-27	38444-76-7	ng/g	0.017	0.0096 JN	0.084 JN	0.0059 J	0.0092 JN	0.044 J	0.048 J	0.015	0.0077 JN
PCB-3	2051-62-9	ng/g	0.0092 J	0.0027 JN	0.027 JN	< 0.00097 U	0.0034 J	0.043 JN	0.048 JN	0.0080 JN	0.0046 J
PCB-31	16606-02-3	ng/g	0.31	0.17	2.0	0.041	0.065	1.1	1.1	0.24	0.097
PCB-32	38444-77-8	ng/g	0.073 JN	0.049	0.54	0.0094 JN	0.015 JN	0.15 J-	0.16 J-	0.099	0.023
PCB-34	37680-68-5	ng/g	0.0070 J	< 0.0017 U	< 0.0067 U	< 0.0015 U	< 0.0011 U	0.021 J	0.020 J	< 0.0025 U	< 0.00090 U
PCB-35	37680-69-6	ng/g	0.0053 J	< 0.0016 U	0.026 J	< 0.0014 U	< 0.0011 U	0.023 JN	0.029 J	0.0044 J	0.0013 JN
PCB-36	38444-87-0	ng/g	< 0.0016 U	< 0.0014 U	< 0.0063 U	< 0.0013 U	< 0.0011 U	< 0.0063 U	< 0.0085 U	< 0.0022 U	< 0.00084 U
PCB-37	38444-90-5	ng/g	0.11	0.052	0.74	0.020	0.035	0.34	0.34	0.096	0.034
PCB-38	53555-66-1	ng/g	< 0.0018 U	< 0.0016 U	< 0.0067 U	< 0.0014 U	< 0.0012 U	< 0.0069 U	< 0.0093 U	< 0.0024 U	< 0.00090 U
PCB-39	38444-88-1	ng/g	0.0080 J	0.0022 JN	0.015 JN	< 0.0013 U	< 0.0010 U	0.023 JN	0.023 JN	0.0043 JN	< 0.00081 U
PCB-4	13029-08-8	ng/g	0.020 JN	0.014 J	0.062 J	0.021 JN	0.019 JN	0.072 J	0.066 J	0.020 J	0.020 JN
PCB-40/41/71	38444-93-8	ng/g	0.46	0.46	1.9	0.033	0.052	0.90	0.94	0.99	0.076
PCB-42	36559-22-5	ng/g	0.25	0.21	0.87	0.015 JN	0.033 JN	0.54	0.57	0.45	0.033
PCB-43/73	70362-46-8	ng/g	0.024	0.019 JN	0.10 JN	< 0.0023 U	0.0074 J	0.059 J	0.057 JN	0.057 JN	0.0046 JN
PCB-44/47/65	41464-39-5	ng/g	0.93	0.78	3.4	0.11	0.18	2.2	2.4	1.7	0.19
PCB-45/51	70362-45-7	ng/g	0.14	0.11	0.59	0.023	0.039	0.28	0.30	0.27	0.037
PCB-46	41464-47-5	ng/g	0.038 JN	0.025 JN	0.15 JN	< 0.0031 U	< 0.0035 U	0.11	0.11	0.084 JN	0.0073 J
PCB-48	70362-47-9	ng/g	0.14	0.093 JN	0.66	0.012	0.015 JN	0.31	0.33	0.24	0.024
PCB-49/69	41464-40-8	ng/g	0.61	0.43	1.9	0.083	0.11	1.7	1.8	0.93	0.11
PCB-5	16605-91-7	ng/g	< 0.0035 U	< 0.00072 U	< 0.019 U	< 0.0019 U	< 0.0057 U	< 0.0023 U	< 0.0025 U	< 0.00072 U	< 0.0017 U
PCB-50/53	62796-65-0	ng/g	0.10	0.093	0.43	0.022	0.027	0.23	0.24	0.21	0.034
PCB-52	35693-99-3	ng/g	0.96	0.81	3.6	0.14	0.18	2.9	3.1	1.8	0.21
PCB-54	15968-05-5	ng/g	0.0032 JN	0.0026 JN	0.0060 JN	0.0076 JN	0.0058 JN	0.013 J	0.011 JN	0.0064 J	0.0087 J
PCB-55	74338-24-2	ng/g	0.0075 JN	< 0.0027 U	0.16	< 0.0017 U	< 0.0020 U	0.028 J	0.025 J	0.052 JN	0.0019 J
PCB-56	41464-43-1	ng/g	0.45	0.44	1.8	0.033	0.057	0.94	0.97	0.89	0.054
PCB-57	70424-67-8	ng/g	< 0.0025 U	< 0.0027 U	0.014 J	< 0.0018 U	< 0.0020 U	< 0.0047 U	< 0.0040 U	< 0.0025 U	< 0.0012 U
PCB-58	41464-49-7	ng/g	0.0057 JN	< 0.0026 U	< 0.0089 U	< 0.0017 U	< 0.0020 U	0.024 JN	0.035 J	< 0.0024 U	< 0.0012 U
PCB-59/62/75	74472-33-6	ng/g	0.077	0.059	0.27	0.0089 J	0.011 JN	0.16 J	0.17 J	0.13	0.013 J
PCB-6	25569-80-6	ng/g	0.014 JN	0.0050 JN	0.024 JN	0.0021 JN	0.0055 JN	0.031 JN	0.037 J	0.015	0.0054 JN
PCB-60	33025-41-1	ng/g	0.14	0.16	0.95	0.0080 JN	0.016	0.12	0.058 J-	0.54	0.023
PCB-61/70/74/76	33284-53-6	ng/g	1.3	1.3	5.8	0.13	0.23	3.6	3.7	1.9	0.24
PCB-63	74472-34-7	ng/g	0.032	0.026	0.13	0.0041 JN	0.0040 JN	0.073 J	0.078 J	0.066 JN	0.0051 J
PCB-64	52663-58-8	ng/g	0.37	0.32	1.5	0.023	0.048	0.73	0.72	0.72	0.058
PCB-66	32598-10-0	ng/g	1.1	0.97	3.5	0.083	0.16	2.2	2.3	1.7	0.14
PCB-67	73575-53-8	ng/g	0.015 JN	0.013 JN	0.062 JN	< 0.0016 U	< 0.0017 U	0.043 J	0.047 J	0.032 JN	0.0027 JN
PCB-68	73575-52-7	ng/g	0.018	< 0.0024 U	< 0.0078 U	< 0.0015 U	0.0038 JN	0.15	0.14	< 0.0022 U	0.0042 JN
PCB-7	33284-50-3	ng/g	0.0038 JN	0.0020 J	< 0.017 U	< 0.0018 U	< 0.0051 U	0.0096 J	0.0087 JN	0.0022 JN	0.0017 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S139	S141	S142	S143	S144	S145	S145	S146	S147
		Sample ID	PDI-SG-S139	PDI-SG-S141	PDI-SG-S142	PDI-SG-S143	PDI-SG-S144	PDI-SG-S145	PDI-SG-S145-D	PDI-SG-S146	PDI-SG-S147
		Sample Date	17 May 2018	17 May 2018	18 May 2018	05 May 2018	13 May 2018	05 May 2018	05 May 2018	17 May 2018	04 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-26 cm	0-29 cm	0-23 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-29 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.020	0.0047 JN	< 0.0086 U	< 0.0017 U	< 0.0020 U	0.16	0.16	0.014	0.0044 J
PCB-77	32598-13-3	ng/g	0.088	0.095	0.33	0.011 JN	0.017	0.16	0.16	0.16	0.013 JN
PCB-78	70362-49-1	ng/g	< 0.0025 U	< 0.0026 U	< 0.0089 U	< 0.0017 U	< 0.0020 U	< 0.0046 U	< 0.0039 U	< 0.0024 U	< 0.0012 U
PCB-79	41464-48-6	ng/g	0.015	0.0067 J	0.022 JN	< 0.0015 U	< 0.0018 U	0.068 J	0.072 J	0.017	0.0025 J
PCB-8	34883-43-7	ng/g	0.048	0.019 J	0.11	0.014 J	0.023	0.17 J	0.18 J	0.045	0.024
PCB-80	33284-52-5	ng/g	< 0.0021 U	< 0.0023 U	< 0.0076 U	< 0.0015 U	< 0.0017 U	< 0.0040 U	< 0.0035 U	< 0.0021 U	< 0.00099 U
PCB-81	70362-50-4	ng/g	< 0.0023 U	< 0.0025 U	< 0.0081 U	< 0.0016 U	< 0.0019 U	< 0.0044 U	< 0.0036 U	< 0.0023 U	< 0.0011 U
PCB-82	52663-62-4	ng/g	0.12	0.20	0.62	0.023 JN	0.035	0.33	0.32 JN	0.37	0.026
PCB-83/99	60145-20-2	ng/g	0.78	0.54	2.1	0.15 JN	0.28	5.0	5.3	1.2	0.21
PCB-84	52663-60-2	ng/g	0.27	0.25	0.90	0.042 JN	0.087	0.96	0.98	0.47	0.064
PCB-85/116/117	65510-45-4	ng/g	0.20	0.22	0.78	0.035	0.056	0.50	0.50	0.45	0.042 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.60	0.60	2.5	0.15	0.22	2.4	2.5	1.2	0.18
PCB-88/91	55215-17-3	ng/g	0.19	0.15	0.54	0.037	0.065 JN	0.88	0.92	0.30	0.055
PCB-89	73575-57-2	ng/g	0.019	0.027	0.077	< 0.0025 U	< 0.00049 U	< 0.0012 U	0.031 JN	0.057	0.0021 JN
PCB-9	34883-39-1	ng/g	0.0049 JN	0.0016 JN	< 0.018 U	< 0.0021 U	< 0.0052 U	0.014 JN	0.014 JN	0.0029 JN	< 0.0016 U
PCB-90/101/113	68194-07-0	ng/g	0.98	0.66	3.8	0.40	0.44	6.4	6.7	1.3	0.39
PCB-92	52663-61-3	ng/g	0.19	0.13	0.73	0.087	0.084	2.0 J	< 0.0013 UJ	0.26	0.083
PCB-93/100	73575-56-1	ng/g	0.030 JN	0.020 J	0.075 JN	0.015 JN	0.018 JN	0.22	0.23	0.038	0.014 JN
PCB-94	73575-55-0	ng/g	< 0.00061 U	0.0076 JN	< 0.0025 U	< 0.0025 U	0.0049 JN	< 0.0012 U	< 0.0014 U	0.017	0.0027 JN
PCB-95	38379-99-6	ng/g	0.79	0.53	2.9	0.27	0.32	4.5	4.7	1.0	0.31
PCB-96	73575-54-9	ng/g	0.015	0.013	0.038 J	0.0025 JN	0.0048 JN	0.025 J	0.030 J	0.028	0.0032 JN
PCB-98/102	60233-25-2	ng/g	0.047	0.045	0.15	< 0.0024 U	0.012 JN	0.17 J	0.16 J	0.12	0.0092 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	27	17	113	15	11	141	149	37	10
Pesticides											
2,4-DDD	53-19-0	µg/kg	24	1.4	210	0.87 J	0.52 J	< 0.95 UJ	1.0 J	21	1.3
2,4-DDE	3424-82-6	µg/kg	2.2	< 1.2 U	33	< 1.0 UJ	< 0.55 UJ	< 0.95 UJ	< 0.94 UJ	2.3	< 0.89 U
2,4-DDT	789-02-6	µg/kg	13 J	< 1.2 U	23	< 1.0 UJ	< 0.55 UJ	< 0.95 UJ	< 0.94 UJ	4.9 J	< 0.89 U
4,4'-DDD	72-54-8	µg/kg	79	4.1	430	2.7 J	1.5 J	1.3 J	2.6 J	55	4.6
4,4'-DDE	72-55-9	µg/kg	22	2.5	160	2.6 J	3.4 J	2.5 J	1.7 J	22	2.2
4,4'-DDT	50-29-3	µg/kg	240 J	1.9	91	< 1.0 UJ	0.53 J	< 0.95 UJ	1.9 J	160 J	1.7
DDx (b)	T_DDx (PDI)	µg/kg	380	11	947	6.7	6.2	4.3	7.7	265	10
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	8.1	5.7	4.5	11	9.3	1500 J	3100 J	9.7	100
Acenaphthene	83-32-9	µg/kg	9.6	11	6.1	9.2	23	4200	4600	61	59
Acenaphthylene	208-96-8	µg/kg	11	6.8	5.8	9.8	5.4	68	71	14	32
Anthracene	120-12-7	µg/kg	28	17	25	19	22	1900	2400	73	96
Benz(a)anthracene	56-55-3	µg/kg	110	64	91	66	44	1700	1800	410	140
Benzo(a)pyrene	50-32-8	µg/kg	120	63	71	62	49	550	630	220	160
Benzo(b)fluoranthene	205-99-2	µg/kg	170	120	130	61	82	920	1000	510	170
Benzo(g,h,i)perylene	191-24-2	µg/kg	87	46	40	35	28 J	250	320	98	130
Benzo(k)fluoranthene	207-08-9	µg/kg	60	43	49	20	27	300	360	140	60
Chrysene	218-01-9	µg/kg	170	150	160	78	71	1800	1900	630	220
Dibenz(a,h)anthracene	53-70-3	µg/kg	18	8.5	12	8.1	7.0	68	82	30	22
Fluoranthene	206-44-0	µg/kg	360	620	140	110	110	10000	11000	1400	360
Fluorene	86-73-7	µg/kg	16	17	7.6	14	22	5800	6500	96	61
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	91	49	45	36	30	270	330	130	120
Naphthalene	91-20-3	µg/kg	17	13	6.4	23	20	1600 J	4400 J	8.8	370
Phenanthrene	85-01-8	µg/kg	93	530	62	47	35	14000	16000	620	260
Pyrene	129-00-0	µg/kg	310	410	130	130	110	7000	7500	990	410
Total PAHs (b)	T_PAH (PDI)	µg/kg	1679	2174	985	739	695	51926	61993	5441	2770
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	176	95	110	87	72	912	1031	357	226
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	46.2	40.0	61.9	51.5	45.4	51.6	51.2	43.3	55.2
Total Solids@104C - E160.3M (f)	TSOLID	%	48.2	41.6	63.2	49.9	44.7	51.8	51.8	44.5	54.8
Total Solids@70C	TSOLID70	%	47	40	63	49	44	50	51	43	54
Gravel	GS-Gravel	%	0	0	0	0	0	0.3		0	0.1
Sand, Coarse	GS-Csand	%	0	0	0.5	0	0	0.2		0	0.1

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

			Location	S139	S141	S142	S143	S144	S145	S145	S146	S147
			Sample ID	PDI-SG-S139	PDI-SG-S141	PDI-SG-S142	PDI-SG-S143	PDI-SG-S144	PDI-SG-S145	PDI-SG-S145-D	PDI-SG-S146	PDI-SG-S147
			Sample Date	17 May 2018	17 May 2018	18 May 2018	05 May 2018	13 May 2018	05 May 2018	05 May 2018	17 May 2018	04 May 2018
			Sample Type Code	N	N	N	N	N	N	FD	N	N
			Depth	0-26 cm	0-29 cm	0-23 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-29 cm	0-25 cm
Chemical		**CAS_RN**	**Units**									
Sand, Medium		GS-Msand	%	0.4	0.3	2.4	1.0	0.2	0.7		0.3	0.8
Sand, Fine (#200)	(d)	GS-Fsand-200	%	25.82	13.96	66.72	30.17	12.47	27.38		18.94	24.45
Sand, Fine (#230)	(d)	GS-Fsand	%	31.9	17.9	69.0	37.2	16.2	34.5		24.0	30.3
Silt (#200)	(d)	GS-Silt-200	%	64.17	73.33	27.07	62.22	75.82	61.31		69.25	38.74
Silt (#230)	(d)	GS-Silt	%	58.1	69.4	24.8	55.2	72.1	54.2		64.2	32.9
Clay		GS-Clay	%	9.6	12.4	3.3	6.5	11.4	10.0		11.5	5.8
Percent Fines	(e)	GS-FINES	%	73.77	85.73	30.37	68.72	87.22	71.31		80.75	44.54
Total Organic Carbon		TOC	mg/kg	19000	26000	9300	18000	21000	24000	34000	22000	21000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S148	S149	S150	S151	S152	S153	S155	S157	S158
		Sample ID	PDI-SG-S148	PDI-SG-S149	PDI-SG-S150	PDI-SG-S151	PDI-SG-S152	PDI-SG-S153	PDI-SG-S155	PDI-SG-S157	PDI-SG-S158
		Sample Date	17 May 2018	22 May 2018	18 May 2018	17 May 2018	04 May 2018	17 May 2018	14 May 2018	14 May 2018	14 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-14 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm	0-14 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.087	0.035	0.091	0.11	0.27	0.11	0.023	0.11	0.10
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.11	0.0051	0.25	0.11	0.035	0.057	0.0067	0.028	0.022
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.042	0.00052 J+	0.13	0.062	< 0.00094 U	0.019	0.00072 J	0.0035 J	0.0026 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0011 J	0.00027 J+	0.0012 J	0.0012 JN	0.0023 J	0.0011 JN	0.00026 J+	0.00095 J	0.00097 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.25	0.00045 J+	0.72	0.32	0.0054	0.091	0.0014 J	0.015	0.0079
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0029 J	0.0011 J	0.0033 JN	0.0042 J	0.011	0.0048 J	0.00096 JN	0.0042	0.0043 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.058	0.00020 J+	0.17	0.073	0.0019 J	0.029	0.00036 J	0.0047	0.0032 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0028 J	0.00060 J	0.0021 JN	0.0027 JN	0.0057	0.0030 J	0.00046 JN	0.0025 J	0.0028 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0034 J+	< 0.00028 U	0.0099	0.0046 J	< 0.00016 U	0.0019 JN	< 0.00017 U	0.00084 J+	0.00086 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00049 JN	0.00015 J+	< 0.00038 U	0.00062 JN	0.0011 J	0.00049 JN	< 0.00012 U	0.00051 J	0.00056 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.080	< 0.00015 U	0.36	0.10	0.0013 J	0.034	0.00053 J	0.015	0.0039 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0061 J	0.00013 J+	0.022	0.0064	0.0012 J	0.0037 J	< 0.00011 U	0.0011 J	0.00079 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.023	0.00014 J+	0.15	0.037	0.0013 J	0.012	0.00029 J	0.0061	0.0017 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00019 U	< 0.00022 U	< 0.00027 U	0.00045 JN	0.00024 JN	0.00055 JN	< 0.000057 U	0.00050 J	0.00064 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.044	0.00029 J+	0.21	0.061	0.0011 J+	0.019	0.00044 J	0.0097	0.0029
OCDD	3268-87-9	µg/kg	0.76	0.38	0.69	0.78	2.0	0.79	0.20	1.6	1.3
OCDF	39001-02-0	µg/kg	0.22	0.017	0.30	0.19	0.066	0.10	0.037	0.075	0.060
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.049	0.0011	0.17	0.066	0.0083	0.023	0.00093	0.0091	0.0059
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.049	0.0011	0.17	0.064	0.0082	0.022	0.00078	0.0091	0.0059
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.049	0.001	0.17	0.064	0.0081	0.022	0.00072	0.0091	0.0059
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0035 JN	< 0.00085 U	0.0039 JN	0.0032 JN	0.10	< 0.00080 U	< 0.00017 U	0.0085 JN	0.016
PCB-10	33146-45-1	ng/g	0.0014 JN	< 0.00047 U	< 0.0065 U	< 0.0040 U	0.0068 J	< 0.0063 U	< 0.0015 U	< 0.0029 U	0.0037 JN
PCB-103	60145-21-3	ng/g	0.0085 JN	0.0058 J	0.0079 JN	0.0088 J	0.070	0.0054 JN	0.00087 JN	0.022	0.041
PCB-104	56558-16-8	ng/g	< 0.00048 U	< 0.00059 U	< 0.00034 U	< 0.00069 U	< 0.00028 U	< 0.00040 U	< 0.00014 U	< 0.00017 U	< 0.00025 U
PCB-105	32598-14-4	ng/g	0.26	0.019	0.23	0.17	0.35	0.17	0.018	0.16	0.32
PCB-106	70424-69-0	ng/g	< 0.0022 U	< 0.0012 U	< 0.0029 U	< 0.0023 U	< 0.0019 U	< 0.0022 U	< 0.00078 U	< 0.0016 U	< 0.0022 U
PCB-107	70424-68-9	ng/g	0.048	0.0039 JN	0.050	0.036	0.083	0.024 JN	0.0044 JN	0.081	0.14
PCB-108/124	70362-41-3	ng/g	0.024 J	0.0020 JN	0.018 J	0.013 JN	0.040	0.013 J	0.0019 J+	< 0.0016 U	0.036
PCB-11	2050-67-1	ng/g	0.076	0.0087 J+	0.049	0.054	0.14	0.048	< 0.0090 U	0.017 J	0.036
PCB-110/115	38380-03-9	ng/g	0.66	0.090	0.71	0.55	1.1	0.49	0.060	1.0	1.8
PCB-111	39635-32-0	ng/g	< 0.00043 U	< 0.00053 U	< 0.00032 U	< 0.00064 U	0.0047 J	< 0.00037 U	< 0.00013 U	< 0.00016 U	< 0.00023 U
PCB-112	74472-36-9	ng/g	0.0088 J	< 0.00058 U	0.0039 JN	0.0013 JN	0.0071 JN	< 0.00039 U	0.00093 J	< 0.00017 U	< 0.00025 U
PCB-114	74472-37-0	ng/g	0.018 JN	< 0.0011 U	0.012 JN	0.0058 JN	0.028	0.0095 J	< 0.00071 U	0.0097 JN	0.021
PCB-118	31508-00-6	ng/g	0.54	0.042	0.50	0.39	0.78	0.37	0.042	0.64	1.2
PCB-12/13	2974-92-7	ng/g	0.0078 J	< 0.00040 U	0.014 JN	0.0079 JN	0.040	< 0.0057 U	< 0.0014 U	0.0067 JN	0.024
PCB-120	68194-12-7	ng/g	< 0.00043 U	< 0.00052 U	< 0.00032 U	< 0.00065 U	0.013	< 0.00037 U	< 0.00013 U	0.0071 J	0.013 JN
PCB-121	56558-18-0	ng/g	< 0.00046 U	< 0.00056 U	< 0.00033 U	< 0.00067 U	0.0035 J	< 0.00038 U	< 0.00013 U	< 0.00017 U	< 0.00024 U
PCB-122	76842-07-4	ng/g	0.016	< 0.0013 U	0.010 J	0.0048 JN	0.017	0.0035 JN	< 0.00090 U	0.0056 JN	0.015 JN
PCB-123	65510-44-3	ng/g	0.014	0.0017 J	0.010 JN	0.0059 JN	0.017 JN	0.0066 JN	0.00081 JN	0.012	0.014
PCB-126	57465-28-8	ng/g	< 0.0022 U	< 0.0012 U	0.0041 JN	< 0.0025 U	< 0.0022 U	< 0.0018 UJ	< 0.00083 U	0.0025 J	0.0038 JN
PCB-127	39635-33-1	ng/g	< 0.0021 U	< 0.0011 U	< 0.0029 U	< 0.0023 U	< 0.0018 U	< 0.0022 U	< 0.00077 U	< 0.0016 U	< 0.0022 U
PCB-128/166	38380-07-3	ng/g	0.096	0.024	0.12	0.095	0.24	0.087	0.014 J	0.13	0.25
PCB-129/138/160/163	55215-18-4	ng/g	0.63	0.20	0.75	0.67	2.3	0.63	0.088	1.2	2.0
PCB-130	52663-66-8	ng/g	0.040	0.0091 JN	0.045	0.042	0.14	0.032 JN	0.0047 JN	0.074	0.13
PCB-131	61798-70-7	ng/g	0.0073 J	< 0.0015 U	0.011 JN	< 0.0073 U	0.024	< 0.0047 U	< 0.0021 U	< 0.0052 U	0.016 JN
PCB-132	38380-05-1	ng/g	0.19	0.058	0.23	0.20	0.81	0.17	0.026	0.38	0.61
PCB-133	35694-04-3	ng/g	0.011 J	0.0052 J	0.0097 JN	< 0.0066 U	0.079	0.0099 J	< 0.0019 U	0.023	0.049
PCB-134/143	52704-70-8	ng/g	0.038	0.011 J	0.038	0.028	0.14	0.032	0.0043 JN	0.060	0.10
PCB-135/151	52744-13-5	ng/g	0.19	0.085	0.20	0.22	1.1	0.19	0.022 JN	0.46	0.84
PCB-136	38411-22-2	ng/g	0.070	0.031	0.071	0.075	0.34	0.067	0.0094 J	0.16	0.30
PCB-137	35694-06-5	ng/g	0.025	0.0039 JN	0.054	0.021 JN	0.061	0.024	0.0041 JN	0.028	0.056
PCB-139/140	56030-56-9	ng/g	0.011 J	0.0033 JN	0.024 J	0.0093 JN	0.042	0.012 J	< 0.0017 U	0.016 J	0.033

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S148	S149	S150	S151	S152	S153	S155	S157	S158
		Sample ID	PDI-SG-S148	PDI-SG-S149	PDI-SG-S150	PDI-SG-S151	PDI-SG-S152	PDI-SG-S153	PDI-SG-S155	PDI-SG-S157	PDI-SG-S158
		Sample Date	17 May 2018	22 May 2018	18 May 2018	17 May 2018	04 May 2018	17 May 2018	14 May 2018	14 May 2018	14 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-14 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm	0-14 cm	0-30 cm	0-25 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.00053 U	< 0.00037 U	< 0.0050 U	< 0.0031 U	< 0.00058 U	< 0.0048 U	< 0.0012 U	< 0.0022 U	< 0.0018 U
PCB-141	52712-04-6	ng/g	0.11	0.040	0.14	0.13	0.54	0.12	0.017	0.20	0.36
PCB-142	41411-61-4	ng/g	< 0.0034 U	< 0.0014 U	0.048	< 0.0066 U	< 0.0024 U	< 0.0042 U	< 0.0019 U	< 0.0047 U	< 0.0051 U
PCB-144	68194-14-9	ng/g	0.028	0.0087 J	0.029	0.024 JN	0.12	0.021 JN	0.0031 JN	0.043	0.072
PCB-145	74472-40-5	ng/g	< 0.00049 U	< 0.00021 U	< 0.00030 U	< 0.0011 U	< 0.00048 U	< 0.00058 U	< 0.00014 U	< 0.00031 U	< 0.00015 U
PCB-146	51908-16-8	ng/g	0.098	0.035	0.14	0.12	0.57	0.10	0.016	0.25	0.46
PCB-147/149	68194-13-8	ng/g	0.46	0.19	0.67	0.56	2.3	0.49	0.083	1.2	2.2
PCB-148	74472-41-6	ng/g	0.0014 JN	0.00045 JN	< 0.00042 U	< 0.0016 U	0.018 JN	< 0.00081 U	< 0.00019 U	0.0044 JN	0.010 JN
PCB-15	2050-68-2	ng/g	0.027	0.0016 JN	0.047 JN	0.030	0.27	0.029 JN	0.0039 JN	0.045	0.10
PCB-150	68194-08-1	ng/g	0.0014 JN	0.00058 JN	0.0017 JN	< 0.0011 U	0.014	0.0018 J	< 0.00013 U	0.0036 JN	0.0073 JN
PCB-152	68194-09-2	ng/g	0.00072 JN	0.00033 JN	0.00058 JN	< 0.0011 U	0.0052 JN	< 0.00059 U	< 0.00014 U	< 0.00031 U	< 0.00016 U
PCB-153/168	35065-27-1	ng/g	0.50	0.18	0.63	0.57	2.5	0.50	0.078	1.1	2.0
PCB-154	60145-22-4	ng/g	0.012 J	0.0041 JN	0.0076 JN	0.011 J	0.095	0.0059 JN	0.0020 J	0.027	0.059
PCB-155	33979-03-2	ng/g	< 0.00045 U	0.00035 J+	< 0.00028 U	< 0.0011 U	< 0.00044 U	< 0.00055 U	< 0.00013 U	< 0.00029 U	< 0.00015 U
PCB-156/157	38380-08-4	ng/g	0.068	0.015 J	0.070	0.066	0.19	0.057	0.0086 J	0.092	0.17
PCB-158	74472-42-7	ng/g	0.061	0.019	0.067	0.060	0.19	0.055	0.0075 J	0.085	0.15
PCB-159	39635-35-3	ng/g	0.0062 J	0.0034 J	0.0055 JN	< 0.0044 U	0.028	0.0063 J	< 0.0013 U	0.012	0.023
PCB-16	38444-78-9	ng/g	0.038	0.0016 JN	0.047 JN	0.025 JN	0.22	0.027 JN	0.0029 JN	0.11	0.24
PCB-161	74472-43-8	ng/g	< 0.0022 U	< 0.00091 U	< 0.0050 U	< 0.0044 U	< 0.0016 U	< 0.0028 U	< 0.0013 U	< 0.0031 U	< 0.0034 U
PCB-162	39635-34-2	ng/g	< 0.0021 U	< 0.00086 U	< 0.0050 U	< 0.0043 U	< 0.0015 U	< 0.0028 U	< 0.0013 U	< 0.0031 U	0.0050 J
PCB-164	74472-45-0	ng/g	0.044	0.016	0.047	0.049	0.18	0.041	0.0073 J	0.079	0.14
PCB-165	74472-46-1	ng/g	< 0.0025 U	< 0.0010 U	< 0.0057 U	< 0.0050 U	< 0.0018 U	< 0.0032 U	< 0.0015 U	< 0.0036 U	< 0.0038 U
PCB-167	52663-72-6	ng/g	0.025	0.0060 JN	0.025 JN	0.020	0.081	0.020	0.0020 JN	0.031	0.051 JN
PCB-169	32774-16-6	ng/g	< 0.0016 U	< 0.00068 U	< 0.0042 U	< 0.0035 U	< 0.0012 U	< 0.0022 U	< 0.00093 U	< 0.0023 U	< 0.0025 U
PCB-17	37680-66-3	ng/g	0.039 JN	0.0027 J	0.075 JN	0.045	0.25	0.034 JN	0.0041 JN	0.18	0.39
PCB-170	35065-30-6	ng/g	0.17	0.071	0.21	0.19 JN	1.1	0.19	0.041	0.36	0.71
PCB-171/173	52663-71-5	ng/g	0.060	0.022	0.092 JN	0.064 JN	0.33	0.058	0.014 J	0.12	0.22
PCB-172	52663-74-8	ng/g	0.034	0.012 JN	0.038	0.039	0.19	0.035	0.0076 J	0.061	0.13
PCB-174	38411-25-5	ng/g	0.19	0.086	0.21	0.21	1.0	0.20	0.038	0.41	0.76
PCB-175	40186-70-7	ng/g	0.0095 J	0.0040 J	0.012 JN	0.013	0.036	0.0069 JN	0.0019 J	0.013 JN	0.030
PCB-176	52663-65-7	ng/g	0.019	0.0091 J	0.039	0.024	0.13	0.022	0.0045 J	0.053	0.10
PCB-177	52663-70-4	ng/g	0.11	0.044 JN	0.11	0.12	0.58	0.11	0.019 JN	0.24	0.45
PCB-178	52663-67-9	ng/g	0.038	0.019	0.050	0.050	0.22	0.042	0.0087 J	0.091	0.17
PCB-179	52663-64-6	ng/g	0.071	0.033	0.093	0.099	0.52	0.086	0.017	0.19	0.35
PCB-18/30	37680-65-2	ng/g	0.074	0.0034 JN	0.17	0.088	0.48	0.086	0.0078 JN	0.33	0.65
PCB-180/193	35065-29-3	ng/g	0.36	0.16	0.39	0.41	2.5	0.39	0.084	0.84	1.7
PCB-181	74472-47-2	ng/g	0.019 JN	< 0.00081 U	0.20	< 0.0028 U	< 0.00072 U	< 0.0024 U	< 0.00066 U	< 0.00082 U	< 0.00033 U
PCB-182	60145-23-5	ng/g	0.0054 J	< 0.00077 U	0.0082 J	< 0.0027 U	0.015	< 0.0023 U	0.0015 JN	< 0.00079 U	< 0.00032 U
PCB-183/185	52663-69-1	ng/g	0.11	0.048	0.20	0.14	0.63	0.13	0.029	0.28	0.54
PCB-184	74472-48-3	ng/g	< 0.00075 U	< 0.00066 U	< 0.0012 U	< 0.0023 U	< 0.00059 U	< 0.0020 U	< 0.00054 U	< 0.00067 U	< 0.00027 U
PCB-186	74472-49-4	ng/g	< 0.00072 U	< 0.00063 U	0.0098 J	< 0.0023 U	< 0.00057 U	< 0.0019 U	< 0.00052 U	< 0.00065 U	< 0.00026 U
PCB-187	52663-68-0	ng/g	0.23	0.11	0.25	0.28	1.3	0.24	0.053	0.51	1.0
PCB-188	74487-85-7	ng/g	< 0.00068 U	< 0.00058 U	< 0.00091 U	< 0.0019 U	< 0.00048 U	< 0.0016 U	< 0.00045 U	< 0.00058 U	< 0.00023 U
PCB-189	39635-31-9	ng/g	0.0070 J	0.0023 JN	< 0.0047 U	< 0.0046 U	0.040	< 0.0038 U	< 0.00082 U	0.011 JN	0.019
PCB-19	38444-73-4	ng/g	0.020	< 0.00038 U	0.021 JN	0.022	0.067	0.019 JN	0.0019 JN	0.022 JN	0.053 J
PCB-190	41411-64-7	ng/g	0.044 JN	0.016	0.049	0.034	0.19	0.035	0.0074 JN	0.066	0.13
PCB-191	74472-50-7	ng/g	0.014	0.0030 JN	0.0089 JN	0.0087 JN	0.051	0.0085 J	< 0.00050 U	0.015	0.027
PCB-192	74472-51-8	ng/g	< 0.00074 U	< 0.00064 U	< 0.0012 U	< 0.0024 U	< 0.00058 U	< 0.0020 U	< 0.00055 U	< 0.00069 U	< 0.00028 U
PCB-194	35694-08-7	ng/g	0.090	0.037	0.12	0.12	0.86	0.11	0.026	0.21	0.40
PCB-195	52663-78-2	ng/g	0.049	0.014	0.17	0.065	0.31	0.040	0.010	0.092	0.16
PCB-196	42740-50-1	ng/g	0.044	0.017	0.056 JN	0.047	0.37	0.047	0.011	0.10	0.19
PCB-197	33091-17-7	ng/g	0.0042 JN	0.00097 JN	0.020 JN	0.0065 JN	0.029	< 0.0012 U	< 0.00035 U	0.0090 JN	0.014
PCB-198/199	68194-17-2	ng/g	0.12	0.046	0.14	0.11	0.94	0.11	0.027	0.23	0.39
PCB-2	2051-61-8	ng/g	0.0094 J	< 0.00033 U	0.0044 JN	< 0.00085 U	0.038	< 0.00088 U	0.00095 JN	0.0048 J	0.012

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S148	S149	S150	S151	S152	S153	S155	S157	S158
		Sample ID	PDI-SG-S148	PDI-SG-S149	PDI-SG-S150	PDI-SG-S151	PDI-SG-S152	PDI-SG-S153	PDI-SG-S155	PDI-SG-S157	PDI-SG-S158
		Sample Date	17 May 2018	22 May 2018	18 May 2018	17 May 2018	04 May 2018	17 May 2018	14 May 2018	14 May 2018	14 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-14 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm	0-14 cm	0-30 cm	0-25 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.24	0.0062 J	0.32	0.19	1.1	0.15	0.017 J	0.51	0.98
PCB-200	52663-73-7	ng/g	0.016	0.0038 JN	0.044	0.013 JN	0.12	0.013 J	0.0023 JN	0.025	0.043
PCB-201	40186-71-8	ng/g	0.015	0.0044 JN	0.028	0.013 JN	0.13	0.012 J	0.0026 JN	0.027	0.034
PCB-202	2136-99-4	ng/g	0.026	0.012	0.032	0.031	0.19	0.019 JN	0.0052 JN	0.045	0.077
PCB-203	52663-76-0	ng/g	0.079	0.027	0.14	0.073	0.63	0.072	0.017	0.13	0.24
PCB-204	74472-52-9	ng/g	< 0.00098 U	< 0.00069 U	0.0068 J	< 0.0014 U	< 0.0015 U	< 0.0012 U	< 0.00035 U	< 0.00093 U	< 0.00039 U
PCB-205	74472-53-0	ng/g	0.0082 JN	< 0.00087 U	0.024	< 0.0037 U	0.039	0.0097 JN	< 0.0012 U	0.011	0.019
PCB-206	40186-72-9	ng/g	0.14 JN	0.12 JN	0.28	0.10	1.0 JN	0.090	< 0.0051 U	0.11	0.17
PCB-207	52663-79-3	ng/g	0.016	< 0.0013 U	0.12	0.015	0.075	0.0092 J	< 0.0035 U	0.013 JN	0.020
PCB-208	52663-77-1	ng/g	0.033	0.0065 J	0.090	0.027	0.15	0.022 JN	< 0.0035 U	0.030	0.047
PCB-209	2051-24-3	ng/g	0.15	0.012	0.82	0.15	0.12	0.12	0.025	0.14	0.15
PCB-21/33	55702-46-0	ng/g	0.063	0.0024 JN	0.10	0.052 JN	0.51	0.048	0.0060 JN	0.26	0.39
PCB-22	38444-85-8	ng/g	0.068	0.0023 JN	0.082	0.048	0.38	0.043	0.0043 J	0.12	0.23
PCB-23	55720-44-0	ng/g	< 0.0018 U	< 0.00053 U	< 0.0018 U	< 0.0016 U	< 0.0026 U	< 0.0018 U	< 0.00054 U	< 0.0011 U	< 0.0018 U
PCB-24	55702-45-9	ng/g	< 0.00070 U	< 0.00023 U	0.0027 J	0.0013 J	0.0093 JN	< 0.00084 U	< 0.00029 U	0.0044 J	0.0076 J
PCB-25	55712-37-3	ng/g	0.021	< 0.00051 U	0.054	0.024	0.095	0.013 JN	0.0012 JN	0.035	0.076
PCB-26/29	38444-81-4	ng/g	0.028	0.0012 JN	0.078	0.033	0.17	0.024 J	0.0026 J	0.073	0.13
PCB-27	38444-76-7	ng/g	0.0088 J	< 0.00023 U	0.011 J	0.0097 J	0.044	0.0092 JN	< 0.00026 U	0.020	0.040
PCB-3	2051-62-9	ng/g	0.0050 JN	< 0.0013 U	0.0043 J	< 0.00096 U	0.079	< 0.00093 U	0.0013 J	0.0071 J	0.012 JN
PCB-31	16606-02-3	ng/g	0.14	0.0039 J+	0.27	0.14	0.77	0.11	0.012 J	0.40	0.76
PCB-32	38444-77-8	ng/g	0.052	0.0024 J	0.062	0.037 JN	0.17	0.033 JN	0.0027 JN	0.10	0.095
PCB-34	37680-68-5	ng/g	< 0.0018 U	< 0.00055 U	< 0.0018 U	< 0.0017 U	0.0054 J	< 0.0018 U	< 0.00057 U	0.0061 J	0.011
PCB-35	37680-69-6	ng/g	< 0.0018 U	< 0.00052 U	0.0034 JN	< 0.0017 U	0.019	< 0.0018 U	< 0.00055 U	0.0038 JN	0.0084 J
PCB-36	38444-87-0	ng/g	< 0.0016 U	< 0.00048 U	< 0.0017 U	< 0.0016 U	< 0.0024 U	< 0.0017 U	< 0.00053 U	< 0.0011 U	< 0.0017 U
PCB-37	38444-90-5	ng/g	0.048	0.0019 JN	0.059	0.041	0.37	0.039	0.0034 JN	0.11	0.20
PCB-38	53555-66-1	ng/g	< 0.0017 U	< 0.00052 U	< 0.0019 U	< 0.0017 U	< 0.0026 U	< 0.0018 U	< 0.00057 U	< 0.0012 U	< 0.0018 U
PCB-39	38444-88-1	ng/g	0.0020 J	< 0.00047 U	0.0026 J	< 0.0015 U	0.0049 J	< 0.0016 U	< 0.00051 U	0.0055 J	0.010
PCB-4	13029-08-8	ng/g	0.012 JN	0.0029 JN	0.027 JN	0.014 JN	0.10	0.019 JN	0.0021 JN	0.030	0.059
PCB-40/41/71	38444-93-8	ng/g	0.37	0.0057 JN	0.29	0.16	0.62	0.14	0.011 J	0.32	0.54
PCB-42	36559-22-5	ng/g	0.18	0.0022 JN	0.14	0.083	0.30	0.068	0.0060 J	0.17	0.30
PCB-43/73	70362-46-8	ng/g	0.024 JN	< 0.00036 U	0.020 J	0.011 J	0.079	0.0083 JN	< 0.00026 U	0.022	0.034
PCB-44/47/65	41464-39-5	ng/g	0.68	0.020 J	0.57	0.33	2.0	0.28	0.026 J	0.65	1.1
PCB-45/51	70362-45-7	ng/g	0.11	0.0073 J	0.097	0.053	0.41	0.049	0.0039 JN	0.096	0.18
PCB-46	41464-47-5	ng/g	0.036	< 0.00049 U	0.031	0.015	0.070	0.017	0.0017 J	0.035	0.059
PCB-48	70362-47-9	ng/g	0.096	0.0015 J	0.092	0.046	0.23	0.043	0.0038 J	0.13	0.21
PCB-49/69	41464-40-8	ng/g	0.40	0.012 J	0.37	0.19	0.87	0.16	0.015 J	0.47	0.87
PCB-5	16605-91-7	ng/g	< 0.00064 U	< 0.00044 U	< 0.0066 U	< 0.0041 U	0.0042 JN	< 0.0064 U	< 0.0016 U	< 0.0029 U	0.0033 JN
PCB-50/53	62796-65-0	ng/g	0.087	0.0065 J	0.075	0.046	0.29	0.035	0.0032 JN	0.079	0.13
PCB-52	35693-99-3	ng/g	0.76	0.027	0.66	0.36	1.1	0.31	0.029	0.81	1.4
PCB-54	15968-05-5	ng/g	0.0052 JN	0.00031 JN	0.0049 J	0.0028 JN	0.017	0.0016 JN	0.00031 JN	< 0.000032 U	0.0017 JN
PCB-55	74338-24-2	ng/g	0.037	< 0.00027 U	0.012 JN	0.0047 JN	0.038	0.0064 J	0.00083 JN	< 0.0016 U	0.013
PCB-56	41464-43-1	ng/g	0.32	0.0044 J	0.26	0.15	0.40	0.13	0.010	0.26	0.47
PCB-57	70424-67-8	ng/g	< 0.0026 U	< 0.00028 U	< 0.0023 U	< 0.0019 U	< 0.0025 U	< 0.0022 U	0.00045 JN	< 0.0016 U	0.0053 JN
PCB-58	41464-49-7	ng/g	< 0.0025 U	< 0.00027 U	0.0027 JN	< 0.0019 U	< 0.0024 U	< 0.0022 U	0.0013 J	0.0045 JN	0.011
PCB-59/62/75	74472-33-6	ng/g	0.048 JN	0.0011 JN	0.043	0.021 JN	0.12	0.021 J	0.0018 JN	0.053	0.093
PCB-6	25569-80-6	ng/g	0.0068 JN	< 0.00044 U	0.023 JN	0.013 JN	0.081	0.0096 J	< 0.0014 U	0.024 JN	0.054
PCB-60	33025-41-1	ng/g	0.18	0.0013 JN	0.12	0.067	0.25	0.059	0.0038 JN	0.049	0.087
PCB-61/70/74/76	33284-53-6	ng/g	0.79	0.017 J	0.81	0.47	1.3	0.42	0.035 J	1.1	1.9
PCB-63	74472-34-7	ng/g	0.0089 JN	0.00038 JN	0.021	0.013	0.035	0.0082 JN	0.00088 J	0.029	0.040
PCB-64	52663-58-8	ng/g	0.30	0.0053 J	0.23	0.13	0.37	0.11	0.0089 J	0.26	0.44
PCB-66	32598-10-0	ng/g	0.71	0.0099	0.53	0.34	0.82	0.30	0.024	0.69	1.2
PCB-67	73575-53-8	ng/g	0.016	< 0.00026 U	0.012 JN	0.0064 J	0.032	0.0059 J	0.00095 JN	0.014	0.023 JN
PCB-68	73575-52-7	ng/g	< 0.0022 U	< 0.00024 U	< 0.0020 U	< 0.0017 U	0.018	< 0.0019 U	0.00049 JN	0.0080 J	0.017 JN
PCB-7	33284-50-3	ng/g	0.0016 J	< 0.00041 U	< 0.0059 U	< 0.0037 U	0.011	< 0.0058 U	< 0.0014 U	0.0035 JN	0.0092 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S148	S149	S150	S151	S152	S153	S155	S157	S158
		Sample ID	PDI-SG-S148	PDI-SG-S149	PDI-SG-S150	PDI-SG-S151	PDI-SG-S152	PDI-SG-S153	PDI-SG-S155	PDI-SG-S157	PDI-SG-S158
		Sample Date	17 May 2018	22 May 2018	18 May 2018	17 May 2018	04 May 2018	17 May 2018	14 May 2018	14 May 2018	14 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-14 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm	0-14 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	< 0.0025 U	< 0.00027 U	< 0.0022 U	< 0.0019 U	0.015	< 0.0022 U	< 0.00020 U	0.017	0.031
PCB-77	32598-13-3	ng/g	0.055	0.0018 J+	0.046	0.035	0.092	0.029	0.0027 J	0.050	0.079
PCB-78	70362-49-1	ng/g	< 0.0025 U	< 0.00027 U	< 0.0023 U	< 0.0019 U	< 0.0024 U	< 0.0022 U	< 0.00021 U	< 0.0017 U	< 0.0032 U
PCB-79	41464-48-6	ng/g	0.0056 J	< 0.00023 U	0.0053 J	< 0.0017 U	< 0.0021 U	< 0.0019 U	0.00052 JN	0.0061 J	0.020
PCB-8	34883-43-7	ng/g	0.024 J	0.0016 JN	0.052	0.029 JN	0.29	0.030	0.0050 JN	0.096	0.20
PCB-80	33284-52-5	ng/g	< 0.0022 U	< 0.00024 U	< 0.0019 U	< 0.0016 U	< 0.0021 U	< 0.0019 U	< 0.00018 U	< 0.0014 U	< 0.0027 U
PCB-81	70362-50-4	ng/g	< 0.0023 U	< 0.00025 U	< 0.0021 U	< 0.0017 U	< 0.0023 U	< 0.0021 U	< 0.00019 U	< 0.0015 U	< 0.0031 U
PCB-82	52663-62-4	ng/g	0.11	0.0069 J	0.099	0.073	0.12	0.056	0.0070 J	0.093 JN	0.17
PCB-83/99	60145-20-2	ng/g	0.40	0.043	0.44	0.30	0.84	0.26	0.033	0.65	1.1
PCB-84	52663-60-2	ng/g	0.18	0.016 JN	0.17	0.12	0.22	0.11	0.0088 JN	0.25	0.41
PCB-85/116/117	65510-45-4	ng/g	0.14	0.0084 JN	0.15	0.095	0.19	0.093	0.0086 JN	0.15	0.24
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.44	0.038 J	0.44	0.32	0.64	0.29	0.030 J	0.54	0.90
PCB-88/91	55215-17-3	ng/g	0.11	0.015 JN	0.11	0.070 JN	0.33	0.069	0.0085 J	0.16	0.28
PCB-89	73575-57-2	ng/g	0.014 JN	< 0.00088 U	0.011 JN	0.0090 J	0.015	0.0070 JN	< 0.00020 U	0.012	0.017
PCB-9	34883-39-1	ng/g	< 0.00070 U	< 0.00048 U	< 0.0061 U	< 0.0038 U	0.018	< 0.0059 U	< 0.0014 U	0.0053 JN	0.012
PCB-90/101/113	68194-07-0	ng/g	0.56	0.084	0.60	0.46	1.3	0.40	0.050	1.0	1.8
PCB-92	52663-61-3	ng/g	0.12	0.020	0.10	0.083	0.30	0.075	0.010	0.20	0.35
PCB-93/100	73575-56-1	ng/g	0.018 J	0.0060 JN	0.022 J	0.015 JN	0.12	0.011 J	0.0020 J	0.051	0.030 JN
PCB-94	73575-55-0	ng/g	< 0.00072 U	< 0.00088 U	< 0.00051 U	< 0.0010 U	0.033	< 0.00059 U	< 0.00020 U	< 0.00026 U	< 0.00038 U
PCB-95	38379-99-6	ng/g	0.45	0.083 JN	0.45	0.35	0.97	0.32	0.042	0.87	1.4
PCB-96	73575-54-9	ng/g	0.010 J	0.0012 JN	0.0078 JN	0.0050 JN	0.028	< 0.00045 U	< 0.00015 U	< 0.00019 U	0.015
PCB-98/102	60233-25-2	ng/g	0.036	0.0041 J	0.031	0.016 J	0.065	0.017 JN	0.0019 JN	0.035	0.063
Total PCBs (b)	T_PCBCg (PDI)	ng/g	15	3	18	12	49	11	1	24	43
Pesticides											
2,4-DDD	53-19-0	µg/kg	3.4	< 0.63 U	7.4	5.8	< 1.0 UJ	5.1	0.27 J	2.3	2.2
2,4-DDE	3424-82-6	µg/kg	< 1.2 U	< 0.79 U	< 1.2 U	< 1.3 U	< 1.0 UJ	< 1.3 U	< 0.28 U	< 0.81 U	< 0.88 U
2,4-DDT	789-02-6	µg/kg	4.0 J	< 0.94 U	4.1	< 1.3 U	< 1.0 UJ	7.5 J	< 0.28 UJ	< 0.94 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	9.4	< 0.61 U	21	14	1.2 J	14	0.76	6.4	4.1
4,4'-DDE	72-55-9	µg/kg	4.4	< 0.70 U	7.4	7.8	2.6 J	7.8	0.48	2.9	4.1
4,4'-DDT	50-29-3	µg/kg	24	< 0.61 U	16	200 J	< 1.0 UJ	230 J	0.23 J	0.80 J	< 0.88 U
DDx (b)	T_DDx (PDI)	µg/kg	46	< 0.94 U	57	228	4.3	265	1.9	13	11
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	3.2	0.35 J	3.8	3.2	3.9	2.8	0.91	5.8	27
Acenaphthene	83-32-9	µg/kg	3.4	5.0	5.1	4.8	4.5	3.9	1.1	5.3	27
Acenaphthylene	208-96-8	µg/kg	3.5	0.39	4.2	3.8	10	3.8	0.61	2.6	7.8
Anthracene	120-12-7	µg/kg	12	0.44	12	12	14	9.4	1.2	9.1	30
Benz(a)anthracene	56-55-3	µg/kg	39	2.2	52	54	82	41	4.5	23	63
Benzo(a)pyrene	50-32-8	µg/kg	41	3.6	59	54	100	43	7.1	19	60
Benzo(b)fluoranthene	205-99-2	µg/kg	58	5.1	91	90	120	70	8.1	27	90
Benzo(g,h,i)perylene	191-24-2	µg/kg	33	2.9 J	34	41	81	32	5.5	15	34
Benzo(k)fluoranthene	207-08-9	µg/kg	18	1.6	33	30	38	23	2.6	9.7	27
Chrysene	218-01-9	µg/kg	86	3.2	120	79	120	62	6.9	39	93
Dibenz(a,h)anthracene	53-70-3	µg/kg	6.7	0.57 J	11	9.4	14	6.8	0.77	2.7	6.5
Fluoranthene	206-44-0	µg/kg	85	5.4	120	110	160	130	17 J	77	320 J
Fluorene	86-73-7	µg/kg	6.3	0.34	9.8	10	7.8	6.9	1.1	7.9	32
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	34	2.5	39	41	79	32	5.1	14	33
Naphthalene	91-20-3	µg/kg	4.5	0.52 J	5.1	4.1	7.1	3.6	2.6	8.8	39 J
Phenanthrene	85-01-8	µg/kg	36	2.4	43	44	48	43	10 J	47	160
Pyrene	129-00-0	µg/kg	87	5.2	90	110	180	110	16 J	80	290
Total PAHs (b)	T_PAH (PDI)	µg/kg	557	42	732	700	1069	623	91	393	1339
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	61	5	89	82	143	64	10	28	85
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	37.7	76.4	39.3	38.0	48.5	35.9	67.5	59.9	57.3
Total Solids@104C - E160.3M (f)	TSOLID	%	40.0	80.1	39.9	38.7	48.2	37.5	68.8	60.6	56.0
Total Solids@70C	TSOLID70	%	38	76	39	38	48	37	73	64	56
Gravel	GS-Gravel	%	0	17.4	0	0	0	0	0	0.3	0
Sand, Coarse	GS-Csand	%	0	15.0	0	0	0.1	0	0	0.4	0.1

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S148	S149	S150	S151	S152	S153	S155	S157	S158
		Sample ID	PDI-SG-S148	PDI-SG-S149	PDI-SG-S150	PDI-SG-S151	PDI-SG-S152	PDI-SG-S153	PDI-SG-S155	PDI-SG-S157	PDI-SG-S158
		Sample Date	17 May 2018	22 May 2018	18 May 2018	17 May 2018	04 May 2018	17 May 2018	14 May 2018	14 May 2018	14 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-29 cm	0-14 cm	0-30 cm	0-27 cm	0-30 cm	0-28 cm	0-14 cm	0-30 cm	0-25 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.1	24.0	0.1	0.1	0.5	0.1	5.4	3.9	1.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	7.706	37.45	8.284	6.359	27.02	4.924	73.55	48.7	34.45
Sand, Fine (#230) (d)	GS-Fsand	%	10.2	38.4	11.1	8.9	33.5	6.8	74.6	50.1	36.6
Silt (#200) (d)	GS-Silt-200	%	79.79	5.446	84.51	79.84	61.77	81.57	15.14	37.89	52.64
Silt (#230) (d)	GS-Silt	%	77.3	4.5	81.7	77.3	55.3	79.7	14.1 L	36.5	50.5
Clay	GS-Clay	%	12.4	0.7	7.1	13.6	10.5	13.4	5.9	8.8	11.6
Percent Fines (e)	GS-FINES	%	92.19	6.146	91.61	93.44	72.27	94.97	21.04	46.69	64.24
Total Organic Carbon	TOC	mg/kg	28000	6400	28000	27000	31000	27000	7500	15000	16000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S159	S160	S161	S162	S163	S164	S165	S166	S167
		Sample ID	PDI-SG-S159	PDI-SG-S160	PDI-SG-S161	PDI-SG-S162	PDI-SG-S163	PDI-SG-S164	PDI-SG-S165	PDI-SG-S166	PDI-SG-S167
		Sample Date	18 May 2018	18 May 2018	14 May 2018	18 May 2018	18 May 2018	20 Jun 2018	16 May 2018	16 May 2018	16 Aµg 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.16	0.13	0.10	0.094	0.14	0.22	0.086	0.099	0.049
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.022 JN	0.025	0.015	0.022	0.027	0.017 JN	0.019	0.021	0.010 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0026 J	0.0028 J	0.0013 J+	0.0027 J	0.0043 J	0.0013 J	0.0022 J+	0.0016 J+	0.0018 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0013 J	0.0015 J	0.00098 J	0.0012 J	0.00098 JN	0.0014 J	0.0010 JN	0.0015 J	0.00070 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0064	0.0067	0.0026 J	0.0061 J	0.017	0.0024 J	0.0069	0.0028 J	0.00095 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0060 J	0.0051 J	0.0034 J	0.0038 JN	0.0047 JN	0.0045 J	0.0040 J	0.0033 JN	0.0022 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0025 J	0.0025 J	0.0012 J	0.0026 J	0.0041 J	0.0013 J	0.0027 JN	0.0013 J	0.00072 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0057 J	0.0035 J	0.0028 J	0.0022 JN	0.0030 JN	0.0043 J	0.0034 J	0.0031 J	0.0017 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00081 J+	0.0020 J+	0.00098 J+	0.00056 JN	0.00081 J+	0.00029 J+	0.0010 J+	< 0.00066 U	0.0041 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00068 J	0.00055 JN	0.00052 J	0.00053 JN	0.00077 J	0.00069 J	< 0.00029 U	0.00059 JN	0.00033 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0043 J	0.0039 J	0.0013 J	0.0029 J	0.0095	< 0.00013 U	0.0032 J	0.00088 J+	0.00078 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0012 J	0.0011 J	0.00047 J	0.00065 JN	0.0012 J	0.00063 J	0.00090 JN	0.00076 JN	0.00037 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0029 J	0.0023 J	0.00076 J	0.0023 J	0.0032 J	0.00074 J	0.0013 J	0.00097 J	0.00025 JN
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00033 JN	0.00038 JN	0.00053 J	< 0.00020 U	0.00052 J	0.00037 JN	0.00057 JN	0.00036 JN	0.00034 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0060	0.0044	0.0014	0.0041	0.0042	0.0012	0.0012 J	0.0017	0.00066 J
OCDD	3268-87-9	µg/kg	1.0	0.93	0.82	0.72	1.0	1.6	0.62	0.73	0.48
OCDF	39001-02-0	µg/kg	0.063	0.068	0.044	0.059	0.069	0.055	0.056	0.069	0.037
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0072	0.0063	0.0041	0.0049	0.0082	0.0058	0.0046	0.0042	0.0027
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.007	0.0056	0.0041	0.0039	0.0075	0.0056	0.0037	0.0031	0.002
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0068	0.0054	0.0041	0.0036	0.0073	0.0054	0.0034	0.0028	0.0019
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.023	0.0030 JN	0.0041 J	0.0029 J	0.0032 JN	0.0038 J	0.0029 J	0.022	0.0089 J
PCB-10	33146-45-1	ng/g	0.012	< 0.0052 U	< 0.0042 U	< 0.0054 U	< 0.0043 U	0.0012 JN	< 0.0050 U	0.0071 JN	< 0.0025 U
PCB-103	60145-21-3	ng/g	0.0087 J	0.010 JN	0.0075 JN	0.0080 J	0.010 J	0.0096 JN	0.0096 J	0.014	0.023
PCB-104	56558-16-8	ng/g	< 0.00044 U	< 0.00036 U	< 0.00033 U	< 0.00062 U	< 0.00029 U	< 0.00045 U	< 0.00041 U	< 0.00028 U	< 0.00080 U
PCB-105	32598-14-4	ng/g	0.14	0.24	0.12	0.15	0.19	0.23	0.25	1.1	0.23
PCB-106	70424-69-0	ng/g	< 0.0022 U	< 0.0021 U	< 0.0018 U	< 0.0022 U	< 0.0016 U	< 0.0015 U	< 0.0021 U	< 0.0022 U	< 0.0038 U
PCB-107	70424-68-9	ng/g	0.034	0.056	0.030	0.037	0.045	0.048 JN	0.055	0.17	0.053
PCB-108/124	70362-41-3	ng/g	0.011 J	0.022 J	0.010 JN	0.012 J	0.012 JN	0.022 J	0.023 J	0.094	0.022 JN
PCB-11	2050-67-1	ng/g	0.075	0.059	0.069	0.076	0.048 JN	0.074	0.086	0.075	0.058
PCB-110/115	38380-03-9	ng/g	0.51	0.87	0.46	0.54	0.68	0.76	0.84	3.5	1.1
PCB-111	39635-32-0	ng/g	< 0.00041 U	< 0.00033 U	< 0.00031 U	< 0.00057 U	< 0.00027 U	< 0.00041 U	< 0.00038 U	< 0.00025 U	< 0.00074 U
PCB-112	74472-36-9	ng/g	< 0.00043 U	< 0.00035 U	< 0.00033 U	< 0.00060 U	< 0.00029 U	< 0.00044 U	< 0.00040 U	< 0.00027 U	0.0033 JN
PCB-114	74472-37-0	ng/g	0.0065 J	0.013	0.0062 JN	0.0074 J	0.0091 JN	0.0095 JN	0.016	0.049	0.016 JN
PCB-118	31508-00-6	ng/g	0.36	0.61	0.30	0.41	0.51	0.59	0.67	2.6	0.90
PCB-12/13	2974-92-7	ng/g	0.032	0.0080 JN	0.0058 JN	0.0051 J	0.0074 JN	0.0044 J	< 0.0045 U	0.013 JN	0.0071 JN
PCB-120	68194-12-7	ng/g	0.0036 J	< 0.00034 U	0.0032 JN	< 0.00058 U	0.0040 J	< 0.00042 U	< 0.00039 U	< 0.00026 U	< 0.00075 U
PCB-121	56558-18-0	ng/g	< 0.00043 U	< 0.00035 U	< 0.00032 U	< 0.00060 U	< 0.00028 U	< 0.00043 U	< 0.00040 U	< 0.00027 U	< 0.00077 U
PCB-122	76842-07-4	ng/g	0.0041 J	0.0091 J	0.0038 JN	0.0065 J	0.0058 JN	0.0063 JN	0.0084 JN	0.035 JN	< 0.0044 U
PCB-123	65510-44-3	ng/g	0.0059 J	0.011 J	0.0049 JN	0.0071 J	0.0094 JN	0.011 J	0.010 JN	0.048	0.011
PCB-126	57465-28-8	ng/g	< 0.0023 U	0.0026 JN	0.0025 JN	< 0.0022 U	0.0028 JN	< 0.0015 U	0.0024 JN	0.0026 JN	< 0.0042 U
PCB-127	39635-33-1	ng/g	< 0.0022 U	< 0.0021 U	< 0.0018 U	< 0.0022 U	< 0.0016 U	< 0.0015 U	< 0.0021 U	< 0.0022 U	< 0.0038 U
PCB-128/166	38380-07-3	ng/g	0.098	0.13	0.078	0.10	0.11	0.13	0.17	0.65	1.4
PCB-129/138/160/163	55215-18-4	ng/g	0.79	0.96	0.63	0.74	0.85	0.90	1.1	3.6	19
PCB-130	52663-66-8	ng/g	0.051	0.061	0.031 JN	0.037	0.051	0.055	0.070	0.22	0.53
PCB-131	61798-70-7	ng/g	< 0.0067 U	0.0081 JN	0.0086 J	< 0.0053 U	0.0086 J	0.012	0.011 JN	0.049	< 0.025 U
PCB-132	38380-05-1	ng/g	0.23	0.31	0.18	0.22	0.26	0.27	0.34	1.1	4.9
PCB-133	35694-04-3	ng/g	0.0087 J	0.018	0.012	0.011 J	0.015 JN	0.012	0.017	0.032	0.21
PCB-134/143	52704-70-8	ng/g	0.031	0.050	0.030	0.031	0.046	0.044	0.057	0.18	0.78
PCB-135/151	52744-13-5	ng/g	0.23	0.32	0.23	0.22	0.27	0.25	0.27	0.63	5.7
PCB-136	38411-22-2	ng/g	0.081	0.12	0.072	0.071	0.088	0.090	0.092	0.28	1.5
PCB-137	35694-06-5	ng/g	0.025	0.029 JN	0.019	0.027	0.029	0.038	0.052 JN	0.21	0.11
PCB-139/140	56030-56-9	ng/g	0.011 J	0.012 JN	0.0094 JN	0.0077 J	0.011 JN	0.013 JN	0.012 JN	0.054 JN	< 0.021 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S159	S160	S161	S162	S163	S164	S165	S166	S167
		Sample ID	PDI-SG-S159	PDI-SG-S160	PDI-SG-S161	PDI-SG-S162	PDI-SG-S163	PDI-SG-S164	PDI-SG-S165	PDI-SG-S166	PDI-SG-S167
		Sample Date	18 May 2018	18 May 2018	14 May 2018	18 May 2018	18 May 2018	20 Jun 2018	16 May 2018	16 May 2018	16 Aµg 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0038 U	< 0.0040 U	< 0.0032 U	< 0.0041 U	< 0.0033 U	< 0.00085 U	< 0.0038 U	< 0.0025 U	< 0.0019 U
PCB-141	52712-04-6	ng/g	0.14	0.17	0.11	0.12	0.14	0.15	0.17	0.53	6.4
PCB-142	41411-61-4	ng/g	< 0.0061 U	< 0.0041 U	< 0.0045 U	< 0.0048 U	< 0.0029 U	< 0.0033 U	< 0.0040 U	< 0.0041 U	< 0.023 U
PCB-144	68194-14-9	ng/g	0.024	0.033 JN	0.022	0.019	0.029	0.028	0.027 JN	0.093	0.82
PCB-145	74472-40-5	ng/g	< 0.00060 U	< 0.00031 U	< 0.00048 U	< 0.00042 U	< 0.00023 U	< 0.00039 U	< 0.00035 U	0.0013 JN	0.011
PCB-146	51908-16-8	ng/g	0.14	0.19	0.12	0.13	0.16	0.14	0.18	0.38	2.9
PCB-147/149	68194-13-8	ng/g	0.71	0.90	0.58	0.62	0.78	0.72	0.86	2.3	20
PCB-148	74472-41-6	ng/g	< 0.00085 U	0.0035 JN	0.0033 J	< 0.00059 U	0.0028 J	< 0.00055 U	0.0021 JN	< 0.00052 U	< 0.0016 U
PCB-15	2050-68-2	ng/g	0.16	0.056	0.026	0.032	0.049	0.035	0.030	0.29	0.019
PCB-150	68194-08-1	ng/g	0.0028 J	0.0025 JN	0.0017 JN	0.0016 J	0.0019 JN	0.0016 JN	0.0027 J	0.0022 JN	0.0097 JN
PCB-152	68194-09-2	ng/g	< 0.00062 U	< 0.00031 U	< 0.00049 U	< 0.00043 U	0.0013 J	0.0016 J	0.0023 J	0.0013 JN	< 0.0012 U
PCB-153/168	35065-27-1	ng/g	0.69	0.83	0.55	0.60	0.72	0.70	0.84	2.2	23
PCB-154	60145-22-4	ng/g	0.012	0.020	0.014 JN	0.013	0.013	0.015	0.018	0.029	0.078
PCB-155	33979-03-2	ng/g	< 0.00058 U	< 0.00029 U	< 0.00046 U	< 0.00040 U	< 0.00022 U	< 0.00037 U	< 0.00033 U	< 0.00035 U	< 0.0011 U
PCB-156/157	38380-08-4	ng/g	0.068	0.096	0.057	0.071	0.076	0.091	0.12	0.47	1.0
PCB-158	74472-42-7	ng/g	0.063	0.084	0.051	0.062	0.062 JN	0.082	0.10	0.38	1.8
PCB-159	39635-35-3	ng/g	< 0.0041 U	0.0074 J	0.0066 J	< 0.0032 U	0.0048 JN	< 0.0022 U	0.0082 J	< 0.0027 U	0.36
PCB-16	38444-78-9	ng/g	0.31	0.090	0.024	0.033	0.064	0.025	0.021	0.098	0.015 JN
PCB-161	74472-43-8	ng/g	< 0.0040 U	< 0.0028 U	< 0.0030 U	< 0.0032 U	< 0.0019 U	< 0.0022 U	< 0.0026 U	< 0.0027 U	< 0.015 U
PCB-162	39635-34-2	ng/g	< 0.0040 U	< 0.0027 U	< 0.0029 U	< 0.0031 U	0.0025 JN	< 0.0022 U	0.0046 J	< 0.0027 U	< 0.015 U
PCB-164	74472-45-0	ng/g	0.058	0.054 JN	0.041	0.048	0.060	0.056	0.062	0.22	1.3
PCB-165	74472-46-1	ng/g	< 0.0046 U	< 0.0031 U	< 0.0034 U	< 0.0036 U	< 0.0022 U	< 0.0025 U	< 0.0030 U	< 0.0031 U	< 0.017 U
PCB-167	52663-72-6	ng/g	0.022	0.031	0.019	0.023	0.026	0.029	0.036	0.13	0.37
PCB-169	32774-16-6	ng/g	< 0.0033 U	< 0.0021 U	< 0.0023 U	< 0.0027 U	0.0035 JN	< 0.0018 U	< 0.0020 U	< 0.0021 U	< 0.012 U
PCB-17	37680-66-3	ng/g	0.36	0.12	0.038	0.057	0.099	0.035	0.032 JN	0.11	0.032
PCB-170	35065-30-6	ng/g	0.24	0.28	0.20	0.18	0.24	0.20	0.23	0.49	10
PCB-171/173	52663-71-5	ng/g	0.069	0.086	0.053	0.053	0.069	0.058	0.062	0.13	2.9
PCB-172	52663-74-8	ng/g	0.040	0.042	0.033	0.032	0.040	0.033	0.039	0.062	1.6
PCB-174	38411-25-5	ng/g	0.25	0.30	0.19	0.19	0.23	0.20	0.21	0.37	10
PCB-175	40186-70-7	ng/g	0.0087 J	0.012	0.0081 JN	0.0076 J	0.0079 J	0.011 J	0.0076 JN	0.013	0.41
PCB-176	52663-65-7	ng/g	0.028	0.038	0.024	0.020	0.029	0.024	0.026	0.044	1.4
PCB-177	52663-70-4	ng/g	0.14	0.18	0.12	0.12	0.14	0.12	0.13	0.21	5.8
PCB-178	52663-67-9	ng/g	0.053	0.068	0.045	0.047	0.051	0.047	0.054	0.066	1.9
PCB-179	52663-64-6	ng/g	0.11	0.14	0.091	0.090	0.12	0.090	0.11	0.14	4.1
PCB-18/30	37680-65-2	ng/g	0.76	0.26	0.069	0.11	0.18	0.068	0.069	0.37	0.037
PCB-180/193	35065-29-3	ng/g	0.54	0.59	0.40	0.37	0.49	0.40	0.45	0.78	21
PCB-181	74472-47-2	ng/g	< 0.0019 U	< 0.00070 U	< 0.0011 U	< 0.0018 U	< 0.00034 U	0.0018 JN	0.0029 JN	0.0056 JN	< 0.0033 U
PCB-182	60145-23-5	ng/g	< 0.0018 U	0.0034 JN	< 0.0011 U	< 0.0018 U	0.0041 J	< 0.0010 U	0.0053 J	0.0047 JN	0.076 JN
PCB-183/185	52663-69-1	ng/g	0.17	0.19	0.13	0.12	0.16	0.13	0.15	0.25	7.8
PCB-184	74472-48-3	ng/g	< 0.0016 U	< 0.00058 U	< 0.00093 U	< 0.0015 U	< 0.00028 U	< 0.00089 U	< 0.00079 U	< 0.00028 U	< 0.0027 U
PCB-186	74472-49-4	ng/g	< 0.0015 U	< 0.00056 U	< 0.00090 U	< 0.0015 U	< 0.00027 U	< 0.00086 U	< 0.00077 U	< 0.00027 U	< 0.0027 U
PCB-187	52663-68-0	ng/g	0.33	0.39	0.26	0.25	0.31	0.26	0.28	0.40	11
PCB-188	74487-85-7	ng/g	< 0.0013 U	< 0.00048 U	< 0.00079 U	< 0.0012 U	< 0.00023 U	< 0.00072 U	< 0.00065 U	< 0.00022 U	< 0.0022 U
PCB-189	39635-31-9	ng/g	0.0087 J	0.0072 JN	0.0049 J	< 0.0030 U	0.0064 JN	0.0082 J	0.0068 J	0.015	0.31
PCB-19	38444-73-4	ng/g	0.088	0.034 JN	0.017 JN	0.020	0.024	0.021	0.014 JN	0.13	0.047
PCB-190	41411-64-7	ng/g	0.033	0.053	0.034	0.028	0.038	0.041	0.034 JN	0.068	1.8
PCB-191	74472-50-7	ng/g	0.010 J	0.012	0.0084 J	0.0067 J	0.0076 J	0.0079 J	0.0075 J	0.015	0.43
PCB-192	74472-51-8	ng/g	< 0.0016 U	< 0.00059 U	< 0.00096 U	< 0.0016 U	< 0.00029 U	< 0.00091 U	< 0.00081 U	< 0.00029 U	< 0.0028 U
PCB-194	35694-08-7	ng/g	0.15	0.15	0.10	0.10	0.12	0.11	0.13	0.17	5.3
PCB-195	52663-78-2	ng/g	0.069	0.056 JN	0.044	0.047	0.055	0.043	0.059	0.061	2.8
PCB-196	42740-50-1	ng/g	0.055	0.064	0.045	0.041	0.055	0.042	0.048	0.054 JN	2.0
PCB-197	33091-17-7	ng/g	0.0050 J	0.0049 J	0.0041 J	0.0037 J	0.0029 JN	0.0035 J	0.0054 JN	0.0042 J	0.19
PCB-198/199	68194-17-2	ng/g	0.16	0.17	0.12	0.12	0.13	0.11	0.12	0.16	3.7
PCB-2	2051-61-8	ng/g	0.0072 J	0.0064 JN	0.0093 JN	0.0072 J	0.0075 JN	0.0098 J	0.0076 J	0.014	0.0072 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S159	S160	S161	S162	S163	S164	S165	S166	S167
		Sample ID	PDI-SG-S159	PDI-SG-S160	PDI-SG-S161	PDI-SG-S162	PDI-SG-S163	PDI-SG-S164	PDI-SG-S165	PDI-SG-S166	PDI-SG-S167
		Sample Date	18 May 2018	18 May 2018	14 May 2018	18 May 2018	18 May 2018	20 Jun 2018	16 May 2018	16 May 2018	16 Aµg 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.77	0.40	0.14	0.20	0.35	0.16	0.15	0.80	0.075
PCB-200	52663-73-7	ng/g	0.014	0.014 JN	0.012	0.011 J	0.012	0.011 J	0.0086 JN	0.013 JN	0.50
PCB-201	40186-71-8	ng/g	0.015	0.016	0.015	0.011 J	0.013	0.012	0.011 JN	0.015	0.45
PCB-202	2136-99-4	ng/g	0.031	0.032	0.026	0.023	0.027	0.024	0.028	0.033	0.70
PCB-203	52663-76-0	ng/g	0.097	0.096	0.062	0.060	0.074	0.065	0.068	0.10	2.5
PCB-204	74472-52-9	ng/g	< 0.0011 U	< 0.00044 U	< 0.00080 U	< 0.0014 U	< 0.00023 U	< 0.00067 U	< 0.00052 U	< 0.00035 U	< 0.0021 U
PCB-205	74472-53-0	ng/g	0.0081 J	0.0073 JN	0.0065 J	< 0.0040 U	0.0059 J	0.0054 J	0.0057 JN	0.0051 JN	0.30
PCB-206	40186-72-9	ng/g	0.099	0.091 JN	0.076	0.071	0.083	0.068	0.070 JN	0.094 JN	0.89
PCB-207	52663-79-3	ng/g	0.011 J	0.0081 JN	0.0079 J	0.0055 J	0.0064 JN	0.0059 J	0.0095 JN	0.010	0.10
PCB-208	52663-77-1	ng/g	0.034	0.028 JN	0.023	0.021	0.026	0.020	0.031	0.027	0.16
PCB-209	2051-24-3	ng/g	0.15	0.10	0.090	0.090	0.097	0.082	0.17	0.069	0.064
PCB-21/33	55702-46-0	ng/g	0.47	0.19	0.058	0.083	0.16	0.060	0.055	0.11	0.028
PCB-22	38444-85-8	ng/g	0.27	0.11	0.035	0.055	0.093	0.043	0.043	0.27	0.017
PCB-23	55720-44-0	ng/g	< 0.0014 U	< 0.0016 U	< 0.0012 U	< 0.0015 U	< 0.0012 U	< 0.00083 U	< 0.0014 U	< 0.0013 U	< 0.0014 U
PCB-24	55702-45-9	ng/g	0.016	0.0029 JN	< 0.00047 U	< 0.00091 U	0.0018 JN	0.0015 J	0.0013 JN	0.014 JN	< 0.00095 U
PCB-25	55712-37-3	ng/g	0.067	0.025	0.012	0.011 J	0.022	0.0094 JN	0.011 J	0.026	0.0070 JN
PCB-26/29	38444-81-4	ng/g	0.14	0.055	0.020 J	0.024 J	0.044	0.021 J	0.020 J	0.090	0.012 J
PCB-27	38444-76-7	ng/g	0.052	0.021	0.0072 JN	0.0086 J	0.012 JN	0.0076 J	0.0079 J	0.052 JN	0.0071 J
PCB-3	2051-62-9	ng/g	0.010 J	0.0049 JN	0.0043 JN	0.0044 J	0.0051 JN	0.0041 JN	0.0038 J	0.012 JN	0.0057 JN
PCB-31	16606-02-3	ng/g	0.69	0.33	0.10	0.15	0.28	0.12	0.10	0.42	0.050
PCB-32	38444-77-8	ng/g	0.16	0.073	0.025	0.030	0.052	0.027	0.028	0.28	0.026
PCB-34	37680-68-5	ng/g	< 0.0014 U	< 0.0017 U	< 0.0012 U	< 0.0015 U	< 0.0013 U	< 0.00087 U	< 0.0015 U	< 0.0014 U	< 0.0015 U
PCB-35	37680-69-6	ng/g	0.0096 J	0.0035 J	< 0.0012 U	< 0.0015 U	0.0047 J	0.0031 J	0.0026 J	0.0060 JN	< 0.0014 U
PCB-36	38444-87-0	ng/g	< 0.0013 U	< 0.0015 U	< 0.0011 U	< 0.0014 U	< 0.0012 U	< 0.00081 U	0.0039 J	< 0.0013 U	< 0.0014 U
PCB-37	38444-90-5	ng/g	0.14	0.098	0.040	0.050	0.086	0.049	0.042	0.21	0.019
PCB-38	53555-66-1	ng/g	< 0.0014 U	< 0.0017 U	< 0.0012 U	< 0.0015 U	< 0.0013 U	< 0.00087 U	< 0.0015 U	< 0.0014 U	< 0.0015 U
PCB-39	38444-88-1	ng/g	< 0.0013 U	0.0038 J	< 0.0011 U	< 0.0014 U	0.0023 J	< 0.00078 U	< 0.0013 U	0.0024 JN	< 0.0013 U
PCB-4	13029-08-8	ng/g	0.21	0.036	0.022 J	0.017 J	0.020 JN	0.017 JN	0.021 JN	0.090	0.041
PCB-40/41/71	38444-93-8	ng/g	0.33	0.25	0.071	0.12	0.20	0.093	0.080	0.26	0.060
PCB-42	36559-22-5	ng/g	0.16	0.12	0.032 JN	0.057	0.094	0.041 JN	0.042	0.12	0.034
PCB-43/73	70362-46-8	ng/g	0.018 J	0.017 J	0.0055 J	0.0066 J	0.010 J	0.0044 JN	0.0084 JN	0.016 J	0.0087 JN
PCB-44/47/65	41464-39-5	ng/g	0.63	0.50	0.18	0.25	0.38	0.25	0.21	0.71	0.23
PCB-45/51	70362-45-7	ng/g	0.14	0.086	0.029	0.040	0.064	0.033	0.033	0.12	0.050
PCB-46	41464-47-5	ng/g	0.041	0.028	0.0061 JN	0.013	0.017	0.010 J	0.010 J	0.040	0.0078 JN
PCB-48	70362-47-9	ng/g	0.15	0.093	0.023	0.045	0.070	0.032	0.026 JN	0.049 JN	0.018
PCB-49/69	41464-40-8	ng/g	0.37	0.31	0.12	0.17	0.26	0.16	0.15	0.39	0.15
PCB-5	16605-91-7	ng/g	0.011 J	< 0.0053 U	< 0.0042 U	< 0.0055 U	< 0.0044 U	< 0.0011 U	< 0.0051 U	< 0.0033 U	< 0.0026 U
PCB-50/53	62796-65-0	ng/g	0.096	0.066	0.025	0.033	0.052	0.029	0.028	0.090	0.051
PCB-52	35693-99-3	ng/g	0.64	0.62	0.21	0.31	0.47	0.36	0.31	1.3	0.23
PCB-54	15968-05-5	ng/g	0.0052 J	0.0026 JN	0.0027 J	0.0036 J	0.0025 JN	0.0032 JN	0.0032 JN	0.0020 JN	0.0084 JN
PCB-55	74338-24-2	ng/g	0.0014 J	0.011 J	< 0.0022 U	0.0035 J	0.0090 JN	0.0052 JN	0.0044 JN	0.014 JN	< 0.00065 U
PCB-56	41464-43-1	ng/g	0.096	0.20	0.070	0.10	0.17	0.093	0.081	0.21	0.047
PCB-57	70424-67-8	ng/g	< 0.0014 U	< 0.0025 U	< 0.0022 U	< 0.0017 U	< 0.0021 U	< 0.0014 U	< 0.0022 U	< 0.0028 U	< 0.00066 U
PCB-58	41464-49-7	ng/g	< 0.0014 U	0.0028 JN	< 0.0022 U	< 0.0017 U	< 0.0021 U	0.0030 JN	0.0032 J	< 0.0029 U	0.0069 J
PCB-59/62/75	74472-33-6	ng/g	0.057	0.036 J	0.0098 JN	0.016 J	0.030 J	0.013 JN	0.014 J	0.038	0.012 J
PCB-6	25569-80-6	ng/g	0.099	0.018 JN	0.010 J	0.011 J	0.012 JN	0.0089 JN	0.0081 JN	0.028	0.0081 J
PCB-60	33025-41-1	ng/g	0.031	0.075	0.025	0.032	0.056	0.034	0.032	0.091	0.017
PCB-61/70/74/76	33284-53-6	ng/g	0.49	0.84	0.30	0.43	0.72	0.40	0.37	0.99	0.24
PCB-63	74472-34-7	ng/g	0.013	0.016	0.0066 J	0.0091 J	0.015	0.0078 J	0.0062 JN	0.0084 JN	0.0052 JN
PCB-64	52663-58-8	ng/g	0.22	0.19	0.062	0.094	0.15	0.084	0.074	0.25	0.046
PCB-66	32598-10-0	ng/g	0.27	0.46	0.18	0.25	0.43	0.23	0.21	0.55	0.14
PCB-67	73575-53-8	ng/g	0.010 J	0.0078 JN	0.0027 JN	0.0058 J	0.0097 J	0.0052 JN	0.0046 J	0.0081 J	0.0045 JN
PCB-68	73575-52-7	ng/g	0.0097 J	0.0041 JN	0.0037 JN	0.0028 J	0.0043 J+	0.0031 JN	< 0.0020 U	< 0.0025 U	0.0046 JN
PCB-7	33284-50-3	ng/g	0.022	< 0.0048 U	< 0.0038 U	< 0.0049 U	< 0.0040 U	0.0021 JN	< 0.0046 U	0.0053 JN	0.0025 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S159	S160	S161	S162	S163	S164	S165	S166	S167
		Sample ID	PDI-SG-S159	PDI-SG-S160	PDI-SG-S161	PDI-SG-S162	PDI-SG-S163	PDI-SG-S164	PDI-SG-S165	PDI-SG-S166	PDI-SG-S167
		Sample Date	18 May 2018	18 May 2018	14 May 2018	18 May 2018	18 May 2018	20 Jun 2018	16 May 2018	16 May 2018	16 Aµg 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0038 J	0.0071 J	0.0043 J	0.0044 J	0.0051 J	0.0040 JN	0.0044 J	< 0.0028 U	0.0063 J
PCB-77	32598-13-3	ng/g	0.022	0.034	0.019	0.022	0.036	0.022	0.016	0.047	0.010 J
PCB-78	70362-49-1	ng/g	< 0.0014 U	< 0.0026 U	< 0.0022 U	< 0.0017 U	< 0.0021 U	< 0.0014 U	< 0.0022 U	< 0.0029 U	< 0.00067 U
PCB-79	41464-48-6	ng/g	0.0035 J	0.0040 J	0.0042 JN	0.0026 J	0.0041 J	< 0.0012 U	0.0064 J	0.014	0.0035 JN
PCB-8	34883-43-7	ng/g	0.42	0.082	0.030	0.043	0.067	0.032	0.030 JN	0.092	0.026
PCB-80	33284-52-5	ng/g	< 0.0012 U	< 0.0022 U	< 0.0019 U	< 0.0015 U	< 0.0018 U	< 0.0012 U	< 0.0019 U	< 0.0024 U	< 0.00057 U
PCB-81	70362-50-4	ng/g	< 0.0012 U	< 0.0024 U	< 0.0020 U	< 0.0016 U	< 0.0019 U	< 0.0013 U	< 0.0020 U	< 0.0026 U	< 0.00062 U
PCB-82	52663-62-4	ng/g	0.052	0.097	0.039 JN	0.044	0.066 JN	0.077	0.087	0.32	0.045
PCB-83/99	60145-20-2	ng/g	0.29	0.46	0.26	0.30	0.40	0.40	0.44	1.6	0.46
PCB-84	52663-60-2	ng/g	0.10	0.19	0.083	0.10	0.14	0.15	0.15	0.66	0.096
PCB-85/116/117	65510-45-4	ng/g	0.079	0.14	0.067	0.086	0.11	0.11	0.12 JN	0.51	0.085
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.25	0.49	0.23	0.29	0.36	0.42	0.45	1.9	0.44
PCB-88/91	55215-17-3	ng/g	0.069	0.12	0.064	0.068	0.091	0.10	0.098	0.35	0.15
PCB-89	73575-57-2	ng/g	0.0037 J	0.0087 JN	0.0046 J	0.0050 J	0.0070 JN	< 0.00067 U	< 0.00062 U	0.014 JN	< 0.0012 U
PCB-9	34883-39-1	ng/g	0.033	0.0074 JN	< 0.0039 U	< 0.0051 U	0.0048 JN	0.0025 J	< 0.0047 U	0.0081 JN	< 0.0024 U
PCB-90/101/113	68194-07-0	ng/g	0.45	0.78	0.41	0.47	0.62	0.66	0.71	2.8	2.4
PCB-92	52663-61-3	ng/g	0.090	0.14	0.081	0.089	0.11	0.12	0.13	0.44	0.27
PCB-93/100	73575-56-1	ng/g	0.013 J	0.019 J	0.010 JN	0.0086 J	0.014 J	0.042	0.018 J	0.037	0.055
PCB-94	73575-55-0	ng/g	< 0.00066 U	< 0.00054 U	< 0.00050 U	< 0.00092 U	< 0.00044 U	< 0.00067 U	< 0.00061 U	0.0082 JN	< 0.0012 U
PCB-95	38379-99-6	ng/g	0.39	0.63	0.29	0.37	0.46	0.52	0.49	2.1	0.82
PCB-96	73575-54-9	ng/g	0.0070 J	0.0076 JN	0.0037 J	< 0.00070 U	0.0056 J	0.0047 J	< 0.00046 U	< 0.00031 U	< 0.00090 U
PCB-98/102	60233-25-2	ng/g	0.020 J	0.019 JN	0.012 JN	0.010 J	0.017 JN	0.019 J	0.021 J	0.053	0.018 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	19	19	10	11	15	13	14	45	202
Pesticides											
2,4-DDD	53-19-0	µg/kg	1.2	1.2 J	< 1.2 U	< 1.3 U	0.81 J	0.49	< 1.2 U	< 0.95 U	< 0.42 U
2,4-DDE	3424-82-6	µg/kg	< 1.2 U	< 1.2 U	< 1.2 U	< 1.3 U	< 1.2 U	< 0.48 U	< 1.2 U	< 0.95 U	< 0.42 U
2,4-DDT	789-02-6	µg/kg	< 1.2 U	< 1.2 U	< 1.2 U	< 1.3 U	< 1.2 U	< 0.48 U	< 1.2 U	< 0.95 U	< 0.42 U
4,4'-DDD	72-54-8	µg/kg	3.5	2.6	2.0	1.6	2.1	1.0	1.3	0.76 J	0.75
4,4'-DDE	72-55-9	µg/kg	2.7	2.9	3.1	2.2	2.8	2.9	2.2	1.5	2.1
4,4'-DDT	50-29-3	µg/kg	17	0.87 J	0.66 J	1.3 J	1.7	0.35 J	< 1.2 U	0.48 J	0.28 J
DDx (b)	T_DDx (PDI)	µg/kg	25	8.2	6.4	5.8	8.0	5.0	4.1	3.2	3.3
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	52	11	9.2	10	9.7	19	3.9	2.7	14 J
Acenaphthene	83-32-9	µg/kg	140	40	19	20	16	67	3.0	3.5	25
Acenaphthylene	208-96-8	µg/kg	11	6.8	3.7	6.1	8.4	20	3.9	3.4	4.4 J
Anthracene	120-12-7	µg/kg	81	31	15	25	26	92	8.2	17	33
Benz(a)anthracene	56-55-3	µg/kg	150	65	35	76	61	150	25	77	33
Benzo(a)pyrene	50-32-8	µg/kg	92	56	39	66	61	77 J	28	67	33
Benzo(b)fluoranthene	205-99-2	µg/kg	160	79	50	84	82	170	40	100	49
Benzo(g,h,i)perylene	191-24-2	µg/kg	43	32	25	34	35	36	26	44	32
Benzo(k)fluoranthene	207-08-9	µg/kg	57	26	15	31	30	58	12	39	18 J
Chrysene	218-01-9	µg/kg	220	91	57	93	88	200	40	130	40
Dibenz(a,h)anthracene	53-70-3	µg/kg	11	6.5	4.0	7.5	7.5	9.0 J	4.5	11	< 22 U
Fluoranthene	206-44-0	µg/kg	790	300	170	290	230	780	73	260	99
Fluorene	86-73-7	µg/kg	190	51	25	27	24	110	6.1	6.9	29
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	47	31	23	33	34	59	23	47	32
Naphthalene	91-20-3	µg/kg	28	10	12	11	16	31	5.7	3.5	20 J
Phenanthrene	85-01-8	µg/kg	690	240	120	140	130	380	33	69	160
Pyrene	129-00-0	µg/kg	640	210	150	200	180	640	75	220	54
Total PAHs (b)	T_PAH (PDI)	µg/kg	3402	1286	772	1154	1039	2898	410	1101	686
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	139	80	54	93	87	125	41	101	56
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	39.8	39.1	41.4	39.2	40.2	40.7 43.0	39.3	50.8	45.2
Total Solids@104C - E160.3M (f)	TSOLID	%	39.8	40.1	41.0	39.7	41.4	41.0	40.8	52.1	47.0
Total Solids@70C	TSOLID70	%	40	41	40	39	40	42	40	51	45
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0.2
Sand, Coarse	GS-Csand	%	0	0	0	0	0	0.1	0	0.3	0.2

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S159	S160	S161	S162	S163	S164	S165	S166	S167
		Sample ID	PDI-SG-S159	PDI-SG-S160	PDI-SG-S161	PDI-SG-S162	PDI-SG-S163	PDI-SG-S164	PDI-SG-S165	PDI-SG-S166	PDI-SG-S167
		Sample Date	18 May 2018	18 May 2018	14 May 2018	18 May 2018	18 May 2018	20 Jun 2018	16 May 2018	16 May 2018	16 Aµg 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-29 cm	0-30 cm	0-30 cm	0-27 cm	0-27 cm	0-27 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.2	0.2	0.2	0.1	0.2	0.3	0.1	1.4	0.5
Sand, Fine (#200) (d)	GS-Fsand-200	%	5.921	6.581	7.581	6.237	9.783	13.3	11.57	39.19	32.14
Sand, Fine (#230) (d)	GS-Fsand	%	7.3	8.3	9.3	8.0	12.2	17.3	14.7	42.1	37.0
Silt (#200) (d)	GS-Silt-200	%	82.97	84.81	76.11	85.16	81.81	78.49	75.72	51.60	59.05
Silt (#230) (d)	GS-Silt	%	81.6	83.1	74.4	83.4	79.4	74.5	72.6	48.7	54.2
Clay	GS-Clay	%	10.9	8.4	16.2	8.5	8.1	7.8	12.5	7.5	7.9
Percent Fines (e)	GS-FINES	%	93.87	93.21	92.31	93.66	89.91	86.29	88.22	59.1	66.95
Total Organic Carbon	TOC	mg/kg	31000	29000	28000	30000	26000	27000	22000	15000	53000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S168	S169	S170	S171	S172	S173	S174	S175	S176
		Sample ID	PDI-SG-S168	PDI-SG-S169	PDI-SG-S170	PDI-SG-S171	PDI-SG-S172	PDI-SG-S173	PDI-SG-S174	PDI-SG-S175	PDI-SG-S176
		Sample Date	24 Jun 2018	04 May 2018	04 May 2018	22 Jun 2018	03 May 2018	04 May 2018	22 Jun 2018	25 Jun 2018	02 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.071	0.15	0.21	0.090	0.17	0.36	0.18	0.051	0.39
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.013	0.025	0.056	0.015	0.047	0.041	0.029	0.0086	0.073
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00075 J	< 0.00095 U	0.0025 J	0.0011 J	< 0.0014 U	0.0021 J	0.0019 J	0.00052 J+	0.0063
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00069 J	0.0016 J+	0.0018 J+	0.00093 J	0.00096 J+	0.0020 J	0.0012 J	0.00061 J	0.0018 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0010 J	0.0025 J	0.0043 J	0.0014 J	0.0023 J	0.0045 J	0.0023 J	0.00053 JN	0.0059
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0022 J	0.0056 J	0.0086	0.0031 J	0.0056	0.011	0.0049 J	0.0018 J	0.011
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00048 J	0.0013 J+	0.0046 J	0.00071 J	0.0029 J	0.0020 J	0.0011 J	0.00041 J	0.0042 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0017 J	0.0036 J	0.0049 J	0.0022 J	0.0027 J	0.0053 J	0.0030 J	0.0015 JN	0.0040 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00011 U	< 0.00015 U	< 0.00025 U	0.00018 J+	< 0.00043 U	< 0.00026 U	< 0.000073 U	< 0.00013 U	0.0014 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00043 JN	0.00095 J	0.0011 J	0.00057 J	0.00057 J+	0.0011 JN	0.00069 J	0.00033 J	< 0.00041 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00030 J+	0.00060 J	0.0016 J	0.00039 J+	0.00088 J+	0.0012 J	0.00059 J	0.00030 J+	0.0018 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00026 JN	0.00062 JN	0.0014 J	0.00041 J	0.00094 J	0.0010 J	0.00061 J	0.00023 JN	0.0018 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00026 J	0.00069 J	0.0012 J	0.00036 J	0.00071 JN	< 0.00019 U	0.00056 J	0.00023 J	0.0017 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00029 JN	0.00021 J	0.00062 JN	< 0.00020 U	< 0.000075 U	0.00067 J	0.00044 JN	0.00020 JN	0.00096
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00046 J	0.0022 J+	0.0018 J+	0.00067 J	0.00063 J+	0.0018 J+	0.00091 J	0.00040 J	0.0025
OCDD	3268-87-9	µg/kg	0.70	1.3	2.4	0.83	1.3	2.7	2.0	0.43	4.3 J
OCDF	39001-02-0	µg/kg	0.044	0.078	0.13	0.053	0.056	0.15	0.12	0.025	0.29
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0026	0.0053	0.0083	0.0031	0.005	0.0095	0.0055	0.0019	0.011
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.002	0.0053	0.008	0.0031	0.0049	0.0089	0.0052	0.0016	0.011
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0018	0.0052	0.0077	0.003	0.0048	0.0084	0.005	0.0015	0.011
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0046 J	0.11	0.24 J	0.028	< 0.0021 U	0.34	0.080	< 0.00052 U	0.47
PCB-10	33146-45-1	ng/g	< 0.0019 U	0.0043 J	0.017 JN	< 0.0017 U	< 0.014 U	0.0078 JN	0.0028 JN	< 0.0039 U	0.051 J
PCB-103	60145-21-3	ng/g	0.013	0.11	0.52	0.047	0.24	0.12	0.080	0.011	1.2
PCB-104	56558-16-8	ng/g	< 0.00052 U	< 0.00070 U	< 0.0018 U	< 0.00041 U	< 0.0022 U	< 0.0019 U	< 0.00047 U	< 0.00034 U	< 0.0036 U
PCB-105	32598-14-4	ng/g	0.12	0.98	7.3	0.46	0.61	3.2	0.77	0.098	52
PCB-106	70424-69-0	ng/g	< 0.0018 U	< 0.0085 U	< 0.052 U	< 0.0023 U	< 0.0080 U	< 0.014 U	< 0.0030 U	< 0.0025 U	< 0.15 U
PCB-107	70424-68-9	ng/g	0.054	0.42	1.9	0.20	0.18	0.71	0.30	0.030	9.4
PCB-108/124	70362-41-3	ng/g	0.013 JN	0.12	0.94	0.051	0.062 J	0.41	0.090	0.011 JN	5.8
PCB-11	2050-67-1	ng/g	0.045	0.21	0.061 JN	0.062	< 0.012 U	0.16 J	0.075	0.044 JN	0.087 J
PCB-110/115	38380-03-9	ng/g	0.64	5.3	31	2.4	3.1	11	3.9	0.44	190
PCB-111	39635-32-0	ng/g	< 0.00048 U	< 0.00062 U	< 0.0016 U	< 0.00038 U	< 0.0020 U	< 0.0017 U	< 0.00044 U	< 0.00032 U	< 0.0032 U
PCB-112	74472-36-9	ng/g	< 0.00051 U	0.017 JN	0.10 J	0.045	< 0.0021 U	0.064 JN	< 0.00046 U	< 0.00033 U	1.2
PCB-114	74472-37-0	ng/g	0.010 J	0.070	0.53	0.027	0.036 JN	0.28	0.047	< 0.0024 U	3.6
PCB-118	31508-00-6	ng/g	0.47	3.3	22	1.7	1.7	8.6	2.9	0.32	130
PCB-12/13	2974-92-7	ng/g	0.0056 JN	0.039	0.076 J	0.012 JN	< 0.013 U	0.043 J	0.022 JN	0.0049 JN	0.13 JN
PCB-120	68194-12-7	ng/g	0.0060 JN	< 0.00062 U	0.15 JN	0.021	< 0.0020 U	0.067 J	0.033	0.0040 J	1.0
PCB-121	56558-18-0	ng/g	< 0.00051 U	< 0.00067 U	< 0.0017 U	< 0.00040 U	0.025 J	< 0.0018 U	< 0.00046 U	< 0.00033 U	< 0.0034 U
PCB-122	76842-07-4	ng/g	0.0051 JN	0.049	0.40 JN	0.022	< 0.0093 U	0.20	0.029 JN	< 0.0029 U	2.4
PCB-123	65510-44-3	ng/g	0.0065 J	0.046	0.40	0.023	0.017 JN	0.17	0.036 JN	0.0059 JN	2.1
PCB-126	57465-28-8	ng/g	< 0.0019 U	< 0.0083 U	0.085 J	< 0.0025 U	< 0.0088 U	0.018 J	0.011	< 0.0027 U	0.33
PCB-127	39635-33-1	ng/g	< 0.0018 U	< 0.0081 U	< 0.050 U	< 0.0023 U	< 0.0080 U	0.029 J	< 0.0030 U	< 0.0025 U	0.43
PCB-128/166	38380-07-3	ng/g	0.12	0.70	5.1	0.37	0.38	1.9	0.64	0.080	27
PCB-129/138/160/163	55215-18-4	ng/g	0.89	5.1	31	2.6	3.2	11	4.6	0.62	150
PCB-130	52663-66-8	ng/g	0.056	0.38	2.5	0.18	0.18 JN	0.85	0.31	0.039	11
PCB-131	61798-70-7	ng/g	< 0.0054 U	0.065	0.57	0.025 JN	< 0.024 U	0.21	< 0.0080 U	< 0.0052 U	3.0
PCB-132	38380-05-1	ng/g	0.28	1.6	11	0.92	1.0	4.4	1.7	0.20	56
PCB-133	35694-04-3	ng/g	0.017	0.092	0.58	0.049	0.21	0.23	0.093	0.011	2.4
PCB-134/143	52704-70-8	ng/g	0.037 JN	0.32	2.0	0.16	0.20	0.85	0.28	0.037	11
PCB-135/151	52744-13-5	ng/g	0.29	1.2	8.8	0.90	2.0	3.4	1.6	0.20	35
PCB-136	38411-22-2	ng/g	0.10	0.61	4.4	0.33	0.66 J-	1.6	0.60	0.073	17
PCB-137	35694-06-5	ng/g	0.034	0.22	1.6	0.099	0.11	0.61	0.18	0.021	8.9
PCB-139/140	56030-56-9	ng/g	0.0096 JN	0.10	0.73	0.048	0.11 J	0.28	0.082	0.011 J	3.4

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S168	S169	S170	S171	S172	S173	S174	S175	S176
		Sample ID	PDI-SG-S168	PDI-SG-S169	PDI-SG-S170	PDI-SG-S171	PDI-SG-S172	PDI-SG-S173	PDI-SG-S174	PDI-SG-S175	PDI-SG-S176
		Sample Date	24 Jun 2018	04 May 2018	04 May 2018	22 Jun 2018	03 May 2018	04 May 2018	22 Jun 2018	25 Jun 2018	02 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0015 U	< 0.00095 U	< 0.0036 U	< 0.0013 U	< 0.011 U	< 0.0036 U	< 0.0015 U	< 0.0030 U	< 0.0077 U
PCB-141	52712-04-6	ng/g	0.15	0.79	5.1	0.43	0.49	2.0	0.83	0.10	24
PCB-142	41411-61-4	ng/g	< 0.0048 U	< 0.0031 U	< 0.025 U	< 0.0039 U	< 0.021 U	< 0.010 U	< 0.0072 U	< 0.0047 U	< 0.062 U
PCB-144	68194-14-9	ng/g	0.025 JN	0.13	1.2	0.090	0.083 JN	0.50	0.16	0.020	5.6
PCB-145	74472-40-5	ng/g	< 0.00055 U	0.0028 JN	0.025 J	< 0.00030 U	< 0.0025 U	< 0.0029 U	0.0046 JN	< 0.00021 U	0.12 JN
PCB-146	51908-16-8	ng/g	0.18	0.80	5.2	0.50	1.2	1.7	0.91	0.12	18
PCB-147/149	68194-13-8	ng/g	0.85	4.3	24	2.5	4.1	8.5	4.5	0.54	97
PCB-148	74472-41-6	ng/g	0.0049 J	0.022	0.079 J	0.0098 J	0.071 JN	0.034 J	0.018	0.00099 JN	0.22 J
PCB-15	2050-68-2	ng/g	0.017	0.081	0.25 J	0.050	< 0.013 U	0.13	0.10	0.015	0.68
PCB-150	68194-08-1	ng/g	0.0028 J	0.016 JN	0.13 J	0.0058 JN	0.076 J	0.030 J	0.014	0.0014 JN	0.20 J
PCB-152	68194-09-2	ng/g	0.0013 JN	0.0051 JN	0.031 J	0.0039 J	< 0.0026 U	0.015 JN	0.0052 JN	0.0012 JN	0.14 JN
PCB-153/168	35065-27-1	ng/g	0.79	3.8	24	2.2	2.8	7.7	4.0	0.53	91
PCB-154	60145-22-4	ng/g	0.023	0.096	0.77	0.059	0.43	0.22	0.11	0.010 JN	1.6
PCB-155	33979-03-2	ng/g	< 0.00053 U	0.0016 J	< 0.0012 U	< 0.00029 U	0.0073 J	< 0.0027 U	< 0.00037 U	< 0.00020 U	< 0.0011 U
PCB-156/157	38380-08-4	ng/g	0.081	0.47	3.5	0.27	0.27	1.5	0.48	0.060	20
PCB-158	74472-42-7	ng/g	0.074	0.44	3.1	0.23	0.25	1.3	0.41	0.052	17
PCB-159	39635-35-3	ng/g	< 0.0032 U	0.034	0.20 J	0.018	< 0.014 U	0.073 J	< 0.0048 U	< 0.0032 U	0.69
PCB-16	38444-78-9	ng/g	0.011 JN	0.054	0.36	0.034	0.037 J	0.064 JN	0.055	0.010 JN	1.7
PCB-161	74472-43-8	ng/g	< 0.0032 U	< 0.0021 U	< 0.016 U	< 0.0026 U	< 0.014 U	< 0.0067 U	< 0.0048 U	< 0.0031 U	< 0.041 U
PCB-162	39635-34-2	ng/g	< 0.0032 U	< 0.0019 U	< 0.015 U	< 0.0025 U	< 0.014 U	0.047 JN	< 0.0047 U	< 0.0031 U	< 0.038 U
PCB-164	74472-45-0	ng/g	0.065	0.39	2.2	0.19	0.21	0.79	0.34	0.045	9.6
PCB-165	74472-46-1	ng/g	< 0.0037 U	< 0.0023 U	< 0.019 U	< 0.0029 U	< 0.016 U	< 0.0077 U	< 0.0054 U	< 0.0036 U	< 0.046 U
PCB-167	52663-72-6	ng/g	0.029	0.15	1.1	0.084	0.081 J	0.45	0.15	0.019	5.6
PCB-169	32774-16-6	ng/g	< 0.0025 U	< 0.0017 U	< 0.012 U	< 0.0019 U	< 0.011 U	< 0.0052 U	< 0.0036 U	< 0.0026 U	< 0.030 U
PCB-17	37680-66-3	ng/g	0.021	0.095	0.57	0.060	0.050 JN	0.12	0.12	0.022 JN	2.0
PCB-170	35065-30-6	ng/g	0.24	0.96	5.5	0.59	0.78	2.0	1.2	0.16	19
PCB-171/173	52663-71-5	ng/g	0.071	0.33	1.9	0.19	0.24	0.67	0.37	0.049	6.4
PCB-172	52663-74-8	ng/g	0.041	0.19	0.87	0.10	0.14	0.31	0.20	0.020 JN	3.0
PCB-174	38411-25-5	ng/g	0.25	1.1	5.7	0.60	0.74	1.8	1.2	0.16	17
PCB-175	40186-70-7	ng/g	0.0084 JN	0.042	0.27 J	0.025	0.050 JN	0.076 J	0.054	0.0080 J	0.85
PCB-176	52663-65-7	ng/g	0.031	0.14	0.73	0.081	0.12	0.22	0.16	0.018 JN	2.2
PCB-177	52663-70-4	ng/g	0.15	0.69	3.3	0.36	0.67	1.1	0.74	0.097	10
PCB-178	52663-67-9	ng/g	0.060	0.27	1.1	0.14	0.41	0.33	0.28	0.039	3.0
PCB-179	52663-64-6	ng/g	0.12	0.41	2.4	0.29	0.60	0.76	0.57	0.070	6.6
PCB-18/30	37680-65-2	ng/g	0.038	0.14	0.89	0.095	0.091 JN	0.15 J	0.19	0.029	3.9
PCB-180/193	35065-29-3	ng/g	0.51	1.9	9.5	1.2	1.7	3.6	2.5	0.33	31
PCB-181	74472-47-2	ng/g	< 0.0017 U	0.013	0.064 JN	< 0.00095 U	< 0.0065 U	< 0.0016 U	< 0.00097 U	< 0.00070 U	0.41
PCB-182	60145-23-5	ng/g	< 0.0016 U	0.014	0.073 JN	0.0081 J	0.024 JN	0.033 JN	< 0.00093 U	0.0029 JN	0.23 JN
PCB-183/185	52663-69-1	ng/g	0.18	0.75	3.7	0.42	0.56	1.1	0.88	0.11	11
PCB-184	74472-48-3	ng/g	< 0.0014 U	< 0.0011 U	< 0.000076 U	< 0.00078 U	< 0.0054 U	< 0.0013 U	< 0.00079 U	< 0.00057 U	< 0.0012 U
PCB-186	74472-49-4	ng/g	< 0.0014 U	< 0.0010 U	< 0.000073 U	< 0.00076 U	< 0.0052 U	< 0.0012 U	< 0.00077 U	< 0.00056 U	< 0.0011 U
PCB-187	52663-68-0	ng/g	0.31	1.4	6.2	0.83	1.8	2.0	1.5	0.22	17
PCB-188	74487-85-7	ng/g	< 0.0012 U	< 0.00094 U	< 0.000066 U	< 0.00066 U	0.023 J	< 0.0011 U	< 0.00067 U	< 0.00047 U	< 0.0010 U
PCB-189	39635-31-9	ng/g	0.0082 JN	0.040	0.23 J	0.021	0.027 J	0.091 J	0.043	< 0.0027 U	0.75
PCB-19	38444-73-4	ng/g	0.028	0.048	0.12 J	0.037	0.026 J	0.049 J	0.052	0.022 JN	0.46
PCB-190	41411-64-7	ng/g	0.045	0.19	0.95	0.11	0.15	0.34	0.21	0.029	3.3
PCB-191	74472-50-7	ng/g	0.0081 JN	0.039 JN	0.21 J	0.025	0.033 J	0.090 J	0.047 JN	0.0056 JN	0.90
PCB-192	74472-51-8	ng/g	< 0.0014 U	< 0.0011 U	< 0.000074 U	< 0.00080 U	< 0.0055 U	< 0.0013 U	< 0.00081 U	< 0.00059 U	< 0.0011 U
PCB-194	35694-08-7	ng/g	0.13	0.47	2.2	0.32	0.41	0.74	0.61	0.080	5.0
PCB-195	52663-78-2	ng/g	0.070	0.18	1.0	0.13	0.16	0.27	0.26	0.032	2.1
PCB-196	42740-50-1	ng/g	0.062	0.19	1.3	0.15	0.21	0.37	0.29	0.035	2.7
PCB-197	33091-17-7	ng/g	0.0042 JN	0.017 JN	0.089 J	0.013	0.022 JN	0.028 J	0.023	0.0031 J	0.22 J
PCB-198/199	68194-17-2	ng/g	0.13	0.45	2.5	0.35	0.47	0.77	0.63	0.087	5.3
PCB-2	2051-61-8	ng/g	0.0050 J	0.089	0.036 J	0.016 JN	< 0.0023 U	0.052 J	0.033	0.0077 J	0.056 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S168	S169	S170	S171	S172	S173	S174	S175	S176
		Sample ID	PDI-SG-S168	PDI-SG-S169	PDI-SG-S170	PDI-SG-S171	PDI-SG-S172	PDI-SG-S173	PDI-SG-S174	PDI-SG-S175	PDI-SG-S176
		Sample Date	24 Jun 2018	04 May 2018	04 May 2018	22 Jun 2018	03 May 2018	04 May 2018	22 Jun 2018	25 Jun 2018	02 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.084	0.44	2.0	0.23	0.13 J	0.44	0.38	0.063	6.9
PCB-200	52663-73-7	ng/g	0.013	0.058	0.30 J	0.037	0.044 JN	0.083 J	0.063	0.0081 JN	0.66
PCB-201	40186-71-8	ng/g	0.015	0.053 JN	0.32	0.044	0.073 J	0.090 JN	0.079	0.0088 JN	0.72
PCB-202	2136-99-4	ng/g	0.028	0.10	0.50	0.069	0.12	0.15	0.13	0.016	1.0
PCB-203	52663-76-0	ng/g	0.074	0.26	1.5	0.19	0.27	0.48	0.36	0.052	3.4
PCB-204	74472-52-9	ng/g	< 0.0011 U	< 0.0019 U	< 0.0019 U	< 0.0010 U	< 0.0059 U	< 0.0030 U	< 0.0010 U	< 0.00058 U	< 0.0040 U
PCB-205	74472-53-0	ng/g	0.0072 JN	0.025	0.11 JN	0.018	0.024 J	0.035 JN	0.031	< 0.0030 U	0.28
PCB-206	40186-72-9	ng/g	0.056	0.34	1.1	0.13	0.38	0.42 JN	0.26	0.044	2.8
PCB-207	52663-79-3	ng/g	0.0063 J	0.029	0.13 J	0.018	0.052 J	0.031 J	0.026	< 0.0018 U	0.28
PCB-208	52663-77-1	ng/g	0.016 JN	0.082	0.30 J	0.041	0.090 J	0.087 J	0.071	0.011 JN	0.63
PCB-209	2051-24-3	ng/g	0.066	0.13	0.69	0.075	0.51	0.20	0.13	0.054	0.88
PCB-21/33	55702-46-0	ng/g	0.029	0.20	1.0	0.080	0.076 J	0.22	0.14	0.023	3.2
PCB-22	38444-85-8	ng/g	0.021	0.081	0.39	0.050	0.041 J	0.11	0.078	0.016	1.8
PCB-23	55720-44-0	ng/g	< 0.00095 U	< 0.0042 U	< 0.019 U	< 0.00096 U	< 0.0041 U	< 0.0048 U	< 0.0013 U	< 0.0012 U	< 0.042 U
PCB-24	55702-45-9	ng/g	< 0.00028 U	0.0029 J	0.018 J	0.0018 JN	< 0.0016 U	< 0.0010 U	0.0016 JN	< 0.00053 U	0.048 JN
PCB-25	55712-37-3	ng/g	0.0074 JN	0.041	0.23 J	0.021 JN	0.015 JN	0.044 J	0.045	0.0053 JN	0.63
PCB-26/29	38444-81-4	ng/g	0.014 J	0.055	0.23 J	0.035	0.056 J	0.061 J	0.069	0.0087 JN	0.93
PCB-27	38444-76-7	ng/g	0.0036 JN	0.020	0.068 JN	0.0095 JN	0.0061 JN	0.022 JN	0.018	0.0049 JN	0.28
PCB-3	2051-62-9	ng/g	0.0043 JN	0.10	0.12 J	0.018	< 0.0026 U	0.14	0.053	< 0.00057 U	0.20 J
PCB-31	16606-02-3	ng/g	0.062	0.26	1.4	0.16	0.13 J	0.33	0.29	0.046	5.9
PCB-32	38444-77-8	ng/g	0.021	0.073	0.42	0.059	0.029 JN	0.083 J	0.12	0.018	1.6
PCB-34	37680-68-5	ng/g	< 0.00099 U	0.0048 JN	0.030 J	< 0.0010 U	< 0.0042 U	< 0.0050 U	0.0044 J	< 0.0012 U	< 0.044 U
PCB-35	37680-69-6	ng/g	< 0.00096 U	0.0070 JN	0.038 J	0.0036 J	< 0.0041 U	0.0084 JN	0.0075 J	< 0.0012 U	0.10 JN
PCB-36	38444-87-0	ng/g	< 0.00092 U	< 0.0037 U	< 0.017 U	< 0.00094 U	< 0.0040 U	< 0.0043 U	< 0.0013 U	< 0.0011 U	< 0.038 U
PCB-37	38444-90-5	ng/g	0.022	0.12	0.43	0.060	0.042 JN	0.12	0.093	0.017	1.4
PCB-38	53555-66-1	ng/g	< 0.00099 U	< 0.0041 U	< 0.018 U	< 0.0010 U	< 0.0043 U	< 0.0047 U	< 0.0014 U	< 0.0012 U	< 0.041 U
PCB-39	38444-88-1	ng/g	< 0.00089 U	0.0059 J	0.063 J	0.0026 J	< 0.0038 U	0.0077 J	0.0044 J	< 0.0011 U	0.13 J
PCB-4	13029-08-8	ng/g	0.018 JN	0.069	0.25 J	0.042	0.029 JN	0.11 JN	0.064	0.019 JN	1.0
PCB-40/41/71	38444-93-8	ng/g	0.066	0.41	2.3	0.19	0.12 JN	0.55	0.30	0.050	9.3
PCB-42	36559-22-5	ng/g	0.035 JN	0.25	1.5	0.13	0.055 JN	0.31	0.19	0.029	5.3
PCB-43/73	70362-46-8	ng/g	< 0.0020 U	0.050 JN	0.38 J	0.036	< 0.016 U	0.13 JN	0.050	0.019 J	1.2 JN
PCB-44/47/65	41464-39-5	ng/g	0.22	1.3	8.5	0.76	0.60 JN	2.7	1.1	0.17	45
PCB-45/51	70362-45-7	ng/g	0.039	0.16	0.60 J	0.095	0.038 J	0.23	0.15	0.031	2.4
PCB-46	41464-47-5	ng/g	0.0083 JN	0.024 JN	0.21 J	0.027	< 0.021 U	0.044 J	0.021 JN	< 0.0027 U	0.94
PCB-48	70362-47-9	ng/g	0.011 JN	0.096	0.57	0.052	< 0.017 U	0.15	0.074	0.015	2.6
PCB-49/69	41464-40-8	ng/g	0.18	1.1	7.0	0.60	1.0	1.6	0.89	0.12	26
PCB-5	16605-91-7	ng/g	< 0.0020 U	0.0030 JN	0.012 JN	0.0019 JN	< 0.014 U	0.0071 JN	< 0.0020 U	< 0.0040 U	0.043 JN
PCB-50/53	62796-65-0	ng/g	0.040	0.20	0.74	0.10	0.055 J	0.26	0.15	0.034	3.5
PCB-52	35693-99-3	ng/g	0.30	2.5	20	1.1	2.9	6.5	1.8	0.24	110
PCB-54	15968-05-5	ng/g	0.0053 J	0.013	0.015 JN	0.0070 JN	0.0035 JN	0.020 J	0.011	0.0031 JN	0.063 J
PCB-55	74338-24-2	ng/g	0.0092 J	0.023	0.16 J	0.031	< 0.012 U	< 0.0087 U	< 0.0019 U	< 0.0015 U	1.2
PCB-56	41464-43-1	ng/g	0.053	0.36	2.0	0.16	0.10 JN	0.48	0.26	0.040	8.6
PCB-57	70424-67-8	ng/g	< 0.0015 U	< 0.0017 U	< 0.015 U	< 0.0024 U	< 0.012 U	< 0.0089 U	< 0.0020 U	< 0.0016 U	< 0.040 U
PCB-58	41464-49-7	ng/g	0.0038 JN	0.012 JN	0.065 JN	0.010 J	< 0.013 U	< 0.0086 U	0.019	0.0020 JN	< 0.038 U
PCB-59/62/75	74472-33-6	ng/g	0.0095 JN	0.076	0.39 J	0.038	< 0.012 U	0.091 J	0.055	0.0094 J	1.3 JN
PCB-6	25569-80-6	ng/g	0.0051 JN	0.054	0.19 J	0.015	0.015 JN	0.073 J	0.040	0.0044 JN	0.53
PCB-60	33025-41-1	ng/g	0.014	0.074	0.43	0.033	0.026 JN	0.17	0.054	0.012	3.2
PCB-61/70/74/76	33284-53-6	ng/g	0.31	2.4	15	1.1	1.0	4.4	1.7	0.22	81
PCB-63	74472-34-7	ng/g	0.0061 JN	0.051	0.15 JN	0.025	< 0.011 U	0.047 JN	0.036	0.0053 J	0.88
PCB-64	52663-58-8	ng/g	0.053	0.38	2.1	0.17	0.13	0.64	0.26	0.039	12
PCB-66	32598-10-0	ng/g	0.20	1.4	7.2	0.63	0.39	1.6	0.95	0.13	25
PCB-67	73575-53-8	ng/g	< 0.0013 U	0.021	0.052 JN	< 0.0021 U	< 0.011 U	< 0.0082 U	< 0.0017 U	< 0.0013 U	< 0.037 U
PCB-68	73575-52-7	ng/g	0.0054 J	0.045	0.18 J	0.019	0.036 J	0.031 J	0.022 JN	0.0031 JN	0.36
PCB-7	33284-50-3	ng/g	< 0.0018 U	0.0081 J	0.031 JN	0.0040 J	< 0.013 U	0.017 JN	0.0080 J	< 0.0036 U	0.078 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S168	S169	S170	S171	S172	S173	S174	S175	S176
		Sample ID	PDI-SG-S168	PDI-SG-S169	PDI-SG-S170	PDI-SG-S171	PDI-SG-S172	PDI-SG-S173	PDI-SG-S174	PDI-SG-S175	PDI-SG-S176
		Sample Date	24 Jun 2018	04 May 2018	04 May 2018	22 Jun 2018	03 May 2018	04 May 2018	22 Jun 2018	25 Jun 2018	02 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0084 J	0.065	0.37	0.028	0.057 J	0.045 J	0.038 JN	0.0056 J	0.55
PCB-77	32598-13-3	ng/g	0.013 JN	0.087	0.55	0.039 JN	< 0.012 U	0.12	0.076	0.011	1.6 JN
PCB-78	70362-49-1	ng/g	< 0.0016 U	< 0.0016 U	< 0.014 U	< 0.0025 U	< 0.013 U	< 0.0086 U	< 0.0020 U	< 0.0016 U	< 0.038 U
PCB-79	41464-48-6	ng/g	0.0051 J	0.036	0.30 J	0.015	0.025 JN	0.084 J	0.023	< 0.0014 U	1.4
PCB-8	34883-43-7	ng/g	0.015 J	0.12	0.57 J-	0.051	0.043 JN	0.21 J	0.11	0.014 J	2.1
PCB-80	33284-52-5	ng/g	< 0.0013 U	< 0.0014 U	< 0.013 U	< 0.0021 U	< 0.011 U	< 0.0076 U	< 0.0017 U	< 0.0013 U	< 0.034 U
PCB-81	70362-50-4	ng/g	< 0.0014 U	0.0019 JN	< 0.014 U	< 0.0022 U	< 0.011 U	< 0.0079 U	< 0.0018 U	< 0.0014 U	< 0.037 U
PCB-82	52663-62-4	ng/g	0.052	0.47	2.9	0.18	0.21	1.2	0.33	0.032 JN	21
PCB-83/99	60145-20-2	ng/g	0.39	3.2	18	1.4	2.0 J-	5.8	2.3	0.26	90
PCB-84	52663-60-2	ng/g	0.13	1.3	8.7	0.54	0.58	2.8	0.86	0.088	50
PCB-85/116/117	65510-45-4	ng/g	0.079	0.64	3.7	0.28	0.33	1.5	0.45	0.057	25
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.31	2.9	17	1.2	1.7	6.9	2.0	0.23	110
PCB-88/91	55215-17-3	ng/g	0.097	0.76	4.9	0.33	0.87	1.3	0.55	0.070	23
PCB-89	73575-57-2	ng/g	0.0066 J	0.038	0.22 J	< 0.00062 U	< 0.0032 U	0.087 J	< 0.00070 U	< 0.00051 U	1.6
PCB-9	34883-39-1	ng/g	< 0.0018 U	0.0098 J	0.035 JN	0.0037 JN	< 0.013 U	0.017 JN	0.0082 J	< 0.0037 U	0.13 JN
PCB-90/101/113	68194-07-0	ng/g	0.63	5.2	32	2.3	3.9	10	3.8	0.43	170
PCB-92	52663-61-3	ng/g	0.12	1.2	6.3	0.46	0.73 JN	2.1	0.77	0.081	32
PCB-93/100	73575-56-1	ng/g	0.043	0.14	0.49 JN	0.13 JN	0.18 J	0.26	0.22	0.024	3.0
PCB-94	73575-55-0	ng/g	< 0.00078 U	< 0.0010 U	0.11 J	< 0.00062 U	< 0.0032 U	< 0.0029 U	< 0.00070 U	< 0.00051 U	< 0.0053 U
PCB-95	38379-99-6	ng/g	0.48	4.3	28	1.9	3.1	8.6	3.1	0.37	150
PCB-96	73575-54-9	ng/g	0.0042 JN	0.030	0.17 J	0.016	< 0.0024 U	0.065 J	0.027	0.0045 J	0.98
PCB-98/102	60233-25-2	ng/g	0.015 JN	0.17	0.96	0.067	0.081 J	0.31 JN	0.10	0.012 JN	5.4
Total PCBs (b)	T_PCBCg (PDI)	ng/g	13	77	463	39	56	158	68	8.7	2236
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 0.45 U	< 1.2 UJ	0.90 J	< 0.42 U	0.93	< 1.4 UJ	0.39 J	< 2.0 U	3.9
2,4-DDE	3424-82-6	µg/kg	< 0.45 U	< 1.2 UJ	< 1.0 UJ	< 0.42 U	< 0.40 U	< 1.4 UJ	< 0.41 U	< 2.0 U	< 0.90 U
2,4-DDT	789-02-6	µg/kg	< 0.45 U	< 1.2 UJ	1.7 J	< 0.42 U	0.57 J	< 1.4 UJ	0.62	< 2.0 U	5.9 J
4,4'-DDD	72-54-8	µg/kg	1.1	1.2 J	2.7 J	1.2	2.6	1.5 J	1.5	1.1 J	8.2
4,4'-DDE	72-55-9	µg/kg	1.6 J	4.5 J	7.9 J	1.8 J	1.4 J	3.8 J	2.0 J	2.2	14
4,4'-DDT	50-29-3	µg/kg	0.77	< 1.2 UJ	4.9 J	0.90	1.6	2.3 J	2.4	< 2.0 U	14
DDx (b)	T_DDx (PDI)	µg/kg	3.7	6.3	19	4.1	7.3	8.3	7.1	4.3	46
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	6.2 J	8.5	23	11	21	8.0	37	7.7 J	26
Acenaphthene	83-32-9	µg/kg	3.4 J	27	18	8.2 J	23	8.1	43	8.0 J	56
Acenaphthylene	208-96-8	µg/kg	5.0 J	11	22	6.7 J	18	9.5	19	5.7 J	35
Anthracene	120-12-7	µg/kg	13	45	48	22	41	22	71	23	98
Benz(a)anthracene	56-55-3	µg/kg	28	200	200	90	100	89	290	34	490
Benzo(a)pyrene	50-32-8	µg/kg	19	210	220	61	120	95	190	24	500
Benzo(b)fluoranthene	205-99-2	µg/kg	46	270	250	120	130	150	340	47	630
Benzo(g,h,i)perylene	191-24-2	µg/kg	15	130	140	39	72	75	120	15	330
Benzo(k)fluoranthene	207-08-9	µg/kg	13	92	80	29	43	46	110	12	240
Chrysene	218-01-9	µg/kg	38	240	270	85	140	180	320	39	590
Dibenz(a,h)anthracene	53-70-3	µg/kg	5.8 J	38	35	9.5 J	11	18	36	4.9 J	96
Fluoranthene	206-44-0	µg/kg	51	410	360	160	260	190	530	74	900
Fluorene	86-73-7	µg/kg	6.9 J	21	21	15	22	11	45	10	52
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	22	150	150	64	62	80	200	21	360
Naphthalene	91-20-3	µg/kg	12	18	39	20	51	16	89	15	38
Phenanthrene	85-01-8	µg/kg	43	200	190	91	170	85	260	60	500
Pyrene	129-00-0	µg/kg	47	420	450	150	300	200	490	70	940
Total PAHs (b)	T_PAH (PDI)	µg/kg	374	2491	2516	981	1584	1283	3190	470	5881
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	35	311	316	98	161	146	310	39	747
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	43.5 45.0	40.8	48.2	44.6 45.9	69.2	35.0	51.3 44.4	46.3 47.5	54.1
Total Solids@104C - E160.3M (f)	TSOLID	%	42.0	41.5	47.8	44.2	62.0	34.8	47.0	46.9	54.9
Total Solids@70C	TSOLID70	%	41	42	49	43	65	34	45	46	56
Gravel	GS-Gravel	%	0	0	0.5	0	22.2	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0.1	1.4	0	2.9	0.1	0.1	0.4	0.2

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S168	S169	S170	S171	S172	S173	S174	S175	S176
		Sample ID	PDI-SG-S168	PDI-SG-S169	PDI-SG-S170	PDI-SG-S171	PDI-SG-S172	PDI-SG-S173	PDI-SG-S174	PDI-SG-S175	PDI-SG-S176
		Sample Date	24 Jun 2018	04 May 2018	04 May 2018	22 Jun 2018	03 May 2018	04 May 2018	22 Jun 2018	25 Jun 2018	02 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.3	0.5	11.0	0.2	18.5	0.3	1.9	6.0	8.7
Sand, Fine (#200) (d)	GS-Fsand-200	%	9.186	5.456	6.875	38.84	32.26	6.167	26.59	17.26	21.77
Sand, Fine (#230) (d)	GS-Fsand	%	12.2	6.7	7.3	44.3	34.3	6.8	28.7	19.8	25.0
Silt (#200) (d)	GS-Silt-200	%	78.71	72.34	62.42	51.35	16.53	75.73	62.50	65.03	56.62
Silt (#230) (d)	GS-Silt	%	75.7	71.1	62.0	45.9	14.5	75.1	60.4	62.5	53.4
Clay	GS-Clay	%	11.8	21.5	17.8	9.6	7.7	17.8	9.0	11.3	12.6
Percent Fines (e)	GS-FINES	%	90.51	93.84	80.22	60.95	24.23	93.53	71.5	76.33	69.22
Total Organic Carbon	TOC	mg/kg	29000	24000	20000	26000	10000	29000	22000	21000	14000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S177	S178	S179	S180	S181	S182	S183	S184	S186
		Sample ID	PDI-SG-S177	PDI-SG-S178	PDI-SG-S179	PDI-SG-S180	PDI-SG-S181	PDI-SG-S182	PDI-SG-S183	PDI-SG-S184	PDI-SG-S186
		Sample Date	04 May 2018	04 May 2018	21 Jun 2018	04 May 2018	21 Jul 2018	22 Jun 2018	22 Jun 2018	21 Jun 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.45	0.32	0.30	0.53	0.048	0.23	0.44	3.0 J	4.1 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.043	0.049	0.041 J	0.064	0.0090 JN	0.048	0.078	0.42 J	0.093
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0021 J	0.0023 JN	0.0032 J	0.0034 J	0.0015 J+	< 0.0060 U	0.0059	0.028 J	0.0045 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0026 J	0.0026 J	0.0022 J	0.0030 J	0.00064 J+	0.0041 J	0.0019 J	0.0069 JN	0.0042 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0046 J	0.0047 J	0.0032 J	0.0057 J	0.00089 J	0.0037 J	0.0048 J	0.021	0.0059 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.014	0.011	0.024	0.013	0.0021 J	0.0053 JN	0.010	0.079	0.043
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0021 J	0.0020 J	0.0015 J	0.0021 J	0.00059 J	0.0045	0.0021 J	0.010	0.0024 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0056 J	0.0057 J	0.014	0.0067 J	0.0015 J	0.0071 JN	0.0050 J	0.023	0.013
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00032 U	0.00082 J+	0.00025 J+	< 0.00025 U	0.0015 J+	< 0.0021 U	0.00028 JN	< 0.0021 U	0.00052 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00030 U	0.00097 JN	0.0020 J	0.0012 J	0.00031 J	< 0.0051 U	0.00078 JN	0.0035 JN	0.0027 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0012 J	0.0011 J	0.00091 J	0.0013 J	0.00037 J+	< 0.0032 U	0.0012 J	0.0041 J	0.0032 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0011 J	0.0011 J	0.00092 J	0.0014 J	0.00031 J	< 0.0021 U	0.0012 J	0.0057	0.0018 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0014 J	0.0013 J	0.00072 J	0.0013 J	0.00026 J	< 0.0034 U	0.0010 J	0.0057	0.0024 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00064 J	0.00055 JN	0.00042 JN	0.00039 JN	0.00014 JN	< 0.0029 U	0.00057 JN	0.0027	0.0011 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0033 J+	0.0018	0.0015	0.0020 J+	0.00056 J	0.0016	0.0021	0.013	0.0022
OCDD	3268-87-9	µg/kg	3.4	2.4	2.5	3.9	0.45	2.3	4.0	29 J	28 J
OCDF	39001-02-0	µg/kg	0.15	0.18	0.17	0.23	0.033	0.14	0.47	1.9	0.39
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.011	0.0094	0.012	0.013	0.0021	0.0087	0.011	0.068	0.062
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.011	0.0083	0.011	0.012	0.002	0.0087	0.01	0.066	0.062
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.01	0.0079	0.011	0.012	0.0019	0.0061	0.0096	0.064	0.062
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.30 JN	1.0	0.12	0.043	< 0.00029 U	0.059	0.44	2.0	0.082
PCB-10	33146-45-1	ng/g	0.0070 JN	0.028	0.0080 JN	0.0059 J	< 0.0028 U	0.0054 J	0.025 JN	0.090 JN	0.0078 JN
PCB-103	60145-21-3	ng/g	0.13	0.32	0.21	0.19	0.019	0.26	0.60	4.4	0.16
PCB-104	56558-16-8	ng/g	< 0.0011 U	< 0.0010 U	< 0.00059 U	< 0.00049 U	< 0.00025 U	< 0.00084 U	< 0.0012 U	< 0.012 U	< 0.00050 U
PCB-105	32598-14-4	ng/g	3.2	6.8	4.1	1.3	0.11	2.7	11	37	4.0
PCB-106	70424-69-0	ng/g	< 0.011 U	< 0.014 U	< 0.0059 U	< 0.012 U	< 0.0022 U	< 0.0055 U	< 0.019 U	< 0.071 U	< 0.0078 U
PCB-107	70424-68-9	ng/g	0.71	1.6	1.1	0.44	0.034	0.99	3.1	18	1.1
PCB-108/124	70362-41-3	ng/g	0.39	0.85	0.46	0.15	0.0095 J+	0.33	1.3	4.4	0.50
PCB-11	2050-67-1	ng/g	0.15	0.28	0.11	0.25	0.047	0.074	0.19	0.095 JN	0.32
PCB-110/115	38380-03-9	ng/g	10	20	17	4.3	0.42	14	47	220	13
PCB-111	39635-32-0	ng/g	< 0.0010 U	< 0.00091 U	0.043	0.032	< 0.00023 U	< 0.00077 U	< 0.0011 U	< 0.011 U	< 0.00046 U
PCB-112	74472-36-9	ng/g	< 0.0011 U	< 0.00099 U	0.046 JN	0.015 JN	0.0027 JN	0.043	< 0.0011 U	0.83 JN	< 0.00049 U
PCB-114	74472-37-0	ng/g	0.23	0.48	0.24	0.095	0.0050 JN	0.17	0.75	2.5	0.21
PCB-118	31508-00-6	ng/g	8.6	19	12	3.7	0.34	9.4	33	150	11
PCB-12/13	2974-92-7	ng/g	0.033	0.087	0.046	0.024 J	0.0050 JN	0.040 JN	0.13	0.19 JN	0.029
PCB-120	68194-12-7	ng/g	0.057	< 0.00090 U	0.077 JN	0.27	0.0033 J	0.11	< 0.0011 U	2.3	< 0.00047 U
PCB-121	56558-18-0	ng/g	< 0.0011 U	< 0.00097 U	< 0.00057 U	< 0.00047 U	< 0.00024 U	< 0.00081 U	< 0.0011 U	< 0.012 U	< 0.00048 U
PCB-122	76842-07-4	ng/g	0.15	0.31	0.14	0.063	0.0054 J	0.12	0.43 JN	1.7	0.15
PCB-123	65510-44-3	ng/g	0.13	0.31	0.16	0.061	0.0049 JN	0.10	0.46	1.5	0.17
PCB-126	57465-28-8	ng/g	0.023	0.047	0.040	0.014	< 0.0023 U	0.013 JN	< 0.021 U	0.27 J	0.064
PCB-127	39635-33-1	ng/g	0.021	< 0.014 U	< 0.0059 U	< 0.011 U	< 0.0022 U	0.011 JN	< 0.019 U	< 0.071 U	< 0.0078 U
PCB-128/166	38380-07-3	ng/g	2.1	3.5	2.8	1.4	0.092	2.3	10	29	2.8
PCB-129/138/160/163	55215-18-4	ng/g	12	22	17	10	0.73	16	72	190	18
PCB-130	52663-66-8	ng/g	0.91	1.7	1.2	0.94	0.048	1.1	4.8	16	1.3
PCB-131	61798-70-7	ng/g	0.21	0.37	0.27	0.11	< 0.0027 U	0.21	0.97	2.6	0.26
PCB-132	38380-05-1	ng/g	4.4	7.9	6.5	3.2	0.23	5.8	25	77	6.9
PCB-133	35694-04-3	ng/g	0.22	0.49	0.29	0.41	0.015 JN	0.35	1.2	3.8	0.29
PCB-134/143	52704-70-8	ng/g	0.81	1.5	1.1	0.59	0.040	0.96	4.6	14	1.2
PCB-135/151	52744-13-5	ng/g	3.0	4.5	5.3	2.7	0.29	5.4	19	73	3.8
PCB-136	38411-22-2	ng/g	1.4	2.4	2.2	1.2	0.11	2.2	7.0	28	1.8
PCB-137	35694-06-5	ng/g	0.64	1.3	0.89	0.39	0.016 JN	0.64	3.1	8.6	0.89
PCB-139/140	56030-56-9	ng/g	0.26	0.49	0.35	0.33	0.010 JN	0.31	1.2	4.3	0.37

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S177	S178	S179	S180	S181	S182	S183	S184	S186
		Sample ID	PDI-SG-S177	PDI-SG-S178	PDI-SG-S179	PDI-SG-S180	PDI-SG-S181	PDI-SG-S182	PDI-SG-S183	PDI-SG-S184	PDI-SG-S186
		Sample Date	04 May 2018	04 May 2018	21 Jun 2018	04 May 2018	21 Jul 2018	22 Jun 2018	22 Jun 2018	21 Jun 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0016 U	< 0.0013 U	< 0.0019 U	< 0.00087 U	< 0.0021 U	< 0.0021 U	< 0.0058 U	< 0.033 U	< 0.0020 U
PCB-141	52712-04-6	ng/g	2.1	4.1	3.0	2.0	0.13	2.8	14	28	3.2
PCB-142	41411-61-4	ng/g	< 0.0085 U	< 0.0094 U	< 0.011 U	< 0.0085 U	< 0.0025 U	< 0.012 U	< 0.059 U	< 0.15 U	< 0.015 U
PCB-144	68194-14-9	ng/g	0.37	0.53 J-	0.63	0.30	0.030	0.61	2.3	7.2	0.49
PCB-145	74472-40-5	ng/g	< 0.0020 U	0.013 JN	0.011 JN	0.0029 JN	0.00074 JN	0.0096 JN	0.033 JN	0.13 J	0.0073 J
PCB-146	51908-16-8	ng/g	1.8	3.7	2.8	3.2	0.15	3.3	12	39	2.9
PCB-147/149	68194-13-8	ng/g	8.4	16	14	8.9	0.73	15	63	170	16
PCB-148	74472-41-6	ng/g	0.026	0.10	0.040 JN	0.076	0.0032 JN	0.081	0.12	0.59	0.030 JN
PCB-15	2050-68-2	ng/g	0.12	0.27	0.19	0.096	0.019 JN	0.091	0.52	1.0	0.10
PCB-150	68194-08-1	ng/g	0.027 JN	0.067	0.031 JN	0.094	0.0039 J	0.047	0.088 JN	0.26 JN	0.038
PCB-152	68194-09-2	ng/g	0.013 JN	0.027	0.023	0.034 JN	0.0013 J	0.015	0.050 JN	0.16 J	0.018 JN
PCB-153/168	35065-27-1	ng/g	8.4	17	13	9.9	0.65	13	56	160	14
PCB-154	60145-22-4	ng/g	0.20	0.40	0.22 JN	0.51	0.020	0.36	0.94	5.2	0.24
PCB-155	33979-03-2	ng/g	< 0.0018 U	< 0.0020 U	< 0.00060 U	0.0098 J	< 0.00019 U	< 0.0010 U	< 0.0012 U	< 0.013 U	< 0.00080 U
PCB-156/157	38380-08-4	ng/g	1.5	3.0	2.1	0.80	0.068	1.8	12	22	2.0
PCB-158	74472-42-7	ng/g	1.4	2.5	1.8	0.95	0.064	1.3	7.7	17	2.0
PCB-159	39635-35-3	ng/g	0.059	0.12	0.080	0.13	< 0.0016 U	0.099	0.51	1.1	< 0.010 U
PCB-16	38444-78-9	ng/g	0.066	0.22	0.26 J	0.10	0.013 JN	0.20	0.61	2.2	0.085 JN
PCB-161	74472-43-8	ng/g	< 0.0055 U	< 0.0061 U	< 0.0073 U	< 0.0055 U	< 0.0016 U	< 0.0082 U	< 0.039 U	< 0.10 U	< 0.010 U
PCB-162	39635-34-2	ng/g	< 0.0053 U	< 0.0058 U	0.047	< 0.0052 U	< 0.0016 U	0.029 JN	< 0.039 U	0.52	< 0.010 U
PCB-164	74472-45-0	ng/g	0.92	1.7	1.2	0.79	0.053	1.2	5.3	15	1.3
PCB-165	74472-46-1	ng/g	< 0.0063 U	< 0.0070 U	< 0.0083 U	< 0.0063 U	< 0.0019 U	< 0.0093 U	< 0.045 U	< 0.11 U	< 0.012 U
PCB-167	52663-72-6	ng/g	0.45	0.89	0.60	0.26	0.021	0.56	2.1	6.6	0.59
PCB-169	32774-16-6	ng/g	< 0.0048 U	< 0.0046 U	0.033 JN	< 0.0054 U	< 0.0013 U	0.020 JN	< 0.026 U	0.41 JN	< 0.0093 U
PCB-17	37680-66-3	ng/g	0.087	0.25	0.39 J	0.13	0.031 JN	0.25 JN	0.97	3.2	0.15
PCB-170	35065-30-6	ng/g	1.8	3.8	3.4	3.1	0.19	4.4	16	38	3.0
PCB-171/173	52663-71-5	ng/g	0.55	1.3	1.1	1.1	0.058	1.3	4.9	13	0.84 J
PCB-172	52663-74-8	ng/g	0.30	0.66	0.59	0.57	0.032 JN	0.71	2.7	6.6	0.37 J
PCB-174	38411-25-5	ng/g	1.8	3.9	3.3	4.1	0.19	3.9	15	40	2.3 J
PCB-175	40186-70-7	ng/g	0.081	0.16	0.14	0.16	0.0090 J	0.18	0.64	1.7	0.11 J
PCB-176	52663-65-7	ng/g	0.21	0.48	0.47	0.45	0.024	0.55	2.1	5.7	0.35 J
PCB-177	52663-70-4	ng/g	1.1	2.6	2.0	2.7	0.12	2.4	9.2	24	1.4 J
PCB-178	52663-67-9	ng/g	0.36	0.84	0.73	0.89	0.039 JN	0.89	3.4	8.6	0.52 J
PCB-179	52663-64-6	ng/g	0.68	1.4	1.4	1.5	0.098	1.8	6.8	19	1.1 J
PCB-18/30	37680-65-2	ng/g	0.15	0.48	0.75 J	0.22	0.040 JN	0.56	1.7	6.2	0.25
PCB-180/193	35065-29-3	ng/g	3.1	7.0	6.8	6.9	0.39	8.9	32	75	4.6 J
PCB-181	74472-47-2	ng/g	< 0.0011 U	0.058	0.045	0.033	< 0.00063 U	0.046	< 0.0025 U	0.43 JN	0.032 JN
PCB-182	60145-23-5	ng/g	0.028	0.046	0.042 JN	0.11	< 0.00061 U	0.041 JN	0.19 JN	0.82	0.033 J
PCB-183/185	52663-69-1	ng/g	1.1	2.6	2.4	2.5	0.13	3.1	11	26	1.7 J
PCB-184	74472-48-3	ng/g	< 0.00090 U	< 0.00059 U	< 0.0016 U	< 0.000019 U	< 0.00052 U	< 0.0013 U	< 0.0021 U	< 0.024 U	< 0.0021 UJ
PCB-186	74472-49-4	ng/g	< 0.00087 U	< 0.00057 U	< 0.0015 U	< 0.000019 U	< 0.00050 U	< 0.0012 U	< 0.0020 U	< 0.024 U	< 0.0021 UJ
PCB-187	52663-68-0	ng/g	2.0	4.0	4.0	5.1	0.26	5.0	18	47	2.8 J
PCB-188	74487-85-7	ng/g	< 0.00076 U	< 0.00052 U	< 0.0013 U	0.030	< 0.00045 U	< 0.0011 U	< 0.0018 U	< 0.021 U	< 0.0017 UJ
PCB-189	39635-31-9	ng/g	0.090	0.20	0.12	0.15	0.0065 J+	0.14	0.55	1.3	0.10
PCB-19	38444-73-4	ng/g	0.050	0.11	0.099 J	0.090	0.051	0.063	0.22	0.56	0.094
PCB-190	41411-64-7	ng/g	0.28	0.72	0.58	0.45	0.033	0.77	2.8	6.0	0.42 J
PCB-191	74472-50-7	ng/g	0.073	0.17	0.15	0.14 JN	0.0075 J+	0.17	0.76	1.5 JN	0.10 J
PCB-192	74472-51-8	ng/g	< 0.00088 U	< 0.00058 U	< 0.0016 U	< 0.000019 U	< 0.00053 U	< 0.0013 U	< 0.0021 U	< 0.025 U	< 0.0022 UJ
PCB-194	35694-08-7	ng/g	0.78	1.8	1.4	2.2	0.11	1.9	7.2	15	0.96
PCB-195	52663-78-2	ng/g	0.34	0.73	0.56	0.99	0.041 JN	0.77	3.0	6.2	0.45
PCB-196	42740-50-1	ng/g	0.25	0.71	0.76	0.87	0.050	0.98	3.7	8.6	0.44
PCB-197	33091-17-7	ng/g	0.026	0.056	0.065	0.061	0.0031 J+	0.086	0.32	0.86	0.030 JN
PCB-198/199	68194-17-2	ng/g	0.57	1.5	1.6	1.4	0.11	2.0	7.3	18	0.78
PCB-2	2051-61-8	ng/g	0.058	0.15	0.047	0.049	0.010 JN	0.099	0.11	0.17 J	0.037

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S177	S178	S179	S180	S181	S182	S183	S184	S186
		Sample ID	PDI-SG-S177	PDI-SG-S178	PDI-SG-S179	PDI-SG-S180	PDI-SG-S181	PDI-SG-S182	PDI-SG-S183	PDI-SG-S184	PDI-SG-S186
		Sample Date	04 May 2018	04 May 2018	21 Jun 2018	04 May 2018	21 Jul 2018	22 Jun 2018	22 Jun 2018	21 Jun 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.45	1.0	0.94 J	0.39	0.10	0.81	3.0	10	0.41
PCB-200	52663-73-7	ng/g	0.069 JN	0.17	0.16	0.20	0.0096 JN	0.21	0.79	1.9	0.095
PCB-201	40186-71-8	ng/g	0.079	0.19	0.20	0.19	0.0089 J	0.24	0.93	2.4	0.11
PCB-202	2136-99-4	ng/g	0.13	0.34	0.32	0.38	0.021 JN	0.37	1.3	3.2	0.20
PCB-203	52663-76-0	ng/g	0.34	0.90	0.85	1.0	0.068	1.3	4.3	9.5	0.54
PCB-204	74472-52-9	ng/g	< 0.0027 U	< 0.0024 U	< 0.0017 U	< 0.0012 U	< 0.00040 U	< 0.0019 U	< 0.0014 U	< 0.022 U	< 0.0023 U
PCB-205	74472-53-0	ng/g	0.037	0.090	0.071	0.11	0.0087 J+	0.11	0.41	0.90	0.049
PCB-206	40186-72-9	ng/g	2.7 JN	0.95	0.49	0.69 J-	0.10	0.93	2.4	3.6	0.52
PCB-207	52663-79-3	ng/g	0.037	0.079	0.060	0.078	0.011 JN	0.098	0.28	0.57	0.048 JN
PCB-208	52663-77-1	ng/g	0.079	0.25	0.14	0.16	0.023	0.26	0.66	0.88	0.14
PCB-209	2051-24-3	ng/g	0.16	0.46	0.15	0.18	0.055	0.72	0.43	0.67	0.24
PCB-21/33	55702-46-0	ng/g	0.21	0.62	0.38 J	0.20	0.039	0.43	1.2	3.5	0.19
PCB-22	38444-85-8	ng/g	0.10	0.24	0.22 J	0.089	0.021	0.17	0.71	2.3	0.097
PCB-23	55720-44-0	ng/g	< 0.0036 U	< 0.0099 U	< 0.0026 UJ	< 0.0028 U	< 0.00089 U	< 0.0027 U	< 0.0053 U	< 0.028 U	< 0.0022 U
PCB-24	55702-45-9	ng/g	0.0030 J	0.011 J	0.010 J	0.0050 J	< 0.00039 U	0.0077 JN	0.028 J	0.098 JN	0.0029 JN
PCB-25	55712-37-3	ng/g	0.045	0.11	0.099 J	0.042	0.0093	0.042	0.33	0.45 JN	0.037
PCB-26/29	38444-81-4	ng/g	0.067	0.16 JN	0.15 J	0.057	0.015 J	0.081	0.47	0.97	0.067
PCB-27	38444-76-7	ng/g	0.015 JN	0.052	0.053 J	0.031	0.0069 JN	0.036 JN	0.13	0.31 J	0.031
PCB-3	2051-62-9	ng/g	0.16	0.46	0.082	0.039	< 0.00034 U	0.065	0.25	0.64	0.050
PCB-31	16606-02-3	ng/g	0.33	0.78	0.78 J	0.26	0.071	0.61	2.5	8.0	0.34
PCB-32	38444-77-8	ng/g	0.074	0.16 J-	0.34 J	0.12	0.023 JN	0.12	1.1	1.8	0.11
PCB-34	37680-68-5	ng/g	< 0.0038 U	< 0.010 U	0.0087 JN	0.0035 J	< 0.00092 U	0.0097 JN	0.026 J	0.14 J	< 0.0023 U
PCB-35	37680-69-6	ng/g	0.0083 JN	0.026	0.013 J	0.010 J	< 0.00089 U	0.010	0.037 J	0.17 JN	0.015
PCB-36	38444-87-0	ng/g	< 0.0032 U	< 0.0089 U	0.0026 JN	< 0.0025 U	< 0.00086 U	0.0029 JN	< 0.0052 U	< 0.027 U	< 0.0021 U
PCB-37	38444-90-5	ng/g	0.13	0.32	0.22	0.12	0.025	0.18	0.60	2.3	0.14
PCB-38	53555-66-1	ng/g	< 0.0035 U	< 0.0097 U	< 0.0027 UJ	< 0.0027 U	< 0.00093 U	< 0.0028 U	< 0.0056 U	< 0.029 U	< 0.0023 U
PCB-39	38444-88-1	ng/g	0.0059 JN	0.016	0.010 J	0.0042 J	< 0.00083 U	0.010	0.029 JN	0.18 J	< 0.0021 U
PCB-4	13029-08-8	ng/g	0.12	0.34	0.14	0.085	0.033	0.076	0.42	1.2	0.081 JN
PCB-40/41/71	38444-93-8	ng/g	0.52	1.4 J	1.1	0.53	0.069	0.92	3.3	9.3	0.57
PCB-42	36559-22-5	ng/g	0.29	0.80 J	0.61	0.24	0.038	0.61	1.9	8.4	0.24
PCB-43/73	70362-46-8	ng/g	0.13	0.16 J	0.068	0.093	0.0091 JN	0.056 JN	0.49 JN	0.84 JN	0.048 JN
PCB-44/47/65	41464-39-5	ng/g	2.4	6.4 J	4.4	2.7	0.23	3.6	13	45	3.5
PCB-45/51	70362-45-7	ng/g	0.23	0.53 J	0.41	0.76	0.050 JN	0.23	1.5	2.2	0.48
PCB-46	41464-47-5	ng/g	< 0.0052 U	0.14 J	0.14	0.057	0.0088 JN	0.074 JN	0.36 JN	0.88	< 0.017 U
PCB-48	70362-47-9	ng/g	0.12 JN	0.39 J	0.29	0.13	0.021	0.26	0.83	2.9	0.14
PCB-49/69	41464-40-8	ng/g	1.5	4.4 J	3.0	1.3	0.16	2.9	9.0	42	1.8
PCB-5	16605-91-7	ng/g	0.0082 JN	0.029	0.0064 JN	0.0028 JN	< 0.0028 U	0.0065 J	0.028 J	0.094 JN	< 0.0027 U
PCB-50/53	62796-65-0	ng/g	0.25	0.62 J	0.49	0.39	0.053	0.29	1.7	2.6	0.34
PCB-52	35693-99-3	ng/g	5.6	17 J	8.5	2.8	0.25	7.6	23	90	8.4
PCB-54	15968-05-5	ng/g	0.023	0.026 J	0.026	0.072	0.0093 JN	0.0041 JN	0.072	0.048 JN	0.050
PCB-55	74338-24-2	ng/g	0.024 JN	< 0.0073 UJ	0.021 JN	0.019	0.0056 J	0.021 JN	< 0.019 U	0.67	< 0.0096 U
PCB-56	41464-43-1	ng/g	0.51	1.3 J	0.92	0.33	0.055	1.1	2.4	11	0.52
PCB-57	70424-67-8	ng/g	< 0.0029 U	< 0.0075 UJ	< 0.0073 U	< 0.0021 U	< 0.0026 U	0.0097 JN	< 0.019 U	< 0.068 U	< 0.0097 U
PCB-58	41464-49-7	ng/g	0.011 JN	0.036 JN	0.024	0.014	< 0.0027 U	0.030	0.11	0.45 JN	< 0.0099 U
PCB-59/62/75	74472-33-6	ng/g	0.081	0.23 JN	0.16	0.12	0.013 JN	0.19	0.51	2.5	0.085
PCB-6	25569-80-6	ng/g	0.061	0.21	0.069	0.028	0.0085 JN	0.086	0.24	0.54	0.042
PCB-60	33025-41-1	ng/g	0.18	0.45 J	0.24	0.11	0.013 JN	0.19	0.71	1.6	0.19
PCB-61/70/74/76	33284-53-6	ng/g	4.8	12 J	7.0	2.2	0.25	7.2	18	82	5.8
PCB-63	74472-34-7	ng/g	0.062	0.16 J	0.11	0.052	0.0051 JN	0.12	0.33	1.9	0.060
PCB-64	52663-58-8	ng/g	0.60	1.7 J	1.1	0.37	0.052	1.1	2.9	11	0.73
PCB-66	32598-10-0	ng/g	1.7	4.6 J	2.9	1.1	0.16	2.9	8.2	45	1.7
PCB-67	73575-53-8	ng/g	0.020 JN	0.047 JN	0.027	0.020 JN	0.0026 J	0.024	< 0.016 U	0.23 JN	< 0.0084 U
PCB-68	73575-52-7	ng/g	0.034	0.12 J	0.066	0.064 JN	0.0037 JN	0.081	0.17	1.3	< 0.0086 U
PCB-7	33284-50-3	ng/g	0.019	0.062	0.015	0.0035 JN	< 0.0026 U	0.012 JN	0.054 JN	0.16 JN	0.011 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S177	S178	S179	S180	S181	S182	S183	S184	S186
		Sample ID	PDI-SG-S177	PDI-SG-S178	PDI-SG-S179	PDI-SG-S180	PDI-SG-S181	PDI-SG-S182	PDI-SG-S183	PDI-SG-S184	PDI-SG-S186
		Sample Date	04 May 2018	04 May 2018	21 Jun 2018	04 May 2018	21 Jul 2018	22 Jun 2018	22 Jun 2018	21 Jun 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.046	0.15 J	0.10	0.054	0.0046 JN	0.17	0.26	2.6	0.035
PCB-77	32598-13-3	ng/g	0.10	0.29	0.20	0.094	0.013	0.13	0.42	2.6	0.23
PCB-78	70362-49-1	ng/g	< 0.0028 U	< 0.0072 UJ	< 0.0074 U	< 0.0021 U	< 0.0027 U	< 0.0087 U	< 0.019 U	< 0.069 U	< 0.0099 U
PCB-79	41464-48-6	ng/g	0.074	0.15 J	0.10	0.056 JN	< 0.0023 U	0.080 JN	0.25	1.3	0.085
PCB-8	34883-43-7	ng/g	0.19	0.60	0.22	0.097	0.020 JN	0.21	0.79	2.2	0.14
PCB-80	33284-52-5	ng/g	< 0.0025 U	< 0.0064 UJ	< 0.0063 U	0.064	< 0.0023 U	< 0.0074 U	< 0.016 U	< 0.059 U	< 0.0084 U
PCB-81	70362-50-4	ng/g	< 0.0027 U	< 0.0063 U	< 0.0068 U	< 0.0020 U	< 0.0024 U	< 0.0077 U	< 0.017 U	< 0.064 U	< 0.0089 U
PCB-82	52663-62-4	ng/g	1.1	2.2	1.6	0.38	0.034	1.3	4.3	17	1.1
PCB-83/99	60145-20-2	ng/g	5.6	11	8.9	3.2	0.28	8.3	24	130	6.3
PCB-84	52663-60-2	ng/g	3.2	6.2	4.3	1.3	0.077 JN	3.7	12	52	3.5
PCB-85/116/117	65510-45-4	ng/g	1.4	2.8	2.3	0.61	0.057	2.1	5.8	25	1.5
PCB-86/87/97/109/119/125	55312-69-1	ng/g	6.4	12	9.9	2.6	0.21	8.0	28	110	8.0
PCB-88/91	55215-17-3	ng/g	1.5	3.2	2.2	1.1	0.097	1.9	6.3	23	1.7
PCB-89	73575-57-2	ng/g	0.082	0.16 JN	0.097	0.032 JN	< 0.00037 U	< 0.0012 U	< 0.0018 U	1.4	< 0.00074 U
PCB-9	34883-39-1	ng/g	0.018 JN	0.067	0.021	0.0088 J	< 0.0026 U	0.015 JN	0.074 JN	0.24 J	0.012 JN
PCB-90/101/113	68194-07-0	ng/g	10	20	16	5.3	0.43	15	47	210	13
PCB-92	52663-61-3	ng/g	2.3	4.3	3.1	1.2	0.085	3.1	9.0	47	2.3
PCB-93/100	73575-56-1	ng/g	0.26	0.46	0.21 JN	0.45	0.017 JN	0.17 JN	1.7	1.5	0.31
PCB-94	73575-55-0	ng/g	< 0.0017 U	< 0.0015 U	< 0.00088 U	0.12	0.0081 J	< 0.0012 U	< 0.0018 U	< 0.018 U	< 0.00074 U
PCB-95	38379-99-6	ng/g	9.0	18	14	4.6	0.35	13	40	170	12
PCB-96	73575-54-9	ng/g	0.066	0.14	0.10	0.079	0.0071 J	< 0.00094 U	< 0.0013 U	< 0.014 U	< 0.00056 U
PCB-98/102	60233-25-2	ng/g	0.33	0.66	0.40	0.24	0.016 J	0.33	1.2	5.3	0.34
Total PCBs (b)	T_PCBCg (PDI)	ng/g	158	327	248	136	10	239	867	2961	213
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 1.2 UJ	< 1.3 UJ	1.9	< 1.3 UJ	< 0.34 U	3.1	0.90	67	0.64 J
2,4-DDE	3424-82-6	µg/kg	< 1.2 UJ	< 1.3 UJ	< 0.45 U	< 1.3 UJ	< 0.34 U	0.44	< 0.38 U	< 4.1 U	< 0.66 U
2,4-DDT	789-02-6	µg/kg	< 1.2 UJ	< 1.3 UJ	2.4	< 1.3 UJ	< 0.34 U	< 0.33 U	1.5	100	< 0.66 U
4,4'-DDD	72-54-8	µg/kg	1.8 J	1.4 J	2.8	1.4 J	0.69	12	4.5	260	2.3
4,4'-DDE	72-55-9	µg/kg	4.8 J	4.1 J	5.0	3.7 J	1.1	4.6 J	3.6 J	250	3.3 J
4,4'-DDT	50-29-3	µg/kg	0.85 J	0.87 J	5.8	2.4 J	0.18 J	< 1.6 UJ	5.7	310	0.51 J
DDx (b)	T_DDx (PDI)	µg/kg	8.1	7.0	18	8.2	2.1	21	16	989	7.1
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	18	9.0	32	7.3	16 J	110	67	180	20
Acenaphthene	83-32-9	µg/kg	23	9.2	62	9.5	< 19 U	130	150	870	29
Acenaphthylene	208-96-8	µg/kg	21	10	23	12	4.3 J	52	22	120	39
Anthracene	120-12-7	µg/kg	50	23	120	30	< 19 UJ	290	270	1900	99
Benz(a)anthracene	56-55-3	µg/kg	170	99	380	100	19	790	780	5400	410
Benzo(a)pyrene	50-32-8	µg/kg	190	110	290 J	100	17 J	710	600	3800	420
Benzo(b)fluoranthene	205-99-2	µg/kg	290	160	490	170	33	1100	940	5400	1100
Benzo(g,h,i)perylene	191-24-2	µg/kg	140	77	150	84	16 J	410	250	1700	360
Benzo(k)fluoranthene	207-08-9	µg/kg	94	51	120	59	9.9 J	280	310	1700	290
Chrysene	218-01-9	µg/kg	300	150	340	220	22	960	690	5100	1400
Dibenz(a,h)anthracene	53-70-3	µg/kg	34	20	54	18	< 19 U	130	58	630	88
Fluoranthene	206-44-0	µg/kg	380	210	810	230	39	1600	1600	11000	890
Fluorene	86-73-7	µg/kg	24	12	72	14	4.8 J	130	180	1200	58
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	150	84	220	82	16 J	610	440	2000	340
Naphthalene	91-20-3	µg/kg	47	21	50	20	31	220	65	320	30
Phenanthrene	85-01-8	µg/kg	180	88	450	91	36	1200	1200	7400	250
Pyrene	129-00-0	µg/kg	480	230	730	250	35	1800	1400	9700	780
Total PAHs (b)	T_PAH (PDI)	µg/kg	2591	1363	4393	1497	318	10522	9022	58420	6603
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	286	165	455	154	33	1094	878	5732	697
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	38.9	37.8	43.4 43.9	34.5	51.9	58.5 57.6	50.6 46.6	47.7 49.4	36.2
Total Solids@104C - E160.3M (f)	TSOLID	%	41.0	38.9	44.1	37.0	57.5	57.8	49.5	47.1	37.4
Total Solids@70C	TSOLID70	%	40	39	43	37	54	56	49	49	40
Gravel	GS-Gravel	%	0.1	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0.1	0	0.5	0	4.9	0.1	0.1	0.7	0.2

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S177	S178	S179	S180	S181	S182	S183	S184	S186
		Sample ID	PDI-SG-S177	PDI-SG-S178	PDI-SG-S179	PDI-SG-S180	PDI-SG-S181	PDI-SG-S182	PDI-SG-S183	PDI-SG-S184	PDI-SG-S186
		Sample Date	04 May 2018	04 May 2018	21 Jun 2018	04 May 2018	21 Jul 2018	22 Jun 2018	22 Jun 2018	21 Jun 2018	03 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-28 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	1.1	2.7	1.6	0.2	12.3	2.2	6.4	11.2	1.0
Sand, Fine (#200) (d)	GS-Fsand-200	%	18.06	6.252	17.97	5.378	24.88	38.32	24.48	15.46	24.15
Sand, Fine (#230) (d)	GS-Fsand	%	19.8	6.9	20.0	6.3	26.2	43.8	26.3	16.8	25.7
Silt (#200) (d)	GS-Silt-200	%	61.03	67.94	69.62	70.72	47.61	52.77	55.61	64.13	61.14
Silt (#230) (d)	GS-Silt	%	59.3	67.3	67.6	69.8	46.3	47.3	53.8	62.8	59.6
Clay	GS-Clay	%	19.6	23.1	10.3	23.6	10.3	6.6	13.5	8.4	13.5
Percent Fines (e)	GS-FINES	%	80.63	91.04	79.92	94.32	57.91	59.37	69.11	72.53	74.64
Total Organic Carbon	TOC	mg/kg	23000	23000	22000	28000	19000	14000	21000	17000	27000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S187	S190	S191	S193	S194	S195	S196	S197	S197
		Sample ID	PDI-SG-S187	PDI-SG-S190	PDI-SG-S191	PDI-SG-S193	PDI-SG-S194	PDI-SG-S195	PDI-SG-S196	PDI-SG-S197	PDI-SG-S197-D
		Sample Date	19 Jun 2018	16 May 2018	22 Jun 2018	03 May 2018	03 May 2018	18 May 2018	16 May 2018	19 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-28 cm	0-23 cm	0-26 cm	0-30 cm	0-30 cm	0-22 cm	0-24 cm	0-29 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.67	0.043	0.99	0.80	1.1	0.064	0.21	0.32	0.24
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.063	0.011	0.11 J	0.093	0.15	0.057	0.063	0.18	0.15
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0026 U	0.00089 JN	0.014	0.0053 J	0.0073	0.0025 J	0.0039 J	0.0062	0.0046 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0026 J	0.00063 J	0.0046 J	0.0026 JN	0.0038 J	0.00054 JN	0.0016 JN	0.0018 J	0.0015 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0058 J	0.0012 JN	0.0095	0.0057 J	0.0070 J	0.0032 J	0.0048 J	0.0077	0.0039 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.012	0.0023 J	0.025	0.016	0.022	0.0043 J	0.0098	0.010	0.0077
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0020 J	0.00097 J	0.0060	0.0025 J	0.0031 J	0.0080	0.0034 J	0.018	0.013
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0068 J	0.0013 JN	0.011	0.0058 J	0.0081	0.0020 J	0.0040 JN	0.0043 J	0.0038 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00050 U	0.00097 J+	0.00095 J	< 0.00036 U	< 0.00045 U	0.0019 J+	0.0010 J+	0.00066 J+	0.00061 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00031 U	0.00035 JN	< 0.0012 U	0.0019 J	0.0021 J	0.00074 J	0.0010 JN	0.0015 J	0.0011 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0015 J	0.00064 J+	0.0040 J	0.0010 JN	0.0014 J	0.0012 J	0.0014 J	0.0018 J	0.0014 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0012 J	0.00052 J	0.0027 J	0.0014 J	0.0017 J	0.0017 JN	0.0017 J	0.0024 J	0.0016 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0014 J	0.00077 J	0.0034 J	0.0014 J	0.0018 J	0.0016 J	0.0013 J	0.0019 J	0.0013 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00062 JN	0.00033 JN	0.0023	0.00079 JN	0.00091 J	0.00024 JN	0.00060 JN	0.0012	0.00084 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0019	0.0010	0.0062	0.0014 J	0.0016	0.0015	0.0013	0.00065 J	0.00059 J
OCDD	3268-87-9	µg/kg	4.8	0.32	9.6 J	5.7	7.7 J	0.85	1.8	5.3 J	3.8
OCDF	39001-02-0	µg/kg	0.29	0.034	0.57	0.45	0.79	0.098	0.28	0.29	0.25
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.013	0.0025	0.025	0.018	0.023	0.0053	0.0082	0.015	0.011
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.013	0.0017	0.025	0.017	0.023	0.005	0.0065	0.015	0.011
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.013	0.0015	0.024	0.016	0.023	0.0049	0.006	0.015	0.011
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.044	0.0028 JN	7.3	0.033	0.23	< 0.00099 U	0.23	0.013 JN	0.0096 JN
PCB-10	33146-45-1	ng/g	0.0042 J	< 0.0041 U	0.36 JN	0.028 JN	0.013 J	< 0.017 U	0.042 JN	< 0.0061 U	< 0.0044 U
PCB-103	60145-21-3	ng/g	0.13	< 0.00044 U	5.4	0.26	0.25	0.046	1.1	0.050	0.047
PCB-104	56558-16-8	ng/g	< 0.00045 U	< 0.00033 U	< 0.057 U	0.042	< 0.0013 U	< 0.00068 U	< 0.00045 U	< 0.00019 U	< 0.00031 U
PCB-105	32598-14-4	ng/g	1.7	1.1	38	1.0	2.0	0.25	2.2	0.35	0.38
PCB-106	70424-69-0	ng/g	< 0.0036 U	< 0.0029 U	< 0.15 U	< 0.0042 U	< 0.0080 U	< 0.0032 U	< 0.0070 U	< 0.0040 U	< 0.0030 U
PCB-107	70424-68-9	ng/g	0.43 JN	0.19	17	0.40	0.74	0.14	0.79	0.15	0.16
PCB-108/124	70362-41-3	ng/g	0.20	0.10	4.4	0.12	0.28	0.018 J	0.19	0.032	0.034
PCB-11	2050-67-1	ng/g	0.099	0.032	0.20 JN	0.11	0.11	0.021	0.16	0.018 J	0.013 JN
PCB-110/115	38380-03-9	ng/g	7.2	3.4	230	4.5	7.3	1.6	7.5	2.1	2.0
PCB-111	39635-32-0	ng/g	< 0.00041 U	< 0.00031 U	1.4	< 0.00030 U	< 0.0012 U	< 0.00063 U	< 0.00042 U	< 0.00017 U	< 0.00029 U
PCB-112	74472-36-9	ng/g	< 0.00044 U	0.015	1.1	< 0.00032 U	< 0.0013 U	< 0.00066 U	< 0.00044 U	< 0.00018 U	0.0045 JN
PCB-114	74472-37-0	ng/g	0.091	0.054	2.7	0.062	0.12	0.013	0.18	0.015 JN	0.016 JN
PCB-118	31508-00-6	ng/g	4.9	2.7	150	3.2	6.1	0.86	5.0	1.2	1.3
PCB-12/13	2974-92-7	ng/g	0.017 J	0.0070 J	0.95	0.025 J	0.043	< 0.015 U	0.16	0.019 JN	0.018 JN
PCB-120	68194-12-7	ng/g	0.037 JN	< 0.00032 U	2.6	0.049	0.066	0.020	0.12	0.022	0.018 JN
PCB-121	56558-18-0	ng/g	< 0.00043 U	< 0.00032 U	< 0.055 U	< 0.00032 U	< 0.0013 U	< 0.00066 U	< 0.00044 U	< 0.00018 U	< 0.00030 U
PCB-122	76842-07-4	ng/g	0.068	0.037	2.3	0.041	0.10	< 0.0037 U	0.10	0.017	0.015 JN
PCB-123	65510-44-3	ng/g	0.065 JN	0.040 JN	1.5	0.037 JN	0.092	0.011	0.090 JN	0.013 JN	0.018
PCB-126	57465-28-8	ng/g	< 0.0038 U	< 0.0031 U	0.16 JN	< 0.0057 U	< 0.011 U	< 0.0034 U	0.022	< 0.0043 U	< 0.0030 U
PCB-127	39635-33-1	ng/g	< 0.0036 U	< 0.0029 U	< 0.15 U	< 0.0042 U	< 0.0080 U	< 0.0032 U	< 0.0070 U	< 0.0040 U	< 0.0030 U
PCB-128/166	38380-07-3	ng/g	1.3	0.58	32	1.1	1.5	0.28	1.9	0.28	0.31
PCB-129/138/160/163	55215-18-4	ng/g	8.9	3.4	230	10	12	2.9	26	2.5	2.7
PCB-130	52663-66-8	ng/g	0.58	0.21	15	0.59	0.77	0.20	1.3	0.18	0.19
PCB-131	61798-70-7	ng/g	0.092 JN	0.056	3.2 JN	< 0.023 U	0.19	< 0.012 U	0.13	0.024	0.018 JN
PCB-132	38380-05-1	ng/g	3.2	1.1	85	3.5	4.5	0.82	6.0	0.83	0.81
PCB-133	35694-04-3	ng/g	0.17	0.037	5.3	0.27	0.31	0.062	0.75	0.048	0.068
PCB-134/143	52704-70-8	ng/g	0.55	0.18	17	0.67	0.87	0.13	1.4	0.11	0.12
PCB-135/151	52744-13-5	ng/g	2.7	0.67	97	3.4	3.0	1.1	17	1.0	1.0
PCB-136	38411-22-2	ng/g	1.1	0.29	36	1.3	1.4	0.39	4.1	0.39	0.37
PCB-137	35694-06-5	ng/g	0.39	0.20	9.9	0.27	0.45	0.053	0.54	0.063	0.067
PCB-139/140	56030-56-9	ng/g	0.15	0.067	5.0	0.19	0.29	0.037	0.41	0.041	0.037

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S187	S190	S191	S193	S194	S195	S196	S197	S197
		Sample ID	PDI-SG-S187	PDI-SG-S190	PDI-SG-S191	PDI-SG-S193	PDI-SG-S194	PDI-SG-S195	PDI-SG-S196	PDI-SG-S197	PDI-SG-S197-D
		Sample Date	19 Jun 2018	16 May 2018	22 Jun 2018	03 May 2018	03 May 2018	18 May 2018	16 May 2018	19 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-28 cm	0-23 cm	0-26 cm	0-30 cm	0-30 cm	0-22 cm	0-24 cm	0-29 cm	0-29 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0011 U	< 0.0031 U	< 0.065 U	< 0.0023 U	< 0.0033 U	< 0.013 U	< 0.0053 U	< 0.0047 U	< 0.0034 U
PCB-141	52712-04-6	ng/g	1.5	0.49	46	2.0	2.1	0.47	6.2	0.42	0.44
PCB-142	41411-61-4	ng/g	< 0.0096 U	< 0.0046 U	< 0.30 U	< 0.020 U	< 0.023 U	< 0.011 U	< 0.039 U	< 0.015 U	< 0.013 U
PCB-144	68194-14-9	ng/g	0.29	0.096	10	0.32	0.34	0.10	1.1	0.11	0.098
PCB-145	74472-40-5	ng/g	0.0065 J	< 0.00028 U	0.36 JN	< 0.00047 U	< 0.0021 U	< 0.00095 U	< 0.00051 U	< 0.00029 U	< 0.00072 U
PCB-146	51908-16-8	ng/g	1.5	0.39	49	2.3	2.5	0.77	6.6	0.61	0.65
PCB-147/149	68194-13-8	ng/g	7.8	2.2	240	12	13	3.2	35	2.9	3.0
PCB-148	74472-41-6	ng/g	0.034	0.0029 JN	1.0 JN	0.053	0.058	0.0066 J	0.23	0.0080 JN	0.010
PCB-15	2050-68-2	ng/g	0.079	0.062	3.0	0.080	0.13	< 0.016 U	1.6	0.098	0.084
PCB-150	68194-08-1	ng/g	0.029	0.0044 J	0.56 JN	0.067	0.065 JN	0.0066 J	0.49	0.0097 J	0.011
PCB-152	68194-09-2	ng/g	0.018	0.0025 JN	0.35 J	0.020 JN	0.032 JN	< 0.00098 U	0.37	< 0.00030 U	< 0.00074 U
PCB-153/168	35065-27-1	ng/g	6.9	2.1	210	10	11	3.1	30	2.6	2.7
PCB-154	60145-22-4	ng/g	0.20	0.034 JN	6.4	0.30	0.29	0.073	1.4	0.064 JN	0.071
PCB-155	33979-03-2	ng/g	< 0.00023 U	< 0.00026 U	< 0.076 U	0.0089 J	< 0.0020 U	< 0.00091 U	< 0.00049 U	< 0.00028 U	< 0.00069 U
PCB-156/157	38380-08-4	ng/g	1.0	0.46	26	0.80	1.0	0.17	1.5	0.17	0.18
PCB-158	74472-42-7	ng/g	0.85	0.36	23	0.89	1.0	0.17	2.0	0.15	0.17
PCB-159	39635-35-3	ng/g	0.053	< 0.0031 U	1.6 JN	0.088	0.070 JN	< 0.0075 U	0.50	0.026	0.027
PCB-16	38444-78-9	ng/g	0.056	0.037	3.8	0.10	0.078	0.018	2.5	0.30	0.30
PCB-161	74472-43-8	ng/g	< 0.0064 U	< 0.0030 U	< 0.20 U	< 0.014 U	< 0.016 U	< 0.0074 U	< 0.026 U	< 0.010 U	< 0.0088 U
PCB-162	39635-34-2	ng/g	< 0.0063 U	< 0.0030 U	0.63	< 0.013 U	< 0.015 U	< 0.0074 U	0.032	< 0.0099 U	< 0.0087 U
PCB-164	74472-45-0	ng/g	0.62	0.21	18	0.76	0.83	0.17	2.0	0.18	0.18
PCB-165	74472-46-1	ng/g	< 0.0072 U	< 0.0034 U	< 0.22 U	< 0.015 U	< 0.018 U	< 0.0085 U	< 0.030 U	< 0.011 U	< 0.010 U
PCB-167	52663-72-6	ng/g	0.32	0.13	8.0	0.27	0.29 JN	0.064	0.52	0.057	0.067
PCB-169	32774-16-6	ng/g	< 0.0046 U	< 0.0024 U	< 0.15 U	0.057 JN	< 0.014 U	< 0.0055 U	0.11 JN	0.029 JN	0.028 JN
PCB-17	37680-66-3	ng/g	0.10	0.052	6.6	2.0	0.16	0.025	3.2	0.45	0.45
PCB-170	35065-30-6	ng/g	2.0	0.46	55	3.6	2.7	0.94	15	0.85	0.89
PCB-171/173	52663-71-5	ng/g	0.61	0.14	20	0.99	0.73	0.32	4.8	0.27	0.26
PCB-172	52663-74-8	ng/g	0.32	0.070	11	0.46	0.37	0.17	2.9	0.16	0.16
PCB-174	38411-25-5	ng/g	1.8	0.34	68	2.9	2.4	0.99	19	0.94	0.99
PCB-175	40186-70-7	ng/g	0.074	0.016	3.1	0.13	0.10	0.037	0.68	0.013 JN	0.043 JN
PCB-176	52663-65-7	ng/g	0.24	0.048	9.7	0.43	0.37	0.13	2.4	0.12	0.13
PCB-177	52663-70-4	ng/g	1.1	0.21	39	1.9	1.5	0.63	10	0.54	0.57
PCB-178	52663-67-9	ng/g	0.41	0.077	15	0.72	0.57	0.23	4.6	0.21	0.23
PCB-179	52663-64-6	ng/g	0.83	0.15	33	1.6	1.3	0.49	10	0.47	0.49
PCB-18/30	37680-65-2	ng/g	0.14	0.086 JN	10	0.26	0.19	0.044	6.5	0.84	0.85
PCB-180/193	35065-29-3	ng/g	3.9	0.75	130	6.1	4.6	2.4	38	2.1	2.1
PCB-181	74472-47-2	ng/g	0.024	0.0066 J	0.72 JN	< 0.0019 U	< 0.0084 U	< 0.00063 U	< 0.00053 U	< 0.00069 U	< 0.0016 U
PCB-182	60145-23-5	ng/g	< 0.00070 U	0.0055 J	1.0	< 0.0018 U	0.039 JN	< 0.00061 U	0.23	< 0.00066 U	< 0.0016 U
PCB-183/185	52663-69-1	ng/g	1.3	0.25	48	2.1	1.7	0.78	13	0.68	0.69
PCB-184	74472-48-3	ng/g	< 0.00060 U	< 0.00052 U	< 0.080 U	< 0.0015 U	< 0.0069 U	< 0.00052 U	< 0.00043 U	< 0.00056 U	< 0.0013 U
PCB-186	74472-49-4	ng/g	< 0.00058 U	< 0.00050 U	< 0.078 U	< 0.0015 U	< 0.0067 U	< 0.00050 U	< 0.00042 U	< 0.00055 U	< 0.0013 U
PCB-187	52663-68-0	ng/g	2.3	0.40	84	3.9	3.1	1.5	24	1.3	1.4
PCB-188	74487-85-7	ng/g	< 0.00051 U	< 0.00043 U	< 0.069 U	< 0.0012 U	< 0.0053 U	< 0.00045 U	< 0.00036 U	< 0.00047 U	< 0.0011 U
PCB-189	39635-31-9	ng/g	0.072	0.017	1.9 JN	0.12	0.10	0.027	0.40	0.028	0.026
PCB-19	38444-73-4	ng/g	0.077	0.021 JN	0.88	2.2	0.11	< 0.0034 UJ	0.55	0.059 JN	0.065 J
PCB-190	41411-64-7	ng/g	0.38	0.070	11	0.55	0.39	0.11	3.1	0.14	0.15
PCB-191	74472-50-7	ng/g	0.081	0.014 JN	3.5	0.13	0.090	0.027	0.69	0.026 JN	0.018 JN
PCB-192	74472-51-8	ng/g	< 0.00062 U	< 0.00053 U	< 0.082 U	< 0.0016 U	< 0.0071 U	< 0.00053 U	< 0.00045 U	< 0.00058 U	< 0.0014 U
PCB-194	35694-08-7	ng/g	0.90	0.15	31	1.6	1.2	0.57	10	0.58	0.58
PCB-195	52663-78-2	ng/g	0.37	0.060	13	0.72	0.62	0.22	4.6	0.18	0.21
PCB-196	42740-50-1	ng/g	0.43	0.060	18	0.64	0.53	0.34	5.0	0.28	0.28
PCB-197	33091-17-7	ng/g	0.033 JN	0.0055 J	1.6	0.051	0.044 JN	0.015	0.37	0.017	0.017 JN
PCB-198/199	68194-17-2	ng/g	0.89	0.15	35	1.2	1.0	0.77	9.9	0.68	0.73
PCB-2	2051-61-8	ng/g	0.030	0.0068 JN	0.40	0.036	0.051	< 0.0012 U	0.038	< 0.0010 U	0.0062 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S187	S190	S191	S193	S194	S195	S196	S197	S197
		Sample ID	PDI-SG-S187	PDI-SG-S190	PDI-SG-S191	PDI-SG-S193	PDI-SG-S194	PDI-SG-S195	PDI-SG-S196	PDI-SG-S197	PDI-SG-S197-D
		Sample Date	19 Jun 2018	16 May 2018	22 Jun 2018	03 May 2018	03 May 2018	18 May 2018	16 May 2018	19 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-28 cm	0-23 cm	0-26 cm	0-30 cm	0-30 cm	0-22 cm	0-24 cm	0-29 cm	0-29 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.32	0.23	20	0.45	0.40	0.072	9.3	1.2	1.1
PCB-200	52663-73-7	ng/g	0.093	0.014 JN	4.1	0.14	0.14	0.071	1.1	0.067	0.066
PCB-201	40186-71-8	ng/g	0.10	0.019	4.7	0.15	0.15	0.057	1.0	0.062	0.062 JN
PCB-202	2136-99-4	ng/g	0.17	0.034	6.7	0.24	0.31	0.18	1.9	0.15	0.17
PCB-203	52663-76-0	ng/g	0.57	0.093	20	0.77	0.67	0.47	5.7	0.38	0.41
PCB-204	74472-52-9	ng/g	< 0.00054 U	< 0.00031 U	< 0.11 U	< 0.0015 U	< 0.0039 U	< 0.00079 U	< 0.00050 U	< 0.00026 U	< 0.0016 U
PCB-205	74472-53-0	ng/g	0.047	0.0072 J	1.8	0.086	0.092	0.020	0.51	0.024 JN	0.028
PCB-206	40186-72-9	ng/g	0.38	0.090	8.7	0.52	0.65	0.75	2.3	0.84	0.94
PCB-207	52663-79-3	ng/g	0.044	0.011	1.2	0.054	0.074	0.075	0.29	0.073	0.081
PCB-208	52663-77-1	ng/g	0.10	0.028	2.0	0.13	0.19	0.29	0.44	0.29	0.38
PCB-209	2051-24-3	ng/g	0.33	0.062	1.8	0.39	0.31	1.2	0.26	1.4	1.9
PCB-21/33	55702-46-0	ng/g	0.13	0.080	6.9	0.25	0.20	0.038	4.9	0.62	0.58
PCB-22	38444-85-8	ng/g	0.067	0.066	3.8	0.077	0.073	0.016	3.0	0.30	0.29
PCB-23	55720-44-0	ng/g	< 0.0011 U	< 0.0013 U	< 0.066 U	< 0.0022 U	< 0.0031 U	< 0.0018 U	0.011 JN	< 0.0033 U	< 0.0028 U
PCB-24	55702-45-9	ng/g	0.0021 JN	0.0038 J	0.11 JN	< 0.00040 U	0.0040 JN	< 0.0023 U	0.14	0.0078 JN	0.0083 J
PCB-25	55712-37-3	ng/g	0.033	0.014	2.1	0.064	0.047	0.0054 J	0.69	0.080	0.075
PCB-26/29	38444-81-4	ng/g	0.043	0.026	3.1	0.067	0.057	0.0099 J	1.4	0.14	0.14
PCB-27	38444-76-7	ng/g	0.022	0.0087 JN	0.67	0.50	0.038	< 0.0020 U	0.45	0.052	0.050
PCB-3	2051-62-9	ng/g	0.036	0.0045 JN	3.0	0.030	0.10	< 0.0015 U	0.12	0.013	0.014
PCB-31	16606-02-3	ng/g	0.21	0.14	14	0.25	0.26	0.050	7.9	0.94	0.90
PCB-32	38444-77-8	ng/g	0.092	0.054	6.0	0.31	0.15	< 0.0019 U	1.4	0.16	0.15
PCB-34	37680-68-5	ng/g	0.0028 JN	< 0.0013 U	0.13 JN	< 0.0022 U	< 0.0032 U	< 0.0019 U	0.049 JN	0.015	0.015
PCB-35	37680-69-6	ng/g	0.0055 JN	0.0024 JN	0.16 JN	0.017	0.014	< 0.0018 U	0.12	0.0074 JN	0.0089 JN
PCB-36	38444-87-0	ng/g	< 0.0011 U	< 0.0012 U	< 0.065 U	< 0.0021 U	< 0.0030 U	< 0.0018 U	0.011 JN	< 0.0032 U	< 0.0027 U
PCB-37	38444-90-5	ng/g	0.096	0.066	3.1	0.11	0.12	0.017	2.4	0.21	0.20
PCB-38	53555-66-1	ng/g	< 0.0011 U	< 0.0013 U	< 0.069 U	< 0.0023 U	< 0.0032 U	< 0.0019 U	< 0.0095 U	< 0.0034 U	< 0.0030 U
PCB-39	38444-88-1	ng/g	< 0.0010 U	0.0013 JN	0.36 J	0.0052 J	< 0.0029 U	< 0.0017 U	0.048	0.0096 J	0.0097 JN
PCB-4	13029-08-8	ng/g	0.064	0.024	4.1	0.34	0.15	< 0.022 U	1.0	0.076	0.055
PCB-40/41/71	38444-93-8	ng/g	0.35	0.13	20	0.73	0.62	0.052	4.7	0.67	0.70
PCB-42	36559-22-5	ng/g	0.17	0.062	16	0.20	0.30	< 0.0054 U	2.1	0.37	0.39
PCB-43/73	70362-46-8	ng/g	0.096 JN	0.015 J	1.3 JN	0.043 JN	0.15	< 0.0050 U	0.28	0.038	0.032 JN
PCB-44/47/65	41464-39-5	ng/g	1.8	0.53	84	4.7	3.3	0.28	12	1.4	1.4
PCB-45/51	70362-45-7	ng/g	0.34	0.047	8.6	3.1	0.73	< 0.0056 U	3.0	0.22	0.23
PCB-46	41464-47-5	ng/g	0.029 JN	0.013	3.0	0.065	0.058 JN	< 0.0068 U	0.42	0.074	0.076 JN
PCB-48	70362-47-9	ng/g	0.076	0.037	4.9	0.12	0.12	0.014	2.1	0.26	0.28
PCB-49/69	41464-40-8	ng/g	1.0	0.33	73	1.5	1.9	0.26	7.0	0.99	1.1
PCB-5	16605-91-7	ng/g	0.0030 JN	< 0.0041 U	0.32 JN	< 0.0030 U	0.017	< 0.017 U	0.062 JN	< 0.0062 U	0.0052 JN
PCB-50/53	62796-65-0	ng/g	0.24	0.040	9.3	0.94	0.47	0.014 J	1.5	0.17	0.17
PCB-52	35693-99-3	ng/g	3.0	1.1	130	2.3	4.8	0.58	7.4	1.7	1.7
PCB-54	15968-05-5	ng/g	0.035	0.0015 JN	0.33 JN	0.74	0.073	< 0.00024 UJ	0.090 JN	0.0026 JN	0.0027 JN
PCB-55	74338-24-2	ng/g	< 0.0030 U	0.013 JN	1.1	< 0.010 U	< 0.0087 U	< 0.0039 U	0.26	0.011	0.014
PCB-56	41464-43-1	ng/g	0.27	0.15	13	0.26	0.40	0.10	3.8	0.57	0.60
PCB-57	70424-67-8	ng/g	< 0.0030 U	< 0.0031 U	< 0.12 U	< 0.010 U	< 0.0088 U	< 0.0040 U	0.051	< 0.0045 U	0.0044 J
PCB-58	41464-49-7	ng/g	0.026 JN	< 0.0031 U	0.76	< 0.011 U	< 0.0090 U	< 0.0040 U	0.029 JN	0.013 JN	0.0094 JN
PCB-59/62/75	74472-33-6	ng/g	0.058 JN	0.021 JN	4.0	0.15	0.12	0.016 J	0.84	0.11	0.11
PCB-6	25569-80-6	ng/g	0.027	0.012 JN	2.4	0.030	0.079	< 0.015 U	0.69	0.057 JN	0.046 JN
PCB-60	33025-41-1	ng/g	0.077	0.064	2.4	0.078	0.12	0.016	2.5	0.13	0.13
PCB-61/70/74/76	33284-53-6	ng/g	2.3	0.94	100	1.8	3.5	0.55	14	2.3	2.3
PCB-63	74472-34-7	ng/g	0.033	0.015	2.5	0.044	0.068	0.014	0.40	0.049	0.050
PCB-64	52663-58-8	ng/g	0.31	0.17	18	0.30	0.50	0.071	3.2	0.52	0.56
PCB-66	32598-10-0	ng/g	0.96	0.45	60	0.99	1.5	0.24	8.3	1.3	1.4
PCB-67	73575-53-8	ng/g	0.0065 JN	0.0053 J	0.57 JN	< 0.0090 U	0.030 JN	0.0067 J	0.37	0.026	0.030
PCB-68	73575-52-7	ng/g	0.027 JN	0.0054 J	2.3	0.044	0.064	0.011	0.078	< 0.0040 UJ	0.021 J
PCB-7	33284-50-3	ng/g	0.0059 JN	< 0.0037 U	0.94	< 0.0027 U	0.030 JN	< 0.016 U	0.12 JN	0.011 JN	0.0080 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S187	S190	S191	S193	S194	S195	S196	S197	S197
		Sample ID	PDI-SG-S187	PDI-SG-S190	PDI-SG-S191	PDI-SG-S193	PDI-SG-S194	PDI-SG-S195	PDI-SG-S196	PDI-SG-S197	PDI-SG-S197-D
		Sample Date	19 Jun 2018	16 May 2018	22 Jun 2018	03 May 2018	03 May 2018	18 May 2018	16 May 2018	19 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-28 cm	0-23 cm	0-26 cm	0-30 cm	0-30 cm	0-22 cm	0-24 cm	0-29 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.031 JN	0.0075 J	3.9	0.037	0.072	0.022	0.094	0.036	0.039
PCB-77	32598-13-3	ng/g	0.068	0.030	3.2	0.074	0.13	0.0099	0.79	0.061 JN	0.084
PCB-78	70362-49-1	ng/g	< 0.0031 U	< 0.0031 U	< 0.12 U	< 0.011 U	< 0.0089 U	< 0.0040 U	< 0.013 U	< 0.0046 U	< 0.0044 U
PCB-79	41464-48-6	ng/g	0.039	0.017 JN	1.8	0.029 JN	0.070	< 0.0035 U	0.048	0.022 JN	0.017
PCB-8	34883-43-7	ng/g	0.081	0.045	8.3	0.097	0.21	< 0.014 U	3.9	0.26	0.23
PCB-80	33284-52-5	ng/g	< 0.0026 U	< 0.0026 U	0.19 J	< 0.0090 U	< 0.0076 U	< 0.0034 U	< 0.011 U	< 0.0039 U	< 0.0037 U
PCB-81	70362-50-4	ng/g	< 0.0028 U	< 0.0028 U	< 0.11 U	< 0.0096 U	< 0.0079 U	< 0.0037 U	< 0.012 U	< 0.0042 U	< 0.0040 U
PCB-82	52663-62-4	ng/g	0.65	0.33	16	0.35	0.63	0.11	0.88	0.18	0.17
PCB-83/99	60145-20-2	ng/g	3.6	1.6	150	3.4	4.5	1.0	9.0	1.4	1.2
PCB-84	52663-60-2	ng/g	1.7	0.65	58	1.0	2.0	0.28	1.6	0.50	0.47
PCB-85/116/117	65510-45-4	ng/g	0.83	0.49	25	0.55	0.90	0.19	1.5	0.27	0.26
PCB-86/87/97/109/119/125	55312-69-1	ng/g	4.2	1.9	120	2.5	4.3	0.69	5.2	1.1	1.0
PCB-88/91	55215-17-3	ng/g	1.0	0.34	39	1.2	1.5	0.19	6.8	0.35	0.34
PCB-89	73575-57-2	ng/g	< 0.00067 U	< 0.00050 U	1.5	< 0.00049 U	< 0.0019 U	< 0.0010 U	0.12	< 0.00028 UJ	0.020 J
PCB-9	34883-39-1	ng/g	0.0060 JN	< 0.0038 U	1.0	0.0091 JN	0.030	< 0.016 U	0.22	0.015 JN	0.0096 JN
PCB-90/101/113	68194-07-0	ng/g	6.9	2.8	240	5.4	8.2	1.8	11	2.2	2.0
PCB-92	52663-61-3	ng/g	1.3	0.44	52	1.2	1.7	0.40	3.2	0.46	0.43
PCB-93/100	73575-56-1	ng/g	0.35	0.038	5.2	0.58	0.44	0.050	1.5	0.024 JN	0.030
PCB-94	73575-55-0	ng/g	< 0.00067 U	< 0.00050 U	< 0.085 U	0.21	0.12	< 0.0010 U	0.64	< 0.00028 U	< 0.00047 U
PCB-95	38379-99-6	ng/g	5.9	2.1	200	4.3	7.2	1.4	6.7	1.8	1.6
PCB-96	73575-54-9	ng/g	0.051	< 0.00038 U	1.7	0.11	0.099	< 0.00077 U	0.49	0.018	0.018
PCB-98/102	60233-25-2	ng/g	0.20	0.052 JN	6.8	0.41	0.31	0.025	0.81	0.061	0.065
Total PCBs (b)	T_PCBCg (PDI)	ng/g	115	41	3910	140	155	40	535	55	56
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.54 J	< 0.87 U	3.7	4.6 J	2.4 J	240	0.99	< 1.0 U	< 1.0 U
2,4-DDE	3424-82-6	µg/kg	< 0.63 U	< 0.87 U	0.43	< 1.5 UJ	< 1.4 UJ	0.94	< 0.96 U	< 1.0 U	< 1.0 U
2,4-DDT	789-02-6	µg/kg	< 0.63 U	< 0.94 U	5.6	1.7 J	< 1.4 UJ	< 0.94 UJ	< 0.96 U	< 1.0 U	< 1.0 U
4,4'-DDD	72-54-8	µg/kg	1.4	0.68 J	16	12 J	5.0 J	1000	3.3	2.4	2.5
4,4'-DDE	72-55-9	µg/kg	3.7	1.1	11 J	8.5 J	4.7 J	9.6	3.6	4.1	4.4
4,4'-DDT	50-29-3	µg/kg	1.1	< 0.87 U	22 J	5.3 J	1.0 J	0.56 J	0.54 J	< 1.0 U	< 1.0 U
DDx (b)	T_DDx (PDI)	µg/kg	7.1	2.3	59	33	14	1252	8.9	7.0	7.4
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	17	3.8	650 J	13 J	9.5 J	32	27	39	38
Acenaphthene	83-32-9	µg/kg	12 J	4.8	690 J	12	12	22	22	28 J	53 J
Acenaphthylene	208-96-8	µg/kg	19	4.8	84	22	13	22	9.8	43	56
Anthracene	120-12-7	µg/kg	54	8.2	760 J	43	30	40	33	50	62
Benz(a)anthracene	56-55-3	µg/kg	92	28	1900	270	110	57	64	96	120
Benzo(a)pyrene	50-32-8	µg/kg	76 J	33	1400 J	220	120	71	84	110	170
Benzo(b)fluoranthene	205-99-2	µg/kg	150	39	2200	390	210	78	110	120	160
Benzo(g,h,i)perylene	191-24-2	µg/kg	58	28	630	130	88	57	53	110	150
Benzo(k)fluoranthene	207-08-9	µg/kg	46	14	560 J	140	76	23	37	45	56
Chrysene	218-01-9	µg/kg	160	38	2100	430	210	90	120	130	160
Dibenz(a,h)anthracene	53-70-3	µg/kg	23	4.9	130 J	31	19	8.5	11	11	15
Fluoranthene	206-44-0	µg/kg	250	67	4600	440	340	230	220	330	400
Fluorene	86-73-7	µg/kg	19	4.7	470 J	21	17	25	30	34	38
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	84	25	840	130	81	45	43	84	120
Naphthalene	91-20-3	µg/kg	33	7.2	420 J	24	19	57	42	130	110
Phenanthrene	85-01-8	µg/kg	90	35	4200	120	110	210	150	240	300
Pyrene	129-00-0	µg/kg	250	78	4500	450	320	230	210	420	510
Total PAHs (b)	T_PAH (PDI)	µg/kg	1433	423	26134	2886	1785	1298	1266	2020	2518
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	132	47	2032	332	180	98	117	152	226
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	31.9 36.3	54.8	51.4 51.2	33.1	35.2	56.3	49.1	47.9	48.5
Total Solids@104C - E160.3M (f)	TSOLID	%	31.8	56.2	51.2	33.7	36.1	57.4	51.5	49.5	49.3
Total Solids@70C	TSOLID70	%	33	54	52	35	38	59	50	50	48
Gravel	GS-Gravel	%	0	0	0	0	0	0	0.8	0	
Sand, Coarse	GS-Csand	%	0	0	0.3	0	0	0	3.5	0.2	

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S187	S190	S191	S193	S194	S195	S196	S197	S197
		Sample ID	PDI-SG-S187	PDI-SG-S190	PDI-SG-S191	PDI-SG-S193	PDI-SG-S194	PDI-SG-S195	PDI-SG-S196	PDI-SG-S197	PDI-SG-S197-D
		Sample Date	19 Jun 2018	16 May 2018	22 Jun 2018	03 May 2018	03 May 2018	18 May 2018	16 May 2018	19 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD
		Depth	0-28 cm	0-23 cm	0-26 cm	0-30 cm	0-30 cm	0-22 cm	0-24 cm	0-29 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.2	0.1	4.9	0.3	0.5	0.1	10.7	0.5	
Sand, Fine (#200) (d)	GS-Fsand-200	%	3.493	52.3	26.42	8.701	13.34	16.05	42.06	15.81	
Sand, Fine (#230) (d)	GS-Fsand	%	4.0	56.8	28.3	9.9	14.2	19.7	44.6	19.2	
Silt (#200) (d)	GS-Silt-200	%	81.30	42.39	50.47	71.69	68.25	67.54	33.73	71.38	
Silt (#230) (d)	GS-Silt	%	80.8	37.9	48.6	70.5	67.4	63.9	31.2	68.0	
Clay	GS-Clay	%	15.1	5.2	17.9	19.3	17.9	16.3	9.2	12.1	
Percent Fines (e)	GS-FINES	%	96.4	47.59	68.37	90.99	86.15	83.84	42.93	83.48	
Total Organic Carbon	TOC	mg/kg	27000	12000	19000	24000	21000	19000	40000	28000	25000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S198	S199	S200	S201	S202	S203	S203	S204	S205
		Sample ID	PDI-SG-S198	PDI-SG-S199	PDI-SG-S200	PDI-SG-S201	PDI-SG-S202	PDI-SG-S203	PDI-SG-S203-D	PDI-SG-S204	PDI-SG-S205
		Sample Date	03 May 2018	17 Jun 2018	03 May 2018	03 May 2018	19 May 2018	02 Jun 2018	02 Jun 2018	03 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-30 cm	0-18 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-17 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.65	0.11	0.69	1.1	0.16	1.4	1.8	0.63	0.11
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.11	0.020	0.13	0.27	0.023	0.42	0.56	0.15	0.016
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0058 J	0.0015 J+	0.0099	0.016	0.0018 J+	0.026	0.030	0.0069	0.0014 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0027 J	0.00058 JN	0.0035 J	0.0034 J	0.0012 JN	0.0044 J	0.0034 JN	0.0012 J	0.00086 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0051 J	0.0016 J	0.0089	0.017	0.0026 J	0.050	0.052	0.0037	0.0015 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.014	0.0025 JN	0.016	0.026	0.0069	0.036	0.046	0.012	0.0035 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0027 J	0.00058 J	0.0035 J	0.0047 J	0.0020 J	0.0089	0.0096	0.0013 J	0.0011 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0071	0.0013 J	0.0062 J	0.0063 J	0.0041 J	0.0088	0.0085	0.0032 J	0.0025 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00040 U	0.00035 JN	0.00096 J+	< 0.00086 U	0.00046 J+	0.0017 J+	0.0014 J+	0.00079 J+	0.00054 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0014 J	0.00021 J	0.0017 J	0.0013 JN	0.0011 J	0.0021 J	0.0021 J	0.00057 J	0.00068 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00094 J	< 0.000097 U	0.0010 JN	0.00088 JN	0.00096 J	0.0014 JN	0.0015 J	0.00055 J	0.00049 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0014 J	< 0.000097 U	0.0024 J	0.0022 J	0.00088 J	0.0041 J	0.0042 J	0.00056 JN	0.00043 JN
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0015 J	0.00034 J	0.0018 J	0.0026 J	0.0010 J	0.0053 J	0.0052 J	0.00073 J	0.00038 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00075 J	< 0.000076 U	0.00075 JN	0.0012 J	0.00068 JN	0.00089 J	0.00080 JN	0.00022 JN	0.00044 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0017	0.00039 JN	0.0013	0.0015	0.0019	0.0021	0.0030	0.00067 J+	0.00072 J
OCDD	3268-87-9	µg/kg	4.7	0.93	5.1	7.9 J	1.7	10 J	16 J	10 J	1.2
OCDF	39001-02-0	µg/kg	0.53	0.093	0.62	1.5	0.070	2.0	2.9	0.85	0.049
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.015	0.0027	0.017	0.026	0.0065	0.038	0.047	0.014	0.004
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.015	0.0024	0.017	0.025	0.006	0.038	0.046	0.014	0.0037
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.015	0.0023	0.017	0.025	0.0057	0.038	0.046	0.014	0.0035
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.095	0.0095 J	0.20	0.48	0.016 JN	0.58	0.60 JN	0.011	0.0043 J
PCB-10	33146-45-1	ng/g	0.011 J	0.00085 JN	0.010 J	0.023 JN	< 0.0059 U	0.11	0.23 JN	0.0046 JN	< 0.0046 U
PCB-103	60145-21-3	ng/g	0.69	0.031	0.51	2.1	0.11	2.3	3.3 JN	0.11	0.0081 JN
PCB-104	56558-16-8	ng/g	< 0.00060 U	< 0.00023 U	0.098	0.59	< 0.00042 U	0.60	0.84 J	< 0.00024 U	< 0.00053 U
PCB-105	32598-14-4	ng/g	4.8	0.25	2.2 J	2.0	0.60	1.3 J	5.6 J	1.6	0.14
PCB-106	70424-69-0	ng/g	< 0.012 U	< 0.0016 U	< 0.0065 U	< 0.012 U	< 0.0024 U	< 0.017 U	< 0.13 U	< 0.0049 U	< 0.0015 U
PCB-107	70424-68-9	ng/g	1.4	0.062	0.79	0.98	0.31	0.66 J	1.3 J	0.32	0.043 JN
PCB-108/124	70362-41-3	ng/g	0.57	0.030	0.28	0.20 JN	0.067	0.17 J	0.83 J	0.18	0.011 JN
PCB-11	2050-67-1	ng/g	0.12	0.014 J+	0.16	0.13 J	0.048	0.56	0.60 JN	0.16	0.055
PCB-110/115	38380-03-9	ng/g	17	1.1	6.6	13	3.4	10 J	27 J	5.1	0.57
PCB-111	39635-32-0	ng/g	< 0.00056 U	< 0.00021 U	< 0.00023 U	0.090	< 0.00038 U	0.097	< 0.056 U	< 0.00022 U	< 0.00049 U
PCB-112	74472-36-9	ng/g	< 0.00058 U	0.0050 JN	< 0.00024 U	< 0.0015 U	< 0.00040 U	< 0.0023 U	< 0.061 U	0.0080 JN	< 0.00052 U
PCB-114	74472-37-0	ng/g	0.28	0.017	0.13	0.14	0.033	0.11 J	0.56 J	0.085	0.0069 JN
PCB-118	31508-00-6	ng/g	13	0.68	6.5	7.0	2.2	4.8 J	15 J	4.2	0.41
PCB-12/13	2974-92-7	ng/g	0.034 JN	0.0029 JN	0.032	0.059 JN	0.024	0.087 J	< 0.092 U	0.0058 JN	< 0.0041 U
PCB-120	68194-12-7	ng/g	0.11	0.010 JN	0.061	0.18	0.040	0.26	< 0.055 U	< 0.00023 U	0.0037 JN
PCB-121	56558-18-0	ng/g	< 0.00058 U	< 0.00022 U	< 0.00024 U	0.17	< 0.00040 U	0.14	< 0.060 U	< 0.00023 U	< 0.00052 U
PCB-122	76842-07-4	ng/g	0.17 JN	0.012	0.086	0.10	0.027	0.089	< 0.14 U	0.053	0.0048 JN
PCB-123	65510-44-3	ng/g	0.18	0.014	0.096	0.10	0.030	0.067 JN	0.39 JN	0.045 JN	0.0030 JN
PCB-126	57465-28-8	ng/g	0.033 JN	< 0.0016 U	< 0.0085 U	< 0.014 U	0.0071 J	< 0.017 U	< 0.14 U	0.056 JN	< 0.0016 U
PCB-127	39635-33-1	ng/g	< 0.012 U	< 0.0016 U	< 0.0065 U	< 0.012 U	< 0.0023 U	< 0.016 U	< 0.12 U	< 0.0049 U	< 0.0015 U
PCB-128/166	38380-07-3	ng/g	3.7	0.23	1.9	2.4	0.44	2.3 J	5.5 J	1.2	0.10
PCB-129/138/160/163	55215-18-4	ng/g	28	1.5	16	24	3.6	25 J	48 J	7.9	0.80
PCB-130	52663-66-8	ng/g	1.7	0.11	0.99	1.2	0.29	1.5 J	2.9 JN	0.52	0.056
PCB-131	61798-70-7	ng/g	0.34	0.021	< 0.029 U	0.24	< 0.0059 U	0.27 J	0.65 JN	0.12	< 0.0042 U
PCB-132	38380-05-1	ng/g	9.9	0.56	5.3	8.1	1.2	8.7 J	18 J	3.0	0.22
PCB-133	35694-04-3	ng/g	0.78	0.055	0.57	0.86	0.12	0.93	1.5 J	0.13	0.018
PCB-134/143	52704-70-8	ng/g	2.0	0.10	1.1	1.6	0.19	2.1 J	4.4 J	0.54	0.032
PCB-135/151	52744-13-5	ng/g	8.6	0.64	4.8	12	1.5	15	25	2.1	0.26
PCB-136	38411-22-2	ng/g	3.7	0.22	2.1	4.3	0.59	5.5 J	9.3 J	0.96	0.088
PCB-137	35694-06-5	ng/g	1.0	0.061	0.52	0.65	0.11	0.51 J	1.5 J	0.39	0.026
PCB-139/140	56030-56-9	ng/g	0.60	0.039	0.41	0.52	0.074	0.60	1.0 JN	0.15	0.014 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S198	S199	S200	S201	S202	S203	S203	S204	S205
		Sample ID	PDI-SG-S198	PDI-SG-S199	PDI-SG-S200	PDI-SG-S201	PDI-SG-S202	PDI-SG-S203	PDI-SG-S203-D	PDI-SG-S204	PDI-SG-S205
		Sample Date	03 May 2018	17 Jun 2018	03 May 2018	03 May 2018	19 May 2018	02 Jun 2018	02 Jun 2018	03 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-30 cm	0-18 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-17 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0043 U	< 0.00027 U	< 0.0015 U	< 0.013 U	< 0.0045 U	< 0.0055 U	< 0.085 U	< 0.0016 U	< 0.0035 U
PCB-141	52712-04-6	ng/g	4.8	0.30	3.0	4.5	0.60	5.7 J	11 J	1.4	0.13
PCB-142	41411-61-4	ng/g	< 0.030 U	< 0.0022 U	< 0.026 U	< 0.040 U	< 0.0054 U	< 0.020 U	< 0.20 U	< 0.0092 U	< 0.0038 U
PCB-144	68194-14-9	ng/g	0.76	0.071	0.46	0.92	0.11	1.4 J	2.6 J	0.26	0.026
PCB-145	74472-40-5	ng/g	0.014	0.00063 JN	< 0.00029 U	< 0.0020 U	< 0.00043 U	0.035 JN	< 0.042 U	0.0043 J	< 0.00024 U
PCB-146	51908-16-8	ng/g	6.3	0.38	4.3	6.0	1.0	6.6	9.9	1.2	0.17
PCB-147/149	68194-13-8	ng/g	31	1.4	19	31	4.4	31 J	54 J	7.6	0.73
PCB-148	74472-41-6	ng/g	0.19	0.014	0.13	0.31	0.029	0.29	0.35 J	0.015 JN	< 0.00034 U
PCB-15	2050-68-2	ng/g	0.12	0.014	0.11	0.25 JN	0.12	0.46	0.75 J	0.032	0.024 JN
PCB-150	68194-08-1	ng/g	0.21	0.0092 J	0.12	0.33	0.024	0.36	0.23 JN	0.018 JN	0.0026 JN
PCB-152	68194-09-2	ng/g	0.13	0.0022 J	0.068	0.26	< 0.00045 U	0.20	0.12 JN	0.016	< 0.00025 U
PCB-153/168	35065-27-1	ng/g	24	1.3	16	24	3.8	28 J	49 J	5.7	0.72
PCB-154	60145-22-4	ng/g	0.87	0.062	0.47	1.3	0.17	1.7	2.3 J	0.11	0.019 JN
PCB-155	33979-03-2	ng/g	0.015 JN	0.00079 JN	0.014	0.067 J	< 0.00042 U	0.048 J	0.053 JN	< 0.00021 U	< 0.00023 U
PCB-156/157	38380-08-4	ng/g	2.7	0.15	1.4 J+	1.6	0.28	1.5 J	3.8 J	0.85	0.066
PCB-158	74472-42-7	ng/g	2.6	0.16	1.5	1.9	0.24	2.2 J	4.7 J	0.82	0.061
PCB-159	39635-35-3	ng/g	0.20	0.018	< 0.018 U	0.22	0.033	0.36	0.55 JN	0.031 JN	< 0.0026 U
PCB-16	38444-78-9	ng/g	0.12	0.0099 JN	0.064	0.12	0.16	0.12 JN	< 0.077 U	0.037	0.022 JN
PCB-161	74472-43-8	ng/g	< 0.020 U	< 0.0014 U	< 0.018 U	< 0.027 U	< 0.0036 U	< 0.013 U	< 0.13 U	< 0.0061 U	< 0.0025 U
PCB-162	39635-34-2	ng/g	0.084	< 0.0014 U	< 0.017 U	< 0.026 U	< 0.0035 U	< 0.013 U	< 0.13 U	0.018	< 0.0025 U
PCB-164	74472-45-0	ng/g	2.0	0.11	1.2	1.8	0.26	2.0 J	3.7 JN	0.55	0.055
PCB-165	74472-46-1	ng/g	< 0.022 U	< 0.0016 U	< 0.020 U	< 0.030 U	< 0.0040 U	< 0.015 U	< 0.15 U	< 0.0070 U	< 0.0029 U
PCB-167	52663-72-6	ng/g	0.84	0.050	0.45	0.60	0.087 JN	0.67 J	1.4 J	0.26	0.024
PCB-169	32774-16-6	ng/g	< 0.016 U	< 0.0011 U	< 0.015 U	< 0.021 U	< 0.0027 U	< 0.0099 U	< 0.10 U	0.0076 JN	< 0.0020 U
PCB-17	37680-66-3	ng/g	0.38	0.014 JN	0.22	1.8	0.30	3.0	3.0 J	0.11	0.043
PCB-170	35065-30-6	ng/g	7.2	0.44	4.9	7.7	1.1	9.7 J	19 J	1.3	0.21
PCB-171/173	52663-71-5	ng/g	2.0	0.15	1.4	2.3	0.36	3.2 J	6.7 J	0.40	0.060
PCB-172	52663-74-8	ng/g	0.97	0.087	0.67	1.0	0.21	1.6 J	2.9 J	0.20	0.041
PCB-174	38411-25-5	ng/g	5.8	0.51	4.3	7.1	1.2	11 J	19 J	1.2	0.23
PCB-175	40186-70-7	ng/g	0.25	0.025	0.18	0.28	0.050	0.42 J	0.80 J	0.048	0.0070 JN
PCB-176	52663-65-7	ng/g	0.87	0.063	0.63	1.0	0.17	1.3 J	2.2 J	0.16	0.032
PCB-177	52663-70-4	ng/g	3.7	0.32	2.7	4.5	0.76	6.7	11	0.72	0.15
PCB-178	52663-67-9	ng/g	1.6	0.13	1.1	1.8	0.30	2.3	3.7 JN	0.24	0.057
PCB-179	52663-64-6	ng/g	3.4	0.24	2.3	4.1	0.62	5.0	8.2	0.54	0.11
PCB-18/30	37680-65-2	ng/g	0.33	0.024	0.19	0.44	0.44	0.41	0.65 JN	0.11	0.079
PCB-180/193	35065-29-3	ng/g	13	1.0	9.1	15	2.6	21 J	42 J	2.5	0.48
PCB-181	74472-47-2	ng/g	< 0.00073 U	< 0.00033 U	< 0.00098 U	< 0.0069 U	< 0.0012 U	< 0.0032 U	0.24 JN	0.017	< 0.00063 U
PCB-182	60145-23-5	ng/g	0.082	0.0074 JN	< 0.00095 U	< 0.0066 U	< 0.0011 U	0.23	< 0.096 U	0.012	< 0.00061 U
PCB-183/185	52663-69-1	ng/g	4.4	0.36	3.1	5.2	0.86	6.9 J	13 J	0.86	0.15
PCB-184	74472-48-3	ng/g	< 0.00060 U	< 0.00027 U	< 0.00080 U	< 0.0056 U	< 0.00094 U	< 0.0026 U	< 0.082 U	< 0.00039 U	< 0.00052 U
PCB-186	74472-49-4	ng/g	< 0.00059 U	< 0.00026 U	< 0.00078 U	< 0.0055 U	< 0.00092 U	< 0.0025 U	< 0.079 U	< 0.00038 U	< 0.00050 U
PCB-187	52663-68-0	ng/g	8.2	0.69	5.7	9.6	1.8	13 J	22 J	1.4	0.31
PCB-188	74487-85-7	ng/g	< 0.00048 U	0.0050 J	< 0.00063 U	< 0.0045 U	< 0.00083 U	< 0.0023 U	< 0.073 U	< 0.00032 U	< 0.00044 U
PCB-189	39635-31-9	ng/g	0.26	0.018	0.16	0.27	0.032	0.36 J	0.87 J	0.044	0.0067 JN
PCB-19	38444-73-4	ng/g	0.29	0.013	0.21	1.8	0.037	5.9	6.0	0.24 J	0.019
PCB-190	41411-64-7	ng/g	1.1	0.095	0.83	1.2	0.19	1.9 J	4.4 J	0.23	0.034 JN
PCB-191	74472-50-7	ng/g	0.25	0.023 JN	0.18	0.27	0.039	0.50 J	0.89 JN	0.051	0.0055 J
PCB-192	74472-51-8	ng/g	< 0.00062 U	< 0.00027 U	< 0.00083 U	< 0.0058 U	< 0.00097 U	< 0.0026 U	< 0.080 U	< 0.00040 U	< 0.00053 U
PCB-194	35694-08-7	ng/g	3.7	0.24	2.3	3.9	0.70	4.8 J	10 J	0.49	0.13
PCB-195	52663-78-2	ng/g	1.7	0.10	1.0	1.8	0.27	2.1 J	4.8 J	0.20	0.048
PCB-196	42740-50-1	ng/g	1.6	0.14	1.0	1.5	0.34	2.2 J	4.8 JN	0.24 JN	0.052 JN
PCB-197	33091-17-7	ng/g	0.11 JN	0.012	0.083	0.12 JN	0.025	0.18 J	0.36 JN	0.021	< 0.00052 U
PCB-198/199	68194-17-2	ng/g	2.7	0.28	1.8	2.7	0.74	4.2 J	9.1 J	0.52	0.13
PCB-2	2051-61-8	ng/g	0.067	0.0025 JN	0.12	0.070	0.0098 J	0.13	0.12 JN	0.016	0.012

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S198	S199	S200	S201	S202	S203	S203	S204	S205
		Sample ID	PDI-SG-S198	PDI-SG-S199	PDI-SG-S200	PDI-SG-S201	PDI-SG-S202	PDI-SG-S203	PDI-SG-S203-D	PDI-SG-S204	PDI-SG-S205
		Sample Date	03 May 2018	17 Jun 2018	03 May 2018	03 May 2018	19 May 2018	02 Jun 2018	02 Jun 2018	03 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-30 cm	0-18 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-17 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.61	0.060	0.50	1.9	1.0	1.8	2.4 J	0.16	0.17
PCB-200	52663-73-7	ng/g	0.34	0.037	0.21	0.31	0.070	0.48 J	1.2 JN	0.055	0.0099 JN
PCB-201	40186-71-8	ng/g	0.36	0.038	0.23	0.36	0.074	0.51 J	1.1 JN	0.065	0.011
PCB-202	2136-99-4	ng/g	0.60	0.055	0.36 J+	0.56	0.14 JN	0.71 J	1.6 J	0.10	0.027
PCB-203	52663-76-0	ng/g	1.9	0.18	1.2	1.8	0.43	2.6 J	6.2 J	0.34	0.074
PCB-204	74472-52-9	ng/g	< 0.0021 U	< 0.00054 U	< 0.0011 U	< 0.0073 U	< 0.00077 U	< 0.0028 U	< 0.098 U	< 0.00047 U	< 0.00052 U
PCB-205	74472-53-0	ng/g	0.21	0.014	0.12	0.20	0.031	0.25 J	0.48 JN	0.028	0.0075 JN
PCB-206	40186-72-9	ng/g	1.5	0.11 JN	0.96 J+	1.3	0.34	1.9 JN	14 JN	0.25	0.084
PCB-207	52663-79-3	ng/g	0.16	0.012	0.22	0.15	0.042	0.19	< 0.26 U	0.029 JN	0.0090 J
PCB-208	52663-77-1	ng/g	0.39	0.024	0.43	0.29	0.097	0.37	< 0.28 U	0.073	0.025
PCB-209	2051-24-3	ng/g	0.46	0.070	11	0.38	0.33	0.42	0.33 JN	0.10	0.092
PCB-21/33	55702-46-0	ng/g	0.34	0.029	0.24	0.89	0.36	0.84 J	1.5 J	0.069	0.068
PCB-22	38444-85-8	ng/g	0.12	0.014	0.065	0.16	0.21	0.14	0.22 J	0.037	0.042
PCB-23	55720-44-0	ng/g	< 0.0034 U	< 0.00071 U	< 0.0020 U	< 0.0072 U	< 0.0021 U	< 0.017 U	< 0.14 U	< 0.0014 U	< 0.00086 U
PCB-24	55702-45-9	ng/g	0.0072 JN	0.00046 JN	0.0034 J	< 0.0022 U	0.0052 JN	< 0.0043 U	< 0.045 U	0.0026 J	0.00073 JN
PCB-25	55712-37-3	ng/g	0.098	0.0070 J	0.084	0.39	0.065 JN	0.48	0.75 J	0.021	0.012
PCB-26/29	38444-81-4	ng/g	0.11	0.010 J	0.067	0.15	0.12	0.17 J	0.30 J	0.025	0.023
PCB-27	38444-76-7	ng/g	0.075	0.0036 JN	0.059	0.29 JN	0.029 JN	0.79	0.71 J	0.027 JN	0.0060 JN
PCB-3	2051-62-9	ng/g	0.072	0.0059 J	0.11	0.23	0.018	0.26 J	0.48 JN	0.0096 JN	0.0058 J
PCB-31	16606-02-3	ng/g	0.40	0.040	0.27	0.67	0.72	0.58 J	1.3 J	0.12	0.12
PCB-32	38444-77-8	ng/g	0.34	0.016	0.29 J-	3.4	0.14	4.1	4.5	0.11	0.028 JN
PCB-34	37680-68-5	ng/g	< 0.0035 U	< 0.00073 U	< 0.0021 U	< 0.0075 U	0.012	< 0.018 U	< 0.15 U	< 0.0015 U	< 0.00089 U
PCB-35	37680-69-6	ng/g	0.013 JN	0.0011 JN	0.0072 J	< 0.0073 U	0.013	< 0.017 U	< 0.14 U	0.0051 JN	< 0.00087 U
PCB-36	38444-87-0	ng/g	< 0.0033 U	< 0.00063 U	< 0.0019 U	< 0.0070 U	< 0.0020 U	< 0.015 U	< 0.13 U	< 0.0014 U	< 0.00083 U
PCB-37	38444-90-5	ng/g	0.15	0.017	0.12	0.20	0.24	0.19 J	0.38 J	0.038	0.047
PCB-38	53555-66-1	ng/g	0.0052 JN	< 0.00069 U	< 0.0021 U	< 0.0075 U	< 0.0021 U	< 0.017 U	< 0.14 U	< 0.0015 U	< 0.00090 U
PCB-39	38444-88-1	ng/g	0.0066 J	< 0.00063 U	0.0037 J	< 0.0067 U	0.015	< 0.015 U	< 0.13 U	< 0.0014 U	< 0.00080 U
PCB-4	13029-08-8	ng/g	0.13	0.0091 JN	0.13	0.56 JN	0.048	1.8	2.2 J	0.17	0.014 JN
PCB-40/41/71	38444-93-8	ng/g	1.4	0.076	1.4	3.7	0.63	4.2	5.8 J	0.34	0.088
PCB-42	36559-22-5	ng/g	0.44	0.034	0.35	0.73	0.40	0.85 J	1.6 J	0.11	0.043
PCB-43/73	70362-46-8	ng/g	0.27	0.016 JN	0.30	1.1	0.037	1.2 JN	1.6 J	0.036 JN	0.0061 J
PCB-44/47/65	41464-39-5	ng/g	9.4	0.30	10	33	1.5	36	54	1.9	0.21
PCB-45/51	70362-45-7	ng/g	3.2	0.078	4.8	20	0.19	27	38	0.59	0.029 JN
PCB-46	41464-47-5	ng/g	0.14	0.0093 JN	0.15 JN	0.64	0.069	0.99 J	2.1 J	0.036	< 0.0022 U
PCB-48	70362-47-9	ng/g	0.19	0.016	0.16	0.20 JN	0.21	0.43 J	0.73 JN	0.046 JN	0.026
PCB-49/69	41464-40-8	ng/g	4.2	0.18	4.3	13	1.2	16	23	0.92	0.14
PCB-5	16605-91-7	ng/g	< 0.0057 U	0.00038 JN	0.0091 JN	< 0.017 U	< 0.0060 U	< 0.0066 U	< 0.10 U	< 0.0021 U	< 0.0046 U
PCB-50/53	62796-65-0	ng/g	1.4	0.069	1.9	8.8	0.16	14	19	0.45	0.029
PCB-52	35693-99-3	ng/g	9.2	0.54	7.0	7.6	1.8	8.6 J	21 J	2.8	0.25
PCB-54	15968-05-5	ng/g	0.29	0.0061 JN	0.37	2.7	0.0023 JN	4.9	6.4	0.10	0.0018 JN
PCB-55	74338-24-2	ng/g	< 0.028 U	< 0.0010 U	< 0.020 U	< 0.044 U	0.019	< 0.040 U	< 0.18 U	< 0.0068 U	0.0031 JN
PCB-56	41464-43-1	ng/g	0.64	0.048	0.43	0.52	0.56	0.30 J	0.75 JN	0.18	0.077
PCB-57	70424-67-8	ng/g	< 0.028 U	< 0.0011 U	< 0.021 U	< 0.045 U	< 0.0030 U	< 0.041 U	< 0.18 U	< 0.0069 U	< 0.0013 U
PCB-58	41464-49-7	ng/g	< 0.029 U	< 0.0010 U	< 0.021 U	< 0.045 U	0.024	< 0.040 U	< 0.17 U	< 0.0070 U	< 0.0013 U
PCB-59/62/75	74472-33-6	ng/g	0.26	0.016 J	0.34	1.2	0.12	1.5 J	2.7 J	0.042 JN	0.015 JN
PCB-6	25569-80-6	ng/g	0.050 JN	0.0053 J	0.056	0.076 JN	0.034	0.12	0.19 J	0.0095 J	0.011 JN
PCB-60	33025-41-1	ng/g	0.21	0.017	0.11	0.17	0.11 JN	< 0.040 U	< 0.18 U	0.081	0.020
PCB-61/70/74/76	33284-53-6	ng/g	6.2	0.35	4.0	3.7	2.5	2.5 J	8.7 J	1.9	0.34
PCB-63	74472-34-7	ng/g	0.11	0.0055 J	0.078	0.23	0.050	0.14 J	0.24 J	0.021	0.0070 J
PCB-64	52663-58-8	ng/g	0.87	0.064	0.67	0.74	0.48	0.55 J	1.5 J	0.27	0.064
PCB-66	32598-10-0	ng/g	2.3	0.16	1.7	2.2	1.6	1.8 J	3.7 J	0.50	0.19
PCB-67	73575-53-8	ng/g	0.041	< 0.00097 U	< 0.018 U	< 0.039 U	0.029 JN	< 0.038 U	< 0.17 U	< 0.0060 U	0.0049 J
PCB-68	73575-52-7	ng/g	0.12	0.0039 JN	0.11 JN	0.23 JN	0.035	0.37 JN	0.38 JN	0.015 JN	0.0062 J
PCB-7	33284-50-3	ng/g	0.013 JN	0.00083 JN	0.019	0.035 J	0.0086 J	0.021 JN	< 0.096 U	0.0033 JN	< 0.0042 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S198	S199	S200	S201	S202	S203	S203	S204	S205
		Sample ID	PDI-SG-S198	PDI-SG-S199	PDI-SG-S200	PDI-SG-S201	PDI-SG-S202	PDI-SG-S203	PDI-SG-S203-D	PDI-SG-S204	PDI-SG-S205
		Sample Date	03 May 2018	17 Jun 2018	03 May 2018	03 May 2018	19 May 2018	02 Jun 2018	02 Jun 2018	03 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-30 cm	0-18 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-17 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.089	0.0046 JN	0.058 JN	< 0.044 U	0.060	0.17	< 0.18 U	0.011 JN	0.0050 J
PCB-77	32598-13-3	ng/g	0.18	0.014	0.11	< 0.042 U	0.11	< 0.038 U	< 0.17 U	0.031 JN	0.018
PCB-78	70362-49-1	ng/g	< 0.029 U	< 0.0010 U	< 0.021 U	< 0.045 U	< 0.0030 U	< 0.040 U	< 0.17 U	< 0.0070 U	< 0.0013 U
PCB-79	41464-48-6	ng/g	0.12	0.0087 J	0.040	< 0.039 U	0.025 JN	< 0.034 U	0.19 JN	0.026	< 0.0011 U
PCB-8	34883-43-7	ng/g	0.17	0.014 J	0.18	0.29	0.13	0.32 J	0.64 JN	0.089	0.035
PCB-80	33284-52-5	ng/g	< 0.024 U	< 0.00090 U	< 0.018 U	< 0.038 U	< 0.0026 U	< 0.035 U	< 0.15 U	0.019 JN	< 0.0011 U
PCB-81	70362-50-4	ng/g	< 0.027 U	< 0.00098 U	< 0.019 U	< 0.041 U	< 0.0028 U	< 0.037 U	< 0.16 U	< 0.0062 U	< 0.0012 U
PCB-82	52663-62-4	ng/g	1.5	0.11	0.55	0.85	0.26	0.54 JN	3.0 J	0.48	0.045
PCB-83/99	60145-20-2	ng/g	11	0.61	4.7	9.6	2.4	10 J	20 J	2.5	0.33
PCB-84	52663-60-2	ng/g	4.4	0.28	1.8	2.6	0.73	1.9 J	5.7 JN	1.4	0.10
PCB-85/116/117	65510-45-4	ng/g	2.2	0.13	0.89	1.7	0.43	1.2 J	3.8 J	0.73	0.075
PCB-86/87/97/109/119/125	55312-69-1	ng/g	11	0.60	4.1	6.9	1.6	5.8 J	17 J	3.4	0.27
PCB-88/91	55215-17-3	ng/g	4.0	0.18	2.1	6.0	0.65	5.4	8.6	0.82	0.080
PCB-89	73575-57-2	ng/g	< 0.00089 U	0.0075 JN	< 0.00037 U	< 0.0023 U	< 0.00062 U	< 0.0035 U	< 0.093 U	< 0.00036 U	< 0.00079 U
PCB-9	34883-39-1	ng/g	0.018 JN	0.0018 JN	0.020	0.022 JN	0.012 JN	0.034 J	< 0.11 U	0.0051 J	< 0.0043 U
PCB-90/101/113	68194-07-0	ng/g	20	1.1	9.1	18	3.4	18 J	38 J	5.3	0.53
PCB-92	52663-61-3	ng/g	4.1	0.25	1.9	4.1	0.77	4.4 J	8.2 J	0.87	0.11
PCB-93/100	73575-56-1	ng/g	1.5	0.045	1.1	6.4	0.081	5.7	8.6	0.17	0.016 J
PCB-94	73575-55-0	ng/g	0.42	0.012	0.27	1.3	< 0.00062 U	1.2	1.2 JN	0.059 JN	< 0.00079 U
PCB-95	38379-99-6	ng/g	16	1.0	7.7	13	2.7	14 J	30 J	5.1	0.38
PCB-96	73575-54-9	ng/g	0.28	0.012	0.21	0.85	0.025	0.81	1.2 J	0.057	0.0043 JN
PCB-98/102	60233-25-2	ng/g	0.85	0.043	0.47	1.6	0.098	2.0 J	3.7 J	0.18	0.0072 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	367	22	234	422	69	487	895	93	12
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 1.4 UJ	< 2.7 U	0.72 J	< 1.4 UJ	< 1.0 U	1.2 J	1.0 J	< 0.66 U	< 1.1 U
2,4-DDE	3424-82-6	µg/kg	< 1.4 UJ	< 2.7 U	< 0.64 U	< 1.4 UJ	< 1.0 U	< 1.6 U	< 1.6 U	< 0.66 U	< 1.1 U
2,4-DDT	789-02-6	µg/kg	< 1.4 UJ	< 2.7 U	< 0.64 U	< 1.4 UJ	< 1.0 U	< 1.6 U	< 1.6 U	< 0.66 U	< 1.1 U
4,4'-DDD	72-54-8	µg/kg	1.6 J	< 2.7 U	2.1 J	1.8 J	1.8	3.7	2.8	0.94	1.2
4,4'-DDE	72-55-9	µg/kg	4.2 J	< 2.7 U	3.0	3.8 J	5.2	5.4	4.0	0.88	2.3
4,4'-DDT	50-29-3	µg/kg	< 1.4 UJ	< 2.7 U	0.44 J	1.1 J	0.53 J	1.4 J	< 1.6 U	< 0.66 U	< 1.1 U
DDx (b)	T_DDx (PDI)	µg/kg	6.5	< 2.7 U	6.6	7.4	8.0	13	8.6	2.2	4.1
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	15	21	8.9	11 J	12	19	24	< 18 U	5.6
Acenaphthene	83-32-9	µg/kg	19	46	15	16	7.2	34	48	6.7 J	4.7
Acenaphthylene	208-96-8	µg/kg	21	14	17	20	7.2	46 J	25 J	6.5 J	3.6
Anthracene	120-12-7	µg/kg	48	38	34	43	14	73	53	12	8.8
Benz(a)anthracene	56-55-3	µg/kg	180	170	150 J	190	28	720 J	200 J	55	18
Benzo(a)pyrene	50-32-8	µg/kg	180	110 J	150	220	36	970 J	200 J	54	25
Benzo(b)fluoranthene	205-99-2	µg/kg	290	190	240	350	42	1000 J	280 J	85 J	28
Benzo(g,h,i)perylene	191-24-2	µg/kg	140	62	120	130	22	650 J	160 J	73	14
Benzo(k)fluoranthene	207-08-9	µg/kg	95	76	89	120	13	370 J	120 J	26	9.9
Chrysene	218-01-9	µg/kg	300	200	240 J	300	43	860 J	280 J	86 J	30
Dibenz(a,h)anthracene	53-70-3	µg/kg	27	26	24	30	3.1	160 J	47 J	16	2.6
Fluoranthene	206-44-0	µg/kg	450	620	380	370	85	800 J	370 J	170 J	89
Fluorene	86-73-7	µg/kg	26	29	23	22	12	42	50	9.2	8.3
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	120	96	100	130	20	670 J	150 J	54	12
Naphthalene	91-20-3	µg/kg	26	29	21	20	26	24	28	7.9 J	12
Phenanthrene	85-01-8	µg/kg	170	180	120	130	67	130	150	69 J	53
Pyrene	129-00-0	µg/kg	440	590	340	360	78	900 J	390 J	250	63
Total PAHs (b)	T_PAH (PDI)	µg/kg	2547	2497	2072	2462	516	7468	2575	989	388
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	267	183	224	319	48	1374	311	90	34
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	34.5	72.5 75.3	38.5	34.2	45.5	31.0	30.6	67.8	44.6
Total Solids@104C - E160.3M (f)	TSOLID	%	36.4	73.8	38.7	36.0	46.7	31.2	31.5	70.3	45.0
Total Solids@70C	TSOLID70	%	37	70	45	45	46	31	31	71	45
Gravel	GS-Gravel	%	0	3.7	0	5.2	0	0		2.8	0
Sand, Coarse	GS-Csand	%	0.2	2.5	0.1	0	0	0		3.5	0.1

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S198	S199	S200	S201	S202	S203	S203	S204	S205
		Sample ID	PDI-SG-S198	PDI-SG-S199	PDI-SG-S200	PDI-SG-S201	PDI-SG-S202	PDI-SG-S203	PDI-SG-S203-D	PDI-SG-S204	PDI-SG-S205
		Sample Date	03 May 2018	17 Jun 2018	03 May 2018	03 May 2018	19 May 2018	02 Jun 2018	02 Jun 2018	03 May 2018	19 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-30 cm	0-18 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-17 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.5	46.2	3.9	2.3	0.1	1.4		36.4	0.7
Sand, Fine (#200) (d)	GS-Fsand-200	%	11.77	46.2	18.96	14.62	10.46	8.125		45.78	16.28
Sand, Fine (#230) (d)	GS-Fsand	%	12.8	46.3	19.8	15.3	13.2	8.7		46.2	20.5
Silt (#200) (d)	GS-Silt-200	%	65.62	0	59.43	57.87	79.73	76.27		9.911	71.51
Silt (#230) (d)	GS-Silt	%	64.6	-1.6	58.6	57.2	77.0	75.7		9.5	67.3
Clay	GS-Clay	%	21.9	2.9	17.6	19.9	9.7	14.2		1.5	11.4
Percent Fines (e)	GS-FINES	%	87.52	2.9	77.03	77.77	89.43	90.47		11.411	82.91
Total Organic Carbon	TOC	mg/kg	26000	2100	21000	21000	23000	29000	29000	19000	24000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S206	S207	S208	S209	S210	S211	S212	S213	S214
		Sample ID	PDI-SG-S206	PDI-SG-S207	PDI-SG-S208	PDI-SG-S209	PDI-SG-S210	PDI-SG-S211	PDI-SG-S212	PDI-SG-S213	PDI-SG-S214
		Sample Date	19 May 2018	19 May 2018	29 Apr 2018	19 May 2018	19 May 2018	30 Apr 2018	19 May 2018	30 Apr 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.26	0.086	0.80	0.078	0.15	0.73	0.074	0.59	0.0016 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.034	0.021	0.26	0.018	0.033	0.19 J	0.017	0.16 J	0.00039 J+
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0024 J	0.0022 J	0.016	0.0018 J+	0.0027 J	0.012	0.0020 J	0.011	< 0.00054 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0017 J	0.0013 JN	0.0031 JN	0.0014 J	0.0016 J	0.0044 J	0.00097 JN	0.0041 J	< 0.00014 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0031 J	0.0023 J	0.037	0.0016 J	0.0040 J	0.025	0.0021 J	0.020 JN	< 0.00011 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0065	0.0037 J	0.024	0.0035 J	0.0054	0.022	0.0031 J	0.019	0.00011 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0017 J	0.00093 JN	0.0089	0.0010 J	0.0017 JN	0.0066 J	0.00078 JN	0.0061 J	< 0.000062 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0046 J	0.0025 J	0.011	0.0025 J	0.0033 J	0.0075 J	0.0021 J	0.0061 J	0.00015 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00053 J+	0.0012 JN	< 0.00042 U	0.0011 JN	0.0014 JN	< 0.00069 U	0.0015 J+	0.00061 J+	< 0.00065 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0012 J	0.00073 J	0.0018 J	0.00063 J	0.00052 JN	< 0.00040 U	0.00063 JN	0.0020 J	< 0.000063 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00094 J	0.0021 J	0.0016 JN	0.00057 JN	0.0013 J	0.0015 JN	0.00078 J	0.0021 J	< 0.000098 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0010 J	0.00050 JN	0.0043 J	0.00077 J	0.00091 JN	0.0034 J	< 0.00019 U	0.0029 J	< 0.000029 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0010 J	< 0.00025 U	0.0045 J	0.00055 J	0.0012 J	0.0043 J	0.00053 JN	0.0034 J	< 0.000044 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00043 JN	0.011	0.00062 JN	< 0.00020 U	< 0.00019 U	0.00071 JN	< 0.00019 U	0.00058 JN	0.0011
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0013	0.00073 J	0.0020	0.0011 J	0.0013	0.0019	0.00085 JN	0.0019	0.00013 J+
OCDD	3268-87-9	µg/kg	2.6	0.73	5.9	0.57	1.3	5.5	0.57	4.8	0.015
OCDF	39001-02-0	µg/kg	0.12	0.051	0.82	0.048	0.12	0.67	0.048	0.52	0.00099 J+
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0078	0.014	0.026	0.0034	0.0053	0.02	0.0032	0.019	0.0012
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0076	0.014	0.025	0.0032	0.0045	0.02	0.0023	0.019	0.0012
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0074	0.014	0.025	0.0031	0.0042	0.02	0.002	0.018	0.0012
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0091 J	0.0047 J	0.11	0.0049 J	0.012	0.050	< 0.00049 U	0.059	0.00090 JN
PCB-10	33146-45-1	ng/g	< 0.0054 U	< 0.0054 U	0.017	< 0.0054 U	0.0038 JN	0.0070 J	< 0.0042 U	0.014 J	< 0.00021 U
PCB-103	60145-21-3	ng/g	0.024	0.0086 J	0.83	0.0062 J	0.016	0.31	0.0060 JN	0.25	0.00084 JN
PCB-104	56558-16-8	ng/g	< 0.00047 U	< 0.00041 U	0.17	< 0.00033 U	< 0.00025 U	0.054	< 0.00040 U	< 0.0016 U	< 0.00012 U
PCB-105	32598-14-4	ng/g	0.45	0.11	1.9	0.12	0.31	0.75	0.12	2.6	0.0050 JN
PCB-106	70424-69-0	ng/g	< 0.0032 U	< 0.0018 U	< 0.012 U	< 0.0017 U	< 0.0019 U	< 0.0052 U	< 0.0016 U	< 0.015 U	< 0.00025 U
PCB-107	70424-68-9	ng/g	0.11	0.024	0.66	0.028	0.065	0.30	0.027	0.66	0.0023 J
PCB-108/124	70362-41-3	ng/g	0.042 JN	0.011 J	0.24	0.011 J	0.028	0.095	0.011 J	0.29	0.00077 JN
PCB-11	2050-67-1	ng/g	0.085	0.051	0.15	0.051	0.055	0.15	0.053	0.17	0.019 J
PCB-110/115	38380-03-9	ng/g	1.8	0.46	7.6	0.49	1.2	3.4	0.51	8.5	0.032
PCB-111	39635-32-0	ng/g	< 0.00044 U	< 0.00038 U	0.049	< 0.00031 U	< 0.00023 U	< 0.0010 U	< 0.00037 U	< 0.0014 U	0.00019 JN
PCB-112	74472-36-9	ng/g	< 0.00046 U	0.0018 JN	< 0.00093 U	< 0.00032 U	0.0071 JN	< 0.0011 U	< 0.00039 U	< 0.0015 U	< 0.00012 U
PCB-114	74472-37-0	ng/g	0.016 JN	0.0067 J	0.14	0.0043 JN	0.015 JN	0.047 JN	0.0056 JN	0.19	< 0.00022 U
PCB-118	31508-00-6	ng/g	1.2	0.32	5.7	0.31	0.83	2.4	0.35	6.4	0.019
PCB-12/13	2974-92-7	ng/g	0.010 JN	< 0.0049 U	0.031	< 0.0049 U	0.015 JN	0.019 J	< 0.0038 U	0.021 J	< 0.0014 U
PCB-120	68194-12-7	ng/g	0.011 J	0.0026 JN	0.11	0.0033 J	0.0057 JN	0.053 JN	< 0.00038 U	0.057	0.00024 JN
PCB-121	56558-18-0	ng/g	< 0.00046 U	< 0.00040 U	0.051	< 0.00032 U	< 0.00024 U	0.021	< 0.00039 U	< 0.0015 U	< 0.00012 U
PCB-122	76842-07-4	ng/g	0.020	0.0037 JN	0.093	0.0049 JN	0.015	0.042	0.0045 J	0.12	< 0.00027 U
PCB-123	65510-44-3	ng/g	0.021	0.0052 J	0.064 JN	0.0047 JN	0.015 JN	0.037	0.0074 J	0.12	0.00037 JN
PCB-126	57465-28-8	ng/g	< 0.0035 U	< 0.0018 U	0.021	< 0.0017 U	< 0.0019 U	0.010 J	0.0026 J	< 0.016 U	< 0.00025 U
PCB-127	39635-33-1	ng/g	< 0.0032 U	< 0.0018 U	< 0.011 U	< 0.0017 U	< 0.0018 U	< 0.0050 U	< 0.0016 U	< 0.015 U	< 0.00024 U
PCB-128/166	38380-07-3	ng/g	0.35	0.084	2.1	0.087	0.22	1.1	0.095	1.9	0.0060 JN
PCB-129/138/160/163	55215-18-4	ng/g	2.7	0.65	18	0.70	1.5	9.6	0.71	13	0.043
PCB-130	52663-66-8	ng/g	0.15	0.046	1.1	0.042	0.094	0.56	0.036	0.87	0.0029 JN
PCB-131	61798-70-7	ng/g	0.026 JN	< 0.0041 U	0.21	< 0.0034 U	0.013 JN	0.10	< 0.0037 U	0.17	< 0.00037 U
PCB-132	38380-05-1	ng/g	0.81	0.19	6.1	0.19	0.46	3.1	0.20	4.4	0.014
PCB-133	35694-04-3	ng/g	0.042	0.012	0.58	0.013	0.024 JN	0.28	0.017 JN	0.13 JN	0.0011 J
PCB-134/143	52704-70-8	ng/g	0.14	0.025 JN	1.2	0.025	0.077	0.65	0.026 JN	0.82	0.0029 J
PCB-135/151	52744-13-5	ng/g	0.90	0.22	6.6	0.23	0.47	4.0	0.21	4.0	0.016 J
PCB-136	38411-22-2	ng/g	0.31	0.078	2.6	0.069	0.16	1.3	0.069	1.6	0.0059 J
PCB-137	35694-06-5	ng/g	0.088	0.022	0.51	0.025	0.058	0.22	0.019 JN	0.52	0.0018 J
PCB-139/140	56030-56-9	ng/g	0.032 JN	0.0097 JN	0.41	0.0091 J	0.021	0.19	0.010 JN	0.27	< 0.00031 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S206	S207	S208	S209	S210	S211	S212	S213	S214
		Sample ID	PDI-SG-S206	PDI-SG-S207	PDI-SG-S208	PDI-SG-S209	PDI-SG-S210	PDI-SG-S211	PDI-SG-S212	PDI-SG-S213	PDI-SG-S214
		Sample Date	19 May 2018	19 May 2018	29 Apr 2018	19 May 2018	19 May 2018	30 Apr 2018	19 May 2018	30 Apr 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.0042 U	< 0.0042 U	< 0.00095 U	< 0.0041 U	< 0.0029 U	< 0.0012 U	< 0.0032 U	< 0.0013 U	< 0.00016 U
PCB-141	52712-04-6	ng/g	0.50	0.11	3.4	0.12	0.26	2.0	0.10 JN	2.6	0.0078 J
PCB-142	41411-61-4	ng/g	< 0.0062 U	< 0.0037 U	< 0.0083 U	< 0.0030 U	< 0.0046 U	< 0.0066 U	< 0.0033 U	< 0.0080 U	< 0.00035 U
PCB-144	68194-14-9	ng/g	0.10	0.018 JN	0.63	0.021 JN	0.053	0.34	0.019	0.49	0.0022 J
PCB-145	74472-40-5	ng/g	0.0017 JN	< 0.00021 U	0.013 JN	< 0.00020 U	< 0.00023 U	0.0072 JN	< 0.00024 U	< 0.0011 U	< 0.000028 U
PCB-146	51908-16-8	ng/g	0.45	0.13	4.0	0.13	0.25	2.2	0.14	2.4	0.0086 J
PCB-147/149	68194-13-8	ng/g	2.4	0.60	19	0.57	1.3	11	0.58	11	0.036
PCB-148	74472-41-6	ng/g	0.0061 JN	0.0020 JN	0.15	0.0028 J	0.0050 J	0.075	0.0017 JN	0.060	0.00020 JN
PCB-15	2050-68-2	ng/g	0.069	0.022	0.19	0.025 JN	0.10	0.086	0.029	0.11	0.00082 JN
PCB-150	68194-08-1	ng/g	0.0037 JN	0.0031 J	0.19	0.0020 JN	0.0038 J	0.075	0.0019 JN	0.052 JN	0.00027 JN
PCB-152	68194-09-2	ng/g	0.0015 JN	0.00091 JN	0.12	< 0.00021 U	0.0018 J	0.046 JN	0.00074 JN	0.037	< 0.000027 U
PCB-153/168	35065-27-1	ng/g	2.3	0.57	18	0.59	1.2	9.7	0.57	12	0.037
PCB-154	60145-22-4	ng/g	0.044	0.015	0.84	0.0098 JN	0.023	0.43	0.015	0.37	0.0015 J
PCB-155	33979-03-2	ng/g	< 0.00041 U	< 0.00021 U	0.020	< 0.00019 U	< 0.00022 U	0.0070 J	< 0.00023 U	0.0048 JN	< 0.000025 U
PCB-156/157	38380-08-4	ng/g	0.24	0.058	1.3	0.056	0.15	0.68	0.061	1.3	0.0048 J
PCB-158	74472-42-7	ng/g	0.23	0.051	1.6	0.053	0.13	0.86	0.053 JN	1.3	0.0036 JN
PCB-159	39635-35-3	ng/g	0.022	0.0043 JN	0.20	0.0056 J	0.012	0.11 JN	0.0055 J	0.14	< 0.00022 U
PCB-16	38444-78-9	ng/g	0.059	0.013 JN	0.092	0.019 JN	0.093	0.033 JN	0.025	0.41	0.00033 JN
PCB-161	74472-43-8	ng/g	< 0.0041 U	< 0.0025 U	< 0.0054 U	< 0.0020 U	< 0.0030 U	< 0.0043 U	< 0.0022 U	< 0.0052 U	< 0.00023 U
PCB-162	39635-34-2	ng/g	0.0046 JN	< 0.0024 U	< 0.0052 U	0.0022 JN	0.0034 JN	< 0.0041 U	< 0.0022 U	< 0.0050 U	< 0.00022 U
PCB-164	74472-45-0	ng/g	0.19	0.043	1.4	0.039 JN	0.10	0.75	0.049	0.95	0.0033 J
PCB-165	74472-46-1	ng/g	< 0.0046 U	< 0.0028 U	< 0.0062 U	< 0.0023 U	< 0.0034 U	< 0.0049 U	< 0.0025 U	< 0.0060 U	< 0.00026 U
PCB-167	52663-72-6	ng/g	0.081	0.020	0.47	0.020	0.050	0.27	0.019 JN	0.42	0.0019 J
PCB-169	32774-16-6	ng/g	0.014 JN	< 0.0018 U	< 0.0041 U	< 0.0015 U	< 0.0023 U	< 0.0034 U	< 0.0017 U	< 0.0042 U	< 0.00017 U
PCB-17	37680-66-3	ng/g	0.090	0.027	0.47	0.033	0.13	0.15	0.038 JN	0.42	0.00052 J+
PCB-170	35065-30-6	ng/g	0.80	0.16	5.6	0.21	0.44	3.6	0.20	5.0	0.014
PCB-171/173	52663-71-5	ng/g	0.24	0.054	1.7	0.064	0.13	1.1	0.046 JN	1.5	0.0038 JN
PCB-172	52663-74-8	ng/g	0.13	0.033	0.84	0.031	0.074	0.55	0.033	0.75	0.0030 J
PCB-174	38411-25-5	ng/g	0.80	0.20	5.8	0.22	0.46	3.6	0.21	4.6	0.015
PCB-175	40186-70-7	ng/g	0.030	0.0059 JN	0.23	0.0080 JN	0.016 JN	0.14	0.0076 J	0.19	0.0010 J
PCB-176	52663-65-7	ng/g	0.099	0.020	0.75	0.023	0.055	0.45	0.019 JN	0.53	0.0016 J
PCB-177	52663-70-4	ng/g	0.46	0.12	3.5	0.13	0.25	2.3	0.12	2.9	0.0086 J
PCB-178	52663-67-9	ng/g	0.18	0.046	1.3	0.045	0.11	0.77	0.051	0.88	0.0024 JN
PCB-179	52663-64-6	ng/g	0.38	0.082 JN	2.7	0.099	0.21	1.6	0.11	1.8	0.0051 J
PCB-18/30	37680-65-2	ng/g	0.16	0.040 JN	0.22	0.056	0.23	0.089 JN	0.070	0.84	0.00071 JN
PCB-180/193	35065-29-3	ng/g	1.7	0.36	11	0.44	0.99	7.0	0.42	10	0.029
PCB-181	74472-47-2	ng/g	< 0.00071 U	< 0.00068 U	< 0.0017 U	< 0.00069 U	< 0.00050 U	< 0.0023 U	< 0.00047 U	< 0.0024 U	< 0.00023 U
PCB-182	60145-23-5	ng/g	0.012 J	0.0033 JN	0.077	< 0.00066 U	0.0064 JN	0.038 JN	0.0038 J	0.041 JN	< 0.00022 U
PCB-183/185	52663-69-1	ng/g	0.55	0.13	3.7	0.15	0.32	2.3	0.13	3.2	0.010 J
PCB-184	74472-48-3	ng/g	< 0.00058 U	< 0.00056 U	< 0.0014 U	< 0.00056 U	< 0.00041 U	< 0.0019 U	< 0.00038 U	< 0.0019 U	< 0.00019 U
PCB-186	74472-49-4	ng/g	< 0.00057 U	< 0.00054 U	< 0.0013 U	< 0.00055 U	< 0.00040 U	< 0.0018 U	< 0.00037 U	< 0.0018 U	< 0.00018 U
PCB-187	52663-68-0	ng/g	1.0	0.24	7.2	0.28	0.61	4.3	0.30	5.5	0.018
PCB-188	74487-85-7	ng/g	< 0.00048 U	< 0.00047 U	0.042	< 0.00047 U	< 0.00034 U	< 0.0016 U	< 0.00031 U	< 0.0016 U	< 0.00016 U
PCB-189	39635-31-9	ng/g	0.019 JN	0.0048 J	0.21	0.0053 J	0.012 JN	0.13	0.0074 J	0.21	< 0.00017 U
PCB-19	38444-73-4	ng/g	0.034	0.012	0.78	0.013	0.034 JN	0.24	0.014 JN	0.26	0.00091 JN
PCB-190	41411-64-7	ng/g	0.15	0.031	0.98	0.036	0.075	0.62	0.032	0.88	0.0025 JN
PCB-191	74472-50-7	ng/g	0.026 JN	0.0047 JN	0.24	0.0081 J	0.019	0.16	0.0064 JN	0.21	0.00050 JN
PCB-192	74472-51-8	ng/g	< 0.00060 U	< 0.00057 U	< 0.0013 U	< 0.00058 U	< 0.00042 U	< 0.0018 U	< 0.00039 U	< 0.0019 U	< 0.00018 U
PCB-194	35694-08-7	ng/g	0.45	0.10 JN	2.6	0.11	0.30	1.6	0.13	2.7	0.0063 J
PCB-195	52663-78-2	ng/g	0.18	0.044	1.2	0.040 JN	0.11	0.78	0.045 JN	1.2	0.0026 J
PCB-196	42740-50-1	ng/g	0.18	0.041 JN	1.1	0.048	0.13	0.64	0.049	1.0	0.0032 JN
PCB-197	33091-17-7	ng/g	0.014	0.0027 JN	0.086	0.0032 JN	0.010 J	0.054	0.0037 J	0.092	< 0.00014 U
PCB-198/199	68194-17-2	ng/g	0.43	0.10	2.1	0.13	0.36	1.3	0.14	1.9	0.0063 JN
PCB-2	2051-61-8	ng/g	0.021	0.0081 J	0.050	0.0054 JN	0.022	0.050	0.0071 J	0.046	0.0015 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S206	S207	S208	S209	S210	S211	S212	S213	S214
		Sample ID	PDI-SG-S206	PDI-SG-S207	PDI-SG-S208	PDI-SG-S209	PDI-SG-S210	PDI-SG-S211	PDI-SG-S212	PDI-SG-S213	PDI-SG-S214
		Sample Date	19 May 2018	19 May 2018	29 Apr 2018	19 May 2018	19 May 2018	30 Apr 2018	19 May 2018	30 Apr 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	0.31	0.12	0.80	0.11	0.52	0.38	0.13	0.68	0.0034 J+
PCB-200	52663-73-7	ng/g	0.043	0.012	0.27	0.011 JN	0.032	0.17	0.0090 JN	0.21 JN	0.0010 J
PCB-201	40186-71-8	ng/g	0.047	0.011 J	0.27	0.014	0.035	0.17	0.017	0.24	0.0011 J
PCB-202	2136-99-4	ng/g	0.086	0.021	0.41	0.025	0.078	0.27	0.028 JN	0.38	0.0015 JN
PCB-203	52663-76-0	ng/g	0.26	0.056 JN	1.3	0.076	0.22	0.77	0.077	1.2	0.0048 J
PCB-204	74472-52-9	ng/g	< 0.00051 U	< 0.00038 U	< 0.0012 U	< 0.00029 U	< 0.00065 U	< 0.0034 U	< 0.00031 U	< 0.0034 U	< 0.00015 U
PCB-205	74472-53-0	ng/g	0.021 JN	0.0042 JN	0.13	0.0047 J	0.013 JN	0.083	0.0059 J	0.13	< 0.00048 U
PCB-206	40186-72-9	ng/g	0.27	0.069	0.84	0.076	0.49	3.2 JN	0.11	1.4 JN	0.049 JN
PCB-207	52663-79-3	ng/g	0.028	0.0073 JN	0.10	0.0083 JN	0.033 JN	0.068	0.010 JN	0.089	< 0.00075 U
PCB-208	52663-77-1	ng/g	0.082	0.018 JN	0.22	0.026	0.17	0.14	0.034	0.18	< 0.00082 U
PCB-209	2051-24-3	ng/g	0.23	0.076	0.30	0.072	0.54	0.24	0.12	0.22	0.0016 JN
PCB-21/33	55702-46-0	ng/g	0.12	0.044	0.37	0.038	0.22	0.17	0.053	0.45	0.0017 JN
PCB-22	38444-85-8	ng/g	0.080	0.033	0.11	0.028	0.14	0.058	0.040	0.23	0.00097 J
PCB-23	55720-44-0	ng/g	< 0.0019 U	< 0.0011 U	< 0.0049 U	< 0.0010 U	< 0.0014 U	< 0.0038 U	< 0.0011 U	< 0.0054 U	< 0.00015 U
PCB-24	55702-45-9	ng/g	0.0026 JN	< 0.00065 U	0.0097 J	0.0013 JN	0.0044 JN	< 0.00090 U	0.0021 J	0.016 JN	< 0.000022 U
PCB-25	55712-37-3	ng/g	0.022	0.0092 J	0.14	0.010 J	0.032	0.051	0.012	0.084	0.00042 J+
PCB-26/29	38444-81-4	ng/g	0.044	0.016 J	0.10	0.017 J	0.061	0.050	0.021 J	0.14	0.00088 J
PCB-27	38444-76-7	ng/g	0.018	0.0051 J	0.10	0.0045 JN	0.021	0.042	0.0055 JN	0.091	0.00013 JN
PCB-3	2051-62-9	ng/g	0.0086 JN	0.0033 JN	0.087	0.0042 JN	0.013	0.046	0.0037 JN	0.048	0.0021 J+
PCB-31	16606-02-3	ng/g	0.23	0.083	0.37	0.075	0.36	0.18	0.10	0.64	0.0021 J+
PCB-32	38444-77-8	ng/g	0.065	0.018 JN	0.65	0.022	0.085	0.19	0.023 JN	0.30	0.0013 J+
PCB-34	37680-68-5	ng/g	< 0.0020 U	< 0.0011 U	0.0064 JN	< 0.0010 U	< 0.0014 U	< 0.0040 U	< 0.0012 U	< 0.0056 U	< 0.00016 U
PCB-35	37680-69-6	ng/g	0.0048 JN	0.0017 JN	0.012 J	< 0.0010 U	0.0065 J	0.0087 J	0.0016 JN	0.013 JN	< 0.00038 U
PCB-36	38444-87-0	ng/g	< 0.0018 U	< 0.0010 U	< 0.0044 U	< 0.00097 U	< 0.0014 U	< 0.0034 U	< 0.0011 U	< 0.0048 U	< 0.00013 U
PCB-37	38444-90-5	ng/g	0.10	0.030 JN	0.16	0.034	0.17	0.095	0.043	0.18	0.00088 JN
PCB-38	53555-66-1	ng/g	< 0.0020 U	< 0.0011 U	< 0.0048 U	< 0.0010 U	< 0.0015 U	< 0.0037 U	< 0.0012 U	< 0.0052 U	< 0.00015 U
PCB-39	38444-88-1	ng/g	< 0.0018 U	< 0.00099 U	0.011 J	< 0.00094 U	0.0029 JN	< 0.0034 U	< 0.0011 U	0.0092 J	< 0.00013 U
PCB-4	13029-08-8	ng/g	0.036 JN	0.016 JN	0.26	0.014 J	0.046	0.095	0.017 JN	0.25	0.00086 JN
PCB-40/41/71	38444-93-8	ng/g	0.23	0.053	1.7	0.055	0.25	0.62	0.066	1.1	0.0031 J+
PCB-42	36559-22-5	ng/g	0.11	0.030	0.41	0.027	0.13	0.22	0.027 JN	0.42	0.0021 J
PCB-43/73	70362-46-8	ng/g	0.011 JN	0.0043 JN	0.41	0.0038 J	0.013 J	0.17	0.0056 JN	0.081 JN	0.00027 JN
PCB-44/47/65	41464-39-5	ng/g	0.54	0.14	14	0.14	0.50	4.2	0.16	4.1	0.012 JN
PCB-45/51	70362-45-7	ng/g	0.079 JN	0.023 J	6.4	0.023 J	0.088	1.9	0.027 JN	1.2	0.0021 J+
PCB-46	41464-47-5	ng/g	0.026	0.0059 JN	0.19	< 0.0029 U	0.026	0.088	0.0073 J	0.15	< 0.00028 U
PCB-48	70362-47-9	ng/g	0.064	0.016 JN	0.15 JN	0.016	0.087	0.094	0.024	0.26 JN	0.00057 JN
PCB-49/69	41464-40-8	ng/g	0.34	0.098	5.2	0.098	0.33	1.7	0.10	2.0	0.0089 J
PCB-5	16605-91-7	ng/g	< 0.0055 U	< 0.0055 U	0.0048 J	< 0.0055 U	< 0.0038 U	< 0.0015 U	< 0.0043 U	< 0.0016 U	< 0.00020 U
PCB-50/53	62796-65-0	ng/g	0.072	0.021 J	2.5	0.019 JN	0.069	0.82	0.023 J	0.72	0.0015 J
PCB-52	35693-99-3	ng/g	0.66	0.17	5.8	0.18	0.59	2.1	0.20	5.7	0.020
PCB-54	15968-05-5	ng/g	0.0051 J	0.0043 J	0.79	0.0047 JN	0.0036 JN	0.21	0.0025 JN	0.13	0.000068 JN
PCB-55	74338-24-2	ng/g	< 0.0036 U	< 0.0016 U	< 0.048 U	0.0036 J	0.014 JN	< 0.0036 U	0.0037 J	0.042 JN	< 0.00015 U
PCB-56	41464-43-1	ng/g	0.19	0.057	0.41	0.057	0.24	0.22	0.067	0.60	0.0017 JN
PCB-57	70424-67-8	ng/g	< 0.0037 U	< 0.0016 U	< 0.049 U	< 0.0017 U	0.0021 J	< 0.0037 U	< 0.0012 U	< 0.0053 U	< 0.00016 U
PCB-58	41464-49-7	ng/g	< 0.0038 U	< 0.0017 U	0.051 JN	< 0.0017 U	0.0036 JN	0.021 JN	0.0014 JN	< 0.0051 U	< 0.00015 U
PCB-59/62/75	74472-33-6	ng/g	0.037 J	0.0081 JN	0.44	0.0097 J	0.042	0.17	0.010 JN	0.18	0.00067 JN
PCB-6	25569-80-6	ng/g	0.018 JN	0.0058 JN	0.040	0.010 JN	0.023	0.0075 JN	0.0095 JN	0.044	0.00077 JN
PCB-60	33025-41-1	ng/g	0.064	0.021	0.11	0.020	0.088	0.060	0.026	0.27	< 0.00015 U
PCB-61/70/74/76	33284-53-6	ng/g	0.81	0.23	3.4	0.24	0.90	1.3	0.26	4.2	0.012 J
PCB-63	74472-34-7	ng/g	0.015	0.0034 JN	0.11	0.0056 J	0.020	0.047	0.0053 J	0.061	0.00033 J+
PCB-64	52663-58-8	ng/g	0.18	0.043	0.58	0.048	0.20	0.25	0.053	0.79	0.0029 J
PCB-66	32598-10-0	ng/g	0.53	0.13	1.8	0.14	0.58	0.85	0.15	1.7	0.0077 J
PCB-67	73575-53-8	ng/g	0.0087 JN	0.0020 JN	< 0.045 U	0.0025 JN	0.012 JN	< 0.0034 U	0.0025 JN	0.033	< 0.00014 U
PCB-68	73575-52-7	ng/g	0.0084 J	0.0021 JN	0.17	0.0025 JN	0.0050 J	0.063	0.0023 JN	0.047	0.00055 JN
PCB-7	33284-50-3	ng/g	< 0.0049 U	< 0.0050 U	0.0091 J	< 0.0049 U	0.0034 JN	0.0051 J	< 0.0039 U	0.0069 JN	< 0.00058 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S206	S207	S208	S209	S210	S211	S212	S213	S214
		Sample ID	PDI-SG-S206	PDI-SG-S207	PDI-SG-S208	PDI-SG-S209	PDI-SG-S210	PDI-SG-S211	PDI-SG-S212	PDI-SG-S213	PDI-SG-S214
		Sample Date	19 May 2018	19 May 2018	29 Apr 2018	19 May 2018	19 May 2018	30 Apr 2018	19 May 2018	30 Apr 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0093 J	0.0036 J	0.076	0.0022 JN	0.0080 J	0.044	< 0.0012 U	0.032	0.00022 JN
PCB-77	32598-13-3	ng/g	0.054	0.010 JN	0.12	0.014	0.059	0.077	0.018	0.11	0.00073 J+
PCB-78	70362-49-1	ng/g	< 0.0037 U	< 0.0017 U	< 0.047 U	< 0.0017 U	< 0.0021 U	< 0.0035 U	< 0.0013 U	< 0.0051 U	< 0.00015 U
PCB-79	41464-48-6	ng/g	0.0096 JN	0.0023 JN	0.078	0.0021 J	0.0059 JN	0.027	0.0024 J	0.057	< 0.00013 U
PCB-8	34883-43-7	ng/g	0.065	0.024 JN	0.13	0.022 JN	0.11	0.062	0.034	0.17	0.0012 JN
PCB-80	33284-52-5	ng/g	< 0.0032 U	< 0.0014 U	< 0.042 U	< 0.0014 U	< 0.0018 U	< 0.0031 U	< 0.0011 U	< 0.0046 U	< 0.00013 U
PCB-81	70362-50-4	ng/g	< 0.0034 U	< 0.0016 U	< 0.046 U	< 0.0016 U	< 0.0019 U	< 0.0034 U	< 0.0011 U	< 0.0049 U	< 0.00014 U
PCB-82	52663-62-4	ng/g	0.18	0.039	0.61	0.047	0.12	0.26	0.041	0.85	0.0022 JN
PCB-83/99	60145-20-2	ng/g	0.92	0.24	6.4	0.26	0.62	2.6	0.27	5.2	0.019 J
PCB-84	52663-60-2	ng/g	0.31	0.069	1.9	0.088	0.25	0.75	0.087	2.1	0.0075 J
PCB-85/116/117	65510-45-4	ng/g	0.25	0.065	1.1	0.078	0.18	0.41	0.074	1.2	0.0033 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.88	0.23	4.6	0.25	0.62	1.8	0.26	5.3	0.015 J
PCB-88/91	55215-17-3	ng/g	0.24	0.053 JN	3.2	0.062	0.16	1.1	0.057 JN	1.6	0.0051 J
PCB-89	73575-57-2	ng/g	< 0.00070 U	< 0.00061 U	< 0.0014 U	0.0035 JN	0.013	< 0.0017 U	< 0.00060 U	0.065	< 0.00018 U
PCB-9	34883-39-1	ng/g	0.0055 JN	< 0.0051 U	0.012 J	< 0.0051 U	0.0038 JN	0.0054 JN	< 0.0039 U	0.014 JN	< 0.00022 U
PCB-90/101/113	68194-07-0	ng/g	1.5	0.41	11	0.43	1.0	4.4	0.46	8.7	0.029
PCB-92	52663-61-3	ng/g	0.29	0.081	2.6	0.081	0.18	1.1	0.081	1.8	0.0073 J
PCB-93/100	73575-56-1	ng/g	0.032 JN	0.013 JN	2.1	0.013 J	0.025 JN	0.67	0.0097 JN	0.55	0.0015 J+
PCB-94	73575-55-0	ng/g	< 0.00070 U	< 0.00061 U	0.49	< 0.00049 U	< 0.00037 U	0.17	< 0.00060 U	0.14	0.00032 JN
PCB-95	38379-99-6	ng/g	1.2	0.28	8.4	0.27	0.77	3.6	0.31	7.4	0.028
PCB-96	73575-54-9	ng/g	< 0.00053 U	< 0.00046 U	0.36	< 0.00037 U	0.0088 J	0.13	< 0.00045 U	0.11	0.00022 JN
PCB-98/102	60233-25-2	ng/g	0.042	0.012 J	0.80	0.0082 JN	0.033	0.30	0.012 JN	0.43	0.0012 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	36	9	259	10	26	130	10	194	0.69
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 1.3 U	< 1.2 U	0.64 J	< 1.2 U	< 1.1 U	0.67 J	< 1.2 U	< 0.82 U	< 0.75 U
2,4-DDE	3424-82-6	µg/kg	< 1.3 U	< 1.2 U	< 0.74 UJ	< 1.2 U	< 1.1 U	< 0.76 U	< 1.2 U	< 0.82 U	< 0.79 U
2,4-DDT	789-02-6	µg/kg	< 1.3 U	< 1.2 U	< 0.74 UJ	< 1.2 U	< 1.1 U	< 0.76 U	< 1.2 U	< 0.82 U	< 0.94 U
4,4'-DDD	72-54-8	µg/kg	1.2 J	0.90 J	2.1 J	0.89 J	1.2	2.0 J	1.0 J	2.1 J	< 0.75 U
4,4'-DDE	72-55-9	µg/kg	2.7	2.3	3.8 J	2.3	2.3	4.1	2.4	4.6	< 0.75 U
4,4'-DDT	50-29-3	µg/kg	< 1.3 U	< 1.2 U	0.52 J	< 1.2 U	0.76 J	0.81	0.80 J	1.0	< 0.75 U
DDx (b)	T_DDx (PDI)	µg/kg	4.6	3.8	7.4	3.8	4.8	8.0	4.8	8.1	< 0.94 U
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	5.8	3.5	9.1	2.9	4.6	7.6 J	2.6	8.6	0.32 J
Acenaphthene	83-32-9	µg/kg	8.1	3.9	14	3.3	5.2	8.6	2.9	13	< 0.39 U
Acenaphthylene	208-96-8	µg/kg	7.4	3.5	15	3.1	5.6	13	2.3	15	0.12 J
Anthracene	120-12-7	µg/kg	18	7.7	38	6.4	13	30	6.0	34	0.23 J
Benz(a)anthracene	56-55-3	µg/kg	82	20	170	17	54	140	14	150	0.71
Benzo(a)pyrene	50-32-8	µg/kg	71	32	180	30	54	150	24	160	0.83
Benzo(b)fluoranthene	205-99-2	µg/kg	150	33	280	30	91	230	26	240	1.5
Benzo(g,h,i)perylene	191-24-2	µg/kg	59	18	170	17	44	130	14	150	0.96
Benzo(k)fluoranthene	207-08-9	µg/kg	52	12	96	10	31	80	9.0	85	0.47
Chrysene	218-01-9	µg/kg	170	32	280	27	94	220	27	230	1.6
Dibenz(a,h)anthracene	53-70-3	µg/kg	13	3.1	37	3.1	9.5	27	2.5	41	0.13 J
Fluoranthene	206-44-0	µg/kg	300	55	400	51	150	290	50	330	1.9
Fluorene	86-73-7	µg/kg	13	6.8	17	5.1	7.9	15	5.2	19	0.34 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	58	15	170	14	43	120	11	140	0.72
Naphthalene	91-20-3	µg/kg	9.7	6.0	12	5.2	8.2	16	4.0	19	0.44 J
Phenanthrene	85-01-8	µg/kg	87	30	140	26	50	85	26	120	1.3
Pyrene	129-00-0	µg/kg	260	46	400	44	150	320	40	330	2.5
Total PAHs (b)	T_PAH (PDI)	µg/kg	1364	328	2428	295	815	1882	267	2085	14
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	114	42	280	39	83	227	32	255	1
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	38.4	41.2	33.0	39.7	45.3	31.4	39.6	30.0	64.2
Total Solids@104C - E160.3M (f)	TSOLID	%	39.3	41.1	33.0	41.1	46.4	31.9	40.2	30.2	65.4
Total Solids@70C	TSOLID70	%	40	42	34	40	46	32	43	30	64
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0	0.1	0	0	0	0	0	0.1

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S206	S207	S208	S209	S210	S211	S212	S213	S214
		Sample ID	PDI-SG-S206	PDI-SG-S207	PDI-SG-S208	PDI-SG-S209	PDI-SG-S210	PDI-SG-S211	PDI-SG-S212	PDI-SG-S213	PDI-SG-S214
		Sample Date	19 May 2018	19 May 2018	29 Apr 2018	19 May 2018	19 May 2018	30 Apr 2018	19 May 2018	30 Apr 2018	30 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-28 cm	0-30 cm	0-30 cm	0-30 cm	0-15 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.1	0.3	1.1	0.1	0.1	0.7	0.1	0.1	1.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	5.34	10.97	9.998	7.437	12.56	6.704	5.933	4.763	17.36
Sand, Fine (#230) (d)	GS-Fsand	%	6.7	14.6	10.9	10.0	17.1	7.5	7.9	5.7	24.9
Silt (#200) (d)	GS-Silt-200	%	87.55	80.92	61.50	82.76	82.63	65.59	85.26	71.53	68.73
Silt (#230) (d)	GS-Silt	%	86.2	77.3	60.6	80.2	78.1	64.8	83.3	70.6	61.2
Clay	GS-Clay	%	7.0	7.8	27.3	9.7	4.7	26.9	8.7	23.6	12.8
Percent Fines (e)	GS-FINES	%	94.55	88.72	88.8	92.46	87.33	92.49	93.96	95.13	81.53
Total Organic Carbon	TOC	mg/kg	27000	25000	25000	29000	19000	30000	27000	25000	7800

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S215	S216	S217	S218	S220	S221	S222	S223	S224
		Sample ID	PDI-SG-S215	PDI-SG-S216	PDI-SG-S217	PDI-SG-S218	PDI-SG-S220	PDI-SG-S221	PDI-SG-S222	PDI-SG-S223	PDI-SG-S224
		Sample Date	30 Apr 2018	29 Apr 2018	19 May 2018	21 May 2018	30 Apr 2018	21 May 2018	21 May 2018	01 May 2018	20 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.72 J	0.52	0.099	0.082	0.36	0.15	0.54	0.42	0.29
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.19 J	0.13 J	0.022	0.070	0.064 JN	0.030	0.11	0.11	0.041 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.012 J	0.010	0.0023 J	0.0018 J+	0.0049 J	0.0020 J+	0.0058	0.010	< 0.0013 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0045 J	0.0039 J	0.0012 JN	0.00090 J+	0.0035 J	0.0016 J	0.0032 J	0.0041 J	0.0019 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.034 J	0.020	0.0022 JN	0.0018 J	0.0090	0.0022 J	0.0057	0.018	0.0048
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.022 J	0.018	0.0039 J	0.0034 J	0.013	0.0049 J	0.014	0.019	0.0075
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0098 J	0.0057 JN	0.0011 JN	0.0064	0.0033 J	0.0012 J	0.0040 J	0.0096	0.0016 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0070 JN	0.0070	0.0025 JN	0.0020 J	0.0056 JN	0.0036 J	0.0075	0.0087	0.0036 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0010 UJ	< 0.00049 U	0.0014 J+	< 0.00060 U	< 0.00034 U	0.00073 J+	0.00072 J+	0.00058 JN	< 0.00015 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0026 J	0.0019 JN	< 0.00035 U	0.00055 J	0.0019 J	0.00090 JN	0.0019 J	0.0027 J	0.0011 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0022 JN	0.0022 J	0.00088 JN	0.00061 J+	0.0014 J	0.00068 J+	0.0018 J	0.0036 J	0.00087 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0038 J	0.0027 J	< 0.00028 U	0.00095 J	0.0018 J	0.00072 J	0.0017 J	0.0079	0.00093 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0057 J	0.0040 J	0.00056 JN	0.00064 J+	0.0025 J	0.00064 J+	0.0020 J	0.0056 J	0.00087 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00056 JN	0.00074 JN	0.00059 JN	0.00049 JN	0.00046 JN	0.0014 J+	0.0053	0.00070 JN	0.00035 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0022 J	0.0026	0.0010 J	0.00041 J+	0.0019	0.00089 J+	0.0017	0.0038	0.00081 J
OCDD	3268-87-9	µg/kg	5.6 J	4.2	0.74	1.1	2.6	1.3	6.8 J	3.6	2.1
OCDF	39001-02-0	µg/kg	0.61 J	0.42	0.069	0.083	0.20	0.11	0.82	0.27	0.21
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.024	0.018	0.0038	0.0048	0.012	0.0063	0.021	0.019	0.0079
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.023	0.016	0.0024	0.0045	0.011	0.0059	0.021	0.019	0.0077
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.023	0.015	0.0021	0.0042	0.011	0.0054	0.021	0.018	0.0075
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.080 J	0.058	0.0038 J	0.0094 J+	0.026 JN	0.012 JN	0.62	0.43	0.014
PCB-10	33146-45-1	ng/g	0.0040 JN	0.0032 JN	< 0.0045 U	< 0.00098 U	< 0.0015 U	0.0034 JN	0.10	0.018	0.0020 JN
PCB-103	60145-21-3	ng/g	0.23 J	0.27	0.0074 J	0.010	0.14	0.012 J	0.079	0.23	0.040
PCB-104	56558-16-8	ng/g	0.031 J	< 0.00078 U	< 0.00026 U	< 0.00056 U	0.013 J	< 0.00077 U	< 0.0015 U	< 0.0010 U	< 0.00034 U
PCB-105	32598-14-4	ng/g	0.77 J	0.99	0.16	0.20	0.61	0.24	2.8	1.8	0.20
PCB-106	70424-69-0	ng/g	< 0.010 UJ	< 0.0092 U	< 0.0019 U	< 0.0023 U	< 0.0058 U	< 0.0033 U	< 0.021 U	< 0.013 U	< 0.0022 U
PCB-107	70424-68-9	ng/g	0.28 J	0.47	0.038	0.045	0.23	0.048	0.53	0.64	0.059
PCB-108/124	70362-41-3	ng/g	0.097 J	0.13	0.016 J	0.019 J	0.038 JN	0.023 J	0.26	0.23	0.022
PCB-11	2050-67-1	ng/g	0.29 J	0.16	0.063	0.013 J+	0.15	0.075	0.10 JN	0.27	0.078
PCB-110/115	38380-03-9	ng/g	5.2 J	3.8	0.65	0.64	2.3	0.71	7.8	6.6	0.96
PCB-111	39635-32-0	ng/g	0.043 JN	0.024	< 0.00024 U	0.0028 JN	0.012 J	0.0029 JN	< 0.0013 U	< 0.00092 U	< 0.00031 U
PCB-112	74472-36-9	ng/g	< 0.0014 UJ	< 0.00076 U	< 0.00025 U	0.0046 JN	< 0.0013 U	0.0046 JN	< 0.0014 U	< 0.0010 U	< 0.00033 U
PCB-114	74472-37-0	ng/g	0.060 J	0.072	0.0070 J	0.014	0.038	0.016 JN	0.21	0.12	0.0076 JN
PCB-118	31508-00-6	ng/g	2.5 J	3.2	0.44	0.46	1.8	0.55	6.2	5.4	0.62
PCB-12/13	2974-92-7	ng/g	< 0.0027 UJ	0.029	0.0088 JN	0.016 J	0.015 JN	0.016 J	0.21	0.061	0.0080 JN
PCB-120	68194-12-7	ng/g	0.071 J	0.070	0.0048 J	0.0041 JN	0.030	0.0028 JN	0.040 J	0.075	0.0076 J
PCB-121	56558-18-0	ng/g	< 0.0013 UJ	< 0.00074 U	< 0.00025 U	< 0.00054 U	< 0.0013 U	< 0.00073 U	< 0.0014 U	< 0.00098 U	< 0.00033 U
PCB-122	76842-07-4	ng/g	0.037 J	0.053	0.0038 JN	0.0089 JN	0.028	< 0.0036 U	0.14	0.093	0.0070 J
PCB-123	65510-44-3	ng/g	0.030 JN	0.054	0.0057 JN	0.0075 JN	0.029	0.011 JN	0.14	0.090	0.0082 JN
PCB-126	57465-28-8	ng/g	< 0.0095 UJ	0.016	0.0023 J	< 0.0021 U	0.0085 J	< 0.0032 U	< 0.020 U	0.021	0.019
PCB-127	39635-33-1	ng/g	< 0.0097 UJ	< 0.0088 U	< 0.0019 U	< 0.0022 U	< 0.0056 U	< 0.0032 U	< 0.020 U	< 0.013 U	< 0.0022 U
PCB-128/166	38380-07-3	ng/g	1.1 J	1.3	0.10	0.095	0.73	0.13	1.0	1.5	0.22
PCB-129/138/160/163	55215-18-4	ng/g	10 J	11	0.80	0.67	5.8	0.87	7.5	11	1.9
PCB-130	52663-66-8	ng/g	0.60 J	0.72	0.044	0.048	0.37	0.062	0.46	0.81	0.10
PCB-131	61798-70-7	ng/g	< 0.0085 UJ	0.12	0.0071 JN	0.0059 JN	0.058	0.0098 JN	0.094 JN	0.14	0.015
PCB-132	38380-05-1	ng/g	3.1 J	4.1	0.23	0.21	2.0	0.28	2.7	4.1	0.57
PCB-133	35694-04-3	ng/g	0.27 J	0.46	0.010 JN	0.017	0.16	0.016	0.11	0.33	0.041
PCB-134/143	52704-70-8	ng/g	0.59 J	0.78	0.037	0.034	0.35	0.045 JN	0.48	0.80	0.091
PCB-135/151	52744-13-5	ng/g	4.9 J	4.1	0.25	0.25	2.0	0.30	2.9	2.9	0.67
PCB-136	38411-22-2	ng/g	1.5 J	1.5	0.088	0.091	0.72	0.10	1.1	1.2	0.22
PCB-137	35694-06-5	ng/g	0.21 J	0.29	0.031	0.022	0.14	0.037	0.27	0.44	0.051
PCB-139/140	56030-56-9	ng/g	0.17 J	0.29	0.011 J	0.0099 JN	0.11 JN	0.013 JN	0.098 JN	0.27	0.027

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S215	S216	S217	S218	S220	S221	S222	S223	S224
		Sample ID	PDI-SG-S215	PDI-SG-S216	PDI-SG-S217	PDI-SG-S218	PDI-SG-S220	PDI-SG-S221	PDI-SG-S222	PDI-SG-S223	PDI-SG-S224
		Sample Date	30 Apr 2018	29 Apr 2018	19 May 2018	21 May 2018	30 Apr 2018	21 May 2018	21 May 2018	01 May 2018	20 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0025 UJ	< 0.0012 U	< 0.0034 U	< 0.00076 U	< 0.0012 U	< 0.00097 U	< 0.0012 U	< 0.0012 U	< 0.0015 U
PCB-141	52712-04-6	ng/g	2.2 J	2.4	0.14	0.14	1.2	0.18	1.8	2.0	0.34
PCB-142	41411-61-4	ng/g	< 0.0080 UJ	< 0.0066 U	< 0.0038 U	< 0.0024 U	< 0.0086 U	< 0.0027 U	< 0.0077 U	< 0.0062 U	< 0.0046 U
PCB-144	68194-14-9	ng/g	0.52 J	0.36	0.025	0.031	0.21	0.038	0.41	0.32	0.077
PCB-145	74472-40-5	ng/g	< 0.00033 UJ	< 0.00017 U	< 0.00031 U	< 0.00049 U	0.0039 JN	< 0.00046 U	0.0036 JN	< 0.00094 U	< 0.00032 U
PCB-146	51908-16-8	ng/g	2.1 J	3.3	0.13	0.14	1.3	0.14	1.1	2.4	0.38
PCB-147/149	68194-13-8	ng/g	10 J	12	0.66	0.58	5.9	0.70	6.7	11	1.8
PCB-148	74472-41-6	ng/g	0.074 JN	0.10	0.0026 J	0.0032 J	0.030	0.0038 J	0.011 J	0.051	0.0096
PCB-15	2050-68-2	ng/g	0.11 J	0.11	0.058 JN	0.15	0.082	0.10	2.4	0.19	0.029
PCB-150	68194-08-1	ng/g	0.062 JN	0.071	0.0018 JN	0.0037 JN	0.037	0.0034 J	0.0074 J	0.046	0.0071 JN
PCB-152	68194-09-2	ng/g	0.030 JN	0.029	< 0.00032 U	< 0.00047 U	0.018	< 0.00044 U	0.0039 JN	0.015	0.0040 JN
PCB-153/168	35065-27-1	ng/g	10 J	12	0.65	0.60	5.9	0.72	6.4	10	1.7
PCB-154	60145-22-4	ng/g	0.43 J	0.48	0.013	0.019 JN	0.18	0.020	0.073 JN	0.25	0.046 JN
PCB-155	33979-03-2	ng/g	< 0.00030 UJ	< 0.00015 U	< 0.00030 U	< 0.00045 U	0.0029 J	0.0014 JN	< 0.000085 U	< 0.00086 U	0.0015 J
PCB-156/157	38380-08-4	ng/g	0.68 J	0.86	0.074	0.060	0.45	0.091	0.73	1.0	0.14
PCB-158	74472-42-7	ng/g	0.90 J	0.92	0.066	0.063	0.52	0.086	0.75	0.96	0.16
PCB-159	39635-35-3	ng/g	0.13 J	0.15	0.0052 JN	0.0077 J	0.086	0.0098 J	0.088	0.10	0.016
PCB-16	38444-78-9	ng/g	0.049 J	0.076	0.054	0.19	0.051 JN	0.18	8.3	0.12	0.018
PCB-161	74472-43-8	ng/g	< 0.0052 UJ	< 0.0043 U	< 0.0025 U	< 0.0016 U	< 0.0056 U	< 0.0018 U	< 0.0050 U	< 0.0041 U	< 0.0031 U
PCB-162	39635-34-2	ng/g	< 0.0050 UJ	< 0.0041 U	0.0033 J	< 0.0015 U	< 0.0053 U	< 0.0017 U	< 0.0048 U	< 0.0039 U	0.0037 JN
PCB-164	74472-45-0	ng/g	0.77 J	0.88	0.047 JN	0.050	0.46	0.066	0.55	0.87	0.14
PCB-165	74472-46-1	ng/g	< 0.0060 UJ	< 0.0049 U	< 0.0028 U	< 0.0018 U	< 0.0064 U	< 0.0020 U	< 0.0058 U	< 0.0047 U	< 0.0035 U
PCB-167	52663-72-6	ng/g	0.28 J	0.33	0.022 JN	0.020	0.18	0.032	0.22	0.36	0.054
PCB-169	32774-16-6	ng/g	< 0.0043 UJ	< 0.0033 U	0.0056 JN	< 0.0012 U	< 0.0043 U	< 0.0013 U	< 0.0037 U	< 0.0031 U	< 0.0021 U
PCB-17	37680-66-3	ng/g	0.15 J	0.13	0.084	0.19	0.091	0.20	8.3	0.20	0.040
PCB-170	35065-30-6	ng/g	4.4 J	4.1	0.24	0.24	2.3	0.26	2.4	2.9	0.66
PCB-171/173	52663-71-5	ng/g	1.4 J	1.3	0.074	0.068	0.74	0.088	0.76	0.85	0.19
PCB-172	52663-74-8	ng/g	0.73 J	0.66	0.038 JN	0.051	0.35	0.052	0.43	0.43	0.11
PCB-174	38411-25-5	ng/g	4.6 J	4.3	0.24	0.27	2.5	0.32	3.0	2.9	0.60
PCB-175	40186-70-7	ng/g	0.17 J	0.16	0.0092 J	0.013	0.084 JN	0.014	0.12	0.12	0.022 JN
PCB-176	52663-65-7	ng/g	0.52 J	0.56	0.028	0.032	0.27	0.033	0.33	0.36	0.075
PCB-177	52663-70-4	ng/g	2.8 J	2.8	0.15	0.16	1.5	0.17	1.6	1.8	0.37
PCB-178	52663-67-9	ng/g	0.86 J	0.90	0.056	0.066	0.49	0.065	0.55	0.63	0.13
PCB-179	52663-64-6	ng/g	1.9 J	2.0	0.12	0.12	1.1	0.13	1.2	1.3	0.25
PCB-18/30	37680-65-2	ng/g	0.12 JN	0.18	0.16	0.41	0.14	0.41	17	0.30	0.055
PCB-180/193	35065-29-3	ng/g	9.0 J	8.1	0.54	0.57	4.6	0.64	5.5	5.4	1.4
PCB-181	74472-47-2	ng/g	< 0.00012 UJ	< 0.0011 U	0.0030 JN	< 0.0012 U	< 0.0013 U	< 0.00072 U	< 0.000064 U	< 0.0014 U	< 0.00091 U
PCB-182	60145-23-5	ng/g	< 0.00012 UJ	0.062	0.0048 J	0.0040 J	0.028	< 0.00069 U	< 0.000061 U	0.029 JN	0.0065 JN
PCB-183/185	52663-69-1	ng/g	2.9 J	2.6	0.17	0.19	1.5	0.19	1.8	1.7	0.43
PCB-184	74472-48-3	ng/g	< 0.00010 UJ	< 0.00089 U	< 0.00075 U	< 0.00098 U	< 0.0011 U	< 0.00059 U	< 0.000052 U	< 0.0012 U	< 0.00074 U
PCB-186	74472-49-4	ng/g	< 0.000096 UJ	< 0.00085 U	< 0.00073 U	< 0.00094 U	< 0.0010 U	< 0.00056 U	< 0.000050 U	< 0.0011 U	< 0.00072 U
PCB-187	52663-68-0	ng/g	5.2 J	5.2	0.32	0.37	2.9	0.41	3.3	3.5	0.78
PCB-188	74487-85-7	ng/g	< 0.000089 UJ	< 0.00077 U	< 0.00063 U	< 0.00087 U	< 0.00092 U	< 0.00053 U	< 0.000047 U	< 0.00097 U	< 0.00061 U
PCB-189	39635-31-9	ng/g	0.17 J	0.15	0.0054 JN	0.011	0.088	0.011 J	0.076	0.11	0.024
PCB-19	38444-73-4	ng/g	0.17 J	0.11	0.023	0.041	0.083	0.047 JN	1.8	0.11	0.032 JN
PCB-190	41411-64-7	ng/g	0.80 J	0.76	0.042	0.045	0.43	0.055	0.49	0.52	0.12
PCB-191	74472-50-7	ng/g	0.19 J	0.17	0.0080 JN	0.011	0.10	0.011 JN	0.11	0.11	0.025 JN
PCB-192	74472-51-8	ng/g	< 0.000098 UJ	< 0.00087 U	< 0.00077 U	< 0.00096 U	< 0.0011 U	< 0.00058 U	< 0.000051 U	< 0.0012 U	< 0.00076 U
PCB-194	35694-08-7	ng/g	2.0 J	2.0	0.15	0.18	1.1	0.22	1.4	1.7	0.35
PCB-195	52663-78-2	ng/g	0.90 J	0.92	0.062	0.066	0.48	0.075	0.59	0.66	0.15
PCB-196	42740-50-1	ng/g	0.81 J	0.83	0.058	0.084	0.43	0.098	0.70	0.60	0.16
PCB-197	33091-17-7	ng/g	0.063 JN	0.067	0.0039 JN	0.0058 JN	0.034	0.0063 J	0.051	0.048	0.013
PCB-198/199	68194-17-2	ng/g	1.6 J	1.7	0.16	0.25	0.93	0.28	1.7	1.5	0.32
PCB-2	2051-61-8	ng/g	0.064 J	0.052 J	0.0070 J	0.0046 J+	0.043	0.010 J+	0.069 JN	0.090	0.016

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S215	S216	S217	S218	S220	S221	S222	S223	S224
		Sample ID	PDI-SG-S215	PDI-SG-S216	PDI-SG-S217	PDI-SG-S218	PDI-SG-S220	PDI-SG-S221	PDI-SG-S222	PDI-SG-S223	PDI-SG-S224
		Sample Date	30 Apr 2018	29 Apr 2018	19 May 2018	21 May 2018	30 Apr 2018	21 May 2018	21 May 2018	01 May 2018	20 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
PCB-20/28	38444-84-7	ng/g	0.42 J	0.52	0.31	0.93	0.43	0.73	22	0.83	0.11
PCB-200	52663-73-7	ng/g	0.20 J	0.19	0.014	0.023	0.11	0.027	0.17 JN	0.14	0.033
PCB-201	40186-71-8	ng/g	0.20 J	0.20	0.017 JN	0.026 JN	0.11	0.025	0.18	0.16	0.036
PCB-202	2136-99-4	ng/g	0.32 J	0.35	0.039	0.066	0.19	0.056	0.35	0.30	0.058
PCB-203	52663-76-0	ng/g	0.99 J	1.1	0.097	0.14	0.56	0.17	0.94	0.89	0.21
PCB-204	74472-52-9	ng/g	< 0.00017 UJ	< 0.00038 U	< 0.00055 U	< 0.0014 U	< 0.0036 U	< 0.0011 U	< 0.00033 U	< 0.0055 U	< 0.00058 U
PCB-205	74472-53-0	ng/g	0.086 JN	0.098	0.0066 J	0.0068 J	0.052	0.010 J	0.061	0.080	0.017
PCB-206	40186-72-9	ng/g	0.60 J	0.82	0.13	3.1 JN	0.63 JN	0.34 JN	2.7	2.8 JN	0.12
PCB-207	52663-79-3	ng/g	0.072 J	0.084	0.014	0.032	0.046	0.024	0.21	0.083	0.011 JN
PCB-208	52663-77-1	ng/g	0.17 J	0.21	0.041	0.15	0.11	0.071	1.1	0.21	0.030 JN
PCB-209	2051-24-3	ng/g	0.29 J	0.28	0.13	0.64	0.27	0.21	5.4	0.34	0.067
PCB-21/33	55702-46-0	ng/g	0.17 J	0.21	0.13	0.38	0.17	0.34	11	0.34	0.046
PCB-22	38444-85-8	ng/g	0.089 J	0.095	0.083	0.27	0.082	0.23	7.3	0.17	0.027
PCB-23	55720-44-0	ng/g	< 0.0060 UJ	< 0.0055 U	< 0.0013 U	< 0.0032 U	< 0.0033 U	< 0.0030 U	< 0.031 U	< 0.0036 U	< 0.0016 U
PCB-24	55702-45-9	ng/g	< 0.0019 UJ	< 0.00073 U	0.0029 JN	0.0053 J	0.0013 JN	0.0070 J	0.27	0.0028 JN	0.0014 JN
PCB-25	55712-37-3	ng/g	0.040 JN	0.056	0.023	0.061	0.039	0.057	< 0.030 U	0.075	0.012
PCB-26/29	38444-81-4	ng/g	0.059 J	0.074	0.045	0.13	0.052	0.11	3.5	0.11	0.018 J
PCB-27	38444-76-7	ng/g	0.040 J	0.033 JN	0.013	0.036	0.027	0.036	1.3	0.047	0.0099
PCB-3	2051-62-9	ng/g	0.059 JN	0.063 J	0.0060 JN	0.014	0.031 JN	0.016	0.36	0.20	0.014
PCB-31	16606-02-3	ng/g	0.23 J	0.29	0.24	0.67	0.25	0.56	18	0.52	0.080
PCB-32	38444-77-8	ng/g	0.16 J	0.12	0.054	0.14	0.097	0.13	5.1	0.15	0.026
PCB-34	37680-68-5	ng/g	< 0.0062 UJ	< 0.0057 U	< 0.0014 U	0.0059 J	< 0.0034 U	0.0050 J	0.11	0.0085 J	< 0.0016 U
PCB-35	37680-69-6	ng/g	< 0.0059 UJ	0.015	0.0049 J	0.014	0.0066 JN	0.0076 JN	0.21	0.016	0.0035 JN
PCB-36	38444-87-0	ng/g	< 0.0054 UJ	< 0.0050 U	< 0.0013 U	< 0.0029 U	< 0.0029 U	< 0.0027 U	< 0.028 U	< 0.0033 U	< 0.0015 U
PCB-37	38444-90-5	ng/g	0.13 J	0.15	0.091	0.30	0.13	0.18	4.8	0.23	0.036
PCB-38	53555-66-1	ng/g	< 0.0058 UJ	< 0.0054 U	< 0.0014 U	< 0.0031 U	< 0.0032 U	< 0.0030 U	< 0.030 U	< 0.0035 U	< 0.0016 U
PCB-39	38444-88-1	ng/g	< 0.0053 UJ	< 0.0049 U	0.0016 JN	< 0.0028 U	< 0.0029 U	0.0039 J	< 0.028 U	0.0089 JN	< 0.0015 U
PCB-4	13029-08-8	ng/g	0.11 J	0.072	0.028	0.035 JN	0.058	0.067	2.6	0.21	0.023 JN
PCB-40/41/71	38444-93-8	ng/g	0.40 J	0.79	0.14	0.40	0.51	0.38	9.3	0.90	0.12
PCB-42	36559-22-5	ng/g	0.13 J	0.32	0.072	0.20	0.21	0.19	4.6	0.48	0.054
PCB-43/73	70362-46-8	ng/g	0.069 JN	0.14	0.0091 JN	0.027	0.072	0.030	0.71	0.11	0.014 JN
PCB-44/47/65	41464-39-5	ng/g	2.1 J	2.9	0.29	0.67	1.7	0.66	15	2.7	0.44
PCB-45/51	70362-45-7	ng/g	0.76 J	0.79	0.045 JN	0.15	0.57	0.15	3.7	0.53	0.13
PCB-46	41464-47-5	ng/g	0.038 J	0.065 JN	0.015	0.048 JN	0.051	0.049	1.3	0.082 JN	0.014
PCB-48	70362-47-9	ng/g	0.073 J	0.16	0.052	0.15	0.11 JN	0.15	4.1	0.24	0.030
PCB-49/69	41464-40-8	ng/g	0.94 J	1.7	0.18	0.41	0.94	0.40	9.1	1.8	0.23
PCB-5	16605-91-7	ng/g	< 0.0029 UJ	0.0034 J	< 0.0045 U	< 0.00092 U	< 0.0014 U	0.0023 JN	0.067	0.011 J	< 0.0020 U
PCB-50/53	62796-65-0	ng/g	0.37 J	0.54	0.043	0.11	0.35	0.11	2.7	0.47	0.082
PCB-52	35693-99-3	ng/g	1.3 J	3.0	0.33	0.79	1.6	0.77	17	4.6	0.38
PCB-54	15968-05-5	ng/g	0.13 JN	0.057	0.0023 JN	0.0020 JN	0.043 JN	0.0025 JN	0.055	0.024 JN	0.018
PCB-55	74338-24-2	ng/g	< 0.0044 UJ	< 0.0053 U	0.0039 JN	0.017	0.024 JN	0.015 JN	0.40 JN	0.067	< 0.0019 U
PCB-56	41464-43-1	ng/g	0.24 J	0.40	0.13	0.33	0.30	0.28	6.4	0.71	0.075
PCB-57	70424-67-8	ng/g	< 0.0046 UJ	< 0.0054 U	< 0.0018 U	< 0.0015 U	< 0.0031 U	< 0.0020 U	< 0.014 U	< 0.0026 U	< 0.0020 U
PCB-58	41464-49-7	ng/g	< 0.0044 UJ	0.016 JN	< 0.0018 U	0.0018 JN	0.0085 J	0.0054 J	0.036 J	0.024	0.0048 J
PCB-59/62/75	74472-33-6	ng/g	0.082 J	0.14	0.023 J	0.066	0.096	0.070	1.5	0.17	0.020 JN
PCB-6	25569-80-6	ng/g	0.028 J	0.045	0.013 JN	0.032	0.019 JN	0.035	1.1	0.061 JN	0.0096
PCB-60	33025-41-1	ng/g	0.056 JN	0.13	0.052	0.13	0.11	0.12	2.8	0.24	0.025
PCB-61/70/74/76	33284-53-6	ng/g	1.2 J	2.1	0.51	1.1	1.4	0.95	21	4.0	0.37
PCB-63	74472-34-7	ng/g	0.025 J	0.040 JN	0.011 J	0.023	0.033	0.022 JN	0.52	0.072	0.0048 JN
PCB-64	52663-58-8	ng/g	0.20 J	0.47	0.11	0.28	0.32	0.25	6.2	0.78	0.080
PCB-66	32598-10-0	ng/g	0.74 J	1.4	0.31	0.66	1.0	0.58	12	2.3	0.22
PCB-67	73575-53-8	ng/g	0.010 J	0.025 JN	0.0056 JN	0.021	0.019 JN	0.018	0.51	0.034	0.0036 JN
PCB-68	73575-52-7	ng/g	0.034 J	0.071 JN	0.0035 JN	0.0066 J	0.028 JN	< 0.0017 U	< 0.013 U	0.049 JN	0.0068 JN
PCB-7	33284-50-3	ng/g	< 0.0028 UJ	0.0079 J	< 0.0041 U	0.0050 JN	0.0048 JN	0.0039 JN	0.16	0.027	0.0027 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S215	S216	S217	S218	S220	S221	S222	S223	S224
		Sample ID	PDI-SG-S215	PDI-SG-S216	PDI-SG-S217	PDI-SG-S218	PDI-SG-S220	PDI-SG-S221	PDI-SG-S222	PDI-SG-S223	PDI-SG-S224
		Sample Date	30 Apr 2018	29 Apr 2018	19 May 2018	21 May 2018	30 Apr 2018	21 May 2018	21 May 2018	01 May 2018	20 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.030 J	0.065 JN	0.0044 J	0.0099	0.033	0.0055 JN	< 0.014 U	0.081	0.0072 JN
PCB-77	32598-13-3	ng/g	0.084 J	0.12	0.035	0.074	0.073 JN	0.055	1.1	0.18	0.019 JN
PCB-78	70362-49-1	ng/g	< 0.0044 UJ	< 0.0052 U	< 0.0018 U	< 0.0015 U	< 0.0030 U	< 0.0019 U	< 0.014 U	< 0.0025 U	< 0.0020 U
PCB-79	41464-48-6	ng/g	0.023 JN	0.045	0.0034 JN	0.0046 JN	0.023	0.0062 J	< 0.012 U	0.016 JN	0.0062 J
PCB-8	34883-43-7	ng/g	0.11 J	0.11	0.068	0.17	0.083	0.16	6.4	0.32	0.030
PCB-80	33284-52-5	ng/g	< 0.0039 UJ	< 0.0046 U	< 0.0015 U	< 0.0013 U	< 0.0027 U	< 0.0017 U	< 0.012 U	< 0.0022 U	< 0.0017 U
PCB-81	70362-50-4	ng/g	< 0.0042 UJ	< 0.0048 U	< 0.0016 U	< 0.0014 U	< 0.0029 U	< 0.0018 U	< 0.013 U	0.0060 JN	< 0.0019 U
PCB-82	52663-62-4	ng/g	0.36 JN	0.33	0.066	0.089	0.20	0.10	1.3	0.63	0.070
PCB-83/99	60145-20-2	ng/g	3.4 J	3.2	0.33	0.39	1.7	0.42	4.8	5.0	0.54
PCB-84	52663-60-2	ng/g	0.80 J	0.95	0.12	0.18	0.54	0.18	2.5	1.8	0.19
PCB-85/116/117	65510-45-4	ng/g	0.63 J	0.45	0.092 JN	0.11	0.30	0.13	1.5	0.96	0.12
PCB-86/87/97/109/119/125	55312-69-1	ng/g	2.6 J	2.1	0.35	0.38	1.3	0.43	5.2	4.1	0.47
PCB-88/91	55215-17-3	ng/g	1.0 J	0.96	0.087	0.11	0.58	0.12	1.3	1.2	0.18
PCB-89	73575-57-2	ng/g	< 0.0021 UJ	0.031	0.0060 JN	0.011 JN	0.017 JN	0.015 JN	0.22	0.058	< 0.00051 U
PCB-9	34883-39-1	ng/g	< 0.0032 UJ	0.0079 JN	< 0.0042 U	0.0063 JN	0.0049 JN	0.0078 J	0.32	0.025 JN	< 0.0018 U
PCB-90/101/113	68194-07-0	ng/g	5.5 J	5.1	0.55	0.57	2.9	0.64	7.5	7.8	0.98
PCB-92	52663-61-3	ng/g	1.3 J	1.3	0.096	0.13	0.72	0.13	1.4	1.9	0.19
PCB-93/100	73575-56-1	ng/g	0.51 J	0.34	0.017 JN	0.013 JN	0.25	0.018 J	0.098 JN	0.24	0.082 JN
PCB-94	73575-55-0	ng/g	0.12 J	0.092	< 0.00039 U	0.0058 J	0.062	0.0070 JN	0.068	0.069	0.014 JN
PCB-95	38379-99-6	ng/g	3.7 J	4.1	0.40	0.52	2.4	0.53	6.9	6.2	0.81
PCB-96	73575-54-9	ng/g	0.081 J	0.078	0.0050 JN	0.0048 JN	0.043	0.0080 JN	0.12 JN	0.069	0.013
PCB-98/102	60233-25-2	ng/g	0.29 J	0.26	0.017 JN	0.039	0.16	0.038	0.43	0.27	0.033 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	136	148	14	24	81	21	368	156	24
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.70 J	0.63 J	< 1.2 U	< 0.77 U	0.55 J	< 1.2 U	7.6	0.80	0.30 J
2,4-DDE	3424-82-6	µg/kg	< 0.84 U	< 0.67 UJ	< 1.2 U	< 0.79 U	< 0.71 U	< 1.2 U	3.4	< 0.59 U	< 0.38 U
2,4-DDT	789-02-6	µg/kg	< 0.84 U	< 0.67 UJ	< 1.2 U	< 0.94 U	< 0.71 U	< 1.2 U	< 1.0 U	< 0.59 U	< 0.38 U
4,4'-DDD	72-54-8	µg/kg	2.5 J	1.7 J	1.1 J	1.4	2.1 J	1.6	23	2.2 J	0.58
4,4'-DDE	72-55-9	µg/kg	5.5	4.3 J	2.5	1.7	3.6	4.1	110	4.9	1.2
4,4'-DDT	50-29-3	µg/kg	0.97	0.65 J	0.69 J	< 0.77 U	0.40 J	< 1.2 U	0.71 J	0.57 J	< 0.38 U
DDx (b)	T_DDx (PDI)	µg/kg	10.1	7.6	4.9	3.6	7.0	6.3	145.2	8.8	2.3
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	9.4	9.4	6.6	24	8.6	7.7	50	17	19
Acenaphthene	83-32-9	µg/kg	10	9.9	14	11	8.9	10	50	22	38
Acenaphthylene	208-96-8	µg/kg	13	9.9	3.9	21	14	3.9	11	19	33
Anthracene	120-12-7	µg/kg	30	23	18	29	31	19	95	45	110
Benz(a)anthracene	56-55-3	µg/kg	130	110	40	62	130	34	150	170	330
Benzo(a)pyrene	50-32-8	µg/kg	140	140	37	78	140	42	120	180	130 J
Benzo(b)fluoranthene	205-99-2	µg/kg	230	220	50	94	240	62	190	270	320
Benzo(g,h,i)perylene	191-24-2	µg/kg	140	150	21	57 J	140	39	69 J	150	44
Benzo(k)fluoranthene	207-08-9	µg/kg	80	83	18	31	78	18	75	90	130
Chrysene	218-01-9	µg/kg	220	190	57	93	250	63	230	280	410
Dibenz(a,h)anthracene	53-70-3	µg/kg	27	31	4.4	8.0 J	26	4.8	13 J	33	19
Fluoranthene	206-44-0	µg/kg	320	320	140	190	400	120	560	440	1900
Fluorene	86-73-7	µg/kg	16	12	20	15	16	18	79	24	51
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	120	140	18	50	120	24	59	150	76
Naphthalene	91-20-3	µg/kg	17	17	6.8	53	17	6.9	30	38	11
Phenanthrene	85-01-8	µg/kg	110	98	95	150	99	93	370	190	410
Pyrene	129-00-0	µg/kg	360	320	100	260	440	110	460	540	1600
Total PAHs (b)	T_PAH (PDI)	µg/kg	1972	1883	650	1226	2159	675	2611	2658	5631
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	216	219	52	107	216	59	174	273	223
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	28.4	37.4	38.7	63.4	34.0	38.7	48.0	41.4	51.1 54.0
Total Solids@104C - E160.3M (f)	TSOLID	%	29.4	37.3	39.4	63.8	34.5	41.0	48.4	41.5	52.4
Total Solids@70C	TSOLID70	%	30	38	41	64	35	39	49	42	53
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0	0	0.1	0	0	0.2	0	0.5

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S215	S216	S217	S218	S220	S221	S222	S223	S224
		Sample ID	PDI-SG-S215	PDI-SG-S216	PDI-SG-S217	PDI-SG-S218	PDI-SG-S220	PDI-SG-S221	PDI-SG-S222	PDI-SG-S223	PDI-SG-S224
		Sample Date	30 Apr 2018	29 Apr 2018	19 May 2018	21 May 2018	30 Apr 2018	21 May 2018	21 May 2018	01 May 2018	20 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-30 cm	0-30 cm	0-30 cm	0-23 cm	0-24 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.4	0.9	0.1	1.3	0.6	0.3	2.2	1.4	7.9
Sand, Fine (#200) (d)	GS-Fsand-200	%	5.202	11.36	3.985	41.83	13.61	5.769	29.87	21.26	43.96
Sand, Fine (#230) (d)	GS-Fsand	%	5.8	13.4	5.3	48.4	16.3	7.6	34.9	23.5	49.1
Silt (#200) (d)	GS-Silt-200	%	71.29	63.63	89.01	51.46	67.08	82.53	60.92	62.33	41.43
Silt (#230) (d)	GS-Silt	%	70.7	61.6	87.7	44.9	64.4	80.7	55.9	60.1	36.3
Clay	GS-Clay	%	23.2	24.0	6.9	5.3	18.8	11.4	6.9	15.0	6.2
Percent Fines (e)	GS-FINES	%	94.49	87.63	95.91	56.76	85.88	93.93	67.82	77.33	47.63
Total Organic Carbon	TOC	mg/kg	28000	23000	29000	8900	25000	31000	36000	22000	13000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S225	S226	S227	S228	S229	S230	S231	S233	S234
		Sample ID	PDI-SG-S225	PDI-SG-S226	PDI-SG-S227	PDI-SG-S228	PDI-SG-S229	PDI-SG-S230	PDI-SG-S231	PDI-SG-S233	PDI-SG-S234
		Sample Date	01 May 2018	20 Jun 2018	14 May 2018	18 Jun 2018	20 Jun 2018	01 May 2018	01 May 2018	02 May 2018	01 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-26 cm	0-27 cm	0-20 cm	0-28 cm	0-27 cm	0-28 cm	0-24 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.46	0.13	0.086	0.010	0.77 J	0.44	0.45	0.64	0.54 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.10 J	0.018 JN	0.013	0.0018 JN	0.12 J	0.086	0.085 J	0.086	0.091 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0060 J	< 0.00094 U	0.0011 J+	< 0.00014 U	0.0077 J	0.0055 J	0.0059 J	0.0047 J	0.0056 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0045 J	0.0013 J	0.0011 J	0.00015 JN	0.0050 J	0.0046 J	0.0046 J	0.0045 J	0.0052 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0039 JN	0.0022 JN	0.0014 J	0.00024 J	0.016 J	0.0092	0.0093	0.0084	0.0087 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.016	0.0033 J	0.0030 J	0.00047 J	0.019 J	0.017	0.016	0.019	0.019 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0034 JN	0.00079 JN	0.00070 J	< 0.000051 U	0.0056 J	0.0044 J	0.0038 J	0.0037 J	0.0046 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0067 J	0.0034 J	0.0025 J	0.00027 JN	0.010 J	0.0079 J	0.0077 J	0.0082	0.0088 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00064 J+	< 0.00035 U	0.00095 J+	< 0.000081 U	< 0.00085 UJ	0.00047 J+	0.00063 JN	< 0.00047 U	0.00065 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0022 J	< 0.00032 U	0.00056 J	< 0.000070 U	0.0027 J	0.0025 J	0.0023 J	0.0028 J	0.0027 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0019 J	0.00065 J	0.00054 J+	< 0.000042 U	0.0026 J	0.0023 J	0.0023 J	0.0015 J	0.0019 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0022 J	< 0.00035 U	0.00040 JN	0.000073 JN	0.0028 J	0.0023 J	0.0022 J	0.0023 J	0.0026 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0029 J	0.00059 J	0.00053 J	0.000096 J	0.0034 J	0.0028 J	0.0027 J	0.0025 J	0.0028 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00058 JN	0.00050 J	0.00043 JN	< 0.000037 U	0.0013 J	0.00075 JN	0.00074 J	0.00092 JN	0.00064 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0026	0.00072 J	0.00077 JN	0.00013 JN	0.0030 J	0.0031	0.0025	0.0020	0.0025 J
OCDD	3268-87-9	µg/kg	3.8	1.2	0.78	0.10	6.2 J	3.4	3.4	4.4	4.1 J
OCDF	39001-02-0	µg/kg	0.31	0.070	0.044	0.0054 J	0.39 J	0.25	0.23	0.27	0.27 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.015	0.0039	0.0035	0.00035	0.022	0.015	0.015	0.018	0.017
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.014	0.0036	0.0032	0.00027	0.022	0.015	0.015	0.018	0.017
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.013	0.0034	0.0029	0.00023	0.022	0.015	0.015	0.017	0.016
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.14	0.0077 J	0.0030 JN	0.0017 J	< 0.0021 U	0.059	0.036	0.33	0.034 JN
PCB-10	33146-45-1	ng/g	0.0080 J	< 0.0025 U	< 0.0057 U	< 0.0016 U	< 0.015 U	0.0051 J	< 0.0027 U	0.017 JN	0.0031 JN
PCB-103	60145-21-3	ng/g	0.19	0.0086 J	0.0084 JN	0.0034 J	0.10 JN	0.12	0.16	0.12	0.13 J
PCB-104	56558-16-8	ng/g	< 0.00084 U	< 0.00025 U	< 0.00038 U	< 0.00010 U	< 0.0025 U	< 0.00057 U	< 0.00076 U	< 0.0011 U	< 0.00090 UJ
PCB-105	32598-14-4	ng/g	0.92	0.18	0.18	0.039	0.55	0.68	0.65	0.54	0.55 J
PCB-106	70424-69-0	ng/g	< 0.0072 U	< 0.0023 U	< 0.0020 U	< 0.00065 U	< 0.012 U	< 0.0082 U	< 0.0074 U	< 0.0070 U	< 0.0068 UJ
PCB-107	70424-68-9	ng/g	0.35	0.042	0.038	0.013	0.19	0.25	0.23	0.18	0.21 J
PCB-108/124	70362-41-3	ng/g	0.11	0.017 JN	0.018 J	0.0060 J	0.059 J	0.088	0.081	0.053 JN	0.061 J
PCB-11	2050-67-1	ng/g	0.24	0.054 JN	0.057	< 0.0095 U	0.13 JN	0.20	0.19	0.13	0.16 J
PCB-110/115	38380-03-9	ng/g	3.7	0.69	0.68	0.27	2.9	2.7	3.3	2.6	2.3 J
PCB-111	39635-32-0	ng/g	0.016	< 0.00023 U	< 0.00035 U	< 0.000096 U	< 0.0023 U	< 0.00050 U	0.014 J	< 0.0010 U	0.012 J
PCB-112	74472-36-9	ng/g	< 0.00082 U	< 0.00024 U	< 0.00037 U	< 0.00010 U	< 0.0024 U	< 0.00055 U	< 0.00075 U	< 0.0011 U	< 0.00088 UJ
PCB-114	74472-37-0	ng/g	0.056	0.012	0.0060 JN	0.0016 JN	0.035 J	0.042	0.037	0.026	0.031 J
PCB-118	31508-00-6	ng/g	2.8	0.48	0.45	0.11	1.7	2.2	2.0	1.8	1.7 J
PCB-12/13	2974-92-7	ng/g	0.033	0.0069 JN	0.010 JN	< 0.0015 U	0.022 JN	0.022 JN	0.032 JN	0.066 JN	0.023 J
PCB-120	68194-12-7	ng/g	0.041 JN	< 0.00023 U	0.0040 JN	0.0015 JN	0.035 JN	0.037	0.041	0.030	0.027 J
PCB-121	56558-18-0	ng/g	< 0.00080 U	< 0.00024 U	< 0.00037 U	< 0.00010 U	< 0.0024 U	< 0.00054 U	< 0.00073 U	< 0.0011 U	< 0.00086 UJ
PCB-122	76842-07-4	ng/g	0.046	0.0094 JN	0.0075 JN	0.0020 JN	0.023 J	0.030 JN	0.031 JN	0.018	0.028 JN
PCB-123	65510-44-3	ng/g	0.052	0.0089 JN	0.0072 J	0.0027 J	0.024 JN	0.030 JN	0.031	0.027 JN	0.031 J
PCB-126	57465-28-8	ng/g	0.014 J	0.0024 JN	0.0031 J	< 0.00071 U	0.020 J	0.013 J	0.0098 JN	0.025	0.0083 JN
PCB-127	39635-33-1	ng/g	< 0.0069 U	< 0.0023 U	< 0.0020 U	< 0.00065 U	< 0.012 U	< 0.0078 U	< 0.0071 U	< 0.0070 U	< 0.0065 UJ
PCB-128/166	38380-07-3	ng/g	1.2	0.14	0.13	0.046	0.64	0.85	0.78	0.69	0.79 J
PCB-129/138/160/163	55215-18-4	ng/g	9.9	0.95	0.94	0.42	5.8	6.4	6.5	6.6	6.9 J
PCB-130	52663-66-8	ng/g	0.64	0.050 JN	0.055	0.022	0.35	0.43	0.45	0.36	0.43 J
PCB-131	61798-70-7	ng/g	0.11	0.011 J	0.011 J	< 0.0013 U	0.054 JN	0.075	0.067	0.057 JN	< 0.0048 UJ
PCB-132	38380-05-1	ng/g	3.1	0.30	0.27	0.13	1.7	2.2	2.2	2.1	2.3 J
PCB-133	35694-04-3	ng/g	0.27	0.015	0.014	0.0061 J	0.13	0.17	0.19	0.16	0.18 J
PCB-134/143	52704-70-8	ng/g	0.47	0.047	0.042 JN	0.023	0.30	0.41	0.42	0.38	0.38 J
PCB-135/151	52744-13-5	ng/g	3.0	0.29	0.26	0.17	2.4	2.1	2.4	2.2	1.9 J
PCB-136	38411-22-2	ng/g	1.1	0.11	0.092	0.058	0.80	0.78	0.92	0.79	0.80 J
PCB-137	35694-06-5	ng/g	0.29	0.037	0.037	0.012	0.15	0.19	0.17	0.16	0.18 J
PCB-139/140	56030-56-9	ng/g	0.19	0.016 J	0.013 JN	0.0043 JN	0.067 JN	0.13	0.13	0.11	0.11 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S225	S226	S227	S228	S229	S230	S231	S233	S234
		Sample ID	PDI-SG-S225	PDI-SG-S226	PDI-SG-S227	PDI-SG-S228	PDI-SG-S229	PDI-SG-S230	PDI-SG-S231	PDI-SG-S233	PDI-SG-S234
		Sample Date	01 May 2018	20 Jun 2018	14 May 2018	18 Jun 2018	20 Jun 2018	01 May 2018	01 May 2018	02 May 2018	01 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-26 cm	0-27 cm	0-20 cm	0-28 cm	0-27 cm	0-28 cm	0-24 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
PCB-14	34883-41-5	ng/g	< 0.00093 U	< 0.0019 U	< 0.0044 U	< 0.0012 U	< 0.012 U	< 0.0014 U	< 0.0021 U	< 0.0066 U	< 0.00082 UJ
PCB-141	52712-04-6	ng/g	1.8	0.17	0.17	0.091	1.1	1.2	1.3	1.3	1.4 J
PCB-142	41411-61-4	ng/g	< 0.0043 U	< 0.0038 U	< 0.0037 U	< 0.0012 U	< 0.023 U	< 0.0064 U	< 0.0052 U	< 0.020 U	< 0.0045 UJ
PCB-144	68194-14-9	ng/g	0.33	0.032	0.031	0.020	0.24	0.20	0.25	0.21	0.17 J
PCB-145	74472-40-5	ng/g	0.0035 JN	< 0.00024 U	< 0.00025 U	< 0.000078 U	< 0.0021 U	< 0.00066 U	< 0.00050 U	0.0058 JN	< 0.00015 UJ
PCB-146	51908-16-8	ng/g	2.1	0.15	0.15	0.068	1.3	1.4	1.5	1.4	1.5 J
PCB-147/149	68194-13-8	ng/g	8.1	0.78	0.76	0.42	6.0	6.5	6.8	7.8	6.4 J
PCB-148	74472-41-6	ng/g	0.054	0.0020 JN	0.0030 JN	< 0.00011 U	0.030 JN	0.030	0.037	0.021	0.024 JN
PCB-15	2050-68-2	ng/g	0.14	0.055	0.036 JN	0.0042 JN	0.092	0.13	0.12	0.28	0.099 JN
PCB-150	68194-08-1	ng/g	0.047	0.0013 JN	0.0015 JN	0.00065 JN	0.042 J	0.033	0.041	0.031	0.033 J
PCB-152	68194-09-2	ng/g	0.020	< 0.00025 U	0.00091 JN	< 0.000081 U	0.014 JN	0.011 J	0.016	0.012 J	0.015 J
PCB-153/168	35065-27-1	ng/g	9.0	0.76	0.72	0.37	5.7	6.1	6.6	6.9	6.8 J
PCB-154	60145-22-4	ng/g	0.26	0.015 JN	0.010 JN	0.0044 J	0.21 JN	0.18 JN	0.23	0.13	0.13 J
PCB-155	33979-03-2	ng/g	0.0036 JN	< 0.00023 U	< 0.00024 U	< 0.000075 U	< 0.0020 U	< 0.00060 U	0.0027 J	< 0.0011 U	< 0.00013 UJ
PCB-156/157	38380-08-4	ng/g	0.72	0.089	0.087	0.026	0.45	0.51	0.50	0.44	0.49 J
PCB-158	74472-42-7	ng/g	0.79	0.082	0.094	0.037	0.48	0.56	0.54	0.52	0.58 J
PCB-159	39635-35-3	ng/g	0.11	0.0067 JN	< 0.0025 U	< 0.00081 U	0.057 J	0.065	0.075	0.061	0.081 J
PCB-16	38444-78-9	ng/g	0.090 JN	0.083	0.040	0.0065 JN	0.042 J	0.059	0.047	0.16	0.028 JN
PCB-161	74472-43-8	ng/g	< 0.0028 U	< 0.0025 U	< 0.0024 U	< 0.00080 U	< 0.016 U	< 0.0042 U	< 0.0034 U	< 0.013 U	< 0.0030 UJ
PCB-162	39635-34-2	ng/g	< 0.0027 U	0.0041 J	< 0.0024 U	< 0.00079 U	0.017 J	< 0.0040 U	< 0.0032 U	0.017 JN	< 0.0028 UJ
PCB-164	74472-45-0	ng/g	0.76	0.063	0.062	0.030	0.43	0.51	0.53	0.49	0.53 J
PCB-165	74472-46-1	ng/g	< 0.0032 U	< 0.0029 U	< 0.0028 U	< 0.00091 U	< 0.018 U	< 0.0048 U	< 0.0039 U	< 0.015 U	< 0.0034 UJ
PCB-167	52663-72-6	ng/g	0.27	0.032	0.029	0.013	0.17	0.20	0.19	0.18	0.19 J
PCB-169	32774-16-6	ng/g	< 0.0024 U	0.0042 JN	0.0072 J	< 0.00060 U	< 0.012 U	< 0.0032 U	< 0.0026 U	< 0.011 U	< 0.0022 UJ
PCB-17	37680-66-3	ng/g	0.14	0.11	0.068	0.010	0.11	0.097	0.080	0.19	0.054 JN
PCB-170	35065-30-6	ng/g	3.0	0.26	0.25	0.16	2.2	2.1	2.4	2.3	2.3 J
PCB-171/173	52663-71-5	ng/g	0.95	0.076	0.066 JN	0.049	0.70	0.66	0.76	0.61	0.62 J
PCB-172	52663-74-8	ng/g	0.51	0.047	0.038	0.024	0.33	0.36	0.39	0.35	0.36 J
PCB-174	38411-25-5	ng/g	3.1	0.27	0.26	0.14	2.1	2.3	2.6	2.3	2.2 J
PCB-175	40186-70-7	ng/g	0.13	0.0079 JN	0.0089 J	0.0062 J	0.085	0.096	0.097	0.082 JN	0.085 J
PCB-176	52663-65-7	ng/g	0.37	0.032	0.027 JN	0.019	0.28	0.27	0.30	0.30	0.27 J
PCB-177	52663-70-4	ng/g	2.1	0.15	0.15	0.082	1.2	1.4	1.5	1.3	1.3 J
PCB-178	52663-67-9	ng/g	0.70	0.066	0.057	0.029	0.48	0.50	0.52	0.53	0.46 J
PCB-179	52663-64-6	ng/g	1.4	0.13	0.12	0.063	0.98	0.92	1.1	1.2	1.1 J
PCB-18/30	37680-65-2	ng/g	0.22	0.21	0.11	0.022 JN	0.13 J	0.14	0.097 JN	0.36	0.074 J
PCB-180/193	35065-29-3	ng/g	6.2	0.56	0.53	0.33	4.6	4.6	4.9	4.5	4.6 J
PCB-181	74472-47-2	ng/g	< 0.0014 U	< 0.00040 U	< 0.0010 U	< 0.00015 U	0.029 J	< 0.0022 U	< 0.000081 U	< 0.0045 U	< 0.000024 UJ
PCB-182	60145-23-5	ng/g	0.028 JN	< 0.00038 U	0.0038 JN	0.0011 JN	0.035 J	0.031	0.024 JN	0.015 JN	0.019 JN
PCB-183/185	52663-69-1	ng/g	2.0	0.19	0.16	0.11	1.5	1.4	1.6	1.6	1.3 J
PCB-184	74472-48-3	ng/g	< 0.0011 U	< 0.00033 U	< 0.00082 U	< 0.00012 U	< 0.0042 U	< 0.0018 U	< 0.000066 U	< 0.0037 U	< 0.000019 UJ
PCB-186	74472-49-4	ng/g	< 0.0011 U	< 0.00032 U	< 0.00080 U	< 0.00012 U	< 0.0041 U	< 0.0017 U	< 0.000063 U	< 0.0036 U	< 0.000019 UJ
PCB-187	52663-68-0	ng/g	3.9	0.37	0.34	0.18	2.7	2.8	3.0	3.0	2.6 J
PCB-188	74487-85-7	ng/g	< 0.00094 U	< 0.00027 U	< 0.00066 U	< 0.00011 U	< 0.0036 U	< 0.0015 U	< 0.000054 U	< 0.0028 U	< 0.000016 UJ
PCB-189	39635-31-9	ng/g	0.11 J	0.0082 JN	0.0070 J	0.0043 J	0.089	0.078	0.086	0.070	0.080 J
PCB-19	38444-73-4	ng/g	0.092	0.039	0.024	0.0044 JN	0.097 JN	0.068 JN	0.094	0.13	0.085 J
PCB-190	41411-64-7	ng/g	0.47	0.045	0.044	0.029	0.37	0.36	0.41	0.36	0.39 J
PCB-191	74472-50-7	ng/g	0.13	0.0087 J	0.0088 J	0.0058 J	0.095 JN	0.088	0.082 JN	0.083	0.084 J
PCB-192	74472-51-8	ng/g	< 0.0011 U	< 0.00033 U	< 0.00084 U	< 0.00013 U	< 0.0043 U	< 0.0017 U	< 0.000064 U	< 0.0038 U	< 0.000019 UJ
PCB-194	35694-08-7	ng/g	1.5	0.17	0.15	0.057	1.1	1.1	1.2	1.3	1.2 J
PCB-195	52663-78-2	ng/g	0.92	0.060	0.059	0.023	0.41 JN	0.45	0.50	0.55	0.55 J
PCB-196	42740-50-1	ng/g	0.52	0.071	0.062	0.030	0.51	0.40	0.48	0.54	0.44 J
PCB-197	33091-17-7	ng/g	0.049	0.0048 JN	0.0054 JN	0.0020 JN	0.038 J	0.038	0.039	0.039 JN	0.038 J
PCB-198/199	68194-17-2	ng/g	1.1	0.20	0.16	0.066	1.0	1.0	0.98	1.1	0.96 J
PCB-2	2051-61-8	ng/g	0.060	0.0045 JN	0.0053 JN	0.00079 JN	0.035 J	0.050	0.050	0.089	0.052 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S225	S226	S227	S228	S229	S230	S231	S233	S234
		Sample ID	PDI-SG-S225	PDI-SG-S226	PDI-SG-S227	PDI-SG-S228	PDI-SG-S229	PDI-SG-S230	PDI-SG-S231	PDI-SG-S233	PDI-SG-S234
		Sample Date	01 May 2018	20 Jun 2018	14 May 2018	18 Jun 2018	20 Jun 2018	01 May 2018	01 May 2018	02 May 2018	01 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-26 cm	0-27 cm	0-20 cm	0-28 cm	0-27 cm	0-28 cm	0-24 cm	0-29 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.52	0.29	0.21	0.020	0.34	0.45	0.34	0.52	0.29 J
PCB-200	52663-73-7	ng/g	0.15	0.017 JN	0.018	0.0063 JN	0.11	0.12	0.12	0.12	0.12 J
PCB-201	40186-71-8	ng/g	0.15	0.022	0.019	0.0072 J	0.12	0.12	0.13	0.13	0.13 J
PCB-202	2136-99-4	ng/g	0.27	0.041	0.036	0.013	0.16 JN	0.21	0.23	0.21 JN	0.20 J
PCB-203	52663-76-0	ng/g	0.65	0.11	0.093 JN	0.043	0.61	0.50	0.62	0.68	0.59 J
PCB-204	74472-52-9	ng/g	< 0.0028 U	< 0.00024 U	< 0.00045 U	< 0.00040 U	< 0.0035 U	< 0.0032 U	< 0.00026 U	< 0.0042 U	< 0.00066 UJ
PCB-205	74472-53-0	ng/g	0.076	0.0068 JN	0.0057 JN	0.0024 JN	0.055 J	0.055	0.063	0.054 JN	0.057 J
PCB-206	40186-72-9	ng/g	1.3 JN	0.14	0.12	0.023	0.38	0.87 JN	0.50	0.43	0.46 J
PCB-207	52663-79-3	ng/g	0.091	0.015	0.011 J	0.0032 J	0.047 J	0.060	0.057	0.046	0.046 J
PCB-208	52663-77-1	ng/g	0.20	0.044	0.033	0.0066 JN	0.10 JN	0.20	0.16	0.12	0.13 J
PCB-209	2051-24-3	ng/g	0.32	0.16	0.10	0.0079 J	0.24	0.27 JN	0.23 JN	0.21	0.25 J
PCB-21/33	55702-46-0	ng/g	0.24	0.13	0.090	0.012 J	0.12 J	0.19	0.14	0.27	0.12 J
PCB-22	38444-85-8	ng/g	0.11	0.090	0.059 JN	0.0052 J	0.059 JN	0.092	0.070	0.15	0.064 J
PCB-23	55720-44-0	ng/g	< 0.0022 U	< 0.0013 U	< 0.0014 U	< 0.00049 U	< 0.0053 U	< 0.0029 U	< 0.0025 U	< 0.0032 U	< 0.0027 UJ
PCB-24	55702-45-9	ng/g	0.0054 J	0.0037 JN	< 0.00078 U	< 0.00030 U	< 0.0024 U	0.0032 JN	0.0028 JN	0.0077 JN	0.0012 JN
PCB-25	55712-37-3	ng/g	0.046	0.024	0.016	0.0012 J	0.028 J	< 0.0028 U	0.027 JN	0.047	0.028 J
PCB-26/29	38444-81-4	ng/g	0.066	0.048	0.031	0.0021 JN	0.041 J	0.053	0.040	0.079	0.037 J
PCB-27	38444-76-7	ng/g	0.034	0.018	0.0082 JN	0.0019 JN	0.024 JN	0.029	0.028 JN	0.046	0.021 J
PCB-3	2051-62-9	ng/g	0.075	0.0051 JN	0.0059 J	0.0011 J	0.030 JN	0.060	0.042	0.27	0.043 J
PCB-31	16606-02-3	ng/g	0.31	0.23	0.16	0.013 J	0.21	0.26	0.18	0.39	0.16 J
PCB-32	38444-77-8	ng/g	0.12	0.073	0.042	0.0089 J	0.11	0.085	0.076	0.15	0.052 J
PCB-34	37680-68-5	ng/g	0.0060 J	< 0.0014 U	< 0.0014 U	< 0.00051 U	< 0.0055 U	< 0.0030 U	< 0.0026 U	< 0.0034 U	< 0.0028 UJ
PCB-35	37680-69-6	ng/g	0.012 J	0.0041 JN	0.0022 JN	< 0.00050 U	< 0.0053 U	< 0.0029 U	0.0082 JN	0.011 JN	0.0089 J
PCB-36	38444-87-0	ng/g	< 0.0020 U	0.0035 J	0.0027 JN	< 0.00048 U	< 0.0051 U	< 0.0026 U	< 0.0023 U	< 0.0031 U	< 0.0024 UJ
PCB-37	38444-90-5	ng/g	0.18	0.079	0.066	0.0049 JN	0.12	0.15	0.14	0.17	0.12 J
PCB-38	53555-66-1	ng/g	< 0.0022 U	< 0.0014 U	< 0.0015 U	< 0.00051 U	< 0.0055 U	< 0.0029 U	< 0.0025 U	< 0.0034 U	< 0.0026 UJ
PCB-39	38444-88-1	ng/g	0.0042 J	< 0.0012 U	< 0.0013 U	< 0.00046 U	< 0.0050 U	0.0033 JN	< 0.0022 U	0.0059 JN	< 0.0024 UJ
PCB-4	13029-08-8	ng/g	0.11	0.043	0.030 JN	0.0056 JN	0.034 JN	0.066 JN	0.049	0.25	0.049 J
PCB-40/41/71	38444-93-8	ng/g	0.64	0.16 J	0.12	0.020 J	0.33	0.41	0.38	0.43	0.34 J
PCB-42	36559-22-5	ng/g	0.29	0.077 J	0.059	0.0099 J	0.15	0.20	0.17	0.16	0.15 J
PCB-43/73	70362-46-8	ng/g	0.097	0.0096 J	0.0080 JN	0.0025 J	0.040 JN	0.025 JN	0.025 J	0.031 JN	0.054 J
PCB-44/47/65	41464-39-5	ng/g	1.8	0.32 J	0.24	0.081	1.2	1.3	1.2	1.3	1.1 J
PCB-45/51	70362-45-7	ng/g	0.50	0.063 J	0.040	0.014 J	0.35	0.36	0.37	0.42	0.37 J
PCB-46	41464-47-5	ng/g	0.059 JN	0.019 J	0.011 JN	0.0026 JN	0.045 J	0.038 JN	0.037	0.043	0.027 JN
PCB-48	70362-47-9	ng/g	0.15	0.057 J	0.039	0.0059 J	0.061 JN	0.097	0.077	0.095	0.068 J
PCB-49/69	41464-40-8	ng/g	1.1	0.20 J	0.16	0.030	0.65	0.81	0.67	0.71	0.61 J
PCB-5	16605-91-7	ng/g	0.0042 JN	< 0.0025 U	< 0.0058 U	< 0.0016 U	< 0.015 U	0.0031 JN	< 0.0025 U	0.029 JN	0.0023 JN
PCB-50/53	62796-65-0	ng/g	0.38	0.051 J	0.034	0.012 J	0.18 JN	0.28	0.25	0.28	0.25 J
PCB-52	35693-99-3	ng/g	2.2	0.38 J	0.30	0.10	0.96	1.6	1.2	1.1	1.2 J
PCB-54	15968-05-5	ng/g	0.040	0.0053 JN	0.0013 JN	< 0.000015 U	0.060 J	0.033	0.045	0.037 JN	0.036 J
PCB-55	74338-24-2	ng/g	0.031	0.0042 JN	0.0067 J	< 0.00046 U	0.011 JN	< 0.0021 U	0.024 JN	0.0099 JN	0.020 JN
PCB-56	41464-43-1	ng/g	0.40	0.12 J	0.098	0.014	0.22	0.28	0.24	0.23	0.22 J
PCB-57	70424-67-8	ng/g	< 0.0027 U	< 0.0017 UJ	< 0.0023 U	< 0.00047 U	< 0.0090 U	< 0.0022 U	< 0.0028 U	0.0047 JN	< 0.0021 UJ
PCB-58	41464-49-7	ng/g	0.014 J	0.0018 JN	< 0.0024 U	< 0.00047 U	< 0.0091 U	0.0038 JN	0.0046 JN	0.0085 J	0.011 J
PCB-59/62/75	74472-33-6	ng/g	0.12	0.027 J	0.020 J	0.0041 J	0.055 JN	0.091	0.078	0.070	0.072 J
PCB-6	25569-80-6	ng/g	0.056	0.018 JN	0.012 JN	< 0.0015 U	0.016 JN	0.043	0.032	0.14 JN	0.026 J
PCB-60	33025-41-1	ng/g	0.12	0.049 J	0.037 JN	0.0054 JN	0.082 J	0.079	0.078	0.099	0.074 J
PCB-61/70/74/76	33284-53-6	ng/g	2.0	0.47 J	0.40	0.058	1.0	1.4	1.1	1.1	0.96 J
PCB-63	74472-34-7	ng/g	0.034 JN	0.0086 JN	0.0080 J	< 0.00043 U	0.023 J	0.029	0.026	0.024	0.020 J
PCB-64	52663-58-8	ng/g	0.43	0.12 J	0.083 JN	0.017	0.22	0.28	0.24	0.24	0.21 J
PCB-66	32598-10-0	ng/g	1.3	0.28 J	0.24	0.036	0.74	0.97	0.79	0.72	0.69 J
PCB-67	73575-53-8	ng/g	0.022 JN	0.0078 J	0.0061 J	< 0.00040 U	0.011 J	0.021	0.017	0.019	0.014 J
PCB-68	73575-52-7	ng/g	0.034	0.0049 J	0.0028 JN	0.0059 J	0.025 JN	0.028	0.028	0.017 J+	0.023 J
PCB-7	33284-50-3	ng/g	0.012 JN	0.0039 JN	< 0.0053 U	< 0.0015 U	< 0.014 U	0.011 J	0.0071 JN	0.049	0.0081 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S225	S226	S227	S228	S229	S230	S231	S233	S234
		Sample ID	PDI-SG-S225	PDI-SG-S226	PDI-SG-S227	PDI-SG-S228	PDI-SG-S229	PDI-SG-S230	PDI-SG-S231	PDI-SG-S233	PDI-SG-S234
		Sample Date	01 May 2018	20 Jun 2018	14 May 2018	18 Jun 2018	20 Jun 2018	01 May 2018	01 May 2018	02 May 2018	01 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-26 cm	0-27 cm	0-20 cm	0-28 cm	0-27 cm	0-28 cm	0-24 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.039	0.0036 JN	0.0036 JN	< 0.00046 U	0.016 JN	0.032	0.025	0.018	0.022 J
PCB-77	32598-13-3	ng/g	0.13	0.028	0.026	0.0036 J	0.077 J	0.098	0.090	0.075	0.085 J
PCB-78	70362-49-1	ng/g	< 0.0026 U	< 0.0017 UJ	< 0.0024 U	< 0.00047 U	< 0.0091 U	< 0.0021 U	< 0.0027 U	< 0.0046 U	< 0.0020 UJ
PCB-79	41464-48-6	ng/g	0.033	0.0049 J	0.0032 JN	0.00091 J	0.018 J	0.018 JN	0.018	0.011 JN	0.019 J
PCB-8	34883-43-7	ng/g	0.17	0.073	0.055	0.013 JN	0.060 JN	0.11	0.091	0.49	0.091 J
PCB-80	33284-52-5	ng/g	< 0.0023 U	< 0.0014 UJ	< 0.0020 U	< 0.00040 U	< 0.0078 U	< 0.0019 U	< 0.0024 U	< 0.0039 U	< 0.0018 UJ
PCB-81	70362-50-4	ng/g	0.0047 J	< 0.0015 U	< 0.0021 U	< 0.00042 U	< 0.0081 U	< 0.0020 U	< 0.0025 U	< 0.0041 U	0.0028 J
PCB-82	52663-62-4	ng/g	0.34	0.076	0.067	0.020 JN	0.22	0.22	0.28	0.17 JN	0.20 J
PCB-83/99	60145-20-2	ng/g	2.4	0.36	0.34	0.11	1.7	1.8	2.1	1.6	1.8 J
PCB-84	52663-60-2	ng/g	0.88	0.15	0.12 JN	0.061	0.52	0.66	0.66	0.48	0.49 J
PCB-85/116/117	65510-45-4	ng/g	0.47	0.11	0.10	0.033	0.35	0.32	0.38	0.30	0.29 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.9	0.38	0.35	0.12	1.3	1.3	1.6	1.2	1.3 J
PCB-88/91	55215-17-3	ng/g	0.83	0.094	0.084	0.032	0.55	0.59	0.71	0.55	0.52 J
PCB-89	73575-57-2	ng/g	0.029	0.0085 J	< 0.00057 U	< 0.00015 U	0.028 J	0.021 JN	0.024 JN	0.018 JN	0.020 J
PCB-9	34883-39-1	ng/g	0.013 J	0.0046 JN	< 0.0054 U	< 0.0015 U	< 0.014 U	0.011 J	0.0060 JN	0.053 JN	0.0057 JN
PCB-90/101/113	68194-07-0	ng/g	4.2	0.59	0.57	0.23	2.9	2.9	3.6	2.9	2.8 J
PCB-92	52663-61-3	ng/g	1.0	0.11	0.088 JN	0.045	0.65	0.72	0.87	0.58	0.67 J
PCB-93/100	73575-56-1	ng/g	0.24	0.013 JN	0.011 JN	0.019 J	0.23	0.18	0.24	0.20	0.19 J
PCB-94	73575-55-0	ng/g	0.068	< 0.00037 U	< 0.00057 U	< 0.00015 U	0.050 JN	0.043	0.065	0.044 JN	0.047 JN
PCB-95	38379-99-6	ng/g	3.5	0.47	0.47	0.26	2.3	2.5	2.8	2.3	2.2 J
PCB-96	73575-54-9	ng/g	0.060	0.0058 J	0.0050 J	< 0.00012 U	0.047 J	0.040	0.053	0.046	0.046 J
PCB-98/102	60233-25-2	ng/g	0.20	0.021 J	0.014 JN	0.0065 JN	0.11 JN	0.14	0.18	0.16	0.14 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	117	15	14	5	76	83	87	85	79
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.83	< 4.7 U	< 1.3 U	< 0.27 U	< 0.68 U	0.51 J	0.71 J	< 1.5 UJ	0.56 J
2,4-DDE	3424-82-6	µg/kg	< 0.70 U	< 4.7 U	< 1.3 U	< 0.27 U	< 0.68 U	< 0.78 U	< 0.80 U	< 1.5 UJ	< 0.85 U
2,4-DDT	789-02-6	µg/kg	< 0.70 U	< 4.7 U	< 1.3 U	< 0.27 UJ	< 0.68 U	< 0.78 U	< 0.80 U	< 1.5 UJ	< 0.85 U
4,4'-DDD	72-54-8	µg/kg	2.3 J	< 4.7 U	1.1 J	0.19 J	1.2	2.0 J	2.1 J	2.0 J	1.7 J
4,4'-DDE	72-55-9	µg/kg	5.5	< 4.7 U	3.1	< 0.27 U	4.1	4.3	5.0	4.0 J	4.1
4,4'-DDT	50-29-3	µg/kg	0.53 J	< 4.7 U	< 1.3 U	< 0.27 U	0.41 J	0.61 J	0.66 J	< 1.5 UJ	0.53 J
DDx (b)	T_DDx (PDI)	µg/kg	9.5	< 4.7 U	4.9	0.3	6.1	7.8	8.9	6.8	7.3
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	12	9.4 J	4.4	< 1.3 U	25 J	9.2	9.9	12	8.5 J
Acenaphthene	83-32-9	µg/kg	14	9.4 J	6.3	2.4	38	11	13	13	8.2
Acenaphthylene	208-96-8	µg/kg	15	8.6 J	2.9	< 1.3 U	44	13	14	17	14
Anthracene	120-12-7	µg/kg	37	24	9.2	3.8	120	29	33	41	29
Benz(a)anthracene	56-55-3	µg/kg	140	24	26	6.3	210	110	130	140	110
Benzo(a)pyrene	50-32-8	µg/kg	160	18 J	32	5.6	140 J	120	140	140	130
Benzo(b)fluoranthene	205-99-2	µg/kg	260	36	49	9.3	340	200	240	300	230
Benzo(g,h,i)perylene	191-24-2	µg/kg	150	13	18	5.0	110	120	130	140	140
Benzo(k)fluoranthene	207-08-9	µg/kg	88	11	16	2.7	99	71	79	67	80
Chrysene	218-01-9	µg/kg	230	37	47	6.3	290	150	250	250	160
Dibenz(a,h)anthracene	53-70-3	µg/kg	32	3.1 J	3.7	1.1 J	44	22	27	27	27
Fluoranthene	206-44-0	µg/kg	340	89	89	11	660	330	400	430	310
Fluorene	86-73-7	µg/kg	16	9.7 J	10	< 1.3 U	60	15	20	24	14
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	140	23	18	5.6	170	110	120	120	120
Naphthalene	91-20-3	µg/kg	30	11	5.2	1.7	44	23	50	19	20
Phenanthrene	85-01-8	µg/kg	120	44	44	4.9	190	93	140	110	92
Pyrene	129-00-0	µg/kg	420	70	74	17	600	360	430	410	360
Total PAHs (b)	T_PAH (PDI)	µg/kg	2204	440	455	83	3184	1786	2226	2260	1853
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	247	30	177	9	257	185	217	224	204
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	33.9	39.7 42.7	40.4	74.4	29.0 32.6	30.7	30.1	33.1	28.5
Total Solids@104C - E160.3M (f)	TSOLID	%	34.8	41.6	39.6	71.7	28.8	31.4	30.7	32.7	28.9
Total Solids@70C	TSOLID70	%	35	42	38	79	29	32	31	33	29
Gravel	GS-Gravel	%	0	0	0	2.9	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0.1	0	0.1	1.5	0	0	0	0.1	0

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S225	S226	S227	S228	S229	S230	S231	S233	S234
		Sample ID	PDI-SG-S225	PDI-SG-S226	PDI-SG-S227	PDI-SG-S228	PDI-SG-S229	PDI-SG-S230	PDI-SG-S231	PDI-SG-S233	PDI-SG-S234
		Sample Date	01 May 2018	20 Jun 2018	14 May 2018	18 Jun 2018	20 Jun 2018	01 May 2018	01 May 2018	02 May 2018	01 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-25 cm	0-26 cm	0-27 cm	0-20 cm	0-28 cm	0-27 cm	0-28 cm	0-24 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	0.5	1.1	0.3	40.1	0.8	0.7	0.4	0.6	0.3
Sand, Fine (#200) (d)	GS-Fsand-200	%	7.925	9.234	8.184	46.13	5.57	7.168	6.12	11.39	4.297
Sand, Fine (#230) (d)	GS-Fsand	%	9.1	10.9	11.1	46.6	6.3	8.1	7.0	14.0	5.1
Silt (#200) (d)	GS-Silt-200	%	65.77	81.56	78.91	5.865	75.52	66.63	66.07	70.40	66.90
Silt (#230) (d)	GS-Silt	%	64.6	79.9	76.0	5.4	74.8	65.7	65.2	67.8	66.1
Clay	GS-Clay	%	25.7	8.0	12.5	3.6	18.1	25.5	27.5	17.4	28.5
Percent Fines (e)	GS-FINES	%	91.47	89.56	91.41	9.465	93.62	92.13	93.57	87.8	95.4
Total Organic Carbon	TOC	mg/kg	24000	35000	28000	3600	32000	26000	26000	28000	29000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S235	S236	S237	S238	S239	S240	S240	S241	S242
		Sample ID	PDI-SG-S235	PDI-SG-S236	PDI-SG-S237	PDI-SG-S238	PDI-SG-S239	PDI-SG-S240	PDI-SG-S240-D	PDI-SG-S241	PDI-SG-S242
		Sample Date	01 May 2018	02 May 2018	15 Jun 2018	01 May 2018	02 May 2018	22 May 2018	22 May 2018	01 May 2018	02 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-29 cm	0-30 cm	0-28 cm	0-28 cm	0-28 cm	0-16 cm	0-16 cm	0-28 cm	0-21 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.53	0.17	0.13	0.71	0.50	0.017	0.012	0.29	0.19
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.097	0.023 JN	0.018 JN	0.10	0.074 JN	0.0060	0.0046	0.050	0.025
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0048 JN	0.0016 J+	0.0017 J	0.0064 J	0.0049 J	0.00062 J+	0.00069 JN	0.0034 J	< 0.00026 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0056 J	0.0019 J	0.0015 JN	0.0071 J	0.0050 J	0.00046 J+	0.00032 J+	0.0033 J	0.00083 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.010	0.0036 J	0.0025 J	0.012	0.0072 J	0.0016 J	0.0011 J	0.0056 J	0.0044
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.019	0.0055 J	0.0041 J	0.025	0.017	0.0012 J	0.00067 JN	0.013	0.0062
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0052 J	0.0014 J	0.0012 J	0.0048 J	0.0038 J	0.00058 J+	0.00042 J+	0.0036 J	0.0012 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0098	0.0036 J	0.0028 JN	0.013	0.0080	0.0012 J	0.00070 J	0.0064	0.0019 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00064 J+	< 0.00021 U	0.0010 J+	0.00061 J+	< 0.00054 U	< 0.00037 U	< 0.00046 U	< 0.00037 U	< 0.00024 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0030 J	0.0012 J	0.00055 J	0.0036 J	0.0035 J	0.00030 J+	0.00016 J+	0.0019 J	0.00044 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0024 J	0.00070 J	0.00078 J	0.0018 J	0.0020 J	0.00030 J+	0.00025 J+	0.0014 J	0.0010 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0029 J	0.0010 J	0.00079 J	0.0028 J	0.0022 J	0.00065 J	0.00045 J+	0.0016 J	0.00068 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0029 J	0.0011 J	0.00086 JN	0.0032 J	0.0025 J	0.00052 J+	0.00034 J+	0.0021 J	0.0011 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00072 JN	0.00033 JN	< 0.00014 U	0.00090 JN	0.00089 J	0.0032	< 0.00013 U	0.00078 JN	0.00021 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0027	0.0011	0.00079 J	0.0029	0.0026	0.00024 J+	< 0.00016 U	0.0027	0.0013
OCDD	3268-87-9	µg/kg	4.1	1.2	0.84	5.4	3.6	0.11	0.094	2.4	1.5
OCDF	39001-02-0	µg/kg	0.28	0.076	0.046	0.29	0.26	0.013	0.0097	0.14	0.026
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.018	0.006	0.0041	0.022	0.017	0.0045	0.0009	0.011	0.0053
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.017	0.0059	0.0035	0.022	0.017	0.0045	0.00083	0.011	0.0053
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.017	0.0057	0.0034	0.021	0.017	0.0045	0.00077	0.01	0.0053
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.051	0.012	0.015	0.063	0.024 JN	< 0.00026 U	< 0.0023 U	0.076 JN	0.0064 JN
PCB-10	33146-45-1	ng/g	0.0061 J	< 0.0070 U	0.0031 JN	0.0045 J	< 0.0056 U	< 0.00034 U	< 0.00042 U	0.0065 JN	< 0.0083 U
PCB-103	60145-21-3	ng/g	0.14	0.050 JN	0.011 J	0.14	0.12	< 0.00030 U	< 0.00014 U	0.14	0.0034 JN
PCB-104	56558-16-8	ng/g	< 0.0015 U	< 0.00086 U	< 0.00041 U	< 0.00078 U	< 0.00051 U	< 0.00024 U	< 0.00011 U	< 0.0014 U	< 0.00050 U
PCB-105	32598-14-4	ng/g	0.86	0.28	0.28	0.75	1.0	0.0038 J	0.0024 JN	0.71	0.055
PCB-106	70424-69-0	ng/g	< 0.011 U	< 0.0045 U	< 0.0023 U	< 0.0043 U	< 0.0076 U	< 0.00037 U	< 0.00042 U	< 0.0084 U	< 0.0020 U
PCB-107	70424-68-9	ng/g	0.25	0.10	0.054	0.24	0.29	0.00051 JN	< 0.00040 U	0.28	0.0095 JN
PCB-108/124	70362-41-3	ng/g	0.088 JN	0.036	0.028	0.091	0.12	0.00049 JN	< 0.00042 U	0.090	< 0.0020 U
PCB-11	2050-67-1	ng/g	0.18	0.081	0.066	0.20	0.18	0.0043 J+	< 0.0015 U	0.15	0.026 JN
PCB-110/115	38380-03-9	ng/g	3.0	1.3	0.97	3.0	3.0	0.014 J	0.0099 J	3.6	0.21
PCB-111	39635-32-0	ng/g	< 0.0013 U	< 0.00080 U	< 0.00037 U	0.012 J	< 0.00047 U	< 0.00021 U	< 0.000097 U	0.015	< 0.00047 U
PCB-112	74472-36-9	ng/g	< 0.0014 U	0.0050 J	< 0.00040 U	< 0.00076 U	< 0.00049 U	< 0.00023 U	0.00017 JN	< 0.0014 U	< 0.00049 U
PCB-114	74472-37-0	ng/g	0.049	0.017 JN	0.014 JN	0.044	0.050	< 0.00032 U	< 0.00037 U	0.044 JN	< 0.0018 U
PCB-118	31508-00-6	ng/g	2.4	0.85	0.66	2.2	2.9	0.0081 J	0.0056 JN	2.3	0.14
PCB-12/13	2974-92-7	ng/g	0.028 J	0.012 JN	0.028	0.031	0.020 JN	< 0.00029 U	0.00066 JN	0.039	< 0.0075 U
PCB-120	68194-12-7	ng/g	0.031	0.011 JN	0.0038 JN	0.026 JN	0.017 JN	< 0.00021 U	< 0.000096 U	0.049	0.0020 JN
PCB-121	56558-18-0	ng/g	< 0.0014 U	< 0.00083 U	< 0.00039 U	< 0.00074 U	< 0.00049 U	< 0.00022 U	< 0.00010 U	< 0.0013 U	< 0.00049 U
PCB-122	76842-07-4	ng/g	0.042	0.016	0.015	0.040	0.041	< 0.00040 U	< 0.00046 U	0.035 JN	< 0.0023 U
PCB-123	65510-44-3	ng/g	0.040	0.012	0.015	0.040	0.034 JN	< 0.00032 U	< 0.00036 U	0.040	< 0.0018 U
PCB-126	57465-28-8	ng/g	< 0.012 U	0.0070 J	< 0.0023 U	0.013 JN	0.021 JN	< 0.00037 U	< 0.00041 U	< 0.0091 U	< 0.0025 U
PCB-127	39635-33-1	ng/g	< 0.011 U	< 0.0045 U	< 0.0022 U	< 0.0041 U	< 0.0076 U	< 0.00035 U	< 0.00040 U	< 0.0081 U	< 0.0020 U
PCB-128/166	38380-07-3	ng/g	1.0	0.35	0.20	0.87	1.1	0.0071 J	0.0057 J	0.77	0.053
PCB-129/138/160/163	55215-18-4	ng/g	7.7	3.3	1.2	7.4	9.1	0.036 J	0.034 J	5.4	0.29
PCB-130	52663-66-8	ng/g	0.51	0.18	0.076	0.51	0.53	< 0.00069 U	0.0019 J	0.40	0.017
PCB-131	61798-70-7	ng/g	0.086	0.036	0.015	0.074	0.078	< 0.00070 U	0.00062 J	0.062 JN	< 0.0057 U
PCB-132	38380-05-1	ng/g	2.6	1.0	0.38	2.5	2.8	0.0065 J	0.0062 JN	2.0	0.14
PCB-133	35694-04-3	ng/g	0.21	0.078 JN	0.024	0.21	0.18	< 0.00065 U	0.00049 JN	0.18	0.0059 J
PCB-134/143	52704-70-8	ng/g	0.53	0.20	0.084	0.48	0.49	< 0.00068 U	< 0.00038 U	0.36	< 0.0054 U
PCB-135/151	52744-13-5	ng/g	2.2 J	0.97	0.36	2.1	2.3	0.0063 J	0.0081 J	2.2	0.12
PCB-136	38411-22-2	ng/g	0.81 J	0.36	0.13	0.84	0.98	0.0020 JN	0.0020 JN	0.77	0.043
PCB-137	35694-06-5	ng/g	0.24	0.071 JN	0.054	0.23	0.21	< 0.00056 U	0.0014 J	0.19	0.0078 JN
PCB-139/140	56030-56-9	ng/g	0.14	0.044 JN	0.022 J	0.14	0.11 JN	0.00067 JN	< 0.00033 U	0.13	< 0.0046 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S235	S236	S237	S238	S239	S240	S240	S241	S242
		Sample ID	PDI-SG-S235	PDI-SG-S236	PDI-SG-S237	PDI-SG-S238	PDI-SG-S239	PDI-SG-S240	PDI-SG-S240-D	PDI-SG-S241	PDI-SG-S242
		Sample Date	01 May 2018	02 May 2018	15 Jun 2018	01 May 2018	02 May 2018	22 May 2018	22 May 2018	01 May 2018	02 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-29 cm	0-30 cm	0-28 cm	0-28 cm	0-28 cm	0-16 cm	0-16 cm	0-28 cm	0-21 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.0021 U	< 0.0054 U	< 0.00073 U	< 0.00084 U	< 0.0043 U	< 0.00027 U	< 0.00033 U	< 0.0021 U	< 0.0064 U
PCB-141	52712-04-6	ng/g	1.6	0.61	0.23	1.5	1.7	0.0045 J	0.0050 J	1.1	0.061
PCB-142	41411-61-4	ng/g	< 0.0096 U	< 0.011 U	< 0.0043 U	< 0.0050 U	< 0.026 U	< 0.00066 U	< 0.00037 U	< 0.0084 U	< 0.0051 U
PCB-144	68194-14-9	ng/g	0.23 J	0.090	0.047	0.22	0.22	0.00079 JN	0.00066 J+	0.19	< 0.00037 U
PCB-145	74472-40-5	ng/g	< 0.0011 UJ	0.0019 JN	0.0016 JN	0.0028 J	< 0.00042 U	< 0.000045 U	< 0.000045 U	< 0.00070 U	< 0.00028 U
PCB-146	51908-16-8	ng/g	1.6	0.69	0.18	1.7	1.8	0.0042 JN	0.0064 J	1.4	0.067
PCB-147/149	68194-13-8	ng/g	7.4	3.7	0.87	7.6	9.8	0.018 J	0.019 J	5.8	0.38
PCB-148	74472-41-6	ng/g	0.024 JN	0.013	0.0050 J	0.039	0.031	< 0.000060 U	< 0.000060 U	0.038	< 0.00039 U
PCB-15	2050-68-2	ng/g	0.13	0.041 JN	0.12	0.14	0.13	< 0.00032 U	< 0.00042 U	0.16	< 0.0076 U
PCB-150	68194-08-1	ng/g	0.031 J	0.013	0.0033 J	0.034	0.034	< 0.000040 U	< 0.000040 U	0.030	< 0.00027 U
PCB-152	68194-09-2	ng/g	0.014 JN	0.0053 J	0.0014 JN	0.0098 JN	0.010 JN	< 0.000043 U	< 0.000043 U	0.010 J	< 0.00029 U
PCB-153/168	35065-27-1	ng/g	7.4	3.2	0.88	7.2	8.4	0.027	0.026	5.5	0.30
PCB-154	60145-22-4	ng/g	0.18 J	0.071	0.021 JN	0.18	0.15	0.00092 J	0.00031 JN	0.20 JN	0.0058 JN
PCB-155	33979-03-2	ng/g	< 0.0010 UJ	< 0.0011 U	< 0.00037 U	< 0.00078 U	< 0.00041 U	< 0.000041 U	< 0.000041 U	< 0.00065 U	< 0.00027 U
PCB-156/157	38380-08-4	ng/g	0.61	0.20 JN	0.12	0.57	0.73	0.0036 J	0.0032 J	0.46	0.022 JN
PCB-158	74472-42-7	ng/g	0.67	0.25	0.12	0.57	0.77	0.0025 JN	0.0032 J	0.43	0.032
PCB-159	39635-35-3	ng/g	0.057 JN	0.031	0.013	0.073	0.077	< 0.00042 U	0.00051 J	0.062	< 0.0034 U
PCB-16	38444-78-9	ng/g	0.050 JN	0.014 JN	0.069	0.050	0.076	0.0014 JN	0.0013 JN	0.12 JN	0.0054 JN
PCB-161	74472-43-8	ng/g	< 0.0063 U	< 0.0075 U	< 0.0028 U	< 0.0032 U	< 0.017 U	< 0.00043 U	< 0.00024 U	< 0.0055 U	< 0.0034 U
PCB-162	39635-34-2	ng/g	< 0.0060 U	0.010 JN	< 0.0026 U	< 0.0031 U	< 0.017 U	< 0.00041 U	< 0.00023 U	< 0.0052 U	< 0.0034 U
PCB-164	74472-45-0	ng/g	0.62	0.25	0.079	0.60	0.68	0.0018 JN	0.0019 JN	0.44	0.015 JN
PCB-165	74472-46-1	ng/g	< 0.0072 U	< 0.0085 U	< 0.0032 U	< 0.0037 U	< 0.020 U	< 0.00049 U	< 0.00028 U	< 0.0063 U	< 0.0039 U
PCB-167	52663-72-6	ng/g	0.22	0.092	0.041	0.21	0.27	0.0018 JN	0.0016 JN	0.16	0.016
PCB-169	32774-16-6	ng/g	< 0.0048 U	< 0.0060 U	< 0.0021 U	< 0.0025 U	0.021 JN	< 0.00033 U	< 0.00019 U	< 0.0043 U	< 0.0028 U
PCB-17	37680-66-3	ng/g	0.088	0.042	0.10	0.081 JN	0.11	< 0.00014 U	0.00054 JN	0.21	0.0068 JN
PCB-170	35065-30-6	ng/g	2.4	1.0	0.30	2.4	3.1	0.017	0.019	1.9	0.13
PCB-171/173	52663-71-5	ng/g	0.71	0.26	0.088	0.65	0.79	0.0037 J	0.0037 JN	0.55	0.040
PCB-172	52663-74-8	ng/g	0.40	0.15	0.052	0.34	0.45	< 0.00034 U	0.0031 JN	0.30	0.010 JN
PCB-174	38411-25-5	ng/g	2.7	0.92	0.34	2.2	2.7	0.0087 JN	0.014	2.1	0.099
PCB-175	40186-70-7	ng/g	0.084 JN	0.030 JN	0.013	0.085	0.098	0.00086 J+	0.00055 J+	0.077	< 0.0024 U
PCB-176	52663-65-7	ng/g	0.30	0.13	0.035	0.28	0.33	< 0.00022 U	0.0015 J	0.23	0.012
PCB-177	52663-70-4	ng/g	1.5	0.58	0.20	1.5	1.6	< 0.00035 UJ	0.0099 JN	1.3	0.061 JN
PCB-178	52663-67-9	ng/g	0.52	0.22	0.071	0.48	0.58	0.0035 J	0.0040 JN	0.42	0.021
PCB-179	52663-64-6	ng/g	1.1	0.49	0.14	1.1	1.3	0.0026 JN	0.0052 J	0.89	0.049
PCB-18/30	37680-65-2	ng/g	0.11	0.061	0.14	0.14	0.21	0.0020 JN	< 0.00018 U	0.29	0.014 J
PCB-180/193	35065-29-3	ng/g	4.8	1.9	0.68	4.1	5.7	0.031	0.034	3.6	0.21
PCB-181	74472-47-2	ng/g	< 0.0017 U	< 0.0034 U	< 0.000066 U	< 0.0017 U	< 0.00087 U	< 0.00030 U	0.00070 J	< 0.0017 U	< 0.0024 U
PCB-182	60145-23-5	ng/g	0.025	0.011 JN	< 0.000063 U	< 0.0016 U	0.022 JN	< 0.00029 U	< 0.000030 U	0.024	< 0.0023 U
PCB-183/185	52663-69-1	ng/g	1.6	0.67	0.21	1.4	1.8	0.0074 J	0.0069 JN	1.3	0.066
PCB-184	74472-48-3	ng/g	< 0.0014 U	< 0.0028 U	< 0.000054 U	< 0.0014 U	< 0.00071 U	< 0.00025 U	< 0.000025 U	< 0.0014 U	< 0.0020 U
PCB-186	74472-49-4	ng/g	< 0.0013 U	< 0.0027 U	< 0.000052 U	< 0.0013 U	< 0.00069 U	< 0.00024 U	< 0.000024 U	< 0.0013 U	< 0.0019 U
PCB-187	52663-68-0	ng/g	3.2	1.2	0.43	2.7	3.4	0.022	0.025	2.5	0.14 JN
PCB-188	74487-85-7	ng/g	< 0.0012 U	< 0.0022 U	< 0.000048 U	< 0.0011 U	< 0.00054 U	< 0.00022 U	< 0.000023 U	< 0.0012 U	< 0.0015 U
PCB-189	39635-31-9	ng/g	0.10	0.031	0.011 J	0.083	0.085	0.00049 JN	0.00040 JN	0.077	< 0.0036 U
PCB-19	38444-73-4	ng/g	0.084 JN	0.044	0.032	0.076	0.12	0.0011 J	< 0.00025 U	0.083	0.0035 JN
PCB-190	41411-64-7	ng/g	0.41	0.15	0.060	0.38	0.46	0.0030 J	0.0029 JN	0.31	0.015 JN
PCB-191	74472-50-7	ng/g	0.098	0.035 JN	0.014	0.080	0.10	< 0.00023 U	0.00029 J	0.073 JN	< 0.0018 U
PCB-192	74472-51-8	ng/g	< 0.0014 U	< 0.0029 U	< 0.000053 U	< 0.0013 U	< 0.00073 U	< 0.00024 U	< 0.000025 U	< 0.0013 U	< 0.0020 U
PCB-194	35694-08-7	ng/g	1.2	0.53	0.21	1.4	1.4	0.0092 J	0.0088 J	1.0	0.079
PCB-195	52663-78-2	ng/g	0.51	0.24	0.075	0.59	0.58	0.0056 J	0.0045 J	0.44	0.042
PCB-196	42740-50-1	ng/g	0.44 J	0.19	0.096	0.44	0.63	0.0027 JN	0.0038 JN	0.40	0.021
PCB-197	33091-17-7	ng/g	0.033 J	0.019	0.0064 J	0.040	0.034 JN	< 0.00026 U	< 0.000087 U	0.039	< 0.0013 U
PCB-198/199	68194-17-2	ng/g	0.92 J	0.43	0.26	1.3	1.3	0.011 J	0.011 J	0.84	0.044
PCB-2	2051-61-8	ng/g	0.044	0.020	0.0070 J+	0.060	0.049	< 0.00027 U	< 0.0011 U	0.036	0.0054 JN

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S235	S236	S237	S238	S239	S240	S240	S241	S242
		Sample ID	PDI-SG-S235	PDI-SG-S236	PDI-SG-S237	PDI-SG-S238	PDI-SG-S239	PDI-SG-S240	PDI-SG-S240-D	PDI-SG-S241	PDI-SG-S242
		Sample Date	01 May 2018	02 May 2018	15 Jun 2018	01 May 2018	02 May 2018	22 May 2018	22 May 2018	01 May 2018	02 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-29 cm	0-30 cm	0-28 cm	0-28 cm	0-28 cm	0-16 cm	0-16 cm	0-28 cm	0-21 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.38	0.14	0.44	0.45	0.46	0.0030 J	0.0023 J	1.1	0.030 J
PCB-200	52663-73-7	ng/g	0.11 J	0.041 JN	0.029	0.13	0.13	< 0.00029 U	0.00090 JN	0.11	< 0.0011 U
PCB-201	40186-71-8	ng/g	0.11 J	0.091 JN	0.028	0.13	0.13 JN	0.0011 J	0.0014 JN	0.11	< 0.0012 U
PCB-202	2136-99-4	ng/g	0.19 J	0.090	0.055	0.29	0.24	0.0029 J	0.0026 J	0.16	0.010
PCB-203	52663-76-0	ng/g	0.56 J	0.22	0.16	0.75	0.79	0.0052 JN	0.0050 JN	0.56	0.032
PCB-204	74472-52-9	ng/g	< 0.0036 UJ	< 0.0027 U	< 0.00091 U	< 0.0041 U	< 0.00054 U	< 0.00029 U	< 0.000096 U	< 0.0073 U	< 0.0013 U
PCB-205	74472-53-0	ng/g	0.064	0.028	0.0093 J	0.063	0.075	< 0.00070 U	< 0.00021 U	0.051	< 0.0061 U
PCB-206	40186-72-9	ng/g	0.53	0.24	0.19 JN	3.1 JN	0.53	0.12 JN	0.011 JN	0.59 JN	0.028 JN
PCB-207	52663-79-3	ng/g	0.049	0.020 JN	0.016 JN	0.099	0.050 JN	< 0.0018 U	< 0.00069 U	0.047	< 0.0032 U
PCB-208	52663-77-1	ng/g	0.13	0.080	0.040	0.30	0.16	< 0.0020 U	0.0034 J	0.12	0.011
PCB-209	2051-24-3	ng/g	0.26	0.20	0.096	0.41	0.32	0.0089 J	0.0070 JN	0.30	0.017
PCB-21/33	55702-46-0	ng/g	0.15 JN	0.059	0.19	0.19	0.18	0.0014 JN	0.00093 JN	0.47	0.013 J
PCB-22	38444-85-8	ng/g	0.093	0.031	0.15	0.097	0.11	0.0012 JN	< 0.00059 U	0.26	0.0065 J
PCB-23	55720-44-0	ng/g	< 0.0032 U	< 0.0021 U	< 0.0024 U	< 0.0028 U	< 0.0031 U	< 0.00034 U	< 0.00031 U	< 0.0077 U	< 0.0012 UJ
PCB-24	55702-45-9	ng/g	0.0020 J	0.0026 J	0.0026 JN	< 0.00069 U	0.0052 JN	< 0.00010 U	< 0.00016 U	0.0048 JN	< 0.00026 UJ
PCB-25	55712-37-3	ng/g	0.034	0.014	0.057	0.039	0.038	< 0.00032 U	< 0.00029 U	0.096	< 0.0011 UJ
PCB-26/29	38444-81-4	ng/g	0.045	0.018 J	0.089	0.054	0.056	0.00068 JN	< 0.00031 U	0.14 JN	0.0048 JN
PCB-27	38444-76-7	ng/g	0.027	0.011 JN	0.022	0.024 JN	0.033	< 0.00010 U	< 0.00015 U	0.048 JN	< 0.00022 UJ
PCB-3	2051-62-9	ng/g	0.036 JN	0.012 JN	0.012 J	0.068	0.023	< 0.0011 U	< 0.0025 U	0.053	0.0037 JN
PCB-31	16606-02-3	ng/g	0.23	0.094	0.34	0.26	0.31	0.0022 JN	0.0016 JN	0.67	0.020 JN
PCB-32	38444-77-8	ng/g	0.090	0.035	0.071	0.078	0.094	0.0012 JN	0.00053 JN	0.18	0.0044 J
PCB-34	37680-68-5	ng/g	< 0.0033 U	< 0.0022 U	< 0.0025 U	0.0030 JN	< 0.0032 U	< 0.00035 U	< 0.00032 U	0.012 JN	< 0.0012 UJ
PCB-35	37680-69-6	ng/g	0.0095 JN	< 0.0021 U	0.0075 J	0.012 J	0.010 J	< 0.00033 U	< 0.00030 U	0.019	< 0.0012 UJ
PCB-36	38444-87-0	ng/g	< 0.0029 U	< 0.0020 U	< 0.0022 U	< 0.0025 U	< 0.0030 U	< 0.00030 U	< 0.00028 U	< 0.0069 U	< 0.0012 UJ
PCB-37	38444-90-5	ng/g	0.15 JN	0.057	0.13	0.17	0.17	0.00083 J+	0.00049 JN	0.29	0.013
PCB-38	53555-66-1	ng/g	< 0.0031 U	< 0.0022 U	< 0.0024 U	< 0.0027 U	< 0.0032 U	< 0.00033 U	< 0.00030 U	< 0.0075 U	< 0.0013 UJ
PCB-39	38444-88-1	ng/g	< 0.0028 U	< 0.0020 U	< 0.0021 U	< 0.0025 U	0.0046 J	< 0.00030 U	< 0.00027 U	< 0.0068 U	< 0.0011 UJ
PCB-4	13029-08-8	ng/g	0.055	0.037	0.069	0.059	0.067	< 0.00046 U	< 0.00052 U	0.12	< 0.011 U
PCB-40/41/71	38444-93-8	ng/g	0.40	0.15	0.20	0.43	0.61	< 0.00036 U	< 0.00021 U	0.51	0.020 J
PCB-42	36559-22-5	ng/g	0.18	0.061	0.10	0.20	0.26	< 0.00037 U	0.00028 JN	0.28	0.0088 JN
PCB-43/73	70362-46-8	ng/g	0.029 J	0.020 J	0.019 J	0.023 JN	0.030 JN	< 0.00033 U	< 0.00019 U	0.036 JN	< 0.0018 U
PCB-44/47/65	41464-39-5	ng/g	1.5	0.49	0.45	1.2	1.8	0.0048 JN	0.0026 J	1.2	0.063 J+
PCB-45/51	70362-45-7	ng/g	0.47	0.16	0.10	0.37	0.60	< 0.00038 U	< 0.00022 U	0.32	0.012 J+
PCB-46	41464-47-5	ng/g	0.038 JN	0.020	0.027	0.044	0.076	< 0.00045 U	< 0.00025 U	0.068	< 0.0025 U
PCB-48	70362-47-9	ng/g	0.088	0.038	0.070	0.093	0.14	< 0.00035 U	< 0.00020 U	0.15	0.0059 J
PCB-49/69	41464-40-8	ng/g	0.78	0.27	0.25	0.77	1.0	0.0015 JN	0.0011 JN	0.94	0.030 JN
PCB-5	16605-91-7	ng/g	< 0.0025 U	< 0.0071 U	< 0.00087 U	0.0034 J	< 0.0057 U	< 0.00032 U	< 0.00039 U	0.0047 JN	< 0.0085 U
PCB-50/53	62796-65-0	ng/g	0.35	0.11	0.064	0.29	0.41	< 0.00036 U	< 0.00021 U	0.27	0.011 J
PCB-52	35693-99-3	ng/g	1.9	0.48	0.54	1.7	2.3	0.0071 J	0.0019 JN	1.9	0.054 JN
PCB-54	15968-05-5	ng/g	0.048	0.022	0.0034 JN	0.027 JN	0.036	< 0.000050 U	< 0.000046 U	0.022 JN	< 0.00028 U
PCB-55	74338-24-2	ng/g	< 0.0045 U	0.0049 JN	< 0.0016 U	< 0.0027 U	0.010 J	< 0.00025 U	0.00037 J	0.029	< 0.0014 U
PCB-56	41464-43-1	ng/g	0.30	0.097	0.15	0.32	0.33	0.0011 J+	0.00033 JN	0.43	0.011 JN
PCB-57	70424-67-8	ng/g	< 0.0046 U	< 0.0032 U	< 0.0016 U	< 0.0027 U	< 0.0073 U	< 0.00025 U	< 0.00014 U	< 0.0029 U	< 0.0014 U
PCB-58	41464-49-7	ng/g	0.014 JN	0.0038 JN	< 0.0015 U	0.0099 J	< 0.0074 U	< 0.00024 U	< 0.00014 U	0.0052 JN	< 0.0015 U
PCB-59/62/75	74472-33-6	ng/g	0.077 JN	0.033 J	0.037 J	0.088	0.12	< 0.00025 U	< 0.00014 U	0.091 JN	0.0040 J
PCB-6	25569-80-6	ng/g	0.024 JN	0.013 JN	0.039	0.036 JN	0.030	< 0.00032 U	< 0.00039 U	0.066	< 0.0074 U
PCB-60	33025-41-1	ng/g	0.10	0.033	0.072	0.10	0.085 JN	< 0.00025 U	0.00034 JN	0.12	0.0074 J
PCB-61/70/74/76	33284-53-6	ng/g	1.6	0.48	0.56	1.5	1.7	0.0049 JN	0.0026 JN	1.8	0.069
PCB-63	74472-34-7	ng/g	0.032	0.0094 JN	0.012 J	0.031	0.030	< 0.00022 U	< 0.00012 U	0.036 JN	< 0.0013 U
PCB-64	52663-58-8	ng/g	0.29	0.10	0.14	0.30	0.44	0.00091 JN	0.00044 JN	0.38	0.017 JN
PCB-66	32598-10-0	ng/g	0.94	0.30	0.35	0.95	0.95	0.0020 JN	0.0014 J+	1.2	0.041
PCB-67	73575-53-8	ng/g	0.014 JN	0.0080 J	0.0080 JN	0.023	0.018 JN	< 0.00023 U	< 0.00013 U	0.022 JN	< 0.0012 U
PCB-68	73575-52-7	ng/g	0.029	0.011 J+	0.0042 J	0.025	0.018 J+	< 0.00022 U	< 0.00048 U	0.032	< 0.0039 U
PCB-7	33284-50-3	ng/g	0.0076 J	< 0.0064 U	0.0029 JN	0.010 J	0.0096 JN	0.00065 JN	< 0.00037 U	0.010 JN	< 0.0076 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S235	S236	S237	S238	S239	S240	S240	S241	S242
		Sample ID	PDI-SG-S235	PDI-SG-S236	PDI-SG-S237	PDI-SG-S238	PDI-SG-S239	PDI-SG-S240	PDI-SG-S240-D	PDI-SG-S241	PDI-SG-S242
		Sample Date	01 May 2018	02 May 2018	15 Jun 2018	01 May 2018	02 May 2018	22 May 2018	22 May 2018	01 May 2018	02 May 2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	0-29 cm	0-30 cm	0-28 cm	0-28 cm	0-28 cm	0-16 cm	0-16 cm	0-28 cm	0-21 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.026	0.0088 J	0.0046 J	0.029	0.030	< 0.00025 U	< 0.00014 U	0.045	< 0.0014 U
PCB-77	32598-13-3	ng/g	0.091	0.032	0.038	0.11	0.089	< 0.00024 U	< 0.00013 U	0.12	0.0063 J
PCB-78	70362-49-1	ng/g	< 0.0044 U	< 0.0032 U	< 0.0015 U	< 0.0026 U	< 0.0074 U	< 0.00024 U	< 0.00014 U	< 0.0028 U	< 0.0015 U
PCB-79	41464-48-6	ng/g	0.028	0.0058 JN	0.0078 J	0.023	0.025 JN	< 0.00021 U	< 0.00012 U	0.031	< 0.0013 U
PCB-8	34883-43-7	ng/g	0.092	0.034 JN	0.11	0.13	0.11	< 0.00031 U	0.0015 JN	0.23	0.012 JN
PCB-80	33284-52-5	ng/g	< 0.0039 U	< 0.0027 U	< 0.0014 U	< 0.0023 U	< 0.0063 U	< 0.00022 U	< 0.00012 U	< 0.0025 U	< 0.0012 U
PCB-81	70362-50-4	ng/g	< 0.0043 U	< 0.0029 U	< 0.0014 U	0.0030 JN	< 0.0069 U	< 0.00022 U	< 0.00013 U	< 0.0027 U	< 0.0013 U
PCB-82	52663-62-4	ng/g	0.25	0.088	0.12	0.27	0.23	< 0.00036 U	< 0.00016 U	0.31	0.016 JN
PCB-83/99	60145-20-2	ng/g	1.9	0.75	0.49	2.0	1.6	0.0069 J	0.0029 JN	2.4	0.097
PCB-84	52663-60-2	ng/g	0.76	0.24	0.21	0.71	0.71	0.0033 J	0.0016 J	0.67	0.044
PCB-85/116/117	65510-45-4	ng/g	0.32	0.14	0.15	0.39	0.35	< 0.00026 U	0.0013 JN	0.44	0.018 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.6	0.61	0.56	1.6	1.4	0.0085 J	0.0050 J	1.8	0.096
PCB-88/91	55215-17-3	ng/g	0.65	0.25	0.13	0.65	0.64	0.0016 JN	0.0012 JN	0.61	0.026
PCB-89	73575-57-2	ng/g	< 0.0022 U	< 0.0013 U	0.010 JN	0.027	< 0.00075 U	< 0.00035 U	< 0.00016 U	0.023 JN	< 0.00075 U
PCB-9	34883-39-1	ng/g	0.0058 JN	< 0.0065 U	0.0074 J	0.0090 J	0.0076 JN	< 0.00035 U	< 0.00043 U	0.014 JN	< 0.0078 U
PCB-90/101/113	68194-07-0	ng/g	3.4	1.4	0.83	3.3	3.3	0.012 J	0.0073 J	3.7	0.15
PCB-92	52663-61-3	ng/g	0.82	0.29	0.17	0.81	0.67	0.0021 JN	< 0.00015 U	0.89	0.028
PCB-93/100	73575-56-1	ng/g	0.23	0.075	0.038	0.20	0.14 JN	< 0.00033 U	< 0.00015 U	0.15	0.0037 JN
PCB-94	73575-55-0	ng/g	0.055	0.019 JN	0.011 J	0.058	0.043 JN	< 0.00035 U	< 0.00016 U	0.037	< 0.00075 U
PCB-95	38379-99-6	ng/g	2.8	1.1	0.64	3.0	3.2	0.0087 JN	0.0056 JN	2.9	0.14
PCB-96	73575-54-9	ng/g	0.041 JN	0.018 JN	0.0073 J	0.041	0.051	< 0.00026 U	< 0.00012 U	0.034	< 0.00057 U
PCB-98/102	60233-25-2	ng/g	0.18	0.053	0.037	0.17	0.13	< 0.00033 U	< 0.00015 U	0.14	0.0078 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	93	38	20	94	105	0.5	0.38	85	4.3
Pesticides											
2,4-DDD	53-19-0	µg/kg	0.62 J	< 1.1 UJ	0.37 J	0.65 J	< 1.5 UJ	< 0.64 U	< 0.64 U	1.0	< 0.67 UJ
2,4-DDE	3424-82-6	µg/kg	< 0.77 U	< 1.1 UJ	< 0.51 U	< 0.76 U	< 1.5 UJ	< 0.79 U	< 0.79 U	< 0.62 U	< 0.79 UJ
2,4-DDT	789-02-6	µg/kg	< 0.77 U	< 1.1 UJ	< 0.51 U	< 0.76 U	< 1.5 UJ	< 0.94 U	< 0.94 U	< 0.62 U	< 0.94 UJ
4,4'-DDD	72-54-8	µg/kg	1.9 J	0.93 J	0.87	2.3 J	2.7 J	< 0.64 U	< 0.64 U	3.5 J	< 0.67 UJ
4,4'-DDE	72-55-9	µg/kg	4.1	1.8 J	3.3	5.3	4.8 J	< 0.70 U	< 0.70 U	5.0	< 0.70 UJ
4,4'-DDT	50-29-3	µg/kg	0.38 J	< 1.1 UJ	0.34 J	0.54 J	< 1.5 UJ	< 0.64 U	< 0.64 U	0.36 J	< 0.67 UJ
DDx (b)	T_DDx (PDI)	µg/kg	7.4	3.3	5.1	9.2	8.3	< 0.94 U	< 0.94 U	10.2	< 0.94 UJ
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	12	6.2	10 J	12	14	0.45 J	0.32 J	35	2.0
Acenaphthene	83-32-9	µg/kg	11	6.1	8.6 J	11	11	0.46	0.32 J	31	5.9
Acenaphthylene	208-96-8	µg/kg	13	8.7	11	15	17	1.9	1.6	18	2.0
Anthracene	120-12-7	µg/kg	28	22	32	31	33	3.9	3.0	42	6.1
Benz(a)anthracene	56-55-3	µg/kg	110	81	41	130	130	16	13	130	21
Benzo(a)pyrene	50-32-8	µg/kg	140	82	25 J	160	180	15	13	150	26
Benzo(b)fluoranthene	205-99-2	µg/kg	220	140	62	250	310	16	14	210	45
Benzo(g,h,i)perylene	191-24-2	µg/kg	150	85	20	150	190	5.8 J	5.1 J	130	23
Benzo(k)fluoranthene	207-08-9	µg/kg	77	46	17	84	98	6.0	4.8	70	15
Chrysene	218-01-9	µg/kg	200	150	64	220	260	17	14	190	37
Dibenz(a,h)anthracene	53-70-3	µg/kg	27	15	9.6 J	31	31	1.6 J	1.4 J	25	4.1
Fluoranthene	206-44-0	µg/kg	280	240	170	320	330	25	20	300	75
Fluorene	86-73-7	µg/kg	15	11	17	14	16	0.72	0.53	29	5.9
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	120	71	34	140	140	6.4	5.6	120	21
Naphthalene	91-20-3	µg/kg	29	15	14	24	24	0.54 J	0.44 J	140	2.2
Phenanthrene	85-01-8	µg/kg	90	77	78	100	120	18	13	160	61
Pyrene	129-00-0	µg/kg	340	240	130	370	400	35	26	380	69
Total PAHs (b)	T_PAH (PDI)	µg/kg	1862	1296	743	2062	2304	170	136	2160	421
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	213	127	49	244	270	21	18	222	39
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	31.6	44.2	37.8 38.8	31.8	32.5	74.9	76.0	38.5	66.4
Total Solids@104C - E160.3M (f)	TSOLID	%	32.2	45.7	38.8	32.6	33.2	77.3	77.2	39.8	73.8
Total Solids@70C	TSOLID70	%	32	46	63	33	34	79	78	40	75
Gravel	GS-Gravel	%	0	0	0	0	0	0		0	0.8
Sand, Coarse	GS-Csand	%	0	0	0	0	0.1	0.4		0	1.0

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

			Location	S235	S236	S237	S238	S239	S240	S240	S241	S242
			Sample ID	PDI-SG-S235	PDI-SG-S236	PDI-SG-S237	PDI-SG-S238	PDI-SG-S239	PDI-SG-S240	PDI-SG-S240-D	PDI-SG-S241	PDI-SG-S242
			Sample Date	01 May 2018	02 May 2018	15 Jun 2018	01 May 2018	02 May 2018	22 May 2018	22 May 2018	01 May 2018	02 May 2018
			Sample Type Code	N	N	N	N	N	N	FD	N	N
			Depth	0-29 cm	0-30 cm	0-28 cm	0-28 cm	0-28 cm	0-16 cm	0-16 cm	0-28 cm	0-21 cm
Chemical		**CAS_RN**	**Units**									
Sand, Medium		GS-Msand	%	0.7	0.5	0.2	0.9	0.9	28.1		1.5	44.0
Sand, Fine (#200)	(d)	GS-Fsand-200	%	7.084	30.73	3.528	5.92	12.03	66.15		11.7	49.81
Sand, Fine (#230)	(d)	GS-Fsand	%	8.2	38.2	4.6	7.1	14.3	66.6		14.8	50.0
Silt (#200)	(d)	GS-Silt-200	%	69.91	57.26	90.47	68.57	65.96	5.247		72.29	2.487
Silt (#230)	(d)	GS-Silt	%	68.8	49.8	89.4	67.4	63.7	4.8		69.2	2.3
Clay		GS-Clay	%	22.3	11.4	5.8	24.7	20.9	0		14.5	1.8
Percent Fines	(e)	GS-FINES	%	92.21	68.66	96.27	93.27	86.86	5.247		86.79	4.287
Total Organic Carbon		TOC	mg/kg	29000	16000	32000	30000	36000	900 J	1200 J	26000	4300

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S243	S244	S246	S247	S248	S249	S250	S252	S253
		Sample ID	PDI-SG-S243	PDI-SG-S244	PDI-SG-S246	PDI-SG-S247	PDI-SG-S248	PDI-SG-S249	PDI-SG-S250	PDI-SG-S252	PDI-SG-S253
		Sample Date	16 Jun 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-27 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-29 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.035	0.090	0.079	0.072	0.092	0.28	0.14	0.047	0.16
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0055 JN	0.013 JN	0.014 JN	0.014	0.014	0.030	0.025	0.0073	0.015
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00058 JN	0.00090 J+	0.0012 J+	0.0013 J+	0.0010 J+	0.0017 J+	0.0017 J+	0.00062 J+	0.0011 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00041 JN	0.0011 J	0.0012 J	0.0010 J	0.00096 J	0.00097 JN	0.00088 J	0.00051 J	0.0011 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00058 JN	0.0015 J	0.0013 JN	0.0014 J	0.0013 J	0.0024 J	0.0011 J	0.00064 JN	0.0013 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0025 J	0.0029 J	0.0032 J	0.0028 J	0.0034 J	0.0052	0.0030 J	0.0040	0.0038 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00045 J	0.00079 J	0.00080 J	< 0.00033 U	0.00055 JN	0.00098 J	0.00095 J	0.00055 J	0.00097 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0014 J	0.0022 JN	0.0025 J	0.0021 J	0.0029 J	0.0029 J	0.0023 J	0.0021 J	0.0038 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00042 J+	0.0012 J+	0.0014 J+	0.0011 J+	0.0013 J+	< 0.00048 U	0.0010 J+	< 0.00074 U	0.0014 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00013 U	0.00049 JN	0.00070 J	0.00045 J	0.00052 JN	0.00039 JN	0.00056 J	0.00058 J	0.00052 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00015 JN	0.00045 J+	0.00072 J	0.00042 JN	0.00045 J+	0.00039 JN	< 0.000097 U	0.00044 J+	0.00050 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00033 J	0.00050 J	0.00042 JN	0.00040 JN	0.00039 JN	0.00048 JN	0.00041 J+	0.00030 J+	0.00046 JN
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00034 J	0.00063 J	0.00057 JN	0.00043 JN	0.00044 J	0.00072 J	0.00026 JN	0.00042 J	0.00042 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00014 J	0.00039 JN	0.00074 J	0.00041 JN	0.0016	0.00027 JN	0.00029 JN	0.00046 J	0.00029 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00044 J	0.00092 J	0.00066 JN	0.00063 J	0.00057 J	0.00056 J	0.00050 J	0.0013	0.00055 J
OCDD	3268-87-9	µg/kg	0.24	0.69	0.64	0.70	0.71	2.6	1.3	0.44	1.4
OCDF	39001-02-0	µg/kg	0.014	0.041	0.044	0.052	0.041	0.15	0.21	0.019	0.046
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0015	0.0035	0.0039	0.0031	0.0047	0.0062	0.0041	0.0028	0.0045
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0013	0.0026	0.0036	0.0027	0.0043	0.0056	0.0038	0.0028	0.0042
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0013	0.0024	0.0035	0.0025	0.0041	0.0054	0.0037	0.0027	0.004
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0027 JN	0.016	0.24	0.019	0.0073 J	0.034	0.0045 J	0.0053 J	0.036
PCB-10	33146-45-1	ng/g	< 0.00041 U	< 0.0057 U	0.023 JN	< 0.0031 U	< 0.0034 U	0.0031 JN	< 0.0040 U	< 0.0053 U	0.0050 JN
PCB-103	60145-21-3	ng/g	0.014	0.010 JN	0.0080 JN	0.026	0.014 JN	0.046	0.0077 JN	0.033	0.14
PCB-104	56558-16-8	ng/g	< 0.00014 U	< 0.00018 U	< 0.00038 U	< 0.00023 U	< 0.00029 U	< 0.00029 U	< 0.00023 U	< 0.00025 U	< 0.00026 U
PCB-105	32598-14-4	ng/g	0.11	0.38	0.13	0.13	0.11	0.22	0.11	0.074	0.18
PCB-106	70424-69-0	ng/g	< 0.0012 U	< 0.0022 U	< 0.0020 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0015 U	< 0.0024 U
PCB-107	70424-68-9	ng/g	0.039	0.079	0.028 JN	0.043 JN	0.032	0.078	0.029	0.049	0.098
PCB-108/124	70362-41-3	ng/g	0.016 J	0.041	0.011 JN	0.011 JN	0.011 J	0.024	0.0096 JN	0.0088 J	0.020
PCB-11	2050-67-1	ng/g	0.039	0.039	0.063	0.057	0.056	0.054	0.058	0.064	0.028
PCB-110/115	38380-03-9	ng/g	0.59	1.4	0.52	0.66	0.47	1.2	0.42	0.53	1.1
PCB-111	39635-32-0	ng/g	0.0036 J	< 0.00017 U	< 0.00035 U	< 0.00022 U	< 0.00027 U	< 0.00027 U	< 0.00022 U	< 0.00023 U	0.013
PCB-112	74472-36-9	ng/g	0.0031 J	< 0.00018 U	< 0.00037 U	< 0.00023 U	< 0.00028 U	< 0.00028 U	< 0.00023 U	< 0.00024 U	< 0.00026 U
PCB-114	74472-37-0	ng/g	0.0093 J	0.021	0.0062 J	0.0055 JN	0.0059 JN	0.0091 JN	0.0052 JN	0.0042 JN	0.017
PCB-118	31508-00-6	ng/g	0.33	1.1	0.33	0.37	0.30	0.69	0.27	0.35	0.57
PCB-12/13	2974-92-7	ng/g	0.0020 JN	0.0080 JN	0.058	0.0078 JN	0.011 JN	0.014 JN	< 0.0036 U	< 0.0048 U	0.020
PCB-120	68194-12-7	ng/g	0.0089 J	< 0.00017 U	0.0039 JN	0.0094 J	0.0059 J	0.014 JN	0.0027 JN	0.014	0.034
PCB-121	56558-18-0	ng/g	< 0.00014 U	< 0.00017 U	< 0.00037 U	< 0.00023 U	< 0.00028 U	< 0.00028 U	< 0.00023 U	< 0.00024 U	0.0094 J
PCB-122	76842-07-4	ng/g	0.0083 J	0.015	0.0039 JN	0.0040 JN	0.0054 J	0.0068 JN	0.0044 J	0.0078 J	0.0099 JN
PCB-123	65510-44-3	ng/g	0.0055 JN	0.017 JN	0.0040 JN	0.0057 JN	0.0072 J	0.0086 JN	0.0044 JN	0.0078 JN	0.0092 JN
PCB-126	57465-28-8	ng/g	< 0.0012 U	< 0.0024 U	< 0.0020 U	0.0021 JN	0.0022 J	< 0.0019 U	< 0.0019 U	< 0.0015 U	< 0.0024 U
PCB-127	39635-33-1	ng/g	< 0.0012 U	< 0.0022 U	< 0.0020 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0015 U	< 0.0023 U
PCB-128/166	38380-07-3	ng/g	0.13	0.25	0.086	0.15	0.093	0.21	0.079	0.084	0.31
PCB-129/138/160/163	55215-18-4	ng/g	1.2	1.6	0.69	1.5	0.81	2.2	0.64	0.69	3.5
PCB-130	52663-66-8	ng/g	0.068	0.10	0.044	0.092	0.049	0.12	0.031 JN	0.057	0.21
PCB-131	61798-70-7	ng/g	< 0.0028 U	0.015 JN	0.0059 JN	< 0.0069 U	< 0.0037 U	0.018	< 0.0037 U	0.0064 JN	< 0.0064 U
PCB-132	38380-05-1	ng/g	0.41	0.51	0.21	0.47	0.24	0.71	0.19	0.22	1.1
PCB-133	35694-04-3	ng/g	0.028	0.017 JN	0.015	0.033	0.016 JN	0.065	0.016	0.037 JN	0.19
PCB-134/143	52704-70-8	ng/g	0.073	0.081	0.032	0.077	0.036	0.11	0.026 JN	0.042	0.21
PCB-135/151	52744-13-5	ng/g	0.59	0.41	0.25	0.70	0.33	1.1	0.23	0.33	2.5
PCB-136	38411-22-2	ng/g	0.19	0.15	0.084	0.23	0.11	0.34	0.074	0.13	0.74
PCB-137	35694-06-5	ng/g	0.028	0.072	0.024	0.028	0.019 JN	0.048	0.016 JN	0.019	0.042 JN
PCB-139/140	56030-56-9	ng/g	0.021	0.030	0.0092 JN	0.024	0.011 JN	0.042	0.0088 JN	0.017 JN	0.092

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S243	S244	S246	S247	S248	S249	S250	S252	S253
		Sample ID	PDI-SG-S243	PDI-SG-S244	PDI-SG-S246	PDI-SG-S247	PDI-SG-S248	PDI-SG-S249	PDI-SG-S250	PDI-SG-S252	PDI-SG-S253
		Sample Date	16 Jun 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-27 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-29 cm	0-29 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.00032 U	< 0.0044 U	< 0.0025 U	< 0.0024 U	< 0.0026 U	< 0.0020 U	< 0.0031 U	< 0.0041 U	< 0.00068 U
PCB-141	52712-04-6	ng/g	0.29	0.25	0.12	0.32	0.16	0.44	0.12	0.11	0.82
PCB-142	41411-61-4	ng/g	< 0.0027 U	< 0.0038 U	< 0.0036 U	< 0.0063 U	< 0.0033 U	< 0.0051 U	< 0.0033 U	< 0.0043 U	< 0.0060 U
PCB-144	68194-14-9	ng/g	0.067	0.055	0.021 JN	0.066	0.030	0.10	0.020	0.021	0.21
PCB-145	74472-40-5	ng/g	0.00089 JN	0.0015 JN	< 0.00028 U	< 0.00028 U	< 0.00035 U	< 0.00020 U	< 0.00027 U	< 0.00032 U	0.0039 JN
PCB-146	51908-16-8	ng/g	0.26	0.22	0.14	0.37	0.19	0.62	0.13	0.31	1.3
PCB-147/149	68194-13-8	ng/g	1.2	1.2	0.63	1.7	0.77	2.5	0.56	1.1	4.1
PCB-148	74472-41-6	ng/g	0.0059 JN	0.0030 J	0.0033 JN	0.0070 JN	0.0061 J	0.016 JN	0.0016 JN	0.011 JN	0.066
PCB-15	2050-68-2	ng/g	0.012	0.053	0.19	0.042	0.034	0.090	0.020 JN	0.023 JN	0.14
PCB-150	68194-08-1	ng/g	0.0018 JN	0.0023 J	0.0011 JN	0.0049 JN	0.0030 J	0.010 JN	0.0022 J	0.017	0.046
PCB-152	68194-09-2	ng/g	0.00065 JN	0.0016 JN	< 0.00028 U	< 0.00029 U	0.0014 J	< 0.00020 U	< 0.00028 U	< 0.00033 U	0.015
PCB-153/168	35065-27-1	ng/g	1.2	1.1	0.62	1.6	0.76	2.3	0.55	0.88	4.2
PCB-154	60145-22-4	ng/g	0.040	0.019	0.014	0.047	0.027	0.11	0.013 JN	0.070	0.32
PCB-155	33979-03-2	ng/g	< 0.00013 U	< 0.00029 U	< 0.00027 U	< 0.00027 U	< 0.00033 U	< 0.00019 U	< 0.00026 U	< 0.00031 U	0.0024 J
PCB-156/157	38380-08-4	ng/g	0.072	0.18	0.062	0.11	0.064	0.15	0.055	0.044 JN	0.19
PCB-158	74472-42-7	ng/g	0.092	0.16	0.061	0.12	0.063	0.17	0.055	0.048	0.27
PCB-159	39635-35-3	ng/g	0.019	0.0084 JN	0.0058 JN	0.029	0.0088 J	0.026	0.0069 JN	0.0089 J	0.063
PCB-16	38444-78-9	ng/g	0.0067 J	0.021 JN	0.19	0.047	0.019 JN	0.10 JN	0.017	0.027	0.14
PCB-161	74472-43-8	ng/g	< 0.0017 U	< 0.0025 U	< 0.0024 U	< 0.0042 U	< 0.0022 U	< 0.0034 U	< 0.0022 U	< 0.0028 U	< 0.0039 U
PCB-162	39635-34-2	ng/g	< 0.0017 U	0.0052 JN	< 0.0024 U	< 0.0041 U	0.0026 J	< 0.0034 U	0.0022 JN	0.0035 J	< 0.0037 U
PCB-164	74472-45-0	ng/g	0.097	0.10	0.040 JN	0.12	0.055	0.16	0.047	0.056	0.28
PCB-165	74472-46-1	ng/g	< 0.0020 U	< 0.0028 U	< 0.0027 U	< 0.0047 U	< 0.0025 U	< 0.0039 U	< 0.0025 U	< 0.0032 U	< 0.0045 U
PCB-167	52663-72-6	ng/g	0.028	0.059	0.018 JN	0.041	0.026	0.057	0.019	0.015 JN	0.079
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.0020 U	< 0.0018 U	< 0.0032 U	< 0.0017 U	< 0.0026 U	< 0.0017 U	< 0.0022 U	< 0.0030 U
PCB-17	37680-66-3	ng/g	0.010 JN	0.049	0.57	0.073	0.039	0.17	0.021 JN	0.053 JN	0.20
PCB-170	35065-30-6	ng/g	0.45	0.32	0.21	0.78	0.27	0.72	0.20	0.22	1.6
PCB-171/173	52663-71-5	ng/g	0.15	0.091	0.060	0.22	0.089	0.22	0.065	0.062	0.52
PCB-172	52663-74-8	ng/g	0.078	0.047	0.042	0.13	0.044 JN	0.13	0.035	0.038	0.30
PCB-174	38411-25-5	ng/g	0.57	0.29	0.22	0.77	0.32	0.82	0.20	0.23	2.0
PCB-175	40186-70-7	ng/g	0.022	0.012 J	0.0072 JN	0.028	0.012	0.029	0.0089 J	0.011	0.069
PCB-176	52663-65-7	ng/g	0.065	0.037	0.030	0.097	0.040	0.11	0.025	0.032	0.23
PCB-177	52663-70-4	ng/g	0.31	0.18	0.13	0.45	0.19	0.51	0.12	0.15	1.3
PCB-178	52663-67-9	ng/g	0.11	0.061	0.047 JN	0.16	0.080	0.21	0.048	0.077	0.49
PCB-179	52663-64-6	ng/g	0.24	0.13	0.11	0.35	0.16	0.44	0.092	0.15	0.93
PCB-18/30	37680-65-2	ng/g	0.015 JN	0.068	0.50	0.12	0.068	0.29	0.036	0.083	0.30
PCB-180/193	35065-29-3	ng/g	1.0	0.59	0.47	1.7	0.65	1.7	0.43	0.47	3.9
PCB-181	74472-47-2	ng/g	< 0.000016 U	0.0053 JN	< 0.0011 U	< 0.0010 U	< 0.00067 U	< 0.00055 U	< 0.0012 U	< 0.00072 U	< 0.000038 U
PCB-182	60145-23-5	ng/g	< 0.000016 U	< 0.00085 U	< 0.0010 U	0.014	< 0.00064 U	0.013	< 0.0012 U	0.0048 JN	0.023 JN
PCB-183/185	52663-69-1	ng/g	0.35	0.20	0.16	0.51	0.21	0.55	0.13	0.16	1.2
PCB-184	74472-48-3	ng/g	< 0.000013 U	< 0.00072 U	< 0.00089 U	< 0.00083 U	< 0.00055 U	< 0.00045 U	< 0.00098 U	< 0.00059 U	< 0.000031 U
PCB-186	74472-49-4	ng/g	< 0.000013 U	< 0.00070 U	< 0.00086 U	< 0.00081 U	< 0.00053 U	< 0.00044 U	< 0.00095 U	< 0.00057 U	< 0.000030 U
PCB-187	52663-68-0	ng/g	0.65	0.38	0.31	0.96	0.42	1.1	0.28	0.38	2.7
PCB-188	74487-85-7	ng/g	< 0.000012 U	< 0.00058 U	< 0.00074 U	< 0.00068 U	< 0.00046 U	< 0.00038 U	< 0.00083 U	0.0045 J	< 0.000028 U
PCB-189	39635-31-9	ng/g	0.015	0.010 J	0.0049 J	0.027	0.0064 JN	0.022	0.0037 JN	0.0052 J	0.056
PCB-19	38444-73-4	ng/g	0.0044 JN	0.014	0.24	0.023	0.011 J	0.032	0.0071 J	0.016	0.058
PCB-190	41411-64-7	ng/g	0.086	0.056	0.034 JN	0.13	0.053	0.10 JN	0.037	0.032	0.33
PCB-191	74472-50-7	ng/g	0.019 JN	0.013	0.0093 J	0.031	0.013	0.020 JN	0.0065 JN	0.0073 J	0.079
PCB-192	74472-51-8	ng/g	< 0.000013 U	< 0.00074 U	< 0.00091 U	< 0.00085 U	< 0.00056 U	< 0.00046 U	< 0.0010 U	< 0.00061 U	< 0.000030 U
PCB-194	35694-08-7	ng/g	0.23	0.17	0.12	0.63	0.18	0.37	0.11	0.13	0.95
PCB-195	52663-78-2	ng/g	0.099	0.058 JN	0.052	0.27	0.078	0.15	0.043	0.051 JN	0.41
PCB-196	42740-50-1	ng/g	0.12	0.062 JN	0.048 JN	0.24	0.062 JN	0.17	0.044	0.056	0.46
PCB-197	33091-17-7	ng/g	0.0071 JN	0.0055 JN	0.0034 J	0.021 JN	0.0055 J	0.011	0.0032 J	0.0045 J	0.035
PCB-198/199	68194-17-2	ng/g	0.24	0.18	0.13	0.49	0.16	0.39	0.11	0.12	0.97
PCB-2	2051-61-8	ng/g	0.0041 J+	0.0055 JN	0.0073 JN	0.0071 JN	0.0054 J	0.012 JN	0.0033 JN	0.0079 J	0.010 J+

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S243	S244	S246	S247	S248	S249	S250	S252	S253
		Sample ID	PDI-SG-S243	PDI-SG-S244	PDI-SG-S246	PDI-SG-S247	PDI-SG-S248	PDI-SG-S249	PDI-SG-S250	PDI-SG-S252	PDI-SG-S253
		Sample Date	16 Jun 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-27 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-29 cm	0-29 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.074	0.15	0.87	0.18	0.13	0.43	0.074	0.18	0.61
PCB-200	52663-73-7	ng/g	0.031	0.015 JN	0.014 JN	0.049	0.019	0.039	0.0097 JN	0.014	0.11
PCB-201	40186-71-8	ng/g	0.028	0.022	0.016 JN	0.069	0.017	0.039 JN	0.013	0.016	0.11
PCB-202	2136-99-4	ng/g	0.046	0.037	0.031	0.087	0.031	0.079 JN	0.023	0.028	0.18
PCB-203	52663-76-0	ng/g	0.14	0.11	0.083	0.29	0.093	0.22	0.064	0.067	0.56
PCB-204	74472-52-9	ng/g	< 0.000062 U	< 0.00048 U	< 0.00063 U	< 0.00062 U	< 0.00063 U	< 0.00060 U	< 0.00063 U	< 0.00045 U	< 0.00016 U
PCB-205	74472-53-0	ng/g	0.012	0.0084 JN	< 0.0017 U	0.030	0.0059 JN	0.015 JN	0.0057 J	0.0051 JN	0.049
PCB-206	40186-72-9	ng/g	0.066	0.13	0.11	0.19	0.071	0.25	0.047	0.053	0.25
PCB-207	52663-79-3	ng/g	0.0086 J	0.013	0.011 J	0.026	0.0059 J	0.021	0.0049 J	0.0055 JN	0.029
PCB-208	52663-77-1	ng/g	0.017	0.028 JN	0.027	0.043	0.021	0.082	0.014	0.012	0.050
PCB-209	2051-24-3	ng/g	0.024	0.082	0.069 JN	0.065	0.056	0.21	0.050	0.11	0.087
PCB-21/33	55702-46-0	ng/g	0.049	0.052	0.36	0.083	0.051	0.21	0.030	0.080	0.27
PCB-22	38444-85-8	ng/g	0.019	0.047	0.25	0.052	0.034	0.13	0.023	0.038	0.17
PCB-23	55720-44-0	ng/g	< 0.00090 U	< 0.0013 U	< 0.0015 U	< 0.0011 U	< 0.0010 U	< 0.0012 U	< 0.0011 U	< 0.0013 U	< 0.0019 U
PCB-24	55702-45-9	ng/g	< 0.00020 U	0.0030 J	0.0093 J	0.0030 JN	< 0.00045 U	0.0036 JN	< 0.00045 U	0.00094 J	0.0061 J
PCB-25	55712-37-3	ng/g	0.0053 JN	0.014	0.084	0.015	0.017	0.027 JN	0.0079 J	0.015 JN	0.067
PCB-26/29	38444-81-4	ng/g	0.0084 J	0.025	0.15	0.028	0.028	0.060	0.012 J	0.022	0.10
PCB-27	38444-76-7	ng/g	0.0017 JN	0.0073 JN	0.12	0.0087 JN	0.0063 J	0.024	0.0050 J	0.0075 J	0.037
PCB-3	2051-62-9	ng/g	0.0032 JN	0.0086 JN	0.027 JN	0.010 JN	0.0058 JN	0.017 JN	0.0037 JN	0.0037 JN	0.023
PCB-31	16606-02-3	ng/g	0.043	0.11	0.72	0.13	0.097	0.32	0.056	0.12	0.43
PCB-32	38444-77-8	ng/g	0.0083 JN	0.032 JN	0.39	0.042	0.024 JN	0.11	0.015	0.041	0.14
PCB-34	37680-68-5	ng/g	< 0.00093 U	< 0.0013 U	< 0.0016 U	0.0017 J	< 0.0011 U	0.0029 J	< 0.0011 U	< 0.0013 U	0.0040 J
PCB-35	37680-69-6	ng/g	< 0.00088 U	< 0.0013 U	0.0092 J	0.0023 JN	0.0025 J	0.0056 J	0.0026 J	0.0026 J	0.0072 JN
PCB-36	38444-87-0	ng/g	< 0.00080 U	< 0.0013 U	< 0.0015 U	0.0010 JN	< 0.0010 U	< 0.0012 U	< 0.0011 U	< 0.0012 U	< 0.0017 U
PCB-37	38444-90-5	ng/g	0.025	0.050	0.19	0.050	0.041	0.11	0.023	0.039	0.14
PCB-38	53555-66-1	ng/g	< 0.00087 U	< 0.0014 U	< 0.0016 U	< 0.0011 U	< 0.0011 U	< 0.0013 U	< 0.0011 U	< 0.0013 U	< 0.0019 U
PCB-39	38444-88-1	ng/g	< 0.00080 U	< 0.0012 U	< 0.0014 U	0.0019 J	0.0014 JN	0.0023 JN	< 0.0010 U	0.0035 JN	0.0034 J
PCB-4	13029-08-8	ng/g	0.0045 J	0.025	1.1	0.032	0.018 JN	0.068	0.0089 JN	0.017 JN	0.15
PCB-40/41/71	38444-93-8	ng/g	0.058	0.096	0.22	0.084	0.061	0.18	0.035 J	0.13	0.27
PCB-42	36559-22-5	ng/g	0.030	0.050	0.089	0.044	0.027 JN	0.081	0.017 JN	0.080	0.11
PCB-43/73	70362-46-8	ng/g	0.0044 JN	0.0076 JN	0.011 JN	0.0051 JN	0.0077 J	0.011 JN	< 0.0023 U	0.012 JN	0.015 J
PCB-44/47/65	41464-39-5	ng/g	0.13	0.28	0.34	0.20	0.15	0.47	0.11	0.40	1.0
PCB-45/51	70362-45-7	ng/g	0.020	0.037	0.088	0.031	0.023 JN	0.083	0.021 J	0.095	0.34
PCB-46	41464-47-5	ng/g	0.0052 J	< 0.0050 U	0.028	0.0078 JN	0.0069 J	0.017 JN	< 0.0031 U	0.016	0.027 JN
PCB-48	70362-47-9	ng/g	0.017 JN	0.024 JN	0.082	0.025	0.017 JN	0.055	0.0097 JN	0.034	0.078
PCB-49/69	41464-40-8	ng/g	0.093	0.19	0.22	0.15	0.10	0.29	0.069	0.32	0.68
PCB-5	16605-91-7	ng/g	< 0.00038 U	< 0.0058 U	0.0076 JN	< 0.0032 U	< 0.0035 U	< 0.0027 U	< 0.0041 U	< 0.0054 U	0.0037 J
PCB-50/53	62796-65-0	ng/g	0.022	0.031	0.064	0.028	0.022 J	0.053	0.015 J	0.076	0.23
PCB-52	35693-99-3	ng/g	0.20	0.52	0.37	0.28	0.20	0.50	0.16	0.39	0.92
PCB-54	15968-05-5	ng/g	0.0010 JN	0.00078 JN	0.0029 JN	0.00082 JN	0.0012 JN	0.0021 JN	< 0.000043 U	0.0062 JN	0.023
PCB-55	74338-24-2	ng/g	< 0.00088 U	0.0044 J	0.013	0.0049 JN	0.0033 JN	0.0052 JN	< 0.0018 U	0.0051 JN	< 0.0016 U
PCB-56	41464-43-1	ng/g	0.076	0.089	0.13	0.067	0.055	0.14	0.034	0.086	0.16
PCB-57	70424-67-8	ng/g	< 0.00090 U	< 0.0029 U	0.0025 JN	< 0.0021 U	< 0.0021 U	0.0021 J	< 0.0018 U	< 0.0023 U	< 0.0017 U
PCB-58	41464-49-7	ng/g	0.0015 JN	< 0.0030 U	< 0.0018 U	< 0.0021 U	< 0.0021 U	0.0026 J	< 0.0018 U	0.0029 JN	< 0.0016 U
PCB-59/62/75	74472-33-6	ng/g	0.010 J	0.015 JN	0.034 J	0.015 J	0.010 J	0.031	0.0045 JN	0.025 J	0.049
PCB-6	25569-80-6	ng/g	0.0030 J	0.015	0.19	0.018 JN	0.012 JN	0.040	0.0079 J	0.011 JN	0.079
PCB-60	33025-41-1	ng/g	0.018	0.036	0.072	0.019	0.022	0.038	0.013	0.017 JN	0.043
PCB-61/70/74/76	33284-53-6	ng/g	0.24	0.48	0.51	0.31	0.24	0.55	0.18	0.44	0.61
PCB-63	74472-34-7	ng/g	0.0052 J	0.0082 J	0.012 J	0.0053 J	0.0043 JN	0.011	< 0.0017 U	0.010	0.016
PCB-64	52663-58-8	ng/g	0.045	0.092	0.13	0.062	0.049	0.12	0.035	0.090	0.13
PCB-66	32598-10-0	ng/g	0.14	0.26	0.30	0.18	0.14	0.34	0.095	0.31	0.38
PCB-67	73575-53-8	ng/g	0.0028 J	< 0.0025 U	0.011 JN	0.0040 J	0.0029 J	0.0076 JN	< 0.0016 U	0.0069 J	0.014
PCB-68	73575-52-7	ng/g	0.0019 J	0.0043 J	0.0030 JN	0.0046 JN	0.0047 J+	0.0089 J+	0.0027 JN	0.024	0.017 JN
PCB-7	33284-50-3	ng/g	0.00068 JN	0.0054 JN	0.014 JN	0.0049 JN	< 0.0031 U	0.0083 JN	< 0.0037 U	< 0.0048 U	0.0093 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S243	S244	S246	S247	S248	S249	S250	S252	S253
		Sample ID	PDI-SG-S243	PDI-SG-S244	PDI-SG-S246	PDI-SG-S247	PDI-SG-S248	PDI-SG-S249	PDI-SG-S250	PDI-SG-S252	PDI-SG-S253
		Sample Date	16 Jun 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-27 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-29 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.0040 J	0.0055 J	0.0047 JN	0.0061 J	0.0043 J	0.0097 J	< 0.0018 U	0.016	0.019 JN
PCB-77	32598-13-3	ng/g	0.012	0.017 JN	0.034	0.016 JN	0.018	0.030 JN	0.012 J	0.016 JN	0.034
PCB-78	70362-49-1	ng/g	< 0.00087 U	< 0.0030 U	< 0.0018 U	< 0.0021 U	< 0.0021 U	< 0.0016 U	< 0.0018 U	< 0.0023 U	< 0.0016 U
PCB-79	41464-48-6	ng/g	0.0041 J	0.0084 J	0.0054 J	0.0052 J	0.0030 JN	0.0073 JN	< 0.0016 U	0.0087 JN	0.0070 J
PCB-8	34883-43-7	ng/g	0.015 J	0.042	0.81	0.077	0.041	0.18	0.026	0.035	0.31
PCB-80	33284-52-5	ng/g	< 0.00077 U	< 0.0025 U	< 0.0015 U	< 0.0018 U	< 0.0018 U	< 0.0014 U	< 0.0016 U	< 0.0020 U	< 0.0014 U
PCB-81	70362-50-4	ng/g	< 0.00082 U	< 0.0026 U	< 0.0017 U	< 0.0019 U	< 0.0019 U	< 0.0015 U	< 0.0016 U	< 0.0021 U	< 0.0015 U
PCB-82	52663-62-4	ng/g	0.057	0.14	0.047	0.046 JN	0.036 JN	0.096	0.039	0.032	0.073 JN
PCB-83/99	60145-20-2	ng/g	0.36	0.66	0.29	0.44	0.27	0.80	0.22	0.49	1.1
PCB-84	52663-60-2	ng/g	0.11	0.27	0.10	0.11	0.070 JN	0.20	0.076	0.12	0.18
PCB-85/116/117	65510-45-4	ng/g	0.075	0.20	0.075	0.072 JN	0.061	0.14	0.058	0.067	0.11
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.30	0.78	0.28	0.31	0.24	0.58	0.22	0.24	0.58
PCB-88/91	55215-17-3	ng/g	0.082	0.15	0.067	0.082	0.063	0.16	0.051	0.19	0.34
PCB-89	73575-57-2	ng/g	< 0.00021 U	< 0.00027 U	0.0060 J	< 0.00035 U	< 0.00043 U	< 0.00043 U	< 0.00035 U	< 0.00037 U	< 0.00039 U
PCB-9	34883-39-1	ng/g	0.0012 J	< 0.0054 U	0.025 JN	0.0068 JN	< 0.0032 U	0.012	< 0.0037 U	< 0.0049 U	0.015
PCB-90/101/113	68194-07-0	ng/g	0.60	1.2	0.47	0.82	0.49	1.4	0.40	0.63	2.0
PCB-92	52663-61-3	ng/g	0.13	0.20 JN	0.10	0.19	0.10	0.30	0.081	0.15	0.61
PCB-93/100	73575-56-1	ng/g	0.024	0.018 JN	0.012 JN	0.017 J	0.013 J	0.047	0.0079 JN	0.051 JN	0.17
PCB-94	73575-55-0	ng/g	< 0.00021 U	< 0.00027 U	< 0.00056 U	< 0.00035 U	< 0.00043 U	< 0.00043 U	< 0.00035 U	0.015	0.054
PCB-95	38379-99-6	ng/g	0.43	0.93	0.37	0.64	0.36	1.1	0.29	0.44	1.4
PCB-96	73575-54-9	ng/g	0.0042 J	< 0.00020 U	0.0045 J	< 0.00026 U	< 0.00032 U	< 0.00033 U	< 0.00026 U	0.011 JN	0.034
PCB-98/102	60233-25-2	ng/g	0.015 JN	0.027	0.017 JN	0.014 JN	0.012 J	0.050	0.011 J	0.033	0.096
Total PCBs (b)	T_PCBCg (PDI)	ng/g	16	21	19	23	12	33	8.7	14	58
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 0.27 U	0.37 J	0.36 J	0.77	< 1.3 U	< 0.85 U	< 1.4 U	< 0.83 U	< 1.5 U
2,4-DDE	3424-82-6	µg/kg	< 0.27 U	< 0.51 U	< 0.50 U	< 0.47 U	< 1.3 U	< 0.85 U	< 1.4 U	< 0.83 U	< 1.5 U
2,4-DDT	789-02-6	µg/kg	< 0.27 U	< 0.51 U	< 0.50 U	< 0.47 U	< 1.3 U	< 0.94 U	< 1.4 U	< 0.94 U	< 1.5 U
4,4'-DDD	72-54-8	µg/kg	0.28	1.2	1.1	2.0	1.1 J	0.98	1.1 J	0.66 J	1.1 J
4,4'-DDE	72-55-9	µg/kg	0.70	3.7	3.2	4.2	2.2	1.4	2.7	1.6	1.6
4,4'-DDT	50-29-3	µg/kg	< 0.27 U	0.54 J	0.50 J	0.61 J	0.66 J	< 0.85 U	< 1.4 U	< 0.83 U	< 1.5 U
DDx (b)	T_DDx (PDI)	µg/kg	1.1	6.1	5.4	7.8	4.6	2.9	4.5	2.7	3.5
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	5.0 J	3.5	2.8	35	10	80	4.1	6.3	16
Acenaphthene	83-32-9	µg/kg	8.7	4.9	4.8	31	13	180	3.6	62	19
Acenaphthylene	208-96-8	µg/kg	25	2.4	2.2	9.8	3.7	33	2.2	3.7	5.7
Anthracene	120-12-7	µg/kg	58	8.6	10	33	170	170	7.1	15	40
Benz(a)anthracene	56-55-3	µg/kg	270	30	48	110	95	260	17	73	120
Benzo(a)pyrene	50-32-8	µg/kg	550 J	32	35	140	56	210	25	79	110
Benzo(b)fluoranthene	205-99-2	µg/kg	860	49	45	140	80	210	27	110	140
Benzo(g,h,i)perylene	191-24-2	µg/kg	280	16	14	54	20	90	16	42	46
Benzo(k)fluoranthene	207-08-9	µg/kg	280	16	15	50	28	83	9.4	36	55
Chrysene	218-01-9	µg/kg	600	63	54	120	130	270	26	88	170
Dibenz(a,h)anthracene	53-70-3	µg/kg	110	3.2	3.4	14	5.3	31	1.6	12	15
Fluoranthene	206-44-0	µg/kg	110	140	140	250	130	800	57	140	360
Fluorene	86-73-7	µg/kg	18	8.8	7.5	36	21	240	5.5	11	25
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	400	16	14	65	21	100	14	47	52
Naphthalene	91-20-3	µg/kg	15	4.4	3.5	59	18	91	5.3	15	28
Phenanthrene	85-01-8	µg/kg	64	66	49	150	96	1000	30	93	210
Pyrene	129-00-0	µg/kg	180	110	110	220	100	730	55	140	330
Total PAHs (b)	T_PAH (PDI)	µg/kg	3834	574	558	1517	997	4578	306	973	1742
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	816	45	86	186	81	299	55	114	157
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	70.0 72.5	39.5	37.3	42.9	40.9	60.1	38.5	61.3	54.1
Total Solids@104C - E160.3M (f)	TSOLID	%	70.2	38.9	38.4	41.9	37.7	57.5	35.4	59.5	51.8
Total Solids@70C	TSOLID70	%	70	38	37	41	37	57	35	59	50
Gravel	GS-Gravel	%	0	0	0	0	0	0.1	0	0	0.1
Sand, Coarse	GS-Csand	%	1.0	0	0	0.1	0	0.3	0	0.2	0.2

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S243	S244	S246	S247	S248	S249	S250	S252	S253
		Sample ID	PDI-SG-S243	PDI-SG-S244	PDI-SG-S246	PDI-SG-S247	PDI-SG-S248	PDI-SG-S249	PDI-SG-S250	PDI-SG-S252	PDI-SG-S253
		Sample Date	16 Jun 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	14 May 2018	11 May 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-24 cm	0-27 cm	0-26 cm	0-24 cm	0-30 cm	0-30 cm	0-29 cm	0-29 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	27.9	0.1	0.2	1.5	0.4	20.9	0.4	11.1	11.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	46.78	9.424	9.302	17.47	10.42	40.31	9.119	47.89	37.19
Sand, Fine (#230) (d)	GS-Fsand	%	48.5	12.3	12.2	20.4	12.9	42.7	11.8	52.2	40.3
Silt (#200) (d)	GS-Silt-200	%	21.11	76.37	76.69	67.32	75.77	30.68	76.18	32.80	41.80
Silt (#230) (d)	GS-Silt	%	19.4	73.5	73.8	64.4	73.3	28.3	73.5	28.5	38.7
Clay	GS-Clay	%	3.1	14.1	13.7	13.6	13.4	7.8	14.3	8.2	9.0
Percent Fines (e)	GS-FINES	%	24.21	90.47	90.39	80.92	89.17	38.48	90.48	41	50.8
Total Organic Carbon	TOC	mg/kg	4500	29000	31000	25000	29000	13000	32000	9300	16000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S254	S255	S256	S257	S258	S259	S261	S262	S263
		Sample ID	PDI-SG-S254	PDI-SG-S255	PDI-SG-S256	PDI-SG-S257	PDI-SG-S258	PDI-SG-S259	PDI-SG-S261	PDI-SG-S262	PDI-SG-S263
		Sample Date	11 May 2018	11 May 2018	11 May 2018	11 May 2018	13 May 2018	12 May 2018	12 May 2018	12 May 2018	19 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-14 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.058	0.057	0.072	0.055	0.061	0.069	0.22	0.052	0.046 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.010	0.0099 JN	0.013	0.0097	0.0095 JN	0.011 JN	0.027	0.0081 JN	0.0067 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00092 J+	0.00090 J+	0.00074 J+	0.00074 J+	0.00093 J+	0.00078 JN	< 0.0025 U	< 0.0013 U	0.00070 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00013 U	0.00064 J+	0.00092 J	0.00066 J+	0.00066 J	0.00081 JN	0.00092 JN	0.00055 JN	0.00054 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00093 J	0.00076 J	0.0011 J	0.00096 J	0.0010 J	0.00076 J	0.0032 J	0.00066 J	0.00060 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0021 J	0.0025 J	0.0032 J	0.0020 J	0.0019 J	0.0044 J	0.0048 J	0.0028 J	0.0017 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00071 J	0.00049 J	< 0.00022 U	0.00052 J	0.00050 J	0.00045 J	0.00093 JN	< 0.00022 U	0.00031 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0016 J	0.0018 J	0.0021 J	0.0017 J	0.0019 J	0.0032 J	0.0030 J	0.0017 J	0.0015 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0011 J+	< 0.00047 U	0.0012 J+	0.0012 J+	0.00060 J+	0.0015 J+	0.0018 J+	0.0017 J+	0.00026 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00047 J	0.00034 J	0.00051 J	0.00026 JN	0.00032 JN	< 0.00017 U	0.00035 JN	0.00053 J	0.00029 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00037 J+	0.00027 J+	0.00037 JN	0.00040 J+	0.00024 JN	0.00031 J+	0.00058 J+	0.00042 J+	< 0.000095 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00023 JN	0.00036 J	0.00053 J	0.00034 J	0.00029 JN	0.00036 J	0.00063 J	0.00029 JN	0.00026 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00030 J	0.00030 J	0.00040 J	0.00032 J	0.00027 J	0.00024 J	0.00070 J	0.00023 J	0.00020 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00030 JN	0.00020 JN	0.00016 JN	0.00024 JN	< 0.00036 U	0.00043 J	0.00035 JN	0.00042 J	0.00021 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00035 JN	0.00058 J+	0.00059 JN	0.00054 J	0.00042 J+	0.00047 J	0.00067 J	0.00039 J	0.00035 J
OCDD	3268-87-9	µg/kg	0.61	0.41	0.53	0.52	0.60	0.51	1.9	0.44	0.41
OCDF	39001-02-0	µg/kg	0.031	0.029	0.028	0.027	0.037	0.030	0.12	0.032	0.029
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0025	0.0022	0.0028	0.0022	0.0022	0.0028	0.0056	0.0026	0.0018
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0022	0.0021	0.0026	0.0018	0.0019	0.0027	0.0049	0.0025	0.0014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0021	0.002	0.0026	0.0017	0.0017	0.0026	0.0047	0.0025	0.0012
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.039	< 0.0011 U	0.0052 JN	0.0080 J	0.0053 JN	0.0037 JN	0.0096 JN	0.0019 JN	0.0050 J
PCB-10	33146-45-1	ng/g	0.0032 J	< 0.021 U	0.0011 JN	< 0.00065 U	< 0.0034 U	< 0.0013 U	0.0024 JN	0.0020 J	0.0018 JN
PCB-103	60145-21-3	ng/g	0.081	< 0.0045 U	0.013	0.045	0.0071 JN	0.0082 J	0.014	0.011 J	0.025
PCB-104	56558-16-8	ng/g	< 0.00045 U	< 0.0034 U	< 0.00034 U	< 0.00018 U	< 0.00024 U	< 0.0015 U	0.0035 J	0.0012 J	0.0019 JN
PCB-105	32598-14-4	ng/g	0.18	0.090	0.11	0.098	0.082	0.084	0.11	0.049	0.045
PCB-106	70424-69-0	ng/g	< 0.0029 U	< 0.0046 U	< 0.0014 U	< 0.0017 U	< 0.0014 U	< 0.0021 U	< 0.0016 U	< 0.0023 U	< 0.0010 U
PCB-107	70424-68-9	ng/g	0.078	0.016 J	0.023	0.040	0.020	0.015 J	0.026	0.012	0.016
PCB-108/124	70362-41-3	ng/g	0.020	< 0.0047 U	0.014 J	0.012 J	0.0077 J	0.0078 JN	0.013 J	0.0058 J	0.0046 J
PCB-11	2050-67-1	ng/g	0.040	0.042 JN	0.098	0.033 JN	0.037	0.046 J	0.042	0.11	0.18
PCB-110/115	38380-03-9	ng/g	0.91	0.28	0.37	0.44	0.37	0.26	0.44	0.15	0.28
PCB-111	39635-32-0	ng/g	0.0091 J	< 0.0031 U	0.0022 J	0.0033 JN	< 0.00022 U	< 0.0013 U	< 0.00022 U	0.00073 JN	0.0021 J
PCB-112	74472-36-9	ng/g	< 0.00044 U	< 0.0033 U	0.0024 JN	< 0.00018 U	< 0.00024 U	0.0017 JN	< 0.00024 U	< 0.00036 U	< 0.00024 U
PCB-114	74472-37-0	ng/g	0.013 JN	< 0.0042 U	0.0068 J	0.0089 J	0.0051 J	0.0047 J	0.0055 J	< 0.0021 U	0.0019 J
PCB-118	31508-00-6	ng/g	0.58 J-	0.14 JN	0.25	0.27	0.23	0.21	0.28	0.12	0.13
PCB-12/13	2974-92-7	ng/g	0.013 J	< 0.019 U	0.0035 JN	0.0066 J	0.0059 JN	0.0056 JN	0.0047 JN	< 0.00041 U	0.0054 J
PCB-120	68194-12-7	ng/g	0.019 JN	< 0.0032 U	0.0048 J	0.013	0.0028 JN	< 0.0013 U	0.0019 JN	0.0012 JN	0.0055 J
PCB-121	56558-18-0	ng/g	< 0.00043 U	< 0.0033 U	< 0.00033 U	< 0.00018 U	< 0.00023 U	< 0.0014 U	< 0.00024 U	0.00077 JN	0.0029 J
PCB-122	76842-07-4	ng/g	0.0093 JN	< 0.0053 U	< 0.0015 U	< 0.0019 U	0.0026 JN	0.0029 JN	0.0046 J	< 0.0025 U	< 0.0012 U
PCB-123	65510-44-3	ng/g	0.0070 JN	< 0.0047 U	< 0.0013 U	0.0061 J	0.0045 JN	0.0041 J	0.0061 J	0.0024 JN	0.0036 JN
PCB-126	57465-28-8	ng/g	< 0.0028 U	< 0.0046 U	0.0020 JN	< 0.0017 U	0.0032 JN	< 0.0021 U	< 0.0016 U	< 0.0022 U	< 0.0011 U
PCB-127	39635-33-1	ng/g	< 0.0028 U	< 0.0046 U	< 0.0013 U	< 0.0016 U	< 0.0014 U	< 0.0020 U	< 0.0015 U	< 0.0022 U	< 0.0010 U
PCB-128/166	38380-07-3	ng/g	0.20	0.11	0.12	0.14	0.074	0.064 J	0.14	0.074	0.049
PCB-129/138/160/163	55215-18-4	ng/g	1.8	1.0	0.90	1.3	0.58	0.43	0.94	0.54	0.50
PCB-130	52663-66-8	ng/g	0.12	0.057	0.058	0.086	0.032	0.028 J	0.061	0.025	0.024
PCB-131	61798-70-7	ng/g	< 0.0033 U	< 0.011 U	< 0.0021 U	< 0.0019 U	< 0.0034 U	< 0.0038 U	0.011	< 0.0023 U	< 0.0020 U
PCB-132	38380-05-1	ng/g	0.62	0.26 JN	0.26	0.43	0.17	0.12	0.33	0.12	0.16
PCB-133	35694-04-3	ng/g	0.10	0.031 J	0.023	0.069	0.0097 J	0.0074 J	0.018 JN	0.0085 JN	0.021
PCB-134/143	52704-70-8	ng/g	0.12	0.056 JN	0.048	0.086	0.029	0.029 J	0.057	0.021 J	0.031
PCB-135/151	52744-13-5	ng/g	1.3	0.45	0.38	0.80	0.25	0.14	0.41	0.15	0.26
PCB-136	38411-22-2	ng/g	0.39	0.11	0.12	0.23	0.083	0.052 J	0.14	0.052	0.091
PCB-137	35694-06-5	ng/g	0.037	0.018 JN	0.022	0.022	0.015 JN	0.015 JN	0.034	0.011 J	0.0090 J
PCB-139/140	56030-56-9	ng/g	0.045	0.019 J	0.013 J	0.033	0.0088 J	< 0.0031 U	0.013 J	< 0.0019 U	0.011 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S254	S255	S256	S257	S258	S259	S261	S262	S263
		Sample ID	PDI-SG-S254	PDI-SG-S255	PDI-SG-S256	PDI-SG-S257	PDI-SG-S258	PDI-SG-S259	PDI-SG-S261	PDI-SG-S262	PDI-SG-S263
		Sample Date	11 May 2018	11 May 2018	11 May 2018	11 May 2018	13 May 2018	12 May 2018	12 May 2018	12 May 2018	19 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-14 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-14	34883-41-5	ng/g	< 0.00064 U	< 0.016 U	< 0.00049 U	< 0.00050 U	< 0.0026 U	< 0.0010 U	< 0.00049 U	< 0.00038 U	< 0.0010 U
PCB-141	52712-04-6	ng/g	0.40	0.21 JN	0.20	0.31	0.12	0.085	0.22	0.13	0.11
PCB-142	41411-61-4	ng/g	< 0.0031 U	< 0.0096 U	< 0.0020 U	< 0.0018 U	< 0.0031 U	< 0.0035 U	< 0.0022 U	< 0.0021 U	< 0.0018 U
PCB-144	68194-14-9	ng/g	0.098	0.044 J	0.045	0.064	0.022	0.016 JN	0.049	0.021	0.023
PCB-145	74472-40-5	ng/g	< 0.00037 U	< 0.0015 U	< 0.00027 U	< 0.00016 U	< 0.00027 U	< 0.00014 U	< 0.00033 U	< 0.000080 U	< 0.00015 U
PCB-146	51908-16-8	ng/g	0.63	0.22	0.18	0.45	0.096	0.064	0.16	0.094	0.16
PCB-147/149	68194-13-8	ng/g	2.1	0.95	0.77	1.5	0.58	0.33	0.92	0.39	0.67
PCB-148	74472-41-6	ng/g	0.031 JN	< 0.0021 U	0.0044 JN	0.022	0.0027 J	0.00086 JN	0.0040 J	0.0012 JN	0.0051 JN
PCB-15	2050-68-2	ng/g	0.064	< 0.018 U	0.025	0.045	0.022 JN	0.014 J	0.030	0.014	0.013
PCB-150	68194-08-1	ng/g	0.023	< 0.0014 U	0.0058 J	0.015	0.0023 J	0.00050 JN	0.0035 JN	0.0020 JN	0.0058 J
PCB-152	68194-09-2	ng/g	0.0075 J	< 0.0015 U	0.0011 JN	0.0022 JN	< 0.00028 U	0.00066 JN	0.0029 J	0.00056 JN	0.0014 JN
PCB-153/168	35065-27-1	ng/g	2.0	1.0	0.84	1.5	0.51	0.35	0.81	0.58	0.64
PCB-154	60145-22-4	ng/g	0.15	0.025 JN	0.029 JN	0.087	0.011	0.0078 JN	0.016 JN	0.011 J	0.026 JN
PCB-155	33979-03-2	ng/g	0.0015 J+	< 0.0014 U	0.00068 J	0.0017 JN	< 0.00026 U	< 0.00012 U	0.00066 JN	0.00047 JN	< 0.00014 U
PCB-156/157	38380-08-4	ng/g	0.12	0.067 J	0.073	0.081	0.045	0.042 J	0.072	0.049	0.032
PCB-158	74472-42-7	ng/g	0.15	0.078	0.083	0.10	0.051	0.043 J	0.092	0.053	0.041
PCB-159	39635-35-3	ng/g	0.030	0.013 JN	0.014	0.024	0.0044 JN	0.0054 JN	0.017	0.019	< 0.0012 U
PCB-16	38444-78-9	ng/g	0.084	< 0.0024 U	0.016	0.039	0.014	0.0096 JN	0.012	0.0060 J	0.0044 J
PCB-161	74472-43-8	ng/g	< 0.0020 U	< 0.0064 U	< 0.0013 U	< 0.0012 U	< 0.0021 U	< 0.0023 U	< 0.0015 U	< 0.0014 U	< 0.0012 U
PCB-162	39635-34-2	ng/g	< 0.0019 U	< 0.0063 U	< 0.0012 U	< 0.0011 U	0.0021 J	< 0.0022 U	< 0.0014 U	< 0.0013 U	< 0.0012 U
PCB-164	74472-45-0	ng/g	0.13	0.084	0.068	0.10	0.041	0.031 J	0.076	0.035	0.047
PCB-165	74472-46-1	ng/g	< 0.0023 U	< 0.0073 U	< 0.0015 U	< 0.0013 U	< 0.0023 U	< 0.0026 U	< 0.0017 U	< 0.0016 U	< 0.0013 U
PCB-167	52663-72-6	ng/g	0.046	0.040 J	0.030	0.035	0.019	0.016 J	0.030	0.0090 JN	0.012
PCB-169	32774-16-6	ng/g	< 0.0015 U	< 0.0046 U	< 0.00094 U	< 0.00084 U	< 0.0016 U	< 0.0017 U	< 0.0011 U	< 0.0010 U	< 0.00092 U
PCB-17	37680-66-3	ng/g	0.10	< 0.0021 U	0.026 JN	0.058	0.031 JN	0.015 JN	0.033	0.018	0.024
PCB-170	35065-30-6	ng/g	0.69	0.58	0.37	0.54	0.20	0.10	0.42	0.62	0.15
PCB-171/173	52663-71-5	ng/g	0.23	0.16	0.11	0.17	0.060	0.036 J	0.13	0.18	0.047
PCB-172	52663-74-8	ng/g	0.13	0.11	0.070	0.11	0.032	0.019 J	0.082	0.12	0.028
PCB-174	38411-25-5	ng/g	0.88	0.64	0.42	0.70	0.22	0.12	0.53	0.65	0.18
PCB-175	40186-70-7	ng/g	0.030	0.016 JN	0.015	0.023	0.0061 JN	< 0.0019 U	0.020	0.028	0.0075 J
PCB-176	52663-65-7	ng/g	0.10	0.056	0.042	0.076	0.026	0.013 JN	0.054	0.067	0.020
PCB-177	52663-70-4	ng/g	0.57	0.38	0.25	0.44	0.12	0.075	0.28	0.38	0.12
PCB-178	52663-67-9	ng/g	0.23	0.13	0.093	0.18	0.043	0.028 J	0.10	0.12	0.060
PCB-179	52663-64-6	ng/g	0.43	0.21 JN	0.17	0.33	0.096	0.058	0.22	0.21	0.097
PCB-18/30	37680-65-2	ng/g	0.18	0.015 JN	0.037	0.088	0.049	0.014 JN	0.024	0.016 J	0.017 J
PCB-180/193	35065-29-3	ng/g	1.6	1.3	0.85	1.3	0.43	0.22	1.0	1.5	0.34
PCB-181	74472-47-2	ng/g	< 0.00073 U	< 0.0031 U	< 0.00024 U	< 0.000039 U	< 0.00051 U	< 0.0018 U	< 0.00099 U	< 0.0010 U	< 0.00047 U
PCB-182	60145-23-5	ng/g	0.021	< 0.0030 U	0.0037 JN	0.014	0.0028 JN	< 0.0017 U	< 0.00094 U	< 0.00098 U	0.0039 JN
PCB-183/185	52663-69-1	ng/g	0.49	0.38	0.25	0.39	0.15	0.073 J	0.31	0.45	0.11
PCB-184	74472-48-3	ng/g	< 0.00060 U	< 0.0025 U	< 0.00019 U	< 0.000032 U	< 0.00042 U	< 0.0015 U	< 0.00081 U	< 0.00084 U	< 0.00038 U
PCB-186	74472-49-4	ng/g	< 0.00057 U	< 0.0025 U	< 0.00019 U	< 0.000031 U	< 0.00041 U	< 0.0014 U	< 0.00078 U	< 0.00080 U	< 0.00037 U
PCB-187	52663-68-0	ng/g	1.2	0.78	0.51	0.91	0.26	0.12 JN	0.67	0.77	0.30
PCB-188	74487-85-7	ng/g	< 0.00054 U	< 0.0022 U	< 0.00018 U	0.011	< 0.00034 U	< 0.0013 U	< 0.00072 U	< 0.00074 U	0.0019 J
PCB-189	39635-31-9	ng/g	0.025	0.024 J	0.014	0.018	0.0036 JN	0.0049 JN	0.017	0.022	0.0033 JN
PCB-19	38444-73-4	ng/g	0.030	< 0.0026 U	0.022	0.030	0.033	0.039 J	0.057	0.042 JN	0.050
PCB-190	41411-64-7	ng/g	0.14	0.11	0.074	0.11	0.036	0.023 J	0.083	0.13	0.031
PCB-191	74472-50-7	ng/g	0.035	0.023 JN	0.017	0.023	0.0078 J	0.0052 JN	0.020 JN	0.029 JN	0.0081 J
PCB-192	74472-51-8	ng/g	< 0.00058 U	< 0.0026 U	< 0.00019 U	< 0.000031 U	< 0.00043 U	< 0.0014 U	< 0.00079 U	< 0.00082 U	< 0.00039 U
PCB-194	35694-08-7	ng/g	0.44	0.39	0.21	0.39	0.11	0.061	0.41	0.39	0.088
PCB-195	52663-78-2	ng/g	0.18	0.16	0.089	0.16	0.050	0.024 J	0.14	0.18	0.038
PCB-196	42740-50-1	ng/g	0.21	0.16	0.096	0.16	0.053	0.020 JN	0.17	0.18	0.037
PCB-197	33091-17-7	ng/g	0.017	0.0076 JN	0.0082 J	0.0077 JN	0.0041 JN	0.0016 JN	0.010 J	0.014 JN	0.0031 J
PCB-198/199	68194-17-2	ng/g	0.48	0.38	0.24	0.37	0.11	0.066 J	0.45	0.39	0.093
PCB-2	2051-61-8	ng/g	0.011 JN	< 0.0013 U	0.0095 J	0.0047 J	0.0058 J	0.0057 JN	0.0065 JN	0.0033 JN	0.0062 J

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S254	S255	S256	S257	S258	S259	S261	S262	S263
		Sample ID	PDI-SG-S254	PDI-SG-S255	PDI-SG-S256	PDI-SG-S257	PDI-SG-S258	PDI-SG-S259	PDI-SG-S261	PDI-SG-S262	PDI-SG-S263
		Sample Date	11 May 2018	11 May 2018	11 May 2018	11 May 2018	13 May 2018	12 May 2018	12 May 2018	12 May 2018	19 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-14 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	CAS_RN	Units									
PCB-20/28	38444-84-7	ng/g	0.36	0.026 J	0.076	0.18	0.075	0.053 J	0.065	0.045	0.038
PCB-200	52663-73-7	ng/g	0.053	0.040 J	0.026	0.042	0.012 JN	0.0066 JN	0.045	0.046	0.0086 JN
PCB-201	40186-71-8	ng/g	0.056	0.042 J	0.025	0.041	0.014	0.0034 JN	0.047	0.049	0.0095 J
PCB-202	2136-99-4	ng/g	0.088 J+	0.066 JN	0.045	0.081	0.018 JN	0.011 J	0.096	0.068	0.020
PCB-203	52663-76-0	ng/g	0.27	0.22	0.14	0.23	0.074	0.037 J	0.27	0.24	0.051
PCB-204	74472-52-9	ng/g	< 0.00055 U	< 0.0031 U	< 0.00059 U	< 0.00034 U	< 0.00041 U	< 0.00042 U	< 0.0012 U	< 0.0010 U	< 0.00026 U
PCB-205	74472-53-0	ng/g	0.021 J+	0.018 JN	0.010	0.020	0.0060 J	0.0030 J	0.018	0.020	0.0045 J
PCB-206	40186-72-9	ng/g	0.24 JN	0.12 JN	0.12 JN	0.13	0.051 JN	0.074 JN	0.33	0.11 JN	0.034
PCB-207	52663-79-3	ng/g	0.017	< 0.0085 U	0.0085 J	0.015	0.0071 J	0.0027 JN	0.030	0.011 J	0.0042 J
PCB-208	52663-77-1	ng/g	0.039 J+	< 0.0086 U	0.022	0.029	0.012 JN	0.0074 J	0.076	0.020	0.0075 JN
PCB-209	2051-24-3	ng/g	0.088	0.032 JN	0.026	0.047	0.036 JN	0.041 J	0.10	0.055	0.031
PCB-21/33	55702-46-0	ng/g	0.16	0.0078 JN	0.033	0.071	0.030	0.019 JN	0.025	0.016 J	0.011 JN
PCB-22	38444-85-8	ng/g	0.10	0.0067 JN	0.024	0.050	0.018	0.017 J	0.016	0.012 JN	0.0090 J
PCB-23	55720-44-0	ng/g	< 0.0017 U	< 0.0022 U	< 0.00076 U	< 0.00075 U	< 0.00080 U	< 0.0014 U	< 0.00061 U	< 0.00060 U	< 0.00039 U
PCB-24	55702-45-9	ng/g	0.0031 JN	< 0.0018 U	0.0013 J	< 0.00029 U	< 0.00039 U	< 0.00018 U	< 0.00039 U	< 0.00022 U	< 0.00015 U
PCB-25	55712-37-3	ng/g	0.035	< 0.0020 U	0.0083 J	0.019	0.010 JN	0.0066 J	0.0079 J	0.0058 J	0.0087 J
PCB-26/29	38444-81-4	ng/g	0.061	< 0.0021 U	0.014 J	0.033	0.019 J	0.010 JN	0.012 J	0.0081 J	0.019 J
PCB-27	38444-76-7	ng/g	0.018	< 0.0016 U	0.0057 J	0.010	0.0092 J	0.0029 JN	0.0073 J	0.0050 J	0.0088 J
PCB-3	2051-62-9	ng/g	0.029	< 0.0014 U	0.0057 JN	0.0074 J	0.0041 J	0.0040 JN	0.011	0.0022 JN	0.0055 J
PCB-31	16606-02-3	ng/g	0.26	0.013 JN	0.061	0.13	0.058	0.041 J	0.044	0.033	0.029
PCB-32	38444-77-8	ng/g	0.076	< 0.0015 U	0.017 JN	0.039	0.029	0.015 J	0.022	0.011 J	0.015
PCB-34	37680-68-5	ng/g	0.0020 J	< 0.0023 U	0.0016 J	< 0.00078 U	< 0.00083 U	< 0.0015 U	< 0.00063 U	< 0.00062 U	< 0.00041 U
PCB-35	37680-69-6	ng/g	0.0030 JN	< 0.0022 U	0.0037 J	0.0020 JN	0.0012 JN	< 0.0014 U	0.0013 J	< 0.00059 U	0.0025 JN
PCB-36	38444-87-0	ng/g	< 0.0015 U	< 0.0022 U	< 0.00068 U	< 0.00067 U	< 0.00078 U	< 0.0013 U	< 0.00055 U	< 0.00054 U	0.0024 JN
PCB-37	38444-90-5	ng/g	0.082	0.012 JN	0.028	0.043	0.020	0.021 J	0.017	0.014	0.0085 JN
PCB-38	53555-66-1	ng/g	< 0.0016 U	< 0.0023 U	< 0.00074 U	< 0.00073 U	< 0.00084 U	< 0.0014 U	< 0.00059 U	< 0.00058 U	< 0.00041 U
PCB-39	38444-88-1	ng/g	< 0.0015 U	< 0.0021 U	< 0.00068 U	0.0014 J	0.0013 JN	< 0.0013 U	< 0.00054 U	< 0.00053 U	< 0.00037 U
PCB-4	13029-08-8	ng/g	0.061	< 0.030 U	0.019 JN	0.037	0.024 JN	0.019 JN	0.049	0.027	0.036 JN
PCB-40/41/71	38444-93-8	ng/g	0.16	0.019 J	0.052	0.093	0.053	0.040 J	0.056	0.032 J	0.036
PCB-42	36559-22-5	ng/g	0.076	0.012 J	0.023	0.043	0.025	0.017 J	0.027	0.018	0.011
PCB-43/73	70362-46-8	ng/g	0.012 JN	< 0.0020 U	0.0033 JN	0.016 J	0.0080 J	0.0084 JN	0.010 J	0.0057 JN	0.0096 J
PCB-44/47/65	41464-39-5	ng/g	0.53	0.044 JN	0.18	0.31	0.15	0.14 J	0.28	0.14	0.15
PCB-45/51	70362-45-7	ng/g	0.18	0.0074 JN	0.043	0.089	0.032	0.038 J	0.11	0.050	0.043
PCB-46	41464-47-5	ng/g	0.021	< 0.0028 U	0.0038 JN	0.014	0.0070 J	0.0042 J	0.011	0.0045 JN	0.0046 J
PCB-48	70362-47-9	ng/g	0.048	< 0.0022 U	0.013	0.024	0.013 JN	0.013 J	0.014	0.0091 JN	0.0060 JN
PCB-49/69	41464-40-8	ng/g	0.43	0.029 J	0.098	0.23	0.096	0.082 J	0.13	0.086	0.12
PCB-5	16605-91-7	ng/g	0.0020 JN	< 0.021 U	< 0.00059 U	< 0.00061 U	< 0.0034 U	< 0.0012 U	< 0.00059 U	< 0.00045 U	< 0.0013 U
PCB-50/53	62796-65-0	ng/g	0.12	< 0.0021 U	0.029 JN	0.069	0.032	0.037 J	0.060	0.053	0.052
PCB-52	35693-99-3	ng/g	0.68	0.046 JN	0.19	0.33	0.17	0.18	0.20	0.13	0.17
PCB-54	15968-05-5	ng/g	0.015 J+	< 0.00077 U	0.0062 J	0.0081 JN	0.0076 J	0.0069 JN	0.019	0.015	0.013
PCB-55	74338-24-2	ng/g	0.0060 JN	< 0.0016 U	< 0.00086 U	< 0.0014 U	0.0046 J	0.0040 JN	0.0026 JN	< 0.00065 U	< 0.00089 U
PCB-56	41464-43-1	ng/g	0.12	0.021 JN	0.035	0.057	0.041	0.036 J	0.034	0.023	0.016
PCB-57	70424-67-8	ng/g	< 0.0016 U	< 0.0016 U	< 0.00088 U	< 0.0014 U	< 0.0013 U	< 0.00099 U	< 0.00079 U	< 0.00066 U	< 0.00091 U
PCB-58	41464-49-7	ng/g	0.0041 JN	< 0.0016 U	< 0.00085 U	< 0.0014 U	0.0018 J	< 0.00095 U	0.0019 J	< 0.00064 U	< 0.00092 U
PCB-59/62/75	74472-33-6	ng/g	0.030	< 0.0015 U	0.0095 J	0.016 J	0.0084 J	0.010 J	0.013 J	0.0065 JN	0.0069 J
PCB-6	25569-80-6	ng/g	0.038	< 0.019 U	0.0073 J	0.019	0.0094 JN	0.0040 J	0.0067 J	0.0035 J	0.0044 JN
PCB-60	33025-41-1	ng/g	0.031	0.0095 J	0.015	0.017	0.014	0.014 J	0.014	0.0092 J	0.0059 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.52	0.075 J	0.17	0.25	0.18	0.17 J	0.19	0.10	0.094
PCB-63	74472-34-7	ng/g	0.011	< 0.0015 U	0.0025 JN	0.0061 J	0.0034 JN	0.0026 JN	0.0029 JN	0.0016 JN	0.0012 JN
PCB-64	52663-58-8	ng/g	0.10	0.012 JN	0.033	0.051	0.034	0.032 J	0.038	0.025	0.018
PCB-66	32598-10-0	ng/g	0.32	0.042 JN	0.084	0.15	0.10	0.097	0.10	0.059	0.056
PCB-67	73575-53-8	ng/g	0.0074 J	< 0.0014 U	0.0030 JN	0.0037 J	0.0022 J	0.0013 JN	0.0029 J	0.0019 J	0.0016 J
PCB-68	73575-52-7	ng/g	0.012 JN	< 0.0014 U	0.0020 J	0.0081 J	0.0039 JN	0.0016 JN	0.0023 JN	0.0018 J	0.0029 J
PCB-7	33284-50-3	ng/g	0.0051 JN	< 0.019 U	0.0012 JN	0.0035 J	< 0.0031 U	< 0.0011 U	0.0013 JN	< 0.00042 U	< 0.0012 U

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S254	S255	S256	S257	S258	S259	S261	S262	S263
		Sample ID	PDI-SG-S254	PDI-SG-S255	PDI-SG-S256	PDI-SG-S257	PDI-SG-S258	PDI-SG-S259	PDI-SG-S261	PDI-SG-S262	PDI-SG-S263
		Sample Date	11 May 2018	11 May 2018	11 May 2018	11 May 2018	13 May 2018	12 May 2018	12 May 2018	12 May 2018	19 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-14 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
PCB-72	41464-42-0	ng/g	0.015	< 0.0016 U	0.0017 J	0.0075 J	0.0030 J	0.0015 JN	0.0026 J	0.0016 J	0.0034 J
PCB-77	32598-13-3	ng/g	0.023	0.011 J	0.014	0.013 JN	0.012	0.010 JN	0.010 J	0.0080 J	0.0050 J
PCB-78	70362-49-1	ng/g	< 0.0015 U	< 0.0016 U	< 0.00085 U	< 0.0014 U	< 0.0013 U	< 0.00096 U	< 0.00076 U	< 0.00064 U	< 0.00092 U
PCB-79	41464-48-6	ng/g	0.0064 J	< 0.0014 U	0.0021 J	0.0045 JN	0.0032 J	0.0014 JN	0.0020 JN	< 0.00055 U	0.0013 JN
PCB-8	34883-43-7	ng/g	0.16	< 0.017 U	0.024	0.081	0.026	0.014 J	0.020 J	0.0093 J	0.015 J
PCB-80	33284-52-5	ng/g	< 0.0014 U	< 0.0014 U	< 0.00076 U	< 0.0012 U	< 0.0011 U	< 0.00085 U	< 0.00068 U	< 0.00057 U	< 0.00078 U
PCB-81	70362-50-4	ng/g	< 0.0015 U	< 0.0015 U	< 0.00080 U	< 0.0013 U	< 0.0012 U	< 0.00089 U	< 0.00071 U	< 0.00060 U	< 0.00084 U
PCB-82	52663-62-4	ng/g	0.073	0.026 JN	0.036 JN	0.032 JN	0.035	0.024 J	0.041	0.014	0.015
PCB-83/99	60145-20-2	ng/g	0.74	0.13	0.22	0.40	0.19	0.15	0.22	0.098	0.19
PCB-84	52663-60-2	ng/g	0.15	0.046	0.069	0.079	0.061 JN	0.055 J	0.088	0.028	0.037
PCB-85/116/117	65510-45-4	ng/g	0.11	0.044 J	0.055	0.057	0.046	0.034 JN	0.056	0.026 J	0.025 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.47	0.12 J	0.20	0.23	0.18	0.16 J	0.20	0.084	0.12
PCB-88/91	55215-17-3	ng/g	0.18	0.037 JN	0.065	0.10	0.061	0.046 J	0.085	0.035 JN	0.068
PCB-89	73575-57-2	ng/g	< 0.00067 U	< 0.0051 U	0.0027 JN	0.0036 JN	< 0.00036 U	< 0.0022 U	0.0028 JN	< 0.00054 U	< 0.00037 U
PCB-9	34883-39-1	ng/g	0.0087 JN	< 0.020 U	0.0017 JN	0.0046 J	< 0.0032 U	< 0.0013 U	0.0015 JN	< 0.00050 U	< 0.0012 U
PCB-90/101/113	68194-07-0	ng/g	1.2	0.26	0.38	0.68	0.35	0.25	0.38	0.17	0.36
PCB-92	52663-61-3	ng/g	0.36	0.047 JN	0.089	0.20	0.071	0.039 JN	0.079	0.030 JN	0.064
PCB-93/100	73575-56-1	ng/g	0.084	< 0.0045 U	0.026	0.045 JN	0.015 JN	0.016 J	0.042 JN	0.011 JN	0.037
PCB-94	73575-55-0	ng/g	0.020	< 0.0051 U	0.0052 JN	0.010	0.0024 JN	< 0.0022 U	0.0088 J	0.0027 JN	0.0074 J
PCB-95	38379-99-6	ng/g	0.92	0.21 JN	0.29	0.49	0.31	0.21	0.33	0.14	0.30
PCB-96	73575-54-9	ng/g	0.020	< 0.0038 U	0.0059 J	0.010	0.0038 J	< 0.0016 U	0.0091 J	0.0031 JN	0.0051 JN
PCB-98/102	60233-25-2	ng/g	0.047	< 0.0043 U	0.016 J	0.030	0.0089 JN	0.0083 JN	0.023	0.0084 J	0.012 J
Total PCBs (b)	T_PCBCg (PDI)	ng/g	31	13	12	21	8.6	6.1	15	12	8.0
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 0.93 U	< 0.78 U	< 0.86 U	< 0.49 U	< 0.50 UJ	< 1.2 U	3.6	< 1.2 U	< 0.38 U
2,4-DDE	3424-82-6	µg/kg	< 0.93 U	< 0.79 U	< 0.86 U	< 0.49 U	< 0.50 UJ	< 1.2 U	< 1.1 U	< 1.2 U	< 0.38 U
2,4-DDT	789-02-6	µg/kg	< 0.94 U	< 0.94 U	< 0.94 U	< 0.49 U	< 0.50 UJ	< 1.2 U	28	< 1.2 U	< 0.38 U
4,4'-DDD	72-54-8	µg/kg	0.80 J	< 0.78 U	0.41 J	0.60	0.79 J	1.0 J	12	0.85 J	0.43
4,4'-DDE	72-55-9	µg/kg	2.0	< 0.78 U	1.6	2.0	1.7 J	3.0	4.1	2.2	1.4
4,4'-DDT	50-29-3	µg/kg	< 0.93 U	< 0.78 U	< 0.86 U	0.29 J	0.28 J	< 1.2 U	82	< 1.2 U	0.19 J
DDx (b)	T_DDx (PDI)	µg/kg	3.3	< 0.94 U	2.5	3.1	3.0	4.6	130.3	3.7	2.2
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	5.1	0.96	2.0	2.9	16	3.0	3.4	1.6	6.7 J
Acenaphthene	83-32-9	µg/kg	6.2	1.3	2.8	3.1	11	5.1	8.5	0.97	3.8 J
Acenaphthylene	208-96-8	µg/kg	4.4	11	8.1	6.4	4.3	2.1	6.2	2.3	8.0 J
Anthracene	120-12-7	µg/kg	11	10	7.9	7.7	22	9.0	18	4.2	20
Benz(a)anthracene	56-55-3	µg/kg	28 J	65	48	37	53	30	46	14	21
Benzo(a)pyrene	50-32-8	µg/kg	40	110	83	68	59	43	60	20	19 J
Benzo(b)fluoranthene	205-99-2	µg/kg	39 J	110	94	65	61 J	48	77	28	34
Benzo(g,h,i)perylene	191-24-2	µg/kg	21 J	96	64	44	26 J	21	44	19	15
Benzo(k)fluoranthene	207-08-9	µg/kg	14 J	33	26	20	21	17	25	7.9	10
Chrysene	218-01-9	µg/kg	42 J	100	75	59	72	48	42	25	27
Dibenz(a,h)anthracene	53-70-3	µg/kg	3.8	11	10	6.4	5.9	4.6	9.6	3.2	8.0 J
Fluoranthene	206-44-0	µg/kg	70 J	180	110	96	110	73	110	36	74
Fluorene	86-73-7	µg/kg	8.4	2.4	3.5	4.5	18	6.6	8.6	1.8	6.3 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	20 J	88	56	40	28	21	47	17	23
Naphthalene	91-20-3	µg/kg	10	2.2	4.0	5.1	17	3.0	6.5	2.7	12
Phenanthrene	85-01-8	µg/kg	44 J	58	46	45	89	40	50	16	32
Pyrene	129-00-0	µg/kg	76 J	240	140	120	120	69	130	39	61
Total PAHs (b)	T_PAH (PDI)	µg/kg	443	1119	780	630	733	443	692	239	381
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	53	148	113	89	79	58	87	29	35
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	53.9	63.8	59.9	53.3	51.0	43.5	45.7	40.9	50.7 52.7
Total Solids@104C - E160.3M (f)	TSOLID	%	53.1	62.4	57.4	50.6	49.0	41.7	44.0	41.0	51.2
Total Solids@70C	TSOLID70	%	52	72	58	50	49	41	43	40	50
Gravel	GS-Gravel	%	0.1	0	0	0	0.7	0	0	0	0
Sand, Coarse	GS-Csand	%	0.2	0.4	0.1	0	0.4	0	0.2	0	0.7

Table A.1a-2. Chemical Results for PDI Surface Sediment Samples - Sediment Management Area

		Location	S254	S255	S256	S257	S258	S259	S261	S262	S263
		Sample ID	PDI-SG-S254	PDI-SG-S255	PDI-SG-S256	PDI-SG-S257	PDI-SG-S258	PDI-SG-S259	PDI-SG-S261	PDI-SG-S262	PDI-SG-S263
		Sample Date	11 May 2018	11 May 2018	11 May 2018	11 May 2018	13 May 2018	12 May 2018	12 May 2018	12 May 2018	19 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-26 cm	0-14 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm
Chemical	**CAS_RN**	**Units**									
Sand, Medium	GS-Msand	%	17.6	5.8	0.2	0.4	2.7	0.1	1.2	0.2	2.3
Sand, Fine (#200) (d)	GS-Fsand-200	%	28.13	31.84	8.641	12.6	36.55	13.21	27.1	21.42	46.99
Sand, Fine (#230) (d)	GS-Fsand	%	29.8	37.4	12.9	17.2	41.9	16.9	32.2	26.6	53.3
Silt (#200) (d)	GS-Silt-200	%	44.66	57.25	83.75	78.39	50.64	73.98	62.59	68.17	45.50
Silt (#230) (d)	GS-Silt	%	43.0	51.7	79.5	73.8	45.3	70.3	57.5	63.0	39.2
Clay	GS-Clay	%	9.3	4.7	7.3	8.6	8.9	12.7	8.8	10.3	4.5
Percent Fines (e)	GS-FINES	%	53.96	61.95	91.05	86.99	59.54	86.68	71.39	78.47	50
Total Organic Carbon	TOC	mg/kg	15000	15000	15000	18000	20000	28000	24000	27000	16000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d.The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e.Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B429	B430	B431	B432	B434	B435	B436	B437	B437	B438
		Sample ID	PDI-SG-B429	PDI-SG-B430	PDI-SG-B431	PDI-SG-B432	PDI-SG-B434	PDI-SG-B435	PDI-SG-B436	PDI-SG-B437	PDI-SG-B437-D	PDI-SG-B438
		Sample Date	03 Jul 2018	28 Jun 2018	07 Sep 2018	28 Jun 2018	29 Jun 2018	29 Jun 2018	16 Aµg 2018	16 Aµg 2018	16 Aµg 2018	16 Aµg 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-29 cm	0-29 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.024	0.033	0.016	0.038	0.068	0.029	0.055	0.035	0.039	0.13
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0052 JN	0.0049 J	0.0036 JN	0.0086	0.013 JN	0.0073 JN	0.012 JN	0.0067 JN	0.0070	0.021
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00060 J+	0.00069 JN	0.0016 J+	0.0012 JN	0.0011 J	0.00066 J+	0.0012 J	0.0010 J+	0.00094 J+	0.0017 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00042 J+	0.00059 J+	0.00033 J+	0.00061 J+	0.00092 J	0.00054 J+	0.00070 J	0.00062 J	0.00058 J	0.0015 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00081 J	0.00055 J	0.00074 J	0.00093 J	0.0011 J	0.00067 J	0.0043 J	0.00080 J	< 0.00031 U	0.0017 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0012 J	0.0015 J	0.00099 J	0.0020 J	0.0030 J	0.0014 J	0.0025 J	0.0015 J	0.0018 J	0.0051
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00050 J	0.00042 J	0.00029 J+	0.00068 J	0.00062 J	0.00041 J	0.0010 J	< 0.00023 U	0.00048 J	0.0018 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00096 J	0.0016 J	0.00070 J	0.0012 J	0.0017 J	0.0011 J	0.0017 J	0.0011 J	0.00099 J	0.0035 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0012 J+	0.0014 J+	0.0012 J+	0.0026 J+	0.00075 J+	0.00070 J+	0.00021 J+	0.0011 J+	< 0.00075 U	< 0.00069 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00025 J	0.00030 J	0.00017 J+	0.00039 JN	0.00041 J	0.00025 J	0.00033 JN	0.00033 J	< 0.00033 U	0.00076 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00068 J+	0.00037 J+	0.00026 J+	< 0.00013 U	0.00028 JN	0.00024 J+	0.00031 J	0.00024 J+	< 0.00022 U	0.00059 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00031 J	0.00027 J	0.00020 J	0.00035 J	0.00041 J	0.00023 J	0.00059 J	0.00046 J	< 0.00025 U	0.00061 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00076 J	0.00019 J	0.00016 J+	< 0.00011 U	0.00030 J	0.00019 JN	0.00072 J	0.00022 J	< 0.00022 U	0.00054 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00011 JN	0.00017 JN	< 0.000034 U	0.00017 JN	0.00017 JN	< 0.000023 U	0.00021 JN	0.00024 J	0.00030 J	0.00046 J
2,3,7,8-TCDF	51207-31-9	µg/kg	< 0.000047 U	0.00030 JN	0.00018 JN	0.00045 J	0.00045 J+	0.00043 J+	0.00075 J+	< 0.00023 U	0.00043 J	0.00063 J
OCDD	3268-87-9	µg/kg	0.23	0.34	0.15	0.39	0.66	0.27	0.50	0.38	0.36	2.0
OCDF	39001-02-0	µg/kg	0.017	0.025	0.012	0.037	0.062	0.025	0.029	0.026	0.020	0.062
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0015	0.0017	0.00097	0.0021	0.0026	0.0013	0.0028	0.0018	0.0015	0.0051
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0015	0.0016	0.00091	0.0017	0.0025	0.0013	0.0024	0.0018	0.0015	0.0051
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0014	0.0015	0.0009	0.0015	0.0024	0.0013	0.0022	0.0018	0.0013	0.005
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0023 J	0.0032 J	0.0022 J	< 0.00041 U	0.0046 J	< 0.00028 U	< 0.00022 U	0.0014 JN	0.0017 J	0.013
PCB-10	33146-45-1	ng/g	< 0.0021 U	< 0.0035 U	< 0.0029 U	< 0.0034 U	< 0.0039 U	< 0.0019 U	< 0.0011 U	< 0.0020 U	< 0.0021 U	< 0.0021 U
PCB-103	60145-21-3	ng/g	< 0.00018 U	< 0.00023 U	0.024	0.0028 JN	0.0049 JN	0.0052 J	< 0.00038 U	0.0082 JN	0.0083 JN	0.035 JN
PCB-104	56558-16-8	ng/g	< 0.00013 U	< 0.00018 U	< 0.00010 U	< 0.00029 U	< 0.00040 U	< 0.00026 U	< 0.00029 U	< 0.00031 U	< 0.00033 U	< 0.00019 U
PCB-105	32598-14-4	ng/g	0.078	0.061	0.10	0.13	0.067	0.049	0.31	0.12	0.14	0.34
PCB-106	70424-69-0	ng/g	< 0.00078 U	< 0.0013 U	< 0.0013 U	< 0.0028 U	< 0.0021 U	< 0.0015 U	< 0.0018 U	< 0.0015 U	< 0.0015 U	< 0.0020 U
PCB-107	70424-68-9	ng/g	0.018	0.012 JN	0.025	0.025	0.019	0.0093 JN	0.062	0.037	0.039	0.14
PCB-108/124	70362-41-3	ng/g	0.0099 J	0.0063 JN	0.012 J	0.012 JN	0.0087 J	0.0067 J	0.028	0.012 JN	0.017 J	0.034
PCB-11	2050-67-1	ng/g	0.032	0.044 J+	0.017 JN	0.12	0.043 JN	0.049 J+	0.067	0.037	0.049	0.032
PCB-110/115	38380-03-9	ng/g	0.35	0.18	0.40	0.41	0.21	0.17	0.93	0.52	0.53	1.7
PCB-111	39635-32-0	ng/g	< 0.00012 U	< 0.00016 U	< 0.000092 U	< 0.00027 U	< 0.00037 U	< 0.00024 U	< 0.00027 U	< 0.00028 U	< 0.00031 U	< 0.00017 U
PCB-112	74472-36-9	ng/g	< 0.00013 U	< 0.00017 U	0.0021 JN	< 0.00028 U	< 0.00039 U	0.00053 JN	0.0017 JN	< 0.00030 U	< 0.00032 U	< 0.00018 U
PCB-114	74472-37-0	ng/g	0.0043 J	0.0029 J	0.0064 JN	0.0043 JN	< 0.0019 U	< 0.0014 U	0.017	0.0067 JN	0.0084 J	0.017
PCB-118	31508-00-6	ng/g	0.20	0.14	0.27	0.31	0.16	0.13	0.79	0.40	0.44	1.1
PCB-12/13	2974-92-7	ng/g	0.0028 JN	0.0038 JN	< 0.0026 U	< 0.0031 U	0.0045 JN	0.0026 JN	0.0037 JN	0.0023 JN	0.0038 JN	0.010 JN
PCB-120	68194-12-7	ng/g	< 0.00013 U	< 0.00017 U	< 0.000094 U	< 0.00027 U	< 0.00037 U	< 0.00025 U	< 0.00027 U	0.0040 JN	0.0031 JN	0.019
PCB-121	56558-18-0	ng/g	< 0.00013 U	< 0.00017 U	< 0.000096 U	< 0.00028 U	< 0.00038 U	< 0.00025 U	< 0.00028 U	< 0.00030 U	< 0.00032 U	< 0.00018 U
PCB-122	76842-07-4	ng/g	0.0038 J	0.0021 JN	0.0044 J	< 0.0033 U	< 0.0024 U	< 0.0017 U	0.0094 JN	< 0.0017 U	0.0074 J	0.016 JN
PCB-123	65510-44-3	ng/g	0.0048 JN	0.0029 JN	0.0050 J	0.0043 J	0.0037 J	< 0.0015 U	0.011	0.0068 J	0.0095	0.019 JN
PCB-126	57465-28-8	ng/g	0.0037 JN	< 0.0014 U	0.0024 J	< 0.0032 U	< 0.0024 U	< 0.0015 U	0.0038 J	0.0086 JN	< 0.0016 U	0.0048 JN
PCB-127	39635-33-1	ng/g	< 0.00078 U	< 0.0013 U	< 0.0013 U	< 0.0028 U	< 0.0021 U	< 0.0015 U	< 0.0018 U	< 0.0015 U	< 0.0015 U	< 0.0020 U
PCB-128/166	38380-07-3	ng/g	0.061	0.040	0.078	0.071	0.056	0.051	0.19	0.099	0.096	0.27
PCB-129/138/160/163	55215-18-4	ng/g	0.37	0.29	0.80	0.61	0.41	0.47	1.3	0.67	0.70	1.8
PCB-130	52663-66-8	ng/g	0.022 JN	0.014 JN	0.044	0.027 JN	0.026	0.020 JN	0.078	0.046	0.042	0.15
PCB-131	61798-70-7	ng/g	< 0.0015 U	< 0.0020 U	0.010	< 0.0087 U	< 0.0063 U	< 0.0029 U	0.013 JN	0.0063 JN	0.0092 J	0.026
PCB-132	38380-05-1	ng/g	0.10	0.090	0.23	0.18	0.11	0.12	0.40	0.21	0.21	0.63
PCB-133	35694-04-3	ng/g	0.0045 JN	< 0.0018 U	0.014 JN	< 0.0078 U	< 0.0057 U	0.011	0.017	0.013	0.011	0.044
PCB-134/143	52704-70-8	ng/g	0.018	0.012 J	0.048	0.019 JN	< 0.0060 U	0.017 J	0.064	0.036 JN	0.036	0.10
PCB-135/151	52744-13-5	ng/g	0.053 JN	0.071	0.32	0.18	0.11	0.16	0.38	0.19	0.20	0.65
PCB-136	38411-22-2	ng/g	0.027 JN	0.023	0.11	0.066	0.039	0.050	0.12	0.076	0.069	0.27
PCB-137	35694-06-5	ng/g	0.017	0.011 JN	0.023	0.021	0.017	0.0082 JN	0.046 JN	0.026	0.026	0.062
PCB-139/140	56030-56-9	ng/g	0.0069 J	< 0.0016 U	0.0072 J	< 0.0070 U	< 0.0051 U	0.0057 JN	0.014 J	0.010 JN	< 0.0029 U	0.031
PCB-14	34883-41-5	ng/g	< 0.0016 U	< 0.0027 U	< 0.0022 U	< 0.0027 U	< 0.0030 U	< 0.0015 U	< 0.00087 U	< 0.0015 U	< 0.0016 U	< 0.0016 U
PCB-141	52712-04-6	ng/g	0.061	0.049	0.17	0.12	0.072	0.090	0.25	0.13	0.11	0.29
PCB-142	41411-61-4	ng/g	< 0.0014 U	< 0.0018 U	< 0.0025 U	< 0.0078 U	< 0.0057 U	< 0.0027 U	< 0.0040 U	< 0.0032 U	< 0.0032 U	< 0.0050 U
PCB-144	68194-14-9	ng/g	0.0099	0.0078 JN	0.034	0.012 JN	0.012 JN	0.011 JN	0.049	0.022	0.019	0.063
PCB-145	74472-40-5	ng/g	< 0.000054 U	< 0.000044 U	< 0.00017 U	< 0.00020 U	< 0.00049 U	< 0.00019 U	0.00083 J	< 0.00012 U	< 0.00016 U	< 0.00012 U
PCB-146	51908-16-8	ng/g	0.050	0.042	0.12	0.094	0.067	0.088	0.19	0.12	0.12	0.42

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B429	B430	B431	B432	B434	B435	B436	B437	B437	B438
		Sample ID	PDI-SG-B429	PDI-SG-B430	PDI-SG-B431	PDI-SG-B432	PDI-SG-B434	PDI-SG-B435	PDI-SG-B436	PDI-SG-B437	PDI-SG-B437-D	PDI-SG-B438
		Sample Date	03 Jul 2018	28 Jun 2018	07 Sep 2018	28 Jun 2018	29 Jun 2018	29 Jun 2018	16 Aug 2018	16 Aug 2018	16 Aug 2018	16 Aug 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-29 cm	0-29 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-147/149	68194-13-8	ng/g	0.25	0.23	0.77	0.52	0.34	0.45	1.0	0.63	0.65	2.0
PCB-148	74472-41-6	ng/g	< 0.000076 U	< 0.000062 U	0.0024 J	< 0.00029 U	< 0.00069 U	0.0011 JN	0.0018 JN	0.0021 J	0.0010 JN	0.0074 J
PCB-15	2050-68-2	ng/g	0.014	0.012 JN	0.0096	0.026 JN	0.021	0.012	0.029	0.016	0.015 JN	0.053
PCB-150	68194-08-1	ng/g	< 0.000052 U	< 0.000042 U	0.0074 J	< 0.00020 U	< 0.00047 U	0.0014 J	0.0013 J	< 0.00012 U	< 0.00016 U	0.0096
PCB-152	68194-09-2	ng/g	< 0.000056 U	< 0.000045 U	0.0045 JN	< 0.00021 U	< 0.00050 U	< 0.00020 U	< 0.00022 U	0.0020 JN	< 0.00017 U	< 0.00013 U
PCB-153/168	35065-27-1	ng/g	0.25	0.22	0.66	0.50	0.33	0.41	1.0	0.61	0.60	1.7
PCB-154	60145-22-4	ng/g	0.0060 JN	0.0021 JN	0.016	0.0054 J	0.0070 JN	0.0073 JN	0.015	0.013 JN	0.012	0.055 JN
PCB-155	33979-03-2	ng/g	< 0.000052 U	< 0.000042 U	0.00061 J	< 0.00020 U	< 0.00047 U	< 0.00018 U	< 0.00021 U	< 0.00012 U	< 0.00016 U	< 0.00012 U
PCB-156/157	38380-08-4	ng/g	0.036 J-	0.029	0.069	0.051	0.037	0.031	0.15	0.062	0.075	0.15
PCB-158	74472-42-7	ng/g	0.037	0.026	0.074	0.056	0.037	0.036	0.13	0.060	0.061	0.13
PCB-159	39635-35-3	ng/g	0.0024 J	< 0.0012 U	0.0057 J+	< 0.0052 U	< 0.0038 U	0.0062 J	< 0.0027 U	0.0056 J	< 0.0022 U	0.014
PCB-16	38444-78-9	ng/g	0.0078 J	0.0051 JN	0.0060 JN	0.034	0.012	0.0092 J	0.019	0.010 JN	0.011	0.065
PCB-161	74472-43-8	ng/g	< 0.00091 U	< 0.0012 U	< 0.0016 U	< 0.0052 U	< 0.0038 U	< 0.0018 U	< 0.0026 U	< 0.0022 U	< 0.0021 U	< 0.0033 U
PCB-162	39635-34-2	ng/g	< 0.00090 U	< 0.0012 U	0.0031 JN	< 0.0051 U	< 0.0037 U	< 0.0017 U	< 0.0026 U	0.0025 JN	< 0.0021 U	< 0.0033 U
PCB-164	74472-45-0	ng/g	0.024	0.022	0.059	0.038	0.030	0.032	0.085	0.050	0.049	0.13
PCB-165	74472-46-1	ng/g	< 0.0010 U	< 0.0014 U	< 0.0019 U	< 0.0059 U	< 0.0043 U	< 0.0020 U	< 0.0030 U	< 0.0024 U	< 0.0024 U	< 0.0038 U
PCB-167	52663-72-6	ng/g	0.013	0.0092 J	0.026	0.015	0.011 JN	0.014	0.045	0.021	0.025	0.046
PCB-169	32774-16-6	ng/g	< 0.00064 U	< 0.00095 U	< 0.0013 U	< 0.0057 U	< 0.0029 U	< 0.0013 U	0.0069 JN	0.0036 JN	< 0.0017 U	0.0082 JN
PCB-17	37680-66-3	ng/g	0.010	0.016	0.011	0.036	0.015	0.010 J	0.025	0.015	0.017	0.11
PCB-170	35065-30-6	ng/g	0.061	0.070	0.26	0.15	0.11	0.17	0.36	0.19	0.19	0.53
PCB-171/173	52663-71-5	ng/g	0.019	0.020 JN	0.081	0.044	0.035	0.050	0.11	0.052	0.055	0.14
PCB-172	52663-74-8	ng/g	0.011	0.013	0.040	0.025	0.017 JN	0.025	0.069	0.031 JN	0.030	0.10
PCB-174	38411-25-5	ng/g	0.059	0.066	0.24	0.17	0.12	0.16	0.39	0.21	0.20	0.58
PCB-175	40186-70-7	ng/g	0.0018 JN	< 0.00018 U	0.010	0.0095 JN	< 0.0026 U	0.0075 J	0.015	0.0088 J	0.0066 JN	0.028
PCB-176	52663-65-7	ng/g	0.0070 J	0.0089 J	0.029	0.021	0.015	0.018 JN	0.045	0.024	0.026	0.077
PCB-177	52663-70-4	ng/g	0.038	0.042	0.14	0.087	0.070	0.099	0.22	0.11	0.12	0.34
PCB-178	52663-67-9	ng/g	0.012 JN	0.016	0.049	0.036	0.025	0.041	0.082	0.046	0.044	0.14
PCB-179	52663-64-6	ng/g	0.024	0.032	0.11	0.068	0.055	0.072	0.18	0.098	0.092	0.31
PCB-18/30	37680-65-2	ng/g	0.021 JN	0.016 J	0.015	0.076	0.027	0.017 JN	0.043	0.026	0.026	0.18
PCB-180/193	35065-29-3	ng/g	0.13	0.16	0.51	0.33	0.22	0.34	0.82	0.40	0.40	1.2
PCB-181	74472-47-2	ng/g	< 0.00020 U	< 0.00018 U	< 0.00064 U	< 0.00092 U	< 0.0026 U	< 0.0012 U	< 0.00061 U	< 0.000072 U	< 0.00047 U	< 0.00032 U
PCB-182	60145-23-5	ng/g	< 0.00019 U	< 0.00017 U	0.0033 J	< 0.00088 U	< 0.0025 U	< 0.0011 U	< 0.00059 U	0.0030 J	< 0.00046 U	0.011 JN
PCB-183/185	52663-69-1	ng/g	0.043	0.043	0.17	0.11	0.082	0.11	0.27	0.14	0.14	0.39
PCB-184	74472-48-3	ng/g	< 0.00017 U	< 0.00014 U	< 0.00053 U	< 0.00075 U	< 0.0021 U	< 0.00096 U	< 0.00050 U	< 0.000059 U	< 0.00039 U	< 0.00026 U
PCB-186	74472-49-4	ng/g	< 0.00016 U	< 0.00014 U	< 0.00051 U	< 0.00073 U	< 0.0021 U	< 0.00093 U	< 0.00049 U	< 0.000058 U	< 0.00038 U	< 0.00026 U
PCB-187	52663-68-0	ng/g	0.079	0.093	0.27	0.23	0.15	0.21	0.54	0.28	0.28	0.84
PCB-188	74487-85-7	ng/g	< 0.00014 U	< 0.00011 U	< 0.00045 U	< 0.00060 U	< 0.0017 U	< 0.00077 U	< 0.00042 U	< 0.000048 U	< 0.00031 U	< 0.00022 U
PCB-189	39635-31-9	ng/g	< 0.0014 U	< 0.0015 U	0.0087 JN	< 0.0034 U	< 0.0031 U	< 0.0021 U	0.012	0.0051 J	0.0069 J	0.017
PCB-19	38444-73-4	ng/g	0.0021 JN	0.0035 JN	0.0033 JN	0.015	0.0052 JN	0.0053 J	0.0043 JN	0.0020 JN	0.0029 JN	0.011 JN
PCB-190	41411-64-7	ng/g	0.011	0.011	0.046	0.028	0.021	0.029	0.065	0.033	0.034	0.089
PCB-191	74472-50-7	ng/g	0.0016 JN	0.0031 JN	0.0099 J+	0.0047 JN	< 0.0020 U	0.0062 J	0.016	0.0050 JN	0.0081 J	0.021
PCB-192	74472-51-8	ng/g	< 0.00017 U	< 0.00015 U	< 0.00054 U	< 0.00077 U	< 0.0022 U	< 0.00099 U	< 0.00052 U	< 0.000061 U	< 0.00040 U	< 0.00027 U
PCB-194	35694-08-7	ng/g	0.030	0.038 JN	0.10	0.074	0.064	0.079	0.24	0.13	0.14	0.39
PCB-195	52663-78-2	ng/g	0.012 JN	0.017 JN	0.050	0.033	0.034	0.033	0.088	0.052	0.052	0.14
PCB-196	42740-50-1	ng/g	0.014	0.016	0.042	0.033	0.027 JN	0.037	0.11	0.057	0.065	0.18
PCB-197	33091-17-7	ng/g	0.00067 JN	0.0010 JN	0.0028 JN	< 0.00078 U	< 0.0014 U	0.0027 JN	0.0069 JN	0.0046 JN	0.0042 J	0.016
PCB-198/199	68194-17-2	ng/g	0.036	0.038 JN	0.083	0.096	0.059	0.076	0.40	0.17	0.18	0.46
PCB-2	2051-61-8	ng/g	0.0027 J	0.0029 JN	0.0016 JN	0.010 JN	0.0069 J	0.0053 J	0.015 JN	0.010	0.0077 JN	0.0070 JN
PCB-20/28	38444-84-7	ng/g	0.031	0.043	0.034	0.16	0.070	0.045	0.12	0.068	0.074	0.40
PCB-200	52663-73-7	ng/g	0.0036 J	0.0036 JN	0.010	0.0082	0.0048 JN	0.0095 J	0.034	0.015 JN	0.016	0.046
PCB-201	40186-71-8	ng/g	0.0028 J	0.0035 JN	0.0078 JN	0.0075 JN	0.0084 JN	0.0074 JN	0.034	0.020	0.019	0.038 JN
PCB-202	2136-99-4	ng/g	0.0091	0.0071 JN	0.015	0.021 JN	0.016	0.014 JN	0.11	0.045	0.046	0.087
PCB-203	52663-76-0	ng/g	0.021 JN	0.025	0.049	0.040	0.035	0.049	0.26	0.11	0.12	0.25
PCB-204	74472-52-9	ng/g	< 0.00011 U	< 0.000046 U	< 0.00050 U	< 0.00078 U	< 0.0014 U	< 0.00083 U	< 0.00072 U	< 0.00018 U	< 0.00021 U	< 0.00037 U
PCB-205	74472-53-0	ng/g	< 0.0015 U	0.0029 J	0.0061 J+	< 0.0029 U	< 0.0043 U	< 0.0029 U	0.0095 J	0.0053 J	0.0051 JN	0.020
PCB-206	40186-72-9	ng/g	0.018 JN	0.040	0.023 JN	0.066	0.022 JN	0.037	0.34	0.13	0.18	0.23
PCB-207	52663-79-3	ng/g	0.0013 JN	0.0018 JN	0.0043 J	< 0.0015 U	< 0.0015 U	< 0.0013 U	0.036	0.014 JN	0.018	0.028
PCB-208	52663-77-1	ng/g	0.010	0.015	0.0072 J	0.012 JN	0.010 JN	0.012	0.12	0.044	0.056	0.060
PCB-209	2051-24-3	ng/g	0.032 JN	0.035 JN	0.016	0.064 JN	0.030	0.037	0.092	0.051 JN	0.066	0.13
PCB-21/33	55702-46-0	ng/g	0.014 J	0.0098 JN	0.015	0.068	0.027	0.017 J	0.038 JN	0.032	0.034	0.16
PCB-22	38444-85-8	ng/g	0.010	0.0079 JN	0.0075	0.053	0.022	0.011 JN	0.029	0.016 JN	0.020	0.088

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B429	B430	B431	B432	B434	B435	B436	B437	B437	B438
		Sample ID	PDI-SG-B429	PDI-SG-B430	PDI-SG-B431	PDI-SG-B432	PDI-SG-B434	PDI-SG-B435	PDI-SG-B436	PDI-SG-B437	PDI-SG-B437-D	PDI-SG-B438
		Sample Date	03 Jul 2018	28 Jun 2018	07 Sep 2018	28 Jun 2018	29 Jun 2018	29 Jun 2018	16 Aug 2018	16 Aug 2018	16 Aug 2018	16 Aug 2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	0-30 cm	0-29 cm	0-29 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units										
PCB-23	55720-44-0	ng/g	< 0.00043 U	< 0.00069 U	< 0.00075 U	< 0.0013 U	< 0.0015 U	< 0.00087 U	< 0.00069 U	< 0.00076 U	< 0.00074 U	< 0.0014 U
PCB-24	55702-45-9	ng/g	0.00054 JN	< 0.00031 U	< 0.00031 U	0.0018 JN	< 0.00050 U	< 0.00027 UJ	0.00051 JN	0.00029 JN	< 0.00015 U	< 0.00025 U
PCB-25	55712-37-3	ng/g	0.0029 J	0.0047 JN	0.0038 J	0.011 JN	< 0.0014 U	0.0043 JN	0.0081 J	0.0054 J	0.0057 JN	0.042
PCB-26/29	38444-81-4	ng/g	0.0061 J	0.0076 JN	0.0064 J	0.027	0.012 J	0.0082 J	0.015 J	0.0088 J	0.010 JN	0.055
PCB-27	38444-76-7	ng/g	0.0012 JN	0.0047 JN	0.0016 JN	0.0078 J	0.0031 JN	0.0021 JN	0.0047 J	0.0023 J	0.0035 J	0.015
PCB-3	2051-62-9	ng/g	0.0024 J	< 0.00023 U	< 0.00027 U	< 0.00052 U	< 0.00058 U	0.0015 JN	0.0023 JN	0.0031 JN	0.0022 JN	0.011
PCB-31	16606-02-3	ng/g	0.028	0.031	0.024	0.13	0.052	0.035	0.072	0.045	0.050	0.30
PCB-32	38444-77-8	ng/g	0.0064 JN	0.010	0.016	0.028	0.010 JN	0.0085 J	0.019	0.011	0.012	0.064
PCB-34	37680-68-5	ng/g	< 0.00045 U	< 0.00072 U	< 0.00078 U	< 0.0013 U	< 0.0016 U	< 0.00090 U	< 0.00072 U	< 0.00079 U	< 0.00077 U	0.0081 J
PCB-35	37680-69-6	ng/g	< 0.00044 U	0.0013 JN	< 0.00076 U	0.0035 JN	< 0.0015 U	0.0014 JN	0.0038 J	0.0018 JN	0.0024 JN	0.0072 JN
PCB-36	38444-87-0	ng/g	< 0.00042 U	< 0.00067 U	< 0.00073 U	0.0040 J	< 0.0015 U	< 0.00084 U	< 0.00067 U	< 0.00074 U	< 0.00072 U	< 0.0013 U
PCB-37	38444-90-5	ng/g	0.011	0.010	0.0096	0.046	0.020	0.013	0.047	0.022	0.023 JN	0.094
PCB-38	53555-66-1	ng/g	< 0.00045 U	< 0.00072 U	< 0.00078 U	< 0.0013 U	< 0.0016 U	< 0.00091 U	< 0.00072 U	< 0.00080 U	< 0.00078 U	< 0.0014 U
PCB-39	38444-88-1	ng/g	< 0.00040 U	< 0.00065 U	< 0.00070 U	0.010	< 0.0014 U	< 0.00081 U	< 0.00065 U	< 0.00072 U	< 0.00070 U	0.0073 JN
PCB-4	13029-08-8	ng/g	0.010 JN	0.010 J	0.0065 JN	0.013 J	0.014 J	0.0087 JN	0.0095 JN	0.0043 JN	0.0061 JN	0.020 JN
PCB-40/41/71	38444-93-8	ng/g	0.021 J	0.021 J	0.040	0.11	0.036	0.025 J	0.086	0.055	0.053	0.32
PCB-42	36559-22-5	ng/g	0.010	0.0090 JN	0.013	0.048	0.019	0.011	0.043	0.033	0.032	0.19
PCB-43/73	70362-46-8	ng/g	0.0019 JN	0.0023 J	0.0067 JN	0.012 JN	0.0060 J	0.0016 J	0.0061 J	0.0024 JN	0.0034 JN	0.024
PCB-44/47/65	41464-39-5	ng/g	0.063	0.055	0.31	0.21	0.091	0.068	0.21	0.14	0.15	0.82
PCB-45/51	70362-45-7	ng/g	0.0068 J	0.0074 J	0.11	0.043	0.014 JN	0.011 J	0.021	0.013 J	0.013 JN	0.094
PCB-46	41464-47-5	ng/g	0.0027 J	< 0.00050 U	0.0078	0.012	0.0038 JN	0.0028 JN	0.0070 J	0.0043 J	0.0045 J	0.035
PCB-48	70362-47-9	ng/g	0.0070 JN	0.0075 J	0.0077	0.037	0.011	0.0080 JN	0.026	0.015	0.016	0.11
PCB-49/69	41464-40-8	ng/g	0.041	0.036	0.12	0.13	0.060	0.051	0.13	0.11	0.12	0.67
PCB-5	16605-91-7	ng/g	< 0.0021 U	< 0.0035 U	< 0.0029 U	< 0.0035 U	< 0.0039 U	< 0.0019 U	< 0.0011 U	< 0.0020 U	< 0.0021 U	< 0.0022 U
PCB-50/53	62796-65-0	ng/g	0.0074 J	0.0048 JN	0.052	0.031	0.012 J	0.0098 JN	0.019 J	0.012 J	0.013 J	0.077
PCB-52	35693-99-3	ng/g	0.13	0.078	0.12	0.28	0.11	0.087	0.31	0.19	0.20	1.0
PCB-54	15968-05-5	ng/g	< 0.000011 U	0.00025 JN	0.0073 JN	< 0.000018 U	< 0.000066 U	< 0.000020 U	0.00051 J	< 0.0000093 U	< 0.000012 U	0.00047 JN
PCB-55	74338-24-2	ng/g	0.0017 JN	< 0.00028 U	0.0016 J+	0.0021 JN	< 0.00054 U	0.0011 JN	0.0045 J	0.0020 JN	0.0044 J	0.011
PCB-56	41464-43-1	ng/g	0.021	0.015 JN	0.016 JN	0.054 JN	0.027	0.017	0.097	0.043	0.046	0.27
PCB-57	70424-67-8	ng/g	< 0.00016 U	< 0.00029 U	< 0.0012 U	< 0.00030 U	< 0.00055 U	< 0.00013 U	< 0.0012 U	< 0.00029 U	< 0.00027 U	< 0.00034 U
PCB-58	41464-49-7	ng/g	< 0.00016 U	< 0.00029 U	< 0.0013 U	0.0022 JN	< 0.00056 U	< 0.00014 U	< 0.0012 U	< 0.00029 U	< 0.00028 U	0.012 JN
PCB-59/62/75	74472-33-6	ng/g	0.0032 JN	0.0026 JN	0.0077 J	0.020 J	0.0060 J	0.0037 JN	0.014 J	0.0088 J	0.0097 J	0.062
PCB-6	25569-80-6	ng/g	0.0061 JN	0.0077 JN	< 0.0026 U	0.0066 JN	0.0055 JN	0.0034 J	0.0060 J	0.0045 J	0.0043 J	0.017
PCB-60	33025-41-1	ng/g	0.010	0.0059 JN	0.0088	0.012	0.011	0.0083 J	0.039	0.014 JN	0.016	0.077
PCB-61/70/74/76	33284-53-6	ng/g	0.12	0.093	0.12	0.29	0.12	0.088	0.44	0.24	0.27	1.2
PCB-63	74472-34-7	ng/g	0.0018 J	0.0024 J	0.0041 J	0.0062 JN	0.0026 J	0.0017 JN	0.0078 J	0.0058 JN	0.0051 J	0.028
PCB-64	52663-58-8	ng/g	0.023	0.019	0.021	0.081	0.029	0.020	0.076	0.051	0.054	0.25
PCB-66	32598-10-0	ng/g	0.054	0.048	0.055	0.15	0.067	0.052	0.24	0.15	0.16	0.73
PCB-67	73575-53-8	ng/g	0.0013 J	< 0.00025 U	< 0.0011 U	0.0052 J	< 0.00047 U	0.0013 J	0.0046 J	0.0022 J	0.0028 J	0.012 JN
PCB-68	73575-52-7	ng/g	0.0018 J+	0.0016 JN	0.0033 J	0.0091 JN	0.0026 J	0.0017 JN	0.0020 JN	0.0041 J	0.0044 J	0.035
PCB-7	33284-50-3	ng/g	< 0.0019 U	0.0036 JN	< 0.0026 U	< 0.0032 U	< 0.0035 U	< 0.0018 U	0.0014 JN	< 0.0018 U	< 0.0019 U	0.0040 J
PCB-72	41464-42-0	ng/g	0.0010 J	0.0012 JN	0.0016 JN	0.0030 JN	< 0.00054 U	< 0.00013 U	0.0043 J	0.0034 J	0.0045 JN	0.042
PCB-77	32598-13-3	ng/g	0.014	0.010 JN	0.0072 J+	0.019	0.0098	0.0060 J	0.034	0.014	0.016 JN	0.055
PCB-78	70362-49-1	ng/g	< 0.00016 U	< 0.00029 U	< 0.0013 U	< 0.00030 U	< 0.00056 U	< 0.00014 U	< 0.0012 U	< 0.00029 U	< 0.00027 U	< 0.00035 U
PCB-79	41464-48-6	ng/g	0.0017 J	0.0015 JN	0.0019 JN	0.0035 JN	0.0015 J	0.0015 J	0.0035 JN	0.0036 J	0.0036 J	0.019
PCB-8	34883-43-7	ng/g	0.022	0.0089 JN	0.012 JN	0.029	0.019 JN	0.011 J	0.020	0.015 JN	0.012 JN	0.057
PCB-80	33284-52-5	ng/g	< 0.00014 U	< 0.00025 U	< 0.0011 U	< 0.00025 U	< 0.00047 U	< 0.00012 U	< 0.0010 U	< 0.00025 U	< 0.00023 U	< 0.00030 U
PCB-81	70362-50-4	ng/g	< 0.00015 U	< 0.00026 U	< 0.0011 U	< 0.00024 U	< 0.00050 U	< 0.00013 U	< 0.0012 U	< 0.00026 U	< 0.00025 U	< 0.00033 U
PCB-82	52663-62-4	ng/g	0.033	0.020	0.037	0.030 JN	0.011 JN	0.012	0.092	0.042	0.038 JN	0.15
PCB-83/99	60145-20-2	ng/g	0.17	0.095	0.23	0.21	0.13	0.10	0.44	0.32	0.32	1.1
PCB-84	52663-60-2	ng/g	0.067	0.033	0.072	0.085	0.038	0.025	0.17	0.10	0.092 JN	0.40
PCB-85/116/117	65510-45-4	ng/g	0.049 JN	0.028 J	0.051 JN	0.060	0.037	0.026 J	0.13	0.071	0.064	0.21
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.19	0.10	0.23	0.24	0.11	0.091	0.51	0.27	0.26	0.84
PCB-88/91	55215-17-3	ng/g	0.035	0.020 J	0.15	0.048	0.028	0.024	0.091	0.079	0.081	0.29
PCB-89	73575-57-2	ng/g	0.0029 JN	< 0.00026 U	< 0.00015 U	0.0027 JN	< 0.00059 U	< 0.00039 U	0.0061 JN	< 0.00046 U	< 0.00049 U	< 0.00028 U
PCB-9	34883-39-1	ng/g	< 0.0020 U	0.0046 JN	< 0.0027 U	< 0.0032 U	< 0.0036 U	< 0.0018 U	0.0011 JN	< 0.0018 U	< 0.0020 U	0.0038 JN
PCB-90/101/113	68194-07-0	ng/g	0.29	0.15	0.46	0.36	0.19	0.17	0.77	0.47	0.47	1.6
PCB-92	52663-61-3	ng/g	0.053	0.026 JN	0.087	0.055	0.037	0.034	0.13	0.091	0.085	0.35
PCB-93/100	73575-56-1	ng/g	0.0037 J	0.0043 JN	0.045	0.021	0.011 J	0.0048 J	< 0.00038 U	< 0.00041 U	0.0074 J	0.036 JN
PCB-94	73575-55-0	ng/g	< 0.00020 U	< 0.00026 U	0.019 JN	< 0.00043 U	< 0.00059 U	< 0.00039 U	< 0.00043 U	< 0.00046 U	< 0.00049 U	< 0.00028 U
PCB-95	38379-99-6	ng/g	0.26	0.11	0.30	0.33	0.16	0.15	0.56	0.35	0.32	1.3

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

			Location	B429	B430	B431	B432	B434	B435	B436	B437	B437	B438
			Sample ID	PDI-SG-B429	PDI-SG-B430	PDI-SG-B431	PDI-SG-B432	PDI-SG-B434	PDI-SG-B435	PDI-SG-B436	PDI-SG-B437	PDI-SG-B437-D	PDI-SG-B438
			Sample Date	03 Jul 2018	28 Jun 2018	07 Sep 2018	28 Jun 2018	29 Jun 2018	29 Jun 2018	16 Aµg 2018	16 Aµg 2018	16 Aµg 2018	16 Aµg 2018
			Sample Type Code	N	N	N	N	N	N	N	N	FD	N
			Depth	0-30 cm	0-29 cm	0-29 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical		**CAS_RN**	**Units**										
PCB-96		73575-54-9	ng/g	< 0.00015 U	< 0.00020 U	0.014 JN	0.0042 J	< 0.00044 U	< 0.00029 U	< 0.00032 U	< 0.00035 U	< 0.00037 U	0.011
PCB-98/102		60233-25-2	ng/g	0.0097 J	0.0021 JN	0.022	0.014 J	0.0060 JN	0.0056 JN	0.019 JN	0.012 JN	0.014 J	0.056
Total PCBs	(b)	T_PCBCg (PDI)	ng/g	4.7	3.7	10	9.2	5.2	5.6	18	10	10	34
Pesticides													
2,4-DDD		53-19-0	µg/kg	< 0.37 U	< 0.40 U	< 0.30 U	0.39	< 0.38 U	< 0.35 U	< 0.37 UJ	< 0.35 U	< 0.38 U	0.24 J
2,4-DDE		3424-82-6	µg/kg	< 0.37 U	< 0.40 U	< 0.30 U	< 0.35 U	< 0.38 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.38 U	< 0.33 U
2,4-DDT		789-02-6	µg/kg	< 0.37 U	< 0.40 U	< 0.30 U	< 0.35 U	< 0.38 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.38 U	< 0.33 U
4,4'-DDD		72-54-8	µg/kg	0.55	0.49	0.22 J	1.1	1.0	0.49	0.98	0.67	0.66	1.0
4,4'-DDE		72-55-9	µg/kg	0.75	0.93	0.30 J	1.3	1.2	0.94	1.0 J	1.5	1.6	2.3
4,4'-DDT		50-29-3	µg/kg	0.18 J	< 0.40 U	< 0.30 U	< 0.35 U	0.26 J	0.19 J	< 0.37 U	0.19 J	< 0.38 U	0.19 J
DDx	(b)	T_DDx (PDI)	µg/kg	1.7	1.6	0.67	3.0	2.7	1.8	2.2	2.5	2.5	3.9
Aldrin		309-00-2	µg/kg	< 0.37 U	< 0.40 U	< 0.30 U	< 0.35 U	< 0.38 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.38 U	< 0.33 U
alpha-Chlordane		5103-71-9	µg/kg	< 0.75 U	< 0.79 U	< 0.59 U	< 0.69 U	< 0.75 U	< 0.70 U	< 0.74 U	< 0.70 U	< 0.75 U	< 0.67 U
cis-Nonachlor		5103-73-1	µg/kg	< 0.37 U	< 0.40 U	< 0.30 U	< 0.35 U	< 0.38 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.38 U	< 0.33 U
Dieldrin		60-57-1	µg/kg	< 0.75 U	< 0.79 U	< 0.59 U	< 0.69 U	< 0.75 U	< 0.70 U	< 0.74 UJ	< 0.70 U	< 0.75 U	< 0.67 U
gamma-BHC (Lindane)		58-89-9	µg/kg	< 0.37 U	< 0.40 U	< 0.30 U	< 0.35 U	< 0.38 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.38 U	< 0.33 U
gamma-Chlordane		5566-34-7	µg/kg	< 0.75 U	< 0.79 U	< 0.59 U	0.28 J	< 0.75 U	< 0.70 U	< 0.74 U	< 0.70 U	< 0.75 U	< 0.67 U
Heptachlor		76-44-8	µg/kg	< 0.37 U	< 0.40 U	< 0.30 U	< 0.35 U	< 0.38 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.38 U	< 0.33 U
Oxychlordane		27304-13-8	µg/kg	< 0.75 U	< 0.79 U	< 0.59 U	2.1	< 0.75 U	< 0.70 U	< 0.74 U	< 0.70 U	< 0.75 U	< 0.67 U
trans-Nonachlor		39765-80-5	µg/kg	< 0.75 U	< 0.79 U	< 0.59 U	0.21 J	< 0.75 U	< 0.70 U	< 0.74 U	< 0.70 U	< 0.75 U	< 0.67 U
Total Chlordanes	(b)	T_Clrdn (PDI)	µg/kg	< 0.75 U	< 0.79 U	< 0.59 U	2.94	< 0.75 U	< 0.7 U	< 0.74 U	< 0.7 U	< 0.75 U	< 0.67 U
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	< 40 U	< 51 U	< 15 U	< 75 U	6.5 J	8.5 J	< 47 U	< 45 U	< 45 U	16 J
Acenaphthene		83-32-9	µg/kg	< 40 U	< 51 U	< 15 U	< 75 U	2.3 J	3.8 J	9.5 J	< 45 U	< 45 U	6.8 J
Acenaphthylene		208-96-8	µg/kg	< 40 U	< 51 U	< 15 U	< 75 U	< 19 U	14 J	< 47 U	< 45 U	< 45 U	12 J
Anthracene		120-12-7	µg/kg	< 40 U	9.7 J	< 15 UJ	< 75 U	13 J	20	< 47 UJ	8.5 J	6.1 J	11 J
Benz(a)anthracene		56-55-3	µg/kg	6.8 J	15 J	8.4 J	11 J	8.9 J	16 J	43 J	24 J	11 J	26
Benzo(a)pyrene		50-32-8	µg/kg	< 40 U	< 51 U	6.7 J	20 J	9.6 J	13 J	37 J	33 J	14 J	26
Benzo(b)fluoranthene		205-99-2	µg/kg	9.6 J	26 J	11 J	19 J	15 J	17 J	60	46	16 J	37
Benzo(g,h,i)perylene		191-24-2	µg/kg	7.8 J	< 51 U	5.2 J	34 J	17 J	21	35 J	37 J	12 J	21
Benzo(k)fluoranthene		207-08-9	µg/kg	< 40 U	9.3 J	3.7 J	< 75 U	5.7 J	7.5 J	23 J	16 J	8.6 J	11 J
Bis(2-ethylhexyl)phthalate		117-81-7	µg/kg	150 J	< 1500 U	63 J	970 J	200 J	69 J	1100 J	1700	150 J	< 500 U
Chrysene		218-01-9	µg/kg	< 40 U	23 J	5.9 J	27 J	18 J	19	46 J	39 J	18 J	41
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 40 U	< 51 U	< 15 U	< 75 U	< 19 U	< 19 U	< 47 U	< 45 U	< 45 U	6.1 J
Fluoranthene		206-44-0	µg/kg	22 J	51	15	30 J	35	50	130	50	35 J	74
Fluorene		86-73-7	µg/kg	< 40 U	< 51 U	2.7 J	< 75 U	4.7 J	5.1 J	19 J	< 45 U	< 45 U	11 J
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	< 40 U	< 51 U	5.1 J	< 75 U	13 J	22	35 J	40 J	14 J	22
Naphthalene		91-20-3	µg/kg	12 J	12 J	< 15 U	19 J	15 J	26	25 J	20 J	15 J	39
Phenanthrene		85-01-8	µg/kg	15 J	30 J	12 J	17 J	24	37	130	38 J	26 J	50
Pyrene		129-00-0	µg/kg	20 J	43 J	14 J	43 J	36	46	110	57	32 J	70
Total PAHs	(b)	T_PAH (PDI)	µg/kg	133	270	105	295	243	335	750	454	253	480
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	22	30	17	61	23	28	75	67	41	41
Metals													
Arsenic		7440-38-2	mg/kg	3.5	4.0	3.8	3.6	3.5	3.7	3.7	4.1	4.4	4.4
Cadmium		7440-43-9	mg/kg	0.12 J	0.13 J	0.084 J	0.21 J	0.13 J	0.15 J	0.21 J	0.14 J	0.17 J	0.15 J
Copper		7440-50-8	mg/kg	29	32	22	29	30	31	37	33	35	31 J
Lead		7439-92-1	mg/kg	8.0	13	14	13	14	10	17	10	11	14
Mercury		7439-97-6	mg/kg	0.040 J	0.038 J	0.044	0.047 J	0.045 J	0.056 J	0.067 J	0.075	0.075	0.10
Tri-n-butyltin		36643-28-4	µg/kg	< 130 U	< 150 U	< 120 U	< 110 U	< 72 U	< 140 U	< 140 U	< 130 U	< 140 U	< 130 U
Zinc		7440-66-6	mg/kg	79	83	79	110	88	91	120	98	110	120
TPH													
TPH-Diesel Range Organics		68334-30-5	mg/kg	79 J	120	36 J	270 J	73 J	58 J	95 J	59 J	61 J	73 J
TPH-Motor Oil Range Organics		TPH-MOIL	mg/kg	360	470	160	1800	390	290	630	280	300	310
Other													
Total Solids@104C - D2216	(f)	TSOLID	%	57.4	47.5	65.0	61.4	51.5	51.1	53.0	54.3	51.8	56.4
Total Solids@104C - E160.3M	(f)	TSOLID	%	50.3	48.0	66.2	55.8	51.3	53.6	52.7	52.5	53.2	57.0
Total Solids@70C		TSOLID70	%	51	49	69	56	52	51	55	53	60	57
Gravel		GS-Gravel	%	0	0	0	0	0	0	0	0		0
Sand, Coarse		GS-Csand	%	0	0	0.1	1.8	0	0.1	0.2	0		0.1
Sand, Medium		GS-Msand	%	0.2	0.2	17.2	4.4	0.1	0.2	0.4	0.1		0.4

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

			Location	B429	B430	B431	B432	B434	B435	B436	B437	B437	B438
			Sample ID	PDI-SG-B429	PDI-SG-B430	PDI-SG-B431	PDI-SG-B432	PDI-SG-B434	PDI-SG-B435	PDI-SG-B436	PDI-SG-B437	PDI-SG-B437-D	PDI-SG-B438
			Sample Date	03 Jul 2018	28 Jun 2018	07 Sep 2018	28 Jun 2018	29 Jun 2018	29 Jun 2018	16 Aµg 2018	16 Aµg 2018	16 Aµg 2018	16 Aµg 2018
			Sample Type Code	N	N	N	N	N	N	N	N	FD	N
			Depth	0-30 cm	0-29 cm	0-29 cm	0-20 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-29 cm
Chemical		**CAS_RN**	**Units**										
Sand, Fine (#200)	(d)	GS-Fsand-200	%	53.72	36.91	65.8	67.26	50.34	52.47	45.19	39.68		52.6
Sand, Fine (#230)	(d)	GS-Fsand	%	57.7	42.3	65.8	70.6	57.3	59.2	55.8	46.4		58.6
Silt (#200)	(d)	GS-Silt-200	%	41.67	56.18	13.9	24.63	45.35	43.12	47.50	54.71		40.29
Silt (#230)	(d)	GS-Silt	%	37.7	50.8	13.9	21.3	38.4	36.4	36.9	48.0		34.3
Clay		GS-Clay	%	4.4	6.7	3.0	1.8	4.1	4.1	6.6	5.4 L		6.6
Percent Fines	(e)	GS-FINES	%	46.07	62.88	16.9	26.43	49.45	47.22	54.1	60.11		46.89
Liquid Limit		GS-LL	None										
Plasticity Index		GS-PI	None										
Plasticity Limit		GS-PL	None										
Total Organic Carbon		TOC	mg/kg	30000	27000	7700	30000	22000	22000	25000	22000	22000	18000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B439	B440	B441	B442	B443	B444	B445	B446	B447	B448
		Sample ID	PDI-SG-B439	PDI-SG-B440	PDI-SG-B441	PDI-SG-B442	PDI-SG-B443	PDI-SG-B444	PDI-SG-B445	PDI-SG-B446	PDI-SG-B447	PDI-SG-B448
		Sample Date	29 Jun 2018	29 Jun 2018	29 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	30 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-23 cm	0-29 cm	0-23 cm	0-26 cm	0-20 cm	0-30 cm	0-21 cm	0-14 cm	0-29 cm	0-22 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.057	0.045	0.011	0.029	0.012	0.028	0.0053	0.0035 J	0.065	0.18
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.029	0.010	0.0026 JN	0.0056	0.0025 JN	0.0058	0.0024 J	0.00071 JN	0.014	0.031
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0014 J	0.00079 J	0.00053 J+	0.00052 J+	0.00036 JN	0.00051 J+	0.00028 JN	0.00021 JN	0.00097 J	0.0023 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00065 J+	0.00073 J	0.00031 J+	0.00052 J+	0.00031 J+	0.00050 J+	0.00022 J+	0.00017 JN	0.00087 J	0.0021 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0023 J	0.00085 J	0.00034 J	0.00055 J	0.00028 J	0.00056 J	0.00026 J	0.00011 J+	0.00086 J	0.0028 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0028 J	0.0023 J	0.00072 J	0.0014 J	0.00076 J	0.0015 J	0.00037 JN	0.00026 J	0.0027 J	0.0074
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0021 J	0.00051 J	0.00025 J	0.00033 J	0.00024 J	0.00036 J	0.00029 J	0.000079 J+	0.00047 J	0.0028 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0016 J	0.0017 J	0.00059 J	0.0011 J	0.00067 J	0.0012 J	0.00033 J	0.00032 J	0.0016 J	0.0042 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00060 J+	0.00079 J+	0.00063 J+	0.00063 J+	0.00057 J+	0.00047 J+	0.00052 J+	< 0.00037 U	0.00059 J+	0.00056 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00048 J	0.00039 J	0.00012 JN	0.00023 J	0.00014 J	0.00026 J	0.00012 J	0.000068 J	0.00037 J	0.00083 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00059 J	0.00029 J+	0.00013 JN	0.00018 JN	0.00018 J+	0.00019 JN	0.00016 J+	0.00011 J+	0.00024 J+	0.00072 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00086 J	0.00033 J	0.00014 J	0.00021 J	0.00012 J	0.00025 J	0.00015 J	0.000050 J+	0.00029 J	0.00078 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00090 J	0.00031 J	0.00013 J+	0.00020 J+	0.00011 JN	0.00022 J+	0.00016 J+	0.000056 JN	0.00026 J	0.00066 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00030 JN	< 0.000024 U	0.00010 JN	0.00011 JN	0.000077 JN	0.00029 JN	< 0.000011 U	< 0.000034 U	0.00012 JN	0.00082 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00073 J+	0.00066 J+	0.00029 J+	0.00047 J+	0.00041 J+	0.00057 J+	0.00039 J+	< 0.00022 U	0.00056 J+	0.00057 J+
OCDD	3268-87-9	µg/kg	1.2	0.38	0.10	0.28	0.11	0.25	0.075	0.032	0.55	3.0
OCDF	39001-02-0	µg/kg	0.049	0.034	0.0083	0.021	0.0085	0.018	0.0036 J	0.0021 J	0.071	0.094
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0035	0.002	0.00076	0.0014	0.00078	0.0016	0.00053	0.00026	0.0024	0.0071
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0033	0.002	0.00057	0.0013	0.00068	0.0014	0.00051	0.00022	0.0023	0.0071
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0032	0.002	0.00051	0.0013	0.00064	0.0013	0.00049	0.0002	0.0022	0.0071
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	0.0065 JN	< 0.00034 U	0.0021 J	< 0.00027 U	< 0.00025 U	< 0.00023 U	< 0.00043 U	0.00076 JN	< 0.00019 U	0.012
PCB-10	33146-45-1	ng/g	< 0.0039 U	< 0.0057 U	< 0.0033 U	< 0.0031 U	< 0.0034 U	< 0.0034 U	< 0.0032 U	< 0.0038 U	< 0.0026 U	< 0.0032 U
PCB-103	60145-21-3	ng/g	0.035	0.0019 JN	0.0021 JN	0.0026 J	0.0073 J	< 0.00021 U	< 0.00024 U	< 0.00010 U	< 0.00019 U	< 0.00011 U
PCB-104	56558-16-8	ng/g	< 0.00025 U	< 0.00024 U	< 0.00010 U	< 0.00012 U	< 0.00024 U	< 0.00016 U	< 0.00018 U	< 0.000079 U	< 0.00014 U	< 0.000084 U
PCB-105	32598-14-4	ng/g	0.30	0.068	0.019	0.073	0.038	0.037	0.0079 J+	0.012	0.25	0.16
PCB-106	70424-69-0	ng/g	< 0.0028 U	< 0.0017 U	< 0.0010 U	< 0.0018 U	< 0.0014 U	< 0.0011 U	< 0.0016 U	< 0.00059 U	< 0.0016 U	< 0.0016 U
PCB-107	70424-68-9	ng/g	0.14	0.012 JN	0.0044 J	0.013 JN	0.015	0.0085 JN	< 0.0017 U	0.0025 JN	0.040 JN	0.093
PCB-108/124	70362-41-3	ng/g	0.036	0.0077 J	< 0.0011 U	0.0062 JN	0.0044 JN	0.0044 JN	< 0.0016 U	0.0013 JN	0.028 JN	0.020
PCB-11	2050-67-1	ng/g	0.021 J+	0.052 J+	0.021 JN	0.045 J+	0.026 JN	0.045 J+	< 0.013 U	< 0.015 U	0.056 J+	0.032 J+
PCB-110/115	38380-03-9	ng/g	1.4	0.21	0.066	0.28	0.16	0.12	0.027	0.036	1.2	1.1
PCB-111	39635-32-0	ng/g	< 0.00023 U	< 0.00023 U	< 0.000097 U	< 0.00011 U	< 0.00023 U	< 0.00015 U	< 0.00017 U	< 0.000073 U	< 0.00013 U	< 0.000077 U
PCB-112	74472-36-9	ng/g	< 0.00025 U	0.0017 JN	< 0.00010 U	< 0.00012 U	0.0012 JN	< 0.00016 U	< 0.00018 U	< 0.000077 U	< 0.00014 U	0.0053 J
PCB-114	74472-37-0	ng/g	0.012 JN	< 0.0016 U	< 0.00095 U	0.0049 J	< 0.0013 U	0.0021 JN	< 0.0014 U	< 0.00055 U	0.010	0.0079 JN
PCB-118	31508-00-6	ng/g	0.95	0.17	0.050	0.17	0.12	0.086	0.022	0.026	0.63	0.71
PCB-12/13	2974-92-7	ng/g	0.0041 JN	< 0.0052 U	< 0.0030 U	< 0.0028 U	< 0.0031 U	< 0.0031 U	< 0.0029 U	< 0.0034 U	< 0.0023 U	0.0085 JN
PCB-120	68194-12-7	ng/g	0.0062 JN	< 0.00023 U	< 0.000098 U	< 0.00011 U	0.0032 J	< 0.00015 U	0.00073 JN	< 0.000074 U	< 0.00013 U	0.012
PCB-121	56558-18-0	ng/g	< 0.00024 U	< 0.00024 U	< 0.00010 U	< 0.00012 U	< 0.00024 U	< 0.00015 U	< 0.00018 U	< 0.000077 U	< 0.00014 U	< 0.000081 U
PCB-122	76842-07-4	ng/g	0.0073 JN	< 0.0020 U	< 0.0012 U	< 0.0020 U	< 0.0016 U	< 0.0012 U	< 0.0018 U	< 0.00068 U	0.0086 JN	0.0094 JN
PCB-123	65510-44-3	ng/g	0.0092 JN	0.0040 JN	< 0.0010 U	< 0.0017 U	0.0024 JN	< 0.0011 U	< 0.0015 U	0.00090 JN	0.014 JN	0.0096 J
PCB-126	57465-28-8	ng/g	< 0.0030 U	< 0.0020 U	< 0.0011 U	< 0.0019 U	< 0.0015 U	< 0.0012 U	< 0.0017 U	< 0.00062 U	0.0021 JN	< 0.0017 U
PCB-127	39635-33-1	ng/g	< 0.0028 U	< 0.0017 U	< 0.0010 U	< 0.0018 U	< 0.0014 U	< 0.0011 U	< 0.0016 U	< 0.00058 U	< 0.0016 U	< 0.0016 U
PCB-128/166	38380-07-3	ng/g	0.27	0.047	0.015 J	0.13	0.031 JN	0.027 JN	0.0082 JN	0.016 J	0.26	0.16
PCB-129/138/160/163	55215-18-4	ng/g	2.4	0.34	0.098	1.7	0.24	0.23	0.061	0.11	1.6	1.1
PCB-130	52663-66-8	ng/g	0.16	0.018	0.0080 J	0.059	0.012 JN	0.012	< 0.0041 U	0.0042 JN	0.11	0.085
PCB-131	61798-70-7	ng/g	0.027	< 0.0026 U	< 0.0021 U	< 0.0052 U	< 0.0029 U	0.0022 J	< 0.0042 U	< 0.0019 U	0.026	0.012
PCB-132	38380-05-1	ng/g	0.73	0.082	0.025	0.46	0.056	0.046 JN	0.015	0.014	0.53	0.42
PCB-133	35694-04-3	ng/g	0.053	< 0.0024 U	< 0.0019 U	< 0.0048 U	< 0.0026 U	0.0038 J	< 0.0038 U	< 0.0017 U	0.020	0.033
PCB-134/143	52704-70-8	ng/g	0.12	0.012 JN	< 0.0020 U	0.075	0.0074 JN	0.0075 JN	< 0.0040 U	< 0.0018 U	0.088	0.062 JN
PCB-135/151	52744-13-5	ng/g	1.1	0.070	0.030	0.71	0.046 JN	0.054	0.012 JN	0.018 JN	0.43	0.24 JN
PCB-136	38411-22-2	ng/g	0.36	0.025	0.0077 JN	0.21	0.029	0.013 JN	0.0060 J	0.0031 JN	0.16	0.14
PCB-137	35694-06-5	ng/g	0.052 JN	0.013	0.0045 J	< 0.0043 U	0.0069 JN	0.0076 JN	< 0.0035 U	0.0035 J	0.085	0.040
PCB-139/140	56030-56-9	ng/g	0.038	0.0053 J	< 0.0017 U	< 0.0042 U	< 0.0023 U	< 0.00089 U	< 0.0034 U	< 0.0015 U	0.032	0.027
PCB-14	34883-41-5	ng/g	< 0.0030 U	< 0.0044 U	< 0.0025 U	< 0.0024 U	< 0.0026 U	< 0.0027 U	< 0.0025 U	< 0.0029 U	< 0.0020 U	< 0.0024 U
PCB-141	52712-04-6	ng/g	0.46	0.056	0.014 JN	0.49	0.035	0.036	< 0.0036 U	0.017	0.27	0.17
PCB-142	41411-61-4	ng/g	< 0.0099 U	< 0.0024 U	< 0.0019 U	< 0.0047 U	< 0.0026 U	< 0.00099 U	< 0.0038 U	< 0.0017 U	< 0.0033 U	< 0.0036 U
PCB-144	68194-14-9	ng/g	0.10	0.0076 JN	0.0025 J	0.079	0.0045 JN	0.0062 J	0.0017 JN	< 0.000042 U	0.052	0.033
PCB-145	74472-40-5	ng/g	< 0.00047 U	< 0.000027 U	< 0.000042 U	< 0.00010 U	< 0.00016 U	< 0.000029 U	< 0.00018 U	< 0.000032 U	0.00082 JN	< 0.000080 U
PCB-146	51908-16-8	ng/g	0.59	0.048	0.018	0.23	0.049	0.033	0.012 JN	0.012 JN	0.20	0.28

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B439	B440	B441	B442	B443	B444	B445	B446	B447	B448
		Sample ID	PDI-SG-B439	PDI-SG-B440	PDI-SG-B441	PDI-SG-B442	PDI-SG-B443	PDI-SG-B444	PDI-SG-B445	PDI-SG-B446	PDI-SG-B447	PDI-SG-B448
		Sample Date	29 Jun 2018	29 Jun 2018	29 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	30 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-23 cm	0-29 cm	0-23 cm	0-26 cm	0-20 cm	0-30 cm	0-21 cm	0-14 cm	0-29 cm	0-22 cm
Chemical	**CAS_RN**	**Units**										
PCB-147/149	68194-13-8	ng/g	2.9	0.24	0.074	1.9	0.26	0.15	0.040	0.054	1.4	1.1
PCB-148	74472-41-6	ng/g	0.0029 JN	< 0.000038 U	< 0.000060 U	< 0.00015 U	0.0010 JN	< 0.000040 U	< 0.00025 U	< 0.000045 U	< 0.000069 U	0.0047 JN
PCB-15	2050-68-2	ng/g	0.0096 JN	0.014 JN	< 0.0031 U	0.015 JN	0.0063 J	< 0.0034 U	< 0.0029 U	< 0.0034 U	0.038	0.032
PCB-150	68194-08-1	ng/g	0.0094 J	< 0.000026 U	< 0.000041 U	< 0.000099 U	0.0018 JN	< 0.000027 U	< 0.00017 U	< 0.000030 U	0.0015 J	0.0023 JN
PCB-152	68194-09-2	ng/g	0.0021 JN	< 0.000028 U	< 0.000044 U	< 0.00011 U	< 0.00017 U	< 0.000029 U	< 0.00018 U	< 0.000033 U	< 0.000050 U	0.0010 JN
PCB-153/168	35065-27-1	ng/g	2.6	0.27	0.083	1.7	0.23	0.18	0.054	0.097	1.1	0.95
PCB-154	60145-22-4	ng/g	0.077	0.0041 JN	0.0012 J	0.017	0.0075 JN	0.0023 JN	0.0014 JN	< 0.000036 U	0.012 JN	0.037
PCB-155	33979-03-2	ng/g	< 0.00046 U	< 0.000026 U	< 0.000041 U	< 0.000099 U	< 0.00015 U	< 0.000027 U	< 0.00017 U	< 0.000031 U	< 0.000047 U	< 0.000077 U
PCB-156/157	38380-08-4	ng/g	0.14 JN	0.030	0.0053 JN	0.079	0.019 J	0.019 J	0.0059 J	0.0097 J	0.13	0.078
PCB-158	74472-42-7	ng/g	0.16	0.031	0.0099	0.13	0.019	0.018	0.0036 JN	0.0067 J	0.15	0.070
PCB-159	39635-35-3	ng/g	0.029	< 0.0016 U	< 0.0013 U	0.024	< 0.0017 U	0.0017 J	< 0.0026 U	< 0.0011 U	0.011	0.0079 JN
PCB-16	38444-78-9	ng/g	0.012 JN	0.016	< 0.00022 U	0.0046 JN	0.0036 JN	0.0023 JN	< 0.00028 U	< 0.00021 U	0.014	0.039
PCB-161	74472-43-8	ng/g	< 0.0065 U	< 0.0016 U	< 0.0013 U	< 0.0031 U	< 0.0017 U	< 0.00066 U	< 0.0025 U	< 0.0011 U	< 0.0022 U	< 0.0024 U
PCB-162	39635-34-2	ng/g	< 0.0065 U	< 0.0016 U	< 0.0013 U	< 0.0031 U	< 0.0017 U	< 0.00065 U	< 0.0025 U	< 0.0011 U	0.0048 JN	< 0.0023 U
PCB-164	74472-45-0	ng/g	0.16	0.022	0.0049 J	0.11	0.016	0.015	< 0.0027 U	0.0064 J	0.11	0.080
PCB-165	74472-46-1	ng/g	< 0.0074 U	< 0.0018 U	< 0.0014 U	< 0.0036 U	< 0.0020 U	< 0.00075 U	< 0.0029 U	< 0.0013 U	< 0.0025 U	< 0.0027 U
PCB-167	52663-72-6	ng/g	0.054	0.010 J	0.0033 J	0.032	0.0058 J	0.0071 J	< 0.0019 U	0.0032 JN	0.047	0.031
PCB-169	32774-16-6	ng/g	0.019 JN	< 0.0012 U	< 0.00092 U	< 0.0023 U	< 0.0012 U	< 0.00052 U	< 0.0018 U	< 0.00081 U	0.0067 JN	0.0044 JN
PCB-17	37680-66-3	ng/g	0.025	0.014 JN	0.0025 JN	0.0066 JN	0.0068 JN	0.0039 JN	0.0017 J	0.0012 J	0.017	0.059
PCB-170	35065-30-6	ng/g	0.83	0.070	0.028	0.89	0.051 JN	0.059	0.023	0.045	0.46	0.26
PCB-171/173	52663-71-5	ng/g	0.28	0.017 JN	0.0067 JN	0.27	0.019 J	0.014 JN	0.0090 J	0.0091 J	0.12	0.079
PCB-172	52663-74-8	ng/g	0.18	0.010 JN	0.0042 J	0.16	0.014	0.0097 J	0.0062 JN	0.0093 J	0.078	0.052
PCB-174	38411-25-5	ng/g	1.2	0.075	0.022	1.2	0.062	0.056	0.028	0.046	0.43	0.28
PCB-175	40186-70-7	ng/g	0.050	0.0027 JN	< 0.00087 U	0.034	0.0027 J	0.0018 JN	< 0.0012 U	< 0.00045 U	0.016	0.012
PCB-176	52663-65-7	ng/g	0.17	0.0078 JN	0.0018 JN	0.13	< 0.00058 U	0.0045 JN	0.0027 J	0.0017 JN	0.044 JN	0.041
PCB-177	52663-70-4	ng/g	0.65	0.053	0.017	0.62	0.035 JN	0.033	0.014 JN	0.023 JN	0.25	0.20
PCB-178	52663-67-9	ng/g	0.28	0.018 JN	0.0046 JN	0.23	0.017	0.016	0.011	0.012	0.080	0.080
PCB-179	52663-64-6	ng/g	0.65	0.035	0.011	0.49	0.031	0.024	0.012 JN	0.018	0.15	0.14
PCB-18/30	37680-65-2	ng/g	0.034	0.042	0.0096 J	0.011 JN	0.011 J	0.011 J	0.0014 JN	0.0025 J	0.034	0.094
PCB-180/193	35065-29-3	ng/g	2.5	0.14 JN	0.053	2.1	0.12	0.13	0.059	0.10	0.97	0.56
PCB-181	74472-47-2	ng/g	< 0.0017 U	< 0.00012 U	< 0.00086 U	< 0.00032 U	< 0.00077 U	< 0.00017 U	< 0.0012 U	< 0.00044 U	< 0.00016 U	< 0.00029 U
PCB-182	60145-23-5	ng/g	< 0.0016 U	< 0.00011 U	< 0.00083 U	< 0.00031 U	< 0.00074 U	0.0016 JN	< 0.0012 U	< 0.00043 U	< 0.00015 U	0.0099
PCB-183/185	52663-69-1	ng/g	0.94	0.052	0.015 J	0.67	0.034 JN	0.039	0.018 JN	0.025	0.30	0.18
PCB-184	74472-48-3	ng/g	< 0.0014 U	< 0.000097 U	< 0.00071 U	< 0.00026 U	< 0.00063 U	< 0.00014 U	< 0.00098 U	< 0.00036 U	< 0.00013 U	< 0.00024 U
PCB-186	74472-49-4	ng/g	< 0.0014 U	< 0.000094 U	< 0.00069 U	< 0.00026 U	< 0.00061 U	< 0.00014 U	< 0.00095 U	< 0.00036 U	< 0.00013 U	< 0.00023 U
PCB-187	52663-68-0	ng/g	1.8	0.11	0.030 JN	1.3	0.086	0.083	0.050	0.069	0.50	0.44
PCB-188	74487-85-7	ng/g	< 0.0012 U	< 0.000081 U	< 0.00061 U	< 0.00021 U	< 0.00051 U	< 0.00011 U	< 0.00084 U	< 0.00032 U	< 0.00011 U	< 0.00019 U
PCB-189	39635-31-9	ng/g	0.024	< 0.0023 U	< 0.0014 U	0.020 JN	< 0.0017 U	0.0033 J	< 0.0022 U	0.0020 JN	0.012	0.0084 J
PCB-19	38444-73-4	ng/g	0.014	0.0039 JN	< 0.00024 U	0.0035 J	0.0017 JN	< 0.00024 U	< 0.00031 U	< 0.00024 U	0.0078 J	0.0090 J
PCB-190	41411-64-7	ng/g	0.15	0.012 JN	0.0047 JN	0.16	0.0088 JN	0.011	0.0061 J	0.011	0.074	0.042
PCB-191	74472-50-7	ng/g	0.035	0.0033 J	< 0.00065 U	0.033	< 0.00058 U	0.0021 JN	< 0.00090 U	< 0.00034 U	0.015	0.0091 JN
PCB-192	74472-51-8	ng/g	< 0.0014 U	< 0.00010 U	< 0.00073 U	< 0.00027 U	< 0.00065 U	< 0.00015 U	< 0.0010 U	< 0.00038 U	< 0.00014 U	< 0.00024 U
PCB-194	35694-08-7	ng/g	0.86	0.041 JN	0.011 JN	0.44	0.028 JN	0.028 JN	0.018 JN	0.031	0.25	0.24
PCB-195	52663-78-2	ng/g	0.28	0.020	< 0.0027 U	0.23	< 0.0039 U	0.016	< 0.0035 U	0.014	0.10	0.098
PCB-196	42740-50-1	ng/g	0.44	0.018	0.0060 J	0.20	0.014 JN	0.014	0.010 JN	0.012 JN	0.11	0.097
PCB-197	33091-17-7	ng/g	0.032	< 0.00016 U	< 0.00047 U	0.016	< 0.00083 U	0.00055 JN	< 0.0011 U	0.0014 J	0.0069 J	0.012
PCB-198/199	68194-17-2	ng/g	1.0	0.041 JN	0.015 J	0.48	0.037	0.037 JN	0.054	0.044 JN	0.23	0.22
PCB-2	2051-61-8	ng/g	< 0.00066 U	< 0.00039 U	0.0064 J	0.0070 JN	0.0032 J	0.0049 JN	< 0.00045 U	< 0.00012 U	0.014	0.0050 JN
PCB-20/28	38444-84-7	ng/g	0.064	0.078	0.020	0.048	0.034	0.030	0.0047 JN	< 0.0029 U	0.098	0.20
PCB-200	52663-73-7	ng/g	0.11	0.0053 J	< 0.00042 U	0.055	0.0043 JN	0.0031 J	0.0015 JN	0.0040 J	0.025	0.022
PCB-201	40186-71-8	ng/g	0.12	0.0038 JN	0.00064 JN	0.055	0.0037 J	0.0027 JN	0.0043 J	0.0032 J	0.027	0.029
PCB-202	2136-99-4	ng/g	0.24	0.0095 JN	0.0027 JN	0.095	0.0082 J	0.0062 JN	0.016	0.0090 J	0.048	0.045
PCB-203	52663-76-0	ng/g	0.62	0.024 JN	0.0067 JN	0.26	0.021	0.023	0.021 JN	0.028	0.14	0.13
PCB-204	74472-52-9	ng/g	< 0.0016 U	< 0.00016 U	< 0.00048 U	< 0.00058 U	< 0.00083 U	< 0.000059 U	< 0.0011 U	< 0.00016 U	< 0.00023 U	< 0.00018 U
PCB-205	74472-53-0	ng/g	0.038	< 0.0018 U	< 0.0021 U	0.024	< 0.0030 U	< 0.00044 U	< 0.0027 U	< 0.0013 U	0.013	0.012 JN
PCB-206	40186-72-9	ng/g	0.63	0.031	0.0081 J	0.094	0.015 JN	0.025 JN	0.17	0.017	0.073	0.10
PCB-207	52663-79-3	ng/g	0.073	0.0031 J	< 0.0013 U	0.012 JN	< 0.0017 U	0.0023 JN	0.0076 JN	0.0017 J	0.0082 J	0.0098
PCB-208	52663-77-1	ng/g	0.20	0.0068 JN	0.0037 J	0.024 JN	0.0066 JN	0.0086 J	0.064	0.0046 JN	0.021	0.025
PCB-209	2051-24-3	ng/g	0.62	0.050	0.011 JN	0.030 JN	0.027 JN	0.054	0.19	0.011	0.041	0.060
PCB-21/33	55702-46-0	ng/g	0.040	0.037	0.0061 J	0.014 J	0.014 J	0.0090 J	0.0028 JN	0.0018 J	0.030	0.11
PCB-22	38444-85-8	ng/g	0.016	0.026	0.0057 J	0.015	0.0073 J	0.0088 J	< 0.00082 U	0.00092 JN	0.030	0.054

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B439	B440	B441	B442	B443	B444	B445	B446	B447	B448
		Sample ID	PDI-SG-B439	PDI-SG-B440	PDI-SG-B441	PDI-SG-B442	PDI-SG-B443	PDI-SG-B444	PDI-SG-B445	PDI-SG-B446	PDI-SG-B447	PDI-SG-B448
		Sample Date	29 Jun 2018	29 Jun 2018	29 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	30 Jun 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-23 cm	0-29 cm	0-23 cm	0-26 cm	0-20 cm	0-30 cm	0-21 cm	0-14 cm	0-29 cm	0-22 cm
Chemical	CAS_RN	Units										
PCB-23	55720-44-0	ng/g	< 0.0016 U	< 0.0010 U	< 0.00057 U	< 0.00082 U	< 0.00082 U	< 0.00057 U	< 0.00081 U	< 0.00039 U	< 0.00062 U	< 0.00096 U
PCB-24	55702-45-9	ng/g	0.00098 JN	< 0.00036 U	< 0.00016 U	< 0.00021 U	< 0.00020 U	< 0.00017 U	< 0.00021 U	< 0.00016 U	< 0.00021 U	0.0014 JN
PCB-25	55712-37-3	ng/g	0.0058 JN	0.0075 J	0.0018 J	0.0041 JN	0.0036 J	< 0.00052 U	< 0.00074 U	< 0.00035 U	0.0077 J	0.024
PCB-26/29	38444-81-4	ng/g	0.015 J	0.013 J	0.0036 J	0.0068 JN	0.0045 JN	0.0049 J	< 0.00078 U	< 0.00037 U	0.014 J	0.030
PCB-27	38444-76-7	ng/g	0.0031 J	0.0026 JN	< 0.00014 U	0.0016 J	< 0.00017 U	0.00071 JN	< 0.00018 U	< 0.00014 U	0.0049 J	0.0079 J
PCB-3	2051-62-9	ng/g	< 0.00070 U	< 0.00041 U	0.0034 J+	< 0.00030 U	< 0.00030 U	< 0.00030 U	< 0.00044 U	< 0.00013 U	0.0014 JN	0.0085 JN
PCB-31	16606-02-3	ng/g	0.054	0.059 JN	0.015 J	0.036	0.022	0.020	0.0042 J	0.0039 J	0.070	0.14
PCB-32	38444-77-8	ng/g	0.011	0.015	0.0033 J	0.0058 J	0.0064 JN	0.0047 JN	0.0013 JN	0.0014 JN	0.017	0.036
PCB-34	37680-68-5	ng/g	< 0.0017 U	< 0.0010 U	< 0.00059 U	< 0.00086 U	< 0.00085 U	< 0.00059 U	< 0.00084 U	< 0.00040 U	< 0.00064 U	0.0057 J
PCB-35	37680-69-6	ng/g	< 0.0016 U	< 0.0010 U	< 0.00057 U	0.0028 J	0.0019 J	< 0.00058 U	< 0.00082 U	0.00075 J	0.0023 JN	0.0029 J
PCB-36	38444-87-0	ng/g	< 0.0016 U	< 0.00097 U	< 0.00055 U	< 0.00080 U	< 0.00079 U	< 0.00056 U	< 0.00079 U	< 0.00038 U	< 0.00060 U	< 0.00093 U
PCB-37	38444-90-5	ng/g	0.015	0.024	0.0062 J	0.018	0.010	0.0084 JN	0.0023 J	0.0017 JN	0.043	0.045
PCB-38	53555-66-1	ng/g	< 0.0017 U	< 0.0010 U	< 0.00059 U	< 0.00086 U	< 0.00085 U	< 0.00060 U	< 0.00085 U	< 0.00040 U	< 0.00064 U	< 0.0010 U
PCB-39	38444-88-1	ng/g	< 0.0015 U	< 0.00094 U	< 0.00053 U	< 0.00077 U	< 0.00076 U	< 0.00054 U	< 0.00076 U	< 0.00036 U	< 0.00058 U	0.0020 J
PCB-4	13029-08-8	ng/g	0.012 JN	0.0099 JN	< 0.0041 U	0.0043 JN	< 0.0043 U	0.0053 JN	< 0.0043 U	< 0.0050 U	0.010 J	0.019 JN
PCB-40/41/71	38444-93-8	ng/g	0.075	0.041	0.0091 JN	0.024 JN	0.022 JN	0.012 JN	0.0031 J	0.0029 J	0.059	0.14
PCB-42	36559-22-5	ng/g	0.048	0.020	0.0059 J	0.014 JN	0.015	0.0061 JN	0.0019 JN	0.0011 JN	0.035	0.088
PCB-43/73	70362-46-8	ng/g	0.011 J	0.0029 J	< 0.00013 U	0.0017 JN	0.0019 JN	< 0.00021 U	< 0.00026 U	< 0.00021 U	0.0045 J	0.011 J
PCB-44/47/65	41464-39-5	ng/g	0.30	0.079	0.027 J+	0.062	0.076	0.037	0.010 J+	0.018 J+	0.15	0.39
PCB-45/51	70362-45-7	ng/g	0.029	0.016 J	0.0023 JN	0.0091 J	0.0072 J	0.0039 J	0.0017 J	0.0022 J	0.034	0.038
PCB-46	41464-47-5	ng/g	0.0093 JN	0.0042 JN	< 0.00018 U	0.0040 JN	< 0.00028 U	< 0.00029 U	< 0.00035 U	< 0.00028 U	0.0080 JN	0.014 JN
PCB-48	70362-47-9	ng/g	0.020 JN	0.016	0.0036 J	0.0077 J	0.0041 JN	0.0039 JN	0.0010 JN	0.00080 J	0.015	0.040 JN
PCB-49/69	41464-40-8	ng/g	0.24	0.058	0.024	0.045	0.060	0.026	0.0070 J	0.0047 J	0.10	0.34
PCB-5	16605-91-7	ng/g	< 0.0040 U	< 0.0058 U	< 0.0033 U	< 0.0032 U	< 0.0035 U	< 0.0035 U	< 0.0032 U	< 0.0038 U	< 0.0026 U	< 0.0032 U
PCB-50/53	62796-65-0	ng/g	0.032	0.0086 JN	0.0024 JN	0.0064 J	0.0056 JN	0.0032 JN	0.0013 JN	0.0011 JN	0.029	0.034
PCB-52	35693-99-3	ng/g	0.58	0.13	0.044	0.091	0.097	0.050	0.010 JN	0.013 J+	0.30	0.55
PCB-54	15968-05-5	ng/g	0.0066 J	< 0.000041 U	< 0.000031 U	< 0.000027 U	< 0.000014 U	< 0.000017 U	< 0.000015 U	< 0.000023 U	< 0.000015 U	< 0.000021 U
PCB-55	74338-24-2	ng/g	0.0048 J	0.0021 JN	0.00051 JN	< 0.00023 U	0.0014 JN	0.00087 JN	< 0.00020 U	< 0.00016 U	< 0.00010 U	0.0052 JN
PCB-56	41464-43-1	ng/g	0.094	0.031	0.0085 JN	0.025	0.020	0.014	0.0031 JN	0.0032 J	0.054	0.13
PCB-57	70424-67-8	ng/g	< 0.00025 U	< 0.00031 U	< 0.00010 U	< 0.00023 U	< 0.00016 U	< 0.00017 U	< 0.00020 U	< 0.00016 U	< 0.00010 U	< 0.00011 U
PCB-58	41464-49-7	ng/g	0.0042 JN	< 0.00031 U	< 0.00011 U	< 0.00024 U	0.00054 JN	< 0.00017 U	< 0.00021 U	< 0.00017 U	< 0.00011 U	0.0065 JN
PCB-59/62/75	74472-33-6	ng/g	0.015 J	0.0074 J	0.0013 JN	0.0031 JN	0.0046 J	0.0024 JN	0.00060 JN	< 0.00016 U	0.012 J	0.028 J
PCB-6	25569-80-6	ng/g	0.0071 JN	< 0.0051 U	< 0.0029 U	0.0029 J	< 0.0031 U	< 0.0031 U	< 0.0029 U	< 0.0034 U	0.0051 JN	0.019
PCB-60	33025-41-1	ng/g	0.020	0.015	0.0037 JN	0.012	0.0041 JN	0.0043 JN	0.0014 JN	0.0020 J	0.026	0.021 JN
PCB-61/70/74/76	33284-53-6	ng/g	0.57	0.14	0.046	0.12	0.095	0.067	0.015 J+	0.013 JN	0.29	0.56
PCB-63	74472-34-7	ng/g	0.011 JN	0.0024 JN	0.00080 JN	0.0025 JN	0.0019 JN	0.0010 JN	< 0.00019 U	< 0.00015 U	0.0040 J	0.016
PCB-64	52663-58-8	ng/g	0.079	0.038	0.0096 J	0.026	0.021	0.013	0.0028 JN	0.0027 J	0.050	0.10
PCB-66	32598-10-0	ng/g	0.23	0.074	0.027	0.067	0.059	0.038	0.0095 J+	0.0073 J+	0.17	0.36
PCB-67	73575-53-8	ng/g	0.0055 JN	< 0.00026 U	< 0.000090 U	< 0.00020 U	0.0012 JN	0.0010 J	< 0.00018 U	< 0.00014 U	0.0031 J	0.0058 JN
PCB-68	73575-52-7	ng/g	0.012 JN	< 0.00027 U	< 0.000092 U	< 0.00021 U	0.0034 J	0.00083 J	0.00075 JN	< 0.00015 U	0.0021 J	0.015
PCB-7	33284-50-3	ng/g	< 0.0036 U	< 0.0052 U	< 0.0030 U	< 0.0029 U	< 0.0031 U	< 0.0032 U	< 0.0029 U	< 0.0034 U	< 0.0024 U	0.0057 JN
PCB-72	41464-42-0	ng/g	0.022	< 0.00030 U	0.00087 JN	< 0.00023 U	0.0039 J	0.00089 JN	< 0.00020 U	< 0.00016 U	0.0021 J	0.022 JN
PCB-77	32598-13-3	ng/g	0.0085 JN	0.0086 JN	0.0035 JN	0.0079 JN	0.0069 JN	0.0055 JN	0.0014 JN	0.00060 JN	0.015	0.021
PCB-78	70362-49-1	ng/g	< 0.00026 U	< 0.00031 U	< 0.00010 U	< 0.00024 U	< 0.00016 U	< 0.00017 U	0.00059 JN	< 0.00017 U	< 0.00011 U	< 0.00011 U
PCB-79	41464-48-6	ng/g	0.010	0.0013 JN	< 0.000091 U	< 0.00021 U	< 0.00014 U	0.00081 JN	< 0.00018 U	< 0.00014 U	0.0048 JN	0.0077 JN
PCB-8	34883-43-7	ng/g	0.012 JN	0.016 J	0.0039 JN	0.0073 JN	0.0059 JN	0.0047 JN	< 0.0026 U	< 0.0031 U	0.017 J	0.060
PCB-80	33284-52-5	ng/g	< 0.00022 U	< 0.00026 U	< 0.000089 U	< 0.00020 U	< 0.00014 U	< 0.00015 U	< 0.00018 U	< 0.00014 U	< 0.000090 U	0.00090 JN
PCB-81	70362-50-4	ng/g	< 0.00023 U	< 0.00028 U	< 0.000094 U	< 0.00021 U	< 0.00015 U	0.00060 JN	< 0.00019 U	0.00046 J	< 0.000095 U	< 0.00011 U
PCB-82	52663-62-4	ng/g	0.10	0.015 JN	0.0044 JN	0.017 JN	0.011 JN	0.011	0.0021 JN	0.0024 JN	0.093	0.082
PCB-83/99	60145-20-2	ng/g	0.83	0.11	0.036	0.11	0.13	0.063	0.015 J	0.020	0.58	0.71
PCB-84	52663-60-2	ng/g	0.29	0.043	0.011 JN	0.037	0.030	0.018	0.0040 J	0.0061 J	0.27	0.25
PCB-85/116/117	65510-45-4	ng/g	0.18	0.038	0.014 J	0.033	0.024 J	0.022 J	0.0060 J	0.0088 J	0.18	0.12
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.72	0.12	0.029 JN	0.12	0.087	0.063	0.012 JN	0.016 JN	0.57	0.53
PCB-88/91	55215-17-3	ng/g	0.20	0.019 JN	0.015 J	0.024	0.036	0.011 JN	0.0032 J	0.0027 JN	0.16	0.15
PCB-89	73575-57-2	ng/g	< 0.00038 U	< 0.00036 U	< 0.00016 U	< 0.00018 U	< 0.00036 U	< 0.00024 U	< 0.00028 U	< 0.00012 U	< 0.00021 U	< 0.00012 U
PCB-9	34883-39-1	ng/g	< 0.0037 U	< 0.0054 U	< 0.0031 U	< 0.0029 U	< 0.0032 U	< 0.0032 U	< 0.0030 U	< 0.0035 U	< 0.0024 U	0.0054 JN
PCB-90/101/113	68194-07-0	ng/g	1.5	0.19	0.061	0.37	0.16	0.099	0.021 JN	0.027 J	0.90	1.0
PCB-92	52663-61-3	ng/g	0.33	0.034	0.011 JN	0.040 JN	0.034	0.019	0.0035 JN	0.0031 JN	0.17	0.22
PCB-93/100	73575-56-1	ng/g	0.082	0.0021 J	0.0020 J	0.0023 JN	0.0077 J	0.0022 JN	< 0.00024 U	< 0.00010 U	0.013 J	0.014 JN
PCB-94	73575-55-0	ng/g	< 0.00037 U	< 0.00036 U	< 0.00016 U	< 0.00018 U	< 0.00036 U	< 0.00024 U	< 0.00028 U	< 0.00012 U	< 0.00021 U	< 0.00012 U
PCB-95	38379-99-6	ng/g	1.3	0.13	0.059	0.29	0.13	0.058 JN	0.017 J+	0.019 JN	1.0	0.82

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

			Location	B439	B440	B441	B442	B443	B444	B445	B446	B447	B448
			Sample ID	PDI-SG-B439	PDI-SG-B440	PDI-SG-B441	PDI-SG-B442	PDI-SG-B443	PDI-SG-B444	PDI-SG-B445	PDI-SG-B446	PDI-SG-B447	PDI-SG-B448
			Sample Date	29 Jun 2018	29 Jun 2018	29 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	30 Jun 2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-23 cm	0-29 cm	0-23 cm	0-26 cm	0-20 cm	0-30 cm	0-21 cm	0-14 cm	0-29 cm	0-22 cm
Chemical		**CAS_RN**	**Units**										
PCB-96		73575-54-9	ng/g	0.015 JN	< 0.00027 U	< 0.00012 U	< 0.00014 U	< 0.00027 U	< 0.00018 U	< 0.00021 U	< 0.000089 U	< 0.00016 U	< 0.000094 U
PCB-98/102		60233-25-2	ng/g	0.049	0.0029 JN	0.0015 JN	0.0045 JN	0.0049 JN	0.0019 JN	< 0.00024 U	< 0.00010 U	0.028	0.027
Total PCBs	(b)	T_PCBCg (PDI)	ng/g	39	4.5	1.4	21	3.4	2.7	1.3	1.2	19	19
Pesticides													
2,4-DDD		53-19-0	µg/kg	0.71 J	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	0.26 J
2,4-DDE		3424-82-6	µg/kg	0.35 J	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	< 0.37 U
2,4-DDT		789-02-6	µg/kg	< 0.36 U	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	< 0.37 U
4,4'-DDD		72-54-8	µg/kg	4.1	0.67	0.29 J	0.53	0.34	0.50	0.27 J	0.14 J	0.53	1.2
4,4'-DDE		72-55-9	µg/kg	3.6	1.5	0.58	1.2	1.2 J	1.3 J	0.35	0.32 J	1.1	2.3 J
4,4'-DDT		50-29-3	µg/kg	< 0.36 U	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	< 0.37 U
DDx	(b)	T_DDx (PDI)	µg/kg	8.9	2.4	1.0	1.9	1.7	2.0	0.78	0.62	1.8	3.9
Aldrin		309-00-2	µg/kg	< 0.36 U	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	< 0.37 U
alpha-Chlordane		5103-71-9	µg/kg	< 0.73 U	< 0.96 U	< 0.64 U	< 0.83 U	< 0.66 U	< 0.73 U	< 0.63 U	< 0.65 U	< 0.75 U	< 0.73 U
cis-Nonachlor		5103-73-1	µg/kg	< 0.36 U	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	< 0.37 U
Dieldrin		60-57-1	µg/kg	< 0.73 U	< 0.96 U	< 0.64 U	< 0.83 U	< 0.66 U	< 0.73 U	< 0.63 U	< 0.65 U	< 0.75 U	< 0.73 U
gamma-BHC (Lindane)		58-89-9	µg/kg	< 0.36 U	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	< 0.37 U
gamma-Chlordane		5566-34-7	µg/kg	< 0.73 U	< 0.96 U	< 0.64 U	< 0.83 U	< 0.66 U	< 0.73 U	< 0.63 U	< 0.65 U	< 0.75 U	< 0.73 U
Heptachlor		76-44-8	µg/kg	< 0.36 U	< 0.48 U	< 0.32 U	< 0.41 U	< 0.33 U	< 0.36 U	< 0.31 U	< 0.32 U	< 0.38 U	< 0.37 U
Oxychlordane		27304-13-8	µg/kg	< 0.73 U	< 0.96 U	< 0.64 U	< 0.83 U	< 0.66 U	< 0.73 U	< 0.63 U	< 0.65 U	< 0.75 U	< 0.73 U
trans-Nonachlor		39765-80-5	µg/kg	< 0.73 U	< 0.96 U	< 0.64 U	< 0.83 U	< 0.66 U	< 0.73 U	< 0.63 U	< 0.65 U	< 0.75 U	< 0.73 U
Total Chlordanes	(b)	T_Clrdn (PDI)	µg/kg	< 0.73 U	< 0.96 U	< 0.64 U	< 0.83 U	< 0.66 U	< 0.73 U	< 0.63 U	< 0.65 U	< 0.75 U	< 0.73 U
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	75	7.9 J	4.0 J	6.0 J	2.6 J	130	22	< 16 U	6.5 J	7.6 J
Acenaphthene		83-32-9	µg/kg	51	< 22 U	< 15 U	< 21 U	< 17 U	< 20 U	36	< 16 U	2.5 J	3.6 J
Acenaphthylene		208-96-8	µg/kg	70	< 22 U	6.6 J	9.1 J	9.5 J	12 J	97	< 16 U	13 J	11 J
Anthracene		120-12-7	µg/kg	49	27	4.8 J	8.2 J	5.6 J	13 J	45	2.6 J	19	22
Benz(a)anthracene		56-55-3	µg/kg	40	17 J	13 J	11 J	11 J	19 J	32	3.6 J	33	28
Benzo(a)pyrene		50-32-8	µg/kg	42 J	25 J	12 J	11 J	8.7 J	12 J	26 J	< 16 UJ	36 J	22 J
Benzo(b)fluoranthene		205-99-2	µg/kg	58	22	14 J	16 J	15 J	20	35	4.9 J	53	32
Benzo(g,h,i)perylene		191-24-2	µg/kg	66	30	9.6 J	19 J	15 J	11 J	37	3.5 J	47	26
Benzo(k)fluoranthene		207-08-9	µg/kg	20	6.4 J	6.5 J	7.0 J	3.4 J	7.1 J	12 J	2.3 J	20	12 J
Bis(2-ethylhexyl)phthalate		117-81-7	µg/kg	< 530 U	88 J	< 480 U	< 630 U	< 500 U	< 580 U	< 500 U	< 500 U	150 J	< 540 U
Chrysene		218-01-9	µg/kg	73	24	16	16 J	13 J	28	35	5.8 J	64	40
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 18 U	< 22 U	< 15 U	< 21 U	< 17 U	< 20 U	< 16 U	< 16 U	6.3 J	< 18 U
Fluoranthene		206-44-0	µg/kg	230	40	22	30	27	37	150	7.7 J	75	61
Fluorene		86-73-7	µg/kg	46	4.0 J	< 15 U	4.6 J	3.6 J	5.0 J	31	< 16 U	5.7 J	6.6 J
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	54	28	9.7 J	20 J	15 J	13 J	31	< 16 U	50	19
Naphthalene		91-20-3	µg/kg	280	11 J	7.8 J	13 J	12 J	91	270	3.8 J	16 J	19
Phenanthrene		85-01-8	µg/kg	290	30	14 J	20 J	19	40	160	6.3 J	35	42
Pyrene		129-00-0	µg/kg	250	42	23	27	27	35	160	5.9 J	78	63
Total PAHs	(b)	T_PAH (PDI)	µg/kg	1703	336	178	239	204	493	1187	62	560	424
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	66	43	23	26	21	27	44	8.9	56	39
Metals													
Arsenic		7440-38-2	mg/kg	5.1	4.3	4.0	4.8	3.3	4.0	3.5	4.4	3.7	4.2
Cadmium		7440-43-9	mg/kg	0.23	0.17 J	0.094 J	0.18 J	0.10 J	0.15 J	0.14 J	0.12 J	0.16 J	0.23 J
Copper		7440-50-8	mg/kg	41	36	25	43	28	35	27	32	33	32
Lead		7439-92-1	mg/kg	16	9.6	7.6	13	8.2	9.6	9.0	7.0	11	26
Mercury		7439-97-6	mg/kg	0.58 J	0.053 J	0.027 J	0.082 J	0.044 J	0.045 J	0.066 J	0.055 J	0.068 J	0.066 J
Tri-n-butyltin		36643-28-4	µg/kg	< 64 U	< 170 U	< 60 U	< 79 U	< 63 U	< 74 U	< 62 U	< 63 U	< 140 U	< 69 U
Zinc		7440-66-6	mg/kg	140	91	75	110	66	87	77	70	87	200
TPH													
TPH-Diesel Range Organics		68334-30-5	mg/kg	170	160	29 J	63 J	67 J	100	87	27 J	66 J	75 J
TPH-Motor Oil Range Organics		TPH-MOIL	mg/kg	540	770	140	310	330	800	500	160	390	390
Other													
Total Solids@104C - D2216	(f)	TSOLID	%	55.2	41.6	62.2	47.2	59.3	50.4	59.5	58.3	50.4	54.3
Total Solids@104C - E160.3M	(f)	TSOLID	%	53.7	41.4	62.1	48.0	56.2	52.2	60.2	59.0	51.9	54.5
Total Solids@70C		TSOLID70	%	54	41	62	50	59	50	60	59	51	53
Gravel		GS-Gravel	%	0	0	0	0	15.6	0	0.3	0	0	0
Sand, Coarse		GS-Csand	%	0.2	0	0.2	0.1	4.5	0	0.2	0.1	0	0
Sand, Medium		GS-Msand	%	0.2	0.3	6.4	0.2	5.7	0.2	0.4	0.2	0.1	1.2

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

			Location	B439	B440	B441	B442	B443	B444	B445	B446	B447	B448
			Sample ID	PDI-SG-B439	PDI-SG-B440	PDI-SG-B441	PDI-SG-B442	PDI-SG-B443	PDI-SG-B444	PDI-SG-B445	PDI-SG-B446	PDI-SG-B447	PDI-SG-B448
			Sample Date	29 Jun 2018	29 Jun 2018	29 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	29 Jun 2018	30 Jun 2018	30 Jun 2018	30 Jun 2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-23 cm	0-29 cm	0-23 cm	0-26 cm	0-20 cm	0-30 cm	0-21 cm	0-14 cm	0-29 cm	0-22 cm
Chemical		**CAS_RN**	**Units**										
Sand, Fine (#200)	(d)	GS-Fsand-200	%	30.11	27.61	59.67	24.89	29.17	28.79	66.73	20.72	28.54	55.44
Sand, Fine (#230)	(d)	GS-Fsand	%	33.9	31.7	60.9	31.4	29.6	37.5	70.3	23.5	36.5	56.0
Silt (#200)	(d)	GS-Silt-200	%	56.38	59.38	29.32	69.20	37.72	64.50	27.26	68.27	63.75	35.85
Silt (#230)	(d)	GS-Silt	%	52.6	55.3	28.1	62.7	37.3	55.8	23.7	65.5	55.8	35.3
Clay		GS-Clay	%	13.1	12.7	4.4	5.7	7.4	6.4	5.2	10.7	7.6	7.4
Percent Fines	(e)	GS-FINES	%	69.48	72.08	33.72	74.9	45.12	70.9	32.46	78.97	71.35	43.25
Liquid Limit		GS-LL	None	54	70				0				
Plasticity Index		GS-PI	None	21	24				< U				
Plasticity Limit		GS-PL	None	33	46				0				
Total Organic Carbon		TOC	mg/kg	29000	40000	7400	27000	20000	24000	18000	7700	24000	22000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B449	B450	B451	B452	B453	B453	B454	B455	B456	B457
		Sample ID	PDI-SG-B449	PDI-SG-B450	PDI-SG-B451	PDI-SG-B452	PDI-SG-B453	PDI-SG-B453-D	PDI-SG-B454	PDI-SG-B455	PDI-SG-B456	PDI-SG-B457
		Sample Date	30 Jun 2018	01 Jul 2018	30 Jun 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	30 Jun 2018	02 Jul 2018	01 Jul 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-16 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-28 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
Dioxin and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.030	0.0026 J	0.017	0.017	0.031	0.034	0.019	0.025	0.033	0.38
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0060	0.00055 JN	0.0033 JN	0.0038 J	0.0082 JN	0.0084 JN	0.0040 JN	0.0039 JN	0.0041 JN	0.050
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00054 J+	0.00026 JN	0.00029 J+	0.00030 J+	0.00068 J+	0.00067 J+	0.00037 J+	0.00035 J+	0.0011 J+	0.0028 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00051 J+	0.00018 J+	0.00029 J+	0.00038 J+	0.00055 J+	0.00057 J+	0.00038 J+	0.00040 J+	0.00044 J+	0.0036 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00057 J	0.000087 J+	0.00030 J	0.00034 J	0.0011 J	0.00086 J	0.00048 J	0.00036 J	0.00052 J	0.0047
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0016 J	0.00016 J	0.00072 J	0.00086 J	0.0016 J	0.0016 J	0.00094 J	0.0023 J	0.0012 J	0.016
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00033 J	0.000054 JN	0.00022 J	0.00018 JN	0.00041 J	0.00038 J	0.00024 J	0.00027 J	0.00049 J	0.0031 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0011 J	0.00026 J	0.00056 J	0.00077 J	0.0011 J	0.0011 J	0.00082 J	0.0011 J	0.00097 J	0.0083
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00051 J+	0.00046 J+	< 0.00035 U	< 0.00036 U	0.00063 J+	0.00080 J+	0.00044 J+	0.00053 J+	0.0027 J+	0.00050 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00024 J	0.000054 J	0.00010 J	0.00014 JN	0.00024 JN	0.00022 J	0.00018 J	0.00024 JN	0.00022 J	0.0018 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00015 JN	0.000084 J+	0.00014 J+	< 0.000040 U	0.00021 JN	0.00024 JN	0.00015 J+	0.00019 JN	0.00050 J+	0.0013 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00020 J	0.000037 J+	0.00012 J	0.000066 J+	0.00026 J	0.00022 J	0.00015 J	0.00021 J	0.00022 J	0.0014 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00020 J+	< 0.000038 U	0.00011 J+	< 0.000044 U	0.00025 J	0.00022 J+	0.00014 J+	0.00015 J+	0.00018 J	0.0012 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000098 JN	< 0.000052 U	< 0.000066 U	< 0.00013 U	< 0.00020 U	< 0.00013 U	0.00010 JN	0.00012 JN	< 0.000060 U	0.00096
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00048 J+	< 0.00014 U	0.00030 J+	0.00028 J+	0.00046 J+	0.00038 JN	0.00026 JN	0.00060 J+	0.00028 J+	0.0012
OCDD	3268-87-9	µg/kg	0.27	0.026	0.22	0.15	0.28 J	0.72 J	0.17	0.23	0.35	5.2 J
OCDF	39001-02-0	µg/kg	0.022	0.0018 J	0.016	0.013	0.028	0.028	0.014	0.011	0.013	0.14
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0014	0.00025	0.0007	0.00075	0.0015	0.0016	0.00099	0.0014	0.0015	0.013
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0013	0.00024	0.00066	0.0006	0.0013	0.0016	0.00087	0.0011	0.0015	0.013
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0013	0.00021	0.00063	0.00053	0.0012	0.0015	0.00082	0.00095	0.0014	0.013
Polychlorinated Biphenyls (PCBs) Congeners												
PCB-1	2051-60-7	ng/g	< 0.00028 U	< 0.000041 U	0.00086 JN	< 0.000092 U	0.0013 JN	0.0016 JN	0.0013 JN	< 0.00019 U	0.0011 J	0.017
PCB-10	33146-45-1	ng/g	< 0.0030 U	< 0.0037 U	< 0.0030 U	< 0.0042 U	< 0.0036 U	< 0.0037 U	< 0.0037 U	< 0.0032 U	< 0.0014 U	< 0.0033 U
PCB-103	60145-21-3	ng/g	0.011	< 0.000067 U	0.0023 J	< 0.00011 U	< 0.000092 U	< 0.00019 U	< 0.000094 U	0.0022 JN	0.0029 JN	0.10
PCB-104	56558-16-8	ng/g	< 0.00025 U	< 0.000051 U	< 0.000085 U	< 0.000083 U	< 0.000070 U	< 0.00014 U	< 0.000071 U	< 0.000074 U	< 0.00014 U	< 0.00014 U
PCB-105	32598-14-4	ng/g	0.053	0.0045 JN	0.025 JN	0.023	0.052	0.042	0.030	0.044	0.025	1.1
PCB-106	70424-69-0	ng/g	< 0.0014 U	< 0.00025 U	< 0.00066 U	< 0.00076 U	< 0.0011 U	< 0.00089 U	< 0.00074 U	< 0.00099 U	< 0.0010 U	< 0.0031 U
PCB-107	70424-68-9	ng/g	0.016	0.0010 JN	0.0097 J	0.0039 JN	0.011	0.011	0.0058 JN	0.015	0.0045 JN	0.54
PCB-108/124	70362-41-3	ng/g	0.0061 J	< 0.00025 U	0.0020 JN	< 0.00078 U	0.0052 JN	0.0063 J	0.0035 J	0.0050 JN	0.0022 JN	0.12
PCB-11	2050-67-1	ng/g	0.048 J+	0.013 J+	0.020 JN	0.024 JN	0.045	0.034 JN	0.051	0.053	0.022	0.042 JN
PCB-110/115	38380-03-9	ng/g	0.22	0.011 JN	0.12	0.072	0.22	0.14	0.089 JN	0.20	0.095	5.9
PCB-111	39635-32-0	ng/g	< 0.00023 U	< 0.000047 U	< 0.000078 U	< 0.000077 U	< 0.000065 U	< 0.00013 U	< 0.000066 U	< 0.000069 U	< 0.00013 U	< 0.00013 U
PCB-112	74472-36-9	ng/g	< 0.00024 U	< 0.000050 U	< 0.000082 U	< 0.000081 U	< 0.000068 U	< 0.00014 U	< 0.000069 U	< 0.000072 U	< 0.00014 U	< 0.00013 U
PCB-114	74472-37-0	ng/g	< 0.0013 U	< 0.00022 U	< 0.00061 U	< 0.00069 U	0.0021 JN	0.0029 J	< 0.00067 U	0.0028 JN	< 0.00097 U	0.058
PCB-118	31508-00-6	ng/g	0.14	0.011 JN	0.081	0.063	0.12	0.11	0.079	0.14	0.069	4.1
PCB-12/13	2974-92-7	ng/g	< 0.0027 U	< 0.0034 U	< 0.0027 U	< 0.0038 U	< 0.0032 U	< 0.0033 U	< 0.0034 U	< 0.0029 U	< 0.0013 U	0.030 JN
PCB-120	68194-12-7	ng/g	< 0.00023 U	< 0.000048 U	0.0011 JN	< 0.000079 U	0.0015 JN	0.0010 JN	< 0.000067 U	0.0021 JN	< 0.00014 U	0.079
PCB-121	56558-18-0	ng/g	< 0.00024 U	< 0.000050 U	< 0.000082 U	< 0.000081 U	< 0.000068 U	< 0.00014 U	< 0.000069 U	< 0.000072 U	< 0.00014 U	< 0.00013 U
PCB-122	76842-07-4	ng/g	< 0.0016 U	< 0.00028 U	< 0.00076 U	< 0.00088 U	< 0.0013 U	0.0023 J	0.0021 JN	0.0024 JN	< 0.0012 U	0.056
PCB-123	65510-44-3	ng/g	0.0033 JN	< 0.00025 U	< 0.00065 U	0.0016 JN	0.0036 J	0.0027 J	0.0023 J	0.0019 JN	< 0.0011 U	0.039
PCB-126	57465-28-8	ng/g	< 0.0015 U	< 0.00026 U	< 0.00070 U	< 0.00082 U	< 0.0012 U	< 0.00096 U	< 0.00082 U	< 0.0010 U	< 0.0011 U	0.010 JN
PCB-127	39635-33-1	ng/g	< 0.0014 U	< 0.00024 U	< 0.00065 U	< 0.00076 U	< 0.0011 U	< 0.00089 U	< 0.00074 U	< 0.00098 U	< 0.0010 U	< 0.0031 U
PCB-128/166	38380-07-3	ng/g	0.077	0.0033 JN	0.019 J	0.017 J	0.061	0.028	0.019 J	0.034	0.018	0.85
PCB-129/138/160/163	55215-18-4	ng/g	0.96	0.027 J	0.14	0.13	0.72 J	0.20 J	0.14	0.25	0.13	5.4
PCB-130	52663-66-8	ng/g	0.047	< 0.00051 U	0.010	0.0073 J	0.024	0.014	0.0092 J	0.018	0.0094	0.43
PCB-131	61798-70-7	ng/g	< 0.0043 U	< 0.00053 U	< 0.0010 U	< 0.0010 U	< 0.0030 U	< 0.0017 U	< 0.0012 U	< 0.0020 U	< 0.0018 U	0.074
PCB-132	38380-05-1	ng/g	0.23	0.0032 JN	0.046	0.027	0.19 J	0.044 J	0.032	0.075	0.034	2.0
PCB-133	35694-04-3	ng/g	0.015 JN	< 0.00048 U	0.0033 J	< 0.00093 U	0.0076 J	< 0.0015 U	< 0.0011 U	0.0034 JN	< 0.0017 U	0.19
PCB-134/143	52704-70-8	ng/g	0.043	0.00065 JN	0.0083 J	0.0044 JN	0.028 JN	0.0072 JN	0.0039 JN	0.015 J	< 0.0017 U	0.34
PCB-135/151	52744-13-5	ng/g	0.41	0.0046 JN	0.033 JN	0.027	0.32 J	0.051 J	0.031	0.090	0.045	1.8
PCB-136	38411-22-2	ng/g	0.099	0.00096 JN	0.016	0.0070 JN	0.090 J	0.013 J	0.0090 J	0.026	0.015	0.66
PCB-137	35694-06-5	ng/g	0.011	0.0011 J	0.0050 JN	0.0043 J	0.0092 J	0.0073 JN	0.0047 JN	0.0088 J	< 0.0015 U	0.22
PCB-139/140	56030-56-9	ng/g	< 0.0035 U	< 0.00043 U	0.0023 JN	< 0.00083 U	< 0.0024 U	< 0.0014 U	0.0020 J	0.0042 JN	< 0.0015 U	0.14
PCB-14	34883-41-5	ng/g	< 0.0023 U	< 0.0028 U	< 0.0023 U	< 0.0032 U	< 0.0027 U	< 0.0028 U	< 0.0029 U	< 0.0025 U	< 0.0011 U	< 0.0025 U
PCB-141	52712-04-6	ng/g	0.23	0.0042 J	0.020	0.017	0.21 J	0.030 J	0.014 JN	0.043	0.024	0.71
PCB-142	41411-61-4	ng/g	< 0.0039 U	< 0.00048 U	< 0.00093 U	< 0.00093 U	< 0.0027 U	< 0.0015 U	< 0.0011 U	< 0.0018 U	< 0.0017 U	< 0.0049 U
PCB-144	68194-14-9	ng/g	0.040	0.00097 JN	0.0039 J	< 0.000026 U	0.044 J	0.0067 J	0.0030 JN	0.0067 J	0.0034 J	0.14 JN
PCB-145	74472-40-5	ng/g	< 0.00021 U	< 0.000011 U	< 0.000059 U	< 0.000019 U	< 0.000078 U	< 0.000023 U	< 0.000021 U	< 0.000049 U	< 0.000082 U	< 0.000077 U
PCB-146	51908-16-8	ng/g	0.18	0.0053 J	0.028	0.015 JN	0.11 J	0.030 J	0.022	0.047	0.026	1.4

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B449	B450	B451	B452	B453	B453	B454	B455	B456	B457
		Sample ID	PDI-SG-B449	PDI-SG-B450	PDI-SG-B451	PDI-SG-B452	PDI-SG-B453	PDI-SG-B453-D	PDI-SG-B454	PDI-SG-B455	PDI-SG-B456	PDI-SG-B457
		Sample Date	30 Jun 2018	01 Jul 2018	30 Jun 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	30 Jun 2018	02 Jul 2018	01 Jul 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-16 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-28 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-147/149	68194-13-8	ng/g	0.97	0.014 JN	0.12	0.073	0.73 J	0.14 J	0.099	0.22	0.10	4.9
PCB-148	74472-41-6	ng/g	< 0.00029 U	< 0.000016 U	< 0.000083 U	< 0.000027 U	< 0.00011 U	< 0.000032 U	< 0.000030 U	0.00059 JN	< 0.00012 U	0.044 JN
PCB-15	2050-68-2	ng/g	0.0091 JN	< 0.0037 U	0.0045 JN	0.0048 JN	0.0081 JN	0.0073 JN	0.0055 JN	0.0097 JN	0.0050 JN	0.11
PCB-150	68194-08-1	ng/g	0.0024 JN	< 0.000011 U	0.00022 JN	< 0.000019 U	< 0.000075 U	< 0.000022 U	< 0.000021 U	< 0.000047 U	0.00057 JN	0.024
PCB-152	68194-09-2	ng/g	< 0.00021 U	< 0.000011 U	< 0.000061 U	< 0.000020 U	< 0.000081 U	< 0.000023 U	< 0.000022 U	< 0.000051 U	< 0.000085 U	0.0029 JN
PCB-153/168	35065-27-1	ng/g	0.99	0.022	0.11	0.098	0.74 J	0.16 J	0.11	0.22	0.11	4.4
PCB-154	60145-22-4	ng/g	0.014	< 0.000013 U	0.0049 JN	0.0042 JN	0.019 JN	0.0022 JN	0.010	0.0035 JN	0.0024 JN	0.17 JN
PCB-155	33979-03-2	ng/g	< 0.00020 U	< 0.000011 U	< 0.000056 U	< 0.000019 U	< 0.000075 U	< 0.000022 U	< 0.000021 U	< 0.000047 U	< 0.000079 U	< 0.000074 U
PCB-156/157	38380-08-4	ng/g	0.049	0.0027 J	0.015 J	0.013 J	0.048	0.020	0.013 J	0.020	0.011 J	0.49
PCB-158	74472-42-7	ng/g	0.071	0.0026 J	0.013	0.010	0.067 J	0.017 J	0.013	0.019	0.013	0.40
PCB-159	39635-35-3	ng/g	0.012	< 0.00032 U	< 0.00063 U	< 0.00062 U	0.011 J	< 0.0010 UJ	< 0.00076 U	< 0.0012 U	< 0.0011 U	< 0.0033 U
PCB-16	38444-78-9	ng/g	0.0042 J	< 0.000080 U	< 0.00019 U	0.0038 J	0.0056 JN	0.0052 J	0.0035 JN	0.0048 J	0.0035 JN	0.14
PCB-161	74472-43-8	ng/g	< 0.0026 U	< 0.00032 U	< 0.00062 U	< 0.00062 U	< 0.0018 U	< 0.0010 U	< 0.00075 U	< 0.0012 U	< 0.0011 U	< 0.0033 U
PCB-162	39635-34-2	ng/g	< 0.0026 U	< 0.00031 U	< 0.00061 U	< 0.00061 U	< 0.0018 U	< 0.0010 U	< 0.00074 U	< 0.0012 U	< 0.0011 U	< 0.0032 U
PCB-164	74472-45-0	ng/g	0.076	0.0012 JN	0.0090 J	0.0076 J	0.053 J	0.013 J	0.0086 J	0.015 JN	0.010	0.38
PCB-165	74472-46-1	ng/g	< 0.0030 U	< 0.00036 U	< 0.00071 U	< 0.00070 U	< 0.0021 U	< 0.0011 U	< 0.00085 U	< 0.0013 U	< 0.0013 U	< 0.0037 U
PCB-167	52663-72-6	ng/g	0.021	< 0.00023 U	0.0053 J	0.0051 J	0.019	0.0072 J	0.0058 J	0.0071 J	0.0045 J	0.16
PCB-169	32774-16-6	ng/g	< 0.0021 U	< 0.00023 U	< 0.00046 U	0.00073 JN	0.0048 JN	< 0.00071 U	< 0.00054 U	< 0.00085 U	< 0.00077 U	< 0.0022 U
PCB-17	37680-66-3	ng/g	0.011	< 0.000072 U	0.0024 JN	0.0036 J	0.0072 JN	0.0073 J	0.0058 JN	0.011 JN	0.0060 JN	0.22
PCB-170	35065-30-6	ng/g	0.45	0.0095 J	0.030	0.030	0.44 J	0.045 J	0.028 JN	0.066	0.034	0.86
PCB-171/173	52663-71-5	ng/g	0.13	0.0014 JN	0.0082 JN	0.0050 JN	0.12 J	0.011 JN	0.0063 JN	0.022	0.011 J	0.27
PCB-172	52663-74-8	ng/g	0.085	0.00096 J	0.0067 J	< 0.00032 U	0.084 J	0.0087 J	0.0058 J	0.012	0.0055 JN	0.15
PCB-174	38411-25-5	ng/g	0.51	0.0081 J	0.033	0.030	0.49 J	0.036 JN	0.034	0.057 JN	0.029 JN	0.86
PCB-175	40186-70-7	ng/g	0.019	< 0.00018 U	0.0012 JN	< 0.00029 U	0.017 J	< 0.00024 UJ	0.0020 J	0.0027 JN	< 0.00047 U	0.036
PCB-176	52663-65-7	ng/g	0.054	< 0.00014 U	0.0029 JN	0.0035 J	0.055 J	0.0037 JN	0.0030 JN	0.0063 JN	< 0.00035 U	0.13
PCB-177	52663-70-4	ng/g	0.28	0.0054 J	0.020	0.016 JN	0.26 J	0.027 J	0.018 JN	0.039	0.020	0.62
PCB-178	52663-67-9	ng/g	0.11	0.0027 JN	0.0085 J	0.0061 J	0.094 J	0.0097 J	0.0094 J	0.012 JN	0.0079 JN	0.25
PCB-179	52663-64-6	ng/g	0.22	0.0023 J	0.015	0.013	0.18 J	0.020 J	0.014	0.028 JN	0.015	0.45
PCB-18/30	37680-65-2	ng/g	0.012 J	< 0.0015 U	0.0066 J+	0.0063 JN	0.019 J	0.017 JN	0.0084 JN	0.021	0.015 J	0.41
PCB-180/193	35065-29-3	ng/g	0.98	0.018 J	0.064	0.069	1.1 J	0.093 J	0.071	0.14	0.069	1.6
PCB-181	74472-47-2	ng/g	< 0.00090 U	< 0.00018 U	< 0.00020 U	< 0.00029 U	< 0.00038 U	< 0.00024 U	< 0.00014 U	< 0.000099 U	< 0.00047 U	0.013
PCB-182	60145-23-5	ng/g	0.0054 JN	< 0.00018 U	0.00082 JN	< 0.00028 U	< 0.00036 U	< 0.00023 U	< 0.00014 U	< 0.000096 U	< 0.00045 U	0.016
PCB-183/185	52663-69-1	ng/g	0.32	0.0051 JN	0.022	0.025	0.33 J	0.031 J	0.021	0.042	0.023	0.56
PCB-184	74472-48-3	ng/g	< 0.00074 U	< 0.00015 U	< 0.00016 U	< 0.00023 U	< 0.00031 U	< 0.00019 U	< 0.00012 U	< 0.000082 U	< 0.00038 U	< 0.000098 U
PCB-186	74472-49-4	ng/g	< 0.00072 U	< 0.00015 U	< 0.00016 U	< 0.00023 U	< 0.00030 U	< 0.00019 U	< 0.00011 U	< 0.000079 U	< 0.00037 U	< 0.000095 U
PCB-187	52663-68-0	ng/g	0.62	0.010 JN	0.043	0.049	0.56 J	0.063 J	0.051	0.086	0.047	1.2
PCB-188	74487-85-7	ng/g	< 0.00060 U	< 0.00013 U	< 0.00014 U	< 0.00019 U	< 0.00026 U	< 0.00017 U	< 0.00010 U	< 0.000071 U	< 0.00033 U	< 0.000084 U
PCB-189	39635-31-9	ng/g	0.016	< 0.00021 U	0.0015 J	< 0.00048 U	0.011 JN	0.0018 J	< 0.00046 U	< 0.00077 U	< 0.00091 U	0.032
PCB-19	38444-73-4	ng/g	0.010	< 0.000088 U	< 0.00021 U	0.0017 JN	< 0.00022 U	0.0015 JN	0.0012 JN	0.0019 JN	< 0.00080 U	0.030
PCB-190	41411-64-7	ng/g	0.087	0.0016 JN	0.0051 JN	0.0074 J	0.090 J	0.0083 JN	0.0067 J	0.012 JN	0.0080 J	0.14
PCB-191	74472-50-7	ng/g	0.016	< 0.00014 U	< 0.00015 U	0.0011 JN	0.023 J	0.0011 JN	0.0013 JN	0.0024 JN	< 0.00035 U	0.035
PCB-192	74472-51-8	ng/g	< 0.00076 U	< 0.00015 U	< 0.00017 U	< 0.00024 U	< 0.00032 U	< 0.00020 U	< 0.00012 U	< 0.000084 U	< 0.00039 U	< 0.00010 U
PCB-194	35694-08-7	ng/g	0.27	0.0045 JN	0.018	0.016	0.31 J	0.020 J	0.018	0.031	0.016	0.36
PCB-195	52663-78-2	ng/g	0.13	0.0017 JN	0.0087 J	0.0066 JN	0.12 J	0.0078 JN	0.0092 J	0.010 JN	0.0093	0.14
PCB-196	42740-50-1	ng/g	0.11	0.0019 JN	0.0074 JN	0.0076 JN	0.13 J	0.0097 J	0.0081 J	0.011 JN	0.0094	0.18
PCB-197	33091-17-7	ng/g	0.0081 J	< 0.000058 U	< 0.00026 U	< 0.000037 U	0.011 J	0.0012 J	< 0.000057 U	0.00078 JN	< 0.00028 U	0.015
PCB-198/199	68194-17-2	ng/g	0.25	0.0063 J	0.016 JN	0.026	0.28 J	0.027 JN	0.025	0.035	0.022	0.44
PCB-2	2051-61-8	ng/g	0.011	0.00063 JN	0.00096 JN	0.0017 JN	0.0034 J	0.0031 J	0.0034 J	0.0058 J	0.0015 JN	0.0052 JN
PCB-20/28	38444-84-7	ng/g	0.034	0.0025 JN	0.016 J	0.014 JN	0.036	0.035	0.026	0.047	0.022	0.93
PCB-200	52663-73-7	ng/g	0.031	0.00069 JN	0.0018 JN	< 0.000033 U	0.029 J	0.0016 JN	0.0015 JN	0.0037 J	0.0017 JN	0.042
PCB-201	40186-71-8	ng/g	0.020 JN	< 0.000053 U	0.0021 JN	0.0026 J	0.027 J	0.0025 J	< 0.000052 U	0.0041 J	0.0023 J	0.048
PCB-202	2136-99-4	ng/g	0.047	0.0012 JN	0.0033 J	0.0060 J	0.041 J	0.0068 J	0.0049 J	0.0060 JN	0.0026 JN	0.085
PCB-203	52663-76-0	ng/g	0.14	0.0028 JN	0.012	0.014 JN	0.16 J	0.016 J	0.014 JN	0.021	0.012	0.25
PCB-204	74472-52-9	ng/g	< 0.00054 U	< 0.000059 U	< 0.00026 U	< 0.000037 U	< 0.00031 U	< 0.000079 U	< 0.000057 U	< 0.00016 U	< 0.00028 U	< 0.000070 U
PCB-205	74472-53-0	ng/g	0.014 JN	< 0.00027 U	< 0.00066 U	< 0.00010 U	0.015 J	0.0015 J	< 0.00022 U	< 0.00058 U	< 0.0014 U	0.016 JN
PCB-206	40186-72-9	ng/g	0.074 JN	0.0028 J	0.011	0.018 JN	0.083 J	0.020 J	0.012	0.016	0.011 JN	0.19
PCB-207	52663-79-3	ng/g	0.010	< 0.00043 U	< 0.00064 U	0.0015 JN	0.0062 JN	< 0.00056 U	0.0019 JN	< 0.00078 U	< 0.0013 U	0.021
PCB-208	52663-77-1	ng/g	0.019	0.00098 JN	0.0041 J	0.0069 J	0.016	0.0084 J	0.0035 JN	0.0046 JN	0.0029 JN	0.054
PCB-209	2051-24-3	ng/g	0.040	0.0037 J	0.014	0.019	0.034	0.028 JN	0.020	0.023	0.025	0.17
PCB-21/33	55702-46-0	ng/g	0.014 J	0.0015 J+	0.0051 JN	0.0057 J	0.013 J	0.012 J	0.0077 JN	0.023	0.0090 J	0.40
PCB-22	38444-85-8	ng/g	0.010	0.0010 J	0.0031 JN	0.0045 J	0.011	0.0088 J	0.0079 J	0.010 JN	0.0051 JN	0.21

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B449	B450	B451	B452	B453	B453	B454	B455	B456	B457
		Sample ID	PDI-SG-B449	PDI-SG-B450	PDI-SG-B451	PDI-SG-B452	PDI-SG-B453	PDI-SG-B453-D	PDI-SG-B454	PDI-SG-B455	PDI-SG-B456	PDI-SG-B457
		Sample Date	30 Jun 2018	01 Jul 2018	30 Jun 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	30 Jun 2018	02 Jul 2018	01 Jul 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-16 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-28 cm	0-25 cm
Chemical	CAS_RN	Units										
PCB-23	55720-44-0	ng/g	< 0.00070 U	< 0.00030 U	< 0.00050 U	< 0.00045 U	< 0.00066 U	< 0.00056 U	< 0.00050 U	< 0.00081 U	< 0.00043 U	< 0.0027 U
PCB-24	55702-45-9	ng/g	< 0.00021 U	< 0.000061 U	< 0.00014 U	< 0.000068 U	< 0.00015 U	< 0.00021 U	< 0.00020 U	< 0.00021 U	< 0.00055 U	0.0064 J
PCB-25	55712-37-3	ng/g	0.0041 J	< 0.00027 U	0.0017 J	0.0020 JN	0.0030 JN	0.0038 JN	0.0016 JN	0.0058 J	0.0022 JN	0.067
PCB-26/29	38444-81-4	ng/g	0.0056 JN	< 0.00029 U	0.0030 JN	0.0032 JN	0.0060 J	0.0065 J	0.0039 J	0.0075 JN	0.0043 J	0.10
PCB-27	38444-76-7	ng/g	0.0019 JN	< 0.000053 U	< 0.00012 U	< 0.000059 U	0.0019 JN	< 0.00019 U	0.0013 JN	0.0022 JN	< 0.00048 U	0.028
PCB-3	2051-62-9	ng/g	< 0.00035 U	0.00042 JN	0.0011 J	< 0.00011 U	0.0020 J	0.0013 JN	0.0013 JN	0.0016 JN	< 0.00018 U	0.016 JN
PCB-31	16606-02-3	ng/g	0.023 JN	0.0026 J	0.013 J	0.014 J	0.027	0.024	0.019 J	0.032	0.017	0.69
PCB-32	38444-77-8	ng/g	0.0054 JN	< 0.000050 U	0.0021 JN	0.0019 JN	0.0062 J	0.0059 J	0.0045 JN	0.0066 JN	0.0037 JN	0.14
PCB-34	37680-68-5	ng/g	< 0.00073 U	< 0.00031 U	< 0.00051 U	< 0.00046 U	< 0.00068 U	< 0.00058 U	< 0.00052 U	< 0.00084 U	< 0.00045 U	0.018
PCB-35	37680-69-6	ng/g	< 0.00071 U	< 0.00030 U	< 0.00050 U	< 0.00045 U	< 0.00067 U	0.0012 J	< 0.00051 U	< 0.00082 U	< 0.00044 U	0.023
PCB-36	38444-87-0	ng/g	< 0.00068 U	< 0.00029 U	< 0.00048 U	< 0.00043 U	< 0.00064 U	< 0.00054 U	< 0.00049 U	< 0.00079 U	< 0.00042 U	< 0.0026 U
PCB-37	38444-90-5	ng/g	0.012	0.0013 J	0.0041 JN	0.0052 JN	0.011	0.0072 JN	0.0065 JN	0.013	0.0061 J	0.23
PCB-38	53555-66-1	ng/g	< 0.00073 U	< 0.00031 U	< 0.00052 U	< 0.00047 U	< 0.00069 U	< 0.00059 U	< 0.00053 U	< 0.00085 U	< 0.00045 U	< 0.0028 U
PCB-39	38444-88-1	ng/g	< 0.00066 U	< 0.00028 U	< 0.00046 U	< 0.00042 U	< 0.00062 U	< 0.00052 U	< 0.00047 U	< 0.00076 U	< 0.00041 U	0.014
PCB-4	13029-08-8	ng/g	0.014 JN	< 0.0043 U	< 0.0034 U	< 0.0051 U	0.0052 JN	0.0065 JN	< 0.0045 U	0.0040 JN	0.0044 JN	0.036
PCB-40/41/71	38444-93-8	ng/g	0.021 J	0.0026 J	0.0098 J	0.0083 J	0.015 JN	0.016 J	0.017 J	0.029	0.016 J	0.73
PCB-42	36559-22-5	ng/g	0.0093 JN	0.0011 JN	0.0052 JN	0.0046 JN	0.012	0.0080 JN	0.0060 J	0.018	0.0068 JN	0.44
PCB-43/73	70362-46-8	ng/g	0.0037 J	< 0.000080 U	< 0.00013 U	< 0.00069 U	0.0027 J	0.0022 JN	0.0017 JN	0.0028 JN	< 0.00035 U	0.049 JN
PCB-44/47/65	41464-39-5	ng/g	0.067	0.0062 J+	0.029	0.027 J	0.044	0.046	0.040	0.065	0.043	1.9
PCB-45/51	70362-45-7	ng/g	0.015 J	0.00063 J	0.0016 JN	0.0027 JN	0.0063 J	0.0055 JN	0.0052 J	0.0085 J	0.0066 J	0.18
PCB-46	41464-47-5	ng/g	0.0024 JN	< 0.00011 U	< 0.00017 U	< 0.00094 U	0.0022 JN	0.0018 J	< 0.00012 U	0.0025 J	0.0015 JN	0.065
PCB-48	70362-47-9	ng/g	0.0061 JN	< 0.000085 U	0.0023 JN	0.0032 JN	0.0064 J	0.0057 JN	0.0034 JN	0.0066 JN	0.0054 JN	0.22
PCB-49/69	41464-40-8	ng/g	0.051	0.0027 J	0.023	0.016 JN	0.035	0.029 JN	0.024	0.053	0.034	1.6
PCB-5	16605-91-7	ng/g	0.0083 JN	< 0.0038 U	< 0.0030 U	< 0.0043 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0033 U	< 0.0014 U	< 0.0034 U
PCB-50/53	62796-65-0	ng/g	0.017 J	< 0.000082 U	0.0016 JN	0.0025 J	0.0048 JN	0.0041 J	0.0042 J	0.0064 J	0.0040 JN	0.14
PCB-52	35693-99-3	ng/g	0.088	0.0056 J+	0.047	0.035	0.070	0.063	0.050	0.088	0.064	2.8
PCB-54	15968-05-5	ng/g	0.0013 JN	< 0.000016 U	< 0.000028 U	< 0.000031 U	< 0.000019 U	< 0.000023 U	< 0.000015 U	< 0.000016 U	< 0.000064 U	0.0022 JN
PCB-55	74338-24-2	ng/g	0.0015 J	< 0.000062 U	0.00085 JN	< 0.00054 U	0.0011 JN	0.00066 JN	< 0.000071 U	< 0.00014 U	0.0015 JN	0.028
PCB-56	41464-43-1	ng/g	0.021	0.0017 JN	0.0097 J	0.012	0.017 JN	0.017	0.015	0.024	0.013	0.70
PCB-57	70424-67-8	ng/g	< 0.00016 U	< 0.000063 U	< 0.00010 U	< 0.00055 U	< 0.000060 U	< 0.000097 U	< 0.000072 U	< 0.00014 U	< 0.00028 U	0.012
PCB-58	41464-49-7	ng/g	< 0.00016 U	< 0.000064 U	< 0.00010 U	0.0010 JN	< 0.000061 U	< 0.000098 U	< 0.000073 U	< 0.00014 U	< 0.00028 U	0.043
PCB-59/62/75	74472-33-6	ng/g	0.0041 J	< 0.000060 U	0.0021 J	< 0.00052 U	0.0022 JN	0.0036 J	0.0032 J	0.0065 J	0.0033 JN	0.15
PCB-6	25569-80-6	ng/g	< 0.0027 U	< 0.0033 U	< 0.0027 U	< 0.0037 U	0.0040 JN	0.0044 JN	< 0.0033 U	0.0047 JN	0.0027 JN	0.033
PCB-60	33025-41-1	ng/g	0.0060 JN	0.00087 JN	0.0028 JN	0.0035 J	0.010	0.0083 J	0.0058 JN	0.0074 J	0.0060 J	0.16
PCB-61/70/74/76	33284-53-6	ng/g	0.087	0.0076 J+	0.055	0.046	0.087	0.075	0.065	0.11	0.064	3.4
PCB-63	74472-34-7	ng/g	0.0017 JN	< 0.000058 U	0.0016 J	< 0.00050 U	0.0019 JN	0.0014 JN	0.0013 JN	0.0020 JN	< 0.00026 U	0.090
PCB-64	52663-58-8	ng/g	0.019	0.0023 J	0.0083 J	0.011	0.020	0.017	0.013	0.023	0.016	0.61
PCB-66	32598-10-0	ng/g	0.053	0.0044 J	0.031	0.025	0.054	0.044	0.037	0.068	0.039	2.0
PCB-67	73575-53-8	ng/g	0.0014 JN	< 0.000054 U	0.00093 JN	< 0.00047 U	0.00091 J	0.00082 J	0.00083 J	0.0016 JN	< 0.00024 U	0.047
PCB-68	73575-52-7	ng/g	0.0021 J	< 0.000056 U	0.0013 JN	0.0012 J+	< 0.00074 U	0.0014 JN	0.0014 JN	0.0025 J+	0.0015 J+	0.081
PCB-7	33284-50-3	ng/g	< 0.0028 U	< 0.0034 U	< 0.0027 U	< 0.0038 U	< 0.0033 U	< 0.0034 U	< 0.0034 U	< 0.0030 U	< 0.0013 U	0.010 JN
PCB-72	41464-42-0	ng/g	0.0020 J	< 0.000062 U	0.0011 J	< 0.00053 U	0.00083 JN	0.00085 JN	0.00076 JN	0.0026 J	0.0018 JN	0.12
PCB-77	32598-13-3	ng/g	0.0072 J	0.00037 JN	0.0026 J	0.0028 JN	0.0079 J	0.0056 J	0.0048 J	0.0052 J	0.0039 J	0.14
PCB-78	70362-49-1	ng/g	< 0.00016 U	< 0.000064 U	< 0.00010 U	< 0.00055 U	< 0.000061 U	< 0.000098 U	< 0.000073 U	< 0.00014 U	< 0.00028 U	< 0.00020 U
PCB-79	41464-48-6	ng/g	0.0013 J	< 0.000055 U	0.0010 JN	< 0.00048 U	0.0011 JN	< 0.000085 U	0.00083 JN	0.0012 J	0.0017 J	0.053 JN
PCB-8	34883-43-7	ng/g	< 0.0025 U	< 0.0031 U	0.0033 JN	0.0039 JN	0.0088 JN	0.011 J	0.0054 JN	0.010 JN	0.0076 J	0.13
PCB-80	33284-52-5	ng/g	< 0.00014 U	< 0.000054 U	< 0.000087 U	< 0.00047 U	< 0.000052 U	< 0.000083 U	< 0.000062 U	< 0.00012 U	< 0.00024 U	0.0050 JN
PCB-81	70362-50-4	ng/g	< 0.00015 U	< 0.000057 U	< 0.000091 U	< 0.00051 U	< 0.000054 U	0.00086 JN	< 0.000067 U	< 0.00013 U	< 0.00026 U	< 0.00019 U
PCB-82	52663-62-4	ng/g	0.014	0.0013 JN	0.0093 JN	0.011 JN	0.017	0.011	0.0097 J	0.013 JN	0.011	0.52
PCB-83/99	60145-20-2	ng/g	0.12	0.0070 JN	0.068	0.033 JN	0.092	0.075	0.060	0.12	0.065	3.9
PCB-84	52663-60-2	ng/g	0.025 JN	< 0.000079 U	0.026	0.012	0.029	0.028	0.018	0.039	0.021	1.3
PCB-85/116/117	65510-45-4	ng/g	0.025 JN	0.0025 JN	0.017 J	0.013 JN	0.035	0.026 J	0.017 J	0.030	0.012 JN	0.79
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.098	0.0057 JN	0.063	0.033 JN	0.099	0.073	0.018 JN	0.10	0.048 J	3.3
PCB-88/91	55215-17-3	ng/g	0.032	0.0013 JN	0.015 JN	0.0055 JN	0.019 J	0.019 J	0.012 JN	0.030	0.014 JN	0.84
PCB-89	73575-57-2	ng/g	< 0.00037 U	< 0.000076 U	< 0.00013 U	< 0.00012 U	< 0.00010 U	< 0.00021 U	< 0.00011 U	0.0021 J	0.0011 JN	< 0.00020 U
PCB-9	34883-39-1	ng/g	< 0.0028 U	< 0.0035 U	< 0.0028 U	< 0.0039 U	< 0.0033 U	< 0.0034 U	< 0.0035 U	< 0.0030 U	< 0.0013 U	0.010 JN
PCB-90/101/113	68194-07-0	ng/g	0.25	0.010 J	0.11	0.058	0.25 J	0.11 J	0.085	0.17	0.089	5.9
PCB-92	52663-61-3	ng/g	0.049	0.0010 JN	0.021	0.0093 J	0.037	0.019	0.015	0.036	0.017	1.3
PCB-93/100	73575-56-1	ng/g	0.0073 J	< 0.000068 U	0.0027 JN	0.0010 JN	0.0040 JN	0.0020 JN	< 0.000094 U	0.0026 JN	0.0027 J	0.098
PCB-94	73575-55-0	ng/g	< 0.00036 U	< 0.000076 U	< 0.00013 U	< 0.00012 U	< 0.00010 U	< 0.00021 U	< 0.00011 U	< 0.00011 U	< 0.00021 U	< 0.00020 U
PCB-95	38379-99-6	ng/g	0.20	0.0062 JN	0.083	0.044	0.18 J	0.088 J	0.064	0.13	0.075	4.3

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B449	B450	B451	B452	B453	B453	B454	B455	B456	B457
		Sample ID	PDI-SG-B449	PDI-SG-B450	PDI-SG-B451	PDI-SG-B452	PDI-SG-B453	PDI-SG-B453-D	PDI-SG-B454	PDI-SG-B455	PDI-SG-B456	PDI-SG-B457
		Sample Date	30 Jun 2018	01 Jul 2018	30 Jun 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	30 Jun 2018	02 Jul 2018	01 Jul 2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-30 cm	0-16 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-28 cm	0-25 cm
Chemical	**CAS_RN**	**Units**										
PCB-96	73575-54-9	ng/g	< 0.00028 U	< 0.000058 U	< 0.000095 U	< 0.000094 U	< 0.000078 U	< 0.00016 U	< 0.000080 U	< 0.000083 U	< 0.00016 U	< 0.00015 U
PCB-98/102	60233-25-2	ng/g	0.0043 J	< 0.000066 U	0.0015 JN	0.0021 JN	0.0034 JN	0.0025 JN	0.0017 JN	0.0035 J	0.0036 J	0.15
Total PCBs (b)	T_PCBCg (PDI)	ng/g	12	0.31	2.0	1.5	10	2.6	1.9	3.7	2.0	89
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.36 U	< 0.31 U	< 0.31 U	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	0.37 J
2,4-DDE	3424-82-6	µg/kg	< 0.36 U	< 0.31 U	< 0.31 U	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.37 U
2,4-DDT	789-02-6	µg/kg	< 0.36 U	< 0.31 U	< 0.31 U	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.37 U
4,4'-DDD	72-54-8	µg/kg	0.44	< 0.31 U	0.27 J	0.46	0.55	0.68	0.46	0.41	0.31 J	3.5
4,4'-DDE	72-55-9	µg/kg	0.96	< 0.31 U	0.49 J	1.1 J	1.2 J	1.3 J	0.91 J	0.85 J	0.38	3.7 J
4,4'-DDT	50-29-3	µg/kg	0.23 J	< 0.31 U	0.15 J	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	29 J
DDx (b)	T_DDx (PDI)	µg/kg	1.8	< 0.31 U	1.1	1.7	2.0	2.2	1.5	1.4	0.86	36.76
Aldrin	309-00-2	µg/kg	< 0.36 U	< 0.31 U	< 0.31 U	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.37 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.72 U	< 0.62 U	< 0.62 U	< 0.67 U	< 0.79 U	< 0.80 U	< 0.67 U	< 0.65 U	< 0.66 U	< 0.74 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.36 U	< 0.31 U	< 0.31 U	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.37 U
Dieldrin	60-57-1	µg/kg	< 0.72 U	< 0.62 U	< 0.62 U	< 0.67 U	< 0.79 U	< 0.80 U	< 0.67 U	< 0.65 U	< 0.66 U	< 0.74 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.36 U	< 0.31 U	< 0.31 U	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.37 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.72 U	< 0.62 U	< 0.62 U	< 0.67 U	< 0.79 U	< 0.80 U	< 0.67 U	< 0.65 U	< 0.66 U	< 0.74 U
Heptachlor	76-44-8	µg/kg	< 0.36 U	< 0.31 U	< 0.31 U	< 0.34 U	< 0.40 U	< 0.40 U	< 0.33 U	< 0.33 U	< 0.33 U	< 0.37 U
Oxychlordane	27304-13-8	µg/kg	< 0.72 U	< 0.62 U	< 0.62 U	< 0.67 U	< 0.79 U	< 0.80 U	< 0.67 U	< 0.65 U	< 0.66 U	< 0.74 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.72 U	< 0.62 U	< 0.62 U	< 0.67 U	< 0.79 U	< 0.80 U	< 0.67 U	< 0.65 U	< 0.66 U	< 0.74 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 0.72 U	< 0.62 U	< 0.62 U	< 0.67 U	< 0.79 U	< 0.8 U	< 0.67 U	< 0.65 U	< 0.66 U	< 0.74 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	6.5 J	< 15 U	1.3 J	4.5 J	2.3 J	4.0 J	2.8 J	3.5 J	< 39 U	18
Acenaphthene	83-32-9	µg/kg	< 19 U	< 15 U	< 15 U	< 16 U	1.8 J	2.7 J	1.6 J	3.3 J	< 39 U	22
Acenaphthylene	208-96-8	µg/kg	15 J	< 15 U	6.0 J	10 J	3.4 J	2.2 J	5.1 J	2.0 J	< 39 U	28
Anthracene	120-12-7	µg/kg	10 J	< 15 U	3.3 J	5.3 J	6.3 J	6.7 J	5.1 J	11	< 39 U	32
Benz(a)anthracene	56-55-3	µg/kg	21	< 15 U	5.4 J	11 J	14	13 J	22	33	14 J	98
Benzo(a)pyrene	50-32-8	µg/kg	18 J	< 15 UJ	6.0 J	10 J	15	15 J	29	30	18 J	89
Benzo(b)fluoranthene	205-99-2	µg/kg	34	< 15 U	8.0 J	14 J	24	23	32	41	17 J	110
Benzo(g,h,i)perylene	191-24-2	µg/kg	22	< 15 U	5.3 J	15 J	16	14 J	33	17	17 J	78
Benzo(k)fluoranthene	207-08-9	µg/kg	9.4 J	< 15 U	2.7 J	3.5 J	7.2 J	9.3 J	14	13	6.5 J	52
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	70 J	< 490 U	< 450 U	71 J	< 600 U	< 610 U	65 J	< 490 U	130 J	82 J
Chrysene	218-01-9	µg/kg	33	< 15 U	6.5 J	13 J	21	21	32	51	17 J	140
Dibenz(a,h)anthracene	53-70-3	µg/kg	< 19 U	< 15 U	< 15 U	< 16 U	< 9.9 U	3.8 J	4.8 J	3.0 J	< 39 U	< 18 U
Fluoranthene	206-44-0	µg/kg	63	< 15 U	14 J	22	32	29	85	88	23 J	260
Fluorene	86-73-7	µg/kg	4.2 J	< 15 U	< 15 U	2.0 J	4.6 J	6.0 J	3.1 J	4.6 J	< 39 U	23
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	21	< 15 U	5.6 J	15 J	16	13 J	32	17	19 J	86
Naphthalene	91-20-3	µg/kg	21	< 15 U	7.5 J	10 J	9.1 J	11 J	9.6	9.0	7.5 J	66
Phenanthrene	85-01-8	µg/kg	29	3.6 J	9.9 J	12 J	24	31	35	66	10 J	150
Pyrene	129-00-0	µg/kg	59	< 15 U	14 J	21	35	36	78	75	32 J	270
Total PAHs (b)	T_PAH (PDI)	µg/kg	385	26	111	184	237	241	424	467	220	1531
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	35	< 15 U	15	22	25	24	43	42	43	128
Metals												
Arsenic	7440-38-2	mg/kg	3.7	3.4	2.4	3.7	4.2	4.2	3.7	3.4	3.3	5.2
Cadmium	7440-43-9	mg/kg	0.16 J	0.10 J	0.068 J	0.12 J	0.13 J	0.14 J	0.10 J	0.11 J	0.10 J	0.29
Copper	7440-50-8	mg/kg	34	32	20	29	34	34	27	26	24	40
Lead	7439-92-1	mg/kg	11	5.8	7.9	8.4	8.4	8.5	7.8	7.6	7.2	25
Mercury	7439-97-6	mg/kg	0.073 J	0.075 J	0.042 J	0.031 J	0.28 J	0.041 J	0.036 J	0.049 J	0.036 J	0.11 J
Tri-n-butyltin	36643-28-4	µg/kg	< 73 U	< 60 U	< 55 U	< 69 U	< 140 U	< 150 U	< 120 U	< 120 U	< 120 U	< 67 U
Zinc	7440-66-6	mg/kg	98	65	57	76	84	83	77	73	74	250
TPH												
TPH-Diesel Range Organics	68334-30-5	mg/kg	67 J	< 75 U	20 J	61 J	130	130	83 J	79 J	45 J	180
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	390	100	120	360	630	650	360	300	180	760
Other												
Total Solids@104C - D2216 (f)	TSOLID	%	51.5	61.1	66.9	54.0	48.9	49.5	58.2	59.7	58.5	53.5
Total Solids@104C - E160.3M (f)	TSOLID	%	52.9	61.9	60.5	55.4	49.7	49.1	56.8	60.1	58.6	53.3
Total Solids@70C	TSOLID70	%	53	62	63	56	49	49	56	61	59	54
Gravel	GS-Gravel	%	0	0	2.3	0	0		0	0	0	0.4
Sand, Coarse	GS-Csand	%	0	0	2.4	0.2	0		0	0.2	0	0
Sand, Medium	GS-Msand	%	0.1	0.1	16.9	2.7	0.4		0.1	5.1	0.1	0.3

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

			Location	B449	B450	B451	B452	B453	B453	B454	B455	B456	B457
			Sample ID	PDI-SG-B449	PDI-SG-B450	PDI-SG-B451	PDI-SG-B452	PDI-SG-B453	PDI-SG-B453-D	PDI-SG-B454	PDI-SG-B455	PDI-SG-B456	PDI-SG-B457
			Sample Date	30 Jun 2018	01 Jul 2018	30 Jun 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	30 Jun 2018	02 Jul 2018	01 Jul 2018
			Sample Type Code	N	N	N	N	N	FD	N	N	N	N
			Depth	0-30 cm	0-16 cm	0-22 cm	0-30 cm	0-30 cm	0-30 cm	0-25 cm	0-25 cm	0-28 cm	0-25 cm
Chemical		**CAS_RN**	**Units**										
Sand, Fine (#200)	(d)	GS-Fsand-200	%	33.77	38.56	56.08	37.89	45.57		54.34	64.49	66.81	39.5
Sand, Fine (#230)	(d)	GS-Fsand	%	40.7	44.7	57.3	43.8	52.8		61.3	67.3	71.2	43.5
Silt (#200)	(d)	GS-Silt-200	%	57.92	51.93	18.01	54.40	47.72		39.75	24.90	29.88	47.59
Silt (#230)	(d)	GS-Silt	%	51.0	45.8	16.8	48.5	40.5		32.8	22.1	25.5	43.6
Clay		GS-Clay	%	8.3	9.5	4.3	4.8	6.4		5.8	5.3	3.2	12.1
Percent Fines	(e)	GS-FINES	%	66.22	61.43	22.31	59.2	54.12		45.55	30.2	33.08	59.69
Liquid Limit		GS-LL	None	0			0						
Plasticity Index		GS-PI	None	< U			< U						
Plasticity Limit		GS-PL	None	0			0						
Total Organic Carbon		TOC	mg/kg	23000	5500	9200	18000	24000	23000	12000	9600	14000	31000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B458
		Sample ID	PDI-SG-B458
		Sample Date	02 Jul 2018
		Sample Type Code	N
		Depth	0-22 cm
Chemical	**CAS_RN**	**Units**	
Dioxin and Furans			
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.30
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.060
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0049
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0017 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0027 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0087
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0029 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0036 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0018 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00085 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00080 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00088 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00054 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00038 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	< 0.000039 U
OCDD	3268-87-9	µg/kg	7.2 J
OCDF	39001-02-0	µg/kg	0.37
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0096
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0094
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0092
Polychlorinated Biphenyls (PCBs) Congeners			
PCB-1	2051-60-7	ng/g	0.045 JN
PCB-10	33146-45-1	ng/g	< 0.069 U
PCB-103	60145-21-3	ng/g	0.036 JN
PCB-104	56558-16-8	ng/g	< 0.0025 U
PCB-105	32598-14-4	ng/g	0.64
PCB-106	70424-69-0	ng/g	< 0.010 U
PCB-107	70424-68-9	ng/g	0.27
PCB-108/124	70362-41-3	ng/g	< 0.010 U
PCB-11	2050-67-1	ng/g	< 0.060 U
PCB-110/115	38380-03-9	ng/g	2.9
PCB-111	39635-32-0	ng/g	< 0.0023 U
PCB-112	74472-36-9	ng/g	< 0.0024 U
PCB-114	74472-37-0	ng/g	0.037 J
PCB-118	31508-00-6	ng/g	2.0
PCB-12/13	2974-92-7	ng/g	< 0.062 U
PCB-120	68194-12-7	ng/g	0.054 JN
PCB-121	56558-18-0	ng/g	< 0.0024 U
PCB-122	76842-07-4	ng/g	< 0.012 U
PCB-123	65510-44-3	ng/g	< 0.010 U
PCB-126	57465-28-8	ng/g	< 0.011 U
PCB-127	39635-33-1	ng/g	< 0.010 U
PCB-128/166	38380-07-3	ng/g	0.34
PCB-129/138/160/163	55215-18-4	ng/g	2.8
PCB-130	52663-66-8	ng/g	0.15 JN
PCB-131	61798-70-7	ng/g	< 0.014 U
PCB-132	38380-05-1	ng/g	0.94
PCB-133	35694-04-3	ng/g	0.12 JN
PCB-134/143	52704-70-8	ng/g	0.22 J
PCB-135/151	52744-13-5	ng/g	1.6
PCB-136	38411-22-2	ng/g	0.44 JN
PCB-137	35694-06-5	ng/g	0.094 J
PCB-139/140	56030-56-9	ng/g	0.050 JN
PCB-14	34883-41-5	ng/g	< 0.053 U
PCB-141	52712-04-6	ng/g	0.39
PCB-142	41411-61-4	ng/g	< 0.013 U
PCB-144	68194-14-9	ng/g	0.11 JN
PCB-145	74472-40-5	ng/g	< 0.0014 U
PCB-146	51908-16-8	ng/g	1.1

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B458
		Sample ID	PDI-SG-B458
		Sample Date	02 Jul 2018
		Sample Type Code	N
		Depth	0-22 cm
Chemical	CAS_RN	Units	
PCB-147/149	68194-13-8	ng/g	3.0
PCB-148	74472-41-6	ng/g	0.056 J
PCB-15	2050-68-2	ng/g	0.092 JN
PCB-150	68194-08-1	ng/g	0.018 JN
PCB-152	68194-09-2	ng/g	< 0.0014 U
PCB-153/168	35065-27-1	ng/g	2.8
PCB-154	60145-22-4	ng/g	0.21
PCB-155	33979-03-2	ng/g	< 0.0013 U
PCB-156/157	38380-08-4	ng/g	0.18 JN
PCB-158	74472-42-7	ng/g	0.22 JN
PCB-159	39635-35-3	ng/g	< 0.0084 U
PCB-16	38444-78-9	ng/g	0.27
PCB-161	74472-43-8	ng/g	< 0.0084 U
PCB-162	39635-34-2	ng/g	< 0.0083 U
PCB-164	74472-45-0	ng/g	0.22
PCB-165	74472-46-1	ng/g	< 0.0095 U
PCB-167	52663-72-6	ng/g	0.073 JN
PCB-169	32774-16-6	ng/g	< 0.0063 U
PCB-17	37680-66-3	ng/g	0.28
PCB-170	35065-30-6	ng/g	0.63
PCB-171/173	52663-71-5	ng/g	0.25 J
PCB-172	52663-74-8	ng/g	0.11 JN
PCB-174	38411-25-5	ng/g	0.66
PCB-175	40186-70-7	ng/g	0.024 JN
PCB-176	52663-65-7	ng/g	0.12 JN
PCB-177	52663-70-4	ng/g	0.53
PCB-178	52663-67-9	ng/g	0.20 JN
PCB-179	52663-64-6	ng/g	0.39
PCB-18/30	37680-65-2	ng/g	0.67
PCB-180/193	35065-29-3	ng/g	1.4
PCB-181	74472-47-2	ng/g	< 0.0074 U
PCB-182	60145-23-5	ng/g	0.019 JN
PCB-183/185	52663-69-1	ng/g	0.50
PCB-184	74472-48-3	ng/g	< 0.0061 U
PCB-186	74472-49-4	ng/g	< 0.0059 U
PCB-187	52663-68-0	ng/g	1.2
PCB-188	74487-85-7	ng/g	< 0.0052 U
PCB-189	39635-31-9	ng/g	< 0.0098 U
PCB-19	38444-73-4	ng/g	< 0.014 U
PCB-190	41411-64-7	ng/g	0.10 J
PCB-191	74472-50-7	ng/g	< 0.0056 U
PCB-192	74472-51-8	ng/g	< 0.0063 U
PCB-194	35694-08-7	ng/g	0.30 JN
PCB-195	52663-78-2	ng/g	0.092 JN
PCB-196	42740-50-1	ng/g	0.18
PCB-197	33091-17-7	ng/g	0.025 J
PCB-198/199	68194-17-2	ng/g	0.39 JN
PCB-2	2051-61-8	ng/g	0.015 J
PCB-20/28	38444-84-7	ng/g	0.85
PCB-200	52663-73-7	ng/g	0.044 JN
PCB-201	40186-71-8	ng/g	0.047 JN
PCB-202	2136-99-4	ng/g	0.10 JN
PCB-203	52663-76-0	ng/g	0.21
PCB-204	74472-52-9	ng/g	< 0.00080 U
PCB-205	74472-53-0	ng/g	< 0.0049 U
PCB-206	40186-72-9	ng/g	0.18
PCB-207	52663-79-3	ng/g	< 0.032 U
PCB-208	52663-77-1	ng/g	< 0.033 U
PCB-209	2051-24-3	ng/g	0.14 JN
PCB-21/33	55702-46-0	ng/g	0.42
PCB-22	38444-85-8	ng/g	0.28

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B458
		Sample ID	PDI-SG-B458
		Sample Date	02 Jul 2018
		Sample Type Code	N
		Depth	0-22 cm
Chemical	CAS_RN	Units	
PCB-23	55720-44-0	ng/g	< 0.015 U
PCB-24	55702-45-9	ng/g	< 0.0094 U
PCB-25	55712-37-3	ng/g	< 0.014 U
PCB-26/29	38444-81-4	ng/g	0.15 J
PCB-27	38444-76-7	ng/g	0.060 J
PCB-3	2051-62-9	ng/g	0.041 JN
PCB-31	16606-02-3	ng/g	0.83
PCB-32	38444-77-8	ng/g	0.20 JN
PCB-34	37680-68-5	ng/g	< 0.016 U
PCB-35	37680-69-6	ng/g	< 0.015 U
PCB-36	38444-87-0	ng/g	< 0.015 U
PCB-37	38444-90-5	ng/g	0.20
PCB-38	53555-66-1	ng/g	< 0.016 U
PCB-39	38444-88-1	ng/g	< 0.014 U
PCB-4	13029-08-8	ng/g	0.097 JN
PCB-40/41/71	38444-93-8	ng/g	0.70
PCB-42	36559-22-5	ng/g	0.29 JN
PCB-43/73	70362-46-8	ng/g	< 0.020 U
PCB-44/47/65	41464-39-5	ng/g	1.3
PCB-45/51	70362-45-7	ng/g	0.20 JN
PCB-46	41464-47-5	ng/g	0.061 JN
PCB-48	70362-47-9	ng/g	0.22
PCB-49/69	41464-40-8	ng/g	0.91
PCB-5	16605-91-7	ng/g	< 0.070 U
PCB-50/53	62796-65-0	ng/g	0.11 JN
PCB-52	35693-99-3	ng/g	1.6
PCB-54	15968-05-5	ng/g	< 0.00021 U
PCB-55	74338-24-2	ng/g	0.023 JN
PCB-56	41464-43-1	ng/g	0.51
PCB-57	70424-67-8	ng/g	< 0.016 U
PCB-58	41464-49-7	ng/g	< 0.016 U
PCB-59/62/75	74472-33-6	ng/g	0.11 J
PCB-6	25569-80-6	ng/g	< 0.061 U
PCB-60	33025-41-1	ng/g	0.20
PCB-61/70/74/76	33284-53-6	ng/g	2.2
PCB-63	74472-34-7	ng/g	0.053 J
PCB-64	52663-58-8	ng/g	0.52
PCB-66	32598-10-0	ng/g	1.2
PCB-67	73575-53-8	ng/g	< 0.014 U
PCB-68	73575-52-7	ng/g	< 0.014 U
PCB-7	33284-50-3	ng/g	< 0.063 U
PCB-72	41464-42-0	ng/g	0.040 JN
PCB-77	32598-13-3	ng/g	0.12 J
PCB-78	70362-49-1	ng/g	< 0.016 U
PCB-79	41464-48-6	ng/g	< 0.014 U
PCB-8	34883-43-7	ng/g	0.19 JN
PCB-80	33284-52-5	ng/g	< 0.014 U
PCB-81	70362-50-4	ng/g	< 0.015 U
PCB-82	52663-62-4	ng/g	0.30
PCB-83/99	60145-20-2	ng/g	2.2
PCB-84	52663-60-2	ng/g	0.67
PCB-85/116/117	65510-45-4	ng/g	0.42 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	1.5
PCB-88/91	55215-17-3	ng/g	0.41
PCB-89	73575-57-2	ng/g	< 0.0037 U
PCB-9	34883-39-1	ng/g	< 0.064 U
PCB-90/101/113	68194-07-0	ng/g	3.0
PCB-92	52663-61-3	ng/g	0.67
PCB-93/100	73575-56-1	ng/g	0.045 JN
PCB-94	73575-55-0	ng/g	< 0.0037 U
PCB-95	38379-99-6	ng/g	2.2

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

		Location	B458
		Sample ID	PDI-SG-B458
		Sample Date	02 Jul 2018
		Sample Type Code	N
		Depth	0-22 cm
Chemical	**CAS_RN**	**Units**	
PCB-96	73575-54-9	ng/g	< 0.0028 U
PCB-98/102	60233-25-2	ng/g	0.096 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	56
Pesticides			
2,4-DDD	53-19-0	µg/kg	1.7
2,4-DDE	3424-82-6	µg/kg	0.31 J
2,4-DDT	789-02-6	µg/kg	< 0.36 U
4,4'-DDD	72-54-8	µg/kg	7.9
4,4'-DDE	72-55-9	µg/kg	3.6
4,4'-DDT	50-29-3	µg/kg	0.29 J
DDx (b)	T_DDx (PDI)	µg/kg	13.98
Aldrin	309-00-2	µg/kg	< 0.36 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.72 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.36 U
Dieldrin	60-57-1	µg/kg	0.32 J
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.36 U
gamma-Chlordane	5566-34-7	µg/kg	0.35 J
Heptachlor	76-44-8	µg/kg	< 0.36 U
Oxychlordane	27304-13-8	µg/kg	< 0.72 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.72 U
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	0.71
Semivolatile Organics			
2-Methylnaphthalene	91-57-6	µg/kg	18 J
Acenaphthene	83-32-9	µg/kg	11 J
Acenaphthylene	208-96-8	µg/kg	20 J
Anthracene	120-12-7	µg/kg	25 J
Benz(a)anthracene	56-55-3	µg/kg	38 J
Benzo(a)pyrene	50-32-8	µg/kg	32 J
Benzo(b)fluoranthene	205-99-2	µg/kg	42
Benzo(g,h,i)perylene	191-24-2	µg/kg	22 J
Benzo(k)fluoranthene	207-08-9	µg/kg	17 J
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	< 1200 U
Chrysene	218-01-9	µg/kg	54
Dibenz(a,h)anthracene	53-70-3	µg/kg	< 41 U
Fluoranthene	206-44-0	µg/kg	110
Fluorene	86-73-7	µg/kg	13 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	24 J
Naphthalene	91-20-3	µg/kg	67
Phenanthrene	85-01-8	µg/kg	97
Pyrene	129-00-0	µg/kg	120
Total PAHs (b)	T_PAH (PDI)	µg/kg	731
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	63
Metals			
Arsenic	7440-38-2	mg/kg	4.1
Cadmium	7440-43-9	mg/kg	0.17 J
Copper	7440-50-8	mg/kg	33
Lead	7439-92-1	mg/kg	13
Mercury	7439-97-6	mg/kg	0.10 J
Tri-n-butyltin	36643-28-4	µg/kg	< 130 U
Zinc	7440-66-6	mg/kg	110
TPH			
TPH-Diesel Range Organics	68334-30-5	mg/kg	150
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	660
Other			
Total Solids@104C - D2216 (f)	TSOLID	%	57.7
Total Solids@104C - E160.3M (f)	TSOLID	%	51.3
Total Solids@70C	TSOLID70	%	52
Gravel	GS-Gravel	%	0
Sand, Coarse	GS-Csand	%	0.7
Sand, Medium	GS-Msand	%	1.3

Table A.1a-3. Chemical Results for PDI Surface Sediment Samples - Downtown Reach

			Location	B458
			Sample ID	PDI-SG-B458
			Sample Date	02 Jul 2018
			Sample Type Code	N
			Depth	0-22 cm
Chemical		**CAS_RN**	**Units**	
Sand, Fine (#200)	(d)	GS-Fsand-200	%	44.24
Sand, Fine (#230)	(d)	GS-Fsand	%	47.4
Silt (#200)	(d)	GS-Silt-200	%	46.65
Silt (#230)	(d)	GS-Silt	%	43.5
Clay		GS-Clay	%	7.1
Percent Fines	(e)	GS-FINES	%	53.75
Liquid Limit		GS-LL	None	
Plasticity Index		GS-PI	None	
Plasticity Limit		GS-PL	None	
Total Organic Carbon		TOC	mg/kg	55000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B459	B460	B461	B461	B462	B463	B464	B465	B466	B467	B468
		Sample ID	PDI-SG-B459	PDI-SG-B460	PDI-SG-B461	PDI-SG-B461-D	PDI-SG-B462	PDI-SG-B463	PDI-SG-B464	PDI-SG-B465	PDI-SG-B466	PDI-SG-B467	PDI-SG-B468
		Sample Date	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	02 Jul 2018	02 Jul 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018
		Sample Type Code	N	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-18 cm	0-27 cm
Chemical	**CAS_RN**	**Units**											
Dioxin and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.078	0.027	0.030	0.023	0.028	0.018	0.027	0.011	0.024	0.017	0.0088
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.020	0.0065	0.0055 JN	0.0047 JN	0.0057 JN	0.0039 JN	0.0069 JN	0.0023 JN	0.0043 JN	0.0034 JN	0.0020 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0045 J	0.00060 J+	0.00053 J+	0.00040 J+	0.0015 J+	0.0011 J+	0.0016 J	< 0.00057 U	0.00082 J+	0.00091 J+	0.00093 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00086 J	0.00053 J+	0.00055 J+	0.00052 J+	0.00046 J+	0.00035 J+	0.00051 J+	0.00027 J	0.00038 J+	0.00057 J	< 0.000023 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0032 J	0.00056 J	< 0.000050 U	0.00042 J	0.00055 J	0.00055 J	0.00069 J	< 0.00016 U	0.00051 J	0.00036 JN	0.00023 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0041 J	0.0015 J	0.0015 J	0.0012 J	0.0012 J	0.00092 J	0.0013 J	0.00062 J	0.0012 J	0.00091 J	0.00055 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0011 J	0.00034 J	0.00038 J	0.00026 J	0.00043 JN	0.00037 J	0.00054 J	< 0.00014 U	0.00033 J	< 0.00015 U	0.00021 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0019 J	0.0011 J	0.0012 J	0.0011 J	0.0011 J	0.00089 J	0.0010 J	0.00040 J	0.00099 J	0.0011 JN	0.00052 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00041 JN	0.00070 J+	0.00055 J+	< 0.00026 U	0.0033 J+	0.0028 J+	0.0040 J+	< 0.00074 U	0.0018 J+	< 0.0010 U	0.0026 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00046 J	0.00024 J	0.00025 J	0.00026 J	0.00024 J	0.00017 J	0.00024 J	< 0.00021 U	0.00020 J	< 0.00015 U	0.00011 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00033 J	0.00025 J	0.00022 J	0.00018 J+	0.00059 J+	0.00048 J+	0.00079 J+	< 0.00013 U	0.00040 J+	< 0.00025 U	0.00044 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00083 J	0.00021 JN	0.00024 J	0.00020 J	0.00021 J	0.00015 J	0.00023 J	< 0.00012 U	0.00016 J	0.00022 JN	< 0.000039 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00049 J	0.00020 J	0.00017 J	0.00015 J	0.00017 J	0.00015 J	0.00019 J	< 0.00014 U	0.00016 J	0.00013 J	0.000078 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00014 JN	< 0.00019 U	0.00010 JN	0.00012 JN	< 0.000079 U	< 0.000093 U	< 0.00012 U	< 0.00011 U	< 0.00011 U	< 0.00022 U	< 0.000061 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00075 J	0.00053 J+	0.00038 JN	0.00039 J+	0.00029 J	0.00022 J+	0.00039 J	0.00017 J	0.00027 J+	0.00026 J	0.00013 J+
OCDD	3268-87-9	µg/kg	0.70	0.23	0.26	0.20	0.25	0.17	0.24	0.093	0.20	0.16	0.081
OCDF	39001-02-0	µg/kg	0.068	0.024	0.019	0.020	0.026	0.012	0.035	0.0069 J	0.013	0.011	0.0068 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0033	0.0014	0.0013	0.0012	0.0015	0.0012	0.0017	0.00041	0.0012	0.00076	0.00074
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0032	0.0013	0.0012	0.0011	0.0015	0.0011	0.0017	0.00039	0.0012	0.00055	0.00069
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0031	0.0013	0.0012	0.001	0.0015	0.0011	0.0016	0.00029	0.0011	0.00044	0.00066
Polychlorinated Biphenyls (PCBs) Congeners													
PCB-1	2051-60-7	ng/g	0.027 JN	< 0.00012 U	0.00087 JN	< 0.000092 U	< 0.00015 U	0.0013 JN	0.0017 J	< 0.00012 UJ	< 0.00020 U	< 0.00012 U	0.00048 JN
PCB-10	33146-45-1	ng/g	< 0.015 U	< 0.0056 U	< 0.0038 U	< 0.0050 U	< 0.0017 U	< 0.0016 U	< 0.0023 U	< 0.0065 UJ	< 0.0031 U	< 0.0058 U	< 0.0033 U
PCB-103	60145-21-3	ng/g	7.9	< 0.00079 U	< 0.00020 U	< 0.00038 U	0.023	0.0018 J	< 0.00024 U	< 0.00023 U	< 0.00026 U	< 0.00027 U	< 0.00018 U
PCB-104	56558-16-8	ng/g	0.27	< 0.00060 U	< 0.00015 U	< 0.00029 U	< 0.00037 U	< 0.00016 U	< 0.00018 U	< 0.00017 U	< 0.00019 U	< 0.00021 U	< 0.00014 U
PCB-105	32598-14-4	ng/g	0.66	0.043	0.039	0.038	0.15	0.028	0.043	0.015 JN	0.024	0.049	0.012
PCB-106	70424-69-0	ng/g	< 0.010 U	< 0.0015 U	< 0.0010 U	< 0.00099 U	< 0.0016 U	< 0.00055 U	< 0.00074 U	< 0.00048 U	< 0.00075 U	< 0.0017 U	< 0.00048 U
PCB-107	70424-68-9	ng/g	1.9	0.0080 J	0.011 JN	0.0084 J	0.10	0.0073 J	0.0089 J	0.0048 J	0.0049 J	0.011 JN	0.0025 JN
PCB-108/124	70362-41-3	ng/g	0.079 J	0.0036 JN	0.0030 JN	0.0042 J	0.020	0.0030 JN	0.0044 JN	< 0.00049 U	0.0031 JN	0.0036 JN	0.0019 J
PCB-11	2050-67-1	ng/g	0.047 JN	0.030 JN	0.031	0.029	0.024	0.019 JN	0.040	0.025 JN	0.025 JN	0.040	0.021
PCB-110/115	38380-03-9	ng/g	11	0.13	0.12 JN	0.12	1.4	0.096	0.12	0.072	0.084	0.13 JN	0.035 JN
PCB-111	39635-32-0	ng/g	0.27	< 0.00055 U	< 0.00014 U	< 0.00027 U	< 0.00034 U	< 0.00015 U	< 0.00017 U	< 0.00016 U	< 0.00018 U	< 0.00019 U	< 0.00013 U
PCB-112	74472-36-9	ng/g	< 0.0018 U	< 0.00058 U	< 0.00015 U	< 0.00028 U	0.017 JN	< 0.00015 U	< 0.00018 U	< 0.00017 U	< 0.00019 U	< 0.00020 U	< 0.00013 U
PCB-114	74472-37-0	ng/g	0.12 JN	0.0026 J	< 0.00090 U	0.0024 JN	0.011	0.0015 J	0.0026 J	< 0.00044 U	0.0016 JN	< 0.0015 U	< 0.00045 U
PCB-118	31508-00-6	ng/g	4.1	0.10	0.10	0.089	1.5	0.073	0.10	0.039	0.059	0.12	0.031
PCB-12/13	2974-92-7	ng/g	0.081 JN	< 0.0050 U	< 0.0035 U	< 0.0046 U	< 0.0015 U	< 0.0015 U	< 0.0021 U	< 0.0059 UJ	< 0.0028 U	< 0.0053 U	< 0.0030 U
PCB-120	68194-12-7	ng/g	0.69	< 0.00056 U	0.00082 JN	0.0016 JN	0.024	< 0.00015 U	< 0.00017 U	< 0.00016 U	< 0.00018 U	< 0.00020 U	< 0.00013 U
PCB-121	56558-18-0	ng/g	0.28	< 0.00058 U	< 0.00015 U	< 0.00028 U	< 0.00036 U	< 0.00015 U	< 0.00018 U	< 0.00017 U	< 0.00019 U	< 0.00020 U	< 0.00013 U
PCB-122	76842-07-4	ng/g	< 0.012 U	< 0.0017 U	< 0.0012 U	0.0016 JN	0.011 JN	< 0.00064 U	0.0023 J	< 0.00056 U	0.0015 J	< 0.0019 U	< 0.00055 U
PCB-123	65510-44-3	ng/g	0.043 JN	< 0.0014 U	0.0037 JN	< 0.00096 U	0.016	0.0013 JN	0.0016 JN	< 0.00045 U	0.0017 J+	0.0041 J	< 0.00049 U
PCB-126	57465-28-8	ng/g	0.19 JN	< 0.0016 U	< 0.0011 U	< 0.0011 U	< 0.0015 U	0.0012 J	0.0020 JN	< 0.00056 U	< 0.00078 U	< 0.0018 U	< 0.00048 U
PCB-127	39635-33-1	ng/g	< 0.010 U	< 0.0015 U	< 0.0010 U	< 0.00099 U	< 0.0016 U	< 0.00055 U	< 0.00074 U	< 0.00048 U	< 0.00075 U	< 0.0016 U	< 0.00048 U
PCB-128/166	38380-07-3	ng/g	1.4	0.029	0.029	0.023	0.073	0.026	0.035	0.012 JN	0.019 J	0.025	0.0072 JN
PCB-129/138/160/163	55215-18-4	ng/g	26	0.18	0.18	0.16	0.52	0.15	0.23	0.14	0.13	0.16	0.058
PCB-130	52663-66-8	ng/g	2.1	0.013	0.0073 JN	0.013	0.023 JN	0.0092	0.015	0.0069 J	0.0075 J	0.0087 JN	0.0036 J
PCB-131	61798-70-7	ng/g	< 0.039 U	< 0.0040 U	< 0.0019 U	< 0.0025 U	0.0065 JN	< 0.0010 U	< 0.0014 U	< 0.0014 U	< 0.0014 U	< 0.0023 U	< 0.0012 U
PCB-132	38380-05-1	ng/g	11	0.044	0.045	0.035	0.12	0.035	0.051	0.026	0.028	0.030 JN	0.011 JN
PCB-133	35694-04-3	ng/g	3.0	< 0.0036 U	< 0.0017 U	< 0.0022 U	0.012	0.0037 J	0.0031 J	< 0.0013 U	< 0.0013 U	< 0.0021 U	< 0.0011 U
PCB-134/143	52704-70-8	ng/g	2.9	0.0067 JN	0.0064 JN	0.0055 JN	0.056	0.0061 J	0.0086 JN	0.0033 JN	0.0043 JN	0.0057 JN	0.0026 J
PCB-135/151	52744-13-5	ng/g	31	0.044	0.044	0.038	0.18	0.033	0.039 JN	0.0015 JN	0.028	0.044 JN	0.020
PCB-136	38411-22-2	ng/g	10	0.015	0.012	0.011 JN	0.087	0.012	0.013	0.0035 JN	0.0084 J	0.016	0.0051 J
PCB-137	35694-06-5	ng/g	0.42	0.0057 JN	0.0082 JN	0.0083 J	0.026	0.0059 JN	0.011	0.0044 JN	0.0065 J	0.0064 JN	0.0018 JN
PCB-139/140	56030-56-9	ng/g	1.0	< 0.0032 U	< 0.0015 U	< 0.0020 U	0.013 JN	0.0023 JN	0.0020 J	< 0.0012 U	< 0.0011 U	< 0.0019 U	< 0.0010 U
PCB-14	34883-41-5	ng/g	< 0.011 U	< 0.0043 U	< 0.0030 U	< 0.0039 U	< 0.0013 U	< 0.0013 U	< 0.0018 U	< 0.0050 UJ	< 0.0024 U	< 0.0045 U	< 0.0025 U
PCB-141	52712-04-6	ng/g	4.0	0.027	0.024	0.025	0.064	0.022	0.033	0.014	0.021	0.019	0.010
PCB-142	41411-61-4	ng/g	< 0.035 U	< 0.0036 U	< 0.0017 U	< 0.0022 U	< 0.0012 U	< 0.00092 U	< 0.0013 U	< 0.0013 U	< 0.0021 U	< 0.0011 U	< 0.0011 U
PCB-144	68194-14-9	ng/g	1.1	0.0053 JN	0.0041 JN	0.0037 J	0.011 JN	0.0028 JN	0.0046 JN	< 0.000059 U	0.0037 JN	0.0071 JN	0.0020 J
PCB-145	74472-40-5	ng/g	< 0.0014 U	< 0.00060 U	< 0.000085 U	< 0.000052 U	0.0012 JN	< 0.000055 U	< 0.000048 U	< 0.000045 U	< 0.000033 U	< 0.000054 U	< 0.000022 U
PCB-146	51908-16-8	ng/g	18	0.028	0.023	0.026	0.12	0.020	0.028	0.012 JN	0.018	0.016 JN	0.0070 JN
PCB-147/149	68194-13-8	ng/g	42	0.13	0.12	0.099	0.80	0.095	0.14	0.052 JN	0.080	0.091 JN	0.033 JN
PCB-148	74472-41-6	ng/g	1.0	< 0.00085 U	< 0.00012 U	< 0.000074 U	< 0.00015 U	< 0.000077 U	< 0.000068 U	< 0.000063 U	< 0.000046 U	< 0.000076 U	< 0.000032 U
PCB-15	2050-68-2	ng/g	0.68	0.0058 JN	0.0066 JN	< 0.0050 U	0.0053 J	0.0053 JN	0.0074 J	< 0.0063 UJ	0.0056 JN	0.0094 J	< 0.0032 U

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B459	B460	B461	B461	B462	B463	B464	B465	B466	B467	B468
		Sample ID	PDI-SG-B459	PDI-SG-B460	PDI-SG-B461	PDI-SG-B461-D	PDI-SG-B462	PDI-SG-B463	PDI-SG-B464	PDI-SG-B465	PDI-SG-B466	PDI-SG-B467	PDI-SG-B468
		Sample Date	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	02 Jul 2018	02 Jul 2018	02 Jul 2018	18 Aug 2018	02 Jul 2018	18 Aug 2018	02 Jul 2018
		Sample Type Code	N	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-18 cm	0-27 cm
Chemical	CAS_RN	Units											
PCB-150	68194-08-1	ng/g	0.90	< 0.00058 U	< 0.000081 U	< 0.000050 U	0.0026 JN	< 0.000052 U	< 0.000046 U	< 0.000043 U	< 0.000031 U	< 0.000052 U	< 0.000022 U
PCB-152	68194-09-2	ng/g	0.13	< 0.00062 U	< 0.000087 U	< 0.000054 U	< 0.00011 U	< 0.000056 U	< 0.000050 U	< 0.000046 U	< 0.000034 U	< 0.000056 U	< 0.000023 U
PCB-153/168	35065-27-1	ng/g	32	0.14	0.13	0.13	0.74	0.11	0.16	0.088	0.098	0.13	0.045
PCB-154	60145-22-4	ng/g	4.5 JN	0.0034 J	0.0010 JN	0.0020 J	0.019	0.0035 J	0.0021 JN	0.0038 J	< 0.000037 U	0.0013 JN	0.0020 J
PCB-155	33979-03-2	ng/g	0.053	< 0.00058 U	< 0.000081 U	< 0.000050 U	< 0.00010 U	< 0.000052 U	< 0.000046 U	< 0.000043 U	< 0.000031 U	< 0.000052 U	< 0.000022 U
PCB-156/157	38380-08-4	ng/g	1.0	0.018 J	0.017 J	0.015 JN	0.047	0.015 J-	0.019 JN	0.0044 JN	0.013 J	0.021	0.0065 J
PCB-158	74472-42-7	ng/g	1.7	0.015 JN	0.014 JN	0.014	0.063	0.013	0.020	0.012	0.010 JN	0.016	0.0067 J
PCB-159	39635-35-3	ng/g	0.24	< 0.0024 U	< 0.0011 U	< 0.0015 U	< 0.00082 U	0.00089 J	< 0.00085 U	< 0.00086 U	< 0.00084 U	< 0.0014 U	< 0.00075 U
PCB-16	38444-78-9	ng/g	0.21	0.0027 JN	0.0024 JN	< 0.00038 U	0.0034 J	0.0033 JN	0.0041 JN	< 0.000075 U	< 0.00033 U	< 0.000066 U	< 0.00046 U
PCB-161	74472-43-8	ng/g	< 0.023 U	< 0.0024 U	< 0.0011 U	< 0.0015 U	< 0.00081 U	< 0.00061 U	< 0.00084 U	< 0.00086 U	< 0.00084 U	< 0.0014 U	< 0.00074 U
PCB-162	39635-34-2	ng/g	0.028 JN	< 0.0024 U	< 0.0011 U	< 0.0015 U	< 0.00080 U	< 0.00060 U	< 0.00083 U	< 0.00085 U	< 0.00083 U	< 0.0014 U	< 0.00073 U
PCB-164	74472-45-0	ng/g	1.8	0.011 JN	0.0098 JN	0.011 JN	0.058	0.011	0.014	0.0070 JN	0.0067 JN	0.011	0.0032 JN
PCB-165	74472-46-1	ng/g	0.39	< 0.0027 U	< 0.0013 U	< 0.0017 U	< 0.00092 U	< 0.00069 U	< 0.00096 U	< 0.00097 U	< 0.00095 U	< 0.0016 U	< 0.00084 U
PCB-167	52663-72-6	ng/g	0.44	0.0068 J	0.0058 J	0.0064 J	0.028	0.0052 J	0.0082 J	0.0030 JN	0.0046 J	0.0045 JN	0.0020 JN
PCB-169	32774-16-6	ng/g	0.095	< 0.0018 U	< 0.00081 U	< 0.0011 U	< 0.00059 U	< 0.00046 U	< 0.00055 U	< 0.00069 U	< 0.00055 U	< 0.0012 U	< 0.00053 U
PCB-17	37680-66-3	ng/g	1.8	0.0079 J	0.0022 JN	0.0046 J	< 0.00076 U	0.0065 JN	0.0079 JN	< 0.000068 U	0.0039 J	0.0054 JN	< 0.00041 U
PCB-170	35065-30-6	ng/g	11	0.045	0.042	0.038	0.040	0.031	0.041	0.016 J	0.030	0.032	0.014 JN
PCB-171/173	52663-71-5	ng/g	3.4	0.013 J	0.0089 JN	0.010 J	0.013 J	0.011 J	0.011 JN	< 0.00036 UJ	0.0093 J	0.0087 JN	0.0060 J+
PCB-172	52663-74-8	ng/g	2.0	0.0093 J	0.0071 JN	0.0067 J	0.0057 JN	0.0064 J	0.0086 J	< 0.00036 UJ	0.0064 J	0.0046 JN	0.0036 J
PCB-174	38411-25-5	ng/g	10	0.039	0.036	0.031	0.036	0.029	0.040	0.019 J	0.029	0.031 JN	0.017
PCB-175	40186-70-7	ng/g	0.56	< 0.0016 U	< 0.00050 U	< 0.00073 U	< 0.00040 U	0.0012 JN	< 0.00034 U	< 0.00032 UJ	0.0015 J	< 0.00022 U	< 0.00046 U
PCB-176	52663-65-7	ng/g	1.8	< 0.0012 U	0.0027 JN	0.0028 J	0.0033 JN	0.0031 JN	0.0040 J	0.0014 JN	0.0033 JN	0.0035 JN	0.0013 JN
PCB-177	52663-70-4	ng/g	10	0.026 JN	0.018 JN	0.020	0.026	0.020	0.026	0.0039 JN	0.016 JN	0.014 JN	0.0094 JN
PCB-178	52663-67-9	ng/g	5.1	0.011 JN	0.0085 JN	0.010	0.0084 JN	0.0083	0.010 JN	0.0043 JN	0.0076 J	0.0065 JN	0.0021 JN
PCB-179	52663-64-6	ng/g	8.7	0.013 JN	0.015 JN	0.012	0.019	0.012 JN	0.016	0.0096 JN	0.012	0.012	0.0073 JN
PCB-18/30	37680-65-2	ng/g	1.6	0.011 J	0.0065 JN	0.0085 J	0.0089 JN	0.012 JN	0.014 J	0.0057 JN	0.0081 J	< 0.000052 U	0.0074 J
PCB-180/193	35065-29-3	ng/g	23	0.094	0.078	0.078 JN	0.084	0.063	0.085	0.030 J	0.078	0.079	0.037
PCB-181	74472-47-2	ng/g	< 0.0063 U	< 0.0016 U	< 0.00050 U	< 0.00073 U	< 0.00040 U	0.00073 JN	< 0.00034 U	< 0.00032 UJ	< 0.00037 U	< 0.00022 U	< 0.00046 U
PCB-182	60145-23-5	ng/g	0.39	< 0.0015 U	< 0.00048 U	< 0.00071 U	< 0.00039 U	< 0.00023 U	< 0.00033 U	< 0.00031 UJ	< 0.00035 U	< 0.00021 U	< 0.00044 U
PCB-183/185	52663-69-1	ng/g	7.8	0.027	0.020 JN	0.023 JN	0.025	0.020	0.026	0.0034 JN	0.021	0.016 J	0.0093 JN
PCB-184	74472-48-3	ng/g	< 0.0052 U	< 0.0013 U	< 0.00041 U	< 0.00060 U	< 0.00033 U	< 0.00019 U	< 0.00028 U	< 0.00026 UJ	< 0.00030 U	< 0.00018 U	< 0.00038 U
PCB-186	74472-49-4	ng/g	< 0.0051 U	< 0.0013 U	< 0.00040 U	< 0.00058 U	< 0.00032 U	< 0.00019 U	< 0.00027 U	< 0.00026 UJ	< 0.00029 U	< 0.00018 U	< 0.00037 U
PCB-187	52663-68-0	ng/g	20	0.058	0.051	0.053	0.063	0.044	0.058	0.018 JN	0.041	0.037	0.023
PCB-188	74487-85-7	ng/g	< 0.0044 U	< 0.0011 U	< 0.00036 U	< 0.00052 U	< 0.00028 U	< 0.00017 U	< 0.00023 U	< 0.00020 UJ	< 0.00026 U	< 0.00016 U	< 0.00033 U
PCB-189	39635-31-9	ng/g	0.43	< 0.0019 U	< 0.00092 U	0.0018 JN	< 0.0011 U	< 0.0015 U	0.0021 JN	< 0.00036 U	< 0.00085 U	0.0030 J	< 0.00073 U
PCB-19	38444-73-4	ng/g	0.93	0.0031 J	< 0.00024 U	< 0.00042 U	< 0.00093 U	< 0.00030 U	0.0025 JN	< 0.000083 U	< 0.00036 U	< 0.000072 U	< 0.00050 U
PCB-190	41411-64-7	ng/g	2.1	0.0077 JN	0.011	0.0068 JN	0.0089 J	0.0072 J	0.0077 JN	0.0030 JN	0.0070 JN	0.0021 JN	0.0032 J+
PCB-191	74472-50-7	ng/g	0.47	< 0.0012 U	0.0023 J	0.0017 JN	0.0020 JN	0.0013 JN	0.0017 JN	< 0.00024 UJ	0.0016 J	< 0.00017 U	< 0.00035 U
PCB-192	74472-51-8	ng/g	< 0.0053 U	< 0.0013 U	< 0.00042 U	< 0.00062 U	< 0.00034 U	< 0.00020 U	< 0.00029 U	< 0.00027 UJ	< 0.00031 U	< 0.00019 U	< 0.00039 U
PCB-194	35694-08-7	ng/g	6.6	0.029 JN	0.020	0.024	0.018	0.016	0.020	0.011 JN	0.017	0.014 JN	0.0083 J
PCB-195	52663-78-2	ng/g	2.9	0.0093 JN	0.0073 JN	0.0077 JN	0.0058 J	0.0062 J	0.0094 J	0.0049 J	0.0088 J	0.0057 J	0.0039 J
PCB-196	42740-50-1	ng/g	3.1	0.0093 JN	0.0090 J	0.0064 JN	0.0035 JN	0.0049 J	0.0098 J	< 0.000060 U	0.0077 JN	< 0.00010 U	0.0038 J
PCB-197	33091-17-7	ng/g	0.28	< 0.00070 U	< 0.00032 U	< 0.00012 U	0.00086 JN	0.00020 JN	< 0.00015 U	< 0.000046 U	0.0011 J	< 0.000079 U	< 0.00013 U
PCB-198/199	68194-17-2	ng/g	5.9	0.032	0.026 JN	0.036 JN	0.028	0.016	0.026 JN	0.0087 JN	0.020	0.018 JN	0.011 J
PCB-2	2051-61-8	ng/g	< 0.0014 U	0.0020 J	0.0021 JN	0.0028 JN	0.0035 J	0.0022 JN	0.0033 JN	0.0020 JN	< 0.00023 U	0.0051 J	0.0020 JN
PCB-20/28	38444-84-7	ng/g	2.8	0.026	0.021	0.022	0.019	0.025	0.031	0.015	0.017 J	0.025	0.012 J
PCB-200	52663-73-7	ng/g	0.63	0.0037 J	0.0021 JN	0.0019 J	0.0014 JN	0.0016 JN	0.0027 JN	< 0.000041 U	0.0028 JN	< 0.000070 U	0.0016 J
PCB-201	40186-71-8	ng/g	0.75	0.0020 JN	0.0032 J	0.0013 JN	0.0025 J	0.0011 JN	0.0020 JN	< 0.000042 U	0.0019 JN	0.0017 JN	0.0012 J
PCB-202	2136-99-4	ng/g	1.1	0.0068 JN	0.0059 J	0.0073 JN	0.0054 JN	0.0040 J	0.0047 JN	< 0.000047 U	0.0059 J	0.0050 J	0.0020 JN
PCB-203	52663-76-0	ng/g	3.4	0.017	0.013 JN	0.018	0.013	0.0091	0.016	0.010 JN	0.015	< 0.000094 U	0.0056 JN
PCB-204	74472-52-9	ng/g	< 0.0066 U	< 0.00070 U	< 0.00032 U	< 0.00012 U	< 0.00029 U	< 0.000048 U	< 0.00015 U	< 0.000046 U	< 0.00017 U	< 0.000079 U	< 0.00013 U
PCB-205	74472-53-0	ng/g	0.37	< 0.0019 U	< 0.0011 U	< 0.00055 U	< 0.0012 U	< 0.00097 U	< 0.0017 U	< 0.00026 U	< 0.00090 U	< 0.00085 U	< 0.00056 U
PCB-206	40186-72-9	ng/g	1.2	0.019 JN	0.017	0.022	0.016	0.012	0.018	0.0051 JN	0.0091 JN	0.0076 JN	0.0059 J
PCB-207	52663-79-3	ng/g	0.17	< 0.0021 U	< 0.00061 U	< 0.0010 U	< 0.0012 U	< 0.00033 U	< 0.00054 U	< 0.000071 U	< 0.00093 U	< 0.00011 U	< 0.00058 U
PCB-208	52663-77-1	ng/g	0.21	0.0078 J	0.0047 JN	0.0064 JN	0.0079 J	0.0037 JN	0.0079 J	0.0039 JN	0.0040 J	0.0045 J	0.0019 JN
PCB-209	2051-24-3	ng/g	0.14 JN	0.033	0.023	0.029 JN	0.037	0.020	0.032	0.017	0.027	0.029 JN	0.040
PCB-21/33	55702-46-0	ng/g	0.69	0.0077 J	0.0057 JN	0.0054 JN	0.011 J	0.012 J	0.012 J	0.0046 JN	0.0048 JN	0.0069 J	0.0038 J
PCB-22	38444-85-8	ng/g	0.22	0.0062 J	0.0051 J	0.0051 J	0.0057 J	0.0073 J	0.0086 J	0.0035 JN	0.0040 JN	< 0.00058 U	0.0035 J

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B459	B460	B461	B461	B462	B463	B464	B465	B466	B467	B468
		Sample ID	PDI-SG-B459	PDI-SG-B460	PDI-SG-B461	PDI-SG-B461-D	PDI-SG-B462	PDI-SG-B463	PDI-SG-B464	PDI-SG-B465	PDI-SG-B466	PDI-SG-B467	PDI-SG-B468
		Sample Date	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	02 Jul 2018	02 Jul 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018
		Sample Type Code	N	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-18 cm	0-27 cm
Chemical	**CAS_RN**	**Units**											
PCB-23	55720-44-0	ng/g	< 0.0080 U	< 0.00086 U	< 0.00057 U	< 0.00061 U	< 0.00068 U	< 0.00040 U	< 0.00037 U	< 0.00040 U	< 0.00055 U	< 0.00058 U	< 0.00047 U
PCB-24	55702-45-9	ng/g	< 0.0020 U	< 0.00023 U	< 0.00017 U	< 0.00029 U	< 0.00064 U	< 0.00021 U	< 0.00019 U	< 0.000057 U	< 0.00025 U	< 0.000050 U	< 0.00034 U
PCB-25	55712-37-3	ng/g	1.2	0.0027 JN	0.0010 JN	0.0021 J	0.0024 J	0.0017 JN	0.0024 JN	0.0010 JN	0.0018 J	0.0016 JN	< 0.00042 U
PCB-26/29	38444-81-4	ng/g	0.92	0.0055 J	0.0035 J	0.0033 JN	0.0034 J	0.0042 J	0.0054 J	0.0027 J	0.0032 J	0.0040 J	< 0.00045 U
PCB-27	38444-76-7	ng/g	0.30	0.00064 JN	0.0014 JN	< 0.00025 U	< 0.00056 U	0.00074 JN	0.00080 JN	< 0.000049 U	< 0.00022 U	< 0.000043 U	< 0.00030 U
PCB-3	2051-62-9	ng/g	0.030 J	0.0012 JN	0.0015 J	< 0.00011 U	< 0.00018 U	< 0.00016 U	0.0022 J	< 0.00015 UJ	0.0014 J	0.0015 J	0.00081 JN
PCB-31	16606-02-3	ng/g	1.7	0.020 J	0.016 J	0.013 JN	0.014 JN	0.019	0.023	0.011 J	0.013 J	0.017 JN	0.0094 J
PCB-32	38444-77-8	ng/g	2.7	0.0028 JN	0.0017 JN	0.0028 J	< 0.00053 U	0.0034 JN	0.0055 J	< 0.000047 U	0.0038 JN	0.0017 JN	0.0019 JN
PCB-34	37680-68-5	ng/g	< 0.0083 U	< 0.00089 U	< 0.00060 U	< 0.00063 U	< 0.00070 U	< 0.00042 U	< 0.00038 U	< 0.00041 U	< 0.00057 U	< 0.00060 U	< 0.00048 U
PCB-35	37680-69-6	ng/g	0.021 JN	< 0.00087 U	< 0.00058 U	< 0.00061 U	< 0.00069 U	0.0011 J	0.0012 J	< 0.00040 U	0.00097 J	< 0.00058 U	< 0.00047 U
PCB-36	38444-87-0	ng/g	< 0.0078 U	< 0.00083 U	< 0.00056 U	< 0.00059 U	< 0.00066 U	< 0.00039 U	< 0.00036 U	< 0.00039 U	< 0.00053 U	< 0.00056 U	< 0.00045 U
PCB-37	38444-90-5	ng/g	0.19	0.0067 J	0.0057 JN	0.0049 JN	0.0047 J	0.0071 J	0.0098 J	0.0031 JN	0.0051 J	0.0082 JN	0.0052 J
PCB-38	53555-66-1	ng/g	< 0.0084 U	< 0.00090 U	< 0.00060 U	< 0.00064 U	< 0.00071 U	< 0.00042 U	< 0.00039 U	< 0.00042 U	< 0.00058 U	< 0.00060 U	< 0.00049 U
PCB-39	38444-88-1	ng/g	< 0.0075 U	< 0.00080 U	< 0.00054 U	< 0.00057 U	< 0.00064 U	< 0.00038 U	< 0.00035 U	< 0.00037 U	< 0.00052 U	< 0.00054 U	< 0.00044 U
PCB-4	13029-08-8	ng/g	0.73	< 0.0066 U	< 0.0048 U	< 0.0060 U	0.0023 JN	0.0026 JN	0.0056 JN	< 0.0080 U	0.0058 JN	< 0.0069 U	< 0.0041 U
PCB-40/41/71	38444-93-8	ng/g	10	0.017 JN	0.0096 JN	0.0097 JN	0.022 J	0.013 J	0.023 J	0.0052 JN	0.012 J	0.010 JN	0.0059 J
PCB-42	36559-22-5	ng/g	1.0	0.0089 J	0.0062 J	0.0062 JN	0.096	0.0070 JN	0.013	< 0.00056 UJ	0.0054 J	0.0068 JN	0.0033 J
PCB-43/73	70362-46-8	ng/g	1.9	0.0042 JN	< 0.0012 U	< 0.00093 U	< 0.00030 U	0.00081 JN	0.0014 JN	< 0.00053 UJ	0.0011 J	< 0.000026 U	< 0.000068 U
PCB-44/47/65	41464-39-5	ng/g	34	0.050	0.031	0.030	0.33	0.031	0.054	0.014 J	0.028 J	0.043	0.012 J+
PCB-45/51	70362-45-7	ng/g	13	0.0084 J	< 0.0013 U	0.0039 J	< 0.00034 U	0.0037 JN	0.0076 J	0.0015 JN	0.0043 J	0.0041 JN	0.0011 JN
PCB-46	41464-47-5	ng/g	2.1	< 0.0021 U	< 0.0016 U	< 0.0013 U	< 0.00041 U	0.0014 J	0.0023 JN	< 0.00071 UJ	< 0.00020 U	< 0.000036 U	< 0.000093 U
PCB-48	70362-47-9	ng/g	0.53	0.0073 J	0.0042 JN	0.0025 JN	0.0086 J	0.0036 JN	0.0084 J	0.0017 JN	0.0017 JN	0.0037 JN	0.0021 J
PCB-49/69	41464-40-8	ng/g	36	0.038	0.020	0.022	0.31	0.022	0.033	0.0094 J	0.020	0.031	0.0078 JN
PCB-5	16605-91-7	ng/g	< 0.015 U	< 0.0057 U	< 0.0039 U	< 0.0051 U	< 0.0017 U	< 0.0017 U	< 0.0023 U	< 0.0066 UJ	< 0.0031 U	< 0.0059 U	< 0.0034 U
PCB-50/53	62796-65-0	ng/g	25	0.0077 J	< 0.0012 U	0.0030 JN	< 0.00031 U	0.0027 J	0.0057 J	< 0.00054 UJ	0.0028 JN	< 0.000027 U	0.0012 JN
PCB-52	35693-99-3	ng/g	26	0.069	0.047	0.040	0.12	0.045	0.072	0.023 J	0.042	0.069	0.015
PCB-54	15968-05-5	ng/g	1.3	< 0.00011 U	< 0.000024 U	< 0.000025 U	< 0.000026 U	< 0.000016 U	< 0.000013 U	< 0.000079 UJ	< 0.000020 U	< 0.00019 U	< 0.000025 U
PCB-55	74338-24-2	ng/g	0.025 JN	< 0.0012 U	< 0.00092 U	< 0.00072 U	0.014 JN	0.0010 JN	0.00051 JN	< 0.00041 UJ	< 0.00012 U	0.00098 JN	0.00046 JN
PCB-56	41464-43-1	ng/g	0.33	0.014 JN	0.0089 JN	0.013	0.047	0.011	0.014 JN	0.0042 JN	0.011	0.018	0.0052 J
PCB-57	70424-67-8	ng/g	0.030 JN	< 0.0012 U	< 0.00093 U	< 0.00073 U	< 0.00024 U	< 0.00021 U	< 0.00017 U	< 0.00041 UJ	< 0.00012 U	< 0.000021 U	< 0.000054 U
PCB-58	41464-49-7	ng/g	0.13	< 0.0012 U	< 0.00095 U	< 0.00074 U	0.0076 J	< 0.00021 U	< 0.00018 U	< 0.00042 UJ	< 0.00012 U	< 0.000021 U	< 0.000055 U
PCB-59/62/75	74472-33-6	ng/g	0.81	< 0.0012 U	< 0.00089 U	< 0.00070 U	0.023 J	0.0028 J	0.0032 JN	0.0013 J	0.0027 J	< 0.000020 U	0.0010 JN
PCB-6	25569-80-6	ng/g	0.43	< 0.0050 U	< 0.0034 U	< 0.0045 U	0.0018 J	< 0.0015 U	< 0.0020 U	< 0.0058 UJ	< 0.0027 U	< 0.0052 U	< 0.0030 U
PCB-60	33025-41-1	ng/g	0.069 JN	0.0078 J	0.0049 JN	0.0037 JN	0.010	0.0038 J	0.0071 J	0.0023 J	0.0054 J	0.0092 J	0.0021 JN
PCB-61/70/74/76	33284-53-6	ng/g	2.7	0.076	0.057	0.050 JN	0.41	0.050	0.079	0.037 J	0.048	0.074	0.022 J
PCB-63	74472-34-7	ng/g	0.19	< 0.0011 U	< 0.00085 U	< 0.00067 U	0.014 JN	0.00077 JN	0.0017 JN	< 0.00038 UJ	0.0013 JN	0.0011 JN	0.00054 J
PCB-64	52663-58-8	ng/g	0.54	0.019	0.011	0.0088 JN	0.20	0.012	0.021	0.0042 JN	0.011 JN	0.017	0.0043 J
PCB-66	32598-10-0	ng/g	2.0	0.045	0.034	0.033	0.63	0.031	0.046	0.018 J	0.029	0.043 JN	0.012 JN
PCB-67	73575-53-8	ng/g	< 0.0021 U	< 0.0010 U	< 0.00081 U	< 0.00063 U	< 0.00021 U	0.00066 JN	0.0012 JN	< 0.00036 UJ	0.0011 JN	< 0.000018 U	< 0.000047 U
PCB-68	73575-52-7	ng/g	0.62	< 0.0011 U	< 0.00082 U	0.0015 J+	0.022	0.0015 J+	0.0011 JN	< 0.00037 UJ	< 0.0010 U	< 0.000018 U	< 0.00031 U
PCB-7	33284-50-3	ng/g	0.021 JN	< 0.0051 U	< 0.0035 U	< 0.0046 U	< 0.0015 U	< 0.0015 U	< 0.0021 U	< 0.0060 UJ	< 0.0028 U	< 0.0053 U	< 0.0030 U
PCB-72	41464-42-0	ng/g	0.43	< 0.0012 U	< 0.00091 U	< 0.00072 U	0.024	0.0016 J	0.0011 JN	< 0.00041 UJ	0.00082 JN	< 0.000020 U	< 0.000053 U
PCB-77	32598-13-3	ng/g	0.089	0.0048 JN	< 0.00089 U	0.0043 J	0.013 JN	0.0036 J	0.0064 J	0.0013 JN	0.0039 J	0.0046 J	0.0016 JN
PCB-78	70362-49-1	ng/g	< 0.0025 U	< 0.0012 U	< 0.00094 U	< 0.00074 U	< 0.00024 U	< 0.00021 U	< 0.00018 U	< 0.00042 UJ	< 0.00012 U	< 0.000021 U	< 0.000055 U
PCB-79	41464-48-6	ng/g	0.10	< 0.0011 U	< 0.00082 U	0.00077 JN	0.010	0.00084 JN	0.00081 JN	< 0.00036 UJ	0.0011 J	< 0.000018 U	0.00080 JN
PCB-8	34883-43-7	ng/g	0.61	0.0046 JN	0.0054 JN	< 0.0042 U	0.0055 JN	0.0074 JN	0.0069 JN	< 0.0054 UJ	0.0050 JN	< 0.0048 U	0.0039 JN
PCB-80	33284-52-5	ng/g	0.020 J	< 0.0010 U	< 0.00080 U	< 0.00063 U	< 0.00021 U	< 0.00018 U	< 0.00015 U	< 0.00036 UJ	< 0.00010 U	< 0.000018 U	< 0.000046 U
PCB-81	70362-50-4	ng/g	< 0.0022 U	< 0.0011 U	< 0.00086 U	< 0.00067 U	< 0.00023 U	< 0.00019 U	< 0.00016 U	< 0.00034 U	< 0.00011 U	< 0.000019 U	< 0.000050 U
PCB-82	52663-62-4	ng/g	< 0.0028 U	0.013	0.0096 JN	0.0085 JN	0.055 JN	0.0099	0.0087 JN	< 0.00026 U	0.0097 J	0.0094 JN	0.0023 JN
PCB-83/99	60145-20-2	ng/g	18	0.066 JN	0.069	0.063	1.6	0.055	0.066	0.043	0.051	0.088	0.020
PCB-84	52663-60-2	ng/g	2.9	0.022	0.018	0.017 JN	0.20	0.015 JN	0.024	0.013	0.015	0.015 JN	0.0053 J
PCB-85/116/117	65510-45-4	ng/g	0.37 JN	0.023 J	0.016 JN	0.022 JN	0.17	0.016 J	0.019 JN	0.013 J	0.018 JN	0.026 J	0.0050 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	8.5	0.064 J	0.064	0.059	0.61	0.047 J	0.060	0.029 J	0.049 J	0.079	0.020 J
PCB-88/91	55215-17-3	ng/g	5.8	0.016 JN	0.011 JN	0.014 J	0.42	0.010 J	0.016 J	0.0092 J	0.0082 J	0.0081 JN	0.0022 JN
PCB-89	73575-57-2	ng/g	< 0.0028 U	< 0.00089 U	< 0.00022 U	< 0.00043 U	< 0.00055 U	< 0.00024 U	< 0.00027 U	< 0.00026 U	< 0.00029 U	< 0.00031 U	< 0.00020 U
PCB-9	34883-39-1	ng/g	0.029 JN	< 0.0052 U	< 0.0036 U	< 0.0047 U	< 0.0016 U	< 0.0015 U	< 0.0021 U	< 0.0061 UJ	< 0.0029 U	< 0.0054 U	< 0.0031 U
PCB-90/101/113	68194-07-0	ng/g	34	0.10	0.090	0.098	1.2	0.074 JN	0.093	0.045	0.072	0.10 JN	0.026 J
PCB-92	52663-61-3	ng/g	14	0.024	0.016	0.017	0.15	0.015	0.021	< 0.00023 U	0.010	0.017 JN	0.0025 JN

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B459	B460	B461	B461	B462	B463	B464	B465	B466	B467	B468
		Sample ID	PDI-SG-B459	PDI-SG-B460	PDI-SG-B461	PDI-SG-B461-D	PDI-SG-B462	PDI-SG-B463	PDI-SG-B464	PDI-SG-B465	PDI-SG-B466	PDI-SG-B467	PDI-SG-B468
		Sample Date	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	02 Jul 2018	02 Jul 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018
		Sample Type Code	N	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-18 cm	0-27 cm
Chemical	**CAS_RN**	**Units**											
PCB-93/100	73575-56-1	ng/g	4.7	0.016 J	0.011 J	< 0.00038 U	0.032	0.0019 J	< 0.00024 U	< 0.00023 U	< 0.00026 U	< 0.00027 U	< 0.00018 U
PCB-94	73575-55-0	ng/g	2.0	< 0.00089 U	< 0.00022 U	< 0.00043 U	< 0.00055 U	< 0.00024 U	< 0.00027 U	< 0.00026 U	< 0.00029 U	< 0.00031 U	< 0.00020 U
PCB-95	38379-99-6	ng/g	36	0.082	0.072	0.076	0.51	0.071	0.086	0.034 JN	0.049	0.087	0.018 JN
PCB-96	73575-54-9	ng/g	1.6	< 0.00067 U	< 0.00017 U	< 0.00033 U	< 0.00042 U	< 0.00018 U	< 0.00020 U	< 0.00019 U	< 0.00022 U	< 0.00023 U	< 0.00015 U
PCB-98/102	60233-25-2	ng/g	3.5	0.0030 JN	< 0.00019 U	< 0.00037 U	0.032	0.0026 J	0.0029 J	< 0.00022 U	0.0015 J	< 0.00027 U	< 0.00017 U
Total PCBs (b)	T_PCBCg (PDI)	ng/g	667	2.5	2.1	2.1	14.2	1.9	2.6	1.1	1.7	2.2	0.80
Pesticides													
2,4-DDD	53-19-0	µg/kg	0.76 J	< 0.43 U	< 0.36 U	< 0.37 U	< 0.35 U	< 0.31 U	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
2,4-DDE	3424-82-6	µg/kg	< 0.38 U	< 0.43 U	< 0.36 U	< 0.37 U	< 0.35 U	< 0.31 U	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
2,4-DDT	789-02-6	µg/kg	< 0.38 U	< 0.43 U	< 0.36 U	< 0.37 U	< 0.35 U	< 0.31 U	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
4,4'-DDD	72-54-8	µg/kg	2.6	0.74	0.69	0.54	0.48	0.60	0.64	0.26 J	0.33 J	0.50	0.17 J
4,4'-DDE	72-55-9	µg/kg	1.8 J	1.6 J	1.5 J	1.2 J	0.74	0.46	0.90	0.72	0.49	1.5	0.25 J
4,4'-DDT	50-29-3	µg/kg	0.30 J	< 0.43 U	0.21 J	0.46	< 0.35 U	4.9 J	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
Aldrin	309-00-2	µg/kg	< 0.38 U	< 0.43 U	< 0.36 U	< 0.37 U	< 0.35 U	< 0.31 U	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.76 U	< 0.85 U	< 0.71 U	< 0.73 U	0.56 J	< 0.63 U	< 0.75 U	< 0.60 U	< 0.70 U	< 0.74 U	< 0.60 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.38 U	< 0.43 U	< 0.36 U	< 0.37 U	< 0.35 U	< 0.31 U	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
Dieldrin	60-57-1	µg/kg	< 0.76 U	< 0.85 U	< 0.71 U	< 0.73 U	< 0.71 U	< 0.63 U	< 0.75 U	< 0.60 U	< 0.70 U	< 0.74 U	< 0.60 U
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.38 U	< 0.43 U	< 0.36 U	< 0.37 U	< 0.35 U	< 0.31 U	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.76 U	< 0.85 U	< 0.71 U	< 0.73 U	0.59 J	< 0.63 U	< 0.75 U	< 0.60 U	< 0.70 U	< 0.74 U	< 0.60 U
Heptachlor	76-44-8	µg/kg	< 0.38 U	< 0.43 U	< 0.36 U	< 0.37 U	< 0.35 U	< 0.31 U	< 0.38 U	< 0.30 U	< 0.35 U	< 0.37 U	< 0.30 U
Oxychlordane	27304-13-8	µg/kg	< 0.76 U	< 0.85 U	< 0.71 U	< 0.73 U	< 0.71 U	< 0.63 U	< 0.75 U	< 0.60 U	< 0.70 U	< 0.74 U	< 0.60 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.76 U	< 0.85 U	0.24 J	0.24 J	0.75	< 0.63 U	< 0.75 U	< 0.60 U	< 0.70 U	< 0.74 U	< 0.60 U
DDx (b)	T_DDx (PDI)	µg/kg	5.7	2.6	2.6	2.4	1.4	6.1	1.7	1.1	1.0	2.2	0.57
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 0.76 U	< 0.85 U	0.595	0.605	2.26	< 0.63 U	< 0.75 U	< 0.6 U	< 0.7 U	< 0.74 U	< 0.6 U
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg	41	2.0 J	4.9 J	3.0 J	< 46 U	4.7 J	< 47 U	2.1 J	< 8.7 UJ	6.5 J	< 8.0 U
Acenaphthene	83-32-9	µg/kg	24	< 20 U	< 20 U	< 19 U	< 46 U	< 39 U	< 47 U	< 14 U	< 8.7 UJ	< 18 U	< 8.0 U
Acenaphthylene	208-96-8	µg/kg	84	< 20 U	17 J	< 19 U	< 46 U	24 J	< 47 U	< 14 U	1.2 J	< 18 U	< 8.0 UJ
Anthracene	120-12-7	µg/kg	100	14 J	15 J	7.8 J	< 46 U	19 J	< 47 U	< 14 U	2.2 J	4.4 J	1.9 J
Benz(a)anthracene	56-55-3	µg/kg	310	13 J	10 J	7.3 J	8.4 J	80 J	13 J	3.6 J	2.7 J	8.4 J	2.9 J
Benzo(a)pyrene	50-32-8	µg/kg	470 J	12 J	9.0 J	8.5 J	< 46 U	110 J	17 J	3.5 J	3.0 J	8.2 J	< 8.0 U
Benzo(b)fluoranthene	205-99-2	µg/kg	590	22	12 J	12 J	< 46 U	150 J	16 J	7.0 J	4.4 J	14 J	5.8 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	470	16 J	8.5 J	14 J	< 46 U	100 J	13 J	5.9 J	2.2 J	9.3 J	3.9 J
Benzo(k)fluoranthene	207-08-9	µg/kg	150	6.2 J	4.4 J	3.7 J	< 46 U	63	7.4 J	2.2 J	1.3 J	3.0 J	2.0 J
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	< 3000 U	< 660 U	< 590 U	< 560 U	< 950 U	< 850 U	< 1300 U	< 400 U	< 520 U	< 520 U	< 470 U
Chrysene	218-01-9	µg/kg	620	24	12 J	12 J	< 46 U	160 J	19 J	5.3 J	3.8 J	15 J	4.3 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	64	< 20 U	< 20 U	< 19 U	< 46 U	14 J	< 47 U	< 14 U	< 8.7 UJ	< 18 U	< 8.0 U
Fluoranthene	206-44-0	µg/kg	1300	34	27	21	< 46 U	350 J	22 J	8.0 J	4.8 J	21	8.3
Fluorene	86-73-7	µg/kg	46	6.5 J	3.4 J	< 19 U	< 46 U	4.7 J	< 47 U	< 14 U	1.1 J	2.9 J	< 8.0 U
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	500	15 J	9.1 J	15 J	< 46 U	110	15 J	5.7 J	1.6 J	8.6 J	3.6 J
Naphthalene	91-20-3	µg/kg	110	7.9 J	11 J	7.2 J	< 46 U	25 J	12 J	2.8 J	2.1 J	5.6 J	1.6 J
Phenanthrene	85-01-8	µg/kg	840	31	16 J	14 J	< 46 U	310 J	12 J	4.4 J	7.5 J	14 J	5.6 J
Pyrene	129-00-0	µg/kg	1500	37	24	19	11 J	380 J	24 J	7.1 J	7.0 J	21	8.0
Total PAHs (b)	T_PAH (PDI)	µg/kg	7219	261	203	164	88	1924	217	72	54	160	56
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	676	27	22	21	24	159	45	12	8.2	20	5.3
Metals													
Arsenic	7440-38-2	mg/kg	4.4	4.9	3.9	4.0	3.5	3.3	4.2	3.4	3.9	4.0	3.5
Cadmium	7440-43-9	mg/kg	0.28	0.14 J	0.14 J	0.13 J	0.12 J	0.095 J	0.13 J	0.094 J	0.12 J	0.14 J	0.16 J
Copper	7440-50-8	mg/kg	37	39	31	31	29	28	34	23	29	31	23
Lead	7439-92-1	mg/kg	20	9.1	8.6	8.4	7.1	7.5	9.1	6.1	7.3	7.5	6.9 J
Mercury	7439-97-6	mg/kg	0.075 J	0.053 J	0.048 J	0.041 J	0.059 J	0.032 J	0.049 J	0.041	0.038 J	0.062	0.026 J
Tri-n-butyltin	36643-28-4	µg/kg	< 74 U	< 160 U	< 73 U	< 140 U	< 130 U	< 120 U	< 140 U	< 110 U	< 130 U	< 140 U	< 100 U
Zinc	7440-66-6	mg/kg	110	86	80	84	73	78	86	68	79	83	70
TPH													
TPH-Diesel Range Organics	68334-30-5	mg/kg	67 J	170	85 J	77 J	61 J	43 J	82 J	29 J	92	55 J	31 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	370	680	460	440	270	230	360	180	410	330	130
Other													
Total Solids@104C - D2216 (f)	TSOLID	%	50.3	43.8	50.5	50.7	54.1	60.2	49.4	66.1	55.4	51.7	61.9

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B459	B460	B461	B461	B462	B463	B464	B465	B466	B467	B468
		Sample ID	PDI-SG-B459	PDI-SG-B460	PDI-SG-B461	PDI-SG-B461-D	PDI-SG-B462	PDI-SG-B463	PDI-SG-B464	PDI-SG-B465	PDI-SG-B466	PDI-SG-B467	PDI-SG-B468
		Sample Date	01 Jul 2018	01 Jul 2018	01 Jul 2018	01 Jul 2018	02 Jul 2018	02 Jul 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018	18 Aµg 2018	02 Jul 2018
		Sample Type Code	N	N	N	FD	N	N	N	N	N	N	N
		Depth	0-29 cm	0-30 cm	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-30 cm	0-30 cm	0-18 cm	0-27 cm
Chemical	**CAS_RN**	**Units**											
Total Solids@104C - E160.3M (g)	TSOLID	%	51.7	43.8	51.5	51.8	54.3	60.6	50.4	62.5	54.6	52.0	62.3
Total Solids@70C	TSOLID70	%	51	43	51	56	54	60	50	63	55	52	64
Gravel	GS-Gravel	%	0	0	0		0.1	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	1.8	0	0.1		0.5	0	0	0.1	0	0.1	0
Sand, Medium	GS-Msand	%	3.8	0.1	0.3		1.0	0.4	0.1	0.5	1.5	0.3	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	26.78	19.2	39.81		50.71	65.75	41.83	67.17	62.3	43.19	74.52
Sand, Fine (#230) (d)	GS-Fsand	%	32.8	23.1	46.1		55.8	68.5	48.8	71.9	66.5	50.3	77.9
Silt (#200) (d)	GS-Silt-200	%	62.71	70.99	54.48		42.88	31.74	52.96	28.42	32.19	50.50	23.17
Silt (#230) (d)	GS-Silt	%	56.7	67.1	48.2		37.8	29.0	46.0	23.7	28.0	43.4	19.8
Clay	GS-Clay	%	5.0	9.7	5.3		4.8	2.1	5.0	3.9	4.0	5.9	2.2
Percent Fines (e)	GS-FINES	%	67.71	80.69	59.78		47.68	33.84	57.96	32.32	36.19	56.4	25.37
Liquid Limit	GS-LL	None	54	80					55				
Plasticity Index	GS-PI	None	16	38					12				
Plasticity Limit	GS-PL	None	38	42					43				
Total Organic Carbon	TOC	mg/kg	24000	30000	38000	34000	20000	14000	28000	13000	20000	24000	5900

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B469	B470	B471	B472	B473	B474	B475	B476	B477	B478	B479
		Sample ID	PDI-SG-B469	PDI-SG-B470	PDI-SG-B471	PDI-SG-B472	PDI-SG-B473	PDI-SG-B474	PDI-SG-B475	PDI-SG-B476	PDI-SG-B477	PDI-SG-B478	PDI-SG-B479
		Sample Date	02 Jul 2018	02 Jul 2018	21 Jul 2018	21 Jul 2018	18 Aug 2018	17 Aug 2018	09 Jul 2018	09 Jul 2018	09 Jul 2018	28 Aug 2018	07 Sep 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm	0-22 cm	0-26 cm	0-30 cm
Chemical	**CAS_RN**	**Units**											
Dioxin and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.022	0.017	0.33	0.023	0.017	0.013	0.018	0.025	0.039	0.062	0.016
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0049 JN	0.0037 JN	0.047	0.0041 J	0.0026 JN	0.0025 JN	0.0038 JN	0.0056	0.0053	0.0047 JN	0.0027 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0011 J+	0.00086 J+	0.0035 J	0.00099 JN	< 0.00052 U	< 0.00026 U	0.0012 J+	0.0013 J+	0.0012 J+	0.0012 J+	< 0.00072 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00047 J+	0.00042 J+	0.0029 J	0.00038 J+	0.00027 J	< 0.00032 U	0.00037 JN	0.00050 J+	0.00055 J+	< 0.00027 U	0.00031 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00055 J	0.00034 J	0.0038 J	0.00041 J	0.00028 J	< 0.00052 U	0.00052 J	0.00063 J	0.00051 J	0.0025 J	< 0.00018 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0012 J	0.00091 J	0.016	0.00095 J	0.00083 J	0.00090 J	0.0010 JN	0.0014 J	0.0029 J	0.0012 J	0.00074 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00034 JN	0.00024 J+	0.0032 J	0.00037 J	0.00015 JN	< 0.00050 U	0.00037 J	0.00044 JN	0.00057 J	0.00062 J	< 0.00016 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00097 J	0.0011 J	0.0072	0.00093 J	0.00073 J	0.00044 JN	0.00086 J	0.0011 J	0.0018 J	0.00065 J	0.00062 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0023 J+	0.0017 J+	0.0031 J+	0.0022 J+	< 0.00064 U	< 0.00029 U	0.0028 J+	0.0028 J+	0.0028 J+	0.0012 J+	< 0.00066 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00022 J	0.00019 J	0.0017 J	0.00019 J	< 0.00010 U	< 0.00026 U	0.00018 J	0.00026 J	0.00034 JN	< 0.00041 U	< 0.00025 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00042 J+	0.00032 J+	0.0015 J	0.00037 JN	< 0.000076 U	< 0.00023 U	0.00055 J+	0.00062 J+	0.00059 J+	< 0.00025 U	< 0.00013 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00022 J	0.00016 J	0.0013 J	0.00013 JN	0.00014 J	< 0.00034 U	< 0.000033 U	0.00019 JN	0.00023 J	< 0.00021 U	< 0.00013 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.000057 U	0.00012 J	0.0017 J	0.00012 J	< 0.000080 U	< 0.00023 U	0.00014 JN	0.00019 J	0.00022 J	< 0.00025 U	< 0.00014 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00013 U	0.00012 JN	0.00076 JN	< 0.000018 U	< 0.00012 U	< 0.00026 U	< 0.000088 U	< 0.000028 U	0.00017 JN	< 0.00024 U	< 0.00014 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00034 J	0.00023 JN	< 0.000043 U	0.00027 J+	0.00033 J	< 0.00016 U	0.00032 J	0.00038 J	0.00078 J	< 0.00018 U	0.00018 J
OCDD	3268-87-9	µg/kg	0.20	0.15	4.5 J	0.21	0.20	0.11	0.16	0.22	0.41	0.53	0.13
OCDF	39001-02-0	µg/kg	0.018	0.012	0.12	0.014	0.0083	0.010	0.014	0.019	0.018	0.011	0.010
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0013	0.0011	0.012	0.0012	0.00059	0.00046	0.0012	0.0015	0.0022	0.0017	0.00054
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0012	0.001	0.012	0.0011	0.00055	0.00039	0.00098	0.0014	0.0019	0.0017	0.00048
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0012	0.00095	0.011	0.0011	0.00049	0.00026	0.00093	0.0014	0.0017	0.0015	0.00036
Polychlorinated Biphenyls (PCBs) Congeners													
PCB-1	2051-60-7	ng/g	< 0.00017 U	< 0.00022 U	0.017	< 0.00019 U	< 0.00018 U	0.00098 JN	< 0.00011 U	0.00077 JN	0.0032 J	0.0010 J	< 0.00011 U
PCB-10	33146-45-1	ng/g	< 0.0019 U	< 0.0023 U	0.0041 JN	< 0.0024 U	< 0.0019 U	< 0.0013 U	< 0.0045 U	< 0.0041 U	< 0.0050 U	< 0.00061 U	< 0.0034 U
PCB-103	60145-21-3	ng/g	0.00098 JN	< 0.00028 U	0.19	0.0021 J	0.0023 J	< 0.00041 U	< 0.00018 U	< 0.00019 U	0.011 JN	0.0021 J	< 0.00029 U
PCB-104	56558-16-8	ng/g	< 0.00018 U	< 0.00021 U	< 0.00024 U	< 0.00035 U	< 0.00017 U	< 0.00031 U	< 0.00014 U	< 0.00014 U	< 0.000097 U	< 0.000091 U	< 0.00022 U
PCB-105	32598-14-4	ng/g	0.025	0.024	0.93	0.042	0.026	0.014	0.026 JN	0.036	0.068	0.021	0.020
PCB-106	70424-69-0	ng/g	< 0.0013 U	< 0.0012 U	< 0.0029 U	< 0.0014 U	< 0.00078 U	< 0.00099 U	< 0.00098 U	< 0.00091 U	< 0.0012 U	< 0.00046 U	< 0.00075 U
PCB-107	70424-68-9	ng/g	0.0056 J	0.0040 JN	0.47	0.011 JN	0.0099	0.0031 J	0.0087 JN	0.0078 J	0.039	0.0069 J	0.0045 JN
PCB-108/124	70362-41-3	ng/g	0.0035 JN	< 0.0012 U	0.098	0.0057 J	0.0023 JN	< 0.0010 U	0.0036 J	0.0039 J	0.0071 J	0.0023 J	< 0.00077 U
PCB-11	2050-67-1	ng/g	0.032	0.021 JN	0.035	0.026	0.015 JN	0.014 J	0.036 JN	0.042 JN	0.031	0.015 J+	0.020 JN
PCB-110/115	38380-03-9	ng/g	0.094	0.081	4.9	0.15	0.10	0.038	0.10	0.11	0.42	0.081	0.060
PCB-111	39635-32-0	ng/g	< 0.00017 U	< 0.00019 U	0.035	< 0.00032 U	< 0.00016 U	< 0.00029 U	< 0.00013 U	< 0.00013 U	< 0.000090 U	< 0.000084 U	< 0.00020 U
PCB-112	74472-36-9	ng/g	< 0.00018 U	0.00022 JN	0.022 JN	< 0.00034 U	< 0.00017 U	< 0.00031 U	< 0.00013 U	< 0.00014 U	< 0.000095 U	< 0.000089 U	< 0.00022 U
PCB-114	74472-37-0	ng/g	< 0.0012 U	< 0.0011 U	0.056	< 0.0013 U	< 0.00075 U	< 0.00091 U	< 0.00092 U	< 0.00085 U	0.0038 JN	< 0.00045 U	< 0.00071 U
PCB-118	31508-00-6	ng/g	0.068	0.058	3.1	0.092	0.079	0.033	0.088	0.087	0.24	0.060	0.049
PCB-12/13	2974-92-7	ng/g	0.0021 JN	< 0.0020 U	0.021 JN	< 0.0022 U	< 0.0017 U	< 0.0012 U	< 0.0041 U	< 0.0037 U	0.0047 JN	0.0034 J	< 0.0031 U
PCB-120	68194-12-7	ng/g	< 0.00017 U	< 0.00020 U	0.10	< 0.00033 U	< 0.00016 U	< 0.00029 U	< 0.00013 U	< 0.00013 U	0.0038 JN	0.00093 JN	< 0.00021 U
PCB-121	56558-18-0	ng/g	< 0.00018 U	< 0.00020 U	0.016	< 0.00034 U	< 0.00017 U	< 0.00030 U	< 0.00013 U	< 0.00014 U	< 0.000094 U	< 0.000088 U	< 0.00021 U
PCB-122	76842-07-4	ng/g	< 0.0015 U	< 0.0013 U	0.045	< 0.0016 U	< 0.00090 U	< 0.0011 U	< 0.0011 U	< 0.0011 U	< 0.0014 U	< 0.00053 U	< 0.00087 U
PCB-123	65510-44-3	ng/g	0.0019 J+	< 0.0012 U	0.036	< 0.0013 U	< 0.00078 U	< 0.0010 U	0.0022 JN	< 0.00090 U	0.0042 JN	0.0013 JN	< 0.00077 U
PCB-126	57465-28-8	ng/g	< 0.0014 U	< 0.0013 U	0.044 JN	< 0.0013 U	< 0.00079 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0013 U	< 0.00049 U	< 0.00075 U
PCB-127	39635-33-1	ng/g	< 0.0013 U	< 0.0012 U	< 0.0029 U	< 0.0014 U	< 0.00078 U	< 0.00099 U	< 0.00098 U	< 0.00091 U	< 0.0012 U	< 0.00046 U	< 0.00075 U
PCB-128/166	38380-07-3	ng/g	0.024	0.019 JN	0.86	0.020 JN	0.021	0.0074 JN	0.021	0.029	0.064	0.015 J	0.014 J
PCB-129/138/160/163	55215-18-4	ng/g	0.16	0.13	6.0	0.14	0.12	0.056	0.17	0.18	0.57	0.092	0.082
PCB-130	52663-66-8	ng/g	0.0066 JN	< 0.0027 U	0.49	0.0073 JN	0.0098	< 0.0025 U	0.0068 JN	0.011	0.046	0.0065 J	0.0049 JN
PCB-131	61798-70-7	ng/g	< 0.0030 U	< 0.0028 U	0.070	< 0.0039 U	< 0.0015 U	< 0.0026 U	< 0.0022 U	< 0.0014 U	< 0.0026 U	< 0.00066 U	< 0.0014 U
PCB-132	38380-05-1	ng/g	0.032 JN	0.029	2.3	0.034	0.036	0.012	0.027 JN	0.046	0.18	0.025	0.017 JN
PCB-133	35694-04-3	ng/g	< 0.0027 U	< 0.0025 U	0.37	< 0.0036 U	0.0029 JN	< 0.0023 U	< 0.0020 U	0.0031 JN	0.013	< 0.00060 U	< 0.0013 U
PCB-134/143	52704-70-8	ng/g	0.0047 JN	< 0.0026 U	0.42	0.0059 JN	0.0082 J	< 0.0024 U	0.0044 JN	0.0062 J	0.032	0.0038 JN	0.0024 JN
PCB-135/151	52744-13-5	ng/g	0.030	0.024	2.7	0.034 JN	0.030 JN	0.016 J	0.035	0.049	0.18 JN	0.027	0.025
PCB-136	38411-22-2	ng/g	0.0076 JN	0.0075 J	0.97	0.0097 JN	0.011	0.0047 J	0.010	0.012	0.10	0.0090 J	0.0034 JN
PCB-137	35694-06-5	ng/g	0.0079 J	< 0.0023 U	0.21	0.0062 J	0.0046 J	< 0.0021 U	0.0066 J	0.0066 J	0.014	0.0037 JN	0.0041 J
PCB-139/140	56030-56-9	ng/g	< 0.0024 U	< 0.0023 U	0.19	< 0.0032 U	0.0020 JN	< 0.0021 U	< 0.0018 U	0.0030 J	0.0093 J	0.0016 JN	< 0.0012 U
PCB-14	34883-41-5	ng/g	< 0.0015 U	< 0.0017 U	< 0.0020 U	< 0.0018 U	< 0.0015 U	< 0.0010 U	< 0.0035 U	< 0.0031 U	< 0.0039 U	< 0.00047 U	< 0.0026 U
PCB-141	52712-04-6	ng/g	0.018	0.019 JN	0.88	0.020	0.018	0.0074 J	0.027	0.027	0.089	0.014	0.011 JN
PCB-142	41411-61-4	ng/g	< 0.0027 U	< 0.0025 U	< 0.0081 U	< 0.0036 U	< 0.0014 U	< 0.0023 U	< 0.0020 U	< 0.0012 U	< 0.0024 U	< 0.00060 U	< 0.0013 U
PCB-144	68194-14-9	ng/g	0.0018 JN	0.0016 JN	0.16	0.0037 J	0.0032 J	< 0.00040 U	0.0042 J	0.0036 JN	0.023	0.0022 JN	0.0023 J
PCB-145	74472-40-5	ng/g	< 0.00012 U	< 0.00015 U	< 0.00022 U	< 0.00024 U	< 0.000082 U	< 0.00030 U	< 0.000056 U	< 0.000021 U	< 0.000086 U	< 0.000026 U	< 0.000016 U
PCB-146	51908-16-8	ng/g	0.021	0.020	2.6	0.020	0.023	0.0093 J	0.023	0.026	0.15	0.017	0.0098 JN
PCB-147/149	68194-13-8	ng/g	0.10	0.084	7.6	0.11	0.10	0.036	0.10	0.12	0.69	0.077	0.046 JN
PCB-148	74472-41-6	ng/g	< 0.00017 U	< 0.00021 U	0.11	< 0.00033 U	< 0.00012 U	< 0.00043 U	< 0.000080 U	< 0.000030 U	0.0023 JN	0.00046 J	< 0.000023 U
PCB-15	2050-68-2	ng/g	0.0039 JN	0.0043 JN	0.12	0.0044 JN	0.0048 JN	< 0.0013 U	0.0062 JN	0.0053 JN	0.016 JN	0.0090 J	0.0036 JN

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B469	B470	B471	B472	B473	B474	B475	B476	B477	B478	B479
		Sample ID	PDI-SG-B469	PDI-SG-B470	PDI-SG-B471	PDI-SG-B472	PDI-SG-B473	PDI-SG-B474	PDI-SG-B475	PDI-SG-B476	PDI-SG-B477	PDI-SG-B478	PDI-SG-B479
		Sample Date	02 Jul 2018	02 Jul 2018	21 Jul 2018	21 Jul 2018	18 Aug 2018	17 Aug 2018	09 Jul 2018	09 Jul 2018	09 Jul 2018	28 Aug 2018	07 Sep 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm	0-22 cm	0-26 cm	0-30 cm
Chemical	CAS_RN	Units											
PCB-150	68194-08-1	ng/g	< 0.00012 U	< 0.00014 U	0.081	< 0.00023 U	0.00052 JN	< 0.00029 U	< 0.000054 U	< 0.000020 U	0.0022 JN	0.00033 J	< 0.000015 U
PCB-152	68194-09-2	ng/g	< 0.00013 U	< 0.00015 U	< 0.00023 U	< 0.00024 U	< 0.000085 U	< 0.00031 U	< 0.000058 U	< 0.000022 U	< 0.000089 U	< 0.000027 U	< 0.000017 U
PCB-153/168	35065-27-1	ng/g	0.12	0.098	5.8	0.11	0.10	0.045	0.12	0.13	0.57	0.081	0.066
PCB-154	60145-22-4	ng/g	0.0012 JN	< 0.00017 U	0.45	0.0023 JN	0.0027 JN	< 0.00035 U	< 0.000064 U	0.00095 JN	0.023	0.0016 JN	0.0013 JN
PCB-155	33979-03-2	ng/g	< 0.00012 U	< 0.00014 U	0.0042 JN	< 0.00023 U	< 0.000079 U	< 0.00029 U	< 0.000054 U	< 0.000020 U	< 0.000083 U	< 0.000025 U	< 0.000016 U
PCB-156/157	38380-08-4	ng/g	0.014 J	0.012 J	0.44	0.014 J	0.012 J	0.0074 J	0.017 J	0.015 JN	0.034	0.0096 J	0.0092 J+
PCB-158	74472-42-7	ng/g	0.012	0.011	0.44	0.015	0.011	0.0043 J	0.014	0.016	0.035	0.0070 JN	0.0066 JN
PCB-159	39635-35-3	ng/g	< 0.0018 U	< 0.0017 U	0.036	< 0.0024 U	< 0.00091 U	< 0.0016 U	< 0.0013 U	< 0.00084 U	0.0066 J	< 0.00040 U	< 0.00087 U
PCB-16	38444-78-9	ng/g	0.0023 JN	0.0033 JN	0.14	0.0039 J	0.0041 JN	< 0.00036 UJ	0.0034 JN	0.0026 J	0.021	0.0089 J	0.0017 JN
PCB-161	74472-43-8	ng/g	< 0.0018 U	< 0.0017 U	< 0.0054 U	< 0.0024 U	< 0.00091 U	< 0.0015 U	< 0.0013 U	< 0.00083 U	< 0.0016 U	< 0.00040 U	< 0.00087 U
PCB-162	39635-34-2	ng/g	< 0.0018 U	< 0.0017 U	0.017	< 0.0023 U	< 0.00090 U	< 0.0015 U	< 0.0013 U	< 0.00082 U	< 0.0015 U	< 0.00039 U	< 0.00086 U
PCB-164	74472-45-0	ng/g	0.010	0.0071 JN	0.45	0.010	0.0088	< 0.0016 U	0.0084 J	0.011 JN	0.045	0.0061 J	0.0046 JN
PCB-165	74472-46-1	ng/g	< 0.0020 U	< 0.0019 U	< 0.0061 U	< 0.0027 U	< 0.0010 U	< 0.0018 U	< 0.0015 U	< 0.00094 U	< 0.0018 U	< 0.00045 U	< 0.00098 U
PCB-167	52663-72-6	ng/g	0.0057 J	0.0042 J	0.15	0.0048 J	0.0048 J	0.0027 J	0.0065 J	0.0060 J	0.0096 JN	0.0033 J	0.0031 JN
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.0011 U	< 0.0035 U	< 0.0015 U	< 0.00066 U	< 0.0011 U	< 0.00097 U	< 0.00057 U	< 0.0011 U	< 0.00030 U	< 0.00072 U
PCB-17	37680-66-3	ng/g	0.0051 JN	0.0044 J	0.22	0.0087 JN	0.0076	0.0024 J	0.0047 JN	0.0029 JN	0.027	0.010 JN	< 0.00021 U
PCB-170	35065-30-6	ng/g	0.034	0.030	1.0	0.036	0.026	0.017	0.037	0.042	0.17	0.020	0.020
PCB-171/173	52663-71-5	ng/g	0.010 JN	0.0054 JN	0.34	0.0085 JN	0.0081 J	0.0057 J	0.013 J	0.013 J	0.053	0.0048 JN	0.0058 JN
PCB-172	52663-74-8	ng/g	0.0057 JN	0.0072 J	0.20	0.0079 J	0.0040 JN	< 0.0013 U	0.010	0.0072 J	0.035	0.0034 J	0.0047 J
PCB-174	38411-25-5	ng/g	0.031	0.029	1.2	0.033	0.022 JN	0.018	0.036	0.035 JN	0.20	0.020 JN	0.019
PCB-175	40186-70-7	ng/g	0.0013 JN	< 0.00089 U	0.046	< 0.0012 U	< 0.00042 U	< 0.0012 U	< 0.00049 U	< 0.00019 U	0.0051 JN	0.00057 JN	< 0.00026 U
PCB-176	52663-65-7	ng/g	0.0027 J	0.0029 J	0.18	0.0033 J	0.0018 JN	< 0.00090 U	0.0029 JN	0.0035 J	0.026	0.0022 JN	0.0016 JN
PCB-177	52663-70-4	ng/g	0.023	0.019	0.92	0.021	0.017	0.011	0.022	0.027	0.13	0.012	0.0087 JN
PCB-178	52663-67-9	ng/g	0.0070 JN	0.0058 J	0.48	0.0079 J	0.0072 J	0.0032 J	0.0085 JN	0.0086 JN	0.038 JN	0.0045 JN	0.0036 JN
PCB-179	52663-64-6	ng/g	0.014	0.0095 JN	0.81	0.014	0.013	0.0063 J	0.016	0.017	0.099	0.010	0.0060 JN
PCB-18/30	37680-65-2	ng/g	0.0090 JN	0.011 J	0.39	0.018 JN	0.011 JN	0.0031 JN	0.013 JN	0.0095 J	0.037 JN	0.024	0.0062 JN
PCB-180/193	35065-29-3	ng/g	0.066	0.063	2.1	0.069	0.054	0.036	0.091	0.089	0.38	0.040	0.043
PCB-181	74472-47-2	ng/g	< 0.00061 U	< 0.00089 U	0.014	< 0.0012 U	< 0.00042 U	< 0.0012 U	< 0.00049 U	< 0.00019 U	< 0.00035 U	0.00058 J	< 0.00026 U
PCB-182	60145-23-5	ng/g	< 0.00059 U	< 0.00085 U	0.033	< 0.0012 U	< 0.00041 U	< 0.0011 U	< 0.00047 U	< 0.00018 U	< 0.00034 U	< 0.00011 U	< 0.00025 U
PCB-183/185	52663-69-1	ng/g	0.017 JN	0.013 J	0.76	0.023 JN	0.017	0.013 J	0.030	0.024	0.14	0.013 J	0.0098 JN
PCB-184	74472-48-3	ng/g	< 0.00050 U	< 0.00073 U	< 0.00032 U	< 0.0010 U	< 0.00035 U	< 0.00098 U	< 0.00040 U	< 0.00015 U	< 0.00029 U	< 0.000097 U	< 0.00021 U
PCB-186	74472-49-4	ng/g	< 0.00049 U	< 0.00071 U	< 0.00031 U	< 0.00098 U	< 0.00034 U	< 0.00095 U	< 0.00039 U	< 0.00015 U	< 0.00028 U	< 0.000094 U	< 0.00021 U
PCB-187	52663-68-0	ng/g	0.045	0.036	2.1	0.045	0.039	0.022	0.058	0.057	0.26	0.031	0.030
PCB-188	74487-85-7	ng/g	< 0.00042 U	< 0.00061 U	0.015	< 0.00086 U	< 0.00030 U	< 0.00084 U	< 0.00034 U	< 0.00014 U	< 0.00025 U	< 0.000085 U	< 0.00018 U
PCB-189	39635-31-9	ng/g	< 0.0012 U	< 0.0013 U	0.035	< 0.0016 U	< 0.00088 U	< 0.0013 U	< 0.0011 U	< 0.00065 U	0.0045 J	< 0.00060 U	< 0.0011 U
PCB-19	38444-73-4	ng/g	< 0.00079 U	< 0.0010 U	0.035	0.0044 J	0.00099 JN	< 0.00040 UJ	0.0024 JN	< 0.00022 U	0.0027 JN	0.0024 JN	0.0017 JN
PCB-190	41411-64-7	ng/g	0.0051 JN	0.0041 JN	0.16	0.0078 JN	0.0054 J	0.0041 J	0.0070 J	0.0079 JN	0.025	0.0042 J+	0.0043 J+
PCB-191	74472-50-7	ng/g	0.0022 J	< 0.00067 U	0.037	< 0.00093 U	0.0015 J	< 0.00090 U	0.0014 JN	0.0015 JN	0.0051 JN	0.00066 JN	< 0.00019 U
PCB-192	74472-51-8	ng/g	< 0.00052 U	< 0.00075 U	< 0.00033 U	< 0.0010 U	< 0.00036 U	< 0.0010 U	< 0.00041 U	< 0.00016 U	< 0.00030 U	< 0.00010 U	< 0.00022 U
PCB-194	35694-08-7	ng/g	0.021	0.015	0.50	0.020	0.014	0.012	0.019	0.020	0.077	0.011	0.011 J+
PCB-195	52663-78-2	ng/g	0.0094	< 0.0034 U	0.20	0.0085 J	0.0069 J	< 0.0025 U	0.0068 JN	< 0.00053 U	0.039	0.0037 JN	0.0057 J+
PCB-196	42740-50-1	ng/g	0.0065 JN	0.0055 J	0.24	0.0090 JN	0.0075 J	0.0055 J	0.0094 JN	0.010	0.033	0.0030 JN	0.0023 J
PCB-197	33091-17-7	ng/g	< 0.00079 U	< 0.0011 U	0.022 JN	< 0.00091 U	0.00061 JN	< 0.00087 U	< 0.000091 U	0.00055 JN	0.0031 J	0.00030 JN	< 0.000037 U
PCB-198/199	68194-17-2	ng/g	0.023	0.020	0.61	0.027	0.014 JN	0.014 J	0.025	0.027	0.093	0.012 J	0.014 JN
PCB-2	2051-61-8	ng/g	0.0021 JN	< 0.00025 U	0.0071 J	0.0018 JN	0.0025 JN	0.0021 J	0.011	0.0076 J	0.0048 J	0.0018 JN	0.0017 JN
PCB-20/28	38444-84-7	ng/g	0.018 JN	0.014 J	0.88	0.029	0.026	0.0066 J	0.025 JN	0.025	0.093	0.044	0.012 J
PCB-200	52663-73-7	ng/g	< 0.00070 U	0.0029 J	0.057	0.0024 JN	0.0019 JN	0.0019 J	0.0015 JN	0.0022 J	0.011	0.0013 J	0.0015 J
PCB-201	40186-71-8	ng/g	< 0.00072 U	< 0.00098 U	0.051 JN	0.0020 JN	0.0016 JN	< 0.00079 U	0.0023 JN	0.0020 JN	0.0092 J	0.0019 J	0.0019 JN
PCB-202	2136-99-4	ng/g	0.0046 JN	0.0046 J	0.14	0.0053 JN	0.0035 J	0.0040 J	0.0048 JN	0.0048 JN	0.021	0.0032 J	0.0031 J
PCB-203	52663-76-0	ng/g	0.013	0.011	0.30	0.015 JN	0.0076 JN	0.0081 J	0.016	0.011 JN	0.054	0.0080 J	0.010
PCB-204	74472-52-9	ng/g	< 0.00079 U	< 0.0011 U	< 0.00056 U	< 0.00091 U	< 0.00029 U	< 0.00087 U	< 0.000091 U	< 0.00012 U	< 0.00021 U	< 0.000034 U	< 0.000037 U
PCB-205	74472-53-0	ng/g	< 0.0022 U	< 0.0026 U	0.024	< 0.0026 U	< 0.0011 U	< 0.0019 U	< 0.00039 U	< 0.00041 U	< 0.00089 U	< 0.00021 U	< 0.00023 U
PCB-206	40186-72-9	ng/g	0.021	0.013 JN	0.21	< 0.028 U	0.0085	0.0061 JN	0.018	0.013 JN	0.031	0.0071 J	< 0.0076 U
PCB-207	52663-79-3	ng/g	< 0.0017 U	< 0.0023 U	0.018 JN	< 0.019 U	< 0.00092 U	< 0.0016 U	0.0021 J	< 0.0011 U	0.0040 JN	< 0.00046 U	< 0.00089 U
PCB-208	52663-77-1	ng/g	0.0055 JN	< 0.0023 U	0.064	< 0.019 U	< 0.00089 U	< 0.0016 U	0.0052 JN	0.0047 JN	0.0095 J	0.0024 J	0.0037 JN
PCB-209	2051-24-3	ng/g	0.038	0.029	0.17	0.020 JN	0.013 JN	0.0090 J	0.026 JN	0.031	0.048	0.0095 J	0.014 JN
PCB-21/33	55702-46-0	ng/g	0.0069 JN	0.0050 JN	0.34	0.0081 J	0.012 J	0.0033 J+	0.0080 JN	0.0080 JN	0.038	0.015 J	0.0034 JN
PCB-22	38444-85-8	ng/g	0.0069 J	0.0047 J	0.19	0.0061 J	0.0068 J	0.0023 J	0.0066 JN	0.0086 J	0.023	0.012	0.0039 J

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B469	B470	B471	B472	B473	B474	B475	B476	B477	B478	B479
		Sample ID	PDI-SG-B469	PDI-SG-B470	PDI-SG-B471	PDI-SG-B472	PDI-SG-B473	PDI-SG-B474	PDI-SG-B475	PDI-SG-B476	PDI-SG-B477	PDI-SG-B478	PDI-SG-B479
		Sample Date	02 Jul 2018	02 Jul 2018	21 Jul 2018	21 Jul 2018	18 Aug 2018	17 Aug 2018	09 Jul 2018	09 Jul 2018	09 Jul 2018	28 Aug 2018	07 Sep 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm	0-22 cm	0-26 cm	0-30 cm
Chemical	**CAS_RN**	**Units**											
PCB-23	55720-44-0	ng/g	< 0.00052 U	< 0.00060 U	< 0.0020 U	< 0.00099 U	< 0.00046 U	< 0.00044 UJ	< 0.00060 U	< 0.00047 U	< 0.0010 U	< 0.00025 U	< 0.00048 U
PCB-24	55702-45-9	ng/g	< 0.00054 U	< 0.00069 U	0.0048 JN	< 0.00053 U	< 0.000085 U	< 0.00027 UJ	< 0.00020 U	< 0.00015 U	< 0.00021 U	< 0.00010 U	< 0.00018 U
PCB-25	55712-37-3	ng/g	0.0022 JN	< 0.00055 U	0.079	0.0060 J	0.0022 J	< 0.00040 UJ	0.0022 JN	0.0026 J	0.0060 JN	0.0061 J	0.0012 J
PCB-26/29	38444-81-4	ng/g	0.0044 J	0.0020 JN	0.11	0.0093 J	0.0032 JN	0.0012 J	0.0046 JN	0.0042 J	0.012 J	0.0069 J	0.0026 J
PCB-27	38444-76-7	ng/g	< 0.00047 U	< 0.00060 U	0.030	0.0020 JN	< 0.000074 U	< 0.00024 UJ	0.0012 JN	< 0.00013 U	0.0046 J	0.0021 J	< 0.00016 U
PCB-3	2051-62-9	ng/g	0.00094 JN	0.00074 JN	0.015	< 0.00026 U	< 0.00022 U	< 0.00016 U	0.0013 JN	0.00084 JN	0.0024 JN	0.00069 JN	0.00066 J
PCB-31	16606-02-3	ng/g	0.016 J	0.012 J	0.61	0.021	0.021	0.0059 J	0.021	0.018 J	0.067	0.033	0.010 J
PCB-32	38444-77-8	ng/g	0.0038 JN	0.0030 J	0.13	0.0089 JN	0.0036 J	0.0010 JN	0.0039 J	0.0034 JN	0.016	0.0067 JN	0.0019 J
PCB-34	37680-68-5	ng/g	< 0.00054 U	< 0.00063 U	0.018	< 0.0010 U	< 0.00048 U	< 0.00046 UJ	< 0.00062 U	< 0.00049 U	< 0.0011 U	0.00060 J	< 0.00049 U
PCB-35	37680-69-6	ng/g	< 0.00052 U	< 0.00061 U	0.019 JN	< 0.0010 U	0.0012 J	< 0.00044 UJ	< 0.00060 U	< 0.00048 U	0.0019 JN	0.0010 J	< 0.00048 U
PCB-36	38444-87-0	ng/g	< 0.00050 U	< 0.00059 U	< 0.0020 U	< 0.00096 U	< 0.00045 U	< 0.00043 UJ	< 0.00058 U	< 0.00046 U	< 0.0010 U	< 0.00024 U	< 0.00046 U
PCB-37	38444-90-5	ng/g	0.0058 JN	0.0053 J	0.22	0.0076 JN	0.0056 JN	0.0019 JN	0.0065 JN	0.0085 J	0.025	0.0089 JN	0.0034 JN
PCB-38	53555-66-1	ng/g	< 0.00054 U	< 0.00063 U	< 0.0021 U	< 0.0010 U	< 0.00048 U	< 0.00046 UJ	< 0.00062 U	< 0.00049 U	< 0.0011 U	< 0.00026 U	< 0.00050 U
PCB-39	38444-88-1	ng/g	< 0.00049 U	< 0.00057 U	0.012 JN	< 0.00093 U	< 0.00043 U	< 0.00041 UJ	< 0.00056 U	< 0.00044 U	< 0.00098 U	< 0.00023 U	< 0.00045 U
PCB-4	13029-08-8	ng/g	< 0.0024 U	0.0045 JN	0.042 JN	0.0050 JN	< 0.0024 U	< 0.0016 U	< 0.0056 U	< 0.0051 U	0.0099 JN	0.0051 JN	< 0.0043 U
PCB-40/41/71	38444-93-8	ng/g	0.014 J	0.012 J	0.68	0.038	0.015 J	0.0030 JN	0.017 JN	0.0098 JN	0.051	0.022 J	0.0073 JN
PCB-42	36559-22-5	ng/g	0.0063 JN	0.0069 J	0.40	0.019	0.0083	0.0028 J	0.011	0.0062 JN	0.033 JN	0.010	0.0044 JN
PCB-43/73	70362-46-8	ng/g	0.0017 JN	< 0.00051 U	0.047 JN	0.0027 J	0.0010 JN	< 0.0011 UJ	< 0.00090 U	< 0.00080 U	< 0.0027 U	0.0012 J	< 0.00087 U
PCB-44/47/65	41464-39-5	ng/g	0.034 JN	0.030	1.8	0.073	0.041	0.010 J	0.043	0.033	0.15	0.050	0.014 JN
PCB-45/51	70362-45-7	ng/g	0.0027 JN	0.0036 JN	0.18	0.0095 JN	0.0046 JN	< 0.0012 UJ	0.0049 J	0.0044 J	0.014 JN	0.0088 J+	0.0019 JN
PCB-46	41464-47-5	ng/g	< 0.00040 U	0.0020 J	0.063	0.0038 JN	0.0012 J	< 0.0015 UJ	< 0.0012 U	< 0.0011 U	< 0.0036 U	< 0.00086 U	< 0.0012 U
PCB-48	70362-47-9	ng/g	0.0035 JN	0.0031 J	0.22	0.0098	0.0065 J	< 0.0011 UJ	0.0037 JN	0.0036 JN	0.021	0.0052 JN	0.0017 JN
PCB-49/69	41464-40-8	ng/g	0.024	0.020	1.5	0.060	0.031	0.0071 J	0.028	0.021	0.12	0.032	0.013 J
PCB-5	16605-91-7	ng/g	< 0.0020 U	< 0.0023 U	< 0.0027 U	< 0.0024 U	< 0.0019 U	< 0.0014 U	< 0.0046 U	< 0.0041 U	< 0.0051 U	< 0.00062 U	< 0.0035 U
PCB-50/53	62796-65-0	ng/g	0.0039 JN	0.0028 JN	0.15	0.0098 J	0.0033 JN	< 0.0011 UJ	0.0042 J	0.0026 J	0.0094 JN	0.0050 J	0.0017 JN
PCB-52	35693-99-3	ng/g	0.047	0.043	2.4	0.10	0.050	0.014 J	0.052	0.048	0.19	0.050	0.028
PCB-54	15968-05-5	ng/g	< 0.000022 U	< 0.000046 U	< 0.000035 U	< 0.000057 U	< 0.000010 U	< 0.000070 UJ	< 0.000031 U	< 0.000023 U	< 0.000029 U	< 0.000016 U	< 0.000035 U
PCB-55	74338-24-2	ng/g	0.00069 JN	< 0.00040 U	0.028 JN	0.0021 JN	0.00086 JN	< 0.00084 UJ	0.0013 JN	0.0015 JN	< 0.0021 U	< 0.00049 U	< 0.00068 U
PCB-56	41464-43-1	ng/g	0.015	0.010	0.65	0.031	0.015	0.0043 J	0.014	0.013	0.049	0.017	0.0070 J
PCB-57	70424-67-8	ng/g	< 0.00023 U	< 0.00040 U	0.010	< 0.00025 U	< 0.00019 U	< 0.00085 UJ	< 0.00071 U	< 0.00063 U	< 0.0021 U	< 0.00050 U	< 0.00069 U
PCB-58	41464-49-7	ng/g	< 0.00024 U	< 0.00041 U	0.026 JN	0.0012 JN	0.00042 JN	< 0.00086 UJ	< 0.00072 U	< 0.00064 U	< 0.0021 U	< 0.00051 U	< 0.00070 U
PCB-59/62/75	74472-33-6	ng/g	0.0026 JN	0.0025 J	0.14	0.0058 J	0.0024 JN	< 0.00081 UJ	0.0032 JN	0.0026 JN	0.012 J	0.0039 J	< 0.00066 U
PCB-6	25569-80-6	ng/g	< 0.0017 U	0.0029 JN	0.031	0.0025 JN	< 0.0017 U	< 0.0012 U	< 0.0040 U	< 0.0036 U	< 0.0045 U	0.0068 J	< 0.0030 U
PCB-60	33025-41-1	ng/g	0.0056 JN	0.0045 J	0.15	0.011 JN	0.0059 J	0.0022 J	0.0064 JN	0.0059 J	0.013	0.0076 JN	0.0037 J+
PCB-61/70/74/76	33284-53-6	ng/g	0.061	0.051	2.9	0.12	0.068	0.018 J	0.072	0.059	0.21	0.070	0.033
PCB-63	74472-34-7	ng/g	0.0015 JN	0.0010 JN	0.081	0.0027 JN	0.0022 J	< 0.00078 UJ	0.0027 J	< 0.00058 U	0.0057 J	0.0017 J	< 0.00063 U
PCB-64	52663-58-8	ng/g	0.013	0.010 JN	0.53	0.032	0.014	0.0041 J	0.016	0.014	0.047	0.017	0.0067 JN
PCB-66	32598-10-0	ng/g	0.035	0.029	1.7	0.088	0.044	0.011 J	0.047	0.035 JN	0.14	0.041	0.019
PCB-67	73575-53-8	ng/g	0.0014 JN	< 0.00035 U	0.048	0.0015 J	0.00096 JN	< 0.00073 UJ	< 0.00061 U	0.00062 JN	< 0.0018 U	0.0011 JN	< 0.00059 U
PCB-68	73575-52-7	ng/g	0.0011 JN	< 0.00099 U	0.13	0.0019 J+	0.0014 J	< 0.00075 UJ	< 0.00063 U	< 0.00056 U	< 0.0019 U	0.0022 J+	< 0.00061 U
PCB-7	33284-50-3	ng/g	< 0.0018 U	< 0.0021 U	0.0082 JN	< 0.0022 U	< 0.0018 U	< 0.0012 U	< 0.0041 U	< 0.0037 U	< 0.0046 U	0.0011 JN	< 0.0031 U
PCB-72	41464-42-0	ng/g	0.0011 J	< 0.00040 U	0.14	0.0017 JN	0.0024 J	< 0.00083 UJ	< 0.00069 U	< 0.00062 U	0.0084 J	0.0012 J	< 0.00067 U
PCB-77	32598-13-3	ng/g	0.0046 JN	0.0037 JN	0.13	0.011	0.0038 J	< 0.00085 U	0.0059 J	0.0050 J	0.012	0.0041 J+	0.0029 JN
PCB-78	70362-49-1	ng/g	< 0.00024 U	< 0.00041 U	< 0.00028 U	< 0.00025 U	< 0.00019 U	< 0.00086 UJ	< 0.00072 U	< 0.00064 U	< 0.0021 U	< 0.00051 U	< 0.00069 U
PCB-79	41464-48-6	ng/g	0.00097 JN	< 0.00035 U	0.064	< 0.00022 U	0.00079 JN	< 0.00074 UJ	< 0.00062 U	< 0.00055 U	< 0.0018 U	< 0.00044 U	< 0.00060 U
PCB-8	34883-43-7	ng/g	0.0055 J	0.0084 J	0.084	0.0056 JN	0.0047 JN	< 0.0011 U	0.0072 JN	0.0067 JN	0.016 JN	0.014 J	0.0035 JN
PCB-80	33284-52-5	ng/g	< 0.00020 U	< 0.00035 U	0.0099 JN	< 0.00021 U	< 0.00016 U	< 0.00073 UJ	< 0.00061 U	< 0.00054 U	< 0.0018 U	< 0.00043 U	< 0.00059 U
PCB-81	70362-50-4	ng/g	< 0.00021 U	< 0.00036 U	< 0.00026 U	< 0.00023 U	< 0.00017 U	< 0.00075 U	< 0.00062 U	< 0.00058 U	< 0.0019 U	< 0.00046 U	< 0.00062 U
PCB-82	52663-62-4	ng/g	0.0096	0.0073 J	0.41	0.021	0.0078	0.0034 JN	0.0087 J	0.0081 JN	0.032	0.0066 JN	0.0040 JN
PCB-83/99	60145-20-2	ng/g	0.054	0.046	4.0	0.092	0.067	0.020	0.064	0.056	0.31	0.055	0.034
PCB-84	52663-60-2	ng/g	0.018	0.014	1.0	0.030	0.018	0.0067 J	0.017	0.021	0.074	0.018	0.010 JN
PCB-85/116/117	65510-45-4	ng/g	0.018 J	0.016 J	0.65	0.033	0.015 J	0.0062 J	0.020 J	0.013 JN	0.048 JN	0.014 J	0.0095 JN
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.051	0.043 J	2.8	0.080	0.055	0.017 J	0.051 J	0.053 JN	0.21	0.043 J	0.034 J
PCB-88/91	55215-17-3	ng/g	0.0097 J	0.010 JN	0.90	0.025	0.013 J	0.0032 J	0.011 JN	0.013 J	0.071	0.014 J	0.0075 J
PCB-89	73575-57-2	ng/g	< 0.00027 U	< 0.00031 U	0.040	0.0045 J	< 0.00025 U	< 0.00047 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00014 U	< 0.00033 U
PCB-9	34883-39-1	ng/g	< 0.0018 U	< 0.0021 U	0.010	< 0.0022 U	< 0.0018 U	< 0.0012 U	< 0.0042 U	< 0.0038 U	< 0.0047 U	0.0014 J	< 0.0032 U
PCB-90/101/113	68194-07-0	ng/g	0.077	0.067	5.6	0.11	0.086	0.031	0.088	0.099	0.44	0.072	0.047
PCB-92	52663-61-3	ng/g	0.011 JN	0.012	1.4	0.021	0.018	0.0042 J	0.017	0.017	0.099	0.015	0.010

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

			Location	B469	B470	B471	B472	B473	B474	B475	B476	B477	B478	B479
			Sample ID	PDI-SG-B469	PDI-SG-B470	PDI-SG-B471	PDI-SG-B472	PDI-SG-B473	PDI-SG-B474	PDI-SG-B475	PDI-SG-B476	PDI-SG-B477	PDI-SG-B478	PDI-SG-B479
			Sample Date	02 Jul 2018	02 Jul 2018	21 Jul 2018	21 Jul 2018	18 Aµg 2018	17 Aµg 2018	09 Jul 2018	09 Jul 2018	09 Jul 2018	28 Aµg 2018	07 Sep 2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N	N
			Depth	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm	0-22 cm	0-26 cm	0-30 cm
Chemical		**CAS_RN**	**Units**											
PCB-93/100		73575-56-1	ng/g	0.00082 JN	< 0.00028 U	0.13 JN	0.0024 JN	0.0013 JN	< 0.00041 U	0.0015 JN	0.0025 J	0.026 JN	< 0.00012 U	< 0.00029 U
PCB-94		73575-55-0	ng/g	< 0.00027 U	< 0.00031 U	< 0.00036 U	< 0.00052 U	< 0.00025 U	< 0.00047 U	< 0.00021 U	< 0.00021 U	< 0.00014 U	< 0.00014 U	< 0.00033 U
PCB-95		38379-99-6	ng/g	0.055	0.052	4.0	0.087	0.063	0.018 JN	0.053 JN	0.068 JN	0.37	0.056	0.029 JN
PCB-96		73575-54-9	ng/g	< 0.00021 U	< 0.00024 U	< 0.00027 U	0.0016 J	< 0.00019 U	< 0.00035 U	< 0.00016 U	< 0.00016 U	< 0.00011 U	< 0.00010 U	< 0.00025 U
PCB-98/102		60233-25-2	ng/g	0.0017 JN	0.0021 JN	0.15	0.0073 J	0.0026 JN	< 0.00040 U	< 0.00018 U	0.0025 J	0.0089 J	0.0016 JN	< 0.00028 U
Total PCBs	(b)	T_PCBCg (PDI)	ng/g	1.9	1.6	96	2.6	1.8	0.73	2.1	2.2	8.9	1.7	1.1
Pesticides														
2,4-DDD		53-19-0	µg/kg	< 0.39 U	< 0.38 U	< 0.33 U	< 0.32 U	< 0.30 U	< 0.070 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
2,4-DDE		3424-82-6	µg/kg	< 0.39 U	< 0.38 U	< 0.33 U	< 0.32 U	< 0.30 U	< 0.079 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
2,4-DDT		789-02-6	µg/kg	< 0.39 U	< 0.38 U	< 0.33 U	< 0.32 U	< 0.30 U	< 0.094 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
4,4'-DDD		72-54-8	µg/kg	0.51	0.46	0.94	0.32 J	0.48	0.15	0.43	0.62	0.38	0.23 J	0.39
4,4'-DDE		72-55-9	µg/kg	0.68	0.58	1.7	0.39	3.0	0.23	1.1 J	1.3	0.93 J	0.35	0.63
4,4'-DDT		50-29-3	µg/kg	< 0.39 U	< 0.38 U	0.18 J	< 0.32 U	0.66	< 0.070 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
Aldrin		309-00-2	µg/kg	< 0.39 U	< 0.38 U	< 0.33 U	< 0.32 U	< 0.30 U	< 0.079 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
alpha-Chlordane		5103-71-9	µg/kg	< 0.78 U	< 0.75 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.14 U	< 0.77 U	< 0.78 U	< 0.60 U	< 0.58 U	< 0.72 U
cis-Nonachlor		5103-73-1	µg/kg	< 0.39 U	< 0.38 U	< 0.33 U	< 0.32 U	< 0.30 U	< 0.097 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
Dieldrin		60-57-1	µg/kg	< 0.78 U	< 0.75 U	< 0.65 U	< 0.64 U	0.59 J	< 0.20 U	< 0.77 U	< 0.78 U	< 0.60 U	< 0.58 U	< 0.72 U
gamma-BHC (Lindane)		58-89-9	µg/kg	< 0.39 U	< 0.38 U	< 0.33 U	< 0.32 U	< 0.30 U	< 0.070 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
gamma-Chlordane		5566-34-7	µg/kg	< 0.78 U	< 0.75 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.14 U	< 0.77 U	< 0.78 U	< 0.60 U	< 0.58 U	< 0.72 U
Heptachlor		76-44-8	µg/kg	< 0.39 U	< 0.38 U	< 0.33 U	< 0.32 U	< 0.30 U	< 0.070 U	< 0.38 U	< 0.39 U	< 0.30 U	< 0.29 U	< 0.36 U
Oxychlordane		27304-13-8	µg/kg	< 0.78 U	< 0.75 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.20 U	< 0.77 U	< 0.78 U	< 0.60 U	0.45 J	< 0.72 U
trans-Nonachlor		39765-80-5	µg/kg	< 0.78 U	< 0.75 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.14 U	< 0.77 U	< 0.78 U	< 0.60 U	< 0.58 U	< 0.72 U
DDx	(b)	T_DDx (PDI)	µg/kg	1.4	1.2	3.0	0.87	4.3	0.43	1.7	2.1	1.5	0.73	1.2
Total Chlordanes	(b)	T_Clrdn (PDI)	µg/kg	< 0.78 U	< 0.75 U	< 0.65 U	< 0.64 U	< 0.59 U	< 0.2 U	< 0.77 U	< 0.78 U	< 0.6 U	0.74	< 0.72 U
Semivolatile Organics														
2-Methylnaphthalene		91-57-6	µg/kg	< 42 U	< 38 U	21 J	< 45 U	3.2 J	< 38 U	< 47 U	3.1 J	9.1	1.2 J	< 15 U
Acenaphthene		83-32-9	µg/kg	< 42 U	< 38 U	14 J	< 45 U	< 15 U	6.4 J	< 47 U	< 18 U	6.3 J	< 7.7 U	< 15 U
Acenaphthylene		208-96-8	µg/kg	< 42 U	< 38 U	13 J	< 45 U	< 15 U	< 38 U	< 47 U	< 18 U	13	< 7.7 U	< 15 U
Anthracene		120-12-7	µg/kg	< 42 U	< 38 U	25 J	5.4 J	1.9 J	10 J	< 47 U	9.5 J	73	< 7.7 U	< 15 UJ
Benz(a)anthracene		56-55-3	µg/kg	23 J	6.4 J	76 J	27 J	4.7 J	17 J	7.7 J	15 J	89	3.9 J	11 J
Benzo(a)pyrene		50-32-8	µg/kg	20 J	9.7 J	65 J	24 J	4.4 J	15 J	12 J	14 J	76	3.6 J	8.6 J
Benzo(b)fluoranthene		205-99-2	µg/kg	19 J	< 38 U	100	36 J	6.0 J	17 J	11 J	25	130	6.0 J	25
Benzo(g,h,i)perylene		191-24-2	µg/kg	13 J	< 38 U	54 J	< 45 U	5.6 J	16 J	6.9 J	21	57	3.5 J	5.7 J
Benzo(k)fluoranthene		207-08-9	µg/kg	8.1 J	< 38 U	34 J	8.4 J	1.8 J	6.1 J	< 47 U	6.8 J	40	1.6 J	9.8 J
Bis(2-ethylhexyl)phthalate		117-81-7	µg/kg	< 1200 U	< 2100 U	< 1400 U	< 540 U	< 400 U	< 1100 U	< 1400 U	< 590 U	< 490 U	< 460 U	92 J
Chrysene		218-01-9	µg/kg	19 J	< 38 U	98	< 45 U	6.5 J	16 J	< 47 U	22	97	< 7.7 U	24
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 42 U	< 38 U	< 90 U	< 45 U	< 15 U	< 38 U	< 47 U	< 18 U	9.8	< 7.7 U	< 15 U
Fluoranthene		206-44-0	µg/kg	< 42 U	18 J	190	40 J	11 J	76	19 J	33	290	10	68
Fluorene		86-73-7	µg/kg	< 42 U	< 38 U	17 J	5.1 J	< 15 U	6.7 J	< 47 U	5.4 J	24	3.4 J	1.6 J
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	16 J	< 38 U	53 J	30 J	4.0 J	15 J	< 47 U	21	57	5.5 J	6.3 J
Naphthalene		91-20-3	µg/kg	8.0 J	12 J	42 J	< 45 U	4.8 J	< 38 U	9.8 J	9.9 J	21	1.6 J	< 15 U
Phenanthrene		85-01-8	µg/kg	< 42 U	10 J	110	18 J	7.8 J	49	13 J	23	360	6.0 J	12 J
Pyrene		129-00-0	µg/kg	38 J	19 J	180	40 J	9.8 J	61	19 J	31	480	8.7	48
Total PAHs	(b)	T_PAH (PDI)	µg/kg	206	113	1137	279	87	349	145	258	1832	63	235
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	47	29	133	56	13	39	37	29	114	9.0	20
Metals														
Arsenic		7440-38-2	mg/kg	3.8	3.4	4.3	3.3	3.7	2.8	4.8	3.5	3.4	4.0	3.4
Cadmium		7440-43-9	mg/kg	0.12 J	0.10 J	0.21 J	0.11 J	0.099 J	0.067 J	0.27 J	0.19 J	0.17 J	0.12 J	0.11 J
Copper		7440-50-8	mg/kg	29	26	35	28	26	18	40	29	27	24	25
Lead		7439-92-1	mg/kg	7.3	7.0	15	7.5	6.9	5.8	9.1	6.9	9.4	6.8	6.8
Mercury		7439-97-6	mg/kg	0.036 J	0.034 J	0.11 J	0.036	0.042	0.037 J	0.057 J	0.053 J	0.046 J	0.020 J	0.037 J
Tri-n-butyltin		36643-28-4	µg/kg	< 130 U	< 120 U	< 140 U	< 130 U	< 110 U	< 120 U	< 140 U	< 150 U	< 120 U	< 8.4 U	< 120 U
Zinc		7440-66-6	mg/kg	72	70	210	75	82	66	98	68	74	80	67
TPH														
TPH-Diesel Range Organics		68334-30-5	mg/kg	95	78 J	190	63 J	28 J	27 J	63 J	91 J	53 J	34 J	39 J
TPH-Motor Oil Range Organics		TPH-MOIL	mg/kg	350	320	720	300	140	190	380	400	170	180	190
Other														
Total Solids@104C - D2216	(f)	TSOLID	%	57.4	58.9	51.7	55.4	63.3	64.7	51.8	50.3	60.6	63.5	65.2

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B469	B470	B471	B472	B473	B474	B475	B476	B477	B478	B479
		Sample ID	PDI-SG-B469	PDI-SG-B470	PDI-SG-B471	PDI-SG-B472	PDI-SG-B473	PDI-SG-B474	PDI-SG-B475	PDI-SG-B476	PDI-SG-B477	PDI-SG-B478	PDI-SG-B479
		Sample Date	02 Jul 2018	02 Jul 2018	21 Jul 2018	21 Jul 2018	18 Aµg 2018	17 Aµg 2018	09 Jul 2018	09 Jul 2018	09 Jul 2018	28 Aµg 2018	07 Sep 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N	N
		Depth	0-30 cm	0-30 cm	0-27 cm	0-25 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm	0-22 cm	0-26 cm	0-30 cm
Chemical	**CAS_RN**	**Units**											
Total Solids@104C - E160.3M (g)	TSOLID	%	49.4	50.3	56.8	57.8	65.0	71.4	50.3	47.5	64.2	64.3	54.5
Total Solids@70C	TSOLID70	%	49	51	54	57	63	65	49	48	64	63	51
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0.6	0	0
Sand, Coarse	GS-Csand	%	0.2	0.1	0.1	0	0	0	0	0	1.3	0.1	0
Sand, Medium	GS-Msand	%	0.2	0.8	0.3	0.1	0.3	2.0	0.2	0.2	1.9	2.0	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	41.82	55.71	37.42	47.13	70.75	84.3	33.96	33.83	55.12	78.22	45.05
Sand, Fine (#230) (d)	GS-Fsand	%	47.4	59.8	42.3	55.1	76.3	84.3	39.1	37.8	56.0	81.7	53.1
Silt (#200) (d)	GS-Silt-200	%	52.57	40.88	49.67	48.06	24.34	11.6	57.23	59.76	37.57	15.37	50.04
Silt (#230) (d)	GS-Silt	%	47.0	36.8	44.8	40.1	18.8	11.6	52.1	55.8	36.7	11.9	42.0
Clay	GS-Clay	%	5.2	2.6	12.6	4.7	4.7	2.1	8.6	6.2 L	3.5	4.2	4.8
Percent Fines (e)	GS-FINES	%	57.77	43.48	62.27	52.76	29.04	13.7	65.83	65.96	41.07	19.57	54.84
Liquid Limit	GS-LL	None			62	0			63	61	0		
Plasticity Index	GS-PI	None			25	< U			22	24	< U		
Plasticity Limit	GS-PL	None			37	0			41	37	0		
Total Organic Carbon	TOC	mg/kg	31000	30000	27000	13000	11000	6800	25000	19000	9700	12000	17000

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B481	B482	B483	B484	B485	B486	B487	B488	S266
		Sample ID	PDI-SG-B481	PDI-SG-B482	PDI-SG-B483	PDI-SG-B484	PDI-SG-B485	PDI-SG-B486	PDI-SG-B487	PDI-SG-B488	PDI-SG-S266
		Sample Date	27 Jul 2018	27 Jul 2018	13 Jul 2018	27 Jul 2018	27 Jul 2018	28 Jul 2018	28 Jul 2018	28 Jul 2018	13 Jul 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Dioxin and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.041	0.018	0.025	0.023	0.031	0.028	0.014	0.014	0.010
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0089 JN	0.0032 JN	0.0052	0.0046	0.0056	0.0067 JN	0.0031 JN	0.0030 JN	0.0022 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00055 J+	0.00030 J+	0.00040 J+	0.00034 J+	0.00042 J+	0.00057 J+	0.00028 J+	0.00030 J+	0.00036 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00089 J	< 0.000023 U	0.00051 J+	0.00044 J+	0.00050 J+	0.00063 JN	0.00034 J+	0.00035 JN	0.00032 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0016 J	0.00027 J	0.00049 J	0.00037 J	0.00050 J	0.00075 J	0.00029 J	0.00028 JN	< 0.000089 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0021 J	0.00075 J	0.0018 J	0.0012 J	0.0018 JN	0.0017 J	0.00072 J	0.00081 JN	0.00055 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00076 J	0.00017 J	0.00038 J	0.00024 J	0.00031 J	0.00032 JN	0.00019 J	0.00022 J	< 0.000089 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0022 J	0.00054 J+	0.0013 J	0.00088 J	0.0013 J	0.0012 J	0.00071 J	0.00089 J	0.00056 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00012 U	0.00012 J+	0.00017 J+	0.00014 J+	0.00014 JN	< 0.000043 U	0.00019 J+	0.00029 JN	< 0.00084 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00060 J	0.00011 J	0.00024 JN	0.00017 J	0.00029 J	0.00017 J	0.00014 J	< 0.000087 U	0.00016 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00063 J	0.00010 J	0.00016 JN	0.00015 J	0.00018 J	< 0.000065 U	0.00012 J	< 0.000066 U	0.00024 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00075 J	0.00010 J	0.00024 J	0.00016 J	0.00018 J	0.00016 JN	0.00012 J	0.00016 J	0.00012 J+
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00097 J	0.000081 J	0.00017 JN	0.00014 J	0.00018 J	0.00023 J	0.00012 J	0.00014 J	0.00013 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00014 JN	< 0.000026 U	0.00013 JN	0.00015 JN	< 0.000031 U	0.00012 JN	0.00010 JN	0.00026 JN	0.00015 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00098 J+	0.00019 JN	0.00071 J	0.00029 J+	0.00081 J	0.00041 J+	0.00026 J+	0.00030 JN	< 0.00023 U
OCDD	3268-87-9	µg/kg	0.30	0.18	0.24	0.20	0.28	0.27	0.12	0.13	0.081
OCDF	39001-02-0	µg/kg	0.031	0.018	0.017	0.019	0.022	0.024	0.011	0.010	0.0066 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0026	0.00064	0.0014	0.0011	0.0014	0.0013	0.00077	0.00089	0.00071
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0025	0.00059	0.0011	0.001	0.0013	0.0011	0.00069	0.00048	0.00043
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0024	0.00057	0.00094	0.00093	0.0012	0.0011	0.00064	0.00035	0.00035
Polychlorinated Biphenyls (PCBs) Congeners											
PCB-1	2051-60-7	ng/g	0.0059 JN	< 0.00038 U	< 0.00040 U	< 0.00016 U	< 0.0016 U	< 0.00039 U	< 0.0040 U	< 0.00076 U	< 0.00014 U
PCB-10	33146-45-1	ng/g	< 0.00091 U	< 0.0024 U	< 0.0035 U	< 0.0031 U	< 0.0030 U	< 0.0032 U	< 0.0020 U	< 0.0023 U	< 0.0014 U
PCB-103	60145-21-3	ng/g	0.0019 J	< 0.00014 U	< 0.00036 U	< 0.00022 U	0.0054 JN	< 0.00018 U	< 0.000096 U	< 0.00016 U	< 0.00033 U
PCB-104	56558-16-8	ng/g	< 0.00024 U	< 0.00011 U	< 0.00027 U	< 0.00017 U	< 0.00013 U	< 0.00014 U	< 0.000073 U	< 0.00012 U	< 0.00025 U
PCB-105	32598-14-4	ng/g	0.049	0.0093 J+	0.042	0.016 J+	0.078	0.0094 JN	0.018 J+	0.011 JN	0.014 JN
PCB-106	70424-69-0	ng/g	< 0.0014 U	< 0.00048 U	< 0.0016 U	< 0.00090 U	< 0.00094 U	< 0.0011 U	< 0.00080 U	< 0.00071 U	< 0.00080 U
PCB-107	70424-68-9	ng/g	0.010	< 0.0014 U	0.014	0.0046 J+	0.020 JN	< 0.0012 U	0.0066 J+	0.0053 J+	0.0039 J
PCB-108/124	70362-41-3	ng/g	0.0057 J	< 0.00050 U	< 0.0016 U	< 0.00092 U	< 0.0051 U	< 0.0011 U	< 0.00082 U	< 0.0025 U	0.0016 JN
PCB-11	2050-67-1	ng/g	0.075	0.021 J+	0.062	0.037	0.026 JN	0.024 J+	0.026	0.024 JN	0.017 JN
PCB-110/115	38380-03-9	ng/g	0.18	0.038	0.16	0.052 JN	0.37	0.067	0.074	0.061	0.041
PCB-111	39635-32-0	ng/g	< 0.00022 U	< 0.00010 U	< 0.00025 U	< 0.00016 U	< 0.00012 U	< 0.00013 U	< 0.000068 U	< 0.00011 U	< 0.00023 U
PCB-112	74472-36-9	ng/g	0.065	< 0.00011 U	< 0.00026 U	< 0.00016 U	< 0.00012 U	< 0.00014 U	< 0.000071 U	< 0.00012 U	< 0.00024 U
PCB-114	74472-37-0	ng/g	< 0.0013 U	< 0.00043 U	< 0.0015 U	< 0.00083 U	0.0048 J+	< 0.0012 U	< 0.00076 U	< 0.00064 U	< 0.00074 U
PCB-118	31508-00-6	ng/g	0.12	0.024	0.11	0.043	0.24	0.037	0.045	0.039	0.037
PCB-12/13	2974-92-7	ng/g	0.0054 JN	< 0.0021 U	< 0.0032 U	< 0.0028 U	< 0.0027 U	< 0.0029 U	< 0.0018 U	< 0.0021 U	< 0.0013 U
PCB-120	68194-12-7	ng/g	< 0.00022 U	< 0.00010 U	< 0.00026 U	< 0.00074 U	< 0.0015 U	< 0.00013 U	< 0.000069 U	< 0.00011 U	< 0.00024 U
PCB-121	56558-18-0	ng/g	< 0.00023 U	< 0.00010 U	< 0.00026 U	< 0.00016 U	< 0.00012 U	< 0.00014 U	< 0.000071 U	< 0.00012 U	< 0.00024 U
PCB-122	76842-07-4	ng/g	< 0.0016 U	< 0.00056 U	< 0.0018 U	< 0.0010 U	< 0.0027 U	< 0.0013 U	< 0.00092 U	< 0.00082 U	< 0.00093 U
PCB-123	65510-44-3	ng/g	0.0025 JN	< 0.00046 U	< 0.0016 U	< 0.00087 U	< 0.0037 U	< 0.0010 U	< 0.0016 U	< 0.0012 U	0.0012 J+
PCB-126	57465-28-8	ng/g	< 0.0015 U	< 0.00065 U	< 0.0016 U	< 0.0010 U	< 0.0011 U	< 0.0010 U	< 0.00086 U	< 0.00079 U	< 0.00084 U
PCB-127	39635-33-1	ng/g	< 0.0014 U	< 0.00048 U	< 0.0016 U	< 0.00090 U	< 0.00094 U	< 0.0011 U	< 0.00080 U	< 0.00071 U	< 0.00080 U
PCB-128/166	38380-07-3	ng/g	0.040	0.0074 JN	0.032	0.014 JN	0.070	0.011 J+	0.018 J+	0.012 J+	0.011 J
PCB-129/138/160/163	55215-18-4	ng/g	0.38	0.073 J+	0.19	0.099	0.50	0.073 J+	0.12	0.083 J+	0.069
PCB-130	52663-66-8	ng/g	0.018	< 0.0037 U	0.012 JN	0.0073 J+	0.037	0.0043 JN	0.0053 J+	0.0057 JN	0.0049 J
PCB-131	61798-70-7	ng/g	< 0.0025 U	< 0.0012 U	< 0.0034 U	< 0.0021 U	< 0.0019 U	< 0.0017 U	< 0.0013 U	< 0.0011 U	< 0.0017 U
PCB-132	38380-05-1	ng/g	0.083	0.018 J+	0.047	0.018 JN	0.15	0.013 JN	0.025	0.019 J+	0.014
PCB-133	35694-04-3	ng/g	< 0.0022 U	< 0.0011 U	< 0.0031 U	< 0.0019 U	0.0089 JN	< 0.0015 U	< 0.0019 U	< 0.0010 U	< 0.0016 U
PCB-134/143	52704-70-8	ng/g	0.014 J	< 0.0011 U	0.0061 JN	< 0.0020 U	0.019 JN	< 0.0016 U	< 0.0044 U	< 0.0032 U	< 0.0016 U
PCB-135/151	52744-13-5	ng/g	0.15	0.027 J+	0.055	0.021 JN	0.16	0.022 JN	0.020 JN	0.022 JN	0.015 J
PCB-136	38411-22-2	ng/g	0.029	0.0086 J+	0.021	0.0078 J+	0.050	0.0055 JN	0.0063 J+	0.0065 J+	0.0039 J
PCB-137	35694-06-5	ng/g	0.0093 J	0.0034 J+	0.0079 J	< 0.0017 U	0.018 JN	< 0.0027 U	0.0049 J+	< 0.0026 U	0.0017 JN
PCB-139/140	56030-56-9	ng/g	< 0.0020 U	< 0.00094 U	< 0.0028 U	< 0.0017 U	< 0.0075 U	< 0.0014 U	< 0.0010 U	< 0.00090 U	< 0.0014 U
PCB-14	34883-41-5	ng/g	< 0.00070 U	< 0.0018 U	< 0.0027 U	< 0.0024 U	< 0.0023 U	< 0.0024 U	< 0.0015 U	< 0.0018 U	< 0.0011 U
PCB-141	52712-04-6	ng/g	0.079	0.014 JN	0.028	0.011 J+	0.076	0.0079 JN	0.014 JN	0.0097 JN	0.0091 JN
PCB-142	41411-61-4	ng/g	< 0.0022 U	< 0.0010 U	< 0.0031 U	< 0.0019 U	< 0.0017 U	< 0.0015 U	< 0.0011 U	< 0.0010 U	< 0.0016 U
PCB-144	68194-14-9	ng/g	0.014	0.0028 JN	0.0047 JN	< 0.000078 U	0.012	< 0.0016 U	0.0020 JN	0.0020 J+	0.0015 J
PCB-145	74472-40-5	ng/g	< 0.00025 U	< 0.000013 U	< 0.000082 U	< 0.000059 U	< 0.000070 U	< 0.000014 U	< 0.000015 U	< 0.0000095 U	< 0.00014 U
PCB-146	51908-16-8	ng/g	0.057	0.010 J+	0.029	0.015 J+	0.093	0.0078 J+	0.015 J+	0.012 J+	0.011
PCB-147/149	68194-13-8	ng/g	0.35	0.066	0.15	0.086	0.45	0.042 J+	0.070	0.060	0.040
PCB-148	74472-41-6	ng/g	< 0.00035 U	< 0.000019 U	< 0.00012 U	< 0.000083 U	< 0.000099 U	< 0.000019 U	< 0.000021 U	< 0.000013 U	< 0.00019 U
PCB-15	2050-68-2	ng/g	0.0058 J	0.0029 JN	0.011 JN	0.0054 J	0.015 JN	0.0077 JN	0.0058 J	0.0035 JN	0.0039 JN

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B481	B482	B483	B484	B485	B486	B487	B488	S266
		Sample ID	PDI-SG-B481	PDI-SG-B482	PDI-SG-B483	PDI-SG-B484	PDI-SG-B485	PDI-SG-B486	PDI-SG-B487	PDI-SG-B488	PDI-SG-S266
		Sample Date	27 Jul 2018	27 Jul 2018	13 Jul 2018	27 Jul 2018	27 Jul 2018	28 Jul 2018	28 Jul 2018	28 Jul 2018	13 Jul 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units									
PCB-150	68194-08-1	ng/g	0.00057 JN	< 0.000013 U	< 0.000078 U	0.0021 J	< 0.000067 U	< 0.000013 U	< 0.000014 U	< 0.0000091 U	< 0.00013 U
PCB-152	68194-09-2	ng/g	< 0.00025 U	< 0.000014 U	< 0.000084 U	< 0.000061 U	< 0.000072 U	< 0.000014 U	< 0.000016 U	< 0.0000098 U	< 0.00014 U
PCB-153/168	35065-27-1	ng/g	0.41	0.069	0.17	0.071	0.43	0.047 JN	0.083	0.069	0.049
PCB-154	60145-22-4	ng/g	0.0033 JN	< 0.00037 U	0.0021 JN	0.012	0.012	< 0.00085 U	0.0019 JN	< 0.00059 U	< 0.00015 U
PCB-155	33979-03-2	ng/g	< 0.00024 U	< 0.000013 U	< 0.000079 U	< 0.000057 U	< 0.000067 U	< 0.000013 U	< 0.000014 U	< 0.0000091 U	< 0.00013 U
PCB-156/157	38380-08-4	ng/g	0.025	< 0.0071 U	0.017 J	0.010 J+	0.051	0.010 J+	< 0.0096 U	< 0.0059 U	0.0068 J
PCB-158	74472-42-7	ng/g	0.028	0.0075 J+	0.015 JN	0.0076 J+	0.041	0.0062 J+	0.0093 J+	0.0071 J+	0.0054 JN
PCB-159	39635-35-3	ng/g	0.0038 J	< 0.00070 U	< 0.0021 U	< 0.0013 U	< 0.0011 U	< 0.0010 U	< 0.00076 U	< 0.00067 U	< 0.0010 U
PCB-16	38444-78-9	ng/g	0.0017 J	0.00065 JN	0.0043 JN	0.0039 J	0.0048 JN	0.0026 JN	0.0021 JN	0.0029 JN	0.0019 JN
PCB-161	74472-43-8	ng/g	< 0.0015 U	< 0.00070 U	< 0.0021 U	< 0.0013 U	< 0.0011 U	< 0.0010 U	< 0.00075 U	< 0.00067 U	< 0.0010 U
PCB-162	39635-34-2	ng/g	< 0.0015 U	< 0.00069 U	< 0.0020 U	< 0.0013 U	< 0.0011 U	< 0.0010 U	< 0.00074 U	< 0.00066 U	< 0.0010 U
PCB-164	74472-45-0	ng/g	0.027	0.0058 JN	0.012 JN	0.0059 JN	0.034	< 0.0011 U	0.0062 J+	0.0054 J+	0.0042 J
PCB-165	74472-46-1	ng/g	< 0.0017 U	< 0.00079 U	< 0.0023 U	< 0.0014 U	< 0.0013 U	< 0.0011 U	< 0.00085 U	< 0.00076 U	< 0.0012 U
PCB-167	52663-72-6	ng/g	0.0088 J	< 0.0026 U	0.0068 J	< 0.0029 U	0.017 J+	< 0.0031 U	< 0.0039 U	< 0.0026 U	0.0033 J
PCB-169	32774-16-6	ng/g	< 0.0013 U	< 0.00048 U	< 0.0015 U	< 0.00094 U	< 0.00083 U	< 0.00069 U	< 0.00057 U	< 0.00048 U	< 0.00076 U
PCB-17	37680-66-3	ng/g	0.0051 J	0.0022 JN	0.012	0.0060 J	0.012 JN	0.0036 J+	0.0042 JN	0.0032 J+	0.0026 J
PCB-170	35065-30-6	ng/g	0.15	0.028	0.051	0.021 JN	0.12	0.029	0.025 J+	0.021 J+	0.019
PCB-171/173	52663-71-5	ng/g	0.040	< 0.0082 U	0.014 J	< 0.0089 U	0.042 J+	< 0.0080 U	< 0.0068 U	< 0.0076 U	0.0050 JN
PCB-172	52663-74-8	ng/g	0.029	0.0065 J+	0.0090 J	< 0.0047 U	0.019 JN	< 0.0048 U	< 0.0053 U	< 0.0037 U	0.0042 JN
PCB-174	38411-25-5	ng/g	0.19	0.030	0.045	0.025	0.12	0.022	0.022	0.023	0.018
PCB-175	40186-70-7	ng/g	0.0058 J	< 0.00028 U	0.0010 JN	< 0.0013 U	< 0.00018 U	< 0.00098 U	< 0.0012 U	< 0.0012 U	< 0.00092 U
PCB-176	52663-65-7	ng/g	0.015	0.0027 J+	0.0044 J	0.0029 J+	< 0.00014 U	< 0.0014 U	< 0.0019 U	0.0025 JN	0.0021 J
PCB-177	52663-70-4	ng/g	0.11	0.016	0.028	0.016	0.062 JN	0.016	0.015 JN	0.011 JN	0.011
PCB-178	52663-67-9	ng/g	0.043	0.0065 JN	0.012	0.0069 J+	0.027	< 0.0037 U	0.0077 J+	< 0.0052 U	0.0050 J
PCB-179	52663-64-6	ng/g	0.088	0.012 J+	0.022	0.014 J+	0.055	0.0091 JN	0.0080 JN	0.0090 J+	0.0075 J
PCB-18/30	37680-65-2	ng/g	0.010 J	0.0036 J+	0.017 J	0.0079 J+	0.018 JN	0.0057 JN	0.0086 J+	0.0093 J+	0.0043 JN
PCB-180/193	35065-29-3	ng/g	0.38	0.068	0.096	0.052 J+	0.24	0.053 J+	0.056	0.047 J+	0.040
PCB-181	74472-47-2	ng/g	< 0.00092 U	< 0.00028 U	< 0.00053 U	< 0.00037 U	< 0.00018 U	< 0.00026 U	< 0.00019 U	< 0.00037 U	< 0.00091 U
PCB-182	60145-23-5	ng/g	< 0.00089 U	< 0.00027 U	< 0.00051 U	< 0.0015 U	< 0.0025 U	< 0.00025 U	< 0.00018 U	< 0.00036 U	< 0.00088 U
PCB-183/185	52663-69-1	ng/g	0.11	0.018 J+	0.032	0.016 J+	0.077	0.018 J+	0.017 J+	0.015 J+	0.012 J
PCB-184	74472-48-3	ng/g	< 0.00075 U	< 0.00023 U	< 0.00043 U	< 0.00030 U	0.015 JN	< 0.00021 U	< 0.00015 U	< 0.00031 U	< 0.00075 U
PCB-186	74472-49-4	ng/g	< 0.00073 U	< 0.00023 U	< 0.00042 U	< 0.00029 U	< 0.00014 U	< 0.00021 U	< 0.00015 U	< 0.00030 U	< 0.00073 U
PCB-187	52663-68-0	ng/g	0.28	0.034 JN	0.064	0.046	0.16	0.030 JN	0.037	0.034	0.025
PCB-188	74487-85-7	ng/g	< 0.00063 U	< 0.00020 U	< 0.00036 U	< 0.0019 U	< 0.00012 U	< 0.00018 U	< 0.00013 U	< 0.00026 U	< 0.00065 U
PCB-189	39635-31-9	ng/g	< 0.0019 U	< 0.00027 U	0.0026 JN	< 0.00098 U	< 0.0011 U	< 0.00070 U	< 0.0011 U	< 0.00045 U	< 0.0012 U
PCB-19	38444-73-4	ng/g	0.0012 JN	< 0.00017 U	< 0.0010 U	< 0.00017 U	0.0030 JN	< 0.00014 U	0.0010 JN	< 0.00014 U	< 0.00026 U
PCB-190	41411-64-7	ng/g	0.038	< 0.0035 U	0.0082 JN	0.0045 JN	0.021 J+	0.0079 J+	0.0055 J+	< 0.0041 U	0.0039 JN
PCB-191	74472-50-7	ng/g	< 0.00069 U	< 0.0012 U	< 0.00040 U	< 0.00089 U	< 0.0043 U	< 0.00019 U	< 0.0014 U	< 0.00085 U	< 0.00069 U
PCB-192	74472-51-8	ng/g	< 0.00077 U	< 0.00024 U	< 0.00045 U	< 0.00031 U	< 0.00015 U	< 0.00022 U	< 0.00016 U	< 0.00031 U	< 0.00077 U
PCB-194	35694-08-7	ng/g	0.098	0.016 J+	0.026	0.017 J+	0.052	0.011 J+	0.013 J+	0.011 JN	0.0095 JN
PCB-195	52663-78-2	ng/g	0.048	< 0.0045 U	0.0065 JN	0.0063 J+	0.024	< 0.0039 U	< 0.0045 U	< 0.0038 U	0.0065 J
PCB-196	42740-50-1	ng/g	0.041	0.0070 JN	0.013	0.0071 JN	0.023 J+	< 0.0043 U	< 0.0037 U	0.0059 JN	0.0043 J+
PCB-197	33091-17-7	ng/g	0.0018 JN	< 0.000050 U	0.0014 JN	< 0.00053 U	< 0.0016 U	< 0.000042 U	< 0.000029 U	< 0.000069 U	< 0.00023 U
PCB-198/199	68194-17-2	ng/g	0.11	0.018 J+	0.028 JN	0.024 JN	0.056	0.015 JN	0.018 J+	0.017 J+	0.011 J
PCB-2	2051-61-8	ng/g	0.023	< 0.0023 U	0.0078 J	0.0052 J+	0.0040 J+	< 0.0014 U	0.0063 J+	0.0040 J+	0.0014 J+
PCB-20/28	38444-84-7	ng/g	0.023	0.0082 J+	0.044	0.019 J+	0.046	0.011 J+	0.025	0.016 J+	0.016 J
PCB-200	52663-73-7	ng/g	0.013	< 0.0014 U	0.0037 JN	< 0.0013 U	0.0051 JN	< 0.0011 U	< 0.0016 U	< 0.0016 U	< 0.00020 U
PCB-201	40186-71-8	ng/g	0.010	< 0.0019 U	0.0023 JN	< 0.0027 U	0.0069 J+	< 0.0011 U	< 0.016 U	< 0.0016 U	0.0010 J
PCB-202	2136-99-4	ng/g	0.022	0.0029 JN	0.0044 JN	0.0077 J	0.0097	0.0046 J	0.0032 JN	0.0034 J	0.0022 JN
PCB-203	52663-76-0	ng/g	0.067	0.011 J+	0.020	0.0095 J+	0.032	0.010 J+	0.0091 J+	0.0083 JN	0.0079 J
PCB-204	74472-52-9	ng/g	< 0.00059 U	< 0.000050 U	< 0.000079 U	< 0.000093 U	< 0.000064 U	< 0.000042 U	< 0.000029 U	< 0.000070 U	< 0.00023 U
PCB-205	74472-53-0	ng/g	0.0055 J	< 0.00085 U	< 0.00093 U	< 0.00041 U	< 0.0015 U	< 0.00094 U	< 0.00020 U	< 0.00089 U	< 0.00094 U
PCB-206	40186-72-9	ng/g	0.063	0.012 J+	0.016 JN	0.025 J+	0.023 J+	0.010 J+	0.011 J+	0.0074 JN	0.0082 JN
PCB-207	52663-79-3	ng/g	0.0051 JN	< 0.0017 U	< 0.00042 U	0.0036 J+	0.0032 JN	< 0.00046 U	< 0.00061 U	< 0.0018 U	< 0.0012 U
PCB-208	52663-77-1	ng/g	0.023	< 0.0045 U	0.0061 J	0.011 J+	0.0072 J+	< 0.0023 U	< 0.0036 U	< 0.0038 U	0.0028 JN
PCB-209	2051-24-3	ng/g	0.10	0.016 JN	0.028 JN	0.034	0.051	0.022 JN	0.022 J+	0.018 J+	0.014 JN
PCB-21/33	55702-46-0	ng/g	0.0091 J	0.0035 J+	0.015 JN	0.0077 J+	0.014 JN	0.0027 J+	0.0072 J+	0.0061 J+	0.0034 JN
PCB-22	38444-85-8	ng/g	0.0072 J	0.0017 JN	0.0076 J	0.0051 JN	0.011	0.0032 JN	0.0048 J+	0.0041 J+	0.0040 J

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B481	B482	B483	B484	B485	B486	B487	B488	S266
		Sample ID	PDI-SG-B481	PDI-SG-B482	PDI-SG-B483	PDI-SG-B484	PDI-SG-B485	PDI-SG-B486	PDI-SG-B487	PDI-SG-B488	PDI-SG-S266
		Sample Date	27 Jul 2018	27 Jul 2018	13 Jul 2018	27 Jul 2018	27 Jul 2018	28 Jul 2018	28 Jul 2018	28 Jul 2018	13 Jul 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm
Chemical	CAS_RN	Units									
PCB-23	55720-44-0	ng/g	< 0.00060 U	< 0.00025 U	< 0.0012 U	< 0.00046 U	< 0.00063 U	< 0.00022 U	< 0.00058 U	< 0.00035 U	< 0.00040 U
PCB-24	55702-45-9	ng/g	< 0.00015 U	< 0.00011 U	< 0.00069 U	< 0.00012 U	< 0.00016 U	< 0.000093 U	0.00053 J	< 0.000098 U	< 0.00018 U
PCB-25	55712-37-3	ng/g	0.0015 JN	< 0.00083 U	0.0037 JN	< 0.00042 U	0.0037 JN	0.0017 JN	0.0027 JN	0.0013 J+	0.0012 JN
PCB-26/29	38444-81-4	ng/g	0.0037 J	< 0.00091 U	0.0056 J	0.0032 J+	0.0069 J+	< 0.00021 U	0.0041 JN	0.0020 JN	0.0018 JN
PCB-27	38444-76-7	ng/g	0.0015 J	< 0.000099 U	0.0025 J	0.0013 J	0.0016 JN	0.00078 JN	< 0.000059 U	0.00046 JN	0.00083 JN
PCB-3	2051-62-9	ng/g	0.019	< 0.0011 U	< 0.00051 U	< 0.00099 U	< 0.0016 U	< 0.00010 U	< 0.0039 U	< 0.00092 U	< 0.00020 U
PCB-31	16606-02-3	ng/g	0.017 J	0.0062 J+	0.024	0.017 J	0.030	0.0072 JN	0.014 JN	0.011 JN	0.012 J
PCB-32	38444-77-8	ng/g	0.0030 JN	0.00092 J	0.0085 J	0.0035 J	0.0077 J	0.0030 JN	0.0032 J	0.0030 J	0.0026 J+
PCB-34	37680-68-5	ng/g	< 0.00062 U	< 0.00026 U	< 0.0012 U	< 0.00048 U	0.0011 J+	< 0.00022 U	< 0.00061 U	< 0.00037 U	< 0.00042 U
PCB-35	37680-69-6	ng/g	0.0020 JN	< 0.00025 U	< 0.0012 U	< 0.00047 U	< 0.00063 U	< 0.00022 U	< 0.00059 U	< 0.00036 U	< 0.00041 U
PCB-36	38444-87-0	ng/g	< 0.00058 U	< 0.00024 U	< 0.0011 U	< 0.00045 U	< 0.00061 U	< 0.00021 U	< 0.00057 U	< 0.00034 U	< 0.00039 U
PCB-37	38444-90-5	ng/g	0.0084 JN	0.0030 J+	0.014	0.0053 J+	0.014	< 0.0014 U	0.0036 J+	0.0051 J+	0.0049 J
PCB-38	53555-66-1	ng/g	< 0.00062 U	< 0.00026 U	< 0.0012 U	< 0.00048 U	< 0.00066 U	< 0.00023 U	< 0.00061 U	< 0.00037 U	< 0.00042 U
PCB-39	38444-88-1	ng/g	< 0.00056 U	< 0.00023 U	< 0.0011 U	< 0.00043 U	< 0.00059 U	< 0.00020 U	< 0.00055 U	< 0.00033 U	< 0.00038 U
PCB-4	13029-08-8	ng/g	0.0042 JN	< 0.0029 U	0.0042 JN	0.0050 J	0.0048 JN	< 0.0037 U	0.0029 JN	< 0.0027 U	0.0018 JN
PCB-40/41/71	38444-93-8	ng/g	0.012 J	< 0.0044 U	0.030	0.013 J+	0.035 JN	0.0082 JN	0.0093 J+	< 0.0078 U	0.0072 J
PCB-42	36559-22-5	ng/g	0.0072 J	0.0034 J+	0.017	0.0060 J+	0.026	0.0042 JN	0.0053 JN	0.0062 J+	0.0047 JN
PCB-43/73	70362-46-8	ng/g	< 0.0014 U	< 0.00055 U	0.0015 JN	< 0.00087 U	< 0.0016 U	< 0.00092 U	< 0.00085 U	< 0.00065 U	< 0.00085 U
PCB-44/47/65	41464-39-5	ng/g	0.040	0.013 J+	0.071	0.033 J+	0.10	0.022 J+	0.020 JN	0.028 J+	0.023 J+
PCB-45/51	70362-45-7	ng/g	< 0.0015 U	< 0.00061 U	0.011 J	< 0.0040 U	0.011 JN	< 0.0027 U	< 0.00095 U	< 0.0040 U	0.0033 JN
PCB-46	41464-47-5	ng/g	< 0.0018 U	< 0.00074 U	0.0034 JN	< 0.0012 U	< 0.0026 U	< 0.0012 U	< 0.0011 U	< 0.00088 U	< 0.0011 U
PCB-48	70362-47-9	ng/g	0.0045 J	< 0.0016 U	0.011	0.0044 J+	0.011 J+	0.0027 JN	< 0.0025 U	0.0027 JN	0.0021 JN
PCB-49/69	41464-40-8	ng/g	0.028	0.0062 JN	0.052	0.020	0.073	0.015 JN	0.018 J+	0.016 J+	0.014 J
PCB-5	16605-91-7	ng/g	< 0.00092 U	< 0.0024 U	< 0.0035 U	< 0.0031 U	< 0.0030 U	< 0.0032 U	< 0.0020 U	< 0.0023 U	< 0.0015 U
PCB-50/53	62796-65-0	ng/g	0.0031 JN	< 0.0015 U	0.0054 JN	0.0037 J+	0.0077 JN	< 0.0020 U	0.0034 J+	< 0.0019 U	0.0028 J
PCB-52	35693-99-3	ng/g	0.075	0.017	0.082	0.033	0.14	0.028	0.032	0.026	0.024
PCB-54	15968-05-5	ng/g	< 0.00013 U	< 0.000013 U	< 0.000021 U	< 0.000015 U	< 0.000014 U	< 0.000016 U	< 0.000010 U	< 0.000012 U	< 0.000025 U
PCB-55	74338-24-2	ng/g	< 0.0011 U	< 0.00043 U	0.0033 JN	< 0.00068 U	< 0.0012 U	< 0.00071 U	< 0.00066 U	< 0.0010 U	< 0.00066 U
PCB-56	41464-43-1	ng/g	0.010 JN	0.0052 J+	0.026	0.0093 J+	0.038	0.0083 J+	0.010 J+	0.0094 J+	0.0061 JN
PCB-57	70424-67-8	ng/g	< 0.0011 U	< 0.00043 U	< 0.00014 U	< 0.00069 U	< 0.0012 U	< 0.00072 U	< 0.00067 U	< 0.00051 U	< 0.00067 U
PCB-58	41464-49-7	ng/g	< 0.0011 U	< 0.00044 U	< 0.00014 U	< 0.00070 U	0.0066 J	< 0.00073 U	< 0.00068 U	< 0.00095 U	< 0.00068 U
PCB-59/62/75	74472-33-6	ng/g	0.0021 JN	< 0.00041 U	0.0057 JN	0.0023 J+	0.0080 J	< 0.00069 U	< 0.00064 U	0.0020 J+	0.0018 J
PCB-6	25569-80-6	ng/g	0.0017 JN	< 0.0021 U	< 0.0031 U	< 0.0028 U	< 0.0027 U	< 0.0028 U	0.0020 JN	< 0.0021 U	< 0.0013 U
PCB-60	33025-41-1	ng/g	< 0.0011 U	< 0.0022 U	0.0069 JN	0.0062 J+	0.0093 JN	0.0033 JN	0.0039 JN	0.0036 J+	0.0034 J
PCB-61/70/74/76	33284-53-6	ng/g	0.075	0.025 J+	0.11	0.047 J+	0.18	0.042 J+	0.046 J+	0.038 J+	0.036 J
PCB-63	74472-34-7	ng/g	< 0.00098 U	< 0.00040 U	0.0020 JN	< 0.00063 U	0.0035 JN	< 0.00066 U	< 0.00061 U	< 0.00047 U	< 0.00061 U
PCB-64	52663-58-8	ng/g	0.016	0.0052 J+	0.025	0.0099 J+	0.035	0.0079 J	0.0078 J+	0.0082 JN	0.0078 J
PCB-66	32598-10-0	ng/g	0.037	0.016	0.074	0.028	0.12	0.026	0.029	0.028	0.023
PCB-67	73575-53-8	ng/g	< 0.00093 U	< 0.00037 U	0.0015 JN	< 0.00060 U	< 0.0011 U	< 0.00063 U	< 0.00058 U	< 0.00044 U	< 0.00058 U
PCB-68	73575-52-7	ng/g	< 0.00095 U	< 0.00038 U	0.0025 J+	< 0.00061 U	0.0030 J+	< 0.00064 U	< 0.00059 U	< 0.00046 U	< 0.00059 U
PCB-7	33284-50-3	ng/g	0.0011 JN	< 0.0022 U	< 0.0032 U	< 0.0028 U	< 0.0027 U	< 0.0029 U	< 0.0018 U	< 0.0021 U	< 0.0013 U
PCB-72	41464-42-0	ng/g	< 0.0010 U	< 0.00042 U	0.0015 JN	< 0.00068 U	0.0038 J+	< 0.00071 U	< 0.00066 U	< 0.00050 U	< 0.00065 U
PCB-77	32598-13-3	ng/g	0.0043 J	0.0025 J	0.0078 JN	0.0034 JN	0.0093 JN	0.0030 JN	0.0039 J	0.0025 J	0.0035 J
PCB-78	70362-49-1	ng/g	< 0.0011 U	< 0.00044 U	< 0.00014 U	< 0.00070 U	< 0.0012 U	< 0.00073 U	< 0.00068 U	< 0.00052 U	< 0.00067 U
PCB-79	41464-48-6	ng/g	< 0.00094 U	< 0.00038 U	0.0020 JN	< 0.00060 U	< 0.0028 U	< 0.00064 U	< 0.00059 U	< 0.00045 U	< 0.00058 U
PCB-8	34883-43-7	ng/g	0.0052 JN	0.0027 JN	0.0084 JN	0.0051 JN	0.010 J	0.0046 JN	0.0034 JN	0.0057 J	0.0022 JN
PCB-80	33284-52-5	ng/g	< 0.00092 U	< 0.00037 U	< 0.00012 U	< 0.00059 U	< 0.0011 U	< 0.00062 U	< 0.00058 U	< 0.00044 U	< 0.00057 U
PCB-81	70362-50-4	ng/g	< 0.0010 U	< 0.00038 U	< 0.00013 U	< 0.00064 U	< 0.0011 U	< 0.00065 U	< 0.00061 U	< 0.00048 U	< 0.00061 U
PCB-82	52663-62-4	ng/g	0.016	< 0.0029 U	0.012 JN	0.0042 JN	0.030	0.0054 JN	0.0067 J+	0.0041 JN	0.0038 J
PCB-83/99	60145-20-2	ng/g	< 0.00033 U	0.019	0.11	0.033 JN	0.23	0.034 JN	0.042	0.039	0.023
PCB-84	52663-60-2	ng/g	0.032	0.0045 JN	0.034	0.0091 J	0.063	0.0080 JN	0.012 JN	0.010 JN	0.0073 J
PCB-85/116/117	65510-45-4	ng/g	0.028 J	< 0.0060 U	0.028 J	0.0082 JN	0.050	0.014 JN	0.016 JN	0.0093 JN	0.0088 J
PCB-86/87/97/109/119/125	55312-69-1	ng/g	0.097	0.018 J+	0.087	0.027 JN	0.18	0.032 J+	0.038 J+	0.028 J+	0.021 J
PCB-88/91	55215-17-3	ng/g	0.021	0.0017 JN	0.023 JN	0.0069 JN	0.050	0.0075 J	0.0074 J	0.0094 J	0.0059 J
PCB-89	73575-57-2	ng/g	< 0.00035 U	< 0.00016 U	< 0.00040 U	< 0.00025 U	< 0.00019 U	< 0.00021 U	< 0.00011 U	< 0.00018 U	< 0.00037 U
PCB-9	34883-39-1	ng/g	0.0012 JN	< 0.0022 U	< 0.0033 U	< 0.0029 U	< 0.0028 U	< 0.0030 U	< 0.0019 U	< 0.0022 U	< 0.0014 U
PCB-90/101/113	68194-07-0	ng/g	0.15	0.035 J+	0.15	0.050 J+	0.34	0.054 J+	0.063	0.052 J+	0.035
PCB-92	52663-61-3	ng/g	0.020 J-	0.0053 J+	0.023 JN	0.0066 JN	0.063	0.0066 JN	0.0097 JN	0.010 J+	0.0069 J

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B481	B482	B483	B484	B485	B486	B487	B488	S266
		Sample ID	PDI-SG-B481	PDI-SG-B482	PDI-SG-B483	PDI-SG-B484	PDI-SG-B485	PDI-SG-B486	PDI-SG-B487	PDI-SG-B488	PDI-SG-S266
		Sample Date	27 Jul 2018	27 Jul 2018	13 Jul 2018	27 Jul 2018	27 Jul 2018	28 Jul 2018	28 Jul 2018	28 Jul 2018	13 Jul 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
PCB-93/100	73575-56-1	ng/g	0.0028 J	< 0.00014 U	< 0.00036 U	0.0038 JN	0.017 J	< 0.00018 U	0.0051 JN	< 0.0016 U	0.00083 JN
PCB-94	73575-55-0	ng/g	< 0.00035 U	< 0.00016 U	< 0.00040 U	< 0.00025 U	< 0.00019 U	< 0.00021 U	< 0.00011 U	< 0.00018 U	< 0.00037 U
PCB-95	38379-99-6	ng/g	0.12	0.024	0.10	0.031 JN	0.23	0.034	0.042	0.032	0.024
PCB-96	73575-54-9	ng/g	< 0.00027 U	< 0.00012 U	< 0.00031 U	< 0.00019 U	< 0.00014 U	< 0.00050 U	< 0.000082 U	< 0.00014 U	< 0.00028 U
PCB-98/102	60233-25-2	ng/g	0.0034 JN	< 0.00014 U	0.0053 JN	< 0.0022 U	0.0071 J+	< 0.0017 U	< 0.0012 U	< 0.0012 U	0.00097 JN
Total PCBs (b)	T_PCBCg (PDI)	ng/g	5.3	1.0	3.1	1.4	6.5	1.1	1.4	1.1	1.0
Pesticides											
2,4-DDD	53-19-0	µg/kg	< 0.34 UJ	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 UJ	< 0.35 UJ
2,4-DDE	3424-82-6	µg/kg	< 0.34 U	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 UJ	< 0.35 U
2,4-DDT	789-02-6	µg/kg	< 0.34 U	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 U	< 0.35 U
4,4'-DDD	72-54-8	µg/kg	0.46	0.23 J	0.51	0.33 J	0.44	0.46	0.41	0.27 J	0.31 J
4,4'-DDE	72-55-9	µg/kg	0.63 J	0.33	1.4 J	0.49	0.79	0.60	0.55	0.35 J	0.42 J
4,4'-DDT	50-29-3	µg/kg	< 0.34 U	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 U	< 0.35 U
Aldrin	309-00-2	µg/kg	< 0.34 U	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 U	< 0.35 U
alpha-Chlordane	5103-71-9	µg/kg	< 0.68 U	< 0.64 U	< 0.79 U	< 0.69 U	< 0.72 U	< 0.76 U	< 0.69 U	< 0.63 U	< 0.70 U
cis-Nonachlor	5103-73-1	µg/kg	< 0.34 U	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 U	< 0.35 U
Dieldrin	60-57-1	µg/kg	< 0.68 UJ	< 0.64 U	< 0.79 U	< 0.69 U	< 0.72 U	< 0.76 U	< 0.69 U	< 0.63 UJ	< 0.70 UJ
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.34 U	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 U	< 0.35 U
gamma-Chlordane	5566-34-7	µg/kg	< 0.68 U	< 0.64 U	< 0.79 U	< 0.69 U	< 0.72 U	< 0.76 U	< 0.69 U	< 0.63 U	< 0.70 U
Heptachlor	76-44-8	µg/kg	< 0.34 U	< 0.32 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.38 U	< 0.35 U	< 0.32 U	< 0.35 U
Oxychlordane	27304-13-8	µg/kg	< 0.68 U	< 0.64 U	< 0.79 U	< 0.69 U	< 0.72 U	< 0.76 U	< 0.69 U	< 0.63 U	< 0.70 U
trans-Nonachlor	39765-80-5	µg/kg	< 0.68 U	< 0.64 U	< 0.79 U	< 0.69 U	< 0.72 U	< 0.76 U	< 0.69 U	< 0.63 U	< 0.70 U
DDx (b)	T_DDx (PDI)	µg/kg	1.3	0.72	2.1	1.0	1.4	1.3	1.1	0.78	0.91
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 0.68 U	< 0.64 U	< 0.79 U	< 0.69 U	< 0.72 U	< 0.76 U	< 0.69 U	< 0.63 U	< 0.7 U
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	< 42 U	< 39 U	5.4 J	< 42 U	< 46 U	< 46 U	< 43 U	< 35 U	1.8 J
Acenaphthene	83-32-9	µg/kg	< 42 U	< 39 U	< 40 U	< 42 U	< 46 U	< 46 U	< 43 U	< 35 U	< 17 U
Acenaphthylene	208-96-8	µg/kg	< 42 U	< 39 U	8.9 J	< 42 U	< 46 U	< 46 U	< 43 U	< 35 U	< 17 U
Anthracene	120-12-7	µg/kg	< 42 UJ	< 39 U	6.3 J	< 42 U	< 46 U	< 46 U	< 43 U	< 35 U	< 17 UJ
Benz(a)anthracene	56-55-3	µg/kg	23 J	< 39 U	9.6 J	9.1 J	12 J	7.4 J	< 43 U	6.2 J	3.7 J
Benzo(a)pyrene	50-32-8	µg/kg	22 J	< 39 U	< 40 U	< 42 U	13 J	< 46 U	8.6 J	< 35 U	4.8 J
Benzo(b)fluoranthene	205-99-2	µg/kg	40 J	< 39 U	15 J	11 J	15 J	< 46 U	6.2 J	8.3 J	6.4 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	20 J	< 39 U	< 40 U	6.2 J	6.6 J	< 46 U	4.7 J	< 35 U	2.9 J
Benzo(k)fluoranthene	207-08-9	µg/kg	14 J	< 39 U	< 40 U	< 42 U	< 46 U	< 46 U	< 43 U	< 35 U	3.0 J
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	< 2700 U	< 1100 U	< 1300 U	< 1200 U	< 1400 U	< 1400 U	< 1100 U	< 960 U	< 2600 U
Chrysene	218-01-9	µg/kg	25 J	< 39 U	< 40 U	14 J	18 J	< 46 U	< 43 U	25 J	6.5 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	< 42 U	< 39 U	< 40 U	< 42 U	< 46 U	< 46 U	< 43 U	< 35 U	< 17 U
Fluoranthene	206-44-0	µg/kg	43	22 J	27 J	24 J	66	13 J	< 43 U	17 J	10 J
Fluorene	86-73-7	µg/kg	< 42 U	< 39 U	7.3 J	< 42 U	< 46 U	< 46 U	< 43 U	< 35 U	< 17 U
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	18 J	< 39 U	< 40 U	9.3 J	< 46 U	< 46 U	8.9 J	< 35 U	3.5 J
Naphthalene	91-20-3	µg/kg	< 42 U	10 J	33 J	9.9 J	15 J	< 46 U	8.3 J	9.5 J	3.7 J
Phenanthrene	85-01-8	µg/kg	35 J	13 J	21 J	13 J	27 J	< 46 U	6.4 J	10 J	< 17 U
Pyrene	129-00-0	µg/kg	31 J	19 J	26 J	22 J	58	13 J	10 J	15 J	9.1 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	313	103	200	161	277	102	96	126	72
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	51	< 39 U	22	24	39	24	32	19	15
Metals											
Arsenic	7440-38-2	mg/kg	3.9	3.9	3.9	4.5	4.7	4.5	4.1	4.2	4.0
Cadmium	7440-43-9	mg/kg	0.15 J	0.14 J	0.14 J	0.14 J	0.19 J	0.16 J	0.12 J	0.10 J	0.12 J
Copper	7440-50-8	mg/kg	33	29	28	34	36	30	26	29	49
Lead	7439-92-1	mg/kg	10	7.9	7.7	7.5	9.4	6.8	6.1	6.4	9.1
Mercury	7439-97-6	mg/kg	0.052 J	0.034 J	0.053 J	0.032 J	0.037 J	0.038 J	0.034 J	0.031 J	0.049 J
Tri-n-butyltin	36643-28-4	µg/kg	< 140 U	< 130 U	< 62 U	< 130 U	< 150 U	< 140 U	< 130 U	< 130 U	< 120 U
Zinc	7440-66-6	mg/kg	97	80	78	89	99	87	83	80	88
TPH											
TPH-Diesel Range Organics	68334-30-5	mg/kg	360 J	35 J	75 J	55 J	61 J	69 J	72 J	34 J	60 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	1700	160	330	270	220	300	290	150	290
Other											
Total Solids@104C - D2216 (f)	TSOLID	%	55.1	58.0	59.2	52.9	49.0	49.4	53.3	58.6	57.5

Table A.1a-4. Chemical Results for PDI Surface Sediment Samples - Upriver Reach

		Location	B481	B482	B483	B484	B485	B486	B487	B488	S266
		Sample ID	PDI-SG-B481	PDI-SG-B482	PDI-SG-B483	PDI-SG-B484	PDI-SG-B485	PDI-SG-B486	PDI-SG-B487	PDI-SG-B488	PDI-SG-S266
		Sample Date	27 Jul 2018	27 Jul 2018	13 Jul 2018	27 Jul 2018	27 Jul 2018	28 Jul 2018	28 Jul 2018	28 Jul 2018	13 Jul 2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-15 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-30 cm	0-26 cm	0-30 cm	0-29 cm
Chemical	**CAS_RN**	**Units**									
Total Solids@104C - E160.3M (g)	TSOLID	%	56.6	57.8	50.2	53.8	52.6	50.1	54.8	58.6	55.9
Total Solids@70C	TSOLID70	%	57	59	50	54	54	53	56	61	69
Gravel	GS-Gravel	%	1.9	0	0	0	0	0	0	0	0.1
Sand, Coarse	GS-Csand	%	0.8	0.1	0.1	0.1	0	0	0.1	0	0
Sand, Medium	GS-Msand	%	2.1	0.3	0.2	0.1	0.2	0.3	0.5	0.2	0.3
Sand, Fine (#200) (d)	GS-Fsand-200	%	57.15	59.63	39.38	47.89	37.72	48.19	56.43	47.23	65.32
Sand, Fine (#230) (d)	GS-Fsand	%	66.0	65.3	45.8	51.5	43.0	53.0	59.7	51.4	70.3
Silt (#200) (d)	GS-Silt-200	%	32.14	34.56	54.51	44.70	54.77	42.90	37.16	46.16	29.17
Silt (#230) (d)	GS-Silt	%	23.3	28.9	48.1	41.1	49.5	38.1	33.9	42.0	24.2
Clay	GS-Clay	%	5.9	5.5	5.8	7.2	7.3	8.6	5.8	6.4	5.0
Percent Fines (e)	GS-FINES	%	38.04	40.06	60.31	51.9	62.07	51.5	42.96	52.56	34.17
Liquid Limit	GS-LL	None			57		52				
Plasticity Index	GS-PI	None			20		16				
Plasticity Limit	GS-PL	None			37		36				
Total Organic Carbon	TOC	mg/kg	41000	14000	16000	19000	23000	26000	22000	16000	9500

Notes:

a. Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

f. Multiple results were reported for Total Solids@104, depending on lab and analyte group.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
cm = centimeter
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
ng/g = nanogram per gram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S002	SC-S002	SC-S002	SC-S004	SC-S004	SC-S004	SC-S004	SC-S004	SC-S004	SC-S007
			Sample ID	PDI-SC-S002-0TO2	PDI-SC-S002-2TO4	PDI-SC-S002-4TO6.5	PDI-SC-S004-0TO2	PDI-SC-S004-2TO4	PDI-SC-S004-4TO6	PDI-SC-S004-6TO7.3	PDI-SC-S004-7.3TO9.1	PDI-SC-S004-9.1TO10.3	PDI-SC-S007-0TO2
			Sample Date	7/26/2018	7/26/2018	7/26/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-2 ft	2-4 ft	4-6.5 ft	0-2 ft	2-4 ft	4-6 ft	6-7.3 ft	7.3-9.1 ft	9.1-10.3 ft	0-2 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.0020 J	0.0010 J	0.00095 J	0.11	0.0019 J	0.0022 J	0.0014 J	0.0013 J	0.00071 J	0.078
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.000065 J+	< 0.000048 U	0.000057 J+	0.015	0.00021 J	0.00016 J	0.000095 J	0.000079 JN	0.000068 J	0.015
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		< 0.000015 U	< 0.000026 U	< 0.000025 U	0.0012 J	0.00013 JN	0.00013 J+	< 0.00010 U	< 0.000089 U	< 0.000086 U	0.00091 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		< 0.00014 U	< 0.000047 U	< 0.00012 U	0.0011 J	0.00016 J+	0.00013 J+	0.00013 JN	< 0.000088 U	< 0.00010 U	0.00089 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		< 0.000030 U	< 0.000041 U	< 0.000044 U	0.0028 J	0.000060 J	< 0.000031 U	< 0.000024 U	< 0.000025 U	< 0.000020 U	0.0016 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.00010 JN	< 0.000045 U	0.000054 JN	0.0070	0.00013 J	0.00011 J	0.000059 JN	0.000078 J	0.000040 JN	0.0032 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		< 0.000030 U	< 0.000041 U	< 0.000044 U	0.0015 J	0.000059 J	< 0.000031 U	< 0.000024 U	< 0.000025 U	< 0.000021 U	< 0.00026 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.00029 J	0.00012 JN	0.00012 JN	0.0030 J	0.00025 J	0.00020 JN	0.00024 J	0.00019 J	0.00014 J	0.0021 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		< 0.000016 U	< 0.000020 U	< 0.000023 U	0.00034 J	< 0.00042 U	0.00051 J+	< 0.00043 U	< 0.00043 U	< 0.00039 U	0.00029 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.000070 J	< 0.000046 U	< 0.000046 U	0.00045 JN	< 0.000030 U	0.000042 JN	< 0.000030 U	< 0.000020 U	0.000038 J	< 0.00011 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		< 0.000019 U	< 0.000027 U	< 0.000024 U	0.0016 J	< 0.00015 U	< 0.00017 U	< 0.00014 U	< 0.00013 U	< 0.00014 U	0.00069 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		< 0.000019 U	< 0.000026 U	< 0.000028 U	< 0.00030 U	< 0.000033 U	< 0.000032 U	< 0.000025 U	< 0.000026 U	< 0.000023 U	0.00041 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		< 0.000021 U	< 0.000028 U	< 0.000025 U	0.0013 J	0.000053 J	0.000049 JN	< 0.000023 U	< 0.000016 U	0.000047 J	0.00054 J
2,3,7,8-TCDD	1746-01-6	µg/kg		< 0.000031 U	< 0.000040 U	< 0.000032 U	0.00030 JN	< 0.000018 U	< 0.000018 U	< 0.000049 U	< 0.000053 U	< 0.000012 U	0.00036 JN
2,3,7,8-TCDF	51207-31-9	µg/kg		< 0.000016 U	< 0.000018 U	< 0.000018 U	0.0027	0.000078 J+	0.000084 J+	< 0.000054 U	< 0.000039 U	< 0.000044 U	< 0.00070 U
OCDD	3268-87-9	µg/kg		0.020	0.012	0.010	1.1	0.021	0.023	0.015	0.013	0.0069 J+	0.75
OCDF	39001-02-0	µg/kg		0.00017 JN	< 0.000051 U	0.00032 J+	0.045	0.00057 J+	0.00041 J+	< 0.00019 U	< 0.00014 U	< 0.00011 U	0.062
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.00015	0.000049	0.000054	0.0047	0.00014	0.0002	0.000087	0.000071	0.000099	0.0026
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.00014	0.000037	0.000036	0.0041	0.00014	0.00014	0.000068	0.00007	0.000095	0.0024
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.00013	0.000014	0.000013	0.0039	0.00012	0.00012	0.000043	0.000044	0.000076	0.0022
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 3.0 UJ	< 2.9 UJ	< 2.9 UJ	< 3.3 U	< 3.0 UJ	< 2.9 U	< 2.8 U	< 2.8 U	< 2.6 U	< 4.8 U
Aroclor 1221	11104-28-2	µg/kg		< 3.0 UJ	< 2.9 U	< 2.9 UJ	< 3.3 U	< 3.0 UJ	< 2.9 U	< 2.8 U	< 2.8 U	< 2.6 U	< 4.8 U
Aroclor 1232	11141-16-5	µg/kg		< 3.0 UJ	< 2.9 U	< 2.9 UJ	< 3.3 UJ	< 3.0 UJ	< 2.9 UJ	< 2.8 UJ	< 2.8 UJ	< 2.6 UJ	< 4.8 U
Aroclor 1242	53469-21-9	µg/kg		< 3.0 UJ	< 2.9 U	< 2.9 UJ	< 3.3 U	< 3.0 UJ	< 2.9 U	< 2.8 U	< 2.8 U	< 2.6 U	< 4.8 U
Aroclor 1248	12672-29-6	µg/kg		< 3.0 UJ	< 2.9 UJ	< 2.9 UJ	120	< 3.0 UJ	0.41 J	< 2.8 U	< 2.8 U	< 2.6 U	< 4.8 U
Aroclor 1254	11097-69-1	µg/kg		< 3.0 UJ	< 2.9 U	< 2.9 UJ	< 3.3 U	< 3.0 UJ	< 2.9 U	< 2.8 U	< 2.8 U	< 2.6 U	6.7
Aroclor 1260	11096-82-5	µg/kg		< 3.0 UJ	< 2.9 U	< 2.9 UJ	< 3.3 U	< 3.0 UJ	< 2.9 U	< 2.8 U	< 2.8 U	< 2.6 U	< 4.8 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		< 3 UJ	< 2.9 UJ	< 2.9 UJ	120	< 3 UJ	0.41	< 2.8 UJ	< 2.8 UJ	< 2.6 UJ	6.7
Pesticides													
2,4-DDD	53-19-0	µg/kg		< 0.014 U	< 0.0052 U	< 0.010 U	1.11 J	0.0320 J	< 0.027 U	< 0.024 U	< 0.061 UJ	< 0.033 UJ	0.418 J
2,4-DDE	3424-82-6	µg/kg		0.0189 J	< 0.0035 U	0.0102 J	0.179 J	< 0.0123 U	< 0.015 U	< 0.012 U	< 0.076 U	< 0.020 U	0.067 JN
2,4-DDT	789-02-6	µg/kg		0.0546 J	< 0.0202 U	< 0.0258 U	0.131 J	< 0.014 U	< 0.030 U	< 0.025 U	< 0.048 UJ	< 0.031 UJ	0.14 JN
4,4'-DDD	72-54-8	µg/kg		< 0.019 U	< 0.0060 U	< 0.00986 U	3.34	0.0558 J	0.052 JN	< 0.026 U	< 0.049 UJ	< 0.032 UJ	1.10 J
4,4'-DDE	72-55-9	µg/kg		< 0.0347 U	< 0.0133 U	< 0.0203 U	2.55	< 0.0422 U	< 0.0336 U	< 0.015 U	< 0.0898 U	< 0.0362 U	2.39
4,4'-DDT	50-29-3	µg/kg		< 0.155 U	< 0.0632 U	< 0.0814 U	0.258 J	0.0877 J	0.116 J	0.0762 J	0.17 JN	< 0.042 UJ	0.298 J
DDx (b)	T_DDx (PDI)	µg/kg		0.151	< 0.0632 U	0.0509	7.57	0.197	0.185	0.0892	0.215	< 0.042 UJ	4.41
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		1.3 J	0.82 J	1.5 J	72	15	0.78 J	0.79 J	0.56 J	0.40 J	< 120 U
Acenaphthene	83-32-9	µg/kg		1.2 J	< 7.2 U	< 7.0 U	41	12	< 6.9 U	< 6.8 U	< 1.3 U	< 1.3 U	< 120 U
Acenaphthylene	208-96-8	µg/kg		< 4.2 U	< 7.2 U	< 7.0 U	67	20	< 6.9 U	< 6.8 U	< 1.3 U	< 1.3 U	< 120 U
Anthracene	120-12-7	µg/kg		1.4 J	1.2 J	0.85 J	86	21	0.85 J	< 6.8 U	0.23 J	0.22 J	23 J
Benz(a)anthracene	56-55-3	µg/kg		0.86 J	1.4 J	1.4 J	310	23	1.9 J	1.1 J	0.35 J	0.21 J	41 J
Benzo(a)pyrene	50-32-8	µg/kg		< 4.2 U	< 7.2 U	< 7.0 U	370	23	< 6.9 U	< 6.8 U	< 1.3 U	< 1.3 U	50 J
Benzo(b)fluoranthene	205-99-2	µg/kg		1.1 J	0.90 J	1.8 J	440	28	2.4 J	1.5 J	0.72 J	0.39 J	64 J
Benzo(g,h,i)perylene	191-24-2	µg/kg		0.76 J	< 7.2 U	< 7.0 U	370	30	1.2 J	< 6.8 U	< 1.3 U	< 1.3 U	42 J
Benzo(k)fluoranthene	207-08-9	µg/kg		< 4.2 U	< 7.2 U	< 7.0 U	110	7.7	< 6.9 U	< 6.8 U	< 1.3 U	< 1.3 U	25 J
Chrysene	218-01-9	µg/kg		< 4.2 U	< 7.2 U	< 7.0 U	410	34	2.3 J	< 6.8 U	0.53 J	< 1.3 U	75 J
Dibenz(a,h)anthracene	53-70-3	µg/kg		< 4.2 U	< 7.2 U	< 7.0 U	110	< 7.3 U	< 6.9 U	< 6.8 U	< 1.3 U	< 1.3 U	< 120 U
Fluoranthene	206-44-0	µg/kg		2.6 J	2.4 J	2.1 J	350	49	2.5 J	< 6.8 U	0.67 J	0.50 J	130
Fluorene	86-73-7	µg/kg		1.4 J	1.3 J	1.2 J	32	12	1.0 J	< 6.8 U	0.40 J	0.30 J	17 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		< 4.2 U	< 7.2 U	< 7.0 U	370	29	1.4 J	< 6.8 U	< 1.3 U	< 1.3 U	56 J
Naphthalene	91-20-3	µg/kg		2.0 J	2.4 J	1.2 J	280	62	2.2 J	1.4 J	1.3	1.0 J	33 J
Phenanthrene	85-01-8	µg/kg		2.9 J	1.9 J	3.9 J	450	77	3.8 J	1.8 J	1.1 J	0.84 J	71 J
Pyrene	129-00-0	µg/kg		3.2 J	2.3 J	2.0 J	790	93	3.8 J	1.4 J	0.66 J	0.46 J	140
Total PAHs (b)	T_PAH (PDI)	µg/kg		23	22	23	4700	540	31	15	7.8	5.6	890
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		2.3	3.8	3.8	590	35	4	3.7	0.76	0.71	130

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S002	SC-S002	SC-S002	SC-S004	SC-S004	SC-S004	SC-S004	SC-S004	SC-S004	SC-S007
		Sample ID	PDI-SC-S002-0TO2	PDI-SC-S002-2TO4	PDI-SC-S002-4TO6.5	PDI-SC-S004-0TO2	PDI-SC-S004-2TO4	PDI-SC-S004-4TO6	PDI-SC-S004-6TO7.3	PDI-SC-S004-7.3TO9.1	PDI-SC-S004-9.1TO10.3	PDI-SC-S007-0TO2
		Sample Date	7/26/2018	7/26/2018	7/26/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-2 ft	2-4 ft	4-6.5 ft	0-2 ft	2-4 ft	4-6 ft	6-7.3 ft	7.3-9.1 ft	9.1-10.3 ft	0-2 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	65.3	67.6	68.4	60.4	64.4	68.0	68.7	70.3	76.7	41.4
Total Solids@70C	TSOLID70	%	70	70	71	61	62	65	70	73	75	42
Total Solids (%)	%SOLID	%	68.2	67.4	69	62.8	61.2	67.1	69.4	70.2	73.3	42.5
Clay	GS-Clay	%	6.7	5.9	7.4	5.5	15.5	8.5	5.8	3.9	2.7	14.8
Gravel	GS-Gravel	%	0	0	0	2.0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0	0	0.5	0	0	0	0	0.1	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	50.99	42.17	39.26	53.37	20.2	36.32	29.23	51.88	71.54	4.732
Sand, Fine (#230) (d)	GS-Fsand	%	57.3	49.5	45.9	61.5	23.0	43.7	35.1	54.7	74.6	6.5
Sand, Medium	GS-Msand	%	0	0	0	1.7	0.6	0.1	0	0	0	0.1
Silt (#200) (d)	GS-Silt-200	%	42.20	51.82	53.23	36.82	63.69	54.97	64.96	44.21	25.65	80.26
Silt (#230) (d)	GS-Silt	%	35.9	44.5	46.6	28.7	60.9	47.6	59.1	41.4	22.6	78.5
Percent Fines (e)	GS-FINES	%	48.9	57.72	60.63	42.32	79.19	63.47	70.76	48.11	28.35	95.06
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	6100	6100	6300	36000	28000	21000	18000	6400	5100	52000

Notes:

a. Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S009	SC-S009
		Sample ID	PDI-SC-S007-10TO12	PDI-SC-S007-12TO14	PDI-SC-S007-14TO16	PDI-SC-S007-2TO4	PDI-SC-S007-4TO6	PDI-SC-S007-4TO6D	PDI-SC-S007-6TO8	PDI-SC-S007-8TO10	PDI-SC-S009-0TO2	PDI-SC-S009-10TO11.4
		Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	10-12 ft	12-14 ft	14-16 ft	2-4 ft	4-6 ft	4- ft	6-8 ft	8-10 ft	0-2 ft	10-11.4 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.22	0.43	0.13	0.077	0.13	0.17	0.31	0.22	0.072	0.17
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.040	0.075	0.031	0.013	0.020	0.026	0.036	0.033	0.014 JN	0.029
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0039 J	0.0060	0.0029 J	0.00096 J	0.0015 J	0.0022 J	0.0025 J	0.0025 J	0.0011 J	0.0019 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0015 J	0.0032 J	0.00075 J+	0.00089 J	0.0014 J	0.0017 J	0.0026 J	0.0019 J	< 0.00045 U	0.0016 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0093	0.016	0.0061	0.0021 J	0.0035 J	0.0070	0.0053	0.0054	0.0019 J	0.0042 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.010	0.017	0.0047	0.0036 J	0.0080	0.010	0.021	0.013	0.0030 J	0.0069
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0047	0.0071	0.0040 J	0.00094 J	0.0018 J	0.0031 J	0.0035 J	0.0029 J	0.00088 J	0.0020 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0036 J	0.0073	0.0022 J	0.0024 J	0.0043 J	0.0043 J	0.0058	0.0046	0.0023 J	0.0041 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00044 J+	0.00053 J+	0.00038 J+	< 0.00019 U	0.00031 J+	0.00040 J+	< 0.00033 U	0.00035 J+	< 0.00042 U	< 0.00031 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00071 JN	0.0018 J	0.00046 J	0.00043 J	0.00086 J	0.0010 J	0.0016 J	0.0011 J	0.00040 JN	0.00063 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0063	0.0067	0.0016 J	0.0011 J	0.0015 J	0.0028 J	0.0030 J	0.0036 J	0.00088 J	0.0021 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0012 J	0.0020 J	0.00074 J	0.00039 J	0.00070 J	0.0014 J	0.0016 J	0.0010 J	< 0.00064 U	< 0.00053 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0039 J	0.0036 J	0.00082 J	0.00070 J	0.0011 J	0.0017 J	0.0019 J	0.0024 J	< 0.00024 U	0.0013 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00044 JN	0.0017	0.00047 JN	0.00029 JN	0.00043 JN	0.00068 J	0.00055 JN	0.00054 JN	0.00053 JN	0.00068 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0078	0.0078	0.00091	0.0018	0.0050	0.0060	0.0041	0.0050	< 0.00045 U	0.0047
OCDD	3268-87-9	µg/kg	2.6	5.8 J	1.9	0.78	1.2	1.7	3.0	2.2	0.67	1.5
OCDF	39001-02-0	µg/kg	0.13	0.24	0.096	0.051	0.065	0.089	0.094	0.089	0.064	0.15
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0098	0.018	0.0054	0.0033	0.0061	0.0082	0.012	0.0091	0.0029	0.0066
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.009	0.018	0.0052	0.0032	0.0058	0.0082	0.011	0.0089	0.0022	0.0063
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0087	0.018	0.005	0.003	0.0056	0.0082	0.011	0.0086	0.0019	0.006
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 3.4 U	< 3.4 U	< 3.2 U	< 3.9 U	< 3.6 U	< 3.8 U	< 3.8 UJ	< 3.6 U	< 4.3 U	< 3.7 U
Aroclor 1221	11104-28-2	µg/kg	< 3.4 U	< 3.4 U	< 3.2 U	< 3.9 U	< 3.6 U	< 3.8 U	< 3.8 UJ	< 3.6 U	< 4.3 U	< 3.7 U
Aroclor 1232	11141-16-5	µg/kg	< 3.4 U	< 3.4 U	< 3.2 U	< 3.9 U	< 3.6 U	< 3.8 U	< 3.8 UJ	< 3.6 U	< 4.3 UJ	< 3.7 UJ
Aroclor 1242	53469-21-9	µg/kg	< 3.4 U	< 3.4 U	< 3.2 U	< 3.9 U	< 3.6 U	< 3.8 U	< 3.8 UJ	< 3.6 U	< 4.3 U	< 3.7 U
Aroclor 1248	12672-29-6	µg/kg	2200	130	< 3.2 U	< 3.9 U	< 3.6 U	< 3.8 U	31 J	57	< 4.3 U	7.6 J
Aroclor 1254	11097-69-1	µg/kg	< 3.4 U	< 3.4 U	< 3.2 U	19	12	18	< 3.8 UJ	< 3.6 U	< 4.3 U	< 3.7 U
Aroclor 1260	11096-82-5	µg/kg	< 3.4 U	< 3.4 U	7.2	< 3.9 U	< 3.6 U	< 3.8 U	< 3.8 UJ	< 3.6 U	1.9 J	< 3.7 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	2200	130	7.2	19	12	18	31	57	1.9	7.6
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.54 J	1.94	2.13 J	0.476 J	0.743 J	0.872 J	0.647 J	1.09 J	0.344 J	0.664 J
2,4-DDE	3424-82-6	µg/kg	0.399 J	0.504 J	0.531 J	0.161 J	0.187 J	0.180 J	0.264 J	0.282 J	0.0796 J	0.158 J
2,4-DDT	789-02-6	µg/kg	0.246 J	0.318 J	0.354 J	0.135 J	0.171 J	0.174 J	0.186 J	0.12 JN	0.095 JN	0.12 JN
4,4'-DDD	72-54-8	µg/kg	5.29	7.05	7.45 J	1.88 J	2.93	2.85 J	2.07	4.48 J	1.04 J	2.24
4,4'-DDE	72-55-9	µg/kg	7.95	8.43	8.61	4.83	4.91	4.01	6.66	7.09	2.29 J	4.03
4,4'-DDT	50-29-3	µg/kg	0.644 J	1.14 J	0.443 J	0.287 J	0.452 J	0.470 J	0.332 J	0.356 J	0.336 J	0.374 J
DDx (b)	T_DDx (PDI)	µg/kg	16.1	19.4	19.5	7.77	9.39	8.56	10.2	13.4	4.18	7.59
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	81	300	400	14 J	27 J	28 J	43 J	78	8.4 J	20
Acenaphthene	83-32-9	µg/kg	120	400	650	26 J	46 J	46	64	81	10 J	34
Acenaphthylene	208-96-8	µg/kg	65	99	78	26 J	45 J	45 J	33 J	53	7.8 J	12 J
Anthracene	120-12-7	µg/kg	150	290	510	30 J	59 J	68	130	110	21 J	42
Benz(a)anthracene	56-55-3	µg/kg	210	390	350	71	160	170	120	180	45	140
Benzo(a)pyrene	50-32-8	µg/kg	230	360	330	77	170	180	140	190	47	150
Benzo(b)fluoranthene	205-99-2	µg/kg	260	480	320	110	230	250	200	240	75	230
Benzo(g,h,i)perylene	191-24-2	µg/kg	230	370	320	77	140	190	150	220	43	150
Benzo(k)fluoranthene	207-08-9	µg/kg	130	160	130	35 J	100	81	74	79	19 J	77
Chrysene	218-01-9	µg/kg	350	550	460	110	290	240	240	260	62	180
Dibenz(a,h)anthracene	53-70-3	µg/kg	30 J	45	36	< 49 U	< 90 U	22 J	< 45 U	23 J	6.4 J	20
Fluoranthene	206-44-0	µg/kg	510	1100	1200	180	340	390	370	480	130	300
Fluorene	86-73-7	µg/kg	96	320	440	22 J	36 J	38 J	47	81	17 J	34
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	220	360	290	74	140	210	150	200	45	170
Naphthalene	91-20-3	µg/kg	150	450	470	45 J	100	100	110	170	27	49
Phenanthrene	85-01-8	µg/kg	530	1300	2400	140	290	290	290	460	66	180
Pyrene	129-00-0	µg/kg	670	1300	1500	200	440	470	480	610	140	310
Total PAHs (b)	T_PAH (PDI)	µg/kg	4000	8300	9900	1300	2700	2800	2700	3500	770	2100
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	330	530	460	130	270	270	210	280	70	220

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S007	SC-S009	SC-S009
		Sample ID	PDI-SC-S007-10TO12	PDI-SC-S007-12TO14	PDI-SC-S007-14TO16	PDI-SC-S007-2TO4	PDI-SC-S007-4TO6	PDI-SC-S007-4TO6D	PDI-SC-S007-6TO8	PDI-SC-S007-8TO10	PDI-SC-S009-0TO2	PDI-SC-S009-10TO11.4
		Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	10-12 ft	12-14 ft	14-16 ft	2-4 ft	4-6 ft	4- ft	6-8 ft	8-10 ft	0-2 ft	10-11.4 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	58.2	58.1	61.3	50.3	52.9	52.4	51.1	55.0	44.0	51.9
Total Solids@70C	TSOLID70	%	58	60	63	52	53	54	54	56	44	51
Total Solids (%)	%SOLID	%	58.9	58.7	61.9	52	54.1	53.2	53.6	56.6	43.1	51.2
Clay	GS-Clay	%	15.9	10.5	12.6	19.2	18.2		18.0	20.7	15.4	22.2
Gravel	GS-Gravel	%	0	4.4	0	0	0		0	0	0	0
Sand, Coarse	GS-Csand	%	0.2	0.8	1.1	0	0		0	0	0	0.5
Sand, Fine (#200) (d)	GS-Fsand-200	%	14.15	14.87	15.37	4.856	11.25		6.575	7.734	5.246	3.776
Sand, Fine (#230) (d)	GS-Fsand	%	17.1	19.8	19.3	7.1	12.8		8.6	9.7	7.3	5.3
Sand, Medium	GS-Msand	%	0.6	0.4	0.1	0.1	1.5		0.3	0.7	0.1	0.3
Silt (#200) (d)	GS-Silt-200	%	69.14	68.92	70.82	75.84	69.04		75.12	70.96	79.25	73.12
Silt (#230) (d)	GS-Silt	%	66.2	64.0	66.9	73.6	67.5		73.1	69.0	77.2	71.6
Percent Fines (e)	GS-FINES	%	85.04	79.42	83.42	95.04	87.24		93.12	91.66	94.65	95.32
Liquid Limit	GS-LL	None				75						
Plasticity Index	GS-PI	None				35						
Plasticity Limit	GS-PL	None				40						
Total Organic Carbon	TOC	mg/kg	37000	50000	37000	38000	41000	42000	42000	38000	59000	58000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S009	SC-S009	SC-S009	SC-S009	SC-S010	SC-S010	SC-S010	SC-S010	SC-S010
			Sample ID	PDI-SC-S009-2TO4	PDI-SC-S009-4TO6	PDI-SC-S009-6TO8	PDI-SC-S009-8TO10	PDI-SC-S010-0TO2	PDI-SC-S010-10.8TO13.4	PDI-SC-S010-13.4TO14.4	PDI-SC-S010-2TO4	PDI-SC-S010-4TO6.4
			Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	10.8-13.4 ft	13.4-14.4 ft	2-4 ft	4-6.4 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.083	0.046	0.078	0.10	0.16	0.0015 J+	0.0011 J+	0.094	0.10
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.018	0.0087	0.015 JN	0.018	0.018 JN	0.00042 J+	< 0.00013 U	0.042	0.024
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.0016 J	0.00066 J	0.0012 J	0.0013 J	0.0016 J	0.00041 J	0.00015 J	0.0011 J	0.0015 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		< 0.00043 U	0.00074 J	0.00089 J	0.00095 J	0.00093 J	0.00017 J	0.00011 J	0.0011 J	0.00089 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.0058	0.0011 J	0.0024 J	0.0023 J	0.0044 J	< 0.000078 U	< 0.000035 U	0.0030 J	0.0029 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.0032 J	0.0022 J	0.0033 J	0.0050	0.0040 J	0.00015 JN	0.000069 J	0.0050	0.0054
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		< 0.00055 U	0.00057 J	0.00096 J	0.0013 J	0.0018 J	< 0.000075 U	0.000037 J	0.0017 J	0.0022 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0025 J	0.0017 J	0.0021 J	0.0030 J	0.0026 J	0.00033 J	0.00016 J	0.0026 J	0.0024 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		< 0.00039 U	< 0.00037 U	< 0.00038 U	< 0.00035 U	0.00032 J+	0.00049 J+	< 0.00029 U	0.00022 J+	0.00022 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.00049 J	0.00038 J	0.00032 JN	0.00057 J	< 0.00017 U	0.000066 JN	< 0.000023 U	0.00076 J	0.00045 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.0014 J	0.00058 J	0.00094 J	0.00090 J	0.0023 J	0.00020 J	0.000076 J	0.0022 J	0.0018 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		< 0.00058 U	< 0.00024 U	< 0.00026 U	< 0.00030 U	0.0016 J	< 0.000076 U	< 0.000035 U	0.0015 J	0.0012 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		< 0.00021 U	0.00045 J	0.00058 JN	0.00069 J	0.0037 J	0.00012 J	< 0.000022 U	0.0037 J	0.0023 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.00055 J	0.00039 JN	0.00040 JN	0.00046 JN	0.00030 JN	< 0.000029 U	< 0.000025 U	0.00032 JN	0.00025 JN
2,3,7,8-TCDF	51207-31-9	µg/kg		0.00097 J	0.00077 JN	0.0017	0.0020	0.0066 J	< 0.00011 U	< 0.000056 U	0.0064	0.0042
OCDD	3268-87-9	µg/kg		0.75	0.37	0.73	1.1	1.3	0.016 J+	0.012 J+	0.85	0.94
OCDF	39001-02-0	µg/kg		0.075	0.033	0.064	0.058	0.052	< 0.0014 U	< 0.00039 U	0.050	0.035
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.0036	0.0023	0.0033	0.0043	0.006	0.00026	0.00007	0.006	0.0049
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.0036	0.002	0.0025	0.004	0.0058	0.0002	0.00007	0.0059	0.0048
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.0036	0.0018	0.0023	0.0038	0.0056	0.00017	0.000056	0.0057	0.0047
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg		< 4.5 U	< 4.3 U	< 4.0 U	< 3.6 U	< 3.8 U	< 2.8 U	< 2.8 U	< 3.2 U	< 3.0 U
Aroclor 1221	11104-28-2	µg/kg		< 4.5 U	< 4.3 U	< 4.0 U	< 3.6 U	< 3.8 U	< 2.8 U	< 2.8 U	< 3.2 U	< 3.0 U
Aroclor 1232	11141-16-5	µg/kg		< 4.5 UJ	< 4.3 UJ	< 4.0 UJ	< 3.6 UJ	< 3.8 U	< 2.8 UJ	< 2.8 UJ	< 3.2 U	< 3.0 U
Aroclor 1242	53469-21-9	µg/kg		< 4.5 U	< 4.3 U	< 4.0 U	< 3.6 U	< 3.8 U	< 2.8 U	< 2.8 U	< 3.2 U	< 3.0 U
Aroclor 1248	12672-29-6	µg/kg		< 4.5 U	< 4.3 U	2.5 J	11 J	< 3.8 U	< 2.8 U	< 2.8 U	330	320
Aroclor 1254	11097-69-1	µg/kg		< 4.5 U	< 4.3 U	< 4.0 U	< 3.6 U	97	< 2.8 U	< 2.8 U	< 3.2 U	< 3.0 U
Aroclor 1260	11096-82-5	µg/kg		1.1 J	0.90 J	< 4.0 U	< 3.6 U	< 3.8 U	< 2.8 U	< 2.8 U	< 3.2 U	< 3.0 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		1.1	0.9	2.5	11	97	< 2.8 UJ	< 2.8 UJ	330	320
Pesticides												
2,4-DDD	53-19-0	µg/kg		0.405 J	0.353 J	0.332 J	0.511 J	0.535 J	< 0.027 U	< 0.017 U	0.800 J	1.16 J
2,4-DDE	3424-82-6	µg/kg		0.076 JN	0.0872 J	0.104 J	0.146 J	0.0919 J	< 0.028 U	< 0.0165 U	0.123 J	0.191 J
2,4-DDT	789-02-6	µg/kg		0.155 J	0.081 JN	0.140 J	0.183 J	0.111 J	< 0.020 U	< 0.017 U	0.173 J	0.118 J
4,4'-DDD	72-54-8	µg/kg		0.903 J	0.952 J	1.07 J	2.12	1.26 J	< 0.029 U	< 0.024 U	2.29	3.26
4,4'-DDE	72-55-9	µg/kg		1.99 J	2.21	2.50	4.88	1.82 J	< 0.037 U	< 0.0305 U	3.34	3.09
4,4'-DDT	50-29-3	µg/kg		0.29 JN	0.25 JN	0.326 J	0.314 J	0.265 J	< 0.030 U	< 0.0476 U	0.479 J	0.309 J
DDx (b)	T_DDx (PDI)	µg/kg		3.82	3.93	4.47	8.15	4.08	< 0.037 U	< 0.0476 U	7.21	8.13
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg		54	8.7 J	13 J	21	170	1.2 J	0.88 J	91	360
Acenaphthene	83-32-9	µg/kg		50	9.4 J	15 J	51	51	0.98 J	< 6.6 U	45	350
Acenaphthylene	208-96-8	µg/kg		8.5 J	6.9 J	12 J	16 J	50	0.89 J	< 6.6 U	35	130
Anthracene	120-12-7	µg/kg		60	20 J	31	44	67	1.9 J	< 6.6 U	70	330
Benz(a)anthracene	56-55-3	µg/kg		44	38	74	59	130	2.9 J	< 6.6 U	150	490
Benzo(a)pyrene	50-32-8	µg/kg		46	40	84	60	190	< 7.0 U	< 6.6 U	220	570
Benzo(b)fluoranthene	205-99-2	µg/kg		66	65	120	79	270	2.7 J	< 6.6 U	260	630
Benzo(g,h,i)perylene	191-24-2	µg/kg		41	40	83	57	250	1.7 J	< 6.6 U	260	520
Benzo(k)fluoranthene	207-08-9	µg/kg		22 J	21	42	28	80	< 7.0 U	< 6.6 U	110	260
Chrysene	218-01-9	µg/kg		61	54	100	76	300	2.9 J	< 6.6 U	220	690
Dibenz(a,h)anthracene	53-70-3	µg/kg		6.9 J	6.7 J	12 J	8.1 J	34 J	< 7.0 U	< 6.6 U	40	58
Fluoranthene	206-44-0	µg/kg		160	130	180	210	520	4.9 J	< 6.6 U	390	1400
Fluorene	86-73-7	µg/kg		49	15 J	20	37	48 J	1.5 J	0.73 J	31	190
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		43	41	84	55	250	1.4 J	< 6.6 U	250	470
Naphthalene	91-20-3	µg/kg		150	25	41	61	450	3.3 J	2.9 J	240	840
Phenanthrene	85-01-8	µg/kg		140	67	95	220	360	6.1 J	2.0 J	280	1700
Pyrene	129-00-0	µg/kg		150	130	200	230	520	9.5	1.8 J	510	1900
Total PAHs (b)	T_PAH (PDI)	µg/kg		1200	720	1200	1300	3700	45	15	3200	11000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		68	61	120	88	290	4.2	< 6.6 U	330	790

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S009	SC-S009	SC-S009	SC-S009	SC-S010	SC-S010	SC-S010	SC-S010	SC-S010
		Sample ID	PDI-SC-S009-2TO4	PDI-SC-S009-4TO6	PDI-SC-S009-6TO8	PDI-SC-S009-8TO10	PDI-SC-S010-0TO2	PDI-SC-S010-10.8TO13.4	PDI-SC-S010-13.4TO14.4	PDI-SC-S010-2TO4	PDI-SC-S010-4TO6.4
		Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	10.8-13.4 ft	13.4-14.4 ft	2-4 ft	4-6.4 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	43.2	45.6	49.1	54.8	50.7	67.7	71.3	60.8	66.2
Total Solids@70C	TSOLID70	%	43	46	49	54	53	68	71	62	65
Total Solids (%)	%SOLID	%	43.3	45.9	50	55.5	51.4	69.1	76.7	62.1	64.8
Clay	GS-Clay	%	16.2	22.0	21.6	20.5	7.1	9.7	4.2	7.1	6.4
Gravel	GS-Gravel	%	0	0	0	0	0	0	3.2	10.6	33.8
Sand, Coarse	GS-Csand	%	0	0	0	0.2	1.7	0	0.7	2.5	2.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	5.437	4.612	4.903	9.286	43.64	34.78	47	36.29	32.61
Sand, Fine (#230) (d)	GS-Fsand	%	7.9	6.4	7.2	12.7	46.9	37.8	48.8	38.4	35.3
Sand, Medium	GS-Msand	%	0.1	0.1	0.1	0.1	7.9	2.3	8.8	12.7	10.0
Silt (#200) (d)	GS-Silt-200	%	78.26	73.28	73.29	70.01	39.65	53.21	36.09	30.90	14.78
Silt (#230) (d)	GS-Silt	%	75.8	71.5	71.0	66.6	36.4	50.2	34.3	28.8	12.1
Percent Fines (e)	GS-FINES	%	94.46	95.28	94.89	90.51	46.75	62.91	40.29	38	21.18
Liquid Limit	GS-LL	None									
Plasticity Index	GS-PI	None									
Plasticity Limit	GS-PL	None									
Total Organic Carbon	TOC	mg/kg	58000	55000	49000	47000	43000	15000	16000	25000	24000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S010	SC-S010	SC-S011	SC-S011	SC-S011	SC-S011	SC-S011	SC-S011
		Sample ID	PDI-SC-S010-6.4TO8.4	PDI-SC-S010-8.4TO10.8	PDI-SC-S011-0TO2	PDI-SC-S011-10TO12	PDI-SC-S011-12TO14.5	PDI-SC-S011-14.5TO16.8	PDI-SC-S011-14.5TO16.8D	PDI-SC-S011-16.8TO17.9
		Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
		Sample Type Code	N	N	N	N	N	N	FD	N
		Depth	6.4-8.4 ft	8.4-10.8 ft	0-2 ft	10-12 ft	12-14.5 ft	14.5-16.8 ft	14.5- ft	16.8-17.9 ft
Chemical	**CAS_RN**	**Units**								
Dioxins and Furans										
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.013	0.0027 J	0.080	0.21	0.20	0.44	0.53	0.090
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0074	0.00064 JN	0.014	0.031	0.033	0.082	0.088	0.033
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00010 U	0.00013 J	0.0010 J	0.0022 J	0.0028 J	0.0072	0.0072	0.0039
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00016 U	0.00013 J	0.00090 J	0.0018 J	0.0014 J	0.0030 J	0.0034 J	0.00070 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.000081 U	0.000073 JN	0.0016 J	0.0044	0.010	0.024	0.023	0.014
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00059 J	0.00015 J	0.0029 J	0.012	0.011	0.018	0.021	0.0035 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00043 JN	0.000057 J	0.00075 JN	0.0029 J	0.0038 J	0.0090	0.0084	0.0052
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00036 J	0.00015 J	0.0022 J	0.0042 J	0.0034 J	0.0064	0.0074	0.0020 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00021 U	0.00017 J	0.00078 J+	< 0.00044 U	< 0.00040 U	< 0.00044 U	0.00074 J	0.00046 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000087 J	< 0.000026 U	0.00040 JN	0.00082 JN	0.00069 J	0.0014 JN	0.0017 JN	0.00094 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00010 JN	0.000052 J	0.00068 J	0.0028 J	0.0050	0.011	0.010	0.0026 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00016 J	0.000037 J	0.00035 JN	0.00094 J	0.0010 J	0.0021 J	0.0020 J	0.00054 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00013 J	< 0.000021 U	0.00046 J	0.0018 J	0.0027 J	0.0055	0.0051	0.00087 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000073 JN	0.00019 JN	0.00036 JN	0.00073 J	0.00042 JN	0.00097 JN	0.0011	0.0012
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00024 J	0.000072 J	0.00098 J	0.0036	0.0052 J	0.013	0.010	0.0018
OCDD	3268-87-9	µg/kg	0.16	0.031	0.73	2.3	2.2	5.4 J	6.2 J	1.4
OCDF	39001-02-0	µg/kg	0.016	0.0013 J	0.050	0.089	0.088	0.31	0.32	0.076
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00065	0.00033	0.0031	0.0083	0.0087	0.019	0.02	0.007
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00055	0.00021	0.0025	0.0079	0.0085	0.018	0.02	0.007
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00052	0.00012	0.0023	0.0075	0.0083	0.018	0.019	0.007
Polychlorinated Biphenyls (PCBs)										
Aroclor 1016	12674-11-2	µg/kg	< 2.7 U	< 2.7 U	< 4.6 U	< 3.4 U	< 3.2 UJ	< 3.4 U	< 33 U	< 2.8 U
Aroclor 1221	11104-28-2	µg/kg	< 2.7 U	< 2.7 U	< 4.6 U	< 3.4 U	< 3.2 UJ	< 3.4 U	< 33 U	< 2.8 U
Aroclor 1232	11141-16-5	µg/kg	< 2.7 U	< 2.7 U	< 4.6 UJ	< 3.4 UJ	< 3.2 UJ	< 3.4 UJ	< 33 UJ	< 2.8 UJ
Aroclor 1242	53469-21-9	µg/kg	< 2.7 U	< 2.7 U	< 4.6 U	< 3.4 U	< 3.2 UJ	< 3.4 U	< 33 U	< 2.8 U
Aroclor 1248	12672-29-6	µg/kg	13	3.6	3.3 J	130	97 J	590	650	< 2.8 U
Aroclor 1254	11097-69-1	µg/kg	< 2.7 U	< 2.7 U	< 4.6 U	< 3.4 U	< 3.2 UJ	< 3.4 U	< 33 U	< 2.8 U
Aroclor 1260	11096-82-5	µg/kg	< 2.7 U	< 2.7 U	< 4.6 U	< 3.4 U	< 3.2 UJ	< 3.4 U	< 33 U	9.7
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	13	3.6	3.3	130	97	590	650	9.7
Pesticides										
2,4-DDD	53-19-0	µg/kg	0.106 J	< 0.019 UJ	0.268 J	1.21 J	1.05 J	1.67 J	1.73	1.07 J
2,4-DDE	3424-82-6	µg/kg	< 0.0083 U	< 0.0097 U	< 0.045 U	0.248 J	0.254 J	0.457 J	0.460 J	0.128 J
2,4-DDT	789-02-6	µg/kg	< 0.015 UJ	< 0.018 UJ	< 0.030 UJ	0.170 J	0.156 J	0.20 JN	0.312 J	0.0862 J
4,4'-DDD	72-54-8	µg/kg	0.334 J	0.0586 J	0.907 J	4.07	3.71	5.37	5.38	3.18
4,4'-DDE	72-55-9	µg/kg	0.209 J	< 0.0464 U	1.98 J	6.15	5.72	8.96	8.71	1.26 J
4,4'-DDT	50-29-3	µg/kg	< 0.0563 UJ	< 0.027 UJ	0.216 J	0.533 J	0.463 J	0.809 J	0.835 J	0.0906 J
DDx (b)	T_DDx (PDI)	µg/kg	0.677	0.0818	3.39	12.4	11.4	17.5	17.4	5.81
Semivolatile Organics										
2-Methylnaphthalene	91-57-6	µg/kg	26	37	17 J	150	140	230	180	100
Acenaphthene	83-32-9	µg/kg	50	8.3	25	200	190	370	300	130 J
Acenaphthylene	208-96-8	µg/kg	52	8.1	27	68	52	59	67	80
Anthracene	120-12-7	µg/kg	170	21	55	280	220	370	270	150 J
Benz(a)anthracene	56-55-3	µg/kg	290	53	98	840	220	520	420	290 J
Benzo(a)pyrene	50-32-8	µg/kg	330	41	87	590	180	350	290	250 J
Benzo(b)fluoranthene	205-99-2	µg/kg	320	42	120	700	240	530	430	280 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	260	27	100	390	180	300	260	160 J
Benzo(k)fluoranthene	207-08-9	µg/kg	90	19	37	340	71	140	110	80 J
Chrysene	218-01-9	µg/kg	340	60	150	1100	280	600	470	270 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	34	5.1 J	12 J	82	46	81	68	36
Fluoranthene	206-44-0	µg/kg	390	83	260	740	610	1200	890	510 J
Fluorene	86-73-7	µg/kg	38	6.0 J	31	210	160	380	310	78
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	210	27	100	430	180	310	260	190 J
Naphthalene	91-20-3	µg/kg	74	140	53	290	220	290	220	280 J
Phenanthrene	85-01-8	µg/kg	510	62	160	890	900	1500	1100	440 J
Pyrene	129-00-0	µg/kg	880	120	290	830	690	1200	970	660 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	4100	760	1600	8100	4600	8400	6600	4000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	450	59	130	870	290	570	470	360

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S010	SC-S010	SC-S011	SC-S011	SC-S011	SC-S011	SC-S011	SC-S011
		Sample ID	PDI-SC-S010-6.4TO8.4	PDI-SC-S010-8.4TO10.8	PDI-SC-S011-0TO2	PDI-SC-S011-10TO12	PDI-SC-S011-12TO14.5	PDI-SC-S011-14.5TO16.8	PDI-SC-S011-14.5TO16.8D	PDI-SC-S011-16.8TO17.9
		Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018
		Sample Type Code	N	N	N	N	N	N	FD	N
		Depth	6.4-8.4 ft	8.4-10.8 ft	0-2 ft	10-12 ft	12-14.5 ft	14.5-16.8 ft	14.5- ft	16.8-17.9 ft
Chemical	**CAS_RN**	**Units**								
Other										
Total Solids@104C	TSOLID	%	73.7	72.5	43.4	58.2	59.7	57.5	57.3	70.7
Total Solids@70C	TSOLID70	%	72	75	44	60	61	58	59	71
Total Solids (%)	%SOLID	%	74.2	74.1	44.9	60	59.7	57.8	57.6	70.6
Clay	GS-Clay	%	5.8	5.3 L	15.0	17.4	15.7	13.2		4.8
Gravel	GS-Gravel	%	3.3	0	0	0	0	0		0
Sand, Coarse	GS-Csand	%	0.3	0	0.1	0.1	0.5	2.4		0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	54.81	60.63	7.054	14.57	7.832	7.295		62.06
Sand, Fine (#230) (d)	GS-Fsand	%	56.9	63.2	9.6	17.3	11.5	9.8		66.0
Sand, Medium	GS-Msand	%	10.5	6.8	0.4	0.9	0.3	0.2		1.8
Silt (#200) (d)	GS-Silt-200	%	25.28	27.26	77.44	67.02	75.56	77.00		30.83
Silt (#230) (d)	GS-Silt	%	23.2	24.7	74.9	64.3	71.9	74.5		26.9
Percent Fines (e)	GS-FINES	%	31.08	32.56	92.44	84.42	91.26	90.2		35.63
Liquid Limit	GS-LL	None								
Plasticity Index	GS-PI	None								
Plasticity Limit	GS-PL	None								
Total Organic Carbon	TOC	mg/kg	13000	10000	56000	38000	39000	50000	49000	23000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
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b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

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TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S011	SC-S011	SC-S011	SC-S011	SC-S011	SC-S014	SC-S014	SC-S014	SC-S015	SC-S015
		Sample ID	PDI-SC-S011-17.9TO18.9	PDI-SC-S011-2TO4	PDI-SC-S011-4TO6	PDI-SC-S011-6TO8	PDI-SC-S011-8TO10	PDI-SC-S014-0TO2	PDI-SC-S014-2TO4	PDI-SC-S014-4TO6	PDI-SC-S015-0TO2	PDI-SC-S015-10TO11.4
		Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	7/26/2018	7/26/2018	7/26/2018	8/13/2018	8/13/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	17.9-18.9 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	10-11.4 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.090	0.084	0.30	0.19	0.26	0.00094 J	0.00083 J	0.27	0.086	0.36
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.060	0.014	0.031	0.024	0.035	0.00024 J+	0.0034 J	0.0018 J	0.013 JN	0.066
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0023 J	0.0012 J	0.0014 J	0.0017 J	0.0024 J	0.000069 JN	0.0015 J	0.00076 J	0.0011 J	0.0059
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00073 JN	0.00085 J	0.00083 J	0.0019 J	0.0024 J	< 0.000097 U	< 0.00010 U	0.00099 J	0.00096 J	0.0023 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0033 J	0.0042 J	0.0021 J	0.0043 J	0.0043 J	0.000088 J	0.00048 J	< 0.000072 U	0.0024 J	0.019
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0041	0.0033 J	0.0048	0.014	0.018	0.000051 JN	0.000070 J	0.0022 J	0.0031 J	0.015
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0054	0.0014 J	0.0011 J	0.0020 J	0.0026 J	< 0.000049 U	0.00028 J	0.00011 J	< 0.00023 U	0.0071
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0021 J	0.0022 J	0.0024 J	0.0047 J	0.0056	0.00012 J	0.00017 J	0.0037	0.0022 J	0.0055
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00036 JN	< 0.00023 U	< 0.00039 U	< 0.00032 U	0.00046 J+	< 0.000025 U	0.000083 J	< 0.000036 U	0.00078 J+	0.00080 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00064 J	0.00040 JN	0.00044 J	0.0012 J	0.0014 J	< 0.000054 U	< 0.000044 U	0.00015 J	0.00041 JN	0.0010 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0026 J	0.0043 J	0.0015 J	0.0020 JN	0.0024 J	0.000051 JN	< 0.000034 U	< 0.000034 U	0.00091 JN	0.0083
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0014 J	< 0.00026 U	0.00033 JN	0.00096 JN	0.0013 J	< 0.000030 U	< 0.000057 U	0.000053 JN	< 0.00025 U	0.0016 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0017 J	0.0039 J	0.00068 J	0.0011 JN	0.0016 J	< 0.000034 U	< 0.000037 U	< 0.000036 U	0.00073 J	0.0039 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00047 JN	0.00034 JN	0.00037 JN	0.00085 J	0.00058 JN	< 0.000038 U	< 0.000037 U	< 0.000037 U	< 0.000047 U	0.00084
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0025	0.016	0.0018	0.0053	0.0039	0.000075 JN	< 0.000022 U	< 0.000026 U	0.0012	0.0089
OCDD	3268-87-9	µg/kg	1.6	0.79	4.6 J	1.6	2.7	0.0078	0.0071	7.6 J	0.74	4.4 J
OCDF	39001-02-0	µg/kg	0.099	0.054	0.46	0.069	0.10	0.0017 J	0.034	0.029	0.047	0.26
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0057	0.0061	0.0073	0.0084	0.01	0.000077	0.0002	0.0059	0.003	0.015
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0054	0.0055	0.007	0.0081	0.0099	0.000062	0.0002	0.0059	0.0027	0.014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0051	0.0053	0.0068	0.0079	0.0096	0.000035	0.00018	0.0059	0.0025	0.014
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 2.8 U	< 3.6 U	< 3.7 U	< 3.8 UJ	< 3.5 U	< 2.6 UJ	< 2.7 UJ	< 2.7 UJ	< 4.4 U	< 3.4 U
Aroclor 1221	11104-28-2	µg/kg	< 2.8 U	< 3.6 U	< 3.7 U	< 3.8 UJ	< 3.5 U	< 2.6 U	< 2.7 U	< 2.7 U	< 4.4 U	< 3.4 U
Aroclor 1232	11141-16-5	µg/kg	< 2.8 UJ	< 3.6 UJ	< 3.7 UJ	< 3.8 UJ	< 3.5 UJ	< 2.6 U	< 2.7 U	< 2.7 U	< 4.4 UJ	< 3.4 UJ
Aroclor 1242	53469-21-9	µg/kg	< 2.8 U	< 3.6 U	< 3.7 U	< 3.8 UJ	< 3.5 U	< 2.6 U	< 2.7 U	< 2.7 U	< 4.4 U	< 3.4 U
Aroclor 1248	12672-29-6	µg/kg	< 2.8 U	6.6 J	4.6 J	7.9 J	13 J	< 2.6 UJ	< 2.7 UJ	< 2.7 UJ	< 4.4 U	93
Aroclor 1254	11097-69-1	µg/kg	< 2.8 U	< 3.6 U	< 3.7 U	< 3.8 UJ	< 3.5 U	< 2.6 U	< 2.7 U	< 2.7 U	< 4.4 U	< 3.4 U
Aroclor 1260	11096-82-5	µg/kg	18	< 3.6 U	< 3.7 U	< 3.8 UJ	< 3.5 U	< 2.6 U	< 2.7 U	< 2.7 U	53	< 3.4 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	18	6.6	4.6	7.9	13	< 2.6 UJ	< 2.7 UJ	< 2.7 UJ	53	93
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.30 J	0.481 J	0.939 J	0.593 J	0.494 J	< 0.095 U	< 0.028 U	< 0.0097 U	0.386 J	0.704 J
2,4-DDE	3424-82-6	µg/kg	0.272 J	0.090 JN	0.197 J	0.228 J	0.207 J	0.130 J	0.0392 J	< 0.0086 U	0.141 J	0.244 J
2,4-DDT	789-02-6	µg/kg	0.097 JN	0.127 J	0.205 J	1.37 J	< 0.034 U	0.095 JN	< 0.017 U	< 0.0244 U	< 0.070 U	0.20 JN
4,4'-DDD	72-54-8	µg/kg	3.76	1.38 J	3.21	1.55 J	1.58 J	0.044 JN	< 0.017 U	< 0.010 U	0.997 J	1.92
4,4'-DDE	72-55-9	µg/kg	2.20	3.33	5.36	3.97	4.82	0.20 JN	0.0811 J	< 0.0167 U	2.31 J	3.93 J
4,4'-DDT	50-29-3	µg/kg	0.14 JN	0.401 J	0.422 J	0.690 J	0.483 J	0.40 JN	< 0.150 U	< 0.0821 U	< 0.22 U	< 0.352 U
DDx (b)	T_DDx (PDI)	µg/kg	7.77	5.81	10.3	8.4	7.6	0.917	0.195	< 0.0821 U	3.94	7.17
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	270	23	38	43	60	0.67 J	1.2 J	0.93 J	13 J	130 J
Acenaphthene	83-32-9	µg/kg	150	29	70	65	91	< 6.5 U	< 6.8 U	< 6.8 U	20 J	290 J
Acenaphthylene	208-96-8	µg/kg	51	21	37	48	45	1.9 J	< 6.8 U	< 6.8 U	17 J	32 J
Anthracene	120-12-7	µg/kg	77	43	68	110	110	0.85 J	< 6.8 U	< 6.8 U	70 J	220 J
Benz(a)anthracene	56-55-3	µg/kg	89	89	86	240	160	2.4 J	< 6.8 U	< 6.8 U	97 J	290 J
Benzo(a)pyrene	50-32-8	µg/kg	78	74	71	190	120	< 6.5 U	< 6.8 U	< 6.8 U	89 J	330 J
Benzo(b)fluoranthene	205-99-2	µg/kg	100	110	99	310	190	1.8 J	0.98 J	< 6.8 U	87 J	300 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	89	89	82	190	130	0.69 J	< 6.8 U	< 6.8 U	89 J	180 J
Benzo(k)fluoranthene	207-08-9	µg/kg	30	37	31	84	56	< 6.5 U	< 6.8 U	< 6.8 U	27 J	110 J
Chrysene	218-01-9	µg/kg	120	130	120	320	210	2.0 J	< 6.8 U	< 6.8 U	130 J	330 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	19	25	26	58	37	< 6.5 U	< 6.8 U	< 6.8 U	14 J	28 J
Fluoranthene	206-44-0	µg/kg	320	230	250	590	380	4.0 J	< 6.8 U	< 6.8 U	210 J	760 J
Fluorene	86-73-7	µg/kg	130	36	71	84	92	1.2 J	1.2 J	1.2 J	28 J	260 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	79	94	85	220	130	1.6 J	< 6.8 U	< 6.8 U	89 J	190 J
Naphthalene	91-20-3	µg/kg	500	59	79	130	140	1.7 J	2.2 J	2.2 J	44 J	200 J
Phenanthrene	85-01-8	µg/kg	460	180	280	430	360	3.3 J	4.0 J	3.0 J	140 J	1100 J
Pyrene	129-00-0	µg/kg	400	250	290	640	440	4.5 J	1.6 J	< 6.8 U	380 J	1400 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	3000	1500	1800	3800	2800	33	18	18	1500	6200
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	120	130	120	330	210	3.8	3.5	< 6.8 U	130	440

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S011	SC-S011	SC-S011	SC-S011	SC-S011	SC-S014	SC-S014	SC-S014	SC-S015	SC-S015
		Sample ID	PDI-SC-S011-17.9TO18.9	PDI-SC-S011-2TO4	PDI-SC-S011-4TO6	PDI-SC-S011-6TO8	PDI-SC-S011-8TO10	PDI-SC-S014-0TO2	PDI-SC-S014-2TO4	PDI-SC-S014-4TO6	PDI-SC-S015-0TO2	PDI-SC-S015-10TO11.4
		Sample Date	8/10/2018	8/10/2018	8/10/2018	8/10/2018	8/10/2018	7/26/2018	7/26/2018	7/26/2018	8/13/2018	8/13/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	17.9-18.9 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	10-11.4 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	69.3	54.3	53.2	52.1	54.0	75.4	71.6	71.2	43.8	58.7
Total Solids@70C	TSOLID70	%	70	52	53	52	54	72	73	73	45	59
Total Solids (%)	%SOLID	%	67.2	53.5	53.5	52.6	54.1	74.7	69.4	70.3	46	57.4
Clay	GS-Clay	%	5.9	15.7	19.8	20.2	17.5	8.0	7.5	7.6	18.2	15.2
Gravel	GS-Gravel	%	0	0	0	0	0	2.5	0	0	0	0
Sand, Coarse	GS-Csand	%	2.8	0	0	0.1	1.9	0.4	0	0	0	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	44.16	7.766	6.885	6.3	7.886	55.92	47.86	45.23	5.621	12.56
Sand, Fine (#230) (d)	GS-Fsand	%	46.3	10.6	10.0	8.2	10.8	60.0	51.8	50.0	7.9	15.2
Sand, Medium	GS-Msand	%	3.7	0	0	0.1	0.2	1.6	0.1	0	0.1	0.7
Silt (#200) (d)	GS-Silt-200	%	43.43	76.53	73.31	73.29	72.61	31.57	44.53	47.16	76.07	71.53
Silt (#230) (d)	GS-Silt	%	41.3	73.7	70.2	71.4	69.7	27.5	40.6	42.4	73.8	68.9
Percent Fines (e)	GS-FINES	%	49.33	92.23	93.11	93.49	90.11	39.57	52.03	54.76	94.27	86.73
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	29000	41000	60000	52000	53000	6000	6300	6900	59000	48000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S015	SC-S015	SC-S015	SC-S015	SC-S015	SC-S019	SC-S019	SC-S019	SC-S019
			Sample ID	PDI-SC-S015-11.4TO12.4	PDI-SC-S015-2TO4	PDI-SC-S015-4TO6	PDI-SC-S015-6TO8	PDI-SC-S015-8TO10	PDI-SC-S019-0TO2	PDI-SC-S019-10TO12	PDI-SC-S019-10TO12D	PDI-SC-S019-12TO13.7
			Sample Date	8/13/2018	8/13/2018	8/13/2018	8/13/2018	8/13/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018
			Sample Type Code	N	N	N	N	N	N	N	FD	N
			Depth	11.4-12.4 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	10-12 ft	10- ft	12-13.7 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.46	0.11	0.16	0.49	0.33	0.18	0.12	0.11	0.071
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.077	0.018	0.018	0.060	0.058	0.041	0.058	0.054	0.057
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.0074	0.0012 J	0.0013 J	0.0050	0.0049	0.0034 J	0.0040 J	0.0037 J	0.0022 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.0029 J	0.0011 J	0.0015 J	0.0040 J	0.0021 J	0.0013 J	0.0010 J	0.0010 J	0.00058 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.025	0.0021 J	0.0030 J	0.019	0.013	0.0086	0.0073	0.0059	0.0035 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.017	0.0039 J	0.010	0.032	0.019	0.0068	0.0057	0.0053	0.0033 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.0072	0.0010 J	0.0015 J	0.0061	0.0057	0.0042 J	0.0067	0.0059	0.0064
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0064	0.0029 J	0.0041 J	0.010	0.0061	0.0033 J	0.0030 J	0.0028 J	0.0018 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		0.00074 J+	0.00054 J+	0.00059 J+	0.00075 J+	0.00082 J+	< 0.0017 U	< 0.0016 U	< 0.0012 U	< 0.0013 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.0018 J	0.00055 J	0.00094 J	0.0024 J	0.0013 J	0.00062 J	< 0.00020 U	0.00074 J	0.00057 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.010	0.0010 J	0.0012 JN	0.0068	0.0056	0.0037 J	0.0046	0.0028 J	0.0014 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.0019 J	< 0.00023 U	< 0.00040 U	0.0018 J	0.0015 J	0.00092 J	0.0016 J	0.0013 J	0.0015 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.0054	0.00060 J	0.00073 JN	0.0033 J	0.0028 J	0.0015 J	0.0031 J	0.0019 J	0.0015 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.0017	0.00029 JN	0.00043 JN	0.00080 J	0.00066 J	0.00056 J	0.00048 JN	0.00044 J	0.00031 JN
2,3,7,8-TCDF	51207-31-9	µg/kg		0.014	0.0012 JN	0.0028	0.0064	0.0049	0.0025	0.0047	0.0024	0.0016
OCDD	3268-87-9	µg/kg		5.9 J	0.97	1.4	4.6 J	3.8 J	2.7	2.0	1.9	1.1
OCDF	39001-02-0	µg/kg		0.26	0.060	0.055	0.14	0.15	0.12	0.12	0.13	0.065
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.02	0.0039	0.0062	0.019	0.013	0.0077	0.0071	0.0066	0.005
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.02	0.0038	0.0057	0.019	0.013	0.0077	0.0068	0.0066	0.0047
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.02	0.0036	0.0055	0.019	0.013	0.0076	0.0065	0.0066	0.0046
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg		< 3.1 U	< 3.8 U	< 3.6 UJ	< 3.5 U	< 3.4 U	22 J	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1221	11104-28-2	µg/kg		< 3.1 U	< 3.8 U	< 3.6 UJ	< 3.5 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1232	11141-16-5	µg/kg		< 3.1 UJ	< 3.8 UJ	< 3.6 UJ	< 3.5 UJ	< 3.4 UJ	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1242	53469-21-9	µg/kg		< 3.1 U	< 3.8 U	< 3.6 UJ	< 3.5 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1248	12672-29-6	µg/kg		< 3.1 U	< 3.8 U	4.5 J	< 3.5 U	59	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1254	11097-69-1	µg/kg		< 3.1 U	< 3.8 U	< 3.6 UJ	10	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1260	11096-82-5	µg/kg		11	2.4 J	< 3.6 UJ	< 3.5 U	< 3.4 U	18	140	96	8.6
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		11	2.4	4.5	10	59	40	140	96	8.6
Pesticides												
2,4-DDD	53-19-0	µg/kg		0.934 J	0.522 J	0.771 J	0.662 J	0.762 J	2.15	8.42 J	14.6 J	54.5
2,4-DDE	3424-82-6	µg/kg		0.31 JN	0.190 J	0.253 J	0.317 J	0.403 J	0.623 J	1.38 J	2.32	2.26
2,4-DDT	789-02-6	µg/kg		0.388 J	0.292 J	0.19 JN	0.15 JN	0.237 J	0.169 J	0.23 JN	0.439 J	6.55
4,4'-DDD	72-54-8	µg/kg		2.86	1.94 J	2.27	2.18	2.76	7.15	16.9	28.1	115
4,4'-DDE	72-55-9	µg/kg		4.95 J	5.36 J	4.48 J	5.92 J	5.31 J	11.8	8.37	13.2	11.9
4,4'-DDT	50-29-3	µg/kg		1.42 J	0.55 JN	< 0.41 U	< 0.36 U	< 0.370 U	0.386 J	0.652 J	0.707 J	34.7
DDx (b)	T_DDx (PDI)	µg/kg		10.9	8.85	8.17	9.41	9.66	22.3	36	59.4	225
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg		330	11 J	26	64	95	300	1200	1000	780
Acenaphthene	83-32-9	µg/kg		2300	25 J	130	110	220	440	650	620	950
Acenaphthylene	208-96-8	µg/kg		63 J	15 J	31 J	33 J	35 J	43	74	79	190
Anthracene	120-12-7	µg/kg		1600	40 J	110	150	180	190	430	500	960
Benz(a)anthracene	56-55-3	µg/kg		960	75 J	220	220	270	180	330	590	1100
Benzo(a)pyrene	50-32-8	µg/kg		510	100 J	200	150	250	160	370 J	660 J	1300
Benzo(b)fluoranthene	205-99-2	µg/kg		630	120 J	250	250	310	170	400 J	670 J	1300
Benzo(g,h,i)perylene	191-24-2	µg/kg		620	54 J	180	120	120	130	380	630	1400
Benzo(k)fluoranthene	207-08-9	µg/kg		250	35 J	77	70	120	55	140	230	470
Chrysene	218-01-9	µg/kg		950	100 J	260	250	340	200	450 J	750 J	1400
Dibenz(a,h)anthracene	53-70-3	µg/kg		88	8.6 J	29	18	17	19	51 J	100 J	150
Fluoranthene	206-44-0	µg/kg		4200	280 J	660	640	730	760	1600	2100	4800
Fluorene	86-73-7	µg/kg		2500	32 J	160	110	190	300	410	450	590
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		510	56 J	170	120	120	130	350 J	590 J	1200
Naphthalene	91-20-3	µg/kg		300	40 J	74	170	160	500	2100	1900	1600
Phenanthrene	85-01-8	µg/kg		9300	130 J	590	540	900	1100	2000	2100	4600
Pyrene	129-00-0	µg/kg		3300	150 J	580	760	790	830	1800	2500	6000
Total PAHs (b)	T_PAH (PDI)	µg/kg		28000	1300	3700	3800	4800	5500	13000	15000	29000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		810	130	290	230	340	230	530	950	1800

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S015	SC-S015	SC-S015	SC-S015	SC-S015	SC-S019	SC-S019	SC-S019	SC-S019
		Sample ID	PDI-SC-S015-11.4TO12.4	PDI-SC-S015-2TO4	PDI-SC-S015-4TO6	PDI-SC-S015-6TO8	PDI-SC-S015-8TO10	PDI-SC-S019-0TO2	PDI-SC-S019-10TO12	PDI-SC-S019-10TO12D	PDI-SC-S019-12TO13.7
		Sample Date	8/13/2018	8/13/2018	8/13/2018	8/13/2018	8/13/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018
		Sample Type Code	N	N	N	N	N	N	N	FD	N
		Depth	11.4-12.4 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	10-12 ft	10- ft	12-13.7 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	63.0	51.4	53.3	55.7	56.0	56.4	56.9	57.1	58.7
Total Solids@70C	TSOLID70	%	62	51	53	56	58	56	59	59	59
Total Solids (%)	%SOLID	%	58.6	46.6	53.8	52.3	56	56.3	58.3	58.5	58.8
Clay	GS-Clay	%	10.0	18.8	21.7	15.0	16.3	16.7	16.7		20.0
Gravel	GS-Gravel	%	0	0	0	0	0	0.3	0.3		0
Sand, Coarse	GS-Csand	%	0.5	0	0	0	0	0.4	0.3		0
Sand, Fine (#200) (d)	GS-Fsand-200	%	23.05	7.223	6.059	7.222	12.03	11.82	6.211		11.78
Sand, Fine (#230) (d)	GS-Fsand	%	25.9	10.0	8.2	9.1	14.6	15.0	9.0		14.9
Sand, Medium	GS-Msand	%	7.8	0	0.1	0.1	0.8	0.3	0.2		0.3
Silt (#200) (d)	GS-Silt-200	%	58.64	73.97	72.14	77.67	70.86	70.47	76.18		67.91
Silt (#230) (d)	GS-Silt	%	55.8	71.2	70.0	75.8	68.3	67.3	73.4		64.8
Percent Fines (e)	GS-FINES	%	68.64	92.77	93.84	92.67	87.16	87.17	92.88		87.91
Liquid Limit	GS-LL	None									
Plasticity Index	GS-PI	None									
Plasticity Limit	GS-PL	None									
Total Organic Carbon	TOC	mg/kg	35000	49000	50000	45000	43000	29000	41000	41000	43000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S019	SC-S019	SC-S019	SC-S019	SC-S019	SC-S022	SC-S022	SC-S022	SC-S023	SC-S023
			Sample ID	PDI-SC-S019-13.7TO14.7	PDI-SC-S019-2TO4	PDI-SC-S019-4TO6	PDI-SC-S019-6TO8	PDI-SC-S019-8TO10	PDI-SC-S022-0TO2	PDI-SC-S022-2TO4	PDI-SC-S022-4TO6	PDI-SC-S023-0TO2	PDI-SC-S023-2TO3.9
			Sample Date	9/6/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018	7/20/2018	7/20/2018	7/20/2018	7/31/2018	7/31/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	13.7-14.7 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	2-3.9 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.11	0.50	0.53	0.32	0.22	0.0024 J	0.00044 JN	0.00061 J+	0.12	0.33
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.10	0.12	0.15	0.10	0.10	0.00020 JN	< 0.000043 U	< 0.000037 U	0.022	0.077
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.0036 J	0.011	0.012	0.0091	0.0070	< 0.00014 U	< 0.000048 U	< 0.000040 U	0.0021 J	0.0069
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.00078 J	0.0036 J	0.0034 J	0.0023 J	0.0019 J	< 0.00011 U	< 0.00011 U	< 0.000077 U	0.00095 JN	0.0028 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.0072	0.021	0.018	0.021	0.011	< 0.000084 U	< 0.000053 U	< 0.000041 U	0.0087	0.020
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.0050	0.018	0.018	0.013	0.0090	0.00012 J+	< 0.000039 U	< 0.000042 U	0.0044 J	0.012
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.0098	0.010	0.010	0.010	0.0079	< 0.000082 U	< 0.000053 U	< 0.000042 U	0.0032 J	0.0089
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0023 J	0.0079	0.0066	0.0047	0.0032 J	0.00016 J+	< 0.000025 U	0.00011 JN	0.0024 JN	0.0065
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		< 0.00094 U	0.0025 J+	< 0.0017 U	0.0018 J+	< 0.0017 U	0.00073 J+	< 0.00050 U	0.00057 J+	< 0.00018 U	< 0.00057 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.00079 J	0.0019 J	0.0017 J	0.0014 J	0.0011 J	< 0.000038 U	< 0.000028 U	< 0.000033 U	0.00048 J	0.0016 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.0026 J	0.0087	0.0067	0.0061	0.0049	0.00029 J+	< 0.00020 U	< 0.00022 U	0.0060	0.010
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.0022 J	0.0026 J	0.0025 J	0.0022 J	0.0019 J	< 0.000046 U	< 0.000029 U	< 0.000023 U	0.00067 J	0.0018 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.0024 J	0.0049	0.0040 J	0.0046	0.0028 J	< 0.000026 U	< 0.000023 U	< 0.000021 U	0.0021 J	0.0044 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.00051 J	0.0011	0.00072 J	0.00077 J	0.00087	0.00036 J	0.00026 JN	< 0.000025 U	0.00033 JN	0.0012
2,3,7,8-TCDF	51207-31-9	µg/kg		0.0019	0.0074	0.0053	0.0061	0.0040	0.000036 JN	< 0.000016 U	< 0.000021 U	0.0037	0.0084
OCDD	3268-87-9	µg/kg		1.7	6.4 J	9.0 J	5.5 J	3.0	0.016	0.0047 J+	0.0054 J	1.4	4.8 J
OCDF	39001-02-0	µg/kg		0.12	0.74	0.73	0.38	0.26	0.00065 J+	< 0.000042 U	< 0.000045 U	0.067	0.24
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.0077	0.02	0.02	0.016	0.011	0.00052	0.00029	0.000092	0.0059	0.016
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.0077	0.02	0.02	0.016	0.011	0.00052	0.00013	0.000081	0.0054	0.016
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.0077	0.02	0.02	0.016	0.011	0.0005	0.0000014	0.000065	0.0052	0.016
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 3.2 U	< 3.6 U	< 3.5 U	< 3.5 U	< 3.4 U	< 2.9 UJ	< 2.9 U	< 2.8 U	< 3.8 U	< 3.7 U
Aroclor 1221	11104-28-2	µg/kg		< 3.2 U	< 3.6 U	< 3.5 U	< 3.5 U	< 3.4 U	< 2.9 U	< 2.9 U	< 2.8 U	< 3.8 U	< 3.7 U
Aroclor 1232	11141-16-5	µg/kg		< 3.2 U	< 3.6 U	< 3.5 U	< 3.5 U	< 3.4 U	< 2.9 U	< 2.9 U	< 2.8 U	< 3.8 U	< 3.7 U
Aroclor 1242	53469-21-9	µg/kg		< 3.2 U	< 3.6 U	< 3.5 U	< 3.5 U	< 3.4 U	< 2.9 U	< 2.9 U	< 2.8 U	< 3.8 U	< 3.7 U
Aroclor 1248	12672-29-6	µg/kg		< 3.2 U	< 3.6 U	< 3.5 U	< 3.5 U	< 3.4 U	< 2.9 U	< 2.9 U	< 2.8 U	< 3.8 U	< 3.7 U
Aroclor 1254	11097-69-1	µg/kg		< 3.2 U	< 3.6 U	< 3.5 U	< 3.5 U	< 3.4 U	< 2.9 U	< 2.9 U	< 2.8 U	3.8 J	16 J
Aroclor 1260	11096-82-5	µg/kg		9.1	22	21	11	46	< 2.9 UJ	< 2.9 U	< 2.8 U	< 3.8 U	< 3.7 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		9.1	22	21	11	46	< 2.9 UJ	< 2.9 U	< 2.8 U	3.8	16
Pesticides													
2,4-DDD	53-19-0	µg/kg		7.21	3.58	2.95	4.05	15.1	< 0.012 UJ	< 0.010 UJ	< 0.028 UJ	0.597	1.43
2,4-DDE	3424-82-6	µg/kg		0.772 J	1.07 J	0.938 J	1.17 J	2.22	< 0.0059 U	< 0.0065 U	< 0.018 U	0.173 J	0.883
2,4-DDT	789-02-6	µg/kg		0.277 J	0.190 J	0.11 JN	0.230 J	0.26 JN	< 0.021 UJ	< 0.014 UJ	< 0.018 UJ	0.137 J	0.198 J
4,4'-DDD	72-54-8	µg/kg		13.7	10.0	9.44	14.0	35.8	< 0.017 UJ	< 0.011 UJ	< 0.014 UJ	1.97	4.14
4,4'-DDE	72-55-9	µg/kg		5.56	13.8	12.7	14.2	16.8	0.015 JN	< 0.0081 U	0.030 JN	3.47	10.7
4,4'-DDT	50-29-3	µg/kg		0.346 J	0.325 J	0.240 J	14.7	1.36 J	< 0.037 UJ	< 0.045 UJ	< 0.053 UJ	0.574 J	0.832 J
DDx (b)	T_DDx (PDI)	µg/kg		27.9	29	26.4	48.4	71.5	0.0335	< 0.045 UJ	0.0565	6.92	18.2
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		770	8500	6600	2600	3100	1.5 J	< 14 U	1.5 J	92	390
Acenaphthene	83-32-9	µg/kg		700	6400	3300	1900	1000	1.1 J	< 14 U	< 14 U	79	400
Acenaphthylene	208-96-8	µg/kg		140	570	300	190	120	0.90 J	< 14 U	< 14 U	35	91
Anthracene	120-12-7	µg/kg		700	6400 J	3000	1800	960	3.3 J	< 14 U	< 14 U	75	240
Benz(a)anthracene	56-55-3	µg/kg		690	3400	1900	1300	510	5.2 J	3.2 J	2.5 J	220	580
Benzo(a)pyrene	50-32-8	µg/kg		790	2900	1500	1000	410	< 7.2 U	< 14 U	< 14 U	260	520
Benzo(b)fluoranthene	205-99-2	µg/kg		800	2800	1400	940	430	< 7.2 U	< 14 U	< 14 U	320	630
Benzo(g,h,i)perylene	191-24-2	µg/kg		770	1400	1000	740	360	3.7 J	< 14 U	< 14 U	160	380
Benzo(k)fluoranthene	207-08-9	µg/kg		280	1000 J	430	350	130	< 7.2 U	< 14 U	< 14 U	90	140
Chrysene	218-01-9	µg/kg		880	4200	2200	1400	710	4.4 J	< 14 U	< 14 U	320	740
Dibenz(a,h)anthracene	53-70-3	µg/kg		110	300 J	150	120	54	< 7.2 U	< 14 U	< 14 U	26	100
Fluoranthene	206-44-0	µg/kg		2800	11000	7000	4300	1700	6.6 J	< 14 U	< 14 U	510	1400
Fluorene	86-73-7	µg/kg		470	4900	2900	1600	850	2.0 J	< 14 U	< 14 U	55	260
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		720	1600	1000	750	320	3.1 J	< 14 U	< 14 U	200	460
Naphthalene	91-20-3	µg/kg		2000	1500	1300	1100	2100	2.8 J	< 14 U	< 14 U	200	870
Phenanthrene	85-01-8	µg/kg		3200	32000	17000	8900	3200	13	3.0 J	2.9 J	430	2100
Pyrene	129-00-0	µg/kg		3600	16000	8500	5400	2200	24	< 14 U	< 14 U	610	1700
Total PAHs (b)	T_PAH (PDI)	µg/kg		19000	100000	59000	34000	18000	75	20	21	3700	11000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		1100	4000	2100	1400	590	4.4	7.3	7.3	360	790

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S019	SC-S019	SC-S019	SC-S019	SC-S019	SC-S022	SC-S022	SC-S022	SC-S023	SC-S023
		Sample ID	PDI-SC-S019-13.7TO14.7	PDI-SC-S019-2TO4	PDI-SC-S019-4TO6	PDI-SC-S019-6TO8	PDI-SC-S019-8TO10	PDI-SC-S022-0TO2	PDI-SC-S022-2TO4	PDI-SC-S022-4TO6	PDI-SC-S023-0TO2	PDI-SC-S023-2TO3.9
		Sample Date	9/6/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018	7/20/2018	7/20/2018	7/20/2018	7/31/2018	7/31/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	13.7-14.7 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	2-3.9 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	60.3	54.7	55.0	55.5	58.4	67.4	67.7	66.0	49.7	53.8
Total Solids@70C	TSOLID70	%	61	55	57	58	59	68	68	67	51	54
Total Solids (%)	%SOLID	%	61.7	54.8	56.1	57.6	58.8	66.4	65.4	66.5	50.1	53.6
Clay	GS-Clay	%	16.1	18.8	16.6	19.2	17.4	10.0	10.0	12.2	14.5	18.7
Gravel	GS-Gravel	%	0	0	0.2	0.1	0.2	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0	0.1	0.4	0.1	0	0.4	0	0	0	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	16.48	8.461	8.858	8.42	7.525	30.37	39.95	27.77	23.05	20.44
Sand, Fine (#230) (d)	GS-Fsand	%	21.2	11.4	11.6	11.6	10.2	32.6	44.1	34.5	27.7	23.2
Sand, Medium	GS-Msand	%	0.2	0.2	0.3	0.2	0.2	5.3	5.2	0.1	0.4	0.2
Silt (#200) (d)	GS-Silt-200	%	67.21	72.53	73.64	71.97	74.57	53.92	44.74	59.82	62.04	60.45
Silt (#230) (d)	GS-Silt	%	62.5	69.6	70.9	68.8	71.9	51.7	40.6	53.1	57.4	57.7
Percent Fines (e)	GS-FINES	%	83.31	91.33	90.24	91.17	91.97	63.92	54.74	72.02	76.54	79.15
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	36000	40000	39000	38000	40000	9100	6800	8900	28000	25000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S023	SC-S023	SC-S023	SC-S024	SC-S024	SC-S024	SC-S028	SC-S028	SC-S028
		Sample ID	PDI-SC-S023-3.9TO5.3	PDI-SC-S023-5.3TO7.2	PDI-SC-S023-7.2TO8.8	PDI-SC-S024-0TO2	PDI-SC-S024-2TO4	PDI-SC-S024-4TO6	PDI-SC-S028-0TO2	PDI-SC-S028-2TO3.2	PDI-SC-S028-3.2TO5.7
		Sample Date	7/31/2018	7/31/2018	7/31/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	3.9-5.3 ft	5.3-7.2 ft	7.2-8.8 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	2-3.2 ft	3.2-5.7 ft
Chemical	**CAS_RN**	**Units**									
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.060	0.10	0.018	0.10	0.16	0.049	0.049	0.020	0.014
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.025	0.061	0.011	0.017 JN	0.021	0.0075	0.014 JN	0.0038 JN	0.0038
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0012 J	0.0029 J	0.00064 J	0.0010 J	0.0011 J	0.00044 J	0.00051 J	0.00019 JN	0.00021 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00055 J	0.00095 J	< 0.00024 U	0.00097 J	0.0013 J	0.00053 J+	0.00052 J+	0.00022 JN	0.00029 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0026 J	0.0094	0.00092 J	0.0028 J	0.0037	0.0015 J	0.0014 J	0.00047 J	< 0.00012 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0020 J	0.0039	0.00078 J	0.0052	0.0099	0.0026 J	0.0021 J	0.00088 J	0.00086 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0019 J	0.0055	0.00090 J	0.0012 J	0.0017 J	0.00065 J	0.00065 J	< 0.000096 U	0.00025 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0012 J	0.0023 J	0.00035 JN	0.0026 J	0.0033 J	0.0014 J	0.0012 J	0.00057 J	0.00070 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00013 U	< 0.00029 U	< 0.00017 U	0.00011 JN	< 0.00014 U	< 0.000076 U	< 0.00013 U	< 0.000049 U	< 0.000060 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00026 J	0.00042 J	< 0.000095 U	0.00052 J	0.00093 J	0.00031 J	0.00032 J	0.00014 J	0.00016 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0012 J	0.0054	0.00030 J	0.0013 J	0.0014 J	0.00046 J	< 0.00012 U	0.00014 J	0.00019 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00039 J	0.0012 J	0.00023 J	0.00065 J	0.00089 J	0.00030 J	0.00036 J	0.00015 J	0.00011 JN
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00069 J	0.0024 J	0.00023 J	0.00082 J	0.0011 J	0.00040 J	0.00043 J	0.00013 J	< 0.000052 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00012 JN	0.00023 JN	< 0.000095 U	0.00020 JN	0.00025 JN	< 0.000076 U	< 0.00010 U	< 0.000094 U	0.000087 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0010	0.0028	0.00023 J	0.0013	0.0012 JN	0.00042 JN	0.00076 J	0.00023 J	0.00029 J
OCDD	3268-87-9	µg/kg	0.97	1.9	0.34	0.95	1.6	0.53	0.52	0.21	0.15
OCDF	39001-02-0	µg/kg	0.065	0.12	0.020	0.051	0.043	0.017	0.026	0.0090	0.0068 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0028	0.0064	0.00087	0.004	0.0061	0.002	0.002	0.00079	0.00074
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0027	0.0063	0.00084	0.0039	0.0059	0.0019	0.002	0.00076	0.00055
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0026	0.0062	0.00079	0.0038	0.0058	0.0019	0.0019	0.00072	0.00047
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016	12674-11-2	µg/kg	< 5.6 U	< 6.0 U	< 2.5 U	< 3.4 UJ	< 2.7 UJ	< 2.5 UJ	< 3.0 UJ	< 2.5 UJ	< 2.8 UJ
Aroclor 1221	11104-28-2	µg/kg	< 5.6 U	< 6.0 U	< 2.5 U	< 3.4 UJ	< 2.7 UJ	< 2.5 UJ	< 3.0 UJ	< 2.5 UJ	< 2.8 UJ
Aroclor 1232	11141-16-5	µg/kg	< 5.6 U	< 6.0 U	< 2.5 U	< 3.4 UJ	< 2.7 UJ	< 2.5 UJ	< 3.0 UJ	< 2.5 UJ	< 2.8 UJ
Aroclor 1242	53469-21-9	µg/kg	< 5.6 U	< 6.0 U	< 2.5 U	< 3.4 UJ	< 2.7 UJ	< 2.5 UJ	< 3.0 UJ	< 2.5 UJ	< 2.8 UJ
Aroclor 1248	12672-29-6	µg/kg	< 5.6 U	< 6.0 U	< 2.5 U	< 3.4 UJ	< 2.7 UJ	< 2.5 UJ	< 3.0 UJ	< 2.5 UJ	< 2.8 UJ
Aroclor 1254	11097-69-1	µg/kg	5.2 J	< 6.0 U	< 2.5 U	< 3.4 UJ	12 J	7.7 J	5.1 J	3.0 J	4.2 J
Aroclor 1260	11096-82-5	µg/kg	< 5.6 U	13 J	< 2.5 U	6.4 J	< 2.7 UJ	< 2.5 UJ	< 3.0 UJ	< 2.5 UJ	< 2.8 UJ
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	5.2	13	< 2.5 U	6.4	12	7.7	5.1	3	4.2
Pesticides											
2,4-DDD	53-19-0	µg/kg	2.38	3.03	0.245 J	0.441 J	0.406 J	0.263 J	0.229 J	0.0757 J	0.178 J
2,4-DDE	3424-82-6	µg/kg	0.219 J	0.719	0.0581 J	0.118 J	0.139 J	0.11 JN	0.0457 J	0.0624 J	0.149 J
2,4-DDT	789-02-6	µg/kg	0.042 JN	0.118 J	0.0212 J	0.156 J	0.210 J	0.245 J	< 0.0610 U	0.131 J	0.115 J
4,4'-DDD	72-54-8	µg/kg	4.83	7.87	0.630	1.03 J	1.15 J	0.723 J	0.568 J	0.191 J	0.436 J
4,4'-DDE	72-55-9	µg/kg	1.96	6.09	0.415	2.36	1.48 J	0.922 J	0.653 J	0.330 J	0.945 J
4,4'-DDT	50-29-3	µg/kg	0.114 J	0.278 J	0.0534 J	0.480 J	0.460 J	0.506 J	< 0.248 U	0.317 J	0.411 J
DDx (b)	T_DDx (PDI)	µg/kg	9.55	18.1	1.42	4.59	3.85	2.77	1.62	1.11	2.23
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	420	380	95	21 J	19	19	13 J	2.2 J	4.4 J
Acenaphthene	83-32-9	µg/kg	470	820	73	14 J	16	8.4 J	7.3 J	2.0 J	2.1 J
Acenaphthylene	208-96-8	µg/kg	120	120	16	16 J	36	8.7 J	6.2 J	1.3 J	4.2 J
Anthracene	120-12-7	µg/kg	290	300	46	33 J	48	28	20	3.8 J	15
Benz(a)anthracene	56-55-3	µg/kg	640	710	62	110	170	85	47	9.6	44 J
Benzo(a)pyrene	50-32-8	µg/kg	780	750	83	150	240	91	64	9.4	55 J
Benzo(b)fluoranthene	205-99-2	µg/kg	800	830	84	200	300	120	92	16	66 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	490	470	67	140	230	73	65	9.3	48
Benzo(k)fluoranthene	207-08-9	µg/kg	110	160	23	87	82	36	31	5.2 J	21 J
Chrysene	218-01-9	µg/kg	790	1000	89	140	200	110	61	14	56 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	80	65	5.8 J	28 J	48	13	12 J	2.7 J	9.2
Fluoranthene	206-44-0	µg/kg	1700	1800	110	180	210	100	72	14	49 J
Fluorene	86-73-7	µg/kg	330	290	42	13 J	20	12	6.9 J	1.2 J	4.0 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	570	550	71	170	270	96	83	12	60
Naphthalene	91-20-3	µg/kg	990	930	250	39 J	60	47	24	5.4 J	19
Phenanthrene	85-01-8	µg/kg	2800	3000	400	110	120	71	57	14	34 J
Pyrene	129-00-0	µg/kg	2200	2300	260	270	380	200	110	29	120 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	14000	14000	1800	1700	2400	1100	770	150	610
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	1100	1000	110	230	360	130	99	16	81

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S023	SC-S023	SC-S023	SC-S024	SC-S024	SC-S024	SC-S028	SC-S028	SC-S028
		Sample ID	PDI-SC-S023-3.9TO5.3	PDI-SC-S023-5.3TO7.2	PDI-SC-S023-7.2TO8.8	PDI-SC-S024-0TO2	PDI-SC-S024-2TO4	PDI-SC-S024-4TO6	PDI-SC-S028-0TO2	PDI-SC-S028-2TO3.2	PDI-SC-S028-3.2TO5.7
		Sample Date	7/31/2018	7/31/2018	7/31/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	3.9-5.3 ft	5.3-7.2 ft	7.2-8.8 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	2-3.2 ft	3.2-5.7 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	70.2	65.5	78.7	57.8	73.9	78.8	63.1	78.2	70.6
Total Solids@70C	TSOLID70	%	75	70	80	61	76	79	64	81	73
Total Solids (%)	%SOLID	%	71.2	65.8	78.4	59.8	74.3	79.4	64.6	78.1	71.7
Clay	GS-Clay	%	3.6	9.7	3.4	10.9	4.3	3.4	4.1	3.2	9.0
Gravel	GS-Gravel	%	0	0	0.7	0	6.8	0	0.3	0	0.6
Sand, Coarse	GS-Csand	%	0	0	0.1	0.1	0.1	0.3	0.4	0.1	0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	68.61	46.54	67.35	49.5	66.53	68.98	61.94	72.08	46.28
Sand, Fine (#230) (d)	GS-Fsand	%	71.0	49.1	67.9	50.7	66.9	69.5	63.5	73.4	49.9
Sand, Medium	GS-Msand	%	2.2	3.6	13.4	8.5	12.1	17.8	7.0	12.9	4.9
Silt (#200) (d)	GS-Silt-200	%	25.48	40.15	15.04	30.99	10.26	9.517	26.35	11.61	38.91
Silt (#230) (d)	GS-Silt	%	23.1	37.6	14.5	29.8	9.9	9.0	24.8	10.3	35.3
Percent Fines (e)	GS-FINES	%	29.08	49.85	18.44	41.89	14.56	12.917	30.45	14.81	47.91
Liquid Limit	GS-LL	None									
Plasticity Index	GS-PI	None									
Plasticity Limit	GS-PL	None									
Total Organic Carbon	TOC	mg/kg	8300	17000	26000	12000	5500	3400	27000	1800 J	4900

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S028	SC-S030	SC-S030	SC-S030	SC-S030	SC-S031	SC-S031	SC-S031	SC-S031	SC-S031
			Sample ID	PDI-SC-S028-3.2TO5.7D	PDI-SC-S030-0TO2	PDI-SC-S030-2TO4	PDI-SC-S030-2TO4D	PDI-SC-S030-4TO5.3	PDI-SC-S031-0TO2	PDI-SC-S031-2TO4	PDI-SC-S031-4TO5.5	PDI-SC-S031-5.5TO7	PDI-SC-S031-7TO9.2
			Sample Date	7/27/2018	7/26/2018	7/26/2018	7/26/2018	7/26/2018	7/31/2018	7/31/2018	7/31/2018	7/31/2018	7/31/2018
			Sample Type Code	FD	N	N	FD	N	N	N	N	N	N
			Depth	3.2- ft	0-2 ft	2-4 ft	2- ft	4-5.3 ft	0-2 ft	2-4 ft	4-5.5 ft	5.5-7 ft	7-9.2 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.010	0.14	0.35	0.37	0.18	0.22	0.054	0.0038	0.0016 J	0.0014 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.0042	0.026 JN	0.093	0.093	0.030	0.046 JN	0.013	0.0012 J	0.00053 JN	0.00018 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		< 0.000090 U	0.0013 JN	0.0042 J	0.0048	0.0021 J	0.0025 JN	0.00081 J	0.00014 J	< 0.00010 U	< 0.000049 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.00010 J+	0.0013 J	0.0036 J	0.0037 J	0.0019 J	0.0022 J	0.00067 J	0.00014 J	< 0.00011 U	< 0.000063 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.00029 J	0.0038 J	0.0092	0.011	0.0052	0.0062	0.0020 J	0.00032 J	< 0.00013 U	< 0.00012 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.00055 JN	0.0050	0.017	0.017	0.0094	0.010	0.0029 J	0.00019 JN	< 0.00011 U	< 0.000057 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.00019 J	0.0018 J	0.0051	0.0048	0.0031 J	0.0032 J	0.00086 J	0.00015 J	< 0.00012 U	< 0.00011 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.00054 J	0.0034 J	0.0063	0.0067	0.0042	0.0043 J	0.0012 JN	0.00027 J	< 0.00010 U	0.00013 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		< 0.000045 U	< 0.00025 U	< 0.00060 U	< 0.00084 U	< 0.00027 U	< 0.00038 U	< 0.00017 U	< 0.000041 U	< 0.000098 U	< 0.000078 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.00016 J	0.00074 J	0.0015 JN	< 0.00076 U	0.0013 J	< 0.00040 U	0.00038 JN	< 0.000053 U	< 0.00014 U	< 0.000077 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.00010 JN	0.0011 J	0.0043	0.0045	0.0025 J	0.0028 J	0.00078 J	< 0.000039 U	< 0.000086 U	< 0.000043 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		< 0.000058 U	0.00083 JN	0.0027 J	0.0024 J	0.0014 J	0.0015 J	0.00043 J	0.000098 J	< 0.000087 U	< 0.000078 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.000097 JN	0.0013 J	0.0040 J	0.0041 J	0.0023 J	0.0025 J	0.00071 J	< 0.000041 U	< 0.000091 U	< 0.000045 U
2,3,7,8-TCDD	1746-01-6	µg/kg		< 0.000074 U	< 0.00016 U	0.00087	0.00077 J	0.00045 JN	0.00055 J	0.00083	< 0.000031 U	< 0.00013 U	< 0.000071 U
2,3,7,8-TCDF	51207-31-9	µg/kg		0.00014 JN	0.0015	0.0055	0.0063	0.0032	0.0048	0.00093	0.00011 J	< 0.00011 U	< 0.000051 U
OCDD	3268-87-9	µg/kg		0.092	1.3	3.3	3.8 J	1.6	2.3	0.60	0.043	0.018	0.017
OCDF	39001-02-0	µg/kg		0.0050 J	0.068	0.20	0.21	0.063	0.14	0.028	0.0030 J	0.0010 J+	0.0011 J+
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.00058	0.0051	0.014	0.014	0.008	0.0082	0.0032	0.00022	0.000097	0.000073
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.00048	0.005	0.013	0.014	0.0077	0.0082	0.0029	0.0002	0.000092	0.000058
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.00044	0.0049	0.013	0.013	0.0075	0.008	0.0027	0.00017	0.000022	0.000019
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 2.7 UJ	< 3.4 UJ	< 3.4 UJ	< 3.3 UJ	< 2.8 UJ	< 74 U	< 2.8 U	< 2.6 U	< 2.9 U	< 2.8 U
Aroclor 1221	11104-28-2	µg/kg		< 2.7 U	< 3.4 U	< 3.4 U	< 3.3 UJ	< 2.8 UJ	< 74 U	< 2.8 U	< 2.6 U	< 2.9 U	< 2.8 U
Aroclor 1232	11141-16-5	µg/kg		< 2.7 U	< 3.4 U	< 3.4 U	< 3.3 UJ	< 2.8 UJ	< 74 U	< 2.8 U	< 2.6 U	< 2.9 U	< 2.8 U
Aroclor 1242	53469-21-9	µg/kg		< 2.7 U	< 3.4 U	< 3.4 U	< 3.3 UJ	< 2.8 UJ	< 74 U	< 2.8 U	< 2.6 U	< 2.9 U	< 2.8 U
Aroclor 1248	12672-29-6	µg/kg		< 2.7 UJ	< 3.4 UJ	< 3.4 UJ	< 3.3 UJ	< 2.8 UJ	< 74 U	< 2.8 U	< 2.6 U	< 2.9 U	< 2.8 U
Aroclor 1254	11097-69-1	µg/kg		5.6 J	52	270 J	160 J	91 J	670	140	6.9	3.1 J	< 2.8 U
Aroclor 1260	11096-82-5	µg/kg		< 2.7 U	< 3.4 U	< 3.4 U	< 3.3 UJ	< 2.8 UJ	< 74 UJ	< 2.8 UJ	< 2.6 UJ	< 2.9 U	< 2.8 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		5.6	52	270	160	91	670	140	6.9	3.1	< 2.8 U
Pesticides													
2,4-DDD	53-19-0	µg/kg		0.157 J	0.824 J	2.37	2.13	0.794 J	3.16	0.933	0.117 J	0.0530 J	0.011 JN
2,4-DDE	3424-82-6	µg/kg		0.132 J	0.365 J	1.50 J	1.67 J	0.671 J	1.35	0.437	0.0345 J	0.0239 J	0.00558 J
2,4-DDT	789-02-6	µg/kg		0.0774 J	0.268 J	0.722 J	0.975 J	0.34 JN	0.815 J	0.232 J	0.021 JN	0.0201 J	0.0142 J
4,4'-DDD	72-54-8	µg/kg		0.350 J	2.63	7.84	6.70	2.86	7.24	2.40	0.318	0.132 J	0.0218 J
4,4'-DDE	72-55-9	µg/kg		0.726 J	3.75	14.1 J	15.0 J	6.11	13.8	4.16	0.297	0.188 J	0.0276 J
4,4'-DDT	50-29-3	µg/kg		< 0.213 U	0.921 J	2.48	3.47	1.35 J	2.27 J	0.692 J	0.0825 J	0.0467 J	0.0354 J
DDx (b)	T_DDx (PDI)	µg/kg		1.55	8.76	29	29.9	12.1	28.6	8.85	0.87	0.464	0.116
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		7.9	17 J	53	120	41	43	15	1.2 J	< 1.4 U	< 1.4 U
Acenaphthene	83-32-9	µg/kg		5.1 J	25 J	140	160	57	160	52	9.9	4.1	4.5
Acenaphthylene	208-96-8	µg/kg		7.4	23 J	65	85	33 J	65	22	2.0 J	< 1.4 U	0.17 J
Anthracene	120-12-7	µg/kg		26	44	160	220	82	180	48	4.2	< 1.4 U	< 1.4 U
Benz(a)anthracene	56-55-3	µg/kg		110 J	180	780	830	310	750	260	17	4.6	1.8 J
Benzo(a)pyrene	50-32-8	µg/kg		98 J	210	810	940	360	990	380	18	4.6	< 1.4 U
Benzo(b)fluoranthene	205-99-2	µg/kg		120 J	320	1200	1400	550	1400	450	26	6.5	3.2
Benzo(g,h,i)perylene	191-24-2	µg/kg		75	200	890	1000	400	730	280	13	5.0	2.4
Benzo(k)fluoranthene	207-08-9	µg/kg		36 J	110	370	440	170	390	160	6.9	2.0	< 1.4 U
Chrysene	218-01-9	µg/kg		130 J	240	970	1000	390	1100	370	27	5.3	2.3
Dibenz(a,h)anthracene	53-70-3	µg/kg		21	30 J	110	120	58	180	82	2.1 J	0.56 J	< 1.4 U
Fluoranthene	206-44-0	µg/kg		160 J	360	1500	1900	570	1600	640	40	12	11
Fluorene	86-73-7	µg/kg		7.3	27 J	87	150	41	96	19	2.3 J	1.4 J	1.6
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		100	220	900	1100	420	960	360	17	5.1	2.3
Naphthalene	91-20-3	µg/kg		27	42	150	170	69	100	30	2.2 J	< 1.4 U	0.71 J
Phenanthrene	85-01-8	µg/kg		73 J	180	920	1200	300	860	400	50	13	21
Pyrene	129-00-0	µg/kg		350 J	450	2100	2500	860	1900	780	60	15	11
Total PAHs (b)	T_PAH (PDI)	µg/kg		1400	2700	11000	13000	4700	12000	4300	300	80	63
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		150	310	1200	1400	550	1500	570	26	6.8	1.4

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S028	SC-S030	SC-S030	SC-S030	SC-S030	SC-S031	SC-S031	SC-S031	SC-S031	SC-S031
		Sample ID	PDI-SC-S028-3.2TO5.7D	PDI-SC-S030-0TO2	PDI-SC-S030-2TO4	PDI-SC-S030-2TO4D	PDI-SC-S030-4TO5.3	PDI-SC-S031-0TO2	PDI-SC-S031-2TO4	PDI-SC-S031-4TO5.5	PDI-SC-S031-5.5TO7	PDI-SC-S031-7TO9.2
		Sample Date	7/27/2018	7/26/2018	7/26/2018	7/26/2018	7/26/2018	7/31/2018	7/31/2018	7/31/2018	7/31/2018	7/31/2018
		Sample Type Code	FD	N	N	FD	N	N	N	N	N	N
		Depth	3.2- ft	0-2 ft	2-4 ft	2- ft	4-5.3 ft	0-2 ft	2-4 ft	4-5.5 ft	5.5-7 ft	7-9.2 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	70.7	57.8	57.6	59.1	67.7	53.3	67.4	72.5	68.3	68.6
Total Solids@70C	TSOLID70	%	72	60	60	59	69	56	70	75	71	72
Total Solids (%)	%SOLID	%	71.1	58.2	58.7	58.6	66.4	54	67.6	71.9	69.2	69.3
Clay	GS-Clay	%		9.2	16.7		10.2	17.5	12.3	9.9	17.5	15.7
Gravel	GS-Gravel	%		5.9	0		0	0	0	0	0	0
Sand, Coarse	GS-Csand	%		0.3	0.3		0.1	0.1	0.1	0	0	0
Sand, Fine (#200) (d)	GS-Fsand-200	%		38.94	24.14		29.28	25.14	38.17	50.87	19.74	14.23
Sand, Fine (#230) (d)	GS-Fsand	%		42.8	28.0		34.2	29.2	44.1	56.3	26.3	23.7
Sand, Medium	GS-Msand	%		0.9	0.8		0.3	0.5	0.3	0	0	0
Silt (#200) (d)	GS-Silt-200	%		44.75	58.15		60.21	56.75	49.02	39.22	62.75	69.86
Silt (#230) (d)	GS-Silt	%		40.9	54.3		55.3	52.7	43.1	33.8	56.2	60.4
Percent Fines (e)	GS-FINES	%		53.95	74.85		70.41	74.25	61.32	49.12	80.25	85.56
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	5300	13000	18000	20000	9900	27000	7700	3900	5400	4100

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S032	SC-S032	SC-S032	SC-S032	SC-S032	SC-S032	SC-S032	SC-S033	SC-S033	SC-S033
			Sample ID	PDI-SC-S032-0TO2	PDI-SC-S032-10TO12	PDI-SC-S032-12TO14	PDI-SC-S032-2TO4	PDI-SC-S032-4TO6	PDI-SC-S032-6TO8	PDI-SC-S032-8TO10	PDI-SC-S033-0TO2	PDI-SC-S033-2TO3	PDI-SC-S033-3TO4
			Sample Date	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	7/18/2018	7/18/2018	7/18/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-2 ft	10-12 ft	12-14 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-3 ft	3-4 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.017	0.00030 JN	0.0013 J	0.015	0.00083 J	0.00081 J	0.00037 J+	0.78	0.87	1.4
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.0073	< 0.000033 U	0.00024 JN	0.0093	0.00072 JN	< 0.00020 U	0.00023 JN	0.14	0.16	0.24
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	< 0.00017 U	< 0.000034 U	< 0.000058 U	< 0.00025 U	< 0.00010 U	< 0.00023 U	< 0.000079 U	0.0083	0.011	0.016
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00030 J+	< 0.000063 U	< 0.000065 U	0.00028 J+	0.00026 J+	< 0.00020 U	< 0.000077 U	0.0055 J	0.0083	0.016
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	< 0.00016 U	< 0.000095 U	< 0.000063 U	< 0.00034 U	< 0.00015 U	< 0.00023 U	< 0.000082 U	0.012	0.019	0.034
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.00085 J	< 0.000057 U	< 0.000061 U	0.00074 J	< 0.000068 U	< 0.00019 U	< 0.000070 U	0.024	0.037	0.071
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	< 0.00013 U	< 0.000081 U	< 0.000054 U	< 0.00031 U	< 0.00013 U	< 0.00020 U	< 0.000073 U	0.0068	0.0097 J	0.018
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00056 J	< 0.000056 U	0.00021 J	0.00058 J	< 0.000066 U	< 0.00018 U	< 0.000068 U	0.0095	0.015	0.034
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.000094 U	< 0.000060 U	< 0.000039 U	< 0.00024 U	< 0.000084 U	< 0.00015 U	< 0.000046 U	0.0014 J+	0.0017 J+	0.0021 J+
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.000082 U	< 0.000046 U	< 0.000062 U	0.00010 JN	< 0.000069 U	< 0.00026 U	< 0.000063 U	0.0027 J	0.0038 JN	0.013
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.00020 JN	< 0.000040 U	< 0.000043 U	< 0.00011 U	< 0.000058 U	< 0.00019 U	< 0.000054 U	0.0034 J	0.0064	0.0095
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.00021 J	< 0.000059 U	< 0.000041 U	< 0.00025 U	< 0.000090 U	< 0.00014 U	< 0.000050 U	0.0047 J	0.0068	0.013
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.00020 J	< 0.000045 U	< 0.000045 U	0.00025 J	< 0.000069 U	< 0.00021 U	< 0.000054 U	0.0055 J	0.0093	0.020
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000051 U	< 0.000048 U	< 0.000055 U	< 0.000045 U	< 0.000057 U	< 0.00011 U	< 0.000046 U	0.00085 J	0.0014	0.0044
2,3,7,8-TCDF		51207-31-9	µg/kg	0.00036 J	< 0.000033 U	< 0.000040 U	0.00035 J	< 0.000055 U	< 0.000081 U	< 0.000042 U	0.0071 JN	0.013	0.027
OCDD		3268-87-9	µg/kg	0.18	0.0043 J	0.014	0.16	0.0084	0.0064 J	0.0037 J	8.6 J	8.1 J	11 J
OCDF		39001-02-0	µg/kg	0.010	< 0.000074 U	0.00026 J+	0.012	0.00080 J	< 0.00023 U	0.00013 J+	0.43	0.43	0.53
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.00064	0.000028	0.000072	0.00069	0.000079	0.00014	0.000039	0.024	0.032	0.065
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.00063	0.000025	0.000069	0.00061	0.000072	0.00014	0.000036	0.024	0.03	0.065
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.00059	0.0000013	0.000038	0.00056	0.000037	0.00001	0.0000048	0.024	0.028	0.065
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 2.5 U	< 2.8 U	< 2.8 U	< 5.0 U	< 2.9 U	< 2.8 U	< 2.8 U	< 44 U	< 38 U	< 380 U
Aroclor 1221		11104-28-2	µg/kg	< 2.5 UJ	< 2.8 U	< 2.8 U	< 5.0 UJ	< 2.9 U	< 2.8 UJ	< 2.8 UJ	< 44 UJ	< 38 UJ	< 380 U
Aroclor 1232		11141-16-5	µg/kg	< 2.5 U	< 2.8 U	< 2.8 U	< 5.0 U	< 2.9 U	< 2.8 U	< 2.8 U	< 44 U	< 38 U	< 380 U
Aroclor 1242		53469-21-9	µg/kg	< 2.5 U	< 2.8 U	< 2.8 U	< 5.0 U	< 2.9 U	< 2.8 U	< 2.8 U	< 44 U	< 38 U	< 380 U
Aroclor 1248		12672-29-6	µg/kg	< 2.5 UJ	< 2.8 U	< 2.8 U	< 5.0 UJ	< 2.9 U	< 2.8 UJ	< 2.8 UJ	< 44 U	< 38 U	< 380 U
Aroclor 1254		11097-69-1	µg/kg	23	< 2.8 U	< 2.8 U	62 J	1.3 J	6.4	< 2.8 U	1400 J	1500 J	8900 J
Aroclor 1260		11096-82-5	µg/kg	< 2.5 UJ	< 2.8 UJ	< 2.8 UJ	< 5.0 UJ	< 2.9 UJ	< 2.8 UJ	< 2.8 UJ	< 44 U	< 38 U	< 380 U
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	23	< 2.8 UJ	< 2.8 UJ	62	1.3	6.4	< 2.8 UJ	1400	1500	8900
Pesticides													
2,4-DDD		53-19-0	µg/kg	< 0.35 U	< 0.016 U	< 0.013 U	< 0.239 U	< 0.012 UJ	0.010 JN	0.012 JN	3.32 J	5.34 J	13.0 J
2,4-DDE		3424-82-6	µg/kg	< 0.24 UJ	0.015 JN	0.019 JN	< 0.150 U	< 0.0186 U	0.00632 J	0.010 JN	0.581	0.978	1.94
2,4-DDT		789-02-6	µg/kg	< 0.089 U	< 0.021 U	< 0.017 U	< 0.11 U	< 0.016 U	< 0.0031 U	< 0.012 U	0.112 J	0.15 JN	1.47 J
4,4'-DDD		72-54-8	µg/kg	0.575 J	< 0.019 U	0.027 JN	0.466 J	< 0.0559 UJ	0.0192 J	0.026 JN	8.51 J	11.8 J	26.6 J
4,4'-DDE		72-55-9	µg/kg	1.0 JN	0.0303 J	0.0362 J	0.873 J	< 0.0912 U	0.0385 J	0.0394 J	5.73	8.60	16.2
4,4'-DDT		50-29-3	µg/kg	< 0.35 U	0.082 JN	0.052 JN	0.290 J	< 0.0571 U	0.011 JN	0.0603 J	0.546 J	1.08 J	10.0 J
DDx	(b)	T_DDx (PDI)	µg/kg	1.75	0.138	0.143	1.75	< 0.0912 U	0.0866	0.154	18.8	27.9	69.2
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	4.2	0.70 J	0.86 J	4.2	1.9	0.81 J	0.67 J	250	2000	540
Acenaphthene		83-32-9	µg/kg	61	0.50 J	0.53 J	140	3.7	2.3	1.4	1700	1300	7000
Acenaphthylene		208-96-8	µg/kg	8.8	< 1.3 U	< 1.3 U	8.9	0.96 J	0.64 J	0.35 J	80 J	170 J	250
Anthracene		120-12-7	µg/kg	36	0.61 J	0.67 J	37	4.7	2.4	1.3	8500	6200	14000
Benz(a)anthracene		56-55-3	µg/kg	130	1.2 J	1.3	76	8.4	4.8	2.9	3300	4200	9700
Benzo(a)pyrene		50-32-8	µg/kg	70	0.94 J	1.1 J	58	8.0	4.4	2.3	2900	3600	6700
Benzo(b)fluoranthene		205-99-2	µg/kg	92	2.6	2.7	74	10	6.4	4.2	4200	6500	10000
Benzo(g,h,i)perylene		191-24-2	µg/kg	47	1.3	1.1 J	48	7.3	4.0	2.5	2000	2900	4500
Benzo(k)fluoranthene		207-08-9	µg/kg	30	0.85 J	0.67 J	23	4.1	2.2	1.5	1700	1700	4200
Chrysene		218-01-9	µg/kg	120	1.3	1.8	78	11	5.7	3.5	5200	6800	13000
Dibenz(a,h)anthracene		53-70-3	µg/kg	7.6	0.58 J	0.60 J	6.0	1.2 J	0.83 J	0.64 J	500	520	940
Fluoranthene		206-44-0	µg/kg	440	2.6	2.7	310	38	23	13	11000	14000	39000
Fluorene		86-73-7	µg/kg	17	0.59 J	0.92 J	20	2.3	1.4	0.88 J	3200	2100	14000
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	54	1.1 J	1.0 J	50	7.2	3.9	2.5	2400 J	3400	5300 J
Naphthalene		91-20-3	µg/kg	8.7	0.78 J	1.0 J	12	9.1	2.0	1.1 J	260	930	550
Phenanthrene		85-01-8	µg/kg	420	3.3	4.3	510	44	30	14	14000	10000	67000
Pyrene		129-00-0	µg/kg	480	3.0	3.0	380	42	24	14	10000	15000	32000
Total PAHs	(b)	T_PAH (PDI)	µg/kg	2000	23	25	1800	200	120	67	71000	81000	230000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	110	2	2.2	84	12	6.8	3.9	4400	5600	10000

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S032	SC-S032	SC-S032	SC-S032	SC-S032	SC-S032	SC-S032	SC-S033	SC-S033	SC-S033
		Sample ID	PDI-SC-S032-0TO2	PDI-SC-S032-10TO12	PDI-SC-S032-12TO14	PDI-SC-S032-2TO4	PDI-SC-S032-4TO6	PDI-SC-S032-6TO8	PDI-SC-S032-8TO10	PDI-SC-S033-0TO2	PDI-SC-S033-2TO3	PDI-SC-S033-3TO4
		Sample Date	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	7/18/2018	7/18/2018	7/18/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-2 ft	10-12 ft	12-14 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-3 ft	3-4 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	80.1	68.9	70.4	79.1	65.8	67.3	71.2	44.5	51.0	51.9
Total Solids@70C	TSOLID70	%	82	71	73	82	70	71	74	46	52	59
Total Solids (%)	%SOLID	%	77.6	69.7	69.7	79.8	65.4	66.8	71.4	41.9	50.7	52.4
Clay	GS-Clay	%	3.4	7.9	9.5	5.1	14.0	13.6	9.5	5.3	4.8	8.9
Gravel	GS-Gravel	%	0	0	0	0.1	1.5	0	0.1	0.7	0	0
Sand, Coarse	GS-Csand	%	0.5	0	0.1	0.2	0.5	0.1	0.2	1.6	1.1	0.8
Sand, Fine (#200) (d)	GS-Fsand-200	%	62.02	32.64	25.98	59.4	24.85	36.62	52.33	37.19	30.33	38.88
Sand, Fine (#230) (d)	GS-Fsand	%	62.5	39.7	34.9	60.0	32.2	43.2	59.4	41.8	37.9	43.6
Sand, Medium	GS-Msand	%	29.6	0.1	0.2	28.6	1.3	0.5	0.4	8.1	3.0	5.8
Silt (#200) (d)	GS-Silt-200	%	4.378	59.45	64.21	6.596	57.84	49.07	37.46	47.00	60.66	45.61
Silt (#230) (d)	GS-Silt	%	3.9	52.4	55.3	6.0	50.5	42.5	30.4	42.4	53.1	40.9
Percent Fines (e)	GS-FINES	%	7.778	67.35	73.71	11.696	71.84	62.67	46.96	52.3	65.46	54.51
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	1700 J	7700	11000	2000	3900	3800	3300	40000	46000	73000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
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b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S034	SC-S034	SC-S034	SC-S036	SC-S036	SC-S036	SC-S038	SC-S038	SC-S038
			Sample ID	PDI-SC-S034-0TO1.8	PDI-SC-S034-1.8TO4	PDI-SC-S034-4TO5.2	PDI-SC-S036-0TO1.4	PDI-SC-S036-1.4TO3.4	PDI-SC-S036-3.4TO5.2	PDI-SC-S038-0TO2	PDI-SC-S038-2TO3.4	PDI-SC-S038-3.4TO5.4
			Sample Date	7/20/2018	7/20/2018	7/20/2018	7/20/2018	7/20/2018	7/20/2018	7/31/2018	7/31/2018	7/31/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	0-1.8 ft	1.8-4 ft	4-5.2 ft	0-1.4 ft	1.4-3.4 ft	3.4-5.2 ft	0-2 ft	2-3.4 ft	3.4-5.4 ft
Chemical		**CAS_RN**	**Units**									
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.024	0.0022 J	0.0011 J	0.067	0.15	0.17	0.032	0.0019 J	0.0013 J
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.0067 JN	0.00050 JN	0.00017 JN	0.012 JN	0.037	0.26	0.028	0.0011 J	0.00031 JN
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.00040 J+	< 0.00011 U	0.00018 JN	0.0017 J	0.0024 J	0.0043	< 0.00051 U	< 0.00015 U	< 0.000089 U
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00051 J+	< 0.00015 U	< 0.00012 U	0.00084 J+	0.00093 JN	0.0013 J	0.00027 J+	0.00014 J+	0.00015 J+
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.00062 J	0.00014 J	< 0.000087 U	0.0066	0.0097	0.0086	0.0012 J	0.00024 J	< 0.000069 U
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.0013 J	0.00016 JN	0.00010 JN	0.0034 J	0.0060	0.0080	0.0013 J	0.00012 JN	0.000081 JN
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.00040 J+	0.00015 J+	< 0.000084 U	0.0021 J	0.0035 J	0.011	0.0015 J	< 0.000095 U	< 0.000058 U
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00094 J	0.00032 J+	0.00024 J+	0.0021 J	0.0028 J	0.0031 J	0.00066 J	0.00016 JN	0.00018 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	0.00064 J+	0.00085 J+	0.00076 J+	0.00078 J+	0.00074 J+	0.00074 J+	< 0.00015 U	< 0.000072 U	< 0.000045 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	0.00030 J+	0.000099 J+	< 0.000053 U	0.00047 J	0.00065 J	0.0012 J	< 0.00014 U	< 0.00014 U	< 0.000079 U
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.00038 J+	0.00034 J+	0.00026 J+	0.0014 J	0.0029 J	0.0028 J	< 0.00021 U	< 0.000088 U	0.00010 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.00023 J+	0.000081 JN	< 0.000048 U	0.00044 J	0.00082 J	0.0028 J	0.00064 J	< 0.000069 U	< 0.000048 U
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.00029 J	< 0.000042 U	< 0.000031 U	0.00068 J	0.0011 J	0.0028 J	< 0.00021 U	< 0.000091 U	< 0.000052 U
2,3,7,8-TCDD		1746-01-6	µg/kg	0.00063	< 0.000020 U	0.000097 JN	0.00034 JN	0.00036 JN	0.00040 JN	< 0.00020 U	< 0.000089 U	< 0.000086 U
2,3,7,8-TCDF		51207-31-9	µg/kg	0.00041 J	0.000088 J+	0.000041 J+	0.0014	0.0016	0.0021	0.00052 JN	0.00027 J	0.00022 J
OCDD		3268-87-9	µg/kg	0.21	0.018	0.012	0.71	1.9	2.0	0.43	0.020	0.011
OCDF		39001-02-0	µg/kg	0.016	0.0012 J+	0.00065 JN	0.038	0.12	0.27	0.034	0.0028 J+	< 0.00034 U
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.0019	0.00033	0.00026	0.0039	0.0065	0.011	0.0014	0.0002	0.00013
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.0019	0.0003	0.00018	0.0037	0.0063	0.011	0.0014	0.00017	0.00012
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.0019	0.00029	0.00013	0.0035	0.0061	0.011	0.0013	0.0001	0.000074
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016		12674-11-2	µg/kg	< 2.4 U	< 2.8 UJ	< 2.8 UJ	< 3.8 UJ	< 3.0 UJ	< 3.1 UJ	< 6.8 U	< 6.7 U	< 6.5 U
Aroclor 1221		11104-28-2	µg/kg	< 2.4 U	< 2.8 UJ	< 2.8 UJ	< 3.8 UJ	< 3.0 UJ	< 3.1 UJ	< 6.8 U	< 6.7 U	< 6.5 U
Aroclor 1232		11141-16-5	µg/kg	< 2.4 U	< 2.8 UJ	< 2.8 UJ	< 3.8 UJ	< 3.0 UJ	< 3.1 UJ	< 6.8 U	< 6.7 U	< 6.5 U
Aroclor 1242		53469-21-9	µg/kg	< 2.4 U	< 2.8 UJ	< 2.8 UJ	< 3.8 UJ	< 3.0 UJ	< 3.1 UJ	< 6.8 U	< 6.7 U	< 6.5 U
Aroclor 1248		12672-29-6	µg/kg	< 2.4 U	< 2.8 UJ	< 2.8 UJ	< 3.8 UJ	< 3.0 UJ	< 3.1 UJ	< 6.8 U	< 6.7 U	< 6.5 U
Aroclor 1254		11097-69-1	µg/kg	40 J	< 2.8 UJ	< 2.8 UJ	< 3.8 UJ	< 3.0 UJ	85 J	< 6.8 U	< 6.7 U	< 6.5 U
Aroclor 1260		11096-82-5	µg/kg	< 2.4 U	< 2.8 UJ	< 2.8 UJ	11 J	21 J	< 3.1 UJ	3.5 J	< 6.7 U	< 6.5 U
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	40	< 2.8 UJ	< 2.8 UJ	11	21	85	3.5	< 6.7 U	< 6.5 U
Pesticides												
2,4-DDD		53-19-0	µg/kg	7.34	0.176 J	< 0.028 U	0.860 J	3.03 J	25.2 J	0.731 J	0.0236 J	0.012 JN
2,4-DDE		3424-82-6	µg/kg	0.859 J	0.108 J	0.0232 J	0.340 J	0.484	1.41	0.172 J	0.00622 J	0.00770 J
2,4-DDT		789-02-6	µg/kg	1.61	0.204 J	< 0.040 U	2.68 J	0.162 J	1.72 J	0.045 JN	0.015 JN	0.028 JN
4,4'-DDD		72-54-8	µg/kg	26.5	0.366 J	0.108 J	2.70 J	9.00 J	35.7 J	1.40 J	0.0214 J	0.0170 J
4,4'-DDE		72-55-9	µg/kg	6.20	0.193 J	0.0560 J	6.46	5.82	7.84	0.919	0.0178 J	0.0186 J
4,4'-DDT		50-29-3	µg/kg	9.65	0.448 J	< 0.0956 U	4.63 J	0.955 J	12.3 J	0.0942 J	0.0374 J	0.0589 J
DDx	(b)	T_DDx (PDI)	µg/kg	52.2	1.5	0.235	17.7	19.5	84.2	3.36	0.121	0.142
Semivolatile Organics												
2-Methylnaphthalene		91-57-6	µg/kg	6.8 J	1.5 J	< 2.7 U	45	170	390	760	320	1000
Acenaphthene		83-32-9	µg/kg	46	1.6 J	0.72 J	67	280	720	1200	480	1900
Acenaphthylene		208-96-8	µg/kg	6.3 J	< 2.8 U	< 2.7 U	27 J	48	220	540	320	740
Anthracene		120-12-7	µg/kg	48	4.9	1.2 J	55	150	590	1300	880	1100
Benz(a)anthracene		56-55-3	µg/kg	99	5.0	2.2 J	170	570	1800	3100	1400	1100
Benzo(a)pyrene		50-32-8	µg/kg	110	3.5	1.4 J	230	730	2400	5100	1600	1300
Benzo(b)fluoranthene		205-99-2	µg/kg	140	5.8	2.6 J	270	740	2000	4400	1600	1300
Benzo(g,h,i)perylene		191-24-2	µg/kg	98	3.1	3.9	190	550	1900	4800	1900	1400
Benzo(k)fluoranthene		207-08-9	µg/kg	50	2.1 J	1.0 J	100	300	600	1500	460	350
Chrysene		218-01-9	µg/kg	160	5.2	2.2 J	220	770	2300	4400	1500	1100
Dibenz(a,h)anthracene		53-70-3	µg/kg	15	0.90 J	< 2.7 U	37	87	230	380	99	110
Fluoranthene		206-44-0	µg/kg	210 J	17	4.1	320	1500	4700	11000	4900	5000
Fluorene		86-73-7	µg/kg	69	3.6	1.2 J	44	150	490	960	480	910
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	110 J	3.0 J	1.8 J	230 J	630 J	2100 J	4200	1500	1200
Naphthalene		91-20-3	µg/kg	20	1.6 J	< 2.7 U	130	400	1500	2900	1400	5400
Phenanthrene		85-01-8	µg/kg	500 J	23	6.6	270	1200	4200	8700	4200	5600
Pyrene		129-00-0	µg/kg	460 J	18	5.0	350	1800	6300	14000	6700	6300
Total PAHs	(b)	T_PAH (PDI)	µg/kg	2100	100	37	2800	10000	32000	69000	30000	36000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	160	5.8	3.4	340	1000	3200	6700	2200	1800

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S034	SC-S034	SC-S034	SC-S036	SC-S036	SC-S036	SC-S038	SC-S038	SC-S038
		Sample ID	PDI-SC-S034-0TO1.8	PDI-SC-S034-1.8TO4	PDI-SC-S034-4TO5.2	PDI-SC-S036-0TO1.4	PDI-SC-S036-1.4TO3.4	PDI-SC-S036-3.4TO5.2	PDI-SC-S038-0TO2	PDI-SC-S038-2TO3.4	PDI-SC-S038-3.4TO5.4
		Sample Date	7/20/2018	7/20/2018	7/20/2018	7/20/2018	7/20/2018	7/20/2018	7/31/2018	7/31/2018	7/31/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	0-1.8 ft	1.8-4 ft	4-5.2 ft	0-1.4 ft	1.4-3.4 ft	3.4-5.2 ft	0-2 ft	2-3.4 ft	3.4-5.4 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	79.3	67.5	69.3	52.1	64.9	63.1	55.3	57.9	59.8
Total Solids@70C	TSOLID70	%	81	70	73	53	68	62	58	61	62
Total Solids (%)	%SOLID	%	79.6	68.8	70.4	52.2	65.4	62.8	55.8	58.2	61.6
Clay	GS-Clay	%	0.8	24.8	17.8	13.0	6.1	6.6	16.2	17.6	10.6
Gravel	GS-Gravel	%	0	0	0	0	0	1.0	0	0	0
Sand, Coarse	GS-Csand	%	1.3	0.3	0.4	0.2	2.9	1.4	0.1	0	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	61.92	11.05	17.73	19.06	43.39	37.12	16.29	16.85	59.03
Sand, Fine (#230) (d)	GS-Fsand	%	62.5	14.4	22.8	23.2	45.8	40.1	20.3	21.7	62.7
Sand, Medium	GS-Msand	%	24.4	0.6	0.6	1.7	14.2	13.9	0.4	0.3	0.8
Silt (#200) (d)	GS-Silt-200	%	11.57	63.24	63.36	66.03	33.50	39.97	67.00	65.24	29.46
Silt (#230) (d)	GS-Silt	%	11.0	59.9	58.3	61.9	31.1	37.0	63.0	60.4	25.8
Percent Fines (e)	GS-FINES	%	12.37	88.04	81.16	79.03	39.6	46.57	83.2	82.84	40.06
Liquid Limit	GS-LL	None		60						54	
Plasticity Index	GS-PI	None		26						15	
Plasticity Limit	GS-PL	None		34						39	
Total Organic Carbon	TOC	mg/kg	2700	3000	2300	20000	11000	23000	38000	35000	49000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S038	SC-S042	SC-S042	SC-S042	SC-S045	SC-S045	SC-S045	SC-S053	SC-S053	SC-S053
			Sample ID	PDI-SC-S038-5.4TO7.2	PDI-SC-S042-0TO2	PDI-SC-S042-2TO4	PDI-SC-S042-4TO6	PDI-SC-S045-0TO2	PDI-SC-S045-2TO4	PDI-SC-S045-4TO6	PDI-SC-S053-0TO2	PDI-SC-S053-10TO12.4	PDI-SC-S053-2TO4
			Sample Date	7/31/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	8/16/2018	8/16/2018	8/16/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	5.4-7.2 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	10-12.4 ft	2-4 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0021 J	0.14	0.21	0.19	0.0033	0.0021 J	0.0025 J	0.069	0.0035 J	0.24
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.00031 JN	0.019	0.043	0.050	0.00053 J+	< 0.00027 U	< 0.00011 U	0.014	0.0016 J	0.081
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.00020 U	0.0012 J	< 0.00068 U	0.0032 J	0.00015 J	< 0.00015 U	< 0.000068 U	0.0017 J+	0.0012 JN	0.015
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00022 J+	0.0014 J	0.0016 J	0.0014 J	0.00014 JN	< 0.00016 U	< 0.00015 U	0.00079 J+	< 0.00038 UJ	0.0019 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00055 J	0.0026 J	0.0063	0.014	< 0.000061 U	< 0.000057 U	< 0.000044 U	0.0044 J	< 0.00037 U	0.083
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00018 J	0.0077	0.010	0.0075	0.00020 J	0.00016 JN	0.00012 JN	0.0028 J	< 0.00038 U	0.0095
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00037 J	0.0015 J	0.0038	0.0052	< 0.000063 U	< 0.000057 U	< 0.000045 U	0.0015 J	< 0.00033 U	0.028
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00042 J	0.0037 J	0.0030 J	0.0028 J	0.00022 J	0.00034 JN	0.00048 J+	0.0018 J	< 0.00035 U	0.0041 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.000076 U	< 0.00012 U	< 0.00021 U	0.00036 J	0.00011 J+	0.00012 J	0.000050 JN	0.00092 J+	0.0017 J+	0.0025 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00013 U	< 0.00012 U	0.00079 JN	0.00081 J	0.000081 J	< 0.000045 U	< 0.000045 U	0.00040 J	< 0.00058 U	0.0011 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00025 JN	0.0010 J	0.0024 J	0.0063	< 0.000032 U	0.000059 JN	< 0.000031 U	0.0022 J	< 0.00042 U	0.047
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00017 J	0.00083 J	0.0012 J	0.0013 J	0.000071 J	0.000074 J	< 0.000026 U	0.00050 J	< 0.00025 U	0.0041 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00035 J	0.00085 J	0.0017 J	0.0023 J	0.000080 J	< 0.000027 U	< 0.000033 U	0.0010 J	< 0.00041 U	0.014
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.000083 U	0.00046 J	0.00039 JN	0.00061 J	< 0.000025 U	0.000094 JN	0.00013 JN	0.00015 JN	< 0.00049 U	0.00059 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00078 J	0.0017	0.0018	0.0029	0.000099 J	< 0.000017 U	< 0.000014 U	0.0025	< 0.00022 U	0.019
OCDD	3268-87-9	µg/kg	< 0.00017 U	1.3	2.3	2.5	0.029	0.018	0.020	0.67	0.050 J	3.6 J
OCDF	39001-02-0	µg/kg	< 0.00017 U	0.053	0.11	0.12	0.0014 J+	< 0.00091 U	< 0.00049 U	0.053	0.0038 J	0.26
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00047	0.0048	0.0078	0.0091	0.00025	0.00021	0.00025	0.0035	0.00054	0.027
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00046	0.0048	0.007	0.0091	0.00024	0.000093	0.00014	0.0034	0.00053	0.027
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0004	0.0047	0.0066	0.0091	0.00022	0.000046	0.000079	0.0034	0.00024	0.026
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg	< 6.8 UJ	< 7.1 U	< 5.7 U	< 5.9 UJ	< 2.5 U	< 2.6 U	< 2.7 U	< 3.7 UJ	< 2.9 U	< 3.3 U
Aroclor 1221	11104-28-2	µg/kg	< 6.8 UJ	< 7.1 UJ	< 5.7 UJ	< 5.9 UJ	< 2.5 UJ	< 2.6 UJ	< 2.7 UJ	< 3.7 UJ	< 2.9 U	< 3.3 U
Aroclor 1232	11141-16-5	µg/kg	< 6.8 UJ	< 7.1 U	< 5.7 U	< 5.9 UJ	< 2.5 U	< 2.6 U	< 2.7 U	< 3.7 UJ	< 2.9 UJ	< 3.3 U
Aroclor 1242	53469-21-9	µg/kg	< 6.8 UJ	< 7.1 U	< 5.7 U	< 5.9 UJ	< 2.5 U	< 2.6 U	< 2.7 U	< 3.7 UJ	< 2.9 UJ	< 3.3 UJ
Aroclor 1248	12672-29-6	µg/kg	< 6.8 UJ	< 7.1 UJ	< 5.7 UJ	< 5.9 UJ	< 2.5 UJ	< 2.6 UJ	< 2.7 UJ	< 3.7 UJ	< 2.9 UJ	< 3.3 UJ
Aroclor 1254	11097-69-1	µg/kg	< 6.8 UJ	48 J	27 J	16 J	< 2.5 U	< 2.6 U	< 2.7 U	< 3.7 UJ	< 2.9 U	< 3.3 UJ
Aroclor 1260	11096-82-5	µg/kg	< 6.8 UJ	< 7.1 U	< 5.7 U	< 5.9 UJ	0.55 J	< 2.6 U	< 2.7 U	1.5 J	< 2.9 U	19 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	< 6.8 UJ	48	27	16	0.55	< 2.6 UJ	< 2.7 UJ	1.5	< 2.9 UJ	19
Pesticides													
2,4-DDD	53-19-0	µg/kg	< 0.0071 UJ	2.41	3.63	2.48	1.19	0.0126 J	0.00544 J	2.02	0.233 J	14.9
2,4-DDE	3424-82-6	µg/kg	0.00832 J	0.261 J	0.584	0.555	0.0315 J	0.0139 J	< 0.0034 U	< 0.13 U	0.0751 J	2.24 J
2,4-DDT	789-02-6	µg/kg	0.029 JN	2.01	0.13 J	0.0555 J	< 0.0048 U	< 0.0053 U	< 0.0057 U	< 0.20 U	0.170 J	2.31
4,4'-DDD	72-54-8	µg/kg	< 0.0068 UJ	9.57	9.43	6.46	2.51 J	0.0293 J	0.0058 JN	5.78	0.400 J	36.7
4,4'-DDE	72-55-9	µg/kg	0.0233 J	6.72	5.23	5.51	0.206 J	0.0321 J	0.015 J	2.67	0.140 J	9.40 J
4,4'-DDT	50-29-3	µg/kg	0.0469 J	6.67	0.37	0.189 J	< 0.0073 U	< 0.012 U	< 0.0047 U	< 0.37 U	0.820 J	11.7
DDx (b)	T_DDx (PDI)	µg/kg	0.111	27.6	19.4	15.2	3.94	0.0939	0.0291	10.7	1.84	77.3
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg	710	40	320	180	2.9 J	< 2.6 U	< 1.3 U	57	3.9 J	550
Acenaphthene	83-32-9	µg/kg	940	46	300	180	2.3 J	< 2.6 U	< 1.3 U	59	6.8	2400
Acenaphthylene	208-96-8	µg/kg	540	17 J	51	52	2.6 J	< 2.6 U	< 1.3 U	29	3.4 J	180
Anthracene	120-12-7	µg/kg	770	56	170	210	5.6 J	< 2.6 U	< 1.3 U	82	7.1	670
Benz(a)anthracene	56-55-3	µg/kg	590	160	430	420	16	0.96 J	< 1.3 U	180	10	1500
Benzo(a)pyrene	50-32-8	µg/kg	670	200	490	610	20	< 2.6 U	< 1.3 U	240	17	1800
Benzo(b)fluoranthene	205-99-2	µg/kg	680	280	540	620	24	< 2.6 U	< 1.3 U	260	16	1600
Benzo(g,h,i)perylene	191-24-2	µg/kg	720	180	420	580	18	< 2.6 U	0.47 J	230	17	1400
Benzo(k)fluoranthene	207-08-9	µg/kg	190	90	190	240	10	< 2.6 U	< 1.3 U	88	5.6 J	590
Chrysene	218-01-9	µg/kg	620	230	660	630	21	< 2.6 U	< 1.3 U	240	15	1900
Dibenz(a,h)anthracene	53-70-3	µg/kg	58	34	73	94	3.6 J	< 2.6 U	< 1.3 U	39	< 6.3 U	220
Fluoranthene	206-44-0	µg/kg	3300	300	1100	1000	28	< 2.6 U	< 1.3 U	440	39	4500
Fluorene	86-73-7	µg/kg	590	34	140	170	2.3 J	< 2.6 U	< 1.3 U	55	5.5 J	1400
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	600	180 J	440 J	580 J	19 J	< 2.6 U	< 1.3 U	250	16	1600
Naphthalene	91-20-3	µg/kg	3900	130	860	420	12	< 2.6 U	< 1.3 U	130	12	860
Phenanthrene	85-01-8	µg/kg	3600	240	970	860	22	< 2.6 U	< 1.3 U	380	42	8100
Pyrene	129-00-0	µg/kg	4200	320	1400	1200	50	0.57 J	< 1.3 U	470	46	5700
Total PAHs (b)	T_PAH (PDI)	µg/kg	23000	2500	8600	8000	260	5.4	2.4	3200	270	35000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	920	300	710	870	30	1.4	< 1.3 U	350	24	2500

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S038	SC-S042	SC-S042	SC-S042	SC-S045	SC-S045	SC-S045	SC-S053	SC-S053	SC-S053
		Sample ID	PDI-SC-S038-5.4TO7.2	PDI-SC-S042-0TO2	PDI-SC-S042-2TO4	PDI-SC-S042-4TO6	PDI-SC-S045-0TO2	PDI-SC-S045-2TO4	PDI-SC-S045-4TO6	PDI-SC-S053-0TO2	PDI-SC-S053-10TO12.4	PDI-SC-S053-2TO4
		Sample Date	7/31/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	8/16/2018	8/16/2018	8/16/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	5.4-7.2 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	2-4 ft	4-6 ft	0-2 ft	10-12.4 ft	2-4 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	56.9	54.1	64.6	63.4	76.5	72.6	73.1	53.0	66.4	57.8
Total Solids@70C	TSOLID70	%	60	55	65	67	76	72	73	55	68	58
Total Solids (%)	%SOLID	%	57.1	53.5	67.8	68.1	77.4	71.3	73.5	54.8	64.5	56.3
Clay	GS-Clay	%	13.8	10.7	7.0	12.7	16.2	11.4	12.1	9.5	8.4	11.8
Gravel	GS-Gravel	%	0	0	0	5.7	0.1	2.0	0	0	0	0.5
Sand, Coarse	GS-Csand	%	0.2	0.3	1.0	0.2	1.0	0.2	0	0	0.1	0.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	35.93	25.38	44.68	38.32	16	12.8	11.14	31.28	9.55	27.27
Sand, Fine (#230) (d)	GS-Fsand	%	41.7	29.2	48.0	41.5	16.9	17.4	16.5	39.2	14.8	34.3
Sand, Medium	GS-Msand	%	0.7	2.9	5.3	4.3	1.7	0.3	0.1	0.1	0.1	0.3
Silt (#200) (d)	GS-Silt-200	%	49.36	60.81	42.01	38.67	64.89	73.39	76.65	59.11	81.84	59.92
Silt (#230) (d)	GS-Silt	%	43.6	57.0	38.7	35.5	64.0	68.8	71.3	51.2	76.6	52.9
Percent Fines (e)	GS-FINES	%	63.16	71.51	49.01	51.37	81.09	84.79	88.75	68.61	90.24	71.72
Liquid Limit	GS-LL	None	0							52		
Plasticity Index	GS-PI	None	< 0 U							13		
Plasticity Limit	GS-PL	None	0							39		
Total Organic Carbon	TOC	mg/kg	53000	21000	12000	15000	3100	780 J	440 J	43000	9200	50000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S053	SC-S053	SC-S053	SC-S055	SC-S055	SC-S055	SC-S055	SC-S061	SC-S061	SC-S061
			Sample ID	PDI-SC-S053-4TO6	PDI-SC-S053-6TO8	PDI-SC-S053-8TO10	PDI-SC-S055-0TO2	PDI-SC-S055-2TO4	PDI-SC-S055-4TO6	PDI-SC-S055-6TO8	PDI-SC-S061-0TO3	PDI-SC-S061-3TO4.5	PDI-SC-S061-4.5TO6
			Sample Date	8/16/2018	8/16/2018	8/16/2018	7/26/2018	7/26/2018	7/26/2018	7/26/2018	7/23/2018	7/23/2018	7/23/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-3 ft	3-4.5 ft	4.5-6 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.14	0.0032 J	0.0020 J	0.17	0.47	0.52	0.36	0.13	0.45 J	0.10
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.12	0.0029 J	0.00014 JN	0.020	0.054	0.087	0.078	0.0091	0.045 J-	0.0091
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.0047	0.00057 J+	< 0.00029 U	0.0015 J	0.0045 J	0.0081	0.0055	0.0011 J	< 0.0063 UJ	0.00070 J
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00098 J	< 0.00012 UJ	< 0.00015 U	0.0013 J	0.0036 JN	0.0036 J	0.0026 J	0.00051 J+	0.0028 J	0.00068 J
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.021	0.00030 JN	0.000080 J	0.0031 J	0.016 J	0.027	0.011	0.0038	0.0082	0.0019 J
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.0061	0.00018 J	0.00014 J	0.0057	0.022 J	0.020	0.011	0.0021 J	0.015	0.0030 J
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.0096	0.00029 J	0.000059 J	0.0011 JN	0.0051 JN	0.0098	0.0057	0.00070 J	0.0031 J	0.00060 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.0028 J	0.00025 J	0.00031 J	0.0035 J	0.010 J	0.0076	0.0048	0.0013 J	0.0056	0.0015 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	0.0011 J+	0.0011 J+	< 0.00085 U	0.00023 J	< 0.00087 U	0.00057 J	< 0.00029 U	< 0.000067 U	< 0.00030 U	0.000070 JN
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	0.00093 J	0.000050 J	< 0.000024 U	0.00076 J	0.0023 J	0.0020 J	0.0012 J	0.00019 J	0.0017 J	0.00028 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.0081	0.00031 J+	0.00016 J+	0.00086 J	0.0052 J	0.014	0.0051	0.00023 J	0.0023 J	0.00041 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.0024 J	< 0.000050 U	0.000039 JN	0.00063 J	0.0022 J	0.0024 J	0.0014 J	0.00030 J	0.0013 J	0.00028 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.0039	0.00014 J	0.000091 J	0.00079 J	0.0032 J	0.0055	0.0025 J	0.00084 J	0.0025 J	0.00045 J
2,3,7,8-TCDD		1746-01-6	µg/kg	0.00039 J	< 0.000029 U	< 0.000025 U	0.00037 JN	0.00065 JN	0.0014	0.00072 J	< 0.000022 U	0.00054 J	< 0.00011 U
2,3,7,8-TCDF		51207-31-9	µg/kg	0.0047	< 0.00035 U	< 0.00023 U	0.0012	0.0048 J	0.0082	0.0029	0.00020 J	0.0029	0.00054 J
OCDD		3268-87-9	µg/kg	1.8	0.036 J	0.019	1.6	4.3	5.9 J	4.5 J	0.98	0.023	0.88
OCDF		39001-02-0	µg/kg	0.14	0.0026 J	0.00037 J	0.067	0.16	0.21	0.26	0.019	0.12	0.023
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.011	0.00041	0.00016	0.0055	0.017	0.021	0.013	0.0031	0.012	0.0027
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.011	0.00038	0.00016	0.0052	0.016	0.021	0.013	0.0031	0.012	0.0027
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.011	0.00036	0.00012	0.005	0.016	0.021	0.013	0.003	0.012	0.0026
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 3.1 U	< 3.0 U	< 2.8 U	< 3.8 UJ	< 3.6 UJ	< 3.0 UJ	< 3.0 UJ	< 2.4 U	< 3.2 U	< 2.8 U
Aroclor 1221		11104-28-2	µg/kg	< 3.1 U	< 3.0 U	< 2.8 U	< 3.8 UJ	< 3.6 UJ	< 3.0 UJ	< 3.0 U	< 2.4 U	< 3.2 U	< 2.8 U
Aroclor 1232		11141-16-5	µg/kg	< 3.1 UJ	< 3.0 UJ	< 2.8 UJ	< 3.8 UJ	< 3.6 UJ	< 3.0 UJ	< 3.0 U	< 2.4 U	< 3.2 U	< 2.8 U
Aroclor 1242		53469-21-9	µg/kg	< 3.1 UJ	< 3.0 UJ	< 2.8 UJ	< 3.8 UJ	< 3.6 UJ	< 3.0 UJ	< 3.0 U	< 2.4 U	< 3.2 U	< 2.8 U
Aroclor 1248		12672-29-6	µg/kg	< 3.1 UJ	< 3.0 UJ	< 2.8 UJ	< 3.8 UJ	< 3.6 UJ	< 3.0 UJ	< 3.0 UJ	< 2.4 U	< 3.2 U	< 2.8 U
Aroclor 1254		11097-69-1	µg/kg	< 3.1 U	< 3.0 U	< 2.8 U	< 3.8 UJ	< 3.6 UJ	< 3.0 UJ	< 3.0 U	< 2.4 U	< 3.2 U	< 2.8 U
Aroclor 1260		11096-82-5	µg/kg	5.2 J	< 3.0 U	< 2.8 U	4.6 J	6.7 J	22 J	5.3 J	< 2.4 UJ	6.5 J	< 2.8 U
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	5.2	< 3 UJ	< 2.8 UJ	4.6	6.7	22	5.3	< 2.4 UJ	6.5	< 2.8 U
Pesticides													
2,4-DDD		53-19-0	µg/kg	4.34	0.130 J	0.155 J	0.640 J	1.42 J	1.88	1.84	0.307 J	2.21 J	0.05 J
2,4-DDE		3424-82-6	µg/kg	0.629 J	< 0.014 U	< 0.017 U	0.140 J	0.300 J	0.575 J	0.423 J	0.0387 J	0.344 J	0.0111 J
2,4-DDT		789-02-6	µg/kg	0.417 J	< 0.0086 U	< 0.015 U	0.159 J	0.336 J	0.270 J	0.159 J	0.0623 J	0.432 J	< 0.0065 UJ
4,4'-DDD		72-54-8	µg/kg	7.75	0.225 J	0.236 J	2.55	4.00	7.30	6.27	1.3 J	7.43	0.117 J
4,4'-DDE		72-55-9	µg/kg	2.25 J	0.0688 J	0.0343 J	4.29	5.18	8.02	6.88	0.399	5.56	0.0611 J
4,4'-DDT		50-29-3	µg/kg	1.20 J	< 0.151 U	0.282 J	0.506 J	0.790 J	1.79 J	0.324 J	0.401 J	1.57 J	0.00972 J
DDx	(b)	T_DDx (PDI)	µg/kg	16.6	0.499	0.716	8.29	12	19.8	15.9	2.51	17.5	0.252
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	570	74	3.6 J	65	230	230	200	49	490	16
Acenaphthene		83-32-9	µg/kg	2000	170	3.0 J	870	3300	290	290	31	3600	92
Acenaphthylene		208-96-8	µg/kg	490	140	3.2 J	24 J	39 J	74	49	45	160	11
Anthracene		120-12-7	µg/kg	1400	310	8.5	1000	3000	210	180	98	3400	76
Benz(a)anthracene		56-55-3	µg/kg	5800	550	14	6500	21000	510	380	540	19000	380
Benzo(a)pyrene		50-32-8	µg/kg	8000	850	24	8200	27000	420	290	630 J	23000	430
Benzo(b)fluoranthene		205-99-2	µg/kg	7000	790	23	11000	34000	600	330	770 J	32000 J	590 J
Benzo(g,h,i)perylene		191-24-2	µg/kg	7200	910	28	5800	19000	340	240	550	17000	340
Benzo(k)fluoranthene		207-08-9	µg/kg	2200	230	7.1	3400	12000	160	130	210	8700	170
Chrysene		218-01-9	µg/kg	6800	690	17	6700	21000	570	390	560 J	19000	400
Dibenz(a,h)anthracene		53-70-3	µg/kg	950	100	< 7.0 U	1600	5600	98	55	81	3500	81
Fluoranthene		206-44-0	µg/kg	19000	2000	35	10000	32000	1300	1300	960	28000	790
Fluorene		86-73-7	µg/kg	1900	150	3.3 J	380	1200	320	280	42	2100	42
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	7600	910	26	6800	20000	430	270	560	19000	400
Naphthalene		91-20-3	µg/kg	1700	420	10	180	610	450	370	88	1100	33
Phenanthrene		85-01-8	µg/kg	19000	1600	34	3800	12000	1000	1300	300	14000	360
Pyrene		129-00-0	µg/kg	25000	2700	54	9700	30000	1300	1400	1400	27000	770
Total PAHs	(b)	T_PAH (PDI)	µg/kg	120000	13000	300	76000	240000	8300	7500	6900	220000	5000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	11000	1200	34	12000	40000	670	440	900	34000	650

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S053	SC-S053	SC-S053	SC-S055	SC-S055	SC-S055	SC-S055	SC-S061	SC-S061	SC-S061
			Sample ID	PDI-SC-S053-4TO6	PDI-SC-S053-6TO8	PDI-SC-S053-8TO10	PDI-SC-S055-0TO2	PDI-SC-S055-2TO4	PDI-SC-S055-4TO6	PDI-SC-S055-6TO8	PDI-SC-S061-0TO3	PDI-SC-S061-3TO4.5	PDI-SC-S061-4.5TO6
			Sample Date	8/16/2018	8/16/2018	8/16/2018	7/26/2018	7/26/2018	7/26/2018	7/26/2018	7/23/2018	7/23/2018	7/23/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-3 ft	3-4.5 ft	4.5-6 ft
Chemical		**CAS_RN**	**Units**										
Other													
Total Solids@104C		TSOLID	%	62.6	65.6	69.0	51.5	54.8	64.0	65.6	81.4	61.3	70.4
Total Solids@70C		TSOLID70	%	63	66	69	52	57	65	68	82	61	70
Total Solids (%)		%SOLID	%	63.5	64.6	73.3	52.6	54.7	63.8	65	79.8	61.1	71.2
Clay		GS-Clay	%	12.0	8.5	9.7	13.9	13.7	14.0	9.5	0.8	8.0	7.1
Gravel		GS-Gravel	%	0	0	0	0	0	1.0	0	5.7	1.0	0
Sand, Coarse		GS-Csand	%	0.7	0.6	0	0	0.1	0.2	0.1	2.5	1.3	0.1
Sand, Fine (#200)	(d)	GS-Fsand-200	%	37.36	32.53	9.206	15.35	21.68	27.96	31.01	44.02	38.76	26.35
Sand, Fine (#230)	(d)	GS-Fsand	%	41.5	40.5	15.5	19.5	24.9	32.0	34.3	44.3	41.6	33.2
Sand, Medium		GS-Msand	%	1.3	0.4	0.1	0.2	0.6	0.8	4.4	43.9	12.4	0.8
Silt (#200)	(d)	GS-Silt-200	%	48.63	57.96	80.99	70.54	63.81	56.03	54.98	3.074	38.53	65.64
Silt (#230)	(d)	GS-Silt	%	44.5	50.0	74.7	66.4	60.6	52.0	51.7	2.8	35.7	58.8
Percent Fines	(e)	GS-FINES	%	60.63	66.46	90.69	84.44	77.51	70.03	64.48	3.874	46.53	72.74
Liquid Limit		GS-LL	None										
Plasticity Index		GS-PI	None										
Plasticity Limit		GS-PL	None										
Total Organic Carbon		TOC	mg/kg	76000	23000	6100	20000	26000	23000	15000	2300	27000	7800

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S062	SC-S062	SC-S062	SC-S062	SC-S064	SC-S064	SC-S064	SC-S065	SC-S065	SC-S065
		Sample ID	PDI-SC-S062-0TO2	PDI-SC-S062-2TO4	PDI-SC-S062-4TO6	PDI-SC-S062-6TO7.7	PDI-SC-S064-0TO2	PDI-SC-S064-2TO3.5	PDI-SC-S064-3.5TO4.8	PDI-SC-S065-0TO2	PDI-SC-S065-10TO12	PDI-SC-S065-12TO14.3
		Sample Date	7/31/2018	7/31/2018	7/31/2018	7/31/2018	7/24/2018	7/24/2018	7/24/2018	8/14/2018	8/14/2018	8/14/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-2 ft	2-4 ft	4-6 ft	6-7.7 ft	0-2 ft	2-3.5 ft	3.5-4.8 ft	0-2 ft	10-12 ft	12-14.3 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.061	0.087	0.098	0.065	0.19	0.46 J	0.50	0.064	0.026	0.0029 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.014 JN	0.014	0.014	0.011	0.045	0.13	0.17	0.016	0.014	0.0020 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0041 J	0.0011 J	0.0013 J	0.0012 J	0.0059	0.020	0.024	0.0026 J	0.0013 J+	0.0012 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00081 J	0.00097 J	0.0010 J	0.00075 J	0.0017 J	0.0036 J	0.0039 J	0.00087 J	0.00057 J+	0.00018 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.035	0.0032 J	0.0040 J	0.0043 J	0.022	0.070	0.089	0.0061	0.0018 J	0.00071 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0023 J	0.0032 J	0.0038 J	0.0029 J	0.0070	0.017	0.019	0.0027 J	0.0027 J	0.00016 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0070	0.0012 J	0.0014 JN	0.0016 J	0.0085	0.027	0.032	0.0026 J	0.0023 J	0.00039 J+
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0018 J	0.0024 J	0.0026 J	0.0021 J	0.0039 J	0.0071	0.0091	0.0018 J	0.0013 J	0.00026 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00037 JN	< 0.00017 U	0.00018 JN	0.00017 J	0.00059 J	0.0017 J	0.0020 J	0.0024 J+	0.0021 J+	0.0026 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00041 J	0.00033 JN	0.00043 J	0.00037 J	0.00094 J	0.0022 J	0.0025 J	0.00049 J	0.0011 J	< 0.000050 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.012	0.0013 J	0.0024 J	0.0031 J	0.014	0.047	0.053	0.0025 J	< 0.00039 U	0.00044 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00084 J	0.00047 J	0.00055 J	0.00045 J	0.0016 J	0.0052	0.0075	0.00083 J	0.00097 J	0.00010 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0024 J	0.00072 J	0.0016 J	0.0019 J	0.0079	0.018	0.024	0.0011 J	0.00089 J	0.00022 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00014 U	0.00042 J	0.00030 JN	0.00026 JN	0.00054 JN	0.0013	0.0012	0.00032 JN	0.00036 JN	< 0.000052 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0025	0.0019	0.0082	0.0077	0.015	0.023	0.024	0.0016	0.00049 J	0.00046 J
OCDD	3268-87-9	µg/kg	0.54	0.77	0.83	0.62	2.8	6.3 J	6.8 J	0.64	0.58	0.051
OCDF	39001-02-0	µg/kg	0.036	0.049	0.046	0.040	0.13	0.47	0.53	0.047	0.013	0.0066 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0076	0.0036	0.0049	0.0043	0.014	0.034	0.04	0.0041	0.0035	0.00067
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0075	0.0034	0.0045	0.0041	0.013	0.034	0.04	0.004	0.0034	0.00067
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0075	0.0033	0.0044	0.004	0.013	0.034	0.04	0.0038	0.0032	0.00064
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 4.3 U	< 3.8 U	< 3.7 U	< 3.4 U	< 3.6 U	< 6.7 U	< 3.5 U	< 3.7 UJ	< 3.2 UJ	< 3.2 UJ
Aroclor 1221	11104-28-2	µg/kg	< 4.3 U	< 3.8 U	< 3.7 U	< 3.4 U	< 3.6 U	< 6.7 UJ	< 3.5 U	< 3.7 UJ	< 3.2 U	< 3.2 U
Aroclor 1232	11141-16-5	µg/kg	< 4.3 U	< 3.8 U	< 3.7 U	< 3.4 U	< 3.6 U	< 6.7 U	< 3.5 U	< 3.7 UJ	< 3.2 UJ	< 3.2 UJ
Aroclor 1242	53469-21-9	µg/kg	< 4.3 U	< 3.8 U	< 3.7 U	< 3.4 U	< 3.6 U	< 6.7 U	< 3.5 U	< 3.7 UJ	< 3.2 U	< 3.2 U
Aroclor 1248	12672-29-6	µg/kg	< 4.3 U	< 3.8 U	< 3.7 U	< 3.4 U	< 3.6 U	< 6.7 UJ	< 3.5 U	< 3.7 UJ	< 3.2 U	< 3.2 U
Aroclor 1254	11097-69-1	µg/kg	< 4.3 U	1.9 J	< 3.7 U	< 3.4 U	< 3.6 U	< 6.7 U	< 3.5 U	20 J	< 3.2 U	< 3.2 U
Aroclor 1260	11096-82-5	µg/kg	< 4.3 U	< 3.8 U	< 3.7 U	< 3.4 U	9.5 J	18 J	14 J	< 3.7 UJ	0.93 J	< 3.2 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	< 4.3 U	1.9	< 3.7 U	< 3.4 U	9.5	18	14	20	0.93	< 3.2 UJ
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.570	0.798	1.05	1.68	11.2	45.5	33.3	2.74	0.0275 J	< 0.0053 U
2,4-DDE	3424-82-6	µg/kg	0.0829 J	0.117 J	0.119 J	0.205 J	0.958 J	3.06	3	< 0.86 UJ	< 0.0054 U	< 0.0030 U
2,4-DDT	789-02-6	µg/kg	0.0972 J	0.119 J	0.104 J	0.227 J	1.36 J	0.67 JN	0.545 J	< 0.48 U	< 0.011 UJ	< 0.0067 U
4,4'-DDD	72-54-8	µg/kg	1.72	2.51	3.42	6.25	28.9	110	72.8	7.52	0.0479 J	< 0.0261 U
4,4'-DDE	72-55-9	µg/kg	2.21	2.50	2.88	4.88	10.2	19.6	15.7	3.3 JN	< 0.0072 U	< 0.0040 U
4,4'-DDT	50-29-3	µg/kg	0.265 J	0.378 J	0.284 J	39.6 J	2.77	37.6	2.03	< 1.7 U	< 0.025 UJ	< 0.023 U
DDx (b)	T_DDx (PDI)	µg/kg	4.95	6.42	7.86	52.8	55.4	216	127	14.4	0.0879	< 0.0261 U
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	17 J	30	24	24	530	1300	1400	74	680	600
Acenaphthene	83-32-9	µg/kg	35	69	44	65	1600	2100	2100	84	1900	1200
Acenaphthylene	208-96-8	µg/kg	17 J	33	22	21	260	430	500	29	470	380
Anthracene	120-12-7	µg/kg	58	120	73	64	560	1500	1600	86	2000	1400
Benz(a)anthracene	56-55-3	µg/kg	110	240	150	140	1700	3100	3900	170	2800	2300
Benzo(a)pyrene	50-32-8	µg/kg	120	350	180	140	1700	2500	2800	290	4300	3700
Benzo(b)fluoranthene	205-99-2	µg/kg	190	370	240	170	1900 J	2800	2800	310 J	4000	3200
Benzo(g,h,i)perylene	191-24-2	µg/kg	81	240	130	110	1600	2400	2600	260	3600	3300
Benzo(k)fluoranthene	207-08-9	µg/kg	34	120	74	56	460	780	1100	110 J	1300	1100
Chrysene	218-01-9	µg/kg	210	370	250	180	1900	3400	4200	270	4000	3100
Dibenz(a,h)anthracene	53-70-3	µg/kg	13 J	32	34	16	180	230	360	< 18 U	370	280
Fluoranthene	206-44-0	µg/kg	360	650	480	370	5000	8500	9400	500 J	11000	8800
Fluorene	86-73-7	µg/kg	40	57	51	57	1000	1800	1700	64	1400	880
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	93	280	160	120	1500	2400	2400	310	3900	3500
Naphthalene	91-20-3	µg/kg	38	92	63	56	1300	2600	2800	230 J	3800	3300
Phenanthrene	85-01-8	µg/kg	190	350	270	290	7300	12000	13000	410 J	13000	7700
Pyrene	129-00-0	µg/kg	330	710	480	370	6400	11000	13000	540 J	13000	11000
Total PAHs (b)	T_PAH (PDI)	µg/kg	1900	4100	2700	2200	35000	59000	66000	3700	72000	56000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	170	470	270	200	2400	3600	4100	380	5800	4900

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S062	SC-S062	SC-S062	SC-S062	SC-S064	SC-S064	SC-S064	SC-S065	SC-S065	SC-S065
		Sample ID	PDI-SC-S062-0TO2	PDI-SC-S062-2TO4	PDI-SC-S062-4TO6	PDI-SC-S062-6TO7.7	PDI-SC-S064-0TO2	PDI-SC-S064-2TO3.5	PDI-SC-S064-3.5TO4.8	PDI-SC-S065-0TO2	PDI-SC-S065-10TO12	PDI-SC-S065-12TO14.3
		Sample Date	7/31/2018	7/31/2018	7/31/2018	7/31/2018	7/24/2018	7/24/2018	7/24/2018	8/14/2018	8/14/2018	8/14/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-2 ft	2-4 ft	4-6 ft	6-7.7 ft	0-2 ft	2-3.5 ft	3.5-4.8 ft	0-2 ft	10-12 ft	12-14.3 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	45.6	50.5	51.9	54.5	55.6	56.4	55.7	53.1	62.3	60.6
Total Solids@70C	TSOLID70	%	47	50	53	55	56	54	56	55	62	62
Total Solids (%)	%SOLID	%	46.2	50	52.6	54.6	56.2	51.7	58.1	51.9	62.6	60.7
Clay	GS-Clay	%	12.8	16.7	16.9	17.4	12.7	11.1	8.1	11.0	9.4	15.8
Gravel	GS-Gravel	%	0	0	0	0	0.7	0.6	0	0	0.6	0
Sand, Coarse	GS-Csand	%	0	0	0	0	0.5	0.3	0.7	0	0.4	1.0
Sand, Fine (#200) (d)	GS-Fsand-200	%	14.78	13.89	11.29	10.33	23.7	22.69	19.12	22.51	27.17	19.74
Sand, Fine (#230) (d)	GS-Fsand	%	20.3	19.0	16.0	13.5	28.2	28.7	23.5	28.5	31.7	24.8
Sand, Medium	GS-Msand	%	0.1	0.3	0.2	0.1	1.9	1.5	1.2	0.4	3.4	0.6
Silt (#200) (d)	GS-Silt-200	%	72.31	69.10	71.70	72.26	60.39	63.80	70.87	66.08	58.92	62.75
Silt (#230) (d)	GS-Silt	%	66.8	64.0	67.0	69.1	55.9	57.8	66.5	60.1	54.4	57.7
Percent Fines (e)	GS-FINES	%	85.11	85.8	88.6	89.66	73.09	74.9	78.97	77.08	68.32	78.55
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	35000	36000	35000	32000	34000	61000	180000	41000	92000	64000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
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b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

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DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
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HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
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PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S065	SC-S065	SC-S065	SC-S065	SC-S066	SC-S066	SC-S066	SC-S066	SC-S070	SC-S070
			Sample ID	PDI-SC-S065-2TO4	PDI-SC-S065-4TO6	PDI-SC-S065-6TO8	PDI-SC-S065-8TO10	PDI-SC-S066-0TO2	PDI-SC-S066-2TO4	PDI-SC-S066-4TO5.8	PDI-SC-S066-5.8TO6.6	PDI-SC-S070-0TO1.1	PDI-SC-S070-1.1TO2.4
			Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	8/14/2018	8/14/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-5.8 ft	5.8-6.6 ft	0-1.1 ft	1.1-2.4 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.23 J	0.46 J	0.25	0.33	0.14	0.025	0.0056	0.0054	0.096	0.017
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.061	0.065	0.13	0.46	0.017	0.010	0.0017 J	0.0019 JN	0.037 J	0.0051
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.010	0.0087	0.0045	0.0048	0.00058 J	0.00081 J+	< 0.00021 UJ	< 0.00017 U	0.0048 J	0.0011 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.0019 J	0.0012 J	0.0011 J	0.00098 J	0.00040 J+	0.00060 J+	0.00018 J+	0.00021 J+	0.00089 J	0.00032 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.037	0.039	0.0075	0.0075	0.00088 J	< 0.00032 U	< 0.00012 U	< 0.00010 U	0.012	0.0019 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.0082	0.0087	0.0088	0.013	0.032	0.0021 J	0.00036 J	0.00034 J	0.0044	0.0015 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.020	0.012	0.0083	0.016	0.00047 JN	0.0017 J	< 0.00012 U	0.00025 JN	0.0054	0.00081 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0047	0.0030 J	0.0032 J	0.0035 J	0.0091	0.0015 J	0.00042 J+	0.00037 JN	0.0026 J	0.0012 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		0.0020 J+	0.0045 J+	0.0051 J+	0.0033 J+	0.000053 J+	< 0.00018 U	< 0.000055 U	< 0.000047 U	0.0030 J+	0.0016 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.0012 J	0.00090 J	0.0015 J	0.0011 J	0.00019 J	0.0011 J	0.00019 J	0.00013 J	0.00066 J	0.00019 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.019	0.039	0.0021 J	0.0011 J+	0.00024 JN	< 0.00042 U	< 0.000092 U	0.00014 J	0.0079	0.0013 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.0031 J	0.0040 J	0.0040 J	0.0053	0.00027 J	0.0015 J	0.00022 J	0.00019 J	0.0011 J	0.00025 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.0063	0.027	0.0034 J	0.0025 J	0.00017 J	0.0012 J	< 0.000095 U	0.00018 J	0.0036 J	0.00057 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.00071 JN	0.00052 JN	0.00048 JN	0.00018 JN	< 0.000075 U	0.00031 JN	< 0.000040 U	< 0.000031 U	0.00038 JN	< 0.000021 U
2,3,7,8-TCDF	51207-31-9	µg/kg		0.011	0.048	0.0021	0.00094	0.00038 J	0.00068 J	0.00026 J	0.00031 J	0.0061	0.00095
OCDD	3268-87-9	µg/kg		3.1	3.5	2.7	3.5 J	0.59	0.30	0.080	0.075	1.3	0.16
OCDF	39001-02-0	µg/kg		0.19	0.18	0.26	0.29	0.033	0.021	0.0027 J+	0.0025 J+	0.11	0.015
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.017	0.029	0.012	0.016	0.0064	0.003	0.00045	0.00047	0.0077	0.0015
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.017	0.029	0.012	0.016	0.0063	0.0029	0.00045	0.00039	0.0075	0.0015
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.016	0.029	0.011	0.016	0.0063	0.0027	0.00043	0.00037	0.0073	0.0015
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 3.8 UJ	< 3.6 UJ	< 3.5 UJ	< 3.1 UJ	< 2.5 U	< 6.2 U	< 2.7 UJ	< 2.8 U	< 3.4 UJ	< 2.4 UJ
Aroclor 1221	11104-28-2	µg/kg		< 3.8 U	< 3.6 UJ	< 3.5 UJ	< 3.1 U	< 2.5 U	< 6.2 UJ	< 2.7 UJ	< 2.8 U	< 3.4 U	< 2.4 U
Aroclor 1232	11141-16-5	µg/kg		< 3.8 UJ	< 3.6 UJ	< 3.5 UJ	< 3.1 UJ	< 2.5 U	< 6.2 U	< 2.7 UJ	< 2.8 U	< 3.4 UJ	< 2.4 UJ
Aroclor 1242	53469-21-9	µg/kg		< 3.8 U	< 3.6 UJ	< 3.5 UJ	< 3.1 U	< 2.5 U	< 6.2 U	< 2.7 UJ	< 2.8 U	< 3.4 U	< 2.4 U
Aroclor 1248	12672-29-6	µg/kg		< 3.8 U	< 3.6 UJ	< 3.5 UJ	< 3.1 U	< 2.5 U	< 6.2 UJ	< 2.7 UJ	< 2.8 U	< 3.4 U	< 2.4 U
Aroclor 1254	11097-69-1	µg/kg		20 J	< 3.6 UJ	27 J	< 3.1 U	< 2.5 U	< 6.2 U	< 2.7 UJ	< 2.8 U	< 3.4 U	< 2.4 U
Aroclor 1260	11096-82-5	µg/kg		< 3.8 U	< 3.6 UJ	< 3.5 UJ	11 J	1.0 J	2.3 J	< 2.7 UJ	< 2.8 U	< 3.4 U	< 2.4 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		20	< 3.6 UJ	27	11	1	2.3	< 2.7 UJ	< 2.8 U	< 3.4 UJ	< 2.4 UJ
Pesticides													
2,4-DDD	53-19-0	µg/kg		5.87	99.4	1.77	0.0284 J	0.128 J	12.7	0.395 J	0.198 J	29.9	4.62
2,4-DDE	3424-82-6	µg/kg		< 0.55 UJ	5.45	0.882 J	< 0.0050 U	0.0193 J	0.289 J	0.0109 J	0.00849 J	2.93	0.377 J
2,4-DDT	789-02-6	µg/kg		< 0.32 U	2.09	0.054 JN	< 0.011 U	0.0265 J	< 0.028 UJ	< 0.007 UJ	< 0.016 UJ	0.990 J	0.122 J
4,4'-DDD	72-54-8	µg/kg		16.7	145	4.00	0.0600 J	0.43 J	19.6	0.684 J	0.245 J	73.6	8.70
4,4'-DDE	72-55-9	µg/kg		7.56 J	21.5	6.10	0.0371 J	0.54	2.86 J	0.0917 J	0.0396 J	12.5	1.59
4,4'-DDT	50-29-3	µg/kg		< 0.97 U	114	0.143 J	< 0.026 U	0.0795 J	0.21 J	< 0.008 UJ	< 0.022 UJ	5.06	0.178 J
DDx (b)	T_DDx (PDI)	µg/kg		30.6	387	12.9	0.139	1.22	35.7	1.19	0.502	125	15.6
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		540	3200	2400	1300	11	780	240	150	730	36
Acenaphthene	83-32-9	µg/kg		1800	16000	10000	5000	13	1500	500	320	1800	250
Acenaphthylene	208-96-8	µg/kg		160	840	1100	670	6.8	610	210	200	150	24
Anthracene	120-12-7	µg/kg		560	15000	14000	10000	19	1600	650	560	730	100
Benz(a)anthracene	56-55-3	µg/kg		1100	13000	15000	14000	49	1500	1200	980	1300	220
Benzo(a)pyrene	50-32-8	µg/kg		1400	19000	23000	21000	54	1800	1500	1400	1600	260
Benzo(b)fluoranthene	205-99-2	µg/kg		1300	16000	19000	17000	62 J	1800 J	1500 J	1400 J	1500	260
Benzo(g,h,i)perylene	191-24-2	µg/kg		1200	14000	18000	17000	55	1800	1400	1300	1200	190
Benzo(k)fluoranthene	207-08-9	µg/kg		490	5800	6300	6500	15	520	410	390	430	80
Chrysene	218-01-9	µg/kg		1600	17000	20000	16000	50	1900	1400	1300	1800	310
Dibenz(a,h)anthracene	53-70-3	µg/kg		130	1400	2000	1800	5.4	160	140	100	150	23
Fluoranthene	206-44-0	µg/kg		3400	51000	54000	47000	110	6800	3900	3900	4900	780
Fluorene	86-73-7	µg/kg		1000	9900	8600	4200	15	1400	350	290	990	150
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		1300	15000	19000	18000	55	1500	1200	1100	1400	240
Naphthalene	91-20-3	µg/kg		1000	5900	4100	3700	40	2400	950	660	1600	86
Phenanthrene	85-01-8	µg/kg		5400	73000	67000	46000	87	7500	3000	2700	5700	900
Pyrene	129-00-0	µg/kg		4000	63000	70000	58000	130	8200	5000	5000	5900	970
Total PAHs (b)	T_PAH (PDI)	µg/kg		26000	340000	350000	290000	780	42000	24000	22000	32000	4900
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		1900	25000	30000	28000	76	2400	2000	1900	2200	360

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S065	SC-S065	SC-S065	SC-S065	SC-S066	SC-S066	SC-S066	SC-S066	SC-S070	SC-S070
		Sample ID	PDI-SC-S065-2TO4	PDI-SC-S065-4TO6	PDI-SC-S065-6TO8	PDI-SC-S065-8TO10	PDI-SC-S066-0TO2	PDI-SC-S066-2TO4	PDI-SC-S066-4TO5.8	PDI-SC-S066-5.8TO6.6	PDI-SC-S070-0TO1.1	PDI-SC-S070-1.1TO2.4
		Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/23/2018	7/23/2018	7/23/2018	7/23/2018	8/14/2018	8/14/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-5.8 ft	5.8-6.6 ft	0-1.1 ft	1.1-2.4 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	52.9	55.1	56.5	60.1	75.2	62.9	72.6	69.5	59.0	82.1
Total Solids@70C	TSOLID70	%	55	56	58	60	74	61	72	68	60	83
Total Solids (%)	%SOLID	%	56	57	57.5	59.6	81.5	61.8	73.1	68.6	61.6	82.9
Clay	GS-Clay	%	13.1	17.3	16.5	7.5	4.5	8.9	6.1	7.8	10.3	0
Gravel	GS-Gravel	%	2.1	0	0	0	0.8	0.1	4.4	0	0	0
Sand, Coarse	GS-Csand	%	0.4	0.1	0.1	0.2	4.1	0.2	2.1	0.3	0.3	0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	15.76	13.78	15.83	13.17	42.19	34.03	43.09	30.49	39.4	45.66
Sand, Fine (#230) (d)	GS-Fsand	%	19.8	17.5	18.5	15.9	45.3	38.3	46.5	34.4	44.8	45.9
Sand, Medium	GS-Msand	%	0.6	0.2	0.2	0.2	29.3	2.7	15.8	2.7	5.6	48.2
Silt (#200) (d)	GS-Silt-200	%	68.13	68.61	67.36	78.92	19.00	54.06	28.50	58.70	44.39	5.732
Silt (#230) (d)	GS-Silt	%	64.1	64.9	64.7	76.2	15.9	49.8	25.1	54.8	39.0	5.5
Percent Fines (e)	GS-FINES	%	81.23	85.91	83.86	86.42	23.5	62.96	34.6	66.5	54.69	5.732
Liquid Limit	GS-LL	None	62									
Plasticity Index	GS-PI	None	24									
Plasticity Limit	GS-PL	None	38									
Total Organic Carbon	TOC	mg/kg	70000	85000	98000	93000	5600	30000	11000	18000	42000	3200

Notes:

a. Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S070	SC-S070	SC-S070	SC-S070	SC-S070	SC-S082	SC-S082	SC-S082	SC-S083
			Sample ID	PDI-SC-S070-10.4TO12.6	PDI-SC-S070-2.4TO4.4	PDI-SC-S070-4.4TO6.4	PDI-SC-S070-6.4TO8.4	PDI-SC-S070-8.4TO10.4	PDI-SC-S082-0TO2	PDI-SC-S082-2TO4	PDI-SC-S082-4TO6	PDI-SC-S083-0TO1.6
			Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/24/2018	7/24/2018	7/24/2018	8/1/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	10.4-12.6 ft	2.4-4.4 ft	4.4-6.4 ft	6.4-8.4 ft	8.4-10.4 ft	0-2 ft	2-4 ft	4-6 ft	0-1.6 ft
Chemical		**CAS_RN**	**Units**									
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.0023 J	0.27	0.21	0.16	0.0068 J	0.86	0.37	0.014	0.14
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.00077 J	0.045	0.15	0.15	0.0072 J	0.13	0.053	0.0021 J	0.025
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.00087 J+	0.0066 J	0.0039 J	0.0027 J	< 0.00064 U	0.0065	< 0.00079 U	< 0.00022 U	0.0035 JN
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00020 JN	0.0026 J	0.00080 J	0.00081 J	< 0.00056 U	0.0038 J	0.0021 J	0.00021 J+	0.0013 J
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.00026 J	0.023 J	0.0073	0.0036 J	< 0.00062 U	0.0077	0.0033 J	0.00016 J	0.022
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.00023 J	0.0082 JN	0.0079	0.0076	< 0.00056 U	0.024	0.011	0.00044 JN	0.0049 J
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.00027 J	0.0072 J	0.0094	0.0073	< 0.00059 U	0.0046 J	0.0025 J	< 0.000088 U	0.0060 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00044 J	0.0049 J	0.0026 J	0.0023 J	< 0.00051 U	0.0082	0.0040 J	0.00038 J+	0.0035 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	0.0025 J+	0.0032 J+	0.0036 J+	0.0023 J+	0.0026 JN	0.0014 J	< 0.00020 U	< 0.000038 U	0.00041 J
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.000046 U	0.00064 JN	0.00079 J	0.00090 J	< 0.00040 U	0.0016 J	0.00097 J	< 0.000090 U	0.00079 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.00041 J+	0.020 J	0.0076	0.00078 J+	< 0.00034 U	0.0026 J	0.0016 J	< 0.000051 U	0.0082
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.000093 J	0.0021 J	0.0028 J	0.0027 J	< 0.00047 U	0.0025 J	0.0011 J	0.000067 J	0.0012 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.000084 JN	0.0084 J	0.0051	0.0015 J	< 0.00034 U	0.0030 J	0.0018 J	< 0.000054 U	0.0032 J
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000021 U	0.00045 J	0.00027 JN	0.00025 J	< 0.00065 U	0.00049 JN	0.00044 J	< 0.000048 U	0.00039 JN
2,3,7,8-TCDF		51207-31-9	µg/kg	0.00038 J	0.015	0.015	0.00094	0.00047 J	0.0036	0.0040	0.000087 JN	0.0074
OCDD		3268-87-9	µg/kg	0.026	2.0	2.5	2.3	0.087	8.5 J	3.6 J	0.13	1.2
OCDF		39001-02-0	µg/kg	0.00090 JN	0.12	0.15	0.12	0.0086 J	0.61	0.21	0.0093	0.067
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.00055	0.015	0.012	0.0082	0.0008	0.021	0.01	0.00038	0.0091
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.0005	0.014	0.012	0.0082	0.00054	0.021	0.01	0.00033	0.0089
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.00048	0.013	0.012	0.0082	0.00022	0.021	0.01	0.00028	0.0087
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016		12674-11-2	µg/kg	< 3.0 U	< 3.1 UJ	< 3.2 UJ	< 3.1 UJ	< 3.1 UJ	< 3.8 UJ	< 3.3 U	< 2.9 U	< 28 U
Aroclor 1221		11104-28-2	µg/kg	< 3.0 U	< 3.1 U	< 3.2 U	< 3.1 U	< 3.1 U	< 3.8 UJ	< 3.3 U	< 2.9 UJ	< 28 UJ
Aroclor 1232		11141-16-5	µg/kg	< 3.0 U	< 3.1 UJ	< 3.2 UJ	< 3.1 UJ	< 3.1 UJ	< 3.8 UJ	< 3.3 U	< 2.9 U	< 28 U
Aroclor 1242		53469-21-9	µg/kg	< 3.0 U	< 3.1 U	< 3.2 U	< 3.1 U	< 3.1 U	< 3.8 UJ	< 3.3 U	< 2.9 U	< 28 U
Aroclor 1248		12672-29-6	µg/kg	< 3.0 UJ	< 3.1 U	< 3.2 U	< 3.1 U	< 3.1 U	< 3.8 UJ	< 3.3 U	< 2.9 UJ	< 28 UJ
Aroclor 1254		11097-69-1	µg/kg	< 3.0 U	< 3.1 U	< 3.2 U	< 3.1 U	< 3.1 U	45 J	23 J	1.4 J	< 28 U
Aroclor 1260		11096-82-5	µg/kg	< 3.0 U	< 3.1 U	8.7 J	< 3.1 U	< 3.1 U	< 3.8 UJ	< 3.3 U	< 2.9 U	< 28 UJ
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	< 3 UJ	< 3.1 UJ	8.7	< 3.1 UJ	< 3.1 UJ	45	23	1.4	< 28 UJ
Pesticides												
2,4-DDD		53-19-0	µg/kg	0.030 JN	102	2.64	0.481 J	0.0929 J	4.14	2.28 J	0.128 J	12.4 J
2,4-DDE		3424-82-6	µg/kg	< 0.0053 U	4.54	0.272 J	0.038 JN	0.0132 J	0.293 J	0.27 J	0.0237 J	0.310 J
2,4-DDT		789-02-6	µg/kg	< 0.012 UJ	1.19 J	0.0593 J	< 0.041 U	< 0.011 UJ	0.442 J	0.542 J	< 0.0038 UJ	0.318 J
4,4'-DDD		72-54-8	µg/kg	0.0743 J	152	4.86	0.730 J	0.169 J	10.4	6.12	0.376 J	19.5 J
4,4'-DDE		72-55-9	µg/kg	< 0.0071 U	17.4	1.18 J	0.147 J	0.0328 J	3.13	5.95	0.183 J	3.62
4,4'-DDT		50-29-3	µg/kg	0.0586 J	32.3	0.398 J	0.571 J	< 0.022 UJ	1.17 J	1.63 J	< 0.011 UJ	1.04 J
DDx	(b)	T_DDx (PDI)	µg/kg	0.169	309	9.41	1.99	0.319	19.6	16.8	0.716	37.2
Semivolatile Organics												
2-Methylnaphthalene		91-57-6	µg/kg	610	3200	2300	680	580	430	230	9.6 J	1400
Acenaphthene		83-32-9	µg/kg	1900	14000	7400	2600	3100	490	340	95	31000
Acenaphthylene		208-96-8	µg/kg	360	730	720	410	540	240	190	6.9 J	2600
Anthracene		120-12-7	µg/kg	1600	12000	6700	2200	4300	540	490	26	22000
Benz(a)anthracene		56-55-3	µg/kg	1600	11000	9100	4500	5700	1600	960	70	21000
Benzo(a)pyrene		50-32-8	µg/kg	2600	13000	13000	6500	8200	1600	1200	49	21000
Benzo(b)fluoranthene		205-99-2	µg/kg	2300	12000	12000	6200	7500	2300 J	1300 J	70	22000
Benzo(g,h,i)perylene		191-24-2	µg/kg	2200	9700	11000	5000	6600	1400	1400	40	17000
Benzo(k)fluoranthene		207-08-9	µg/kg	700	3400	3500	1700	2400	680	350	25	5500
Chrysene		218-01-9	µg/kg	2200	13000	12000	6100	7800	1900	1300	77	23000
Dibenz(a,h)anthracene		53-70-3	µg/kg	170	1200	1100	560	690	250	95	8.3 J	2000
Fluoranthene		206-44-0	µg/kg	8700	39000	36000	16000	20000	3400	3700	220	62000
Fluorene		86-73-7	µg/kg	1200	8300	4900	1600	2100	480	280	39	14000
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	2300	11000	11000	5700	7300	1600	1200	49	17000
Naphthalene		91-20-3	µg/kg	3100	6300	6500	2700	2500	1500	660	23	3200
Phenanthrene		85-01-8	µg/kg	12000	60000	44000	17000	22000	2200	2600	260	93000
Pyrene		129-00-0	µg/kg	11000	48000	45000	19000	24000	3600	4900	190	78000
Total PAHs	(b)	T_PAH (PDI)	µg/kg	55000	270000	230000	98000	130000	24000	21000	1300	440000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	3400	18000	17000	8700	11000	2400	1600	77	29000

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S070	SC-S070	SC-S070	SC-S070	SC-S070	SC-S082	SC-S082	SC-S082	SC-S083
			Sample ID	PDI-SC-S070-10.4TO12.6	PDI-SC-S070-2.4TO4.4	PDI-SC-S070-4.4TO6.4	PDI-SC-S070-6.4TO8.4	PDI-SC-S070-8.4TO10.4	PDI-SC-S082-0TO2	PDI-SC-S082-2TO4	PDI-SC-S082-4TO6	PDI-SC-S083-0TO1.6
			Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/24/2018	7/24/2018	7/24/2018	8/1/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	10.4-12.6 ft	2.4-4.4 ft	4.4-6.4 ft	6.4-8.4 ft	8.4-10.4 ft	0-2 ft	2-4 ft	4-6 ft	0-1.6 ft
Chemical		**CAS_RN**	**Units**									
Other												
Total Solids@104C		TSOLID	%	63.4	61.7	61.0	62.4	64.2	51.6	60.5	66.8	35.5
Total Solids@70C		TSOLID70	%	65	61	62	64	65	53	59	68	28
Total Solids (%)		%SOLID	%	63.6	60.5	62.1	64.7	65.5	56.7	43.3	67.3	38.5
Clay		GS-Clay	%	9.6	15.4	12.4	9.7	10.8	8.0	7.9	10.4	19.9
Gravel		GS-Gravel	%	1.3	0	1.0	0	0	0.1	0.1	0	0
Sand, Coarse		GS-Csand	%	0.1	0.6	0.2	0.5	0	0.1	0.3	0	0.1
Sand, Fine (#200)	(d)	GS-Fsand-200	%	25.29	21.02	29.26	31.12	32.28	35.87	28.3	18.73	11.46
Sand, Fine (#230)	(d)	GS-Fsand	%	28.6	24.5	33.0	34.2	36.8	45.1	34.3	24.5	14.1
Sand, Medium		GS-Msand	%	4.4	7.6	6.8	13.9	8.8	1.0	2.1	0.4	0.4
Silt (#200)	(d)	GS-Silt-200	%	59.40	55.47	50.23	44.77	48.11	55.02	61.29	70.36	68.13
Silt (#230)	(d)	GS-Silt	%	56.1	52.0	46.5	41.7	43.6	45.8	55.3	64.6	65.5
Percent Fines	(e)	GS-FINES	%	69	70.87	62.63	54.47	58.91	63.02	69.19	80.76	88.03
Liquid Limit		GS-LL	None									
Plasticity Index		GS-PI	None									
Plasticity Limit		GS-PL	None									
Total Organic Carbon		TOC	mg/kg	45000	64000	76000	56000	49000	29000	19000	11000	47000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S083	SC-S083	SC-S083	SC-S085	SC-S085	SC-S085	SC-S085	SC-S086	SC-S086	SC-S086
			Sample ID	PDI-SC-S083-1.6TO3.5	PDI-SC-S083-3.5TO5	PDI-SC-S083-5TO6.6	PDI-SC-S085-0TO2	PDI-SC-S085-2TO4	PDI-SC-S085-4TO6.4	PDI-SC-S085-4TO6.4D	PDI-SC-S086-0TO2	PDI-SC-S086-0TO2D	PDI-SC-S086-2TO3.3
			Sample Date	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/2/2018	8/2/2018	8/2/2018
			Sample Type Code	N	N	N	N	N	N	FD	N	FD	N
			Depth	1.6-3.5 ft	3.5-5 ft	5-6.6 ft	0-2 ft	2-4 ft	4-6.4 ft	4- ft	0-2 ft	0- ft	2-3.3 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.046	0.20	0.25 J	0.10	0.0023 J	0.0016 J	0.0014 J	0.11 J	0.019 J	0.099
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.0030 J	0.0085 J	0.011	0.077	0.0016 J	0.00068 J	0.00046 J+	0.015 J	0.0032	0.0046
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	< 0.00066 U	< 0.00081 U	0.0011 J	0.0032 J	0.00033 J	0.00037 J	< 0.00010 U	< 0.0017 U	< 0.00019 U	< 0.00023 U
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00045 JN	0.00073 J+	0.00074 J+	0.00095 J	< 0.00011 U	< 0.000065 U	0.00024 J+	< 0.00087 U	< 0.00022 U	0.00023 JN
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	< 0.00064 U	0.0016 J	0.0018 J	0.0067	0.00098 J	0.00045 J	0.00028 J	0.0031 JN	0.0012 J	0.0019 J
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.0017 J	0.0031 J	0.0032 JN	0.0046	0.00014 J	< 0.000065 U	0.000099 J	0.0027 J	0.00054 JN	0.0017 J
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	< 0.00053 U	< 0.00079 U	0.00063 J	0.0074	0.00047 J	0.00021 JN	< 0.000075 U	< 0.00097 U	0.00042 J	0.00054 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.0010 J	< 0.00045 U	0.0028 J	0.0028 J	0.00016 JN	0.00031 J	0.00021 JN	0.0025 J	0.00032 J	0.0011 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00035 U	< 0.00054 U	< 0.000099 U	< 0.00040 U	< 0.00013 U	< 0.000066 U	< 0.000061 U	< 0.00063 U	< 0.00013 U	< 0.00021 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.00039 U	< 0.00045 U	0.00036 J	0.00048 JN	< 0.00019 U	< 0.000096 U	< 0.000071 U	< 0.00093 U	< 0.00010 U	< 0.00032 U
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.00053 JN	0.0013 JN	0.00096 J	0.0019 J	0.00032 J	0.00032 J	0.00011 JN	< 0.00074 U	0.00057 J	0.0010 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	< 0.00039 U	< 0.00056 U	0.00033 JN	0.0018 JN	< 0.00012 U	< 0.000064 U	< 0.000058 U	< 0.00076 U	< 0.00012 U	< 0.00014 U
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	< 0.00026 U	< 0.00033 U	0.00062 J	0.0017 J	0.00020 JN	< 0.000086 U	< 0.000057 U	< 0.00088 U	0.00031 JN	0.00043 J
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.00036 U	< 0.00036 U	< 0.00013 U	< 0.00028 U	0.00035 JN	< 0.000071 U	< 0.000052 U	< 0.0020 U	< 0.00012 U	< 0.000055 U
2,3,7,8-TCDF		51207-31-9	µg/kg	< 0.00023 U	0.00096 JN	< 0.00050 U	0.0047	0.00052 J	0.00047 J	0.00026 J	< 0.0020 U	0.00043 JN	0.00064 JN
OCDD		3268-87-9	µg/kg	0.38	1.6	2.0 J	1.3	0.014	0.013	0.012	0.89 J	0.17 J	0.74
OCDF		39001-02-0	µg/kg	0.016 J	0.063	0.086	0.11	0.0022 J+	0.0014 JN	0.0010 JN	0.038 J	0.0070 J	0.029
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.0011	0.0035	0.0048	0.0063	0.00079	0.00023	0.00017	0.0034	0.00074	0.0022
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.0011	0.0034	0.0048	0.0057	0.00044	0.00021	0.00015	0.003	0.00055	0.0021
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.00088	0.0031	0.0047	0.0055	0.00027	0.00016	0.00011	0.002	0.00049	0.0019
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 12 U	< 12 U	< 13 U	< 6.5 U	< 6.5 U	< 3.0 U	< 3.0 U	< 2.5 U	< 2.5 U	< 2.6 U
Aroclor 1221		11104-28-2	µg/kg	< 12 UJ	< 12 UJ	< 13 UJ	< 6.5 U	< 6.5 U	< 3.0 U	< 3.0 U	< 2.5 U	< 2.5 U	< 2.6 U
Aroclor 1232		11141-16-5	µg/kg	< 12 U	< 12 U	< 13 U	< 6.5 U	< 6.5 U	< 3.0 U	< 3.0 U	< 2.5 U	< 2.5 U	< 2.6 U
Aroclor 1242		53469-21-9	µg/kg	< 12 U	< 12 U	< 13 U	< 6.5 U	< 6.5 U	< 3.0 U	< 3.0 U	< 2.5 U	< 2.5 U	< 2.6 U
Aroclor 1248		12672-29-6	µg/kg	< 12 UJ	< 12 UJ	< 13 UJ	< 6.5 U	< 6.5 U	< 3.0 U	< 3.0 U	< 2.5 U	< 2.5 U	< 2.6 U
Aroclor 1254		11097-69-1	µg/kg	< 12 U	< 12 U	< 13 U	< 6.5 U	< 6.5 U	< 3.0 U	< 3.0 U	< 2.5 U	< 2.5 U	< 2.6 U
Aroclor 1260		11096-82-5	µg/kg	< 12 UJ	< 12 UJ	< 13 UJ	52 J	< 6.5 UJ	< 3.0 U	< 3.0 U	3.6 J	4.4	2.2 J
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	< 12 UJ	< 12 UJ	< 13 UJ	52	< 6.5 UJ	< 3 U	< 3 U	3.6	4.4	2.2
Pesticides													
2,4-DDD		53-19-0	µg/kg	1.63 J	4.76 J	5.03 J	7.28 J	< 0.028 UJ	< 0.026 UJ	< 0.027 UJ	8.52 J	5.65 J	1.84 J
2,4-DDE		3424-82-6	µg/kg	0.120 J	0.103 J	0.132 J	0.365	0.018 JN	< 0.019 U	< 0.019 U	0.272 J	0.124 J	0.0704 J
2,4-DDT		789-02-6	µg/kg	0.0386 J	0.055 JN	0.067 JN	0.24 JN	< 0.054 UJ	< 0.031 UJ	< 0.030 UJ	< 0.070 UJ	< 0.034 UJ	< 0.043 UJ
4,4'-DDD		72-54-8	µg/kg	4.12 J	12.8 J	12.2 J	8.52 J	< 0.049 UJ	< 0.035 UJ	< 0.033 UJ	21.8 J	11.6 J	5.07 J
4,4'-DDE		72-55-9	µg/kg	0.368 J	0.398 J	0.604 J	2.46	0.0476 J	0.0302 J	< 0.023 U	1.72	0.485 J	0.368 J
4,4'-DDT		50-29-3	µg/kg	0.0942 J	0.179 J	0.200 J	7.31 J	0.21 JN	< 0.082 UJ	< 0.078 UJ	< 0.14 UJ	< 0.062 UJ	< 0.081 UJ
DDx	(b)	T_DDx (PDI)	µg/kg	6.37	18.3	18.2	26.2	0.303	0.0712	< 0.078 UJ	32.4	17.9	7.39
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	710	330	450	1200	210	210	160	280 J	1700 J	2400
Acenaphthene		83-32-9	µg/kg	16000	21000	28000	5400	120	140	120	8800	12000	13000
Acenaphthylene		208-96-8	µg/kg	1500	1500	2600	490	290	160	140	1800 J	9300 J	2000
Anthracene		120-12-7	µg/kg	12000	13000	21000	2000	200	230	210	10000	14000	13000
Benz(a)anthracene		56-55-3	µg/kg	11000	12000	19000	1900	400	270	250	11000	11000	14000
Benzo(a)pyrene		50-32-8	µg/kg	14000	11000	20000	1700	480	230	220	12000	13000	15000
Benzo(b)fluoranthene		205-99-2	µg/kg	12000	11000	20000	1900	570	300	280	12000	13000	15000
Benzo(g,h,i)perylene		191-24-2	µg/kg	11000	8900	16000	1600	550	290	280	11000	12000	14000
Benzo(k)fluoranthene		207-08-9	µg/kg	4300	2900	5000	500	150	73	64	3000 J	18000 J	3800
Chrysene		218-01-9	µg/kg	13000	11000	19000	2300	540	350	310	12000	13000	14000
Dibenz(a,h)anthracene		53-70-3	µg/kg	1400	1100	2200	170	43	28	23	1300 J	9600 J	1700
Fluoranthene		206-44-0	µg/kg	36000	36000	54000	8800	1300	960	880	37000	40000	47000
Fluorene		86-73-7	µg/kg	8400	10000	17000	3900	190	190	160	5000 J	39000 J	7900
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	10000	9000	16000	1500	470	230	230	9200 J	51000 J	12000
Naphthalene		91-20-3	µg/kg	620	920	1400	2800	1100	750	580	420 J	3500 J	870
Phenanthrene		85-01-8	µg/kg	59000	130000	80000	17000	1200	1200	1000	39000	52000	74000
Pyrene		129-00-0	µg/kg	44000	45000	66000	11000	1600	1200	1100	46000	51000	58000
Total PAHs	(b)	T_PAH (PDI)	µg/kg	250000	320000	390000	64000	9400	6800	6000	220000	360000	310000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	19000	15000	28000	2400	670	340	320	17000	30000	21000

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S083	SC-S083	SC-S083	SC-S085	SC-S085	SC-S085	SC-S085	SC-S086	SC-S086	SC-S086
		Sample ID	PDI-SC-S083-1.6TO3.5	PDI-SC-S083-3.5TO5	PDI-SC-S083-5TO6.6	PDI-SC-S085-0TO2	PDI-SC-S085-2TO4	PDI-SC-S085-4TO6.4	PDI-SC-S085-4TO6.4D	PDI-SC-S086-0TO2	PDI-SC-S086-0TO2D	PDI-SC-S086-2TO3.3
		Sample Date	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/2/2018	8/2/2018	8/2/2018
		Sample Type Code	N	N	N	N	N	N	FD	N	FD	N
		Depth	1.6-3.5 ft	3.5-5 ft	5-6.6 ft	0-2 ft	2-4 ft	4-6.4 ft	4- ft	0-2 ft	0- ft	2-3.3 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	81.1	79.9	79.1	58.0	61.2	63.2	63.3	78.4	80.3	76.7
Total Solids@70C	TSOLID70	%	83	83	81	60	64	66	65	82	78	83
Total Solids (%)	%SOLID	%	80.8	78.8	75.7	58.6	61	63.2	64.2	70	75.6	78.8
Clay	GS-Clay	%	1.7	1.7	3.4	11.2	13.9	12.9		0		0
Gravel	GS-Gravel	%	0.2	0.8	0.8	0.8	0.2	0		7.5		4.6
Sand, Coarse	GS-Csand	%	0.9	1.0	0.2	0.2	0.2	0.2		1.5		0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	58.34	56.89	64.1	37.35	36.32	40.7		55.3		72.06
Sand, Fine (#230) (d)	GS-Fsand	%	58.5	57.1	64.3	43.0	42.5	44.8		55.5		72.2
Sand, Medium	GS-Msand	%	34.5	33.0	25.2	2.1	1.3	0.2		26.9		15.9
Silt (#200) (d)	GS-Silt-200	%	4.456	6.707	6.297	48.34	47.87	45.89		8.792		7.038
Silt (#230) (d)	GS-Silt	%	4.3	6.5	6.1	42.7	41.7	41.8		8.6		6.9
Percent Fines (e)	GS-FINES	%	6.156	8.407	9.697	59.54	61.77	58.79		8.792		7.038
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	3100	4300	7800	48000	34000	32000	23000	12000 J	6700 J	3600

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S088	SC-S088	SC-S092	SC-S092	SC-S092	SC-S092	SC-S092	SC-S092	SC-S092	SC-S095
		Sample ID	PDI-SC-S088-0TO2	PDI-SC-S088-2TO3.3	PDI-SC-S092-0TO2	PDI-SC-S092-2TO4	PDI-SC-S092-4TO6	PDI-SC-S092-4TO6D	PDI-SC-S092-6TO8	PDI-SC-S092-8TO9.9	PDI-SC-S092-9.9TO10.9	PDI-SC-S095-0TO2
		Sample Date	8/1/2018	8/1/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/24/2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	4-6 ft	4- ft	6-8 ft	8-9.9 ft	9.9-10.9 ft	0-2 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.46	0.099	0.29	0.56 J	0.10 J	0.041 J	0.0025 J	0.0017 J	0.0018 J	0.76
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	1.2	0.53	0.097	0.21 J	0.017	0.014	0.00076 JN	0.0010 J	0.0018 J	0.078
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.014	0.0041	0.0073	0.013 J	0.0015 J+	0.0014 J+	0.00089 J+	0.00094 J+	0.0013 J+	0.011
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0032 J	0.0011 J	0.0022 J	0.0024 J	0.00046 JN	0.00042 J+	< 0.00011 U	< 0.00013 U	0.00018 J+	0.0013 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.027	0.0063	0.031	0.068	0.0067	0.0038	< 0.00018 U	0.00088 J	0.0028 J	0.062
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.024	0.0074	0.012	0.017	0.0033 J	0.0016 J	< 0.00012 U	< 0.00012 U	0.00017 JN	0.011
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.043	0.018	0.0097	0.031	0.0025 J	0.0017 J	< 0.00017 U	0.00040 J+	0.0010 J	0.016
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0082	0.0029 J	0.0044	0.0070	0.0015 J	0.00098 J	< 0.00011 U	0.00031 J	0.00018 J	0.0033 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0014 U	< 0.00092 U	0.0018 J+	0.0036 J+	0.0015 J+	0.0021 J+	0.0026 J+	0.0021 J+	0.0027 J+	0.0013 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0030 J	0.0012 J	0.00097 J	0.0017 JN	< 0.00015 U	< 0.00017 U	< 0.00017 U	< 0.00018 U	< 0.000074 U	< 0.00096 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.025	0.0013 J	0.0067	0.027	0.0025 J	0.0016 J	0.00051 J+	0.00048 JN	0.0011 J+	0.055
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0097	0.0055	0.0023 J	0.0062	0.00067 J	0.00062 J	< 0.00016 U	< 0.00013 U	0.00025 J	0.0043 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0080	0.0022 J	0.0056	0.011	0.0011 J	0.00083 J	< 0.00011 U	< 0.00012 U	0.00045 J	0.028
2,3,7,8-TCDD	1746-01-6	µg/kg	0.0016	0.00029 J	0.00034 JN	0.0011	< 0.00011 U	< 0.00011 U	< 0.000094 U	< 0.00012 U	< 0.000069 U	0.00078 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0064	0.0021 J+	0.0032	0.0084	0.00077 JN	0.00087	0.00043 J	0.00070 J	0.00044 J	0.040 J
OCDD	3268-87-9	µg/kg	4.5 J	1.3	3.1 J	5.2 J	0.72 J	0.39 J	0.024	0.014	0.017	5.2 J
OCDF	39001-02-0	µg/kg	0.74	0.18	0.21	0.37	0.029	0.034	< 0.0016 U	0.0023 J	0.0039 J	0.23
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.038	0.013	0.015	0.031	0.0036	0.0023	0.00045	0.00058	0.001	0.035
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.038	0.013	0.015	0.03	0.0036	0.0023	0.00044	0.00057	0.001	0.035
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.038	0.013	0.014	0.029	0.0035	0.0022	0.00036	0.00048	0.00098	0.035
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 3.8 UJ	< 3.2 UJ	< 30 UJ	< 35 UJ	< 31 UJ	< 31 UJ	< 3.2 UJ	< 3.1 UJ	< 3.0 UJ	< 3.6 U
Aroclor 1221	11104-28-2	µg/kg	< 3.8 UJ	< 3.2 UJ	< 30 UJ	< 35 UJ	< 31 UJ	< 31 UJ	< 3.2 U	< 3.1 U	< 3.0 UJ	< 3.6 U
Aroclor 1232	11141-16-5	µg/kg	< 3.8 UJ	< 3.2 UJ	< 30 UJ	< 35 UJ	< 31 UJ	< 31 UJ	< 3.2 UJ	< 3.1 UJ	< 3.0 UJ	< 3.6 U
Aroclor 1242	53469-21-9	µg/kg	< 3.8 U	< 3.2 U	< 30 U	< 35 U	< 31 U	< 31 U	< 3.2 U	< 3.1 U	< 3.0 UJ	< 3.6 U
Aroclor 1248	12672-29-6	µg/kg	< 3.8 UJ	< 3.2 UJ	10 J	< 35 U	< 31 U	< 31 U	< 3.2 U	< 3.1 U	< 3.0 UJ	< 3.6 U
Aroclor 1254	11097-69-1	µg/kg	< 3.8 U	< 3.2 U	< 30 U	< 35 U	< 31 U	< 31 U	< 3.2 U	< 3.1 U	< 3.0 UJ	< 3.6 U
Aroclor 1260	11096-82-5	µg/kg	< 3.8 U	24 J	27 J	220 J	< 31 U	< 31 U	< 3.2 U	< 3.1 UJ	< 3.0 UJ	36 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	< 3.8 UJ	24	37	220	< 31 UJ	< 31 UJ	< 3.2 UJ	< 3.1 UJ	< 3 UJ	36
Pesticides												
2,4-DDD	53-19-0	µg/kg	45.4	0.864 J	6.68	140	28.6	35.0	6.82	< 0.097 U	< 0.67 U	163
2,4-DDE	3424-82-6	µg/kg	5.56	0.0551 J	< 0.40 U	7.92 J	0.600 J	0.650 J	< 0.11 U	< 0.077 U	< 0.51 U	14.9
2,4-DDT	789-02-6	µg/kg	2.70	0.061 JN	< 0.21 U	29.2	< 0.10 UJ	8.12 J	< 0.15 U	< 0.13 U	< 0.24 U	2.94 J
4,4'-DDD	72-54-8	µg/kg	96.3	1.93	23.6	320	42.0	59.0	6.89	< 0.13 U	< 0.24 U	232
4,4'-DDE	72-55-9	µg/kg	33.0	0.230 J	4.90	44.6	2.35	2.86	< 0.14 U	< 0.099 U	< 0.65 U	40.5
4,4'-DDT	50-29-3	µg/kg	875	0.885 J	6.09	3050	44.3 J	6.09 J	3.01	< 0.25 U	< 0.71 U	16
DDx (b)	T_DDx (PDI)	µg/kg	1060	4.03	41.5	3590	118	112	16.8	< 0.25 U	< 0.71 U	469
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3200	420	1500	3300	740	660	210	170	85	2200
Acenaphthene	83-32-9	µg/kg	19000	610	2700	6700	1500	1100	260	140	58	21000
Acenaphthylene	208-96-8	µg/kg	750	250	210	560	350	400	260	290	97	1400
Anthracene	120-12-7	µg/kg	9000 J	680 J	1400	3600	710	840	280	160	100	22000
Benz(a)anthracene	56-55-3	µg/kg	8200	910	1300	4500	540	670	340	150	94	25000
Benzo(a)pyrene	50-32-8	µg/kg	9700	1000	1200	4000	510	650	480	180	85	31000
Benzo(b)fluoranthene	205-99-2	µg/kg	9400	1000	1200	3800	560	640	520	190	88	31000 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	7800	880	980	3800	530	710	440	160	43	25000
Benzo(k)fluoranthene	207-08-9	µg/kg	3300	370	500	1200	180	270	120	81	25	10000
Chrysene	218-01-9	µg/kg	9300	1200	1600	4800	670	790	540	240	110	30000
Dibenz(a,h)anthracene	53-70-3	µg/kg	790	83	160	680	110	63	42	19	< 7.1 U	2600
Fluoranthene	206-44-0	µg/kg	31000	3800	4700	14000	2400	3200	1400	770	250	93000
Fluorene	86-73-7	µg/kg	7600	560	2300	3800	760	620	220	140	87	16000
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	7700	820	930	3000	460	510	450	170	51	25000
Naphthalene	91-20-3	µg/kg	9700	2300	2500	11000	3500	3200	1000	880	220	5600
Phenanthrene	85-01-8	µg/kg	43000	3700	11000	21000	3900	5100	1500	790	330	120000
Pyrene	129-00-0	µg/kg	44000	5400	5300	17000	2800	3800	1700	850	280	120000
Total PAHs (b)	T_PAH (PDI)	µg/kg	220000	24000	39000	110000	20000	23000	9800	5400	2000	580000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	13000	1400	1700	5800	780	900	650	250	110	42000

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S088	SC-S088	SC-S092	SC-S092	SC-S092	SC-S092	SC-S092	SC-S092	SC-S092	SC-S095
		Sample ID	PDI-SC-S088-0TO2	PDI-SC-S088-2TO3.3	PDI-SC-S092-0TO2	PDI-SC-S092-2TO4	PDI-SC-S092-4TO6	PDI-SC-S092-4TO6D	PDI-SC-S092-6TO8	PDI-SC-S092-8TO9.9	PDI-SC-S092-9.9TO10.9	PDI-SC-S095-0TO2
		Sample Date	8/1/2018	8/1/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/24/2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	N
		Depth	0-2 ft	2-3.3 ft	0-2 ft	2-4 ft	4-6 ft	4- ft	6-8 ft	8-9.9 ft	9.9-10.9 ft	0-2 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	52.6	60.9	64.3	56.4	63.3	63.8	60.9	63.9	65.7	54.8
Total Solids@70C	TSOLID70	%	56	60	69	61	65	68	62	63	68	57
Total Solids (%)	%SOLID	%	51.6	61	61	54.8	62.5	62	62	63	68.3	54.7
Clay	GS-Clay	%	21.2 L	10.7	5.3	14.5	11.5		9.4	10.0	8.5	12.8
Gravel	GS-Gravel	%	1.5	0	0.3	0.3	0		0	0	0	0
Sand, Coarse	GS-Csand	%	0.2	0.7	0.3	0.4	0.1		0	0.1	0	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	24.5	57.2	61.56	24.4	32.53		36.74	33.44	39.25	19.12
Sand, Fine (#230) (d)	GS-Fsand	%	24.5	57.2	68.6	29.1	38.4		42.5	41.2	45.6	22.4
Sand, Medium	GS-Msand	%	1.2	2.3	1.2	0.9	0.3		0.4	0.6	0.1	0.6
Silt (#200) (d)	GS-Silt-200	%	51.4	29.2	31.33	59.49	55.56		53.45	55.85	52.14	67.27
Silt (#230) (d)	GS-Silt	%	51.4	29.2	24.3	54.8	49.7		47.7	48.1	45.8	64.0
Percent Fines (e)	GS-FINES	%	72.6	39.9	36.63	73.99	67.06		62.85	65.85	60.64	80.07
Liquid Limit	GS-LL	None				60						
Plasticity Index	GS-PI	None				23						
Plasticity Limit	GS-PL	None				37						
Total Organic Carbon	TOC	mg/kg	57000	35000	33000	110000	50000	48000	52000	48000	24000	59000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S095	SC-S095	SC-S095	SC-S098	SC-S098	SC-S098	SC-S098	SC-S098	SC-S098
		Sample ID	PDI-SC-S095-0TO2D	PDI-SC-S095-2TO4	PDI-SC-S095-4TO6	PDI-SC-S098-0TO1.3	PDI-SC-S098-1.3TO3.3	PDI-SC-S098-3.3TO5.3	PDI-SC-S098-3.3TO5.3D	PDI-SC-S098-5.3TO7.2	PDI-SC-S098-7.2TO8.2
		Sample Date	7/24/2018	7/24/2018	7/24/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018
		Sample Type Code	FD	N	N	N	N	N	FD	N	N
		Depth	0- ft	2-4 ft	4-6 ft	0-1.3 ft	1.3-3.3 ft	3.3-5.3 ft	3.3- ft	5.3-7.2 ft	7.2-8.2 ft
Chemical	**CAS_RN**	**Units**									
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.63	0.29	0.0087	0.078	0.043	0.0020 J	0.0013 J	0.00067 J	0.0017 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.085	0.37	0.0054	0.018	0.020	< 0.00016 U	< 0.000083 U	< 0.000046 U	0.000093 J+
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.015	0.0028 J	0.00051 J+	0.0029 J	0.0062	< 0.00017 U	< 0.000088 U	< 0.000091 U	< 0.00010 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0011 J	0.00094 J	0.00034 J+	0.00099 J	0.00053 J+	< 0.00011 U	< 0.00011 U	< 0.00011 U	0.00015 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.069	0.0065	0.0012 J	0.0082	0.038	< 0.000051 U	< 0.000039 U	< 0.000025 U	< 0.000022 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0098	0.011	0.00084 J	0.0041 J	0.0016 J	0.000077 JN	< 0.000036 U	0.000048 JN	0.00011 J+
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.017	0.011	0.0012 J	0.0035 J	0.0089	< 0.000050 U	< 0.000038 U	< 0.000024 U	< 0.000021 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0031 J	0.0034 J	0.00064 J+	0.0017 J	0.0011 J	0.00023 J	0.00014 JN	0.00011 J+	0.00022 J+
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00096 JN	< 0.00081 U	0.00019 J	< 0.00017 U	0.00054 J+	< 0.00018 U	< 0.00013 U	< 0.00018 U	< 0.00012 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00080 J	0.0012 J	0.00051 J	0.00058 J	0.00024 J	< 0.000028 U	< 0.000026 U	0.000038 JN	< 0.000021 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.051	< 0.00091 U	< 0.00023 U	0.0064	0.017	< 0.000020 U	< 0.000018 U	< 0.000018 U	0.000040 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0041 J	0.0049	0.00060 JN	0.00060 JN	0.0012 J	< 0.000042 U	< 0.000033 U	< 0.000021 U	< 0.000019 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.026	0.0032 J	0.00075 J	0.0024 J	0.0063	< 0.000020 U	< 0.000019 U	< 0.000019 U	< 0.000015 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00041 JN	0.00031 JN	0.00020 JN	0.00020 JN	0.00016 JN	< 0.000021 U	< 0.000023 U	< 0.000016 U	< 0.000016 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.051	< 0.0023 UJ	0.00041 JN	0.0061	0.010	< 0.000012 U	< 0.000025 U	< 0.000030 U	< 0.000026 U
OCDD	3268-87-9	µg/kg	4.5 J	3.3	0.15	0.76	0.62	0.036 J	0.019 J	0.0099	0.018
OCDF	39001-02-0	µg/kg	0.24	0.23	0.0043 J+	0.047	0.054	0.00059 JN	0.00043 J+	0.00031 J+	0.00029 J+
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.035	0.014	0.0017	0.0055	0.0099	0.000076	0.000046	0.000073	0.000083
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.035	0.014	0.0015	0.0053	0.0098	0.000068	0.000032	0.00004	0.000082
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.034	0.014	0.0014	0.0052	0.0097	0.000054	0.000019	0.000021	0.000071
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016	12674-11-2	µg/kg	< 6.8 U	< 6.7 U	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Aroclor 1221	11104-28-2	µg/kg	< 6.8 UJ	< 6.7 UJ	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Aroclor 1232	11141-16-5	µg/kg	< 6.8 U	< 6.7 U	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Aroclor 1242	53469-21-9	µg/kg	< 6.8 U	< 6.7 U	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Aroclor 1248	12672-29-6	µg/kg	< 6.8 UJ	< 6.7 UJ	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Aroclor 1254	11097-69-1	µg/kg	< 6.8 U	< 6.7 U	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Aroclor 1260	11096-82-5	µg/kg	34	12	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	34	12	< 3.3 U	< 3.6 U	< 2.4 U	< 2.6 U	< 2.6 U	< 2.7 U	< 2.7 U
Pesticides											
2,4-DDD	53-19-0	µg/kg	145	0.224 J	0.0416 J	2.90 J	1.13 J	< 0.017 UJ	< 0.014 UJ	< 0.0631 UJ	< 0.0458 UJ
2,4-DDE	3424-82-6	µg/kg	11.5	0.0712 J	0.0122 J	0.418 J	0.204 J	< 0.0095 U	< 0.0075 U	< 0.0276 U	< 0.011 U
2,4-DDT	789-02-6	µg/kg	1.17 J	0.139 J	0.0211 J	0.251 J	< 0.021 UJ	< 0.031 UJ	< 0.025 UJ	0.077 JN	< 0.033 UJ
4,4'-DDD	72-54-8	µg/kg	185	0.429 J	0.0585 J	8.65 J	2.49 J	< 0.031 UJ	< 0.0424 UJ	< 0.0783 UJ	< 0.0597 UJ
4,4'-DDE	72-55-9	µg/kg	30.4	0.416 J	0.0277 J	4.74	0.650 J	< 0.026 U	< 0.0263 U	< 0.046 U	< 0.022 U
4,4'-DDT	50-29-3	µg/kg	9.45	0.264 J	0.0666 J	0.649 J	< 0.112 UJ	< 0.096 UJ	< 0.130 UJ	< 0.274 UJ	< 0.14 UJ
DDx (b)	T_DDx (PDI)	µg/kg	383	1.54	0.228	17.6	4.53	< 0.096 UJ	< 0.13 UJ	0.214	< 0.14 UJ
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	2500	2700	620	290	45	3.9	4.5	< 1.3 U	< 1.3 U
Acenaphthene	83-32-9	µg/kg	21000	14000	5400	2000	980	260	230	15	27
Acenaphthylene	208-96-8	µg/kg	1400	1300	910	230	49	1.8	1.5	0.57 J	0.69 J
Anthracene	120-12-7	µg/kg	25000	13000	5800	2100	760	3.3	2.8	0.25 J	0.45 J
Benz(a)anthracene	56-55-3	µg/kg	26000	23000	11000	8000	2700	2.4	1.6	< 1.3 U	< 1.3 U
Benzo(a)pyrene	50-32-8	µg/kg	32000	24000	16000	8200	2900	2.3	< 1.2 U	< 1.3 U	< 1.3 U
Benzo(b)fluoranthene	205-99-2	µg/kg	29000 J	22000	16000 J	9500	3300	2.8	1.6	< 1.3 U	< 1.3 U
Benzo(g,h,i)perylene	191-24-2	µg/kg	27000	27000	16000	6100	2200	3.0	1.2	< 1.3 U	< 1.3 U
Benzo(k)fluoranthene	207-08-9	µg/kg	10000	8200	4100	3300	1100	< 1.1 U	< 1.2 U	< 1.3 U	< 1.3 U
Chrysene	218-01-9	µg/kg	32000	23000	13000	7800	2300	2.8	2.3	< 1.3 U	< 1.3 U
Dibenz(a,h)anthracene	53-70-3	µg/kg	2300	1900	1300	1300	360	< 1.1 U	< 1.2 U	< 1.3 U	< 1.3 U
Fluoranthene	206-44-0	µg/kg	98000	73000	41000	16000	6500	8.0	5.5	< 1.3 U	3.2
Fluorene	86-73-7	µg/kg	16000	12000	3800	960	470	30	26	0.32 J	0.93 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	26000	23000	14000	7100	2500	2.4	1.3	< 1.3 U	< 1.3 U
Naphthalene	91-20-3	µg/kg	6100	8200	3900	700	150	2.2	2.7	< 1.3 U	< 1.3 U
Phenanthrene	85-01-8	µg/kg	130000	93000	37000	9200	4600	68	66	< 1.3 U	4.5
Pyrene	129-00-0	µg/kg	130000	100000	52000	17000	7000	8.8	5.3	< 1.3 U	3.4
Total PAHs (b)	T_PAH (PDI)	µg/kg	610000	470000	240000	100000	38000	400	350	18	41
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	43000	33000	21000	12000	4100	3.6	1.1	< 1.3 U	< 1.3 U

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S095	SC-S095	SC-S095	SC-S098	SC-S098	SC-S098	SC-S098	SC-S098	SC-S098
			Sample ID	PDI-SC-S095-0TO2D	PDI-SC-S095-2TO4	PDI-SC-S095-4TO6	PDI-SC-S098-0TO1.3	PDI-SC-S098-1.3TO3.3	PDI-SC-S098-3.3TO5.3	PDI-SC-S098-3.3TO5.3D	PDI-SC-S098-5.3TO7.2	PDI-SC-S098-7.2TO8.2
			Sample Date	7/24/2018	7/24/2018	7/24/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018
			Sample Type Code	FD	N	N	N	N	N	FD	N	N
			Depth	0- ft	2-4 ft	4-6 ft	0-1.3 ft	1.3-3.3 ft	3.3-5.3 ft	3.3- ft	5.3-7.2 ft	7.2-8.2 ft
Chemical		**CAS_RN**	**Units**									
Other												
Total Solids@104C		TSOLID	%	55.7	58.2	60.2	54.9	81.6	76.0	75.2	72.3	72.9
Total Solids@70C		TSOLID70	%	57	57	63	54	79	76	76	73	73
Total Solids (%)		%SOLID	%	56.4	57	59.7	53.5	80.7	77.2	75.6	71.7	71.7
Clay		GS-Clay	%		12.6	7.6	11.0	1.9	0		0	1.9
Gravel		GS-Gravel	%		0	0.3	0	0	0		0	0
Sand, Coarse		GS-Csand	%		0.2	0.1	0	0.2	3.0		0	0
Sand, Fine (#200)	(d)	GS-Fsand-200	%		28.53	34.33	34.09	84.93	77.16		16.84	77.59
Sand, Fine (#230)	(d)	GS-Fsand	%		33.3	39.9	37.5	85.3	77.4		17.0	77.9
Sand, Medium		GS-Msand	%		0.6	0.6	2.0	8.0	13.9		81.6	16.0
Silt (#200)	(d)	GS-Silt-200	%		57.96	57.16	52.90	4.966	5.839		1.659	4.406
Silt (#230)	(d)	GS-Silt	%		53.2	51.6	49.5	4.6	5.6		1.5	4.1
Percent Fines	(e)	GS-FINES	%		70.56	64.76	63.9	6.866	5.839		1.659	6.306
Liquid Limit		GS-LL	None									
Plasticity Index		GS-PI	None									
Plasticity Limit		GS-PL	None									
Total Organic Carbon		TOC	mg/kg	37000	51000	34000	28000	3000	1900 J	2400	590 J	2100

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S103	SC-S103	SC-S103	SC-S103	SC-S103	SC-S103	SC-S103	SC-S105	SC-S105	SC-S105
			Sample ID	PDI-SC-S103-0TO2	PDI-SC-S103-10.7TO13.4	PDI-SC-S103-2TO4	PDI-SC-S103-4TO6	PDI-SC-S103-6TO8	PDI-SC-S103-8TO9.7	PDI-SC-S103-9.7TO10.7	PDI-SC-S105-0TO2	PDI-SC-S105-2TO4	PDI-SC-S105-4TO5.6
			Sample Date	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/8/2018	8/8/2018	8/8/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-2 ft	10.7-13.4 ft	2-4 ft	4-6 ft	6-8 ft	8-9.7 ft	9.7-10.7 ft	0-2 ft	2-4 ft	4-5.6 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.18	0.0015 J	0.17	0.13	0.17	0.037	0.0039	0.13	0.0099	0.021
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.039	0.00022 JN	0.062	0.031	0.042	0.015	0.00070 JN	0.021	0.0017 J	0.0051
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.0066	< 0.00029 U	0.015	0.0091	0.0084	0.0031 J	0.00051 J+	0.0041	0.00047 J+	0.00070 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.0013 JN	0.00013 J	0.0018 J	0.0016 J	0.0019 J	0.00034 J	0.00012 JN	0.00062 J	0.00019 J+	0.00042 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.032	0.00014 J	0.080	0.069	0.041	0.013	0.00059 J	0.018	0.0012 J	0.0019 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.011	0.00010 J	0.010	0.0080	0.011	0.0016 J	0.00024 J	0.0030 J	0.00037 J	0.0012 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.0081	0.000062 J	0.021	0.017	0.011	0.0035	0.00021 J	0.0045	0.00034 J	0.00070 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0049 J	0.00016 J	0.0037 J	0.0046 J	0.0058	0.00097 J	0.00025 J	0.0012 J	0.00047 J	0.00099 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		0.00080 J+	< 0.00046 U	0.0016 J	0.0012 J	0.0014 J+	0.00096 J+	< 0.00058 U	0.00052 J+	< 0.00015 U	0.00027 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.0011 J	0.000026 JN	0.0012 J	0.00099 JN	0.0014 J	0.00021 J	0.000068 J	0.00059 J	< 0.000022 U	< 0.00016 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.017	0.000094 J+	0.052	0.044	0.024	0.0075	0.00034 J	0.010	0.00070 J	0.0014 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.0014 J	< 0.000017 U	0.0038 J	0.0031 J	0.0021 J	0.00060 J	< 0.000031 U	0.00098 J	< 0.000028 U	0.00039 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.0063	0.000034 J	0.023	0.019	0.0093	0.0029 J	0.00014 J	0.0045	0.00033 J	0.00071 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.00081 J	< 0.000027 U	0.00068 J	0.0013	0.00083 J	0.00015 JN	< 0.000048 U	0.00079	< 0.000013 U	< 0.00017 U
2,3,7,8-TCDF	51207-31-9	µg/kg		0.016	0.000045 J+	0.041	0.039	0.025	0.0064	0.00027 J	0.012	0.00074	0.0010
OCDD	3268-87-9	µg/kg		1.7	0.028	1.7	1.2	1.7	0.46	0.061	1.2	0.094	0.21
OCDF	39001-02-0	µg/kg		0.11	0.00077 J+	0.14	0.067	0.10	0.028	0.0023 J	0.047	0.0049 J	0.0078
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.015	0.00015	0.03	0.026	0.018	0.0049	0.00039	0.009	0.00061	0.0014
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.015	0.00012	0.03	0.025	0.018	0.0048	0.00037	0.009	0.00061	0.0014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.015	0.0001	0.03	0.025	0.018	0.0047	0.00034	0.009	0.0006	0.0013
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 4.0 U	< 2.6 U	< 3.7 U	< 3.8 U	< 3.7 UJ	< 2.9 UJ	< 2.7 UJ	< 3.1 U	< 2.7 U	< 2.8 U
Aroclor 1221	11104-28-2	µg/kg		< 4.0 U	< 2.6 U	< 3.7 U	< 3.8 U	< 3.7 UJ	< 2.9 UJ	< 2.7 UJ	< 3.1 U	< 2.7 U	< 2.8 U
Aroclor 1232	11141-16-5	µg/kg		< 4.0 U	< 2.6 U	< 3.7 U	< 3.8 U	< 3.7 UJ	< 2.9 UJ	< 2.7 UJ	< 3.1 U	< 2.7 U	< 2.8 U
Aroclor 1242	53469-21-9	µg/kg		< 4.0 U	< 2.6 U	< 3.7 U	< 3.8 U	< 3.7 UJ	< 2.9 UJ	< 2.7 UJ	< 3.1 U	< 2.7 U	< 2.8 U
Aroclor 1248	12672-29-6	µg/kg		< 4.0 U	< 2.6 U	< 3.7 U	< 3.8 U	< 3.7 UJ	< 2.9 UJ	< 2.7 UJ	< 3.1 U	< 2.7 U	< 2.8 U
Aroclor 1254	11097-69-1	µg/kg		< 4.0 U	< 2.6 U	< 3.7 U	< 3.8 U	< 3.7 UJ	< 2.9 UJ	< 2.7 UJ	< 3.1 U	< 2.7 U	< 2.8 U
Aroclor 1260	11096-82-5	µg/kg		12	< 2.6 U	< 3.7 U	< 3.8 U	6.6 J	4.2 J	< 2.7 UJ	2.8 J	< 2.7 U	< 2.8 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		12	< 2.6 U	< 3.7 U	< 3.8 U	6.6	4.2	< 2.7 UJ	2.8	< 2.7 U	< 2.8 U
Pesticides													
2,4-DDD	53-19-0	µg/kg		8.45 J	< 0.075 U	7.70	7.25	9.24	2.36	0.11 JN	5.86 J	0.842 J	1.34 J
2,4-DDE	3424-82-6	µg/kg		0.810 J	< 0.017 U	0.987 J	0.902 J	1.03 J	0.286 J	< 0.028 U	0.285 J	0.0855 J	0.0675 J
2,4-DDT	789-02-6	µg/kg		0.468 J	< 0.035 U	0.737 J	0.455 J	0.625 J	0.076 JN	< 0.026 U	0.380 J	< 0.11 UJ	0.11 JN
4,4'-DDD	72-54-8	µg/kg		24.5 J	0.136 J	25.1	30.5	27.3	8.68	0.206 J	15.3 J	2.34 J	3.05 J
4,4'-DDE	72-55-9	µg/kg		8.36	< 0.023 U	8.53	9.07	9.14	1.97	< 0.023 U	1.43 J	0.24 JN	0.258 J
4,4'-DDT	50-29-3	µg/kg		4.93 J	< 0.15 U	1.03 J	1.37 J	13.8	0.311 J	< 0.058 U	0.775 J	0.451 J	0.325 J
DDx (b)	T_DDx (PDI)	µg/kg		47.5	0.211	44.1	49.5	61.1	13.7	0.345	24	4.01	5.15
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		380	1.2	450	210	470	150	2.8 J	550	36	4300
Acenaphthene	83-32-9	µg/kg		870	14	3000	1300 J	1700	1600	83	5000	220	4300
Acenaphthylene	208-96-8	µg/kg		340	1.2	350	250	410	110	9.7 J	1100	150 J	200
Anthracene	120-12-7	µg/kg		1300	2.6	2900	960 J	1500	2000	16	7400	320 J	4600
Benz(a)anthracene	56-55-3	µg/kg		3400	7.6	8800	3700	6100	9400	57	8500	780 J	3900
Benzo(a)pyrene	50-32-8	µg/kg		3700	7.8	9400	4800	6300	9400	69	11000	720 J	6700
Benzo(b)fluoranthene	205-99-2	µg/kg		3900	9.6	11000	5500 J	6900	12000	75	11000	890 J	6400 J
Benzo(g,h,i)perylene	191-24-2	µg/kg		3700	8.6	7800	4000	5900	6900	59	11000	770 J	6100
Benzo(k)fluoranthene	207-08-9	µg/kg		1500	2.8	4000	1700	2300	3700	23	2800	240 J	2100
Chrysene	218-01-9	µg/kg		3500	8.1	8100	4000	6100	8000	64	9100	970 J	4400
Dibenz(a,h)anthracene	53-70-3	µg/kg		560	< 1.2 U	1200	830 J	860	1500	10 J	1200	120 J	850
Fluoranthene	206-44-0	µg/kg		7500	18	20000	8100	13000	18000	140	32000	2000	18000
Fluorene	86-73-7	µg/kg		720	3.1	1500	700	1100	890	15	4500	310	3000
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		3300	7.6	8400	4200	5700	8100	60	10000	770 J	5300
Naphthalene	91-20-3	µg/kg		1100	2.3	1000	620	1200	410	7.5 J	3100	170 J	24000
Phenanthrene	85-01-8	µg/kg		5100	14	12000	5200	9100	9200	82	2900	260 J	22000
Pyrene	129-00-0	µg/kg		9200	21	22000	9500	16000	19000	150	41000	2800	23000
Total PAHs (b)	T_PAH (PDI)	µg/kg		50000	130	120000	56000	85000	110000	920	160000	12000	140000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		5300	11	13000	7000	9100	14000	98	15000	1100	9100

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S103	SC-S103	SC-S103	SC-S103	SC-S103	SC-S103	SC-S103	SC-S105	SC-S105	SC-S105
		Sample ID	PDI-SC-S103-0TO2	PDI-SC-S103-10.7TO13.4	PDI-SC-S103-2TO4	PDI-SC-S103-4TO6	PDI-SC-S103-6TO8	PDI-SC-S103-8TO9.7	PDI-SC-S103-9.7TO10.7	PDI-SC-S105-0TO2	PDI-SC-S105-2TO4	PDI-SC-S105-4TO5.6
		Sample Date	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/8/2018	8/8/2018	8/8/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-2 ft	10.7-13.4 ft	2-4 ft	4-6 ft	6-8 ft	8-9.7 ft	9.7-10.7 ft	0-2 ft	2-4 ft	4-5.6 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	49.3	73.7	51.4	50.4	53.5	70.1	72.8	63.6	69.4	70.7
Total Solids@70C	TSOLID70	%	49	72	52	51	53	71	73	64	70	71
Total Solids (%)	%SOLID	%	48.9	73.7	53.9	50.5	53.5	68.4	72.3	64.6	69.9	70.4
Clay	GS-Clay	%	12.4	1.9	16.2	20.0	14.0	6.4	4.1	7.8	6.4	5.3
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0.3	0	0	0.1	0.2	0.6	0	0.1	0.1	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	25.61	88.65	22.68	19.66	27.78	73.87	77.81	35.56	38.88	44.09
Sand, Fine (#230) (d)	GS-Fsand	%	29.4	89.2	25.5	23.2	30.6	74.7	78.4	42.6	46.4	49.4
Sand, Medium	GS-Msand	%	1.4	3.1	1.0	0.7	1.2	2.8	5.5	0.3	0.2	0.1
Silt (#200) (d)	GS-Silt-200	%	60.38	6.245	60.11	59.53	56.81	16.32	12.68	56.13	54.51	50.40
Silt (#230) (d)	GS-Silt	%	56.6	5.7	57.3	56.0	54.0	15.5	12.1	49.1	47.0	45.1
Percent Fines (e)	GS-FINES	%	72.78	8.145	76.31	79.53	70.81	22.72	16.78	63.93	60.91	55.7
Liquid Limit	GS-LL	None										0
Plasticity Index	GS-PI	None										< 0 U
Plasticity Limit	GS-PL	None										0
Total Organic Carbon	TOC	mg/kg	34000	3000	35000	39000 J	33000	9700	4300	27000	15000 J	15000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S105	SC-S108	SC-S108	SC-S108	SC-S108	SC-S108	SC-S108	SC-S108	SC-S109
		Sample ID	PDI-SC-S105-5.6TO6.6	PDI-SC-S108-0TO1.9	PDI-SC-S108-1.9TO3	PDI-SC-S108-3TO4.7	PDI-SC-S108-4.7TO6.7	PDI-SC-S108-6.7TO8.8	PDI-SC-S108-6.7TO8.8D	PDI-SC-S108-8.8TO9.8	PDI-SC-S109-0TO2
		Sample Date	8/8/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/15/2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	5.6-6.6 ft	0-1.9 ft	1.9-3 ft	3-4.7 ft	4.7-6.7 ft	6.7-8.8 ft	6.7- ft	8.8-9.8 ft	0-2 ft
Chemical	**CAS_RN**	**Units**									
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.48	0.48	0.72	0.60	0.50	0.0070	0.0064	0.0063	0.061 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.077	0.12	0.59	0.24	0.40	0.0047	0.0047	0.0039 J	0.013 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0071 J	0.0052	0.0096	0.010	0.014	0.00031 J+	0.00030 J+	< 0.00037 U	0.0015 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0028 J	0.0034 J	0.0054 J	0.0056 J	0.0034 J	0.00021 J+	0.00021 J+	0.00031 J+	0.00058 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.036 J	0.0090	0.018	0.015	0.014	0.00047 J	0.00034 J	0.00027 JN	0.0051 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.012 J	0.030	0.038	0.035	0.020	0.00030 J	0.00027 J	0.00021 JN	0.0033 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.010 J	0.0063	0.010	0.016	0.026	0.00048 J	0.00039 J	0.00042 JN	0.0019 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0092 J	0.0099	0.010	0.012	0.0069	0.00024 J	0.00020 J	0.00026 JN	0.0023 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00087 JN	0.00057 JN	< 0.0011 U	0.00085 J+	0.0010 JN	0.00037 J+	< 0.00032 U	< 0.00066 U	0.0011 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0017 JN	0.0019 J	0.0030 J	0.0033 J	0.0018 J	0.000069 J	0.000039 JN	< 0.000086 U	0.00055 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.017 J	0.0044 J	0.0068	0.0064	0.0057	0.00054 J	0.00020 J+	0.00017 JN	0.0031 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0034 J	0.0020 J	0.0027 J	0.0029 J	0.0023 J	0.00035 J	< 0.000046 U	< 0.000088 U	0.00061 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.010 J	0.0027 J	0.0044 J	0.0037 J	0.0029 J	0.00024 J+	< 0.00012 U	< 0.000082 U	0.0015 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.0012 J	0.00056 JN	0.0013	0.0011 J	0.00051 JN	< 0.000056 U	< 0.000019 U	< 0.000089 U	< 0.00021 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.016	0.0041	0.0063	0.0055	0.0032	< 0.00057 U	< 0.00044 U	< 0.00022 U	0.0035 J
OCDD	3268-87-9	µg/kg	5.4	4.2 J	7.0 J	6.0 J	5.6 J	0.084	0.078	0.075	0.56
OCDF	39001-02-0	µg/kg	0.17	0.24	0.58	0.51	0.95	0.011	0.012	0.010	0.031 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.023	0.017	0.03	0.025	0.022	0.00058	0.00035	0.00032	0.004
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.022	0.017	0.03	0.025	0.022	0.00058	0.00031	0.0002	0.0035
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.021	0.017	0.03	0.025	0.022	0.00055	0.00029	0.00016	0.0033
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016	12674-11-2	µg/kg	< 3.2 U	< 3.7 U	< 4.4 UJ	< 4.6 UJ	< 4.0 UJ	< 2.8 UJ	< 2.8 U	< 2.7 U	< 2.6 U
Aroclor 1221	11104-28-2	µg/kg	< 3.2 U	< 3.7 U	< 4.4 UJ	< 4.6 UJ	< 4.0 UJ	< 2.8 UJ	< 2.8 U	< 2.7 U	< 2.6 U
Aroclor 1232	11141-16-5	µg/kg	< 3.2 U	< 3.7 U	< 4.4 UJ	< 4.6 UJ	< 4.0 UJ	< 2.8 UJ	< 2.8 UJ	< 2.7 U	< 2.6 U
Aroclor 1242	53469-21-9	µg/kg	< 3.2 U	< 3.7 UJ	< 4.4 UJ	< 4.6 UJ	< 4.0 UJ	< 2.8 UJ	< 2.8 U	< 2.7 UJ	< 2.6 U
Aroclor 1248	12672-29-6	µg/kg	< 3.2 U	< 3.7 UJ	< 4.4 UJ	< 4.6 UJ	< 4.0 UJ	< 2.8 UJ	< 2.8 U	< 2.7 UJ	< 2.6 U
Aroclor 1254	11097-69-1	µg/kg	< 3.2 U	< 3.7 UJ	< 4.4 UJ	< 4.6 UJ	< 4.0 UJ	< 2.8 UJ	< 2.8 U	< 2.7 UJ	< 2.6 UJ
Aroclor 1260	11096-82-5	µg/kg	< 3.2 U	66 J	42 J	19 J	4.7 J	< 2.8 UJ	< 2.8 U	< 2.7 UJ	2.7 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	< 3.2 U	66	42	19	4.7	< 2.8 UJ	< 2.8 UJ	< 2.7 UJ	2.7
Pesticides											
2,4-DDD	53-19-0	µg/kg	30.1 J	1.58 J	4.95	10.3	19.7	0.71 JN	0.408 J	0.311 J	2.27
2,4-DDE	3424-82-6	µg/kg	1.11 J	0.254 J	0.687 J	0.466 J	1.08 J	< 0.18 UJ	< 0.021 UJ	< 0.030 U	0.149 J
2,4-DDT	789-02-6	µg/kg	0.52 JN	1.74 J	1.67 J	0.74 JN	2.1 JN	< 0.14 UJ	< 0.031 UJ	< 0.051 UJ	0.265 J
4,4'-DDD	72-54-8	µg/kg	71.4 J	4.80	13.5	31.8	36.0	1.39 J	0.818 J	0.606 J	4.96
4,4'-DDE	72-55-9	µg/kg	7.53	2.14 J	4.54 J	5.46	4.13 J	< 0.24 UJ	0.151 J	0.135 J	1.04 J
4,4'-DDT	50-29-3	µg/kg	1.28 J	71.8 J	27.5 J	13.9 J	9.23 J	1.34 J	0.204 J	0.426 J	< 0.248 U
DDx (b)	T_DDx (PDI)	µg/kg	112	82.3	52.8	62.7	72.2	3.56	1.6	1.5	8.81
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	47000	230	640	790	910	24	22	22	3000
Acenaphthene	83-32-9	µg/kg	57000	230	630	770	680	15	15	15	25000
Acenaphthylene	208-96-8	µg/kg	3600	50	93 J	210	370	5.8 J	6.3 J	11	1900
Anthracene	120-12-7	µg/kg	60000	180	380	450	530	10	13	15	14000
Benz(a)anthracene	56-55-3	µg/kg	50000	350	620	610	490	15	12	16	12000
Benzo(a)pyrene	50-32-8	µg/kg	62000	290	470	640	540	16	11	18	15000
Benzo(b)fluoranthene	205-99-2	µg/kg	61000 J	410	650	720	670	18	13	20	14000
Benzo(g,h,i)perylene	191-24-2	µg/kg	58000	230	370	500	510	16	12	16	10000
Benzo(k)fluoranthene	207-08-9	µg/kg	16000	130	200	230	150	5.2 J	3.8 J	5.8 J	4600
Chrysene	218-01-9	µg/kg	56000	420	760	780	700	17	16	20	14000
Dibenz(a,h)anthracene	53-70-3	µg/kg	7600	56	81 J	76	57	< 6.9 U	< 7.0 U	< 6.9 U	1400
Fluoranthene	206-44-0	µg/kg	210000	1000	1800	1900	2000	38	51	55	49000
Fluorene	86-73-7	µg/kg	31000	190	460	520	590	13	14	15	14000
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	55000	300	420	550	480	16	12	17	12000
Naphthalene	91-20-3	µg/kg	540000	580	1600	2300	3100	59	64	74	18000
Phenanthrene	85-01-8	µg/kg	290000	840	1800	2300	3000	54	67	86	78000
Pyrene	129-00-0	µg/kg	260000	1000	1900	2300	2800	54	67	68	58000
Total PAHs (b)	T_PAH (PDI)	µg/kg	1900000	6500	13000	16000	18000	380	400	480	340000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	86000	450	720	910	760	24	18	27	20000

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S105	SC-S108	SC-S108	SC-S108	SC-S108	SC-S108	SC-S108	SC-S108	SC-S109
		Sample ID	PDI-SC-S105-5.6TO6.6	PDI-SC-S108-0TO1.9	PDI-SC-S108-1.9TO3	PDI-SC-S108-3TO4.7	PDI-SC-S108-4.7TO6.7	PDI-SC-S108-6.7TO8.8	PDI-SC-S108-6.7TO8.8D	PDI-SC-S108-8.8TO9.8	PDI-SC-S109-0TO2
		Sample Date	8/8/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/15/2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N
		Depth	5.6-6.6 ft	0-1.9 ft	1.9-3 ft	3-4.7 ft	4.7-6.7 ft	6.7-8.8 ft	6.7- ft	8.8-9.8 ft	0-2 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	61.0	53.1	44.6	42.3	49.2	68.7	70.4	70.0	75.6
Total Solids@70C	TSOLID70	%	62	55	44	41	50	70	70	71	76
Total Solids (%)	%SOLID	%	61.9	59.7	43.7	40.8	49.2	67.9	67.9	70.9	78
Clay	GS-Clay	%	8.5	4.7	7.3	6.4	5.3	7.7		8.6	2.6
Gravel	GS-Gravel	%	0	0	3.2	14.8	2.3	0		0	1.1
Sand, Coarse	GS-Csand	%	1.4	2.2	2.1	3.8	2.5	0.2		0	0.9
Sand, Fine (#200) (d)	GS-Fsand-200	%	36.89	56.29	40.75	28.59	53.17	49.25		42.03	53.26
Sand, Fine (#230) (d)	GS-Fsand	%	43.1	63.1	48.4	36.1	59.0	52.8		48.0	54.7
Sand, Medium	GS-Msand	%	2.0	2.0	3.3	5.8	4.8	0.5		0.2	22.6
Silt (#200) (d)	GS-Silt-200	%	51.10	34.80	43.34	40.50	31.82	42.34		49.16	19.53
Silt (#230) (d)	GS-Silt	%	44.9	28.0	35.7	33.0	26.0	38.8		43.2	18.1
Percent Fines (e)	GS-FINES	%	59.6	39.5	50.64	46.9	37.12	50.04		57.76	22.13
Liquid Limit	GS-LL	None									
Plasticity Index	GS-PI	None									
Plasticity Limit	GS-PL	None									
Total Organic Carbon	TOC	mg/kg	120000	76000	210000	390000	190000	15000	15000	16000	20000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S109	SC-S109	SC-S109	SC-S109	SC-S109	SC-S112	SC-S112	SC-S112	SC-S113	SC-S113
		Sample ID	PDI-SC-S109-10TO11.3	PDI-SC-S109-2TO4	PDI-SC-S109-4TO6	PDI-SC-S109-6TO8	PDI-SC-S109-8TO10	PDI-SC-S112-0TO2	PDI-SC-S112-2TO4	PDI-SC-S112-4TO6	PDI-SC-S113(A)-0TO2.2	PDI-SC-S113(A)-2.2TO4.6
		Sample Date	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	9/5/2018	9/5/2018	9/5/2018	8/15/2018	8/15/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	10-11.3 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	0-2.2 ft	2.2-4.6 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.068 J	0.014	0.0059 J	0.014	0.093	0.87	1.1	0.98	0.15	0.016
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.032 J	0.0023 J	0.0025 J	0.0036	0.21	0.20	0.21	0.42	0.063	0.0032
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.043 J	0.00027 J+	< 0.00024 U	< 0.00081 U	0.0023 J+	0.0099	0.013	0.012	0.019	0.0010 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.0012 UJ	0.00026 JN	< 0.00010 U	< 0.00016 U	0.00045 J+	0.0052 J	0.012	0.0055	0.00097 J	0.00018 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0018 J	0.00096 J	0.00095 JN	0.00092 J	0.0032 J	0.065	0.060	0.041	0.11	0.0040
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	< 0.0012 UJ	0.00085 JN	0.00066 J	0.00068 J	0.0042	0.048	0.060	0.048	0.0042	0.00043 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0022 J	0.00033 J	0.00033 JN	0.00030 J+	0.0037	0.022	0.021	0.020	0.026	0.0011 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0056 JN	0.00066 J	0.00053 JN	0.00028 JN	0.0015 J	0.013	0.018	0.013	0.0028 J	0.00027 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0064 J	0.00016 JN	< 0.000079 U	< 0.00062 U	0.0011 J+	0.0033 J+	0.0029 J+	0.0030 J+	0.0034	0.00063 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00051 U	0.00016 J	< 0.00016 U	0.000055 JN	0.00053 J	0.0028 J	0.0038 J	0.0027 J	0.00076 J	0.00010 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00041 U	0.00072 J	< 0.00013 U	0.00047 J+	0.00040 JN	0.13	0.019	0.012	0.038	0.0019 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0013 UJ	0.000084 JN	0.00013 JN	0.00011 J+	0.0024 J	0.0069	0.0044 J	0.0038 J	0.0036	0.00022 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00053 U	0.00037 J	< 0.00015 U	0.00022 J+	0.0011 J	0.094	0.0068	0.0067	0.013	0.00085 J
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00068 U	< 0.000041 U	< 0.00014 U	< 0.000034 U	0.00012 JN	0.00072 J	0.00082 J	0.00089 J	0.00038 JN	0.000071 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0014 JN	0.00059 J+	0.00041 J+	0.00063	0.00032 JN	0.25	0.0052	0.0075	0.013	0.00091 J+
OCDD	3268-87-9	µg/kg	1.3 J	0.12	0.058 J	0.13	1.4	7.5 J	9.1 J	8.9 J	1.7	0.15
OCDF	39001-02-0	µg/kg	0.092 J	0.0056 J	0.0032 J	0.0049 J	0.10	0.32	0.35	0.50	0.12	0.0083
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0039	0.00091	0.00048	0.00067	0.0062	0.09	0.042	0.037	0.025	0.0015
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0032	0.00079	0.00029	0.00059	0.0061	0.09	0.042	0.037	0.025	0.0015
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0029	0.00075	0.00021	0.00056	0.006	0.09	0.042	0.037	0.025	0.0014
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 120 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.7 U	< 4.4 U	< 4.6 U	< 4.3 U	< 2.7 U	< 2.5 U
Aroclor 1221	11104-28-2	µg/kg	< 120 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.7 U	< 4.4 U	< 4.6 U	< 4.3 U	< 2.7 U	< 2.5 U
Aroclor 1232	11141-16-5	µg/kg	< 120 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.7 U	< 4.4 U	< 4.6 U	< 4.3 U	< 2.7 U	< 2.5 U
Aroclor 1242	53469-21-9	µg/kg	< 120 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.7 U	< 4.4 U	< 4.6 U	< 4.3 U	< 2.7 U	< 2.5 U
Aroclor 1248	12672-29-6	µg/kg	< 120 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.7 U	< 4.4 U	< 4.6 U	< 4.3 U	< 2.7 U	< 2.5 U
Aroclor 1254	11097-69-1	µg/kg	< 120 U	< 2.3 UJ	< 2.3 UJ	< 2.3 U	< 2.7 U	< 4.4 U	< 4.6 U	< 4.3 U	< 2.7 UJ	< 2.5 UJ
Aroclor 1260	11096-82-5	µg/kg	< 120 U	0.69 J	0.95 J	0.47 J	7.0	16 J	16 J	18 J	6.0	1.0 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	< 120 U	0.69	0.95	0.47	7	16	16	18	6	1
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.027 UJ	0.285 J	0.174 J	0.133 J	0.0831 J	14.0	7.64	12.4	6.58 J	1.14 J
2,4-DDE	3424-82-6	µg/kg	< 0.016 U	< 0.019 UJ	0.15 JN	< 0.0303 U	< 0.00845 U	0.435 J	0.563 J	0.970 J	0.411 J	0.0537 J
2,4-DDT	789-02-6	µg/kg	< 0.11 UJ	< 0.023 UJ	< 0.042 UJ	< 0.017 UJ	< 0.014 UJ	1.21 J	3.60	1.2 JN	0.443 J	0.0904 J
4,4'-DDD	72-54-8	µg/kg	< 0.11 UJ	0.502 J	0.372 J	0.349 J	0.130 J	18.2	17.6	20.7	20.3 J	3.83 J
4,4'-DDE	72-55-9	µg/kg	< 0.021 U	0.228 J	0.759 J	0.227 J	0.0901 J	5.94	6.58 J	6.07 J	2.57	0.250 J
4,4'-DDT	50-29-3	µg/kg	< 0.25 UJ	< 0.069 UJ	1.05 J	< 0.044 UJ	< 0.031 UJ	4.37	5.01	3.24	0.740 J	0.376 J
DDx (b)	T_DDx (PDI)	µg/kg	< 0.25 UJ	1.05	2.53	0.731	0.319	44.2	41	44.6	31	5.74
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	19000	34	33 J	730	1200 J	470	520	690	37000	2600 J
Acenaphthene	83-32-9	µg/kg	230000	1600	1600	1400	31000	430	540	610	38000	6800
Acenaphthylene	208-96-8	µg/kg	20000	220	150 J	94	2000 J	76	98	90	2200	500
Anthracene	120-12-7	µg/kg	120000	1200	1200	1000	26000	410	420	400	29000	5200
Benz(a)anthracene	56-55-3	µg/kg	120000	1200	1000	510	18000	1100	1100	1000	14000	3100
Benzo(a)pyrene	50-32-8	µg/kg	160000	1800	1200	620	25000	920	1000	790	17000	3300
Benzo(b)fluoranthene	205-99-2	µg/kg	160000	1700	1200	610	22000	1200	1400	1100	14000	2600
Benzo(g,h,i)perylene	191-24-2	µg/kg	130000	1200	1100	610	24000	550	630	450	11000	2000
Benzo(k)fluoranthene	207-08-9	µg/kg	47000	520	470 J	210	8900	370	300	230	5500	1100
Chrysene	218-01-9	µg/kg	140000	1800	1300	660	23000	1200	1100	1100	19000	4300
Dibenz(a,h)anthracene	53-70-3	µg/kg	25000	180	170 J	88	3300	180	190	140	1900	350
Fluoranthene	206-44-0	µg/kg	550000	4300	4400	2800	79000	2500	2200	1900	59000	10000
Fluorene	86-73-7	µg/kg	89000	990	910	990	15000	390	460	500	21000	4100 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	130000	1500	1100	600	23000	1000	1100	790	12000	2300
Naphthalene	91-20-3	µg/kg	130000	190	240 J	6400	11000	2300	2500	2300	4300	250
Phenanthrene	85-01-8	µg/kg	510000	4800	5800	5300	110000	1200	1300	1100	190000	24000 J
Pyrene	129-00-0	µg/kg	640000	5000	5200	3200	93000	3000	3000	3900	76000	14000
Total PAHs (b)	T_PAH (PDI)	µg/kg	3200000	28000	27000	26000	520000	17000	18000	17000	550000	87000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	230000	2400	1700	880	35000	1400	1600	1200	23000	4500

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S109	SC-S109	SC-S109	SC-S109	SC-S109	SC-S112	SC-S112	SC-S112	SC-S113	SC-S113
		Sample ID	PDI-SC-S109-10TO11.3	PDI-SC-S109-2TO4	PDI-SC-S109-4TO6	PDI-SC-S109-6TO8	PDI-SC-S109-8TO10	PDI-SC-S112-0TO2	PDI-SC-S112-2TO4	PDI-SC-S112-4TO6	PDI-SC-S113(A)-0TO2.2	PDI-SC-S113(A)-2.2TO4.6
		Sample Date	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	9/5/2018	9/5/2018	9/5/2018	8/15/2018	8/15/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	10-11.3 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft	4-6 ft	0-2.2 ft	2.2-4.6 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	56.9	84.5	84.6	85.5	72.5	44.3	41.9	46.3	72.4	78.0
Total Solids@70C	TSOLID70	%	60	86	86	86	74	45	43	47	73	79
Total Solids (%)	%SOLID	%	60.2	85.8	84.3	85.9	69.9	45.7	43.3	49	70.9	78.7
Clay	GS-Clay	%	0.8	1.6	0.8	0.8	4.5	7.3	3.1	6.8	5.0	0
Gravel	GS-Gravel	%	5.5	0	0	0	0	15.8	5.7	9.2	0	0
Sand, Coarse	GS-Csand	%	4.4	0.7	1.0	0.2	0.4	1.8	1.0	2.9	0.2	0.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	55.13	57.44	56.86	56.77	54.09	25.34	19.61	31.04	65.49	74.45
Sand, Fine (#230) (d)	GS-Fsand	%	55.4	57.6	57.0	56.9	54.5	29.0	24.1	34.6	65.8	74.6
Sand, Medium	GS-Msand	%	26.1	38.4	39.2	40.5	29.2	3.5	3.3	5.0	19.9	21.3
Silt (#200) (d)	GS-Silt-200	%	8.062	1.857	2.137	1.628	11.90	46.15	67.28	45.05	9.308	3.945
Silt (#230) (d)	GS-Silt	%	7.8	1.7	2.0	1.5	11.5	42.5	62.8	41.5	9.0	3.8
Percent Fines (e)	GS-FINES	%	8.862	3.457	2.937	2.428	16.4	53.45	70.38	51.85	14.308	3.945
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	200000	2500	2300	2000	34000	110000	130000	140000	19000	2000

Notes:

a. Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113
			Sample ID	PDI-SC-S113(A)-2.2TO4.6D	PDI-SC-S113(B)-10TO12	PDI-SC-S113(B)-12TO13.8	PDI-SC-S113(B)-3.6TO5.6	PDI-SC-S113(B)-5.6TO7.4	PDI-SC-S113(B)-7.4TO10	PDI-SC-S113C-0TO1.1	PDI-SC-S113C-1.1TO3.1
			Sample Date	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	9/6/2018	9/6/2018
			Sample Type Code	FD	N	N	N	N	N	N	N
			Depth	2.2- ft	10-12 ft	12-13.8 ft	3.6-5.6 ft	5.6-7.4 ft	7.4-10 ft	0-1.1 ft	1.1-3.1 ft
Chemical		**CAS_RN**	**Units**								
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.017	0.060	0.10	0.36	0.34	0.069	1.5	0.040
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.0036	0.012	0.0099	0.078	0.088	0.015	0.088 J	0.0031
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.0011 J+	0.0028 J	0.0020 J	0.015	0.022	0.0035	0.019 J	0.0012 J+
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00018 J+	0.00041 J+	0.00040 J+	0.0027 J	0.0031 J	0.00048 J+	0.0052 J	0.00031 JN
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.0041	0.014	0.0089	0.086	0.13	0.017	0.099	0.0032
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.00047 J	0.0019 J	0.0022 J	0.019	0.017	0.0026 J	0.031 J	0.0010 J
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.0011 J	0.0034	0.0021 J	0.021	0.031	0.0045	0.024 J	0.0011 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00039 J	0.0011 J	0.0015 J	0.0077	0.0069	0.0014 J	0.023 J	0.00081 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00082 U	0.00068 J	0.0011 J	0.0031 J	0.0028 J	0.0010 J	0.0044 J+	0.0014 J+
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	0.00010 JN	0.00020 J	0.00021 J	0.0020 J	0.0018 J	0.00029 J	0.0032 J	< 0.00023 U
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.0024 J	0.0070	0.0045	0.048	0.053	0.010	0.051 J	0.0024 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.00020 J	0.00056 J	0.00038 J	0.0039 J	0.0045	0.00076 J	0.0051 J	0.00029 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.0010 J	0.0028 J	0.0019 J	0.019	0.020	0.0038	0.022 J	0.00084 J
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000061 U	0.000091 JN	0.000094 JN	0.00094 J	0.00079 J	0.00012 JN	0.0014 J	< 0.00020 U
2,3,7,8-TCDF		51207-31-9	µg/kg	0.0024	0.0045	0.0032	0.019	0.034	0.0062	0.031	0.0012
OCDD		3268-87-9	µg/kg	0.19	0.54	0.76	3.6	3.2	0.66	9.1	0.28
OCDF		39001-02-0	µg/kg	0.011	0.034	< 0.00013 U	0.00083 J	0.19	0.041	0.37	0.012
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.0017	0.0049	0.0043	0.032	0.039	0.0063	0.054	0.0019
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.0016	0.0049	0.0043	0.032	0.039	0.0063	0.054	0.0019
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.0015	0.0048	0.0042	0.032	0.039	0.0062	0.054	0.0018
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016		12674-11-2	µg/kg	< 2.5 U	< 2.4 U	< 2.5 U	< 3.9 U	< 3.3 U	< 2.5 U	< 3.9 U	< 12 U
Aroclor 1221		11104-28-2	µg/kg	< 2.5 U	< 2.4 U	< 2.5 U	< 3.9 U	< 3.3 U	< 2.5 U	< 3.9 U	< 12 U
Aroclor 1232		11141-16-5	µg/kg	< 2.5 UJ	< 2.4 U	< 2.5 U	< 3.9 U	< 3.3 U	< 2.5 U	< 3.9 U	< 12 U
Aroclor 1242		53469-21-9	µg/kg	< 2.5 U	< 2.4 U	< 2.5 U	< 3.9 U	< 3.3 U	< 2.5 U	< 3.9 U	< 12 U
Aroclor 1248		12672-29-6	µg/kg	< 2.5 U	< 2.4 U	< 2.5 U	< 3.9 U	< 3.3 U	< 2.5 U	< 3.9 U	< 12 U
Aroclor 1254		11097-69-1	µg/kg	< 2.5 U	< 2.4 UJ	< 2.5 UJ	< 3.9 UJ	< 3.3 UJ	< 2.5 UJ	< 3.9 U	< 12 U
Aroclor 1260		11096-82-5	µg/kg	1.4 J	2.3 J	2.5 J	10	16	3.3	14 J	< 12 U
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	1.4	2.3	2.5	10	16	3.3	14	< 12 U
Pesticides											
2,4-DDD		53-19-0	µg/kg	2.67	5.13	10.0	40.7	37.5	5.39	32.7	2.20
2,4-DDE		3424-82-6	µg/kg	0.0738 J	0.323 J	0.363 J	2.82	2.29	0.421 J	2.02 J	0.0740 J
2,4-DDT		789-02-6	µg/kg	0.098 JN	0.128 J	0.13 JN	0.706 J	3.90	0.140 J	< 0.76 U	< 0.025 U
4,4'-DDD		72-54-8	µg/kg	7.03 J	14.2	29.6	94.8	158	14.9	60.5	5.22
4,4'-DDE		72-55-9	µg/kg	0.354 J	1.57	1.46	14.2	12.9	2.15	12.7 J	0.424 J
4,4'-DDT		50-29-3	µg/kg	0.397 J	0.176 J	0.186 J	0.370 J	1.64	0.326 J	< 1.1 U	0.189 J
DDx	(b)	T_DDx (PDI)	µg/kg	10.6	21.5	41.7	154	216	23.3	108	8.12
Semivolatile Organics											
2-Methylnaphthalene		91-57-6	µg/kg	280 J	6600	3400	6100	7300	4100	200000	5500
Acenaphthene		83-32-9	µg/kg	4600	18000	35000	31000	28000	12000	330000	21000
Acenaphthylene		208-96-8	µg/kg	570	730	1400	2200	1600	500	9400 J	870
Anthracene		120-12-7	µg/kg	4900	7800	16000	15000	15000	5700	140000	10000
Benz(a)anthracene		56-55-3	µg/kg	3600	5400	11000	16000	12000	4000	70000	7400
Benzo(a)pyrene		50-32-8	µg/kg	4400	7400	15000	25000	18000	5200	84000	7600
Benzo(b)fluoranthene		205-99-2	µg/kg	3600	6200	13000	21000	15000	4500	76000	7400
Benzo(g,h,i)perylene		191-24-2	µg/kg	2700	5000	9700	18000	12000	3400	71000	6000
Benzo(k)fluoranthene		207-08-9	µg/kg	1400	2300	4500	8100	5700	1700	26000	2100
Chrysene		218-01-9	µg/kg	5000	7100	14000	22000	16000	5600	89000	8500
Dibenz(a,h)anthracene		53-70-3	µg/kg	500	750	1400	2600	1700	510	8500 J	660
Fluoranthene		206-44-0	µg/kg	13000	21000	42000	59000	47000	16000	330000	28000
Fluorene		86-73-7	µg/kg	2200 J	8000	16000	14000	14000	5400	120000	8700
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	3000	6000	11000	21000	14000	4100	71000	6000
Naphthalene		91-20-3	µg/kg	240	4700	3900	10000	9000	3400	290000	5200
Phenanthrene		85-01-8	µg/kg	11000 J	43000	87000	88000	78000	31000	620000	57000
Pyrene		129-00-0	µg/kg	17000	27000	52000	75000	59000	20000	390000	37000
Total PAHs	(b)	T_PAH (PDI)	µg/kg	78000	180000	340000	430000	350000	130000	2900000	220000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	5900	9900	20000	34000	24000	7000	110000	10000

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113	SC-S113
		Sample ID	PDI-SC-S113(A)-2.2TO4.6D	PDI-SC-S113(B)-10TO12	PDI-SC-S113(B)-12TO13.8	PDI-SC-S113(B)-3.6TO5.6	PDI-SC-S113(B)-5.6TO7.4	PDI-SC-S113(B)-7.4TO10	PDI-SC-S113C-0TO1.1	PDI-SC-S113C-1.1TO3.1
		Sample Date	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	8/15/2018	9/6/2018	9/6/2018
		Sample Type Code	FD	N	N	N	N	N	N	N
		Depth	2.2- ft	10-12 ft	12-13.8 ft	3.6-5.6 ft	5.6-7.4 ft	7.4-10 ft	0-1.1 ft	1.1-3.1 ft
Chemical	**CAS_RN**	**Units**								
Other										
Total Solids@104C	TSOLID	%	77.6	82.2	79.9	48.7	59.0	77.4	50.8	79.9
Total Solids@70C	TSOLID70	%	78	82	82	50	59	79	51	79
Total Solids (%)	%SOLID	%	79.5	82	82.2	50.7	61.7	80.3	50.2	79.8
Clay	GS-Clay	%		1.7	1.6	9.0	10.1	3.3	8.4	0
Gravel	GS-Gravel	%		0.3	0	0	0	0	9.5	1.1
Sand, Coarse	GS-Csand	%		0	0	0.9	0.1	0.1	0.9	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%		72.51	72.5	27.51	37.58	70.48	33.67	73.95
Sand, Fine (#230) (d)	GS-Fsand	%		72.8	72.8	30.3	39.4	71.0	36.1	74.2
Sand, Medium	GS-Msand	%		19.5	22.4	2.4	6.0	16.7	3.9	21.6
Silt (#200) (d)	GS-Silt-200	%		5.980	3.391	60.18	46.21	9.417	43.62	3.245
Silt (#230) (d)	GS-Silt	%		5.7	3.1	57.4	44.4	8.9	41.2	3.0
Percent Fines (e)	GS-FINES	%		7.68	4.991	69.18	56.31	12.717	52.02	3.245
Liquid Limit	GS-LL	None								
Plasticity Index	GS-PI	None								
Plasticity Limit	GS-PL	None								
Total Organic Carbon	TOC	mg/kg	2000	6500	7600	54000	40000	6900	130000	2200

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S113	SC-S113	SC-S117	SC-S117	SC-S117	SC-S121	SC-S121	SC-S127	SC-S127
			Sample ID	PDI-SC-S113C-3.1TO5.6	PDI-SC-S113C-5.6TO6.6	PDI-SC-S117-0TO2	PDI-SC-S117-2TO4	PDI-SC-S117-4TO6	PDI-SC-S121-0TO1.8	PDI-SC-S121-1.8TO3.4	PDI-SC-S127-0TO2	PDI-SC-S127-2TO4
			Sample Date	9/6/2018	9/6/2018	8/7/2018	8/7/2018	8/7/2018	9/5/2018	9/5/2018	7/24/2018	7/24/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	3.1-5.6 ft	5.6-6.6 ft	0-2 ft	2-4 ft	4-6 ft	0-1.8 ft	1.8-3.4 ft	0-2 ft	2-4 ft
Chemical		**CAS_RN**	**Units**									
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.0064	0.0021 J	0.30	0.67	0.75	0.041	0.25	0.13	0.10
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.00050 J+	0.00037 J+	0.21	0.49	0.44	0.0042	0.028	0.050	0.11
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.00042 J+	0.00045 J+	0.080	0.18	0.17	0.00036 J+	0.0015 J+	0.016	0.047 J
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00012 J+	0.00019 JN	0.0020 J	0.0056 J	0.0036 J	0.00039 J+	0.0013 J	0.0011 J	0.00091 J
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.00020 J	0.00020 J	0.52	1.1	1.0	0.00059 J	0.0033	0.088	0.23 J
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.00014 JN	0.00020 JN	0.0092	0.024 J	0.022 J	0.0024 J	0.0097	0.0056	0.0040
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.000099 J	0.00019 J	0.14	0.26	0.25	0.00031 J	0.0012 J	0.020	0.058 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00016 J+	0.00031 J+	0.0050	0.014 J	0.012 J	0.0010 J	0.0031 J	0.0027 J	0.0023 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	0.0013 J+	< 0.0012 U	0.0058	0.017 J	0.015 J	< 0.0011 U	0.0014 J+	0.0015 J	0.0030 J
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.000054 U	0.00010 J	0.0022 J	0.0056 J	0.0032 J	0.00023 J	0.00083 J	0.00077 J	0.00056 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.00037 JN	0.00036 J+	0.25	0.73	0.69	0.00040 J+	0.0029 J	0.058	0.14 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	< 0.000042 U	0.00014 J	0.015	0.037 J	0.037 J	0.00040 J	< 0.00011 U	0.0033 J	0.0078
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.00014 JN	0.000071 JN	0.087	0.33	0.27	0.00019 J+	0.0015 J	0.020	0.057 J
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000044 U	< 0.0000099 U	0.0019	0.0047 J	0.0016 JN	< 0.000051 U	0.00023 J	0.00043 JN	0.00037 JN
2,3,7,8-TCDF		51207-31-9	µg/kg	0.00022 J+	< 0.00011 U	0.20	0.52 J	0.42	0.00035 J+	0.0017	0.039	0.085 J
OCDD		3268-87-9	µg/kg	0.13	0.018	3.4 J	8.7	12 J	0.41	3.1 J	1.3	1.4
OCDF		39001-02-0	µg/kg	0.0043 J	0.0013 J+	0.38	1.4	1.3 J	0.010	0.14	0.13	0.25
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.00042	0.00035	0.13	0.35	0.3	0.0015	0.0075	0.027	0.064
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.00035	0.00029	0.13	0.35	0.3	0.0015	0.0075	0.027	0.064
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.00032	0.00023	0.13	0.35	0.3	0.0014	0.0075	0.027	0.064
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016		12674-11-2	µg/kg	< 2.5 UJ	< 2.5 UJ	44	< 3.3 UJ	< 3.3 U	< 2.4 U	< 2.6 UJ	< 2.9 UJ	< 2.9 U
Aroclor 1221		11104-28-2	µg/kg	< 2.5 U	< 2.5 UJ	< 3.2 UJ	< 3.3 UJ	< 3.3 UJ	< 2.4 U	< 2.6 UJ	< 2.9 UJ	< 2.9 UJ
Aroclor 1232		11141-16-5	µg/kg	< 2.5 U	< 2.5 UJ	< 3.2 U	< 3.3 UJ	< 3.3 U	< 2.4 U	< 2.6 UJ	< 2.9 UJ	< 2.9 UJ
Aroclor 1242		53469-21-9	µg/kg	< 2.5 U	< 2.5 UJ	< 3.2 U	< 3.3 UJ	< 3.3 U	< 2.4 U	< 2.6 UJ	< 2.9 UJ	< 2.9 U
Aroclor 1248		12672-29-6	µg/kg	< 2.5 U	< 2.5 UJ	< 3.2 U	< 3.3 UJ	< 3.3 U	< 2.4 U	< 2.6 UJ	< 2.9 UJ	< 2.9 U
Aroclor 1254		11097-69-1	µg/kg	< 2.5 U	< 2.5 UJ	59	< 3.3 UJ	< 3.3 U	< 2.4 U	< 2.6 UJ	< 2.9 UJ	< 2.9 U
Aroclor 1260		11096-82-5	µg/kg	< 2.5 UJ	< 2.5 UJ	< 3.2 U	35 J	38 J	< 2.4 U	1.6 J	10 J	< 2.9 UJ
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	< 2.5 UJ	< 2.5 UJ	100	35	38	< 2.4 U	1.6	10	< 2.9 UJ
Pesticides												
2,4-DDD		53-19-0	µg/kg	0.245 J	0.057 JN	61.0 J	85.8 J	68.2 J	0.148 J	1.50	6.53	4.77 J
2,4-DDE		3424-82-6	µg/kg	< 0.0088 U	< 0.012 U	4.74 J	14.7 J	17.6 J	< 0.056 UJ	0.0785 J	1.4 J	0.573
2,4-DDT		789-02-6	µg/kg	< 0.024 U	< 0.031 U	1.82 J	3.42 J	2.41 J	< 0.045 U	0.296 J	0.269 J	3.62 J
4,4'-DDD		72-54-8	µg/kg	0.618 J	0.122 J	148 J	241 J	167 J	0.204 J	2.13	19.5	15.6 J
4,4'-DDE		72-55-9	µg/kg	0.0436 J	< 0.014 U	22.7	54.4 J	93.2	0.104 J	0.556 J	10.4	4.31
4,4'-DDT		50-29-3	µg/kg	< 0.035 U	< 0.043 U	3.43 J	87.8 J	5.38 J	< 0.11 U	1.21 J	2.98	1.02 J
DDx	(b)	T_DDx (PDI)	µg/kg	0.924	0.201	242	487	354	0.511	5.77	41.1	29.9
Semivolatile Organics												
2-Methylnaphthalene		91-57-6	µg/kg	340	53	910	95000	170000	21	13	65000	85 J
Acenaphthene		83-32-9	µg/kg	1600	390	19000	78000	170000	1.8 J	28	140000	420
Acenaphthylene		208-96-8	µg/kg	77	19	1800	6600	7300	15	14	1000	110
Anthracene		120-12-7	µg/kg	940	260	13000	89000	110000	14	28	34000	190
Benz(a)anthracene		56-55-3	µg/kg	580	130	15000	72000	70000	57	63	13000	920
Benzo(a)pyrene		50-32-8	µg/kg	690	140	15000	43000	57000	70	70	5600	780
Benzo(b)fluoranthene		205-99-2	µg/kg	570	120	15000	44000	59000	67	87	7800 J	920 J
Benzo(g,h,i)perylene		191-24-2	µg/kg	570	120	13000	31000	44000	54	51	3000	600
Benzo(k)fluoranthene		207-08-9	µg/kg	190	46	4500	12000	15000	20	20	2300	230
Chrysene		218-01-9	µg/kg	660	150	15000	72000	69000	74	93	13000	1200
Dibenz(a,h)anthracene		53-70-3	µg/kg	59	16	1900	6500	9000	17	24	450	68
Fluoranthene		206-44-0	µg/kg	2700	600	45000	160000	200000	48	120	71000	3100
Fluorene		86-73-7	µg/kg	830	230	9900	54000	76000	4.7 J	15	100000	180
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	560 J	120	13000	30000	42000	87	97	3300	580
Naphthalene		91-20-3	µg/kg	180	60	2700	11000	630000	33	29	550	160
Phenanthrene		85-01-8	µg/kg	4800	1300	57000	400000	440000	35	120	180000	3500
Pyrene		129-00-0	µg/kg	3200	710	56000	220000	260000	100	200	59000	3600
Total PAHs	(b)	T_PAH (PDI)	µg/kg	19000	4500	300000	1400000	2400000	720	1100	700000	17000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	920	190	21000	64000	83000	110	120	8500	1100

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S113	SC-S113	SC-S117	SC-S117	SC-S117	SC-S121	SC-S121	SC-S127	SC-S127
		Sample ID	PDI-SC-S113C-3.1TO5.6	PDI-SC-S113C-5.6TO6.6	PDI-SC-S117-0TO2	PDI-SC-S117-2TO4	PDI-SC-S117-4TO6	PDI-SC-S121-0TO1.8	PDI-SC-S121-1.8TO3.4	PDI-SC-S127-0TO2	PDI-SC-S127-2TO4
		Sample Date	9/6/2018	9/6/2018	8/7/2018	8/7/2018	8/7/2018	9/5/2018	9/5/2018	7/24/2018	7/24/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	3.1-5.6 ft	5.6-6.6 ft	0-2 ft	2-4 ft	4-6 ft	0-1.8 ft	1.8-3.4 ft	0-2 ft	2-4 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	79.7	78.7	61.0	58.7	58.7	80.4	77.5	66.9	66.9
Total Solids@70C	TSOLID70	%	81	77	63	59	59	79	78	72	70
Total Solids (%)	%SOLID	%	80	79.6	62.4	60.9	55.1	81	77.9	71.7	68.6
Clay	GS-Clay	%	0	0	9.3	12.1	13.1	0	0	5.6	4.0
Gravel	GS-Gravel	%	0	0	0	0	0.5	1.0	16.9	0.7	0
Sand, Coarse	GS-Csand	%	0	0	0.6	0.3	0.2	1.5	2.3	2.2	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	92.39	77.52	22.91	16.13	15.41	63.3	46.11	33.15	50.78
Sand, Fine (#230) (d)	GS-Fsand	%	92.6	77.7	26.5	19.7	18.9	63.5	46.5	37.2	54.5
Sand, Medium	GS-Msand	%	3.6	18.2	2.6	3.8	0.7	32.4	31.2	25.4	9.4
Silt (#200) (d)	GS-Silt-200	%	4.008	4.179	64.58	67.66	70.18	1.792	3.485	32.84	35.81
Silt (#230) (d)	GS-Silt	%	3.8	4.0	61.0	64.1	66.7	1.6	3.1	28.8	32.1
Percent Fines (e)	GS-FINES	%	4.008	4.179	73.88	79.76	83.28	1.792	3.485	38.44	39.81
Liquid Limit	GS-LL	None									
Plasticity Index	GS-PI	None									
Plasticity Limit	GS-PL	None									
Total Organic Carbon	TOC	mg/kg	830 J	580 J	31000	68000	100000	1100 J	9200	7300	7900

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S127	SC-S127	SC-S129	SC-S129	SC-S129	SC-S131	SC-S131	SC-S131	SC-S131	SC-S136
			Sample ID	PDI-SC-S127-2TO4D	PDI-SC-S127-4TO5.6	PDI-SC-S129-0TO2	PDI-SC-S129-2TO4	PDI-SC-S129-4TO5.3	PDI-SC-S131-0TO2	PDI-SC-S131-2TO4	PDI-SC-S131-4TO6	PDI-SC-S131-6TO8	PDI-SC-S136-0TO2
			Sample Date	7/24/2018	7/24/2018	9/5/2018	9/5/2018	9/5/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/14/2018
			Sample Type Code	FD	N	N	N	N	N	N	N	N	N
			Depth	2- ft	4-5.6 ft	0-2 ft	2-4 ft	4-5.3 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.067	0.092	0.11	0.72 J	0.96	0.18	0.60	1.4 J	3.6	0.055
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.068	0.087	0.019	0.069	0.095	0.029	0.065	0.13	0.36	0.10
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.026 J	0.028	0.0018 J	0.0046 J	0.0060	0.0027 J+	0.0050	0.0097	0.025	0.043
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00059 J	0.00077 J+	0.0013 J	0.0059	0.0075	0.0016 J	0.0054	0.011	0.018	0.00082 J+
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.12 J	0.17	0.0031 J	0.0099	0.020	0.0043 J	0.010	0.026	0.076	0.24
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.0027 J	0.0034	0.0058	0.049	0.067	0.0098	0.040	0.10	0.20	0.0025 J
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.029 J	0.038	0.0016 J	0.0050	0.0089	0.0017 JN	0.0045 J	0.011	0.031	0.063
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.0013 JN	0.0018 JN	0.0033 J	0.014	0.016	0.0053 J	0.014	0.024	0.042	0.0016 JN
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	0.0015 J	0.0022 J	0.0026 J+	0.0019 J+	0.0022 J+	0.0013 J+	0.0014 J+	0.0021 J+	0.0031 J+	0.0036 J+
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	0.00040 J	0.00048 J	0.00077 J	0.0038 J	0.0047	0.0011 J	0.0040 J	0.0063	0.0058	0.0013 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.063 J	0.088	0.0013 J+	0.0037 J	0.0084	0.0012 J	0.0028 J	0.0094	0.033	0.11
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.0035 J	0.0046	0.00078 J	0.0032 J	0.0047	0.00076 J	0.0027 J	0.0058	0.013	0.0081
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.022 J	0.028	0.00080 J	0.0025 J	0.0043 J	0.0010 J	0.0023 J	0.0059	0.015	0.036
2,3,7,8-TCDD		1746-01-6	µg/kg	0.00032 JN	0.00045 J	0.00029 J	0.0011	0.0014	0.00031 JN	0.00098	0.0016	0.0012	0.0012
2,3,7,8-TCDF		51207-31-9	µg/kg	0.034 J	0.044	0.00086 JN	0.0041	0.0043	0.00084 JN	0.0046	0.0065	0.017	0.066
OCDD		3268-87-9	µg/kg	0.94	1.3	1.1	6.2 J	8.6 J	1.9	5.2 J	12 J	32	0.67
OCDF		39001-02-0	µg/kg	0.17	0.20	0.061	0.13	0.16	0.10	0.15	0.23	0.80	0.22
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.03	0.041	0.0049	0.025	0.034	0.007	0.022	0.048	0.1	0.057
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.03	0.041	0.0049	0.025	0.034	0.0066	0.022	0.048	0.1	0.057
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.03	0.041	0.0048	0.025	0.034	0.0065	0.022	0.048	0.1	0.057
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 3.0 U	< 2.6 U	< 4.1 U	< 3.7 U	< 3.5 U	< 4.3 U	< 3.9 U	< 3.9 U	< 3.7 UJ	< 29 UJ
Aroclor 1221		11104-28-2	µg/kg	< 3.0 UJ	< 2.6 UJ	< 4.1 U	< 3.7 U	< 3.5 U	< 4.3 U	< 3.9 U	< 3.9 U	< 3.7 UJ	< 29 UJ
Aroclor 1232		11141-16-5	µg/kg	< 3.0 U	< 2.6 U	< 4.1 U	< 3.7 U	< 3.5 U	< 4.3 U	< 3.9 U	< 3.9 U	< 3.7 UJ	< 29 UJ
Aroclor 1242		53469-21-9	µg/kg	< 3.0 U	< 2.6 U	< 4.1 U	< 3.7 U	< 3.5 U	< 4.3 U	< 3.9 U	< 3.9 U	< 3.7 UJ	< 29 U
Aroclor 1248		12672-29-6	µg/kg	< 3.0 UJ	< 2.6 UJ	< 4.1 U	< 3.7 U	< 3.5 U	< 4.3 U	< 3.9 U	< 3.9 U	< 3.7 UJ	28 J
Aroclor 1254		11097-69-1	µg/kg	< 3.0 U	< 2.6 U	< 4.1 U	< 3.7 U	< 3.5 U	< 4.3 U	< 3.9 U	21 J	18 J	< 29 U
Aroclor 1260		11096-82-5	µg/kg	24 J	36 J	< 4.1 U	5.4 J	10 J	5.4	5.2	< 3.9 U	< 3.7 UJ	< 29 U
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	24	36	< 4.1 U	5.4	10	5.4	5.2	21	18	28
Pesticides													
2,4-DDD		53-19-0	µg/kg	7.37 J	3.6 J	0.44 JN	0.714 J	0.586 J	< 0.22 UJ	0.634 J	0.791 J	1.19 J	77.5 J
2,4-DDE		3424-82-6	µg/kg	0.795	0.475	0.0698 J	0.222 J	0.215 J	< 0.13 UJ	0.15 JN	0.372 J	0.519 J	2.10 J
2,4-DDT		789-02-6	µg/kg	0.83 J	0.135 J	< 0.071 U	< 0.057 U	0.11 JN	< 0.23 UJ	< 0.094 UJ	0.228 J	1.51 J	4.55 J
4,4'-DDD		72-54-8	µg/kg	18.4 J	14.1 J	1.11 J	2.55	1.90	1.06 J	2.03 J	2.83 J	4.02 J	168 J
4,4'-DDE		72-55-9	µg/kg	5.27	4.4	2.31	5.25	5.85	2.65 J	4.10 J	5.92	7.01 J	11.4
4,4'-DDT		50-29-3	µg/kg	0.49 J	0.322 J	0.18 JN	0.27 JN	0.27 JN	< 0.76 UJ	< 0.31 UJ	0.657 J	1.87 J	66.7 J
DDx	(b)	T_DDx (PDI)	µg/kg	33.2	23	4.15	9.03	8.93	4.09	7.07	10.8	16.1	330
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	160 J	79	31	95	110	< 260 U	50 J	190 J	76 J	210
Acenaphthene		83-32-9	µg/kg	500	190	49	170	140	< 260 U	96 J	580	300	620
Acenaphthylene		208-96-8	µg/kg	170	26	9.1 J	41	17 J	< 260 U	36 J	51 J	42 J	160
Anthracene		120-12-7	µg/kg	290	140	46	120	120	< 260 U	97 J	370 J	250	560
Benz(a)anthracene		56-55-3	µg/kg	980	140	63	210	180	41 J	130 J	350 J	530	990
Benzo(a)pyrene		50-32-8	µg/kg	920	190	47	150	110	< 260 U	130 J	290 J	380	800
Benzo(b)fluoranthene		205-99-2	µg/kg	1100 J	230 J	78	270	220	78 J	210 J	400 J	740	740
Benzo(g,h,i)perylene		191-24-2	µg/kg	710	170	35	92	66	40 J	110 J	200 J	220 J	570
Benzo(k)fluoranthene		207-08-9	µg/kg	260	69	31	64	49	< 260 U	82 J	160 J	260	320
Chrysene		218-01-9	µg/kg	1300	240	87	310	230	84 J	230 J	470	760	960
Dibenz(a,h)anthracene		53-70-3	µg/kg	81	19	< 19 U	47	37	< 260 U	40 J	< 450 U	77 J	79
Fluoranthene		206-44-0	µg/kg	3700	650	220	610	530	170 J	530	1500	1400	2100
Fluorene		86-73-7	µg/kg	300	150	55	190	150	< 260 U	76 J	570	230 J	270
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	730	160	51	180	140	< 260 U	100 J	210 J	230 J	500
Naphthalene		91-20-3	µg/kg	250	170	44	260	190	47 J	170 J	510	180 J	440
Phenanthrene		85-01-8	µg/kg	4700	850	150	510	460	< 260 U	300	1800	860	2200
Pyrene		129-00-0	µg/kg	4100	780	200	600	490	140 J	500	1400	1300	2700
Total PAHs	(b)	T_PAH (PDI)	µg/kg	20000	4300	1200	3900	3200	860	2900	9300	7800	14000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	1300	260	76	260	200	140	220	610	610	1100

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S127	SC-S127	SC-S129	SC-S129	SC-S129	SC-S131	SC-S131	SC-S131	SC-S131	SC-S136
			Sample ID	PDI-SC-S127-2TO4D	PDI-SC-S127-4TO5.6	PDI-SC-S129-0TO2	PDI-SC-S129-2TO4	PDI-SC-S129-4TO5.3	PDI-SC-S131-0TO2	PDI-SC-S131-2TO4	PDI-SC-S131-4TO6	PDI-SC-S131-6TO8	PDI-SC-S136-0TO2
			Sample Date	7/24/2018	7/24/2018	9/5/2018	9/5/2018	9/5/2018	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/14/2018
			Sample Type Code	FD	N	N	N	N	N	N	N	N	N
			Depth	2- ft	4-5.6 ft	0-2 ft	2-4 ft	4-5.3 ft	0-2 ft	2-4 ft	4-6 ft	6-8 ft	0-2 ft
Chemical		**CAS_RN**	**Units**										
Other													
Total Solids@104C		TSOLID	%	66.3	73.9	47.6	51.8	54.7	46.2	50.9	51.7	52.1	67.7
Total Solids@70C		TSOLID70	%	69	77	50	52	56	47	50	52	52	71
Total Solids (%)		%SOLID	%	72.3	75.9	49.6	52.2	55.1	45.1	50.9	53.4	51.2	66
Clay		GS-Clay	%		5.2	14.1	18.7	21.6	12.7	18.5	19.4	18.1	4.7
Gravel		GS-Gravel	%		2.4	0	0	0	0	0	0	0	1.0
Sand, Coarse		GS-Csand	%		0.7	0	0.2	0	0	0	0.7	0.5	0.6
Sand, Fine (#200)	(d)	GS-Fsand-200	%		54.99	15.95	8.699	7.915	11.1	5.964	5.789	4.709	61.89
Sand, Fine (#230)	(d)	GS-Fsand	%		56.5	21.7	12.1	10.8	14.7	8.2	7.9	6.1	66.9
Sand, Medium		GS-Msand	%		20.9	0.1	0.1	0.1	0.2	0.1	0.7	0.5	2.3
Silt (#200)	(d)	GS-Silt-200	%		15.70	69.84	72.30	70.48	75.89	75.33	73.41	76.19	29.60
Silt (#230)	(d)	GS-Silt	%		14.2	64.1	68.9	67.6	72.3	73.1	71.3	74.8	24.6
Percent Fines	(e)	GS-FINES	%		20.9	83.94	91	92.08	88.59	93.83	92.81	94.29	34.3
Liquid Limit		GS-LL	None							79			
Plasticity Index		GS-PI	None							37			
Plasticity Limit		GS-PL	None							42			
Total Organic Carbon		TOC	mg/kg	8500	5100	31000	38000	33000	51000	59000	74000	78000	16000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S136	SC-S136	SC-S136	SC-S136	SC-S136	SC-S139	SC-S139	SC-S139	SC-S139	SC-S140
		Sample ID	PDI-SC-S136-2TO4	PDI-SC-S136-4TO6	PDI-SC-S136-6TO7	PDI-SC-S136-7TO9	PDI-SC-S136-9TO11.3	PDI-SC-S139-0TO2	PDI-SC-S139-2TO4.1	PDI-SC-S139-4.1TO5.9	PDI-SC-S139-4.1TO5.9D	PDI-SC-S140-0TO2
		Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	7/25/2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	2-4 ft	4-6 ft	6-7 ft	7-9 ft	9-11.3 ft	0-2 ft	2-4.1 ft	4.1-5.9 ft	4.1- ft	0-2 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.027	0.014	0.12	0.0076	0.059	0.14	0.022	0.0020 JN	0.0023 JN	0.014
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.027	0.017	0.16	0.012	0.11	0.11	0.031	0.00081 J	0.0012 J	0.069
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.011	0.0064	0.054 J	0.0032 J	0.042	0.035	0.013	0.00045 J+	0.00061 JN	0.029
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00040 J+	0.00019 JN	0.0015 J	0.00018 J+	0.0011 J	0.0016 J	0.00036 JN	0.00014 JN	< 0.000071 U	0.0014 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.056	0.030	0.25	0.017	0.22	0.20	0.060	0.0012 J	0.0029 J	0.27
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0013 J	0.00068 J	0.0061	0.00039 J	0.0041	0.0076	0.0010 J	0.00014 JN	< 0.000066 U	0.0016 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.015	0.010	0.077	0.0042	0.058	0.055	0.016	0.00043 JN	0.00097 J	0.058
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00095 J	0.00062 J	0.0037	0.00033 J	0.0021 JN	0.0049 J	0.00068 JN	0.00022 JN	0.00017 J	0.0018 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.00090 J+	< 0.00071 U	0.0031 J+	< 0.00076 U	0.0038 J+	0.0029 J	0.00065 JN	< 0.00031 U	< 0.00025 U	0.0033 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00094 J	0.00039 JN	0.0045	0.00018 J	0.0033 J	0.0011 J	< 0.00015 U	< 0.00014 U	< 0.00013 U	0.00041 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.043	0.021	0.14	0.0079	0.13	0.085	0.026	0.00071 J	0.0013 J	0.22
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0029 J	0.0023 J	0.015	0.00058 J	0.0086	0.0071	0.0028 J	< 0.00013 U	< 0.00015 U	0.018
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.018	0.011	0.065	0.0028 J	0.050	0.028	0.0097	0.00027 JN	0.00037 J	0.15
2,3,7,8-TCDD	1746-01-6	µg/kg	0.0013	0.00090	0.0037	0.00014 JN	0.0021	< 0.00030 U	< 0.00015 U	< 0.00012 U	< 0.00010 U	< 0.00017 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.032	0.014	0.11	0.0050	0.068	0.051	0.018	0.00049 J	0.00058 J	0.16
OCDD	3268-87-9	µg/kg	0.33	0.19	1.3	0.10	0.76	1.5	0.25	0.027	0.029	0.10
OCDF	39001-02-0	µg/kg	0.067	0.033	0.38	0.021	0.28	0.24	0.066	0.0020 J+	0.0026 J	0.11
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.021	0.011	0.082	0.0045	0.063	0.049	0.014	0.00048	0.00073	0.1
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.021	0.011	0.082	0.0044	0.063	0.049	0.014	0.00028	0.0007	0.1
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.021	0.011	0.082	0.0043	0.063	0.048	0.014	0.00021	0.00063	0.1
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 24 UJ	< 25 UJ	< 26 UJ	< 28 UJ	< 27 UJ	< 4.5 U	< 2.8 U	< 2.6 U	< 2.4 U	< 3.0 UJ
Aroclor 1221	11104-28-2	µg/kg	< 24 UJ	< 25 UJ	< 26 UJ	< 28 UJ	< 27 UJ	< 4.5 UJ	< 2.8 UJ	< 2.6 U	< 2.4 UJ	< 3.0 U
Aroclor 1232	11141-16-5	µg/kg	< 24 UJ	< 25 UJ	< 26 UJ	< 28 UJ	< 27 UJ	< 4.5 U	< 2.8 U	< 2.6 U	< 2.4 U	< 3.0 U
Aroclor 1242	53469-21-9	µg/kg	< 24 U	< 25 U	< 26 U	< 28 U	< 27 U	< 4.5 U	< 2.8 U	< 2.6 U	< 2.4 U	< 3.0 U
Aroclor 1248	12672-29-6	µg/kg	< 24 U	< 25 U	10 J	< 28 U	< 27 U	< 4.5 U	< 2.8 U	< 2.6 U	< 2.4 U	< 3.0 UJ
Aroclor 1254	11097-69-1	µg/kg	< 24 U	< 25 U	< 26 U	< 28 U	< 27 U	< 4.5 U	< 2.8 U	< 2.6 U	< 2.4 U	< 3.0 U
Aroclor 1260	11096-82-5	µg/kg	< 24 U	< 25 U	< 26 U	< 28 U	< 27 U	< 4.5 U	< 2.8 U	< 2.6 UJ	< 2.4 U	< 3.0 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	< 24 UJ	< 25 UJ	10	< 28 UJ	< 27 UJ	< 4.5 UJ	< 2.8 UJ	< 2.6 UJ	< 2.4 UJ	< 3 UJ
Pesticides												
2,4-DDD	53-19-0	µg/kg	64.4 J	31.0 J	29.8	23.1	205	103 J	12.6	0.393 J	0.448 J	102
2,4-DDE	3424-82-6	µg/kg	1.38 J	1.04 J	0.882 J	1.04 J	4.92 J	3.85	0.504 J	0.044 JN	0.061 JN	12 J
2,4-DDT	789-02-6	µg/kg	4.08 J	6.39 J	< 0.81 U	< 0.63 U	20.3	3.22 J	0.85 JN	< 0.037 UJ	< 0.052 UJ	2330
4,4'-DDD	72-54-8	µg/kg	154 J	69.8 J	72.3	46.5	534	198 J	22.6	0.682 J	0.755 J	112
4,4'-DDE	72-55-9	µg/kg	5.25	2.85	3.90 J	2.85 J	17.1	17.0	2.43 J	0.115 J	0.15 JN	87.6
4,4'-DDT	50-29-3	µg/kg	66.4 J	232 J	< 1.8 U	< 1.3 U	757	16.5 J	37.4 J	0.474 J	0.49 JN	14300 J
DDx (b)	T_DDx (PDI)	µg/kg	296	343	108	74.1	1540	342	76.4	1.73	1.93	16900
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	110	48	82	86	290	220	51	30	23	< 7.2 U
Acenaphthene	83-32-9	µg/kg	320	55	190	210	480	440	88	54 J	91 J	< 7.2 U
Acenaphthylene	208-96-8	µg/kg	100	34	86	200	150	180	58	60	72	4.7 J
Anthracene	120-12-7	µg/kg	260	89	200	360	360	340	90	77 J	230 J	1.6 J
Benz(a)anthracene	56-55-3	µg/kg	450	160 J	320	600	540	440	150	140 J	410 J	9.6
Benzo(a)pyrene	50-32-8	µg/kg	510	150 J	360	580	750	380	160	110 J	390 J	12
Benzo(b)fluoranthene	205-99-2	µg/kg	430	140 J	350	520	670	460	160	130 J	360 J	25
Benzo(g,h,i)perylene	191-24-2	µg/kg	510	150 J	390	500	880	420	170	95 J	280 J	21
Benzo(k)fluoranthene	207-08-9	µg/kg	190	54	140	210	260	110	39	33 J	120 J	8.7
Chrysene	218-01-9	µg/kg	470	190 J	350	580	710	420	160	120 J	350 J	25
Dibenz(a,h)anthracene	53-70-3	µg/kg	41	17	31	47	63	55	19	13 J	49 J	3.0 J
Fluoranthene	206-44-0	µg/kg	900	320 J	630	1200	1800	1500	400	290 J	900 J	18
Fluorene	86-73-7	µg/kg	130	37	100	120	260	220	47	39	57	< 7.2 U
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	370	110 J	280	380	630	340	130	83 J	290 J	18
Naphthalene	91-20-3	µg/kg	330	120 J	350	450	1300	1100	210	170 J	83 J	< 7.2 U
Phenanthrene	85-01-8	µg/kg	1000	260 J	620	950	1700	1300	310	240 J	680 J	5.1 J
Pyrene	129-00-0	µg/kg	1600	650 J	1500	1900	3300	1900	530	420 J	1200 J	19
Total PAHs (b)	T_PAH (PDI)	µg/kg	7700	2600	6000	8900	14000	9800	2800	2100	5600	170
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	680	210	490	780	1000	560	220	160	550	20

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S136	SC-S136	SC-S136	SC-S136	SC-S136	SC-S139	SC-S139	SC-S139	SC-S139	SC-S140
		Sample ID	PDI-SC-S136-2TO4	PDI-SC-S136-4TO6	PDI-SC-S136-6TO7	PDI-SC-S136-7TO9	PDI-SC-S136-9TO11.3	PDI-SC-S139-0TO2	PDI-SC-S139-2TO4.1	PDI-SC-S139-4.1TO5.9	PDI-SC-S139-4.1TO5.9D	PDI-SC-S140-0TO2
		Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	7/25/2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	2-4 ft	4-6 ft	6-7 ft	7-9 ft	9-11.3 ft	0-2 ft	2-4.1 ft	4.1-5.9 ft	4.1- ft	0-2 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	79.6	77.6	75.8	69.8	71.7	43.1	70.1	72.1	77.0	66.7
Total Solids@70C	TSOLID70	%	75	76	74	74	73	44	72	60	77	69
Total Solids (%)	%SOLID	%	75	77.7	75.6	66.7	71.6	43.8	66	76.9	77.1	72.5
Clay	GS-Clay	%	3.6	0.9	1.9	6.4	7.0	11.7	4.3		4.0	2.9
Gravel	GS-Gravel	%	24.3	0	0	0	0	0.9	0		0	0
Sand, Coarse	GS-Csand	%	0.7	0.2	1.0	0.1	0.2	0.7	0		0	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	58.01	80.8	59.78	50.25	45.8	21.01	69.36			67.48
Sand, Fine (#230) (d)	GS-Fsand	%	60.4	82.5	63.6	55.3	50.7	26.9	72.9		83.1	68.6
Sand, Medium	GS-Msand	%	1.8	4.3	6.1	2.2	3.6	1.4	2.5		6.6	18.6
Silt (#200) (d)	GS-Silt-200	%	11.58	13.79	31.11	41.04	43.39	64.28	23.73			11.11
Silt (#230) (d)	GS-Silt	%	9.2	12.1	27.3	36.0	38.5	58.4	20.2		6.3	10.0
Percent Fines (e)	GS-FINES	%	15.18	14.69	33.01	47.44	50.39	75.98	28.03		11.3	14.01
Liquid Limit	GS-LL	None							0			
Plasticity Index	GS-PI	None							< 0 U			
Plasticity Limit	GS-PL	None							0			
Total Organic Carbon	TOC	mg/kg	9700	4800	14000	16000	21000	71000	11000	3700	3200	400 J

Notes:

a. Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
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b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

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CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S140	SC-S140	SC-S144	SC-S144	SC-S144	SC-S144	SC-S144	SC-S144	SC-S146	SC-S146
			Sample ID	PDI-SC-S140-2TO4	PDI-SC-S140-4TO5.7	PDI-SC-S144-0TO2	PDI-SC-S144-10TO12.1	PDI-SC-S144-2TO4	PDI-SC-S144-4TO6	PDI-SC-S144-6TO8	PDI-SC-S144-8TO10	PDI-SC-S146-0TO2	PDI-SC-S146-2TO4
			Sample Date	7/25/2018	7/25/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/14/2018	8/14/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	2-4 ft	4-5.7 ft	0-2 ft	10-12.1 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.0011 J	0.0019 J	1.1 J	0.0027 J	0.82 J	0.78 J	0.10	0.0031 J	0.32 J	3.0 J
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.00018 J+	0.00073 J	0.11	0.0011 JN	0.15	0.21 J	0.16	0.0023 J	1.2 J	1.6 J
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.000083 JN	0.00024 J	0.0073	0.0010 J	0.013	0.021 J	0.0037 J	< 0.00027 U	0.51 J	0.68 J
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	< 0.000034 U	< 0.00018 U	0.013	0.00028 JN	0.0067	0.0045	0.0013 J	0.00029 J+	0.0024 J	0.0025 J
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.00022 J	< 0.000090 U	0.017	0.00029 JN	0.034	0.050	0.0093	< 0.00022 U	3.2 J	3.4 J
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	< 0.000034 U	0.00024 J	0.074	0.00047 JN	0.039	0.031	0.0070	0.00088 J	0.0088	0.028
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	< 0.000063 U	< 0.000088 U	0.0086	0.00024 JN	0.013	0.015	0.013	< 0.00021 U	0.95 J	0.98 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00015 J	0.00035 J	0.033	0.00074 J	0.016	0.012	0.0027 J	0.00038 JN	0.0046 J	0.0065
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00012 U	0.000089 J	< 0.0027 U	0.00042 J	< 0.0030 U	< 0.0023 U	< 0.0018 U	< 0.00031 U	0.059 J	0.051 J
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.000031 U	< 0.000050 U	0.0067	< 0.00012 U	0.0026 J	0.0021 J	0.0012 J	< 0.00022 U	< 0.00049 U	0.0016 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.00015 JN	0.00017 JN	0.0045 J	< 0.000089 U	0.0072	0.0063	0.0016 J	< 0.00015 U	2.0 J	2.0 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	< 0.000037 U	< 0.000057 U	0.0043 J	0.00056 JN	< 0.0031 U	0.0039 JN	0.0027 J	< 0.00021 U	0.15 J	0.12 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	< 0.000026 U	0.00011 JN	0.0038 J	< 0.000095 U	0.0062	0.0096	0.0028 J	< 0.00016 U	0.87 J	0.73 J
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000023 U	< 0.000037 U	0.0014	< 0.000070 U	0.0011	0.00084 JN	0.00048 JN	< 0.000071 U	0.00067 JN	0.0012
2,3,7,8-TCDF		51207-31-9	µg/kg	0.00014 JN	0.00051 J	0.0022	0.00019 J	0.0029	0.0032	0.0011	0.00039 J	1.4 J	1.1 J
OCDD		3268-87-9	µg/kg	0.014	0.020	10 J	0.018	8.2 J	7.4 J	1.3	0.030	5.4 J	52 J
OCDF		39001-02-0	µg/kg	0.00064 J+	0.0024 J	0.24	0.0033 J	0.34	0.74	0.13	0.0023 J	2.1	7.9 J
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.000089	0.00022	0.04	0.00043	0.029	0.031	0.0094	0.00037	0.92	0.92
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.00007	0.00018	0.04	0.00024	0.029	0.03	0.0091	0.00033	0.92	0.92
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.000054	0.00015	0.04	0.00018	0.029	0.029	0.0089	0.00022	0.92	0.92
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 2.8 UJ	< 2.9 UJ	< 4.2 UJ	< 3.1 U	< 3.6 U	< 3.5 U	< 3.2 U	< 3.1 UJ	< 200 UJ	< 36 UJ
Aroclor 1221		11104-28-2	µg/kg	< 2.8 U	< 2.9 UJ	< 4.2 UJ	< 3.1 U	< 3.6 U	< 3.5 U	< 3.2 U	< 3.1 UJ	< 200 UJ	< 36 UJ
Aroclor 1232		11141-16-5	µg/kg	< 2.8 U	< 2.9 UJ	< 4.2 UJ	< 3.1 U	< 3.6 U	< 3.5 U	< 3.2 U	< 3.1 UJ	< 200 UJ	< 36 UJ
Aroclor 1242		53469-21-9	µg/kg	< 2.8 U	< 2.9 UJ	< 4.2 UJ	< 3.1 U	< 3.6 U	< 3.5 U	< 3.2 U	< 3.1 UJ	< 200 U	< 36 U
Aroclor 1248		12672-29-6	µg/kg	< 2.8 UJ	< 2.9 UJ	< 4.2 UJ	< 3.1 U	< 3.6 U	< 3.5 U	< 3.2 U	< 3.1 UJ	< 200 UJ	< 36 UJ
Aroclor 1254		11097-69-1	µg/kg	< 2.8 U	< 2.9 UJ	< 4.2 UJ	< 3.1 U	< 3.6 U	< 3.5 U	< 3.2 U	< 3.1 UJ	< 200 U	< 36 U
Aroclor 1260		11096-82-5	µg/kg	< 2.8 U	< 2.9 UJ	4.8 J	< 3.1 U	38	38	25	< 3.1 UJ	< 200 U	< 36 U
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	< 2.8 UJ	< 2.9 UJ	4.8	< 3.1 U	38	38	25	< 3.1 UJ	< 200 UJ	< 36 UJ
Pesticides													
2,4-DDD		53-19-0	µg/kg	4.11	0.0358 J	0.395 J	< 0.0086 U	1.31 J	9.54 J	6.88 J	< 0.020 UJ	189 J	317 J
2,4-DDE		3424-82-6	µg/kg	0.275 J	0.207 J	0.134 J	< 0.0056 U	0.463 J	3.53	1.04 J	0.012 JN	7.92 J	15.8 J
2,4-DDT		789-02-6	µg/kg	3.39	0.0859 J	< 0.037 UJ	< 0.012 U	0.264 J	0.337 J	14.3 J	< 0.038 UJ	39.4 J	75.6 J
4,4'-DDD		72-54-8	µg/kg	1.27 J	< 0.0219 U	1.39 J	< 0.015 U	3.46 J	22.5 J	19.9 J	0.044 JN	531 J	982 J
4,4'-DDE		72-55-9	µg/kg	1.29 J	0.143 J	3.12	0.0138 J	7.48	21.7	6.40	0.0435 J	76.2	114
4,4'-DDT		50-29-3	µg/kg	73.7	0.546 J	0.392 J	0.0878 J	1.10 J	3.17 J	483 J	0.18 JN	10700 J	1910 J
DDx	(b)	T_DDx (PDI)	µg/kg	84	1.03	5.45	0.109	14.1	60.8	532	0.299	11500	3410
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	24	15	53	59	1400	3600	1300	95	510	310
Acenaphthene		83-32-9	µg/kg	0.51 J	9.4 J	58	90	9900	12000	1800	79	2000	860
Acenaphthylene		208-96-8	µg/kg	1.5	33	32	130	120	150	130	200	600	130
Anthracene		120-12-7	µg/kg	1.4 J	33	98	100	3100	2600	660	110	4300	790
Benz(a)anthracene		56-55-3	µg/kg	7.5	75	170	120	2600	1700	560	130	4700	1400
Benzo(a)pyrene		50-32-8	µg/kg	6.8	91	110	110	730	430	350	120	3100	650
Benzo(b)fluoranthene		205-99-2	µg/kg	10	110	240	120	1400	810	490	150	4700	1300
Benzo(g,h,i)perylene		191-24-2	µg/kg	7.9	110	95	150	300	240	370	140	2000	370
Benzo(k)fluoranthene		207-08-9	µg/kg	4.0	36	64	37	440	240	160	46	1400	420
Chrysene		218-01-9	µg/kg	11	100	240	150	2200	1400	590	180	5000	1700
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 1.4 U	8.9 J	19	13	96	52	43	17	590	93
Fluoranthene		206-44-0	µg/kg	16	200	440	400	12000	10000	2400	520	16000	4000
Fluorene		86-73-7	µg/kg	< 1.4 U	11 J	54	72	7500	8400	1100	88	2500	1300
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	6.2	100	74	110	290	200	240	110	1800	400
Naphthalene		91-20-3	µg/kg	35	89	140	340	1700	3900	4200	610	1100	500
Phenanthrene		85-01-8	µg/kg	6.1	150	170	400	17000	110000	3100	520	18000	6200
Pyrene		129-00-0	µg/kg	19	270	460	510	8800	6500	2200	700	14000	3400
Total PAHs	(b)	T_PAH (PDI)	µg/kg	160	1400	2500	2900	70000	160000	20000	3800	82000	24000
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	9.9	130	180	160	1300	760	520	180	4800	1100

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S140	SC-S140	SC-S144	SC-S144	SC-S144	SC-S144	SC-S144	SC-S144	SC-S146	SC-S146
		Sample ID	PDI-SC-S140-2TO4	PDI-SC-S140-4TO5.7	PDI-SC-S144-0TO2	PDI-SC-S144-10TO12.1	PDI-SC-S144-2TO4	PDI-SC-S144-4TO6	PDI-SC-S144-6TO8	PDI-SC-S144-8TO10	PDI-SC-S146-0TO2	PDI-SC-S146-2TO4
		Sample Date	7/25/2018	7/25/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/1/2018	8/14/2018	8/14/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	2-4 ft	4-5.7 ft	0-2 ft	10-12.1 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	69.4	67.1	47.5	62.3	54.4	57.0	59.1	61.7	49.1	54.5
Total Solids@70C	TSOLID70	%	73	69	49	66	58	59	63	62	53	55
Total Solids (%)	%SOLID	%	71.7	68.8	49.1	61.8	55.4	57.1	59	60.6	53.1	56.1
Clay	GS-Clay	%	1.9	5.2	17.3	14.7	18.7	19.7	19.4	17.6	8.4	16.5
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	0.2	0
Sand, Coarse	GS-Csand	%	0	0.1	0	0	0.1	0.1	0.1	0	0.1	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	86.82	26.13	6.606	30.17	9.402	8.319	11.54	11.63	30.06	22.52
Sand, Fine (#230) (d)	GS-Fsand	%	87.2	30.8	8.9 L	34.2	12.3	11.4	15.6	15.2	37.2	27.6
Sand, Medium	GS-Msand	%	6.0	1.1	0.1	0.3	0.2	0.1	0.2	0.2	0.9	0.3
Silt (#200) (d)	GS-Silt-200	%	5.176	67.56	75.89	54.72	71.59	71.78	68.65	70.46	60.33	60.57
Silt (#230) (d)	GS-Silt	%	4.8	62.9	73.6	50.7	68.7	68.7	64.6	66.9	53.2	55.5
Percent Fines (e)	GS-FINES	%	7.076	72.76	93.19	69.42	90.29	91.48	88.05	88.06	68.73	77.07
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	58 J	3900	32000	30000	39000	33000	37000	35000	49000	47000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S146	SC-S146	SC-S146	SC-S146	SC-S150	SC-S150	SC-S150	SC-S150	SC-S150	SC-S150
			Sample ID	PDI-SC-S146-4TO5	PDI-SC-S146-5TO7	PDI-SC-S146-7TO8	PDI-SC-S146-8TO9.1	PDI-SC-S150-0TO2	PDI-SC-S150-11.1TO12.5	PDI-SC-S150-2TO4	PDI-SC-S150-4TO6	PDI-SC-S150-4TO6D	PDI-SC-S150-6TO7.7
			Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018
			Sample Type Code	N	N	N	N	N	N	N	N	FD	N
			Depth	4-5 ft	5-7 ft	7-8 ft	8-9.1 ft	0-2 ft	11.1-12.5 ft	2-4 ft	4-6 ft	4- ft	6-7.7 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.54 J	0.016	0.0015 J	0.0019 J	0.22 J	0.0018 J	0.16	0.22	0.17	0.48 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		2.2 J	0.089	0.0012 J	0.00061 J	3.1 J	0.00070 J	1.5 J	2.5 J	0.97 J	4.6 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.99 J	0.044	0.00042 J+	0.00029 J+	1.2 J	0.00046 J+	0.72 J	1.1 J	0.47 J	1.9 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.0049	0.00032 JN	0.00035 J+	< 0.00012 U	0.0018 JN	< 0.000077 U	0.0015 JN	0.0026 JN	0.0022 J	0.0067
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		6.4 J	0.21	0.0017 J	0.00099 J	10 J	0.0014 J	5.4 J	6.5 J	2.6 J	11 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.020	0.00071 J	< 0.000086 U	< 0.00011 U	0.0057	< 0.000075 U	0.0058	0.014	0.011	0.028
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		1.7 J	0.071	0.00066 JN	0.00041 J	2.4 J	0.00050 J	1.4 J	2.0 J	0.74 J	3.1 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0084	0.00063 J	0.00018 J	< 0.00011 U	0.0024 JN	0.00026 J	0.0027 JN	0.0062	0.0057	0.015
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		0.086 J	0.0044	< 0.00068 U	< 0.00065 U	0.14 J	< 0.00059 U	0.080 J	0.069 J	0.034 J	0.15 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.0027 J	< 0.00013 U	< 0.000071 U	< 0.000082 U	< 0.00039 U	< 0.000067 U	< 0.00037 U	0.0017 JN	0.0015 J	0.0060
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		4.1 J	0.098	0.00096 J+	0.00079 J+	5.8 J	0.0011 J+	2.9 J	3.2 J	1.6 J	5.4 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.31 J	0.010	< 0.00012 U	< 0.00014 U	0.33 J	< 0.000081 U	0.16 J	0.28 J	0.11 J	0.42 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		1.7 J	0.031	0.00036 J+	0.00028 J+	2.9 J	0.00043 J+	0.90 J	1.2 J	0.67 J	2.0 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.0021	< 0.000092 U	< 0.000086 U	< 0.00010 U	0.00062 JN	< 0.000056 U	0.00043 JN	< 0.0011 UJ	0.00077 JN	< 0.046 UJ
2,3,7,8-TCDF	51207-31-9	µg/kg		2.3 J	0.042	0.00056 J+	0.00047 J+	4.4 J	0.00095 J+	1.0 J	1.8 J	1.3 J	3.6 J
OCDD	3268-87-9	µg/kg		8.1 J	0.23	0.018	0.019	2.5	0.011	1.8	2.2	1.8	4.4 J
OCDF	39001-02-0	µg/kg		4.3 J	0.14	0.0025 J	0.0015 J	3.2	0.0013 J	2.5	3.4 J	2.0 J	6.9 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		1.8	0.048	0.00056	0.00038	2.8	0.00054	1.2	1.6	0.75	2.7
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		1.8	0.048	0.0005	0.00038	2.8	0.00054	1.2	1.6	0.75	2.7
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		1.8	0.048	0.00045	0.00033	2.8	0.00051	1.2	1.6	0.75	2.7
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 34 UJ	< 27 UJ	< 26 UJ	< 26 UJ	< 220 UJ	< 2.6 UJ	< 190 UJ	< 200 UJ	< 210 UJ	< 190 UJ
Aroclor 1221	11104-28-2	µg/kg		< 34 UJ	< 27 UJ	< 26 UJ	< 26 UJ	< 220 UJ	< 2.6 U	< 190 UJ	< 200 UJ	< 210 UJ	< 190 UJ
Aroclor 1232	11141-16-5	µg/kg		< 34 UJ	< 27 UJ	< 26 UJ	< 26 UJ	< 220 UJ	< 2.6 UJ	< 190 UJ	< 200 UJ	< 210 UJ	< 190 UJ
Aroclor 1242	53469-21-9	µg/kg		< 34 U	< 27 U	< 26 U	< 26 U	< 220 U	< 2.6 UJ	< 190 U	< 200 U	< 210 U	< 190 U
Aroclor 1248	12672-29-6	µg/kg		280 J	< 27 UJ	< 26 UJ	< 26 UJ	< 220 UJ	< 2.6 UJ	< 190 UJ	< 200 UJ	< 210 UJ	< 190 UJ
Aroclor 1254	11097-69-1	µg/kg		< 34 U	< 27 U	< 26 U	< 26 U	< 220 U	< 2.6 U	< 190 U	< 200 U	< 210 U	< 190 U
Aroclor 1260	11096-82-5	µg/kg		< 34 U	< 27 U	< 26 U	< 26 U	< 220 U	< 2.6 U	< 190 U	< 200 U	< 210 U	< 190 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		280	< 27 UJ	< 26 UJ	< 26 UJ	< 220 UJ	< 2.6 UJ	< 190 UJ	< 200 UJ	< 210 UJ	< 190 UJ
Pesticides													
2,4-DDD	53-19-0	µg/kg		186 J	47.6 J	< 0.066 UJ	< 0.15 UJ	257 J	3.63 J	118 J	579 J	581	1880
2,4-DDE	3424-82-6	µg/kg		21.8 J	1.59 J	< 0.063 U	< 0.10 U	6.36 J	< 0.065 U	4.17 J	24.3 J	18.9 J	23.9 J
2,4-DDT	789-02-6	µg/kg		25.3 J	4.26 J	< 0.096 UJ	< 0.13 UJ	159 J	< 0.093 UJ	244 J	506 J	25.2 J	162
4,4'-DDD	72-54-8	µg/kg		611 J	138 J	0.759 J	0.528 J	473 J	5.11 J	308 J	1250 J	1210	3150
4,4'-DDE	72-55-9	µg/kg		131	6.92	< 0.080 U	< 0.13 U	40.5	< 0.083 U	33.9	128 J	74.3 J	94.3 J
4,4'-DDT	50-29-3	µg/kg		559 J	69.8 J	< 0.17 UJ	< 0.30 UJ	3800 J	< 0.16 UJ	938 J	15500 J	714 J	2720
DDx (b)	T_DDx (PDI)	µg/kg		1530	268	0.844	0.678	4740	8.82	1650	18000	2620	8030
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		390	36	8.6	33	32	1.3	27 J	27	20	160
Acenaphthene	83-32-9	µg/kg		310	77	26	70	55	3.7	48 J	85	71	330
Acenaphthylene	208-96-8	µg/kg		110	41	16	47	96	1.5	26 J	31	21	140
Anthracene	120-12-7	µg/kg		570	78	32	210	120	7.6	89 J	220	200	530
Benz(a)anthracene	56-55-3	µg/kg		2500	230	47	260	600	9.0	290 J	420	450	1400
Benzo(a)pyrene	50-32-8	µg/kg		1500	230	39	220	410	5.7	230 J	350	310	1600
Benzo(b)fluoranthene	205-99-2	µg/kg		2700	240	33	210	1200	5.7	530 J	600	590	2200
Benzo(g,h,i)perylene	191-24-2	µg/kg		800	210	25	140	260	3.3	170 J	180	170	1100
Benzo(k)fluoranthene	207-08-9	µg/kg		960	76	15	85	340	2.4	150 J	200	180	810
Chrysene	218-01-9	µg/kg		2700	250	53	260	1300	9.1	560 J	640	640	2100
Dibenz(a,h)anthracene	53-70-3	µg/kg		210	17	5.5 J	40	110	0.84 J	68 J	85	76	210
Fluoranthene	206-44-0	µg/kg		4300	430	71	530	3300	36	990 J	960	950	3900
Fluorene	86-73-7	µg/kg		410	49	13	51	100	2.8	69 J	130	100	460
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		970	170	21	150	380	3.9	250 J	230	220	1400
Naphthalene	91-20-3	µg/kg		550	120	33	97	69	3.8	58 J	130	88	600
Phenanthrene	85-01-8	µg/kg		3700	340	90	410	380	17	300 J	190	180	710
Pyrene	129-00-0	µg/kg		4200	700	150	650	2600	45	780 J	820	810	4400
Total PAHs (b)	T_PAH (PDI)	µg/kg		27000	3300	680	3500	11000	160	4600	5300	5100	22000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		2300	310	55	320	740	8.4	410	560	510	2300

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S146	SC-S146	SC-S146	SC-S146	SC-S150	SC-S150	SC-S150	SC-S150	SC-S150	SC-S150
		Sample ID	PDI-SC-S146-4TO5	PDI-SC-S146-5TO7	PDI-SC-S146-7TO8	PDI-SC-S146-8TO9.1	PDI-SC-S150-0TO2	PDI-SC-S150-11.1TO12.5	PDI-SC-S150-2TO4	PDI-SC-S150-4TO6	PDI-SC-S150-4TO6D	PDI-SC-S150-6TO7.7
		Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	4-5 ft	5-7 ft	7-8 ft	8-9.1 ft	0-2 ft	11.1-12.5 ft	2-4 ft	4-6 ft	4- ft	6-7.7 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	56.9	72.4	73.9	74.8	46.3	73.8	50.4	48.0	48.3	51.2
Total Solids@70C	TSOLID70	%	63	73	75	79	51	75	57	58	57	54
Total Solids (%)	%SOLID	%	56.2	70	73.6	77.6	48	72	50.8	48.8	51	55.1
Clay	GS-Clay	%	16.5	4.6	1.8	6.0	11.8	5.6	14.1	13.0		17.5
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0		0.3
Sand, Coarse	GS-Csand	%	0.3	0	0	0.1	0	0.3	0	0		0.6
Sand, Fine (#200) (d)	GS-Fsand-200	%	21.77	69.36	82.36	43.22	19.59	19.42	22.02	11.75		18.15
Sand, Fine (#230) (d)	GS-Fsand	%	26.7	72.3	83.8	45.5	26.1	31.6	28.7	15.1		22.7
Sand, Medium	GS-Msand	%	0.5	2.8	8.9	9.0	0.3	3.0	0.2	0.2		0.9
Silt (#200) (d)	GS-Silt-200	%	60.92	23.13	6.933	41.87	68.40	71.67	63.57	75.04		62.44
Silt (#230) (d)	GS-Silt	%	56.0	20.2	5.5	39.6	61.9	59.5	56.9	71.7		57.9
Percent Fines (e)	GS-FINES	%	77.42	27.73	8.733	47.87	80.2	77.27	77.67	88.04		79.94
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	52000	8700	2300	3700	48000	820 J	43000	49000	49000	77000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S150	SC-S150	SC-S151	SC-S151	SC-S151	SC-S151	SC-S151	SC-S151	SC-S154	SC-S154
		Sample ID	PDI-SC-S150-7.7TO9.7	PDI-SC-S150-9.7TO11.1	PDI-SC-S151-0TO2	PDI-SC-S151-10TO12	PDI-SC-S151-2TO4	PDI-SC-S151-4TO6	PDI-SC-S151-6TO8	PDI-SC-S151-8TO10	PDI-SC-S154-0TO1	PDI-SC-S154-1TO3
		Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/24/2018	7/24/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	7.7-9.7 ft	9.7-11.1 ft	0-2 ft	10-12 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-1 ft	1-3 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0030 J	0.0016 J	0.17	0.073	0.15	0.15	0.30	0.23 J	0.14	0.077
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.020	0.0016 J	0.29	0.43	0.20	0.18	3.0 J	2.8 J	0.058	0.053
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.011	0.00062 JN	0.19	0.076	0.076	0.065	1.2 J	1.1 J	0.019	0.018
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00016 U	< 0.00020 U	0.0011 J	0.00092 J	0.0013 J	0.0012 JN	0.0034 J	0.0023 J	0.0017 J	0.00089 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.074	0.0032	1.0	0.57	0.67	0.67	8.2 J	7.8 J	0.13	0.12
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	< 0.00016 U	0.00018 J	0.0043 J	0.0064	0.0065	0.010	0.014	0.011	0.0057	0.0029 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.018	0.00091 J	0.19	0.13	0.15	0.16	2.1 J	2.0 J	0.026	0.027
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.00015 U	0.00029 J	0.0030 J	0.0022 J	0.0035 J	0.0038 J	0.0061 JN	0.0045	0.0041 J	0.0020 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.0014 J	< 0.00057 U	0.023	0.0087	0.0077	0.0084	0.11 J	0.12 J	0.0019 J	0.0013 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00020 U	< 0.000094 U	0.00050 J	0.0010 J	0.00069 J	0.0011 J	0.0021 J	< 0.00076 U	0.00090 JN	< 0.00011 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.084	0.0022 J	0.57	0.44 J	0.52	0.43	4.5 J	5.0 J	0.091	0.073
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0034	< 0.00019 U	0.017	0.020	0.028	0.017	0.28 J	0.29 J	0.0037 J	0.0034
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.044	0.0011 J	0.14	0.19 J	0.23	0.17	1.6 J	2.0 J	0.037	0.026
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.00013 U	< 0.000091 U	0.00032 JN	0.00045 JN	0.00038 JN	0.00036 JN	0.0011	0.0017	0.00040 JN	< 0.00017 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.10	0.0019 J	0.27	0.39 J	0.32	0.37 J	2.6 J	3.3 J	0.098	0.064
OCDD	3268-87-9	µg/kg	0.036	0.014	1.4	1.0	1.4	1.3	3.2	2.7	1.2	0.76
OCDF	39001-02-0	µg/kg	0.045	0.0034 J	0.49	0.41	0.33	0.22	4.5 J	3.1	0.13	0.098
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.036	0.0011	0.22	0.19	0.21	0.19	2	2.1	0.045	0.034
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.036	0.0011	0.22	0.19	0.21	0.19	2	2.1	0.044	0.034
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.036	0.0011	0.22	0.19	0.21	0.19	2	2.1	0.044	0.034
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 2.6 UJ	< 2.6 UJ	< 4.1 UJ	< 160 UJ	< 3.9 UJ	< 3.8 UJ	< 180 UJ	< 160 UJ	< 3.8 U	< 2.4 U
Aroclor 1221	11104-28-2	µg/kg	< 2.6 U	< 2.6 U	< 4.1 UJ	< 160 UJ	< 3.9 UJ	< 3.8 UJ	< 180 UJ	< 160 UJ	< 3.8 U	< 2.4 U
Aroclor 1232	11141-16-5	µg/kg	< 2.6 UJ	< 2.6 UJ	< 4.1 UJ	< 160 UJ	< 3.9 UJ	< 3.8 UJ	< 180 UJ	< 160 UJ	51 J	< 2.4 U
Aroclor 1242	53469-21-9	µg/kg	< 2.6 UJ	< 2.6 UJ	< 4.1 UJ	< 160 U	< 3.9 UJ	< 3.8 UJ	< 180 U	< 160 U	32 J	< 2.4 U
Aroclor 1248	12672-29-6	µg/kg	< 2.6 UJ	< 2.6 UJ	< 4.1 U	< 160 UJ	21	180 J	2000 J	< 160 UJ	< 3.8 U	< 2.4 U
Aroclor 1254	11097-69-1	µg/kg	< 2.6 U	< 2.6 U	< 4.1 U	< 160 U	< 3.9 U	< 3.8 U	< 180 U	< 160 U	< 3.8 U	12 J
Aroclor 1260	11096-82-5	µg/kg	< 2.6 U	< 2.6 U	< 4.1 U	< 160 U	< 3.9 U	< 3.8 U	< 180 U	< 160 U	20 J	< 2.4 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	< 2.6 UJ	< 2.6 UJ	< 4.1 UJ	< 160 UJ	21	180	2000	< 160 UJ	100	12
Pesticides												
2,4-DDD	53-19-0	µg/kg	125	8.53 J	31.6 J	13100 J	134 J	339 J	6940 J	34900 J	483	388
2,4-DDE	3424-82-6	µg/kg	1.11 J	0.187 J	1.41 J	233 J	11.1 J	14.8 J	160 J	490 J	51.4	38
2,4-DDT	789-02-6	µg/kg	9.37 J	0.718 J	15.4 J	1210 J	21.9 J	38.0 J	620 J	10300 J	240	1130
4,4'-DDD	72-54-8	µg/kg	292	12.8 J	69.7 J	25900 J	358 J	887 J	14300 J	60600 J	937	830
4,4'-DDE	72-55-9	µg/kg	2.56	0.316 J	12.5	471	54.3	58.7	334	933	533	457
4,4'-DDT	50-29-3	µg/kg	1120	6.05 J	123 J	8860 J	1350 J	1770 J	9830 J	101000 J	977	8000 J
DDx (b)	T_DDx (PDI)	µg/kg	1550	28.6	254	49800	1930	3110	32200	208000	3220	10800
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	10	81	18 J	250	430	190	100	350	< 180 U	9.8 J
Acenaphthene	83-32-9	µg/kg	26	82	25	270	53	99	280	850	< 180 U	< 61 U
Acenaphthylene	208-96-8	µg/kg	45	29	17 J	80	28	48	65	150	73 J	23 J
Anthracene	120-12-7	µg/kg	120	130	56	300	98	170	390	800	60 J	12 J
Benz(a)anthracene	56-55-3	µg/kg	420	130	180	330	180	230	740	900	230	43 J
Benzo(a)pyrene	50-32-8	µg/kg	370	99	160	450	160	170	510	990	170 J	68
Benzo(b)fluoranthene	205-99-2	µg/kg	320	86	320	480	250	240	900	1400	220 J	100 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	190	47	120	450	120	110	260	730	110 J	55 J
Benzo(k)fluoranthene	207-08-9	µg/kg	160	37	79	150	86	73	330	570	100 J	33 J
Chrysene	218-01-9	µg/kg	460	140	250	450	240	340	940	1300	390	110 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	58	12	25	110	28	23	66	110	36 J	16 J
Fluoranthene	206-44-0	µg/kg	500	240	430	1200	440	590	2300	3100	330	120
Fluorene	86-73-7	µg/kg	19	66	49	230	90	160	380	840	22 J	8.8 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	170	52	150	440	130	120	390	1000	130 J	58 J
Naphthalene	91-20-3	µg/kg	41	230	35	1300	1500	190	860	1600	82 J	26 J
Phenanthrene	85-01-8	µg/kg	160	310	170	760	310	330	1500	1400	140 J	50 J
Pyrene	129-00-0	µg/kg	700	350	380	1500	420	660	1900	3400	350	170
Total PAHs (b)	T_PAH (PDI)	µg/kg	3800	2100	2500	8800	4600	3700	12000	19000	2500	930
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	520	140	250	690	250	250	780	1400	270	100

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S150	SC-S150	SC-S151	SC-S151	SC-S151	SC-S151	SC-S151	SC-S151	SC-S154	SC-S154
		Sample ID	PDI-SC-S150-7.7TO9.7	PDI-SC-S150-9.7TO11.1	PDI-SC-S151-0TO2	PDI-SC-S151-10TO12	PDI-SC-S151-2TO4	PDI-SC-S151-4TO6	PDI-SC-S151-6TO8	PDI-SC-S151-8TO10	PDI-SC-S154-0TO1	PDI-SC-S154-1TO3
		Sample Date	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	8/14/2018	7/24/2018	7/24/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	7.7-9.7 ft	9.7-11.1 ft	0-2 ft	10-12 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-1 ft	1-3 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	76.2	76.4	48.0	60.6	50.8	52.7	55.1	60.7	51.8	78.8
Total Solids@70C	TSOLID70	%	76	76	49	62	53	53	55	61	52	77
Total Solids (%)	%SOLID	%	77.4	77	49.3	62.2	51.7	52.6	54.2	62.1	51.4	77.5
Clay	GS-Clay	%	3.7	3.5	16.7	14.9	19.2	21.9	17.7	17.5	13.2	4.9
Gravel	GS-Gravel	%	0	0	0	0	0	0	0.2	0.4	0.2	4.8
Sand, Coarse	GS-Csand	%	0.2	0.1	0	0.1	0.1	0	0.2	1.1	0.2	2.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	76.1	62.6	10.43	35.85	9.553	10.51	16.54	33.57	14.1	70.01
Sand, Fine (#230) (d)	GS-Fsand	%	76.6	65.7	14.5	38.3	12.5	14.0	21.2	37.3	16.7	71.8
Sand, Medium	GS-Msand	%	15.8	12.8	0.2	4.2	0.2	0.2	0.6	4.0	0.9	9.3
Silt (#200) (d)	GS-Silt-200	%	4.098	20.99	72.76	44.84	70.94	67.38	64.75	43.42	71.29	8.882
Silt (#230) (d)	GS-Silt	%	3.6	17.9	68.7	42.4	68.0	63.9	60.1	39.7	68.7	7.1
Percent Fines (e)	GS-FINES	%	7.798	24.49	89.46	59.74	90.14	89.28	82.45	60.92	84.49	13.782
Liquid Limit	GS-LL	None					73					
Plasticity Index	GS-PI	None					34					
Plasticity Limit	GS-PL	None					39					
Total Organic Carbon	TOC	mg/kg	2500	4100	52000	52000	57000	50000	51000	57000	28000	4200

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S154	SC-S154	SC-S155	SC-S155	SC-S155	SC-S157	SC-S157	SC-S157	SC-S157
			Sample ID	PDI-SC-S154-3TO4	PDI-SC-S154-4TO6	PDI-SC-S155-0TO2.1	PDI-SC-S155-2.1TO4.2	PDI-SC-S155-4.2TO5.3	PDI-SC-S157-0TO2	PDI-SC-S157-10TO12.4	PDI-SC-S157-12.4TO14	PDI-SC-S157-14TO15.9
			Sample Date	7/24/2018	7/24/2018	9/5/2018	9/5/2018	9/5/2018	8/17/2018	8/17/2018	8/17/2018	8/17/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	3-4 ft	4-6 ft	0-2.1 ft	2.1-4.2 ft	4.2-5.3 ft	0-2 ft	10-12.4 ft	12.4-14 ft	14-15.9 ft
Chemical		**CAS_RN**	**Units**									
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.0021 J	0.0024 J	0.055	0.28	0.0023 J	0.041	0.0014 J	0.0013 JN	0.0012 JN
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	< 0.00022 U	< 0.000077 U	0.012 JN	0.11	0.00042 J+	0.015	< 0.000058 U	< 0.00017 UJ	< 0.00011 UJ
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	< 0.000075 U	0.000051 JN	0.0015 J+	0.024	< 0.00027 U	0.0012 JN	< 0.00031 U	< 0.00027 U	< 0.00012 U
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	< 0.000047 U	< 0.000034 U	0.00075 J	0.0019 J	0.00013 J+	0.00055 JN	< 0.00012 U	< 0.00016 U	< 0.00011 U
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	< 0.000055 U	< 0.000016 U	0.0047	0.081	0.00023 J	0.0045 J	< 0.000064 U	< 0.000065 U	< 0.000045 U
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.000090 J	0.00012 JN	0.0024 J	0.011	0.00017 J+	0.0021 J	< 0.00012 U	< 0.00016 U	< 0.00011 U
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	< 0.000054 U	< 0.000016 U	0.0013 J	0.019	0.00011 J	0.0022 J	< 0.000061 U	< 0.000061 U	0.00010 JN
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00032 J+	0.00037 J	0.0017 J	0.0036	0.00021 JN	0.0014 JN	< 0.00011 U	< 0.00014 U	0.00025 JN
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.000024 U	0.000059 J	0.0013 J+	0.0015 J+	< 0.00085 U	0.0016 JN	< 0.00075 U	< 0.00088 U	< 0.00043 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.000042 U	0.000054 J	0.00038 J	0.0010 J	0.000060 J	< 0.00022 U	< 0.000091 U	< 0.000098 U	< 0.000077 U
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.000080 J	0.000031 JN	0.0025 J	0.029	0.00029 J+	0.0033 J	0.00016 JN	0.00015 J+	< 0.000061 U
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	< 0.000031 U	< 0.000013 U	0.00042 J	0.0026 J	< 0.000023 U	0.00069 J	< 0.000047 U	< 0.000048 U	< 0.000034 U
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	< 0.000027 U	0.000029 J	0.0012 J	0.010	0.000087 J+	0.0012 J	< 0.000068 U	< 0.000062 U	< 0.000060 U
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000025 U	< 0.000019 U	0.00018 JN	0.00062 J	< 0.000016 U	0.00023 JN	< 0.000080 U	< 0.000085 U	< 0.000080 U
2,3,7,8-TCDF		51207-31-9	µg/kg	0.000079 JN	< 0.000042 U	0.0030	0.015	0.00016 J+	0.0014 J+	< 0.000046 U	< 0.00017 U	< 0.000038 U
OCDD		3268-87-9	µg/kg	0.020	0.021	0.48	2.7	0.019	0.50	0.013	0.012	0.014
OCDF		39001-02-0	µg/kg	< 0.00061 U	0.00013 J	0.045	0.44	0.0019 J+	0.032	< 0.00016 U	< 0.00026 U	< 0.00021 U
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.000099	0.00016	0.0034	0.024	0.00027	0.003	0.000068	0.00007	0.000091
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.000091	0.00015	0.0033	0.024	0.00025	0.0024	0.000063	0.000057	0.000044
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.00007	0.00014	0.0032	0.024	0.00021	0.0023	0.000018	0.0000081	0.0000042
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016		12674-11-2	µg/kg	< 2.6 U	< 2.6 UJ	< 3.5 U	< 2.7 U	< 2.6 U	< 4.0 UJ	< 2.6 U	< 2.6 U	< 2.6 U
Aroclor 1221		11104-28-2	µg/kg	< 2.6 UJ	< 2.6 U	< 3.5 U	< 2.7 U	< 2.6 U	< 4.0 UJ	< 2.6 U	< 2.6 U	< 2.6 U
Aroclor 1232		11141-16-5	µg/kg	< 2.6 UJ	< 2.6 U	< 3.5 U	< 2.7 U	< 2.6 U	< 4.0 UJ	< 2.6 U	< 2.6 U	< 2.6 U
Aroclor 1242		53469-21-9	µg/kg	< 2.6 U	< 2.6 U	< 3.5 U	< 2.7 U	< 2.6 U	< 4.0 UJ	< 2.6 UJ	< 2.6 UJ	< 2.6 UJ
Aroclor 1248		12672-29-6	µg/kg	< 2.6 U	< 2.6 UJ	< 3.5 U	< 2.7 U	< 2.6 U	< 4.0 UJ	< 2.6 UJ	< 2.6 UJ	< 2.6 UJ
Aroclor 1254		11097-69-1	µg/kg	< 2.6 U	< 2.6 U	< 3.5 U	< 2.7 U	< 2.6 U	< 4.0 UJ	< 2.6 UJ	< 2.6 UJ	< 2.6 UJ
Aroclor 1260		11096-82-5	µg/kg	< 2.6 U	< 2.6 U	1.6 J	19 J	< 2.6 U	1.2 J	< 2.6 UJ	< 2.6 UJ	< 2.6 UJ
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	< 2.6 UJ	< 2.6 UJ	1.6	19	< 2.6 U	1.2	< 2.6 UJ	< 2.6 UJ	< 2.6 UJ
Pesticides												
2,4-DDD		53-19-0	µg/kg	0.0258 J	< 0.18 UJ	4.48	18.3	0.633 J	1.67 J	< 0.15 U	< 0.023 U	< 0.015 U
2,4-DDE		3424-82-6	µg/kg	0.0118 J	< 0.059 U	0.295 J	1.78	0.0410 J	0.24 JN	< 0.14 UJ	< 0.015 U	< 0.014 U
2,4-DDT		789-02-6	µg/kg	0.0501 J	< 0.12 UJ	0.22 JN	1.18 J	< 0.034 U	< 0.12 UJ	< 0.090 UJ	< 0.023 U	< 0.021 UJ
4,4'-DDD		72-54-8	µg/kg	0.0437 J	< 0.14 UJ	9.48	57.6	1.47	2.61	< 0.091 U	0.029 JN	< 0.035 U
4,4'-DDE		72-55-9	µg/kg	0.0385 J	< 0.086 U	3.06	7.42	0.206 J	2.33 J	< 0.18 UJ	< 0.019 U	< 0.018 U
4,4'-DDT		50-29-3	µg/kg	0.19 J	< 0.23 UJ	0.844 J	2.86	0.210 J	< 0.31 UJ	< 0.25 UJ	< 0.040 U	< 0.035 UJ
DDx	(b)	T_DDx (PDI)	µg/kg	0.36	< 0.23 UJ	18.4	89.1	2.58	7.01	< 0.25 UJ	0.049	< 0.035 UJ
Semivolatile Organics												
2-Methylnaphthalene		91-57-6	µg/kg	< 1.3 U	2.2	9.1 J	11 J	2.2	27	0.97 J	1.2 J	1.9
Acenaphthene		83-32-9	µg/kg	0.38 J	< 1.3 U	9.7 J	5.1 J	3.8	24	0.32 J	0.48 J	< 1.3 U
Acenaphthylene		208-96-8	µg/kg	0.51 J	< 1.3 U	5.3 J	< 13 U	1.9	13 J	< 1.2 U	< 1.3 U	< 1.3 U
Anthracene		120-12-7	µg/kg	0.19 J	< 1.3 U	15 J	13	4.6	25	0.30 J	0.49 J	0.21 J
Benz(a)anthracene		56-55-3	µg/kg	1.5	0.25 J	32	38	5.9	32	0.62 J	0.56 J	0.63 J
Benzo(a)pyrene		50-32-8	µg/kg	1.3	< 1.3 UJ	32	28	15	27	0.56 J	36	< 1.3 U
Benzo(b)fluoranthene		205-99-2	µg/kg	1.4 J	0.33 J	49	38	13	39	1.3	0.82 J	1.2 J
Benzo(g,h,i)perylene		191-24-2	µg/kg	0.71 J	< 1.3 U	26	21	17	31	1.2	0.90 J	1.4
Benzo(k)fluoranthene		207-08-9	µg/kg	0.58 J	< 1.3 U	15 J	9.2 J	3.7	12 J	0.43 J	0.48 J	0.47 J
Chrysene		218-01-9	µg/kg	1.2 J	< 1.3 U	58	66	6.5	48	0.99 J	0.82 J	1.0 J
Dibenz(a,h)anthracene		53-70-3	µg/kg	0.22 J	< 1.3 U	7.0 J	< 13 U	2.4	< 20 U	< 1.2 U	< 1.3 U	< 1.3 U
Fluoranthene		206-44-0	µg/kg	2.3	0.47 J	100	84	15	130	1.6	2.3	< 1.3 U
Fluorene		86-73-7	µg/kg	0.19 J	0.22 J	21	< 13 U	3.3	33	0.63 J	0.96 J	0.38 J
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	0.82 J	< 1.3 U	45	51	24	26	0.79 J	0.58 J	< 1.3 U
Naphthalene		91-20-3	µg/kg	< 1.3 U	1.5	14 J	12 J	8.2	50	0.67 J	0.86 J	1.3
Phenanthrene		85-01-8	µg/kg	< 1.3 U	< 1.3 U	61	27	18	130	2.1	2.6	1.7
Pyrene		129-00-0	µg/kg	2.4	0.36 J	120	140	32	120	1.4	1.9	0.93 J
Total PAHs	(b)	T_PAH (PDI)	µg/kg	14	6.6	620	560	180	780	15	52	12
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	1.9	0.71	52	47	22	47	1.4	37	0.84

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S154	SC-S154	SC-S155	SC-S155	SC-S155	SC-S157	SC-S157	SC-S157	SC-S157
		Sample ID	PDI-SC-S154-3TO4	PDI-SC-S154-4TO6	PDI-SC-S155-0TO2.1	PDI-SC-S155-2.1TO4.2	PDI-SC-S155-4.2TO5.3	PDI-SC-S157-0TO2	PDI-SC-S157-10TO12.4	PDI-SC-S157-12.4TO14	PDI-SC-S157-14TO15.9
		Sample Date	7/24/2018	7/24/2018	9/5/2018	9/5/2018	9/5/2018	8/17/2018	8/17/2018	8/17/2018	8/17/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	3-4 ft	4-6 ft	0-2.1 ft	2.1-4.2 ft	4.2-5.3 ft	0-2 ft	10-12.4 ft	12.4-14 ft	14-15.9 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	74.2	73.1	54.4	73.9	73.8	49.9	75.3	73.6	74.5
Total Solids@70C	TSOLID70	%	74	73	56	74	74	51	75	75	74
Total Solids (%)	%SOLID	%	75.6	73.4	54.6	73.7	74	47.3	72.6	75.6	74.3
Clay	GS-Clay	%	14.3	22.5	12.1	3.7	5.4	14.2	5.3 L	5.9	7.7
Gravel	GS-Gravel	%	0.9	0	2.6	0.3	3.4	0	0	0	0
Sand, Coarse	GS-Csand	%	0.3	0.6	0.5	0.4	1.1	0.8	0	0	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	13.91	6.809	30.64	58.34	42.34	23.16	27.29	7.135	8.04
Sand, Fine (#230) (d)	GS-Fsand	%	18.0	8.3	33.6	59.2	43.7	26.8	36.8	13.3	20.5
Sand, Medium	GS-Msand	%	0.3	0.3	5.5	28.6	10.0	0.8	0	0.1	0
Silt (#200) (d)	GS-Silt-200	%	70.28	69.79	48.65	8.652	37.75	61.03	67.40	86.96	84.25
Silt (#230) (d)	GS-Silt	%	66.2	68.3	45.7	7.8	36.4	57.4	57.9	80.8	71.8
Percent Fines (e)	GS-FINES	%	84.58	92.29	60.75	12.352	43.15	75.23	72.7	92.86	91.95
Liquid Limit	GS-LL	None						76			
Plasticity Index	GS-PI	None						32			
Plasticity Limit	GS-PL	None						44			
Total Organic Carbon	TOC	mg/kg	740 J	440 J	29000	8900	1200 J	59000	8700	11000	11000

Notes:

a. Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S157	SC-S157	SC-S157	SC-S157	SC-S163	SC-S163	SC-S163	SC-S163	SC-S163	SC-S163
		Sample ID	PDI-SC-S157-2TO3.7	PDI-SC-S157-3.7TO6	PDI-SC-S157-6TO8	PDI-SC-S157-8TO10	PDI-SC-S163-0TO2	PDI-SC-S163-10TO12.7	PDI-SC-S163-12.7TO13	PDI-SC-S163-2TO4	PDI-SC-S163-4TO6	PDI-SC-S163-6TO8
		Sample Date	8/17/2018	8/17/2018	8/17/2018	8/17/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	2-3.7 ft	3.7-6 ft	6-8 ft	8-10 ft	0-2 ft	10-12.7 ft	12.7-13 ft	2-4 ft	4-6 ft	6-8 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.031	0.0025 JN	0.0018 J	0.0014 JN	0.21	0.58	0.0028 J	0.24	0.22	0.32
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.020	0.00045 J+	0.00023 JN	0.00033 J+	0.056	0.29 J	0.00034 JN	0.092	0.099	0.089
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00070 JN	0.00045 JN	0.00068 J+	0.00045 J+	0.0031 J	0.029	< 0.00017 U	0.0037 J	0.0039 J	0.0061
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00036 J+	< 0.00018 U	< 0.00013 U	< 0.00015 U	0.0015 J	0.0053	0.00013 J	0.0019 J	0.0017 J	0.0030 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0017 J	< 0.00011 U	< 0.000086 U	< 0.000072 U	0.0035 J	0.10	< 0.00010 U	0.0046 J	0.0035 J	0.015
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0018 J	< 0.00018 U	< 0.00013 U	< 0.00014 U	0.0061	0.022	0.00016 JN	0.0088	0.0075	0.012
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0016 JN	< 0.000093 U	0.00015 JN	< 0.000069 U	0.0068	0.032	< 0.00010 U	0.011	0.011	0.011
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00069 JN	0.00047 JN	0.00031 JN	0.00036 JN	0.0042 J	0.0088	0.00035 J	0.0041 J	0.0040 J	0.0065
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00081 U	0.0016 J+	0.0017 J+	0.0012 J+	< 0.00046 U	< 0.0018 U	< 0.000087 U	< 0.00048 U	< 0.00050 U	< 0.00066 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00023 J	< 0.00012 U	< 0.00012 U	< 0.00013 U	0.00086 J	0.0025 J	< 0.000092 U	0.0012 J	0.00098 J	0.0016 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0013 J	0.00030 J+	0.00020 JN	< 0.000076 U	0.0015 J	0.062	< 0.000046 U	0.0022 J	0.0014 J	0.0075
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00036 JN	< 0.000068 U	< 0.000057 U	< 0.000053 U	0.0012 J	0.0068	< 0.000080 U	0.0014 J	0.0012 J	0.0019 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00080 J	< 0.000075 U	< 0.000074 U	< 0.000074 U	0.00083 JN	0.027	< 0.000052 U	0.0016 J	0.0012 J	0.0036 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00012 JN	< 0.00010 U	< 0.00010 U	< 0.000097 U	0.00073 JN	0.0023	< 0.000084 U	0.0013	0.0013	0.0017
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0019 J+	< 0.000093 U	< 0.00022 U	< 0.00016 U	0.0010	0.037 J	0.00016 JN	0.0029	0.00087 J	0.0047
OCDD	3268-87-9	µg/kg	0.47	0.048 J	0.018	0.014 JN	3.2	7.6 J	0.024	4.3 J	3.7 J	4.9 J
OCDF	39001-02-0	µg/kg	0.019	0.00090 J	< 0.00024 U	< 0.00026 U	0.17	0.68	0.00091 JN	0.28	0.26	0.25
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0022	0.00032	0.00031	0.00025	0.008	0.048	0.00016	0.011	0.01	0.016
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0018	0.00025	0.00026	0.0002	0.0074	0.048	0.00013	0.011	0.01	0.016
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0017	0.00019	0.0002	0.00013	0.007	0.047	0.000083	0.011	0.01	0.016
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 2.6 U	< 2.7 U	< 2.7 U	< 2.7 U	< 3.8 U	< 34 U	< 2.7 U	< 35 U	< 3.5 U	< 3.4 U
Aroclor 1221	11104-28-2	µg/kg	< 2.6 U	< 2.7 U	< 2.7 U	< 2.7 U	< 3.8 U	< 34 U	< 2.7 UJ	< 35 U	< 3.5 U	< 3.4 UJ
Aroclor 1232	11141-16-5	µg/kg	< 2.6 U	< 2.7 U	< 2.7 UJ	< 2.7 U	8.9 J	40 J	< 2.7 U	35 J	15 J	< 3.4 U
Aroclor 1242	53469-21-9	µg/kg	< 2.6 UJ	< 2.7 UJ	< 2.7 U	< 2.7 UJ	< 3.8 U	< 34 U	< 2.7 U	< 35 U	< 3.5 U	< 3.4 U
Aroclor 1248	12672-29-6	µg/kg	< 2.6 UJ	< 2.7 UJ	< 2.7 U	< 2.7 UJ	< 3.8 U	< 34 U	< 2.7 U	< 35 U	< 3.5 U	78
Aroclor 1254	11097-69-1	µg/kg	< 2.6 UJ	< 2.7 UJ	< 2.7 U	< 2.7 UJ	8.6 J	160 J	< 2.7 U	54 J	36 J	< 3.4 U
Aroclor 1260	11096-82-5	µg/kg	1.6 J	< 2.7 UJ	< 2.7 U	< 2.7 UJ	< 3.8 U	< 34 U	< 2.7 UJ	< 35 U	< 3.5 U	< 3.4 UJ
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	1.6	< 2.7 UJ	< 2.7 UJ	< 2.7 UJ	18	200	< 2.7 UJ	89	51	78
Pesticides												
2,4-DDD	53-19-0	µg/kg	2.05 J	< 0.0494 U	< 0.018 U	< 0.096 U	1.02 J	25.1	< 0.012 U	2.31	1.46 J	2.80
2,4-DDE	3424-82-6	µg/kg	0.191 J	< 0.0040 U	0.012 JN	< 0.092 U	0.663 J	6.18 J	< 0.0109 U	1.02 J	0.747 J	1.05 J
2,4-DDT	789-02-6	µg/kg	< 0.064 UJ	0.0332 J	< 0.027 U	< 0.064 UJ	0.206 J	0.391 J	0.0908 J	0.0911 J	0.0989 J	0.085 JN
4,4'-DDD	72-54-8	µg/kg	2.59 J	< 0.0904 U	0.085 JN	0.12 JN	3.16	41.5	< 0.016 U	7.10	4.80	7.66
4,4'-DDE	72-55-9	µg/kg	0.882 J	< 0.0219 U	0.0434 J	< 0.12 U	8.92	38.6	0.0384 J	15.1	9.98	16.7
4,4'-DDT	50-29-3	µg/kg	0.662 J	2.07 J	0.0835 J	< 0.16 UJ	1.10 J	0.865 J	< 0.167 U	< 0.247 U	< 0.223 U	< 0.278 U
DDx (b)	T_DDx (PDI)	µg/kg	6.41	2.15	0.237	0.20	15.1	113	0.213	25.7	17.2	28.4
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	140	2.1	1.3	0.94 J	70	250	47	140	130	150
Acenaphthene	83-32-9	µg/kg	110	1.2 J	2.0	0.33 J	74	2300	60	110	140	110
Acenaphthylene	208-96-8	µg/kg	17	0.28 J	0.59 J	0.33 J	61	190	58	100	110	76
Anthracene	120-12-7	µg/kg	64	0.96 J	1.8	0.39 J	93	650	110	140	160	210
Benz(a)anthracene	56-55-3	µg/kg	60	1.1 J	2.1	1.0 J	100	500	140	110	160	180
Benzo(a)pyrene	50-32-8	µg/kg	38	0.81 J	2.1	0.78 J	110	420	190	110	130	170
Benzo(b)fluoranthene	205-99-2	µg/kg	48	1.2 J	2.6	1.4	200	520	220	160	180	170
Benzo(g,h,i)perylene	191-24-2	µg/kg	31	1.4	2.0	1.4	93	300	150	100	120	150
Benzo(k)fluoranthene	207-08-9	µg/kg	13	0.23 J	< 1.3 U	0.30 J	< 19 U	81	27	35	46	47
Chrysene	218-01-9	µg/kg	81	1.3	2.6	1.2 J	190	660	170	190	210	250
Dibenz(a,h)anthracene	53-70-3	µg/kg	< 6.3 U	< 1.3 U	< 1.3 U	< 1.3 U	< 19 U	33	22	13 J	16 J	13 J
Fluoranthene	206-44-0	µg/kg	250	4.2	6.4	1.7	560	1700	370	490	570	560
Fluorene	86-73-7	µg/kg	140	2.0	1.6	0.49 J	82	1500	46	140	140	130
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	29	0.93 J	2.2	1.1 J	86	330	160	95	110	160
Naphthalene	91-20-3	µg/kg	120	1.9	1.5 J	0.80 J	170	330	92	370	380	360
Phenanthrene	85-01-8	µg/kg	390	4.8	8.3	1.7	540	2800	340	540	610 J	650
Pyrene	129-00-0	µg/kg	230	3.8	6.8	1.7	550	1700	520	530	630	580
Total PAHs (b)	T_PAH (PDI)	µg/kg	1800	29	45	16	3000	14000	2700	3400	3800	4000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	55	1.8	3.4	1.8	160	590	260	160	190	230

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S157	SC-S157	SC-S157	SC-S157	SC-S163	SC-S163	SC-S163	SC-S163	SC-S163	SC-S163
		Sample ID	PDI-SC-S157-2TO3.7	PDI-SC-S157-3.7TO6	PDI-SC-S157-6TO8	PDI-SC-S157-8TO10	PDI-SC-S163-0TO2	PDI-SC-S163-10TO12.7	PDI-SC-S163-12.7TO13	PDI-SC-S163-2TO4	PDI-SC-S163-4TO6	PDI-SC-S163-6TO8
		Sample Date	8/17/2018	8/17/2018	8/17/2018	8/17/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018	7/27/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	2-3.7 ft	3.7-6 ft	6-8 ft	8-10 ft	0-2 ft	10-12.7 ft	12.7-13 ft	2-4 ft	4-6 ft	6-8 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	74.6	72.8	70.9	73.2	52.2	58.1	71.8	52.4	55.7	56.0
Total Solids@70C	TSOLID70	%	75	73	73	75	53	60	75	55	58	57
Total Solids (%)	%SOLID	%	68.8	74	70.8	75.3	52.7	58.1	72.7	53.6	55.8	55.6
Clay	GS-Clay	%	3.7	1.9	3.8	4.4	12.2	20.8	7.7	14.3	13.7	18.2
Gravel	GS-Gravel	%	0	1.7	0	0	0	0.5	0	0.1	0.1	0
Sand, Coarse	GS-Csand	%	0.2	0.7	0.2	0	0.1	0.9	0.1	0	0	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	72.1	29.13	44.98	34.11	13	5.3	13.8	9.3	11.9	7.0
Sand, Fine (#230) (d)	GS-Fsand	%	74.6	41.1	58.1	44.3	17.5	6.7	17.9	13.3	16.7	9.9
Sand, Medium	GS-Msand	%	1.8	0.5	0	0	0.5	0.2	0.1	0.2	0.2	0.1
Silt (#200) (d)	GS-Silt-200	%	22.29	66.06	51.11	61.48	74.3	72.2	78.4	76.2	74.1	74.7
Silt (#230) (d)	GS-Silt	%	19.8	54.1	38.0	51.3	69.8	70.8	74.3	72.2	69.3	71.8
Percent Fines (e)	GS-FINES	%	25.99	67.96	54.91	65.88	86.5	93	86.1	90.5	87.8	92.9
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	15000	1200 J	1400 J	6200	25000	32000	8500	34000	30000	34000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S163	SC-S172	SC-S172	SC-S172	SC-S172	SC-S172	SC-S176	SC-S176	SC-S176	SC-S176
			Sample ID	PDI-SC-S163-8TO10	PDI-SC-S172-0TO2	PDI-SC-S172-2TO4	PDI-SC-S172-2TO4D	PDI-SC-S172-4TO6	PDI-SC-S172-6TO8.1	PDI-SC-S176-0TO2	PDI-SC-S176-2TO4	PDI-SC-S176-4TO5.5	PDI-SC-S176-5.5TO7.5
			Sample Date	7/27/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018
			Sample Type Code	N	N	N	FD	N	N	N	N	N	N
			Depth	8-10 ft	0-2 ft	2-4 ft	2- ft	4-6 ft	6-8.1 ft	0-2 ft	2-4 ft	4-5.5 ft	5.5-7.5 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.45	0.46 J	0.47 J	0.37	0.044	0.037	0.064	0.073	0.016	0.0028 J
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.27	0.059	0.078	0.062	0.023	0.025	0.050	0.075	0.028	0.0043
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.0084	< 0.0029 U	0.0047 JN	0.0039 J	0.00084 J	0.00095 J	< 0.00042 U	< 0.00061 UJ	< 0.00019 U	0.00044 J+
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.0040 J	0.0029 J	0.0031 JN	0.0025 J	0.00048 J+	0.00045 J+	0.00057 JN	0.00073 J	0.00022 J	0.00011 JN
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.014	0.0057 J	0.0071	0.0061	0.0013 J	0.0012 J	0.0013 JN	< 0.00091 U	< 0.00020 U	0.00025 J
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.019	0.017	0.020	0.015	0.0019 J	0.0019 J	0.0027 J	0.0039 J	0.00092 J	0.00018 JN
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.028	0.0029 J	0.0059	0.0047	0.0018 J	0.0023 J	0.0042	0.0053	0.0016 J	< 0.000056 U
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.0080	0.0084	0.0080	0.0061	0.0010 J	0.00099 J	0.0012 J	0.0015 J	0.00049 J	0.00015 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.0010 U	0.00097 J	< 0.00043 U	< 0.00029 U	< 0.00010 U	< 0.000088 U	< 0.00062 U	< 0.00055 U	0.00066 J+	< 0.00058 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	0.0019 JN	< 0.00050 U	0.0012 JN	0.0013 J	0.00027 J	0.00031 J	0.00041 J	0.00061 J	0.00017 J	0.000032 JN
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.0063	0.0016 JN	0.0021 J	0.0025 J	0.00031 J	0.00035 JN	0.00062 J	< 0.00053 U	0.00019 JN	0.000088 J+
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.0035 J	0.0017 J	0.0021 J	0.0016 J	0.00049 J	0.00048 J	0.00085 J	0.0012 J	0.00046 J	0.000080 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.0043 J	0.0013 JN	0.0024 J	0.0021 J	0.00043 J	0.00028 JN	0.00057 J	0.0012 J	< 0.00013 U	0.000052 JN
2,3,7,8-TCDD		1746-01-6	µg/kg	0.0011	0.00046 JN	0.0011 JN	0.00052 JN	0.00026 J	0.00014 JN	0.00018 JN	0.00026 JN	< 0.000023 U	< 0.000015 U
2,3,7,8-TCDF		51207-31-9	µg/kg	0.0040	0.0046 J	0.0028	0.0026	0.00052 J	0.00055 J	0.00051 J	0.0012	0.00063 J	0.00010 JN
OCDD		3268-87-9	µg/kg	6.3 J	3.7	4.2 J	3.3	0.60	0.60	0.92	1.1	0.24	0.040
OCDF		39001-02-0	µg/kg	0.42	0.20	0.26	0.21	0.045	0.044	0.14	0.18	0.035	0.0061 J
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.022	0.012	0.015	0.012	0.0023	0.0022	0.0034	0.0045	0.0012	0.00026
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.021	0.011	0.014	0.012	0.0023	0.002	0.0031	0.0043	0.0012	0.00017
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.02	0.011	0.013	0.011	0.0023	0.0019	0.003	0.0042	0.0012	0.00014
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 3.6 U	< 9.6 U	< 3.7 U	< 3.8 UJ	< 2.8 U	< 2.9 U	< 3.1 U	< 3.3 U	< 3.0 U	< 2.6 U
Aroclor 1221		11104-28-2	µg/kg	< 3.6 UJ	< 9.6 U	< 3.7 U	< 3.8 UJ	< 2.8 U	< 2.9 U	< 3.1 U	< 3.3 U	< 3.0 U	< 2.6 U
Aroclor 1232		11141-16-5	µg/kg	< 3.6 U	< 9.6 U	< 3.7 U	< 3.8 UJ	< 2.8 U	< 2.9 U	< 3.1 U	< 3.3 U	< 3.0 U	< 2.6 U
Aroclor 1242		53469-21-9	µg/kg	< 3.6 U	< 9.6 U	< 3.7 U	< 3.8 UJ	< 2.8 U	< 2.9 U	< 3.1 U	< 3.3 U	< 3.0 U	< 2.6 U
Aroclor 1248		12672-29-6	µg/kg	40	< 9.6 U	< 3.7 U	< 3.8 UJ	< 2.8 U	< 2.9 U	< 3.1 U	< 3.3 U	< 3.0 U	< 2.6 U
Aroclor 1254		11097-69-1	µg/kg	< 3.6 U	150 J	160 J	140 J	29 J	< 2.9 U	< 3.1 U	< 3.3 U	< 3.0 U	< 2.6 U
Aroclor 1260		11096-82-5	µg/kg	< 3.6 UJ	< 9.6 UJ	< 3.7 U	< 3.8 UJ	< 2.8 U	7.7	17	33 J	9.7	0.97 J
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	40	150	160	140	29	7.7	17	33	9.7	0.97
Pesticides													
2,4-DDD		53-19-0	µg/kg	2.47	2.68	3.28	3.76	3.87	1.32 J	1.06 J	3.54	0.140 J	0.0738 J
2,4-DDE		3424-82-6	µg/kg	0.732 J	0.286 J	0.574 J	0.603 J	0.275 J	0.336 J	0.575 J	0.762 J	0.0374 J	0.0312 J
2,4-DDT		789-02-6	µg/kg	0.062 JN	< 0.224 U	3.28	3.03	< 0.225 U	0.256 J	< 0.025 UJ	< 0.081 UJ	< 0.020 UJ	< 0.021 UJ
4,4'-DDD		72-54-8	µg/kg	5.80	4.71	9.80	10.1	10.9	2.65	2.72	6.40	0.256 J	0.155 J
4,4'-DDE		72-55-9	µg/kg	8.48	4.60	9.94	10.3	2.72	1.37 J	3.98	4.28 J	0.274 J	0.0984 J
4,4'-DDT		50-29-3	µg/kg	< 0.161 U	0.595 J	11.3	9.71	4.26	0.890 J	0.138 J	0.510 J	0.11 JN	0.084 JN
DDx	(b)	T_DDx (PDI)	µg/kg	17.6	13	38.2	37.5	22.1	6.82	8.49	15.5	0.827	0.453
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	180	44 J	110	130	190	150	100	140	43	15
Acenaphthene		83-32-9	µg/kg	150	120 J	130	110	210	250	64	140	28	13
Acenaphthylene		208-96-8	µg/kg	190	110 J	180	110	140	130	73	110	46	16
Anthracene		120-12-7	µg/kg	300	130 J	290	200	270	270	95	160	51	17
Benz(a)anthracene		56-55-3	µg/kg	250	200 J	1000 J	320 J	450	400	150	300	100	13
Benzo(a)pyrene		50-32-8	µg/kg	250	210 J	750 J	240 J	360	410	120	230	87	16
Benzo(b)fluoranthene		205-99-2	µg/kg	290	290 J	890 J	340 J	400	440	170	310	110	17 J
Benzo(g,h,i)perylene		191-24-2	µg/kg	230	170 J	470 J	250 J	250	390	140	270	110	15
Benzo(k)fluoranthene		207-08-9	µg/kg	120	150 J	280 J	110 J	120	120	48	96	35	5.9 J
Chrysene		218-01-9	µg/kg	340	320 J	980 J	380 J	400	380	180	360	130	15
Dibenz(a,h)anthracene		53-70-3	µg/kg	21	45 J	110 J	38 J	52	43	18 J	27 J	11 J	2.7 J
Fluoranthene		206-44-0	µg/kg	820	590 J	1600 J	830 J	1000	1400	430	850	290	50
Fluorene		86-73-7	µg/kg	270	56 J	120	110	140	140	62	120	37	9.6
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	210	160 J	450 J	220 J	220	310	140	190	77	15
Naphthalene		91-20-3	µg/kg	460	220 J	310	440	620	550	250	280	100	64
Phenanthrene		85-01-8	µg/kg	980	440 J	900	710	880	1200	450	840	300	64
Pyrene		129-00-0	µg/kg	920	730 J	2200 J	970 J	1400	1800	560	1100	390	70
Total PAHs	(b)	T_PAH (PDI)	µg/kg	6000	4000	11000	5500	7100	8400	3100	5500	1900	420
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	350	320	1100	370	520	570	180	340	130	23

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S163	SC-S172	SC-S172	SC-S172	SC-S172	SC-S172	SC-S176	SC-S176	SC-S176	SC-S176
		Sample ID	PDI-SC-S163-8TO10	PDI-SC-S172-0TO2	PDI-SC-S172-2TO4	PDI-SC-S172-2TO4D	PDI-SC-S172-4TO6	PDI-SC-S172-6TO8.1	PDI-SC-S176-0TO2	PDI-SC-S176-2TO4	PDI-SC-S176-4TO5.5	PDI-SC-S176-5.5TO7.5
		Sample Date	7/27/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018
		Sample Type Code	N	N	N	FD	N	N	N	N	N	N
		Depth	8-10 ft	0-2 ft	2-4 ft	2- ft	4-6 ft	6-8.1 ft	0-2 ft	2-4 ft	4-5.5 ft	5.5-7.5 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	55.3	41.4	52.6	51.7	68.9	67.9	61.1	59.2	66.0	73.6
Total Solids@70C	TSOLID70	%	57	43	54	50	72	72	61	60	68	75
Total Solids (%)	%SOLID	%	54.6	42.3	53.8	51.5	67.3	69.7	55.4	57.1	66.3	73
Clay	GS-Clay	%	13.4	26.0	19.7		3.7	9.5	11.6	14.2	7.1	2.0
Gravel	GS-Gravel	%	0.5	0.6	0		0.2	0.9	0	0	0	0
Sand, Coarse	GS-Csand	%	0.4	0.3	0.3		0.1	0.8	0	0	0.3	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	4.9	10.16	20.01		61.23	38.77	34.81	19	35.82	80.87
Sand, Fine (#230) (d)	GS-Fsand	%	6.6	11.4	23.6		64.7	40.9	40.3	23.3	40.7	83.6
Sand, Medium	GS-Msand	%	0.2	0.6	0.5		6.7	10.9	0.4	0.2	0.2	3.7
Silt (#200) (d)	GS-Silt-200	%	80.6	62.33	59.48		28.06	39.12	53.08	66.69	56.57	13.32
Silt (#230) (d)	GS-Silt	%	78.9	61.1	55.9		24.6	37.0	47.6	62.4	51.7	10.6
Percent Fines (e)	GS-FINES	%	94	88.33	79.18		31.76	48.62	64.68	80.89	63.67	15.32
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	38000	44000	35000	38000	24000	23000	20000	28000	12000	3300

Notes:

a. Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S176	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178
			Sample ID	PDI-SC-S176-7.5TO9.6	PDI-SC-S178-0TO2	PDI-SC-S178-10.7TO12.7	PDI-SC-S178-12.7TO14	PDI-SC-S178-2TO3.7	PDI-SC-S178-3.7TO4.7	PDI-SC-S178-4.7TO6.7	PDI-SC-S178-6.7TO8.7	PDI-SC-S178-8.7TO10.7
			Sample Date	8/8/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N
			Depth	7.5-9.6 ft	0-2 ft	10.7-12.7 ft	12.7-14 ft	2-3.7 ft	3.7-4.7 ft	4.7-6.7 ft	6.7-8.7 ft	8.7-10.7 ft
Chemical		**CAS_RN**	**Units**									
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.00079 J+	0.47	0.00074 J	0.00097 J	0.24	0.13	0.0026 J	0.0018 J	0.0010 J
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.00077 J	0.12	< 0.000050 U	< 0.000057 U	0.14	0.079 J	0.00070 JN	< 0.00018 U	< 0.00012 U
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.00035 J+	0.0063	< 0.000063 U	< 0.000071 U	0.0044 J	0.0031 J	< 0.00011 U	< 0.00020 U	< 0.00013 U
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00010 JN	0.0037 J	< 0.000056 U	0.00020 J+	0.0023 J	0.0014 J	< 0.000065 U	< 0.00015 U	< 0.000076 U
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.00010 J	0.010	< 0.000066 U	< 0.000090 U	0.0055	0.0034 J	< 0.000078 U	< 0.000043 U	< 0.000028 U
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.000061 J	0.022	< 0.000053 U	< 0.000051 U	0.010	0.0059	0.00016 JN	0.00010 JN	0.000048 JN
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	< 0.000034 U	0.0070	< 0.000058 U	< 0.000074 U	0.0091	0.0073	< 0.000083 U	< 0.000044 U	< 0.000030 U
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00012 JN	0.0091	< 0.000051 U	< 0.000048 U	0.0047 J	0.0032 J	0.00016 JN	0.00020 J	0.00011 JN
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00059 U	< 0.00052 U	< 0.000038 U	< 0.000050 U	< 0.00059 U	< 0.00049 U	< 0.000038 U	< 0.000023 U	< 0.000015 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.000023 U	0.0020 JN	< 0.000065 U	< 0.000077 U	0.0014 J	0.00075 J	< 0.000056 U	< 0.000041 U	< 0.000034 U
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	< 0.000043 U	0.0025 JN	< 0.000031 U	< 0.000038 U	0.0015 J	0.00088 J	< 0.000048 U	< 0.000027 U	< 0.000019 U
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	< 0.000030 U	0.0024 J	< 0.000040 U	< 0.000051 U	0.0020 J	0.0012 J	< 0.000055 U	< 0.000030 U	< 0.000021 U
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	< 0.000019 U	0.0026 J	< 0.000032 U	< 0.000038 U	0.0015 J	0.00092 J	< 0.000052 U	< 0.000029 U	< 0.000021 U
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000015 U	0.0020	< 0.000056 U	< 0.000055 U	0.00073 JN	0.00042 JN	< 0.000031 U	0.00012 JN	0.00016 JN
2,3,7,8-TCDF		51207-31-9	µg/kg	0.000046 J+	0.0039	< 0.000026 U	< 0.000026 U	0.0013	0.00074 J	< 0.000028 U	< 0.000011 U	< 0.0000095 U
OCDD		3268-87-9	µg/kg	0.0081 J+	4.8 J	0.0078	0.0093	3.3	2.2	0.035	0.025	0.011
OCDF		39001-02-0	µg/kg	0.00064 J+	0.42	< 0.00010 U	< 0.000080 U	0.28	0.17	0.0025 J	0.00087 J	0.00031 J
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.000094	0.018	0.000042	0.000071	0.011	0.0066	0.0001	0.0002	0.00021
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.000072	0.017	0.000042	0.000071	0.011	0.0064	0.000065	0.00011	0.000093
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.000042	0.016	0.0000097	0.000032	0.01	0.0062	0.000037	0.000046	0.000013
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016		12674-11-2	µg/kg	< 2.8 UJ	< 4.0 U	< 2.9 U	< 2.9 U	< 3.8 U	< 3.2 U	< 3.0 U	< 2.9 U	< 2.9 U
Aroclor 1221		11104-28-2	µg/kg	< 2.8 UJ	< 4.0 U	< 2.9 UJ	< 2.9 UJ	< 3.8 U	< 3.2 U	< 3.0 U	< 2.9 U	< 2.9 UJ
Aroclor 1232		11141-16-5	µg/kg	< 2.8 UJ	< 4.0 U	< 2.9 U	< 2.9 U	< 3.8 U	< 3.2 U	< 3.0 U	< 2.9 U	< 2.9 U
Aroclor 1242		53469-21-9	µg/kg	< 2.8 UJ	< 4.0 U	< 2.9 U	< 2.9 U	< 3.8 U	< 3.2 U	< 3.0 U	< 2.9 U	< 2.9 U
Aroclor 1248		12672-29-6	µg/kg	< 2.8 UJ	< 4.0 U	< 2.9 UJ	< 2.9 UJ	< 3.8 U	< 3.2 U	< 3.0 U	< 2.9 U	< 2.9 UJ
Aroclor 1254		11097-69-1	µg/kg	< 2.8 UJ	320 J	< 2.9 U	< 2.9 U	110 J	35 J	< 3.0 U	< 2.9 U	< 2.9 U
Aroclor 1260		11096-82-5	µg/kg	< 2.8 UJ	< 4.0 U	< 2.9 UJ	< 2.9 UJ	< 3.8 U	< 3.2 U	0.92 J	< 2.9 U	< 2.9 UJ
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	< 2.8 UJ	320	< 2.9 UJ	< 2.9 UJ	110	35	0.92	< 2.9 U	< 2.9 UJ
Pesticides												
2,4-DDD		53-19-0	µg/kg	< 0.038 U	1.70 J	< 0.043 U	< 0.050 U	4.57	1.15 J	< 0.063 U	< 0.052 U	< 0.018 UJ
2,4-DDE		3424-82-6	µg/kg	< 0.023 U	1.01 J	< 0.027 U	< 0.038 U	1.86 J	0.416 J	< 0.021 U	< 0.035 U	< 0.013 U
2,4-DDT		789-02-6	µg/kg	< 0.026 UJ	2.41	< 0.048 U	< 0.046 U	7.21	0.263 J	< 0.025 U	< 0.047 U	< 0.023 U
4,4'-DDD		72-54-8	µg/kg	< 0.025 U	3.61	< 0.043 U	< 0.042 U	10.7	2.71 J	< 0.131 U	< 0.043 U	< 0.022 UJ
4,4'-DDE		72-55-9	µg/kg	0.0873 J	11.4	< 0.031 U	< 0.056 U	9.56	4.40	0.210 J	< 0.0779 U	< 0.016 U
4,4'-DDT		50-29-3	µg/kg	0.259 J	7.77	< 0.080 U	< 0.195 U	64.1	0.944 J	< 0.041 U	< 0.193 U	< 0.055 U
DDx	(b)	T_DDx (PDI)	µg/kg	0.365	27.9	< 0.08 U	< 0.195 U	98	9.88	0.276	< 0.193 U	< 0.055 U
Semivolatile Organics												
2-Methylnaphthalene		91-57-6	µg/kg	17	82	< 1.4 U	< 1.5 U	91	53	3.0 J	< 1.4 U	1.6
Acenaphthene		83-32-9	µg/kg	10	130	< 1.4 U	< 1.5 U	74	39	1.9 J	< 1.4 U	0.72 J
Acenaphthylene		208-96-8	µg/kg	13	64	< 1.4 U	< 1.5 U	83	42	4.9 J	< 1.4 U	< 1.4 U
Anthracene		120-12-7	µg/kg	17	180	< 1.4 U	0.34 J	130	57	3.4 J	0.35 J	0.37 J
Benz(a)anthracene		56-55-3	µg/kg	11	460	0.84 J	1.3 J	290	110	10	0.98 J	0.94 J
Benzo(a)pyrene		50-32-8	µg/kg	13	350	< 1.4 U	< 1.5 U	230	83	5.0 J	1.4	< 7.1 U
Benzo(b)fluoranthene		205-99-2	µg/kg	14 J	520	1.6	1.8	300	110	7.7	1.5	3.4 J
Benzo(g,h,i)perylene		191-24-2	µg/kg	11	320	0.48 J	0.59 J	250	95	4.1 J	0.58 J	2.1 J
Benzo(k)fluoranthene		207-08-9	µg/kg	5.5 J	150	0.27 J	0.32 J	91	31	3.2 J	0.29 J	< 7.1 U
Chrysene		218-01-9	µg/kg	14	490	1.3 J	1.7	310	130	8.9	1.4	1.2 J
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 7.0 U	77	< 1.4 U	0.27 J	44	11 J	1.4 J	< 1.4 U	< 7.1 U
Fluoranthene		206-44-0	µg/kg	39	960	1.0 J	1.9	640	270	16	1.6	1.3 J
Fluorene		86-73-7	µg/kg	9.8	120	0.72 J	0.70 J	78	37	2.6 J	0.71 J	1.2 J
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	11	280	0.45 J	0.70 J	210	62	4.3 J	0.57 J	1.5 J
Naphthalene		91-20-3	µg/kg	65	140	0.75 J	0.78 J	190	100	5.7 J	0.79 J	1.0 J
Phenanthrene		85-01-8	µg/kg	52	910	< 1.4 U	1.6	550	270	15	1.5	1.9
Pyrene		129-00-0	µg/kg	56	1100	1.4	2.3	810	350	19	1.9	1.6
Total PAHs	(b)	T_PAH (PDI)	µg/kg	360	6300	10	16	4400	1900	120	15	23
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	20	550	0.99	1.4	360	120	8.6	2.4	4.1

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S176	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178	SC-S178
		Sample ID	PDI-SC-S176-7.5TO9.6	PDI-SC-S178-0TO2	PDI-SC-S178-10.7TO12.7	PDI-SC-S178-12.7TO14	PDI-SC-S178-2TO3.7	PDI-SC-S178-3.7TO4.7	PDI-SC-S178-4.7TO6.7	PDI-SC-S178-6.7TO8.7	PDI-SC-S178-8.7TO10.7
		Sample Date	8/8/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N
		Depth	7.5-9.6 ft	0-2 ft	10.7-12.7 ft	12.7-14 ft	2-3.7 ft	3.7-4.7 ft	4.7-6.7 ft	6.7-8.7 ft	8.7-10.7 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	70.2	48.5	67.7	66.7	51.2	59.5	65.2	67.3	67.2
Total Solids@70C	TSOLID70	%	70	51	70	69	54	62	68	69	71
Total Solids (%)	%SOLID	%	71.3	49.6	67.6	67.6	50.1	57.7	63.1	66.9	63.2
Clay	GS-Clay	%	9.3	25.3	15.9	17.0	24.0	17.4	18.4	16.9	15.7
Gravel	GS-Gravel	%	0	0	0	0	0	0	1.3	0	0.7
Sand, Coarse	GS-Csand	%	0.4	0.1	0.3	0.1	0	0	0.5	1.2	0.2
Sand, Fine (#200) (d)	GS-Fsand-200	%	27.93	7.719	9.218	7.131	4.282	5.107	7.634	10.89	11.37
Sand, Fine (#230) (d)	GS-Fsand	%	33.2	8.9	13.2	9.9	5.2	6.8	10.5	14.4	14.6
Sand, Medium	GS-Msand	%	4.3	2.2	0	0.1	0.2	0.3	0.1	0.1	0.1
Silt (#200) (d)	GS-Silt-200	%	58.06	64.68	74.58	75.76	71.51	77.19	72.06	70.90	71.92
Silt (#230) (d)	GS-Silt	%	52.8	63.5	70.6	73.0	70.6	75.5	69.2	67.4	68.7
Percent Fines (e)	GS-FINES	%	67.36	89.98	90.48	92.76	95.51	94.59	90.46	87.8	87.62
Liquid Limit	GS-LL	None		69							
Plasticity Index	GS-PI	None		28							
Plasticity Limit	GS-PL	None		41							
Total Organic Carbon	TOC	mg/kg	11000	34000	14000	15000	46000	30000	17000	15000	15000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S185	SC-S185	SC-S185	SC-S185	SC-S188	SC-S189	SC-S189	SC-S189	SC-S191	SC-S191
		Sample ID	PDI-SC-S185-0TO2	PDI-SC-S185-2TO4	PDI-SC-S185-4TO5.5	PDI-SC-S185-5.5TO6.5	PDI-SC-S188-0TO1.5	PDI-SC-S189-0TO2	PDI-SC-S189-2TO4	PDI-SC-S189-4TO5.7	PDI-SC-S191-0TO2	PDI-SC-S191-2TO4
		Sample Date	7/26/2018	7/26/2018	7/26/2018	7/26/2018	8/8/2018	7/25/2018	7/25/2018	7/25/2018	8/8/2018	8/8/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-2 ft	2-4 ft	4-5.5 ft	5.5-6.5 ft	0-1.5 ft	0-2 ft	2-4 ft	4-5.7 ft	0-2 ft	2-4 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.017	0.0051	0.0030 J	0.0021 J	0.28	0.18	0.017	0.024	0.35	0.63
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0023 J	0.0021 J	0.0016 J	0.00075 J	0.038	0.028	0.0057	0.015	0.059	0.094
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.00015 J	0.00013 J	0.00014 J	0.00010 J	0.0062 J	0.0025 J	0.00030 J	0.00092 J	0.0063	0.0092
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00013 U	< 0.00017 U	< 0.00011 U	< 0.000036 U	0.0023 J	0.0012 J	0.00036 J+	0.00050 J+	0.0028 J	0.0048
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.00015 U	0.00018 JN	0.00014 J	< 0.000054 U	0.0052 J	0.0050	0.00038 J	0.00074 J	0.0065	0.0092
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00038 JN	0.00026 JN	0.00015 JN	0.00014 J+	0.014	0.0064	0.00076 J	0.0017 J	0.016	0.022
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.00015 U	0.00018 JN	0.00013 J	< 0.000056 U	0.0026 J	0.0035 J	0.00090 J	0.0023 J	0.0028 JN	0.0049
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.00027 J	0.00030 J	0.00017 J	0.00019 J	0.0065 J	0.0034 J	0.00053 J	0.0010 J	0.0063	0.0082
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.000071 U	< 0.000048 U	0.000089 J	0.000072 J	0.0015 J+	0.00018 J	< 0.000069 U	0.00022 JN	< 0.00079 U	< 0.0012 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000090 J	< 0.000071 U	< 0.000044 U	0.000046 JN	0.0015 J	0.00068 JN	0.00012 JN	0.00030 J	0.0014 JN	0.0016 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.000041 U	< 0.000047 U	< 0.000036 U	0.000061 JN	0.0016 J	0.0031 J	0.00013 JN	0.00037 J	< 0.00050 U	0.0028 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.000089 U	< 0.000057 U	0.000085 JN	< 0.000041 U	0.0014 JN	0.00096 J	0.00019 J	0.00053 J	0.0016 J	0.0021 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.000044 U	< 0.000049 U	< 0.000038 U	0.000070 J	0.0017 J	0.0021 J	0.00013 JN	0.00028 JN	0.0014 J	0.0033 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00011 JN	0.00020 JN	< 0.000029 U	0.00017 JN	0.00095 J	0.00061 J	< 0.00011 U	0.00019 JN	0.00077 JN	0.0013
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000067 JN	0.000063 JN	0.000049 J	< 0.00012 U	0.013	0.0065	0.00029 J	0.00043 J	0.0073	0.0067
OCDD	3268-87-9	µg/kg	0.15	0.066	0.038	0.032	2.9	2.2	0.25	0.40	3.5	7.5 J
OCDF	39001-02-0	µg/kg	0.0047 J	0.0043 J	0.0032 J	0.0012 J	0.17	0.078	0.013	0.025	0.19	0.40
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.00052	0.00043	0.00016	0.00032	0.012	0.0075	0.00087	0.0019	0.012	0.02
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.00041	0.00022	0.00014	0.00019	0.012	0.0072	0.00071	0.0017	0.01	0.019
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.00036	0.00012	0.00012	0.0001	0.012	0.0068	0.00065	0.0016	0.0097	0.018
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 2.5 UJ	< 2.4 UJ	< 2.6 UJ	< 2.7 UJ	< 130 U	39 J	< 2.9 UJ	< 2.8 UJ	< 4.8 UJ	< 170 U
Aroclor 1221	11104-28-2	µg/kg	< 2.5 U	< 2.4 U	< 2.6 U	< 2.7 U	< 130 U	< 2.9 UJ	< 2.9 UJ	< 2.8 UJ	< 4.8 UJ	< 170 U
Aroclor 1232	11141-16-5	µg/kg	< 2.5 U	< 2.4 U	< 2.6 U	< 2.7 U	< 130 U	< 2.9 UJ	< 2.9 UJ	< 2.8 UJ	< 4.8 UJ	< 170 U
Aroclor 1242	53469-21-9	µg/kg	< 2.5 U	< 2.4 U	< 2.6 U	< 2.7 U	< 130 U	< 2.9 UJ	< 2.9 UJ	< 2.8 UJ	< 4.8 UJ	< 170 U
Aroclor 1248	12672-29-6	µg/kg	< 2.5 UJ	< 2.4 UJ	< 2.6 UJ	< 2.7 UJ	< 130 U	< 2.9 UJ	< 2.9 UJ	< 2.8 UJ	< 4.8 UJ	< 170 U
Aroclor 1254	11097-69-1	µg/kg	2.0 J	< 2.4 U	< 2.6 U	< 2.7 U	160	30 J	< 2.9 UJ	< 2.8 UJ	290 J	1300 J
Aroclor 1260	11096-82-5	µg/kg	< 2.5 U	2.5 J	2.1 J	1.7 J	< 130 U	< 2.9 UJ	3.7 J	2.4 J	< 4.8 UJ	< 170 UJ
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	2	2.5	2.1	1.7	160	69	3.7	2.4	290	1300
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.425 J	0.162 J	0.143 J	< 0.21 UJ	0.618 J	6.28	0.514 J	0.474 J	1.54 J	6.68 J
2,4-DDE	3424-82-6	µg/kg	0.0365 J	0.0582 J	0.0867 J	< 0.069 U	0.266 J	0.627 J	0.114 J	0.151 J	0.264 J	0.837 J
2,4-DDT	789-02-6	µg/kg	0.111 J	0.092 JN	0.0775 J	< 0.14 UJ	0.623 J	0.12 JN	0.025 JN	0.0245 J	1.31 J	11.8 J
4,4'-DDD	72-54-8	µg/kg	4.47	0.549 J	0.447 J	< 0.16 UJ	1.42 J	12.7	2.24 J	1.9 J	3.87 J	18.2 J
4,4'-DDE	72-55-9	µg/kg	0.556 J	0.213 J	0.228 J	< 0.10 U	7.43	5.28	1.49	2.57	7.21	18.4
4,4'-DDT	50-29-3	µg/kg	0.605 J	0.284 J	0.262 J	< 0.27 UJ	1.41 J	1.64	0.0853 J	0.0509 J	4.20 J	43.4 J
DDx (b)	T_DDx (PDI)	µg/kg	6.2	1.36	1.24	< 0.27 UJ	11.8	26.6	4.47	5.17	18.4	99.3
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	3.9 J	1.5 J	1.8 J	2.1 J	300	86	42	47	64	47
Acenaphthene	83-32-9	µg/kg	3.3 J	< 12 U	200	1.2 J	1000	98	59	38	420	310
Acenaphthylene	208-96-8	µg/kg	3.4 J	2.4 J	13	< 6.6 U	100	49	26	36	73	81
Anthracene	120-12-7	µg/kg	5.9 J	6.7 J	420	3.5 J	1500	72	47	44	430	240
Benz(a)anthracene	56-55-3	µg/kg	13	7.1 J	250	2.1 J	3600	180	76	70	1000	1300
Benzo(a)pyrene	50-32-8	µg/kg	11 J	6.1 J	68	< 6.6 U	3000	73	49	55	970	1100
Benzo(b)fluoranthene	205-99-2	µg/kg	19	8.2 J	200	1.7 J	4600 J	130	67	67	1500 J	1800 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	9.5 J	5.6 J	29	2.1 J	2000	54	46	55	750	880
Benzo(k)fluoranthene	207-08-9	µg/kg	8.3 J	2.6 J	58	1.3 J	1500	40	20	22	480	640
Chrysene	218-01-9	µg/kg	19	7.6 J	250	2.0 J	3600	180	74	78	1100	1400
Dibenz(a,h)anthracene	53-70-3	µg/kg	4.4 J	3.7 J	12	< 6.6 U	690	9.0 J	4.9 J	6.0 J	240	280
Fluoranthene	206-44-0	µg/kg	36	16	1700	6.8	9100	430	200	200	3000	3200
Fluorene	86-73-7	µg/kg	4.5 J	1.4 J	190	0.95 J	1100	57	40	31	380	270
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	12	6.0 J	50	1.8 J	2800	46	34	39	960	1100
Naphthalene	91-20-3	µg/kg	8.6 J	5.7 J	4.3 J	3.6 J	280	240	120	120	200	75
Phenanthrene	85-01-8	µg/kg	23	14	2200	5.6 J	7500	380	220	210	2400	2200
Pyrene	129-00-0	µg/kg	43	25	1100	6.7	7800	470	220	260	2700	2900
Total PAHs (b)	T_PAH (PDI)	µg/kg	230	130	6700	48	50000	2600	1300	1400	17000	18000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	20	12	130	3.9	4800	120	72	79	1600	1800

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S185	SC-S185	SC-S185	SC-S185	SC-S188	SC-S189	SC-S189	SC-S189	SC-S191	SC-S191
			Sample ID	PDI-SC-S185-0TO2	PDI-SC-S185-2TO4	PDI-SC-S185-4TO5.5	PDI-SC-S185-5.5TO6.5	PDI-SC-S188-0TO1.5	PDI-SC-S189-0TO2	PDI-SC-S189-2TO4	PDI-SC-S189-4TO5.7	PDI-SC-S191-0TO2	PDI-SC-S191-2TO4
			Sample Date	7/26/2018	7/26/2018	7/26/2018	7/26/2018	8/8/2018	7/25/2018	7/25/2018	7/25/2018	8/8/2018	8/8/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-2 ft	2-4 ft	4-5.5 ft	5.5-6.5 ft	0-1.5 ft	0-2 ft	2-4 ft	4-5.7 ft	0-2 ft	2-4 ft
Chemical		**CAS_RN**	**Units**										
Other													
Total Solids@104C		TSOLID	%	79.0	79.4	75.6	71.4	37.9	65.9	68.2	69.0	40.7	55.4
Total Solids@70C		TSOLID70	%	81	80	79	71	58	71	72	71	42	56
Total Solids (%)		%SOLID	%	75.7	78.6	75.8	69.9	38.1	66.9	68.9	67.5	45.2	58.4
Clay		GS-Clay	%	1.6	4.9	6.5	9.5	3.9	3.7	1.0	3.8	21.8	18.9
Gravel		GS-Gravel	%	3.7	6.4	0	0	78.6	4.4	0	0	0	0.2
Sand, Coarse		GS-Csand	%	2.9	3.0	1.3	0.2	0.4	0.6	0.4	0	0.1	0.1
Sand, Fine (#200)	(d)	GS-Fsand-200	%	54.36	34.56	29.79	15.4	3.912	56.71	72.04	52.19	11.55	26.41
Sand, Fine (#230)	(d)	GS-Fsand	%	54.9	35.6	31.4	20.2	4.8	61.9	76.9	58.2	12.3	28.0
Sand, Medium		GS-Msand	%	30.6	28.0	24.9	4.7	0.3	1.9	0.5	1.3	3.2	5.3
Silt (#200)	(d)	GS-Silt-200	%	6.833	23.13	37.40	70.19	12.98	32.78	26.05	42.70	63.34	48.98
Silt (#230)	(d)	GS-Silt	%	6.3 L	22.1	35.8	65.4	12.1	27.6	21.2	36.7	62.6	47.4
Percent Fines	(e)	GS-FINES	%	8.433	28.03	43.9	79.69	16.88	36.48	27.05	46.5	85.14	67.88
Liquid Limit		GS-LL	None										
Plasticity Index		GS-PI	None										
Plasticity Limit		GS-PL	None										
Total Organic Carbon		TOC	mg/kg	1100 J	2500	3900	8000	57000	8200	4200	6900	41000	27000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S191	SC-S191	SC-S192	SC-S192	SC-S192	SC-S198	SC-S198	SC-S198	SC-S198	SC-S198
			Sample ID	PDI-SC-S191-4TO6	PDI-SC-S191-6TO8.1	PDI-SC-S192-0TO1.5	PDI-SC-S192-1.5TO3	PDI-SC-S192-3TO4.2	PDI-SC-S198-0TO2	PDI-SC-S198-10TO11.8	PDI-SC-S198-2TO4	PDI-SC-S198-2TO4D	PDI-SC-S198-4TO6
			Sample Date	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018
			Sample Type Code	N	N	N	N	N	N	N	N	FD	N
			Depth	4-6 ft	6-8.1 ft	0-1.5 ft	1.5-3 ft	3-4.2 ft	0-2 ft	10-11.8 ft	2-4 ft	2- ft	4-6 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.60	0.22	10 J	6.3 J	0.51	0.50	0.00071 J+	0.27	0.23	0.13
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.13	0.062	2.1 J	1.5 J	0.11	0.13	< 0.000088 U	0.12	0.11	0.048
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.013	0.0045	0.26 J	0.17 J	0.012	0.0078	< 0.00022 U	0.0054	0.0047 J	0.0028 J
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.0068	0.0015 JN	0.066 J	0.049 J	0.0027 J	0.0039 J	0.000095 JN	0.0028 J	0.0022 J	0.0011 J
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.012	0.0038	0.17 J	0.12 J	0.0080	0.011	< 0.000045 U	0.0063	0.0059	0.0029 J
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.023	0.0074	0.33 J	0.20 J	0.013	0.021	0.000045 JN	0.012	0.010	0.0053
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.0082	0.0024 JN	0.079 J	0.053 J	0.0038	0.0072	< 0.000044 U	0.0088	0.0078	0.0035 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.0092	0.0046	0.12 J	0.089	0.0065	0.0092	< 0.000028 U	0.0050	0.0047 J	0.0023 J
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00084 U	< 0.00032 U	< 0.011 UJ	< 0.0080 UJ	< 0.00061 U	0.00088 J+	< 0.00038 U	0.00080 J+	0.00090 JN	< 0.00060 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	0.0032 J	0.00080 JN	0.030 J	0.019	0.0012 J	0.0016 JN	< 0.000032 U	0.0012 JN	0.0010 JN	0.00043 JN
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.0028 JN	0.00050 JN	0.016 J	0.0097	0.0011 J	0.0038 J	< 0.000020 U	0.0017 JN	0.0017 J	0.00075 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.0032 J	< 0.00061 U	0.043 J	0.026 J	0.0019 J	0.0024 J	< 0.000037 U	< 0.0010 U	0.0015 JN	0.00065 JN
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.0032 J	0.00094 J	0.019 J	0.011	0.00088 J	0.0029 J	< 0.000023 U	0.0014 J	0.0015 J	0.00052 J
2,3,7,8-TCDD		1746-01-6	µg/kg	0.0026	0.0011	0.0057 J	0.0036	0.00030 JN	0.0011	< 0.000035 U	0.00080 JN	0.00071 JN	0.00030 JN
2,3,7,8-TCDF		51207-31-9	µg/kg	0.0050	0.00076	0.032 J	0.018	0.0015	0.0043	< 0.000017 U	0.0015	0.0017	0.00078 J
OCDD		3268-87-9	µg/kg	6.3 J	2.4	110 J	69 J	5.8 J	5.4 J	0.0084 J+	3.5	3.0	1.6
OCDF		39001-02-0	µg/kg	0.53	0.34	7.6 J	5.0	0.42	0.54	< 0.00026 U	0.36	0.31	0.21
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.023	0.008	0.29	0.18	0.014	0.018	0.000043	0.011	0.01	0.0049
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.023	0.0071	0.29	0.18	0.014	0.017	0.000029	0.0099	0.0087	0.0043
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.023	0.0067	0.28	0.18	0.013	0.016	0.0000096	0.0093	0.0082	0.0041
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 3.6 U	< 2.8 U	< 7.2 U	< 5.2 UJ	< 2.4 U	< 4.3 U	< 2.7 U	< 3.8 U	< 3.6 U	< 3.1 U
Aroclor 1221		11104-28-2	µg/kg	< 3.6 U	< 2.8 U	< 7.2 U	< 5.2 UJ	< 2.4 U	< 4.3 U	< 2.7 U	< 3.8 U	< 3.6 U	< 3.1 U
Aroclor 1232		11141-16-5	µg/kg	< 3.6 U	< 2.8 U	< 7.2 U	< 5.2 UJ	< 2.4 U	< 4.3 U	< 2.7 U	< 3.8 U	< 3.6 U	< 3.1 U
Aroclor 1242		53469-21-9	µg/kg	< 3.6 U	< 2.8 U	< 7.2 U	< 5.2 UJ	< 2.4 U	< 4.3 U	< 2.7 U	< 3.8 U	< 3.6 U	< 3.1 U
Aroclor 1248		12672-29-6	µg/kg	< 3.6 U	< 2.8 U	< 7.2 U	< 5.2 UJ	< 2.4 U	< 4.3 U	< 2.7 U	< 3.8 U	< 3.6 U	< 3.1 U
Aroclor 1254		11097-69-1	µg/kg	720 J	280 J	1800 J	1500 J	180 J	530	< 2.7 U	160	170	93
Aroclor 1260		11096-82-5	µg/kg	< 180 UJ	< 2.8 U	< 360 UJ	< 260 UJ	< 24 UJ	< 4.3 U	< 2.7 U	< 3.8 U	< 3.6 U	< 3.1 U
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	720	280	1800	1500	180	530	< 2.7 U	160	170	93
Pesticides													
2,4-DDD		53-19-0	µg/kg	4.73 J	4.55 J	4.28 J	2.06 J	0.506 J	0.841 J	0.0427 J	0.762 J	0.785 J	0.346 J
2,4-DDE		3424-82-6	µg/kg	1.26 J	0.268 J	0.884 J	0.504 J	0.0966 J	0.755 J	< 0.025 U	0.973 J	1.09 J	0.247 J
2,4-DDT		789-02-6	µg/kg	3.09 J	0.297 J	2.73 J	1.87 J	0.251 J	0.73 JN	0.039 JN	0.144 J	0.17 JN	0.269 J
4,4'-DDD		72-54-8	µg/kg	11.4 J	11.2 J	8.72 J	4.37 J	1.05 J	2.17 J	< 0.041 UJ	2.01 J	2.05 J	0.854 J
4,4'-DDE		72-55-9	µg/kg	17.5	3.20	16.2	8.81	1.51	10.2	< 0.0582 U	9.31	9.63	2.66
4,4'-DDT		50-29-3	µg/kg	10.9 J	0.803 J	6.15 J	6.28 J	0.852 J	2.60 J	< 0.16 UJ	0.425 J	0.41 JN	0.914 J
DDx	(b)	T_DDx (PDI)	µg/kg	48.9	20.3	39	23.9	4.27	17.3	0.162	13.6	14.1	5.29
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	60	26	580	580	48	32	0.43 J	44	56	21
Acenaphthene		83-32-9	µg/kg	240	52	2200	1500	160	51	< 1.2 U	45	46	24
Acenaphthylene		208-96-8	µg/kg	69	46	470	330	33	28	< 1.2 U	32	32	16
Anthracene		120-12-7	µg/kg	200	72	3200	2400	230	87	< 1.2 U	76	48	35
Benz(a)anthracene		56-55-3	µg/kg	1200	340	7400	6300	670	180	0.21 J	100	110	52
Benzo(a)pyrene		50-32-8	µg/kg	1200	310	8400	5900	620	190	< 1.2 U	110	110	61
Benzo(b)fluoranthene		205-99-2	µg/kg	1800 J	470 J	12000 J	8500 J	900 J	310 J	< 1.2 U	180 J	170 J	91 J
Benzo(g,h,i)perylene		191-24-2	µg/kg	1000	290	6000	4200	460	180	< 1.2 U	110	120	59
Benzo(k)fluoranthene		207-08-9	µg/kg	720	160	4700	3200	320	120	< 1.2 U	70	69	38
Chrysene		218-01-9	µg/kg	1400	390	8600	7200	730	220	< 1.2 U	140	150	68
Dibenz(a,h)anthracene		53-70-3	µg/kg	320	76	1800	1300	130	57	< 1.2 U	15 J	16 J	7.9
Fluoranthene		206-44-0	µg/kg	3100	500	22000	16000	1600	510	< 1.2 U	380	330	170
Fluorene		86-73-7	µg/kg	280	33	2400	1800	200	27	< 1.2 U	46	58	19
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	1300	340	7800	5500	610	220	< 1.2 U	110	130	58
Naphthalene		91-20-3	µg/kg	180	100	540	450	< 12 U	51	< 1.2 U	97	130	35
Phenanthrene		85-01-8	µg/kg	1900	430	16000	12000	1200	310	< 1.2 U	250	260	110
Pyrene		129-00-0	µg/kg	3000	890	20000	14000	1500	620	0.45 J	530	460	240
Total PAHs	(b)	T_PAH (PDI)	µg/kg	18000	4500	120000	91000	9400	3200	2.3	2300	2300	1100
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	2000	500	13000	9300	970	320	0.62	160	170	89

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S191	SC-S191	SC-S192	SC-S192	SC-S192	SC-S198	SC-S198	SC-S198	SC-S198	SC-S198
		Sample ID	PDI-SC-S191-4TO6	PDI-SC-S191-6TO8.1	PDI-SC-S192-0TO1.5	PDI-SC-S192-1.5TO3	PDI-SC-S192-3TO4.2	PDI-SC-S198-0TO2	PDI-SC-S198-10TO11.8	PDI-SC-S198-2TO4	PDI-SC-S198-2TO4D	PDI-SC-S198-4TO6
		Sample Date	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018	8/8/2018
		Sample Type Code	N	N	N	N	N	N	N	N	FD	N
		Depth	4-6 ft	6-8.1 ft	0-1.5 ft	1.5-3 ft	3-4.2 ft	0-2 ft	10-11.8 ft	2-4 ft	2- ft	4-6 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	55.6	67.4	27.6	37.8	80.1	45.2	74.2	52.6	52.6	62.2
Total Solids@70C	TSOLID70	%	56	71	26	37	80	46	74	55	53	63
Total Solids (%)	%SOLID	%	55	67.7	28.8	43.5	76.9	48.1	74.8	53.7	53.5	61.3
Clay	GS-Clay	%	27.2	4.5	8.2	6.1	1.5	32.8	5.4	23.9		14.7
Gravel	GS-Gravel	%	0	0.1	0.1	0.1	39.1	0	0	0		0
Sand, Coarse	GS-Csand	%	0.2	0.2	0.4	0.5	2.1	0.2	0	0		0.3
Sand, Fine (#200) (d)	GS-Fsand-200	%	9.39	68.87	16.22	29.54	35.86	6.013	55.96	7.598		22.48
Sand, Fine (#230) (d)	GS-Fsand	%	10.6	73.4	19.7	33.6	37.0	7.1	61.0	11.1		28.3
Sand, Medium	GS-Msand	%	1.3	1.9	0.7	2.8	17.4	0.3	0.2	0.3		0.2
Silt (#200) (d)	GS-Silt-200	%	62.00	24.52	74.37	60.95	3.836	60.78	38.33	68.20		62.31
Silt (#230) (d)	GS-Silt	%	60.8	20.0	70.9	56.9	2.7	59.7	33.3	64.7		56.5
Percent Fines (e)	GS-FINES	%	89.2	29.02	82.57	67.05	5.336	93.58	43.73	92.1		77.01
Liquid Limit	GS-LL	None						81				
Plasticity Index	GS-PI	None						38				
Plasticity Limit	GS-PL	None						43				
Total Organic Carbon	TOC	mg/kg	35000	12000	100000	84000	5800	35000	4500	34000	33000	16000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S198	SC-S198	SC-S203	SC-S203	SC-S203	SC-S203	SC-S203	SC-S203	SC-S203	SC-S213
			Sample ID	PDI-SC-S198-6TO8	PDI-SC-S198-8TO10	PDI-SC-S203-0TO2	PDI-SC-S203-10TO12	PDI-SC-S203-12TO13.8	PDI-SC-S203-2TO4	PDI-SC-S203-4TO6	PDI-SC-S203-6TO8	PDI-SC-S203-8TO10	PDI-SC-S213-0TO2
			Sample Date	8/8/2018	8/8/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/9/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	6-8 ft	8-10 ft	0-2 ft	10-12 ft	12-13.8 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.010	0.0016 J	1.0	0.0015 J	0.0011 J	1.3	0.057	0.0017 J	0.0016 J	0.48
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.0034 J	0.00032 J+	0.45	0.00027 JN	0.00025 JN	0.58 J	0.029	0.00053 JN	0.00024 JN	0.14
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.00055 J+	< 0.00032 U	0.025	< 0.00014 U	< 0.000073 U	0.043 J	0.0020 J	< 0.00012 U	< 0.000089 U	0.010
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.00027 J	0.00013 J	0.0046 J	< 0.00011 U	< 0.000092 U	0.0070	0.00054 J+	< 0.000098 U	< 0.000071 U	0.0039 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		< 0.000094 U	0.000063 J	0.048	< 0.000060 U	< 0.000057 U	0.055 J	0.0029 J	< 0.00020 U	< 0.000074 U	0.023
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.00047 J	0.000073 JN	0.037	< 0.000075 U	< 0.000063 U	0.044	0.0020 J	< 0.000096 U	< 0.000071 U	0.018
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.00025 JN	0.000051 J	0.011	< 0.000063 U	< 0.000061 U	0.014 J	0.0012 J	< 0.00017 U	< 0.000076 U	0.0053 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.00036 J	0.00017 JN	0.0085	< 0.000068 U	< 0.000059 U	0.010	0.0011 J	< 0.000090 U	< 0.000065 U	0.0061 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		0.00078 J+	< 0.00057 U	< 0.0021 U	0.000083 J	0.000079 J	< 0.0025 U	< 0.00021 U	< 0.000088 U	0.00012 J	0.00091 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.000095 J	< 0.000020 U	0.0021 J	< 0.000038 U	< 0.000031 U	< 0.0011 U	< 0.00011 U	< 0.00011 U	< 0.000037 U	0.0016 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.00015 J+	0.000059 J+	0.0034 J	< 0.000020 U	< 0.000024 U	0.0034 J	0.00032 J	< 0.000074 U	< 0.000019 U	0.0021 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		< 0.000084 U	< 0.000031 U	0.0055 J	< 0.000047 U	< 0.000045 U	0.0044 JN	< 0.00032 U	< 0.00011 U	< 0.000055 U	< 0.0013 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		< 0.000035 U	< 0.000018 U	0.0057	< 0.000020 U	< 0.000024 U	0.0057	0.00037 J	< 0.000070 U	< 0.000019 U	0.0035 J
2,3,7,8-TCDD	1746-01-6	µg/kg		< 0.000046 U	< 0.000063 U	0.0013	< 0.000020 U	< 0.000013 U	0.0025	< 0.000022 U	< 0.00010 U	< 0.000033 U	< 0.00035 U
2,3,7,8-TCDF	51207-31-9	µg/kg		0.00011 J+	< 0.000016 U	0.0066	< 0.0000095 U	< 0.000010 U	0.0045	0.00049 J	< 0.000055 U	< 0.000011 U	0.0037
OCDD	3268-87-9	µg/kg		0.14	0.022 J+	10 J	0.021	0.017	13 J	0.63	0.022	0.021	4.2
OCDF	39001-02-0	µg/kg		0.012	0.0011 J+	2.1	0.0012 J	0.0013 J	3.0	0.12	0.0023 J	0.0018 J	0.54
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.00053	0.00011	0.036	0.000052	0.000042	0.043	0.0021	0.000085	0.000056	0.017
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.00051	0.000084	0.036	0.000049	0.00004	0.042	0.0021	0.000079	0.000053	0.017
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.00048	0.000052	0.036	0.00003	0.000024	0.042	0.002	0.000024	0.000035	0.017
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 2.8 U	< 3.0 U	< 450 U	< 2.9 U	< 2.7 U	< 380 U	< 2.8 U	< 2.9 U	< 2.9 U	< 5.8 U
Aroclor 1221	11104-28-2	µg/kg		< 2.8 U	< 3.0 U	< 450 U	< 2.9 UJ	< 2.7 U	< 380 UJ	< 2.8 U	< 2.9 U	< 2.9 UJ	< 5.8 U
Aroclor 1232	11141-16-5	µg/kg		< 2.8 U	< 3.0 U	< 450 U	< 2.9 U	< 2.7 U	< 380 U	< 2.8 U	< 2.9 U	< 2.9 U	< 5.8 U
Aroclor 1242	53469-21-9	µg/kg		< 2.8 U	< 3.0 U	< 450 U	< 2.9 U	< 2.7 U	< 380 U	< 2.8 U	< 2.9 U	< 2.9 U	< 5.8 U
Aroclor 1248	12672-29-6	µg/kg		< 2.8 U	< 3.0 U	< 450 U	< 2.9 U	< 2.7 U	< 380 U	< 2.8 U	< 2.9 U	< 2.9 U	< 5.8 U
Aroclor 1254	11097-69-1	µg/kg		11	< 3.0 U	< 450 U	< 2.9 UJ	< 2.7 U	< 380 UJ	< 2.8 U	< 2.9 U	< 2.9 UJ	< 5.8 U
Aroclor 1260	11096-82-5	µg/kg		< 2.8 U	< 3.0 U	3100 J	< 2.9 U	< 2.7 U	4900 J	170 J	3.1 J	2.9 J	83
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		11	< 3 U	3100	< 2.9 UJ	< 2.7 U	4900	170	3.1	2.9	83
Pesticides													
2,4-DDD	53-19-0	µg/kg		0.082 JN	0.031 JN	1.60 J	0.0425 J	< 0.014 U	6.02	0.677 J	0.037 JN	0.111 J	0.518 J
2,4-DDE	3424-82-6	µg/kg		0.0488 J	< 0.017 U	1.25 J	0.022 JN	< 0.017 U	2.93	< 0.147 U	< 0.013 U	0.0506 J	0.234 J
2,4-DDT	789-02-6	µg/kg		< 0.029 UJ	< 0.026 UJ	0.597 J	< 0.022 U	< 0.013 U	1.27 J	< 0.069 U	< 0.024 U	0.14 JN	0.29 JN
4,4'-DDD	72-54-8	µg/kg		0.152 J	< 0.0458 UJ	3.87	< 0.021 U	< 0.0490 U	16.3	1.73	0.0759 J	0.105 J	1.32 J
4,4'-DDE	72-55-9	µg/kg		0.305 J	< 0.0576 U	8.99 J	0.0401 J	< 0.0402 U	24.8	1.47	0.0717 J	0.102 J	3.81
4,4'-DDT	50-29-3	µg/kg		< 0.284 UJ	< 0.12 UJ	1.50 J	0.141 J	< 0.051 U	5.25	< 0.16 U	0.103 J	0.369 J	0.690 J
DDx (b)	T_DDx (PDI)	µg/kg		0.73	0.091	17.8	0.257	< 0.051 U	56.6	3.96	0.30	0.878	6.86
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		1.5	0.33 J	100	0.92 J	0.59 J	160	13	1.1 J	0.96 J	16 J
Acenaphthene	83-32-9	µg/kg		1.3 J	< 1.5 U	260	0.44 J	< 5.9 U	420	51	1.7 J	0.73 J	24 J
Acenaphthylene	208-96-8	µg/kg		1.2 J	< 1.5 U	71	< 1.4 U	< 5.9 U	85	13	< 6.5 U	< 1.4 U	24 J
Anthracene	120-12-7	µg/kg		2.1	0.36 J	310	0.43 J	< 5.9 U	260	29	1.1 J	0.87 J	56 J
Benz(a)anthracene	56-55-3	µg/kg		3.4	0.66 J	480	1.4	1.5 J	550	120	3.1 J	2.0	150
Benzo(a)pyrene	50-32-8	µg/kg		3.2	< 1.5 U	330	0.60 J	< 5.9 U	530	66	< 6.5 U	1.2 J	140
Benzo(b)fluoranthene	205-99-2	µg/kg		4.7 J	1.5 J	550	2.9	2.7 J	720	83	3.9 J	3.5	290
Benzo(g,h,i)perylene	191-24-2	µg/kg		3.4	< 1.5 U	340	1.0 J	< 5.9 U	350	54	1.8 J	1.0 J	< 140 U
Benzo(k)fluoranthene	207-08-9	µg/kg		1.6	0.34 J	170	0.82 J	0.74 J	210	25	0.94 J	0.95 J	120 J
Chrysene	218-01-9	µg/kg		4.2	0.72 J	630	1.2 J	< 5.9 U	860	120	3.0 J	2.0	250
Dibenz(a,h)anthracene	53-70-3	µg/kg		0.52 J	< 1.5 U	73	< 1.4 U	< 5.9 U	94	10	< 6.5 U	< 1.4 U	< 140 U
Fluoranthene	206-44-0	µg/kg		11	2.0	1100	1.2 J	1.7 J	1400	250	6.0 J	2.9	480
Fluorene	86-73-7	µg/kg		1.1 J	< 1.5 U	180	0.63 J	< 5.9 U	200	11	0.86 J	0.96 J	31 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		2.6	< 1.5 U	360	1.0 J	< 5.9 U	470	56	2.4 J	1.1 J	150
Naphthalene	91-20-3	µg/kg		2.9	< 1.5 U	160	0.69 J	1.2 J	210	24	2.1 J	0.87 J	54 J
Phenanthrene	85-01-8	µg/kg		8.0	< 1.5 U	1100	2.4	2.1 J	1900	330	9.8	4.7	180
Pyrene	129-00-0	µg/kg		13	1.9	1300	1.7	2.2 J	1500	300	7.5	3.4	510
Total PAHs (b)	T_PAH (PDI)	µg/kg		66	9.3	7500	19	19	9900	1600	52	29	2500
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		4.8	0.97	540	1.8	3.4	800	100	4.2	2.6	270

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S198	SC-S198	SC-S203	SC-S203	SC-S203	SC-S203	SC-S203	SC-S203	SC-S203	SC-S213
		Sample ID	PDI-SC-S198-6TO8	PDI-SC-S198-8TO10	PDI-SC-S203-0TO2	PDI-SC-S203-10TO12	PDI-SC-S203-12TO13.8	PDI-SC-S203-2TO4	PDI-SC-S203-4TO6	PDI-SC-S203-6TO8	PDI-SC-S203-8TO10	PDI-SC-S213-0TO2
		Sample Date	8/8/2018	8/8/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/9/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	6-8 ft	8-10 ft	0-2 ft	10-12 ft	12-13.8 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	68.3	65.9	43.1	68.1	70.2	51.9	69.2	67.6	67.8	34.1
Total Solids@70C	TSOLID70	%	68	67	46	70	73	54	73	67	69	34
Total Solids (%)	%SOLID	%	68.7	67.7	42.9	66.5	70.7	52.9	70	67	64.5	34.9
Clay	GS-Clay	%	7.9	6.1	26.9	10.0	10.7	24.6	9.9	14.1	12.9	28.3
Gravel	GS-Gravel	%	0	0	0.8	0	0	0	1.2	0	0	0
Sand, Coarse	GS-Csand	%	0	0	0.2	0	0	0.4	0	0.1	0	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	34.23	54.74	15.09	25.86	26.49	23.66	33.53	32.78	21.65	6.014
Sand, Fine (#230) (d)	GS-Fsand	%	41.6	62.7	16.3	32.4	33.1	26.3	37.3	33.3	29.1	7.1
Sand, Medium	GS-Msand	%	0.1	0.1	4.5	0.2	0.1	6.2	5.5	0.6	0.2	0.2
Silt (#200) (d)	GS-Silt-200	%	57.86	39.15	52.40	63.93	62.70	45.13	49.86	52.41	65.24	65.48
Silt (#230) (d)	GS-Silt	%	50.5	31.2	51.2	57.4	56.1	42.5	46.1	51.9	57.8	64.4
Percent Fines (e)	GS-FINES	%	65.76	45.25	79.3	73.93	73.4	69.73	59.76	66.51	78.14	93.78
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	8100	14000	35000 J	9200	8400	29000	10000	11000	9600	44000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S213	SC-S213	SC-S213	SC-S213	SC-S213	SC-S213	SC-S218	SC-S218	SC-S218	SC-S218
			Sample ID	PDI-SC-S213-10TO11.8	PDI-SC-S213-11.8TO12.8	PDI-SC-S213-2TO4	PDI-SC-S213-4TO6	PDI-SC-S213-6TO8	PDI-SC-S213-8TO10	PDI-SC-S218-0TO2	PDI-SC-S218-2TO4.5	PDI-SC-S218-4.5TO6	PDI-SC-S218-6TO8
			Sample Date	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	10-11.8 ft	11.8-12.8 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4.5 ft	4.5-6 ft	6-8 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.20	0.15	0.48	0.57	0.47 J	0.29	0.32 J	0.26	0.020	0.0026 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.16	0.23	0.17	0.17	0.12	0.15	0.045 JN	0.050	0.022	0.00078 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.0050	0.0043 J	0.018	0.012	0.0080	0.0083	< 0.0021 U	0.0025 J	0.00040 J	< 0.00011 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.0013 JN	0.0010 JN	0.0036 J	0.0042 J	0.0037 J	0.0025 J	0.00080 J+	0.0020 J	0.00023 JN	< 0.000089 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.0070	0.011	0.045	0.031	0.017	0.021	0.0023 J	0.0039 J	0.00052 J	< 0.00011 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.010	0.0089	0.019	0.028	0.020	0.013	0.0062 JN	0.010	0.00092 J	< 0.000082 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.015	0.032	0.0081	0.0091	0.012	0.0098	0.0019 J	0.0032 J	0.00082 J	< 0.000099 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0047 J	0.0046	0.0057 J	0.0093	0.011	0.0066	0.0038 J	0.0044	0.00048 J	< 0.000079 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		< 0.00091 U	< 0.00082 U	0.0012 J+	< 0.0010 U	< 0.0011 U	< 0.0011 U	< 0.00030 U	< 0.00028 U	< 0.000087 U	< 0.000061 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.0015 J	0.0014 J	0.0015 J	0.0024 J	0.0025 J	0.0015 J	0.00078 JN	0.00099 JN	0.00015 J	< 0.000085 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		< 0.00099 U	0.0027 J	0.0018 J	0.0021 J	0.0030 J	0.0017 JN	0.00069 J	0.0012 J	< 0.000089 U	< 0.000060 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.0037 J	0.0039 J	0.0031 J	0.0026 J	0.0031 J	0.0033 J	0.00082 J	0.0013 J	0.00028 JN	< 0.000064 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.0021 J	0.0022 J	0.0040 J	0.0038 J	0.0029 J	0.0025 J	0.00083 J	0.0014 J	0.00019 J	< 0.000063 U
2,3,7,8-TCDD	1746-01-6	µg/kg		0.0011	0.00056 JN	0.00061 JN	0.0012	0.0013 JN	0.00078 J	0.0021	0.0021	0.000097 JN	< 0.000073 U
2,3,7,8-TCDF	51207-31-9	µg/kg		0.0014	0.0012 J	0.0026	0.0080	0.0050 J	0.0013 JN	0.0011	0.0016	0.00021 J	< 0.000056 U
OCDD	3268-87-9	µg/kg		3.0	2.9	4.1	6.3 J	6.2 J	3.7 J	5.1 J	3.2 J	0.33	0.040
OCDF	39001-02-0	µg/kg		0.29	0.20	0.49	0.57	0.38	0.36	0.45	0.23	0.027	0.0028 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.012	0.014	0.02	0.024	0.02	0.015	0.01	0.01	0.0012	0.000089
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.012	0.013	0.02	0.024	0.02	0.015	0.0098	0.0098	0.0011	0.000081
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.012	0.013	0.02	0.024	0.02	0.014	0.0094	0.0094	0.001	0.000039
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 3.9 UJ	< 3.7 UJ	< 5.2 U	< 4.5 UJ	< 4.0 UJ	< 3.4 UJ	36	45 J	2.0 J	< 2.2 U
Aroclor 1221	11104-28-2	µg/kg		< 3.9 U	< 3.7 U	< 5.2 U	< 4.5 U	< 4.0 U	< 3.4 U	< 3.5 U	< 3.2 U	< 2.2 U	< 2.2 U
Aroclor 1232	11141-16-5	µg/kg		< 3.9 U	< 3.7 U	< 5.2 U	< 4.5 U	< 4.0 U	< 3.4 U	< 3.5 U	< 3.2 U	< 2.2 U	< 2.2 U
Aroclor 1242	53469-21-9	µg/kg		< 3.9 U	< 3.7 U	< 5.2 U	< 4.5 U	< 4.0 U	< 3.4 U	< 3.5 U	< 3.2 U	< 2.2 U	< 2.2 U
Aroclor 1248	12672-29-6	µg/kg		< 3.9 U	< 3.7 U	< 5.2 U	< 4.5 U	< 4.0 U	< 3.4 U	< 3.5 U	< 3.2 U	< 2.2 U	0.77 J
Aroclor 1254	11097-69-1	µg/kg		< 3.9 U	< 3.7 U	< 5.2 U	230 J	180 J	170 J	< 3.5 U	< 3.2 U	< 2.2 U	< 2.2 U
Aroclor 1260	11096-82-5	µg/kg		240 J	86	320 J	< 4.5 U	< 4.0 U	140	11	31	1.2 J	0.46 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		240	86	320	230	180	310	47	76	3.2	1.2
Pesticides													
2,4-DDD	53-19-0	µg/kg		2.49 J	2.30 J	0.513 J	0.783 J	1.54 J	1.66 J	2.55	4.27	0.0922 J	0.043 JN
2,4-DDE	3424-82-6	µg/kg		1.02 J	0.562 J	0.269 J	0.476 J	0.663 J	1.20 J	1.14 J	2.83	0.0419 J	0.022 JN
2,4-DDT	789-02-6	µg/kg		0.186 J	< 0.041 UJ	0.32 JN	0.229 J	0.185 J	0.11 J	0.115 J	0.192 J	< 0.019 UJ	< 0.028 UJ
4,4'-DDD	72-54-8	µg/kg		6.83 J	4.57 J	1.05 J	2.05 J	4.80 J	6.35 J	6.84	11.4	0.261 J	0.14 JN
4,4'-DDE	72-55-9	µg/kg		10.2	4.66	3.57	6.15	9.28	13.4	19.5	38.6	0.662 J	0.353 J
4,4'-DDT	50-29-3	µg/kg		0.402 J	< 0.258 UJ	1.20 J	0.771 J	0.949 J	0.510 J	0.907 J	0.361 J	0.0718 J	< 0.059 UJ
DDx (b)	T_DDx (PDI)	µg/kg		21.1	12.2	6.92	10.5	17.4	23.2	31.1	57.7	1.14	0.588
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		140	150	21 J	71 J	110	60	57	98	1.9	0.93 J
Acenaphthene	83-32-9	µg/kg		99	89	37 J	88 J	120	150	44	60	1.1	1.2 J
Acenaphthylene	208-96-8	µg/kg		96	110	28 J	71 J	60	63	43	68	1.9	0.89 J
Anthracene	120-12-7	µg/kg		190	150	66 J	140	170	120	68	130	2.0	1.3 J
Benz(a)anthracene	56-55-3	µg/kg		200	200	170	280	230	280	180	310	6.7	1.7 J
Benzo(a)pyrene	50-32-8	µg/kg		180	200	170	270	220	220	140	210	3.8	1.5 J
Benzo(b)fluoranthene	205-99-2	µg/kg		250	260	370	430	300	490	200	320	5.2	2.0 J
Benzo(g,h,i)perylene	191-24-2	µg/kg		210	300	190	260	220	260	150	210	5.0	2.4 J
Benzo(k)fluoranthene	207-08-9	µg/kg		83	84	110 J	180	100	130	59	100	1.7	0.60 J
Chrysene	218-01-9	µg/kg		280	260	270	400	300	330	210	370	6.2	2.2 J
Dibenz(a,h)anthracene	53-70-3	µg/kg		21 J	29 J	39 J	46 J	29 J	34 J	29	38	0.56 J	0.33 J
Fluoranthene	206-44-0	µg/kg		730	780	510	880	810	1000	360	550	6.9	3.1 J
Fluorene	86-73-7	µg/kg		120	110	33 J	83 J	120	160	41	55	1.0 J	0.49 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		170	250	170	260	200	260	140	160	3.2	1.5 J
Naphthalene	91-20-3	µg/kg		280	310	53 J	190	220	130	100	160	2.9	1.8 J
Phenanthrene	85-01-8	µg/kg		670	690	240	590	700	870	300	510	8.2	4.1 J
Pyrene	129-00-0	µg/kg		860	940	530	980	960	1100	440	810	16	5.5 J
Total PAHs (b)	T_PAH (PDI)	µg/kg		4600	4900	3000	5200	4900	5700	2600	4200	74	32
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		260	300	280	420	320	360	220	330	5.9	2.4

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S213	SC-S213	SC-S213	SC-S213	SC-S213	SC-S213	SC-S218	SC-S218	SC-S218	SC-S218
		Sample ID	PDI-SC-S213-10TO11.8	PDI-SC-S213-11.8TO12.8	PDI-SC-S213-2TO4	PDI-SC-S213-4TO6	PDI-SC-S213-6TO8	PDI-SC-S213-8TO10	PDI-SC-S218-0TO2	PDI-SC-S218-2TO4.5	PDI-SC-S218-4.5TO6	PDI-SC-S218-6TO8
		Sample Date	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/2/2018	8/2/2018	8/2/2018	8/2/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	10-11.8 ft	11.8-12.8 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft	2-4.5 ft	4.5-6 ft	6-8 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	51.7	53.1	38.1	43.0	49.9	56.2	56.1	61.9	88.7	89.1
Total Solids@70C	TSOLID70	%	52	53	39	43	50	56	60	65	91	91
Total Solids (%)	%SOLID	%	52.6	53.9	38.5	42.7	50.3	55.4	59.4	63.1	89.4	88.3
Clay	GS-Clay	%	21.4	12.7	26.5	32.1	12.6	22.1	9.0	10.5	1.5	1.4
Gravel	GS-Gravel	%	0	0	0	0	0	0	0.2	0	0	0
Sand, Coarse	GS-Csand	%	0.2	0.1	0	0.1	0.1	0.3	0	0	0.1	0.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	2.24	2.99	5.601	7.806	5.116	8.761	25.81	25.91	77.29	82.13
Sand, Fine (#230) (d)	GS-Fsand	%	2.9	3.9	6.7	9.1	6.1	11.6	31.7	31.9	77.9	82.3
Sand, Medium	GS-Msand	%	0.1	0.2	0.3	0.3	0.3	0.1	0.5	0.9	9.9	13.4
Silt (#200) (d)	GS-Silt-200	%	75.95	84.00	67.69	59.69	81.88	68.73	64.48	62.68	11.30	2.964
Silt (#230) (d)	GS-Silt	%	75.3	83.1	66.6	58.4	80.9	65.9	58.6	56.7	10.7	2.8
Percent Fines (e)	GS-FINES	%	97.35	96.7	94.19	91.79	94.48	90.83	73.48	73.18	12.8	4.364
Liquid Limit	GS-LL	None										53
Plasticity Index	GS-PI	None										13
Plasticity Limit	GS-PL	None										40
Total Organic Carbon	TOC	mg/kg	56000	65000	50000	45000	54000	27000	29000	28000	770 J	410 J

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
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CAS_RN = Chemical Abstracts Service Registry Number
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DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
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PDI = Pre-Remedial Design Investigation
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QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S218	SC-S219	SC-S219	SC-S219	SC-S221	SC-S221	SC-S221	SC-S221	SC-S222	SC-S222
			Sample ID	PDI-SC-S218-8TO9.6	PDI-SC-S219-0TO2	PDI-SC-S219-2TO4	PDI-SC-S219-4TO5.2	PDI-SC-S221-0TO2	PDI-SC-S221-2TO4	PDI-SC-S221-4TO6	PDI-SC-S221-6TO8.1	PDI-SC-S222-0TO2	PDI-SC-S222-11.2TO13.2
			Sample Date	8/2/2018	8/7/2018	8/7/2018	8/7/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/7/2018	8/7/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	8-9.6 ft	0-2 ft	2-4 ft	4-5.2 ft	0-2 ft	2-4 ft	4-6 ft	6-8.1 ft	0-2 ft	11.2-13.2 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.0024 J	0.33	0.0020 J	0.0014 J	0.15	0.20	0.18	0.092	28	0.0014 J+
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.00063 J	0.091	< 0.00017 U	0.00033 J+	0.029	0.036	0.035	0.022	5.7	0.00031 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		< 0.000083 U	0.0062	< 0.00019 U	< 0.00015 U	0.0017 JN	0.0023 J	0.0020 J	0.0013 J+	0.29 J	0.00027 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.00026 J+	0.0024 J	< 0.00012 U	< 0.000099 U	0.0015 J	0.0017 J	0.0015 J	0.00085 J+	0.045 J	< 0.000077 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		< 0.000074 U	0.017	< 0.00017 U	< 0.000024 U	0.0025 J	0.0026 J	0.0025 J	< 0.00068 U	0.12 J	< 0.000053 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		< 0.000063 U	0.012	< 0.00011 U	0.000063 JN	0.0050 J	0.0066	0.0059	0.0048	0.27 J	< 0.000060 U
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		< 0.000070 U	0.0054	< 0.00016 U	< 0.000025 U	0.0013 J	0.0015 J	0.0013 JN	< 0.00058 U	0.061 J	< 0.000054 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.00012 J	0.0042	< 0.00011 U	0.00013 J+	0.0041 J	0.0047 J	0.0041 J	0.0029 J	0.25 J	0.00015 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		< 0.000046 U	0.00062 J+	0.00052 JN	< 0.00018 U	< 0.00030 U	< 0.00031 U	0.00035 J	< 0.00032 U	< 0.029 UJ	0.00021 JN
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		< 0.00013 U	0.0015 J	< 0.00017 U	< 0.000020 U	0.00076 JN	< 0.00025 U	0.00096 J	0.00051 JN	0.090 J	< 0.000045 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		< 0.000073 U	0.0013 J	< 0.00011 U	0.000037 J+	0.00053 JN	0.00058 JN	0.00091 J	0.00040 JN	0.064	< 0.000026 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		< 0.000049 U	0.0021 J	< 0.00014 U	< 0.000021 U	0.00098 JN	0.0010 J	0.00090 J	0.00062 JN	< 0.027 UJ	< 0.000045 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		< 0.000077 U	0.0028 J	< 0.00011 U	< 0.000014 U	0.00079 J	0.00081 J	0.00085 J	0.00052 J	0.021	< 0.000027 U
2,3,7,8-TCDD	1746-01-6	µg/kg		< 0.000062 U	0.00050 JN	< 0.000094 U	0.000038 JN	0.00066 J	0.0013	0.0011	0.00052 J	0.39 J	< 0.000022 U
2,3,7,8-TCDF	51207-31-9	µg/kg		< 0.000048 U	0.0029	< 0.000062 U	< 0.000036 U	0.00089 J	0.0016	0.0011	0.0017	0.038 J	0.000038 JN
OCDD	3268-87-9	µg/kg		0.034	3.8 J	0.021	0.020	1.4	2.2	2.1	1.0	440 J	0.016 J+
OCDF	39001-02-0	µg/kg		0.0026 J	0.29	0.0011 J	0.0020 J	0.099	0.20	0.22	0.053	65	0.0010 J
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.00014	0.013	0.00016	0.000092	0.0056	0.0068	0.007	0.0038	1.1	0.000087
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.00014	0.013	0.00011	0.000057	0.005	0.0067	0.0069	0.0034	1.1	0.000044
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.000079	0.013	0.000027	0.000038	0.0047	0.0066	0.0068	0.0032	1.1	0.000022
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 2.3 U	< 3.2 U	< 2.7 UJ	< 2.7 UJ	< 4.5 UJ	20 J	23 J	12 J	4700	< 3.0 U
Aroclor 1221	11104-28-2	µg/kg		< 2.3 U	< 3.2 UJ	< 2.7 UJ	< 2.7 UJ	< 4.5 UJ	< 3.9 UJ	< 3.5 UJ	< 3.5 UJ	< 250 U	< 3.0 UJ
Aroclor 1232	11141-16-5	µg/kg		< 2.3 U	< 3.2 U	< 2.7 UJ	< 2.7 UJ	< 4.5 U	< 3.9 U	< 3.5 U	< 3.5 U	< 250 U	< 3.0 U
Aroclor 1242	53469-21-9	µg/kg		< 2.3 U	< 3.2 U	< 2.7 UJ	< 2.7 UJ	< 4.5 U	< 3.9 U	< 3.5 U	< 3.5 U	< 250 U	< 3.0 U
Aroclor 1248	12672-29-6	µg/kg		< 2.3 U	< 3.2 U	< 2.7 UJ	< 2.7 UJ	< 4.5 U	< 3.9 U	< 3.5 U	< 3.5 U	< 250 U	< 3.0 U
Aroclor 1254	11097-69-1	µg/kg		< 2.3 U	< 3.2 U	< 2.7 UJ	1.6 J	< 4.5 U	< 3.9 U	< 3.5 U	< 3.5 U	< 250 U	< 3.0 U
Aroclor 1260	11096-82-5	µg/kg		< 2.3 UJ	35 J	< 2.7 UJ	< 2.7 UJ	4.9	7.9 J	10	9.3	430 J	< 3.0 U
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		< 2.3 UJ	35	< 2.7 UJ	1.6	4.9	28	33	21	5100	< 3 UJ
Pesticides													
2,4-DDD	53-19-0	µg/kg		0.047 JN	2.30	< 0.028 U	0.194 J	0.441 J	1.76 J	1.07 J	0.690 J	350 J	0.0375 J
2,4-DDE	3424-82-6	µg/kg		0.032 JN	0.623 J	< 0.015 U	0.0984 J	0.121 J	0.700 J	0.422 J	0.227 J	185 J	0.0152 J
2,4-DDT	789-02-6	µg/kg		< 0.026 UJ	0.141 J	< 0.029 UJ	< 0.041 UJ	< 0.034 U	< 0.039 U	< 0.038 U	0.0924 J	6.28 J	< 0.023 U
4,4'-DDD	72-54-8	µg/kg		0.142 J	7.56	0.057 JN	0.534 J	1.40 J	4.76	3.14	3.01	293 J	0.0500 J
4,4'-DDE	72-55-9	µg/kg		0.434 J	5.30	0.0614 J	3.61 J	3.67	14.5 J	9.43 J	6.28	2470	0.0669 J
4,4'-DDT	50-29-3	µg/kg		< 0.060 UJ	0.466 J	0.162 J	0.190 J	0.243 J	0.331 J	0.221 J	0.218 J	9.76 J	0.149 J
DDx (b)	T_DDx (PDI)	µg/kg		0.685	16.4	0.295	4.65	5.89	22.1	14.3	10.5	3310	0.33
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		0.90 J	190	3.1	1.7 J	< 110 U	< 100 U	7.7 J	10 J	1100	1.7 J
Acenaphthene	83-32-9	µg/kg		0.90 J	350	1.0 J	7.6	< 110 U	< 100 U	6.8 J	9.8 J	990	< 14 U
Acenaphthylene	208-96-8	µg/kg		0.94 J	90	1.0 J	2.7 J	< 110 U	14 J	6.1 J	8.2 J	760	< 14 U
Anthracene	120-12-7	µg/kg		0.77 J	410	0.26 J	0.64 J	< 110 U	< 100 U	5.8 J	2.9 J	1700	< 14 U
Benz(a)anthracene	56-55-3	µg/kg		1.8 J	360	< 1.2 U	2.1 J	46 J	61 J	44	35	520	< 14 U
Benzo(a)pyrene	50-32-8	µg/kg		1.6 J	260	< 1.2 U	< 3.8 U	35 J	52 J	36 J	28	540	< 14 U
Benzo(b)fluoranthene	205-99-2	µg/kg		2.0 J	380	< 1.2 U	2.8 J	80 J	100	62	51	550	3.1 J
Benzo(g,h,i)perylene	191-24-2	µg/kg		2.3 J	230	< 1.2 U	1.3 J	45 J	50 J	32 J	26	420	< 14 U
Benzo(k)fluoranthene	207-08-9	µg/kg		0.62 J	110	< 1.2 U	0.77 J	27 J	47 J	23 J	15 J	250	< 14 U
Chrysene	218-01-9	µg/kg		2.5 J	430	< 1.2 U	2.0 J	78 J	77 J	60	44	900	< 14 U
Dibenz(a,h)anthracene	53-70-3	µg/kg		0.42 J	41 J	< 1.2 U	< 3.8 U	< 110 U	< 100 UJ	< 43 U	3.0 J	< 230 U	< 14 U
Fluoranthene	206-44-0	µg/kg		3.0 J	910	0.83 J	2.4 J	150	210	170	91	1700	< 14 U
Fluorene	86-73-7	µg/kg		0.32 J	150	0.36 J	0.93 J	15 J	22 J	22 J	15 J	3200	< 14 U
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		1.4 J	230	< 1.2 U	1.6 J	32 J	48 J	29 J	25	350	< 14 U
Naphthalene	91-20-3	µg/kg		1.8 J	610	2.2	3.1 J	< 110 U	< 100 U	8.4 J	< 18 U	600	3.6 J
Phenanthrene	85-01-8	µg/kg		2.7 J	1700	1.3	3.8	100 J	150	140	94	7400	4.1 J
Pyrene	129-00-0	µg/kg		5.3 J	1300	1.9	3.2 J	100 J	180	160	94	2400	3.4 J
Total PAHs (b)	T_PAH (PDI)	µg/kg		29	7800	13	39	820	1100	830	560	23000	30
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		2.5	400	< 1.2 U	2.6	110	120	71	42	800	7.3

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S218	SC-S219	SC-S219	SC-S219	SC-S221	SC-S221	SC-S221	SC-S221	SC-S222	SC-S222
		Sample ID	PDI-SC-S218-8TO9.6	PDI-SC-S219-0TO2	PDI-SC-S219-2TO4	PDI-SC-S219-4TO5.2	PDI-SC-S221-0TO2	PDI-SC-S221-2TO4	PDI-SC-S221-4TO6	PDI-SC-S221-6TO8.1	PDI-SC-S222-0TO2	PDI-SC-S222-11.2TO13.2
		Sample Date	8/2/2018	8/7/2018	8/7/2018	8/7/2018	8/3/2018	8/3/2018	8/3/2018	8/3/2018	8/7/2018	8/7/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	8-9.6 ft	0-2 ft	2-4 ft	4-5.2 ft	0-2 ft	2-4 ft	4-6 ft	6-8.1 ft	0-2 ft	11.2-13.2 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	79.6	60.9	74.3	71.9	43.8	49.7	55.0	55.2	39.8	66.0
Total Solids@70C	TSOLID70	%	81	68	75	73	47	50	56	57	41	67
Total Solids (%)	%SOLID	%	79.7	56.8	73.5	73.4	45	49.3	55.8	53.9	42	67.3
Clay	GS-Clay	%	1.6	7.2	0	7.1	19.7	19.9	19.2	20.3	7.7	7.4
Gravel	GS-Gravel	%	0	8.9	0.3	0	0	0	0	0	0	0
Sand, Coarse	GS-Csand	%	0.3	2.7	0.1	0	0	0.1	0	0	0.4	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	81.49	30.35	93.13	38.3					25.21	3.192
Sand, Fine (#230) (d)	GS-Fsand	%	81.7	31.2	93.6	43.9	7.5	8.8	14.1	15.6	30.7	5.0
Sand, Medium	GS-Msand	%	12.7	21.7	1.0	2.0	0.2	0.1	0.1	0.1	1.0	0.1
Silt (#200) (d)	GS-Silt-200	%	3.903	29.14	5.469	52.59					65.68	89.30
Silt (#230) (d)	GS-Silt	%	3.7	28.3	5.0	47.0	72.6	71.1	66.5	64.1	60.2	87.5
Percent Fines (e)	GS-FINES	%	5.503	36.34	5.469	59.69	94.4	93.3	89.4	88	73.38	96.7
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	770 J	20000	1700 J	7300	36000	35000	27000	30000	300000	20000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S222	SC-S222	SC-S222	SC-S222	SC-S222	SC-S222	SC-S222	SC-S226	SC-S226
			Sample ID	PDI-SC-S222-13.2TO15.2	PDI-SC-S222-2TO4	PDI-SC-S222-4TO5	PDI-SC-S222-5TO7.2	PDI-SC-S222-5TO7.2D	PDI-SC-S222-7.2TO9.2	PDI-SC-S222-9.2TO11.2	PDI-SC-S226-0TO2	PDI-SC-S226-10TO12
			Sample Date	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/6/2018	8/6/2018
			Sample Type Code	N	N	N	N	FD	N	N	N	N
			Depth	13.2-15.2 ft	2-4 ft	4-5 ft	5-7.2 ft	5- ft	7.2-9.2 ft	9.2-11.2 ft	0-2 ft	10-12 ft
Chemical		**CAS_RN**	**Units**									
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.0017 J+	3.5 J	2.8 J	0.035 J	0.033	0.0031 J	0.0025 J	0.11	0.21
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.00031 J+	0.74 J	1.2 J	0.0089 J	0.0084	0.00051 J	0.00035 J+	0.018 JN	0.032
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.00017 J+	0.044 J	0.069 J	< 0.00066 UJ	0.00050 J+	0.00018 JN	0.00020 JN	0.0013 J	0.0019 J
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.00013 JN	0.012	0.0065	0.00027 J+	0.00024 J+	0.00014 J+	< 0.000058 U	0.0010 JN	0.0020 J
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	< 0.000034 U	0.029	0.033 J	< 0.00021 U	< 0.00011 U	< 0.000047 U	< 0.000044 U	< 0.00072 U	0.0034 J
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.000091 J	0.078	0.082	0.00078 JN	0.00080 J	0.00013 J	< 0.000054 U	0.0043 J	0.017
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	< 0.000034 U	0.026	0.048 J	0.00036 J	< 0.00011 U	< 0.000044 U	< 0.000044 U	< 0.00067 U	0.0021 J
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.00018 J	0.034	0.023	0.00054 J	0.00065 J	0.00022 JN	< 0.000051 U	0.0029 J	0.0060
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00017 U	< 0.0024 U	< 0.017 UJ	< 0.00016 U	< 0.00016 U	0.00023 J+	0.00018 JN	< 0.00034 U	< 0.00029 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.000031 U	0.0099	0.0081	< 0.000088 U	0.00014 JN	< 0.000037 U	< 0.000041 U	0.00065 J	0.0015 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	< 0.000020 U	0.0049	< 0.0040 UJ	< 0.000075 U	0.000061 JN	< 0.000028 U	< 0.000027 U	0.00040 J	0.00089 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	< 0.000029 U	0.0072	0.016 J	< 0.00017 U	0.00012 J	< 0.000037 U	< 0.000036 U	< 0.00054 U	0.0013 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	< 0.000022 U	0.0058	0.0094 J	< 0.000077 U	< 0.000056 U	< 0.000029 U	< 0.000028 U	0.00058 J	0.0015 J
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.000016 U	0.036	0.0067	0.00030 JN	0.00027 JN	< 0.000024 U	< 0.000021 U	0.00036 JN	0.00056 JN
2,3,7,8-TCDF		51207-31-9	µg/kg	0.000026 JN	0.0077 JN	0.0082 J	0.00021 J	0.00020 J	0.000031 J	< 0.000013 U	0.00091 J	0.0034
OCDD		3268-87-9	µg/kg	0.019 J+	53 J	30 J	0.63	0.59	0.040	0.030	1.1	2.1
OCDF		39001-02-0	µg/kg	0.0014 J	7.1 J	5.1 J	0.087	0.081	0.0033 J	0.0024 J	0.079	0.11
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.000086	0.13	0.091	0.0012	0.0012	0.00014	0.000079	0.0038	0.0092
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.000071	0.13	0.091	0.00094	0.00096	0.00012	0.000059	0.0035	0.0089
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.000055	0.13	0.091	0.00079	0.00082	0.0001	0.000038	0.0033	0.0086
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016		12674-11-2	µg/kg	< 3.2 U	1200	< 280 U	< 2.5 U	< 2.4 U	< 3.4 UJ	1.4 J	< 4.4 UJ	< 3.5 UJ
Aroclor 1221		11104-28-2	µg/kg	< 3.2 UJ	< 350 U	< 280 U	< 2.5 UJ	< 2.4 UJ	< 3.4 UJ	< 3.0 U	< 4.4 UJ	< 3.5 UJ
Aroclor 1232		11141-16-5	µg/kg	< 3.2 U	< 350 U	< 280 U	37 J	26 J	< 3.4 UJ	< 3.0 U	< 4.4 UJ	< 3.5 UJ
Aroclor 1242		53469-21-9	µg/kg	1.5 J	< 350 U	< 280 U	< 2.5 U	< 2.4 U	< 3.4 UJ	< 3.0 U	< 4.4 UJ	< 3.5 UJ
Aroclor 1248		12672-29-6	µg/kg	< 3.2 U	< 350 U	< 280 U	27	19	< 3.4 UJ	< 3.0 U	< 4.4 UJ	< 3.5 UJ
Aroclor 1254		11097-69-1	µg/kg	< 3.2 U	< 350 U	< 280 U	< 2.5 U	< 2.4 U	< 3.4 UJ	< 3.0 U	< 4.4 UJ	< 3.5 UJ
Aroclor 1260		11096-82-5	µg/kg	< 3.2 U	300 J	180 J	< 2.5 U	< 2.4 U	< 3.4 UJ	< 3.0 UJ	< 4.4 UJ	3.8 J
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	1.5	1500	180	64	45	< 3.4 UJ	1.4	< 4.4 UJ	3.8
Pesticides												
2,4-DDD		53-19-0	µg/kg	0.0449 J	70.0 J	106 J	0.670 J	1.46 J	< 0.040 U	0.057 JN	0.399 J	0.351 J
2,4-DDE		3424-82-6	µg/kg	0.023 JN	25.8 J	37.6 J	0.418 J	0.661 J	0.0832 J	0.0419 J	0.142 J	0.160 J
2,4-DDT		789-02-6	µg/kg	< 0.023 U	1.8 JN	2.4 JN	< 0.038 UJ	0.040 JN	< 0.051 U	< 0.020 UJ	0.116 J	0.125 J
4,4'-DDD		72-54-8	µg/kg	0.0809 J	99.2 J	286 J	1.49	4.42	< 0.051 U	0.0679 J	1.24 J	0.903 J
4,4'-DDE		72-55-9	µg/kg	0.277 J	514 J	2080	10.8 J	23.8 J	0.184 J	0.296 J	3.61	3.96
4,4'-DDT		50-29-3	µg/kg	0.075 JN	< 4.5 UJ	7.08 J	< 0.069 UJ	0.102 J	0.332 J	0.141 J	0.333 J	0.433 J
DDx	(b)	T_DDx (PDI)	µg/kg	0.512	713	2520	13.4	30.5	0.625	0.614	5.84	5.93
Semivolatile Organics												
2-Methylnaphthalene		91-57-6	µg/kg	< 15 U	400	300	5.6	4.9	1.0 J	1.5 J	< 100 U	26 J
Acenaphthene		83-32-9	µg/kg	< 15 U	380	530	11	11	20	< 15 U	< 100 U	22 J
Acenaphthylene		208-96-8	µg/kg	< 15 U	150 J	270	4.6	3.2 J	< 8.2 U	< 15 U	39 J	43 J
Anthracene		120-12-7	µg/kg	< 15 U	430	610	7.3	4.2	1.2 J	< 15 U	14 J	38 J
Benz(a)anthracene		56-55-3	µg/kg	2.8 J	430	550	9.4	4.6	2.7 J	3.3 J	40 J	77 J
Benzo(a)pyrene		50-32-8	µg/kg	< 15 U	390	500	10	4.9	< 8.2 U	< 15 U	34 J	60 J
Benzo(b)fluoranthene		205-99-2	µg/kg	3.0 J	540	650	12	5.6	3.7 J	4.0 J	63 J	90
Benzo(g,h,i)perylene		191-24-2	µg/kg	< 15 U	350	620	13	6.8	1.6 J	< 15 U	26 J	49 J
Benzo(k)fluoranthene		207-08-9	µg/kg	< 15 U	160 J	180	4.4	2.5 J	1.3 J	< 15 U	19 J	43 J
Chrysene		218-01-9	µg/kg	< 15 U	950	1100	18 J	7.9 J	2.9 J	< 15 U	59 J	110
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 15 U	52 J	89 J	1.4 J	< 3.5 U	< 8.2 U	< 15 U	< 100 U	12 J
Fluoranthene		206-44-0	µg/kg	< 15 U	1400	1700	26 J	14 J	3.8 J	< 15 U	140	190
Fluorene		86-73-7	µg/kg	1.8 J	330	140	4.3	3.2 J	1.3 J	< 15 U	13 J	33 J
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	< 15 U	300	360	8.3	4.2	2.1 J	< 15 U	33 J	45 J
Naphthalene		91-20-3	µg/kg	3.2 J	310	390	7.0	6.4	3.0 J	4.2 J	35 J	91
Phenanthrene		85-01-8	µg/kg	5.9 J	2100	3000	41	36	6.3 J	5.8 J	80 J	160
Pyrene		129-00-0	µg/kg	5.1 J	1900	2500	44 J	22 J	7.2 J	4.9 J	130	220
Total PAHs	(b)	T_PAH (PDI)	µg/kg	37	11000	13000	230	140	66	39	830	1300
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	8.1	570	750	14	8.1	5	8.2	98	94

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S222	SC-S222	SC-S222	SC-S222	SC-S222	SC-S222	SC-S222	SC-S226	SC-S226
		Sample ID	PDI-SC-S222-13.2TO15.2	PDI-SC-S222-2TO4	PDI-SC-S222-4TO5	PDI-SC-S222-5TO7.2	PDI-SC-S222-5TO7.2D	PDI-SC-S222-7.2TO9.2	PDI-SC-S222-9.2TO11.2	PDI-SC-S226-0TO2	PDI-SC-S226-10TO12
		Sample Date	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/7/2018	8/6/2018	8/6/2018
		Sample Type Code	N	N	N	N	FD	N	N	N	N
		Depth	13.2-15.2 ft	2-4 ft	4-5 ft	5-7.2 ft	5- ft	7.2-9.2 ft	9.2-11.2 ft	0-2 ft	10-12 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	63.0	56.4	64.5	79.8	79.9	58.3	64.3	44.3	57.2
Total Solids@70C	TSOLID70	%	65	57	61	79	79	58	67	45	58
Total Solids (%)	%SOLID	%	63.5	58.9	60	77.4	80.2	59	65.7	48.6	57.3
Clay	GS-Clay	%	11.8	9.1	6.2	0		10.4	7.9	15.6	13.6
Gravel	GS-Gravel	%	0	0	0.6	0		0	0	0	0
Sand, Coarse	GS-Csand	%	0.1	0.1	0.3	0		0.2	0.3	0	0.5
Sand, Fine (#200) (d)	GS-Fsand-200	%	7.426	20.61	34.71	68.21		11.05	9.089	7.48	4.725
Sand, Fine (#230) (d)	GS-Fsand	%	9.7	26.9	37.6	68.5		13.5	13.5	10.2	7.3
Sand, Medium	GS-Msand	%	0.2	1.0	6.3	27.5		0.8	0.2	0.2	0.2
Silt (#200) (d)	GS-Silt-200	%	80.47	69.18	51.78	4.287		77.54	82.51	76.71	81.07
Silt (#230) (d)	GS-Silt	%	78.2	62.9	48.9	4.0		75.1	78.1	74.0	78.5
Percent Fines (e)	GS-FINES	%	92.27	78.28	57.98	4.287		87.94	90.41	92.31	94.67
Liquid Limit	GS-LL	None									
Plasticity Index	GS-PI	None									
Plasticity Limit	GS-PL	None									
Total Organic Carbon	TOC	mg/kg	22000	60000	74000	1100 J	1200 J	35000	22000	45000	40000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S226	SC-S226	SC-S226	SC-S226	SC-S226	SC-S226	SC-S228	SC-S229	SC-S229	SC-S229
		Sample ID	PDI-SC-S226-12TO14	PDI-SC-S226-14TO15.8	PDI-SC-S226-2TO4	PDI-SC-S226-4TO6	PDI-SC-S226-6TO8	PDI-SC-S226-8TO10	PDI-SC-S228-0TO2.3	PDI-SC-S229-0TO2	PDI-SC-S229-2TO4	PDI-SC-S229-4TO6
		Sample Date	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/9/2018	8/9/2018	8/9/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	12-14 ft	14-15.8 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2.3 ft	0-2 ft	2-4 ft	4-6 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.16	0.33	0.11	0.068	0.30	0.18	0.023	0.41	0.13	0.019
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.022	0.049	0.020	0.012	0.045	0.031	0.0033	0.078	0.041	0.0071
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0015 J	0.0029 J	0.0012 J	0.00084 J	0.0026 J	0.0018 J	< 0.00029 U	0.0060	0.0021 J	0.00053 J
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0017 J	0.0028 J	0.0010 J	0.00079 J	0.0022 J	0.0018 J	0.00039 J+	0.0042 J	0.0018 J	0.00038 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0031 J	0.0053	0.0018 J	< 0.00036 U	0.0035 J	0.0024 J	0.00045 J	0.012	0.0027 J	0.00045 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.012	0.017	0.0039 J	0.0030 J	0.010	0.015	0.00099 J	0.019	0.0045	0.00077 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0018 J	0.0033 J	0.00094 J	< 0.00036 U	0.0022 J	0.0015 J	< 0.00016 U	0.0065	0.0036 J	0.00067 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0045	0.0073	0.0027 J	0.0019 J	0.0051	0.0056	0.00076 J	0.0099	0.0030 J	0.00045 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00030 U	0.00032 JN	< 0.00019 U	< 0.00020 U	0.00044 J+	< 0.00036 U	< 0.00011 U	< 0.00082 U	0.00038 J	< 0.00018 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0012 J	0.0018 J	0.00055 J	0.00044 J	0.0011 J	0.0012 J	< 0.000070 U	0.0023 J	< 0.00042 U	< 0.00021 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00083 J	0.0021 J	0.00039 J	< 0.00014 U	0.00093 J	0.00064 JN	0.00017 J	0.0021 J	< 0.00036 U	< 0.00015 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0012 J	0.0022 J	0.00045 J	< 0.00030 U	0.0011 J	0.00076 J	0.00020 J	0.0029 J	0.0011 J	< 0.00018 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0013 J	0.0039 J	0.00049 JN	0.00029 JN	0.0012 J	0.0010 J	< 0.000061 U	0.0027 J	0.00057 JN	< 0.00015 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00068 J	0.0010	0.00070 J	0.00038 JN	0.0014	0.00097	0.00014 JN	0.0011 JN	0.00034 JN	< 0.00014 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0021 JN	0.0050	0.00083 J	0.00065 JN	0.0026	0.0097	0.00045 J	0.0047	0.00061 J	< 0.00011 U
OCDD	3268-87-9	µg/kg	1.5	3.1	1.3	0.77	3.3	1.9	0.25	4.4	2.3	0.38
OCDF	39001-02-0	µg/kg	0.071	0.18	0.15	0.059	0.22	0.12	0.0096	0.23	0.12	0.021
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0073	0.013	0.0043	0.0026	0.01	0.0089	0.00084	0.017	0.0049	0.00076
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0073	0.013	0.0042	0.0023	0.01	0.0089	0.00074	0.017	0.0044	0.00069
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0072	0.013	0.0042	0.0021	0.01	0.0089	0.00067	0.017	0.0042	0.00058
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	< 3.5 UJ	< 3.4 U	< 3.9 UJ	< 3.3 UJ	< 3.8 U	< 3.7 UJ	< 5.0 U	< 4.5 UJ	< 3.2 UJ	< 2.6 UJ
Aroclor 1221	11104-28-2	µg/kg	< 3.5 UJ	< 3.4 U	< 3.9 UJ	< 3.3 UJ	< 3.8 U	< 3.7 UJ	< 5.0 U	< 4.5 U	< 3.2 U	< 2.6 U
Aroclor 1232	11141-16-5	µg/kg	< 3.5 UJ	< 3.4 U	< 3.9 UJ	< 3.3 UJ	< 3.8 U	< 3.7 UJ	< 5.0 U	< 4.5 U	< 3.2 U	< 2.6 U
Aroclor 1242	53469-21-9	µg/kg	5.6 J	< 3.4 U	10 J	2.3 J	< 3.8 U	< 3.7 UJ	< 5.0 U	< 4.5 U	< 3.2 U	< 2.6 U
Aroclor 1248	12672-29-6	µg/kg	< 3.5 UJ	< 3.4 U	< 3.9 UJ	< 3.3 UJ	35 J	6.9 J	< 5.0 U	< 4.5 U	< 3.2 U	< 2.6 U
Aroclor 1254	11097-69-1	µg/kg	< 3.5 UJ	< 3.4 U	< 3.9 UJ	< 3.3 UJ	< 3.8 U	< 3.7 UJ	< 5.0 U	130 J	< 3.2 U	< 2.6 U
Aroclor 1260	11096-82-5	µg/kg	6.3 J	13 J	3.9 J	2.3 J	6.7 J	3.9 J	16 J	< 4.5 U	24	2.4 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	12	13	14	4.6	42	11	16	130	24	2.4
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.567 J	0.659 J	0.505 J	0.677 J	1.45 J	0.430 J	0.334 J	0.673 J	1.64 J	0.0570 J
2,4-DDE	3424-82-6	µg/kg	0.214 J	0.410 J	0.258 J	0.221 J	0.783 J	0.222 J	0.0446 J	0.448 J	0.345 J	0.0218 J
2,4-DDT	789-02-6	µg/kg	0.0796 J	0.131 J	0.125 J	0.116 J	0.10 JN	0.0610 J	0.148 J	0.199 J	< 0.054 UJ	< 0.025 UJ
4,4'-DDD	72-54-8	µg/kg	1.93	2.01	1.39 J	2.40	3.53	1.17 J	0.845 J	1.88 J	5.16 J	0.179 J
4,4'-DDE	72-55-9	µg/kg	5.52	8.21	5.00	5.13	13.0	4.70	0.399 J	6.89	3.80	0.159 J
4,4'-DDT	50-29-3	µg/kg	0.248 J	0.423 J	0.313 J	0.307 J	0.393 J	0.235 J	0.561 J	0.444 J	0.41 JN	0.097 JN
DDx (b)	T_DDx (PDI)	µg/kg	8.56	11.8	7.59	8.85	19.3	6.82	2.33	10.5	11.4	0.526
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	26 J	47 J	12 J	8.5 J	36 J	49 J	< 120 UJ	35 J	34	3.1
Acenaphthene	83-32-9	µg/kg	28 J	61 J	15 J	17 J	30 J	28 J	< 120 UJ	47 J	21	1.5
Acenaphthylene	208-96-8	µg/kg	49 J	77 J	< 96 U	28 J	49 J	77 J	< 120 UJ	38 J	26	2.4
Anthracene	120-12-7	µg/kg	53 J	120	18 J	16 J	44 J	38 J	16 J	63 J	39	3.0
Benz(a)anthracene	56-55-3	µg/kg	85 J	150	39 J	27 J	83 J	60 J	19 J	150	97	4.7
Benzo(a)pyrene	50-32-8	µg/kg	63 J	110	35 J	35 J	61 J	51 J	38 J	150	79	4.7
Benzo(b)fluoranthene	205-99-2	µg/kg	100	170	50 J	37 J	92	75 J	< 120 UJ	290	120	6.7
Benzo(g,h,i)perylene	191-24-2	µg/kg	51 J	72 J	29 J	24 J	54 J	41 J	20 J	150	94	6.9
Benzo(k)fluoranthene	207-08-9	µg/kg	51 J	56 J	17 J	15 J	44 J	36 J	< 120 UJ	76 J	47	2.3
Chrysene	218-01-9	µg/kg	120	180	62 J	38 J	100	110	56 J	230	130	6.2
Dibenz(a,h)anthracene	53-70-3	µg/kg	14 J	17 J	< 96 U	< 81 U	< 91 U	< 89 U	< 120 UJ	< 110 U	11 J	0.99 J
Fluoranthene	206-44-0	µg/kg	240	500	110	79 J	250	220	< 120 UJ	430	210	12
Fluorene	86-73-7	µg/kg	37 J	70 J	18 J	12 J	53 J	40 J	< 120 UJ	41 J	23	2.0
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	56 J	65 J	34 J	25 J	49 J	42 J	< 120 UJ	150	92	6.4
Naphthalene	91-20-3	µg/kg	79 J	130	42 J	32 J	68 J	170	< 120 UJ	110	65	6.8
Phenanthrene	85-01-8	µg/kg	200	400	81 J	67 J	170	200	46 J	250	180	12
Pyrene	129-00-0	µg/kg	250	480	120	83	250	270	67 J	550	310	19
Total PAHs (b)	T_PAH (PDI)	µg/kg	1500	2700	780	580	1500	1600	380	2800	1600	100
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	100	170	96	85	130	110	100	260	120	7.5

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S226	SC-S226	SC-S226	SC-S226	SC-S226	SC-S226	SC-S228	SC-S229	SC-S229	SC-S229
		Sample ID	PDI-SC-S226-12TO14	PDI-SC-S226-14TO15.8	PDI-SC-S226-2TO4	PDI-SC-S226-4TO6	PDI-SC-S226-6TO8	PDI-SC-S226-8TO10	PDI-SC-S228-0TO2.3	PDI-SC-S229-0TO2	PDI-SC-S229-2TO4	PDI-SC-S229-4TO6
		Sample Date	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/9/2018	8/9/2018	8/9/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	12-14 ft	14-15.8 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2.3 ft	0-2 ft	2-4 ft	4-6 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	56.6	55.9	51.1	57.4	52.2	52.7	80.3	44.1	63.0	74.4
Total Solids@70C	TSOLID70	%	57	57	53	57	53	54	85	44	64	75
Total Solids (%)	%SOLID	%	57.7	56	53.2	58.4	54.1	53.4	81	43.8	60.4	74.1
Clay	GS-Clay	%	15.5	14.4	17.6	14.3	15.4	16.0	1.5	23.9	9.9	1.8
Gravel	GS-Gravel	%	0	0	0	0	0	0	5.9	0	0	0.7
Sand, Coarse	GS-Csand	%	0.4	1.1	0	0	0.1	2.7	2.9	0.1	1.2	0.4
Sand, Fine (#200) (d)	GS-Fsand-200	%	6.273	7.235	8.392	13.59	9.145	6.559	51.11	10.88	46.58	70.02
Sand, Fine (#230) (d)	GS-Fsand	%	8.9	9.7	12.0	17.9	11.9	9.3	53.0	11.8	48.6	73.4
Sand, Medium	GS-Msand	%	0.1	0.5	0.2	0.1	0.2	0.1	27.4	2.0	9.1	6.1
Silt (#200) (d)	GS-Silt-200	%	77.82	76.86	73.80	72.10	75.15	74.54	11.18	63.11	33.21	20.87
Silt (#230) (d)	GS-Silt	%	75.2	74.4	70.2	67.8	72.4	71.8	9.3	62.2	31.2	17.5
Percent Fines (e)	GS-FINES	%	93.32	91.26	91.4	86.4	90.55	90.54	12.68	87.01	43.11	22.67
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	41000	42000	41000	33000	46000	49000	3800	46000	22000	3800

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S229	SC-S229	SC-S229	SC-S230	SC-S230	SC-S230	SC-S230	SC-S230	SC-S230	SC-S232
			Sample ID	PDI-SC-S229-6TO8	PDI-SC-S229-8TO9.9	PDI-SC-S229-9.9TO12.5	PDI-SC-S230-0TO2	PDI-SC-S230-10TO11.4	PDI-SC-S230-2TO4	PDI-SC-S230-4TO6	PDI-SC-S230-6TO8	PDI-SC-S230-8TO10	PDI-SC-S232-0TO2
			Sample Date	8/9/2018	8/9/2018	8/9/2018	8/10/2018	8/8/2018	8/10/2018	8/10/2018	8/10/2018	8/8/2018	8/16/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	6-8 ft	8-9.9 ft	9.9-12.5 ft	0-2 ft	10-11.4 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.00060 JN	< 0.00014 U	0.0011 J	0.32	0.50	0.55	0.34	0.43	0.46	0.38
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	< 0.00015 U	< 0.00011 U	< 0.00020 U	0.052	0.082	0.13	0.064	0.078	0.076	0.13
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	< 0.00017 U	< 0.00014 U	< 0.00023 U	0.0035 J	0.0058	0.0074	0.0042 J	0.0052	0.0053	0.0077
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	< 0.00029 U	< 0.00015 U	< 0.00025 U	0.0032 J	0.0037 J	0.0045 J	0.0030 J	0.0035 J	0.0037 J	0.0038 J
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	< 0.00024 U	< 0.00015 U	< 0.00023 U	0.0050 J	0.0060	0.010	0.0046 J	0.0049	0.0051	0.0057
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	< 0.00026 U	< 0.00015 U	< 0.00023 U	0.021	0.022	0.027	0.018	0.019	0.020	0.013
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	< 0.00023 U	< 0.00014 U	< 0.00023 U	0.0045 J	0.0078	0.011	0.0052	0.0075	0.0071	0.014
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	< 0.00025 U	< 0.00014 U	< 0.00022 U	0.0083	0.0088	0.0097	0.0077	0.0078	0.0085	0.0066
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00018 U	0.00020 JN	< 0.00019 U	0.00051 J+	< 0.00054 U	< 0.00090 U	0.00054 J+	< 0.00055 U	0.00046 J+	0.0012 J+
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	< 0.00026 U	< 0.00029 U	< 0.00034 U	0.0023 J	0.0020 J	0.0025 J	0.0018 J	0.0018 J	0.0018 J	0.0018 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	< 0.00019 U	< 0.00018 U	< 0.00020 U	0.00093 J	0.0022 J	0.0038 J	0.0017 J	0.0022 J	0.0021 J	0.0018 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	< 0.00017 U	< 0.00011 U	< 0.00019 U	0.0015 J	0.0019 J	0.0023 J	0.0015 J	0.0017 J	0.0018 J	0.0020 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	< 0.00024 U	< 0.00018 U	< 0.00021 U	0.0015 J	0.0023 J	0.0034 J	0.0016 J	0.0019 J	0.0019 J	0.0018 J
2,3,7,8-TCDD		1746-01-6	µg/kg	< 0.00016 U	< 0.00015 U	< 0.00016 U	0.0012	0.0013	0.0013	0.00093 J	0.0014	0.0012	0.0026
2,3,7,8-TCDF		51207-31-9	µg/kg	< 0.00010 U	< 0.000080 U	< 0.000097 U	0.0053	0.0028	0.0044	0.0023	0.0022 JN	0.0025	0.0013
OCDD		3268-87-9	µg/kg	0.0070	0.0033 J	0.011	3.9	7.4 J	6.9 J	4.1 J	5.9 J	6.7 J	5.8 J
OCDF		39001-02-0	µg/kg	< 0.00033 U	< 0.00026 U	< 0.00031 U	0.17	0.31	0.37	0.20	0.27	0.27	0.40
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.00014	0.00017	0.00018	0.014	0.018	0.021	0.013	0.016	0.016	0.017
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.00013	0.00015	0.00018	0.014	0.018	0.021	0.013	0.016	0.016	0.017
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.0000021	0.00000099	0.000014	0.014	0.018	0.021	0.013	0.015	0.016	0.017
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 2.7 UJ	< 2.6 UJ	< 2.7 UJ	< 4.6 UJ	< 3.5 U	< 4.1 UJ	< 3.6 U	< 3.5 U	< 3.6 U	10
Aroclor 1221		11104-28-2	µg/kg	< 2.7 U	< 2.6 U	< 2.7 U	< 4.6 UJ	< 3.5 U	< 4.1 UJ	< 3.6 U	< 3.5 U	< 3.6 U	< 3.3 U
Aroclor 1232		11141-16-5	µg/kg	< 2.7 U	< 2.6 U	< 2.7 U	< 4.6 UJ	< 3.5 U	< 4.1 UJ	< 3.6 U	< 3.5 U	< 3.6 U	< 3.3 UJ
Aroclor 1242		53469-21-9	µg/kg	< 2.7 U	< 2.6 U	< 2.7 U	< 4.6 UJ	< 3.5 U	< 4.1 UJ	< 3.6 U	< 3.5 U	< 3.6 U	< 3.3 U
Aroclor 1248		12672-29-6	µg/kg	< 2.7 U	< 2.6 U	< 2.7 U	< 4.6 UJ	< 3.5 U	< 4.1 UJ	< 3.6 U	< 3.5 U	< 3.6 U	< 3.3 U
Aroclor 1254		11097-69-1	µg/kg	< 2.7 U	< 2.6 U	< 2.7 U	< 4.6 UJ	< 3.5 U	< 4.1 UJ	< 3.6 U	< 3.5 U	< 3.6 U	< 3.3 U
Aroclor 1260		11096-82-5	µg/kg	< 2.7 U	< 2.6 U	< 2.7 U	13 J	55	27 J	32	45 J	35	36
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	< 2.7 UJ	< 2.6 UJ	< 2.7 UJ	13	55	27	32	45	35	46
Pesticides													
2,4-DDD		53-19-0	µg/kg	< 0.022 UJ	< 0.029 U	< 0.082 U	0.516 J	1.34 J	1.16 J	0.659 J	0.650 J	0.890 J	2.66
2,4-DDE		3424-82-6	µg/kg	0.013 JN	0.0206 J	0.0790 J	0.179 J	0.383 J	0.416 J	0.214 J	0.284 J	0.284 J	1.25 J
2,4-DDT		789-02-6	µg/kg	< 0.021 UJ	< 0.028 U	< 0.037 U	0.078 JN	0.11 JN	0.158 J	0.118 J	0.084 JN	0.152 J	< 0.058 UJ
4,4'-DDD		72-54-8	µg/kg	< 0.021 UJ	< 0.029 U	< 0.038 U	1.69 J	4.56	3.10	2.27	2.11	2.86	9.60
4,4'-DDE		72-55-9	µg/kg	< 0.016 U	0.0287 J	< 0.063 U	3.92	8.45	6.43	4.35	5.26	6.74	15.7 J
4,4'-DDT		50-29-3	µg/kg	< 0.027 UJ	< 0.047 U	< 0.082 U	0.171 J	0.637 J	0.502 J	0.243 J	0.221 J	0.341 J	0.41 JN
DDx	(b)	T_DDx (PDI)	µg/kg	0.0265	0.0728	0.12	6.55	15.5	11.8	7.85	8.61	11.3	29.6
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	0.56 J	0.46 J	< 1.4 U	55 J	73	92 J	75	64	64	150
Acenaphthene		83-32-9	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	86	89	91 J	68	90	61	150
Acenaphthylene		208-96-8	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	69	49	90 J	59	45	42 J	91
Anthracene		120-12-7	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	66	72	120	63	110	48	92
Benz(a)anthracene		56-55-3	µg/kg	0.45 J	0.30 J	0.21 J	74	170	200	90	150	120	140
Benzo(a)pyrene		50-32-8	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	77	130	190	92	130	86	160
Benzo(b)fluoranthene		205-99-2	µg/kg	1.1 J	0.76 J	< 1.4 U	100	180	260	140	170	120	170
Benzo(g,h,i)perylene		191-24-2	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	64	110	230	110	140	82	130
Benzo(k)fluoranthene		207-08-9	µg/kg	0.28 J	0.20 J	< 1.4 U	40 J	63	110	49	64	47	55 J
Chrysene		218-01-9	µg/kg	0.43 J	< 1.2 U	< 1.4 U	130	210	270	180	200	150	180
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	< 57 U	21 J	< 96 U	< 46 U	17 J	14 J	< 85 U
Fluoranthene		206-44-0	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	360	400	620	330	400	270	550
Fluorene		86-73-7	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	67	78	83 J	57	77	42 J	110
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	55 J	100	160	78	140	75	110
Naphthalene		91-20-3	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	170	100	210	150	110	77	400
Phenanthrene		85-01-8	µg/kg	< 1.4 U	< 1.2 U	< 1.4 U	360	370	570	350	410	240	550
Pyrene		129-00-0	µg/kg	0.85 J	0.44 J	0.34 J	410	440	800	440	510	330	750
Total PAHs	(b)	T_PAH (PDI)	µg/kg	5.1	3.4	2.7	2200	2700	4100	2400	2800	1900	3800
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	0.86	0.71	0.72	130	200	300	150	190	130	250

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S229	SC-S229	SC-S229	SC-S230	SC-S230	SC-S230	SC-S230	SC-S230	SC-S230	SC-S232
		Sample ID	PDI-SC-S229-6TO8	PDI-SC-S229-8TO9.9	PDI-SC-S229-9.9TO12.5	PDI-SC-S230-0TO2	PDI-SC-S230-10TO11.4	PDI-SC-S230-2TO4	PDI-SC-S230-4TO6	PDI-SC-S230-6TO8	PDI-SC-S230-8TO10	PDI-SC-S232-0TO2
		Sample Date	8/9/2018	8/9/2018	8/9/2018	8/10/2018	8/8/2018	8/10/2018	8/10/2018	8/10/2018	8/8/2018	8/16/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	6-8 ft	8-9.9 ft	9.9-12.5 ft	0-2 ft	10-11.4 ft	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	72.1	76.0	72.5	41.5	56.0	48.9	53.5	54.3	56.2	58.8
Total Solids@70C	TSOLID70	%	72	77	75	44	56	50	55	56	56	59
Total Solids (%)	%SOLID	%	72	74.7	66	43.3	56.4	47.7	53.8	55.1	55.8	55.7
Clay	GS-Clay	%	6.5	4.5	3.8	21.3	11.9	19.5	15.1	14.0	17.1	10.0
Gravel	GS-Gravel	%	0	0	0	0	0	0	0	0	2.4	0
Sand, Coarse	GS-Csand	%	0	0.3	0	0	0.5	1.0	0.3	0.2	0.5	0
Sand, Fine (#200) (d)	GS-Fsand-200	%	37.67	42.02	51.45	3.911	6.673	3.971	8.201	4.911	6.059	15.67
Sand, Fine (#230) (d)	GS-Fsand	%	44.3	46.8	55.6	11.0 L	9.9	5.1	10.0	6.9	9.3	20.1
Sand, Medium	GS-Msand	%	0.4	14.8	9.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Silt (#200) (d)	GS-Silt-200	%	55.42	38.47	35.54	74.58	80.72	75.32	76.09	80.78	73.74	74.12
Silt (#230) (d)	GS-Silt	%	48.8	33.7	31.4	67.5	77.5	74.2	74.3	78.8	70.5	69.7
Percent Fines (e)	GS-FINES	%	61.92	42.97	39.34	95.88	92.62	94.82	91.19	94.78	90.84	84.12
Liquid Limit	GS-LL	None										53
Plasticity Index	GS-PI	None										9
Plasticity Limit	GS-PL	None										44
Total Organic Carbon	TOC	mg/kg	6100	4300	4300	77000	68000	71000	61000	55000	58000	53000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S232	SC-S232	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238
			Sample ID	PDI-SC-S232-2TO4	PDI-SC-S232-4TO6.2	PDI-SC-S238-0TO2	PDI-SC-S238-10TO12.4	PDI-SC-S238-12.4TO13.4	PDI-SC-S238-2TO4	PDI-SC-S238-2TO4D	PDI-SC-S238-4TO6	PDI-SC-S238-6TO8	PDI-SC-S238-8TO10
			Sample Date	8/16/2018	8/16/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018
			Sample Type Code	N	N	N	N	N	N	FD	N	N	N
			Depth	2-4 ft	4-6.2 ft	0-2 ft	10-12.4 ft	12.4-13.4 ft	2-4 ft	2- ft	4-6 ft	6-8 ft	8-10 ft
Chemical		**CAS_RN**	**Units**										
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD		35822-46-9	µg/kg	0.12	0.017	0.29	0.48 J	0.56 J	0.39 J	0.38 J	0.51 J	0.31	0.56 J
1,2,3,4,6,7,8-HpCDF		67562-39-4	µg/kg	0.10	0.010	0.068	0.11	0.19	0.099 J	0.099	0.43	0.058	0.10
1,2,3,4,7,8,9-HpCDF		55673-89-7	µg/kg	0.0040 J+	0.00096 J+	0.0043 J	0.0062	0.0096	0.0064	0.0066	0.0077	0.0041	0.0071
1,2,3,4,7,8-HxCDD		39227-28-6	µg/kg	0.0010 J	0.00027 J+	0.0027 J	0.0037 JN	0.0048	0.0036 J	0.0031 J	0.0041 J	0.0025 J	0.0053 JN
1,2,3,4,7,8-HxCDF		70648-26-9	µg/kg	0.0038 J	0.00052 J+	0.0055	0.0093	0.012	0.0075 J	0.0097	0.012	0.0051	0.013
1,2,3,6,7,8-HxCDD		57653-85-7	µg/kg	0.0059	0.00092 J	0.016	0.021	0.021	0.017 J	0.017	0.022	0.014	0.022
1,2,3,6,7,8-HxCDF		57117-44-9	µg/kg	0.011	0.0015 J	0.0063	0.0097	0.014	0.014 J	0.014	0.013	0.0066	0.011
1,2,3,7,8,9-HxCDD		19408-74-3	µg/kg	0.0019 J	0.00057 J	0.0075	0.012	0.011	0.018	0.0085	0.012	0.0070	0.012
1,2,3,7,8,9-HxCDF		72918-21-9	µg/kg	< 0.00084 U	< 0.00068 U	< 0.00075 U	< 0.00097 U	< 0.0012 U	0.00078 J	< 0.00093 U	< 0.0012 U	< 0.00071 U	< 0.0011 U
1,2,3,7,8-PeCDD		40321-76-4	µg/kg	0.00077 J	0.00018 J	0.0019 J	0.0022 JN	0.0025 J	0.0024 J	< 0.00073 U	0.0024 J	0.0016 J	0.0029 J
1,2,3,7,8-PeCDF		57117-41-6	µg/kg	0.0012 J	0.00022 J+	0.0015 JN	0.0027 J	0.0021 J	0.0028 J	0.0027 J	0.0039 J	0.0016 J	0.0036 J
2,3,4,6,7,8-HxCDF		60851-34-5	µg/kg	0.0014 J	0.00030 JN	0.0020 J	0.0032 J	0.0041 J	0.0032 J	0.0028 J	0.0031 J	0.0018 J	0.0028 J
2,3,4,7,8-PeCDF		57117-31-4	µg/kg	0.0012 J	0.00032 J	0.0018 J	0.0027 J	0.0022 J	< 0.0014 UJ	0.0021 J	0.0032 J	0.0016 J	0.0028 J
2,3,7,8-TCDD		1746-01-6	µg/kg	0.0010	0.00012 JN	0.0015	0.0032	0.0013 JN	0.0013 JN	0.0017	0.0016	0.00091 JN	0.0016
2,3,7,8-TCDF		51207-31-9	µg/kg	0.0010	0.00068 J	0.0042	0.0029	0.0019	0.0024	0.0020	0.0036 JN	0.0024	0.0034 J
OCDD		3268-87-9	µg/kg	2.3	0.30	3.7	6.3 J	9.1 J	6.3 J	6.1 J	7.6 J	4.6 J	7.1 J
OCDF		39001-02-0	µg/kg	0.17	0.018	0.26	0.32	0.53	0.29	0.27	0.43	0.25	0.28
TCDD-TEQ	(b)	T_DF_TEQ (PDI)	µg/kg	0.0078	0.0013	0.013	0.02	0.022	0.018	0.015	0.024	0.012	0.021
TCDD-TEQ (EMPC=half)	(c)	T_DF_TEQ(E_0.5)	µg/kg	0.0078	0.0012	0.013	0.019	0.022	0.018	0.015	0.024	0.012	0.021
TCDD-TEQ (EMPC=0)	(c)	T_DF_TEQ(E_0)	µg/kg	0.0077	0.0011	0.013	0.018	0.022	0.017	0.015	0.024	0.012	0.021
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016		12674-11-2	µg/kg	< 3.5 U	< 2.9 U	< 4.0 UJ	< 18 U	< 3.5 UJ	< 3.8 UJ	< 4.0 UJ	< 3.9 UJ	< 3.3 UJ	< 3.5 UJ
Aroclor 1221		11104-28-2	µg/kg	< 3.5 U	< 2.9 U	< 4.0 U	< 18 U	< 3.5 U	< 3.8 U	< 4.0 U	< 3.9 U	< 3.3 U	< 3.5 U
Aroclor 1232		11141-16-5	µg/kg	< 3.5 UJ	< 2.9 UJ	< 4.0 U	< 18 U	< 3.5 U	< 3.8 U	< 4.0 U	< 3.9 U	< 3.3 U	< 3.5 U
Aroclor 1242		53469-21-9	µg/kg	< 3.5 U	< 2.9 U	< 4.0 U	< 18 U	< 3.5 U	< 3.8 U	< 4.0 U	< 3.9 U	< 3.3 U	< 3.5 U
Aroclor 1248		12672-29-6	µg/kg	< 3.5 U	< 2.9 U	< 4.0 U	< 18 U	< 3.5 U	< 3.8 U	< 4.0 U	< 3.9 U	< 3.3 U	< 3.5 U
Aroclor 1254		11097-69-1	µg/kg	< 3.5 U	< 2.9 U	< 4.0 U	< 18 U	92 J	< 3.8 U	< 4.0 U	180 J	< 3.3 U	< 3.5 U
Aroclor 1260		11096-82-5	µg/kg	48 J	11	53	240 J	< 3.5 U	62	67	< 3.9 U	42	110 J
Total PCB Aroclors	(b)	T_PCBAr (PDI)	µg/kg	48	11	53	240	92	62	67	180	42	110
Pesticides													
2,4-DDD		53-19-0	µg/kg	1.97	2.20	0.837 J	1.14 J	0.737 J	1.64 J	1.40 J	1.64 J	0.30 JN	0.816 J
2,4-DDE		3424-82-6	µg/kg	0.472 J	0.211 J	0.298 J	0.846 J	0.648 J	0.497 J	0.482 J	0.700 J	0.15 JN	0.38 JN
2,4-DDT		789-02-6	µg/kg	< 0.047 UJ	0.15 JN	< 0.051 U	0.283 J	< 0.044 U	0.13 JN	0.179 J	0.26 JN	0.17 JN	0.199 J
4,4'-DDD		72-54-8	µg/kg	6.47	7.80	2.43	3.10	2.25	5.13	4.76	5.17	1.56 J	2.80
4,4'-DDE		72-55-9	µg/kg	7.56	2.18	5.11	9.67	7.25 J	7.70	7.13	9.07	3.00	5.46 J
4,4'-DDT		50-29-3	µg/kg	0.408 J	0.204 J	< 0.22 U	0.711 J	< 0.11 U	0.345 J	0.29 JN	0.952 J	< 0.10 U	0.451 J
DDx	(b)	T_DDx (PDI)	µg/kg	16.9	12.7	8.79	15.8	10.9	15.4	14.2	17.8	5.23	10.1
Semivolatile Organics													
2-Methylnaphthalene		91-57-6	µg/kg	260 J	69	72	98	67	140	150	94	51	140
Acenaphthene		83-32-9	µg/kg	230 J	87	55	140	54	110	150	78	42	220
Acenaphthylene		208-96-8	µg/kg	110	37 J	60	68	48	97	120	66	46	63
Anthracene		120-12-7	µg/kg	110 J	26 J	110	160	77	150	210	180	56	150
Benz(a)anthracene		56-55-3	µg/kg	130	25 J	160	210	160	210	230	220	88	180
Benzo(a)pyrene		50-32-8	µg/kg	97 J	28 J	160	200	150	220	230	240	79	180
Benzo(b)fluoranthene		205-99-2	µg/kg	130	35 J	240	300	190	290	330	340	110	230
Benzo(g,h,i)perylene		191-24-2	µg/kg	110 J	30 J	150	190	180	230	240	240	77	170
Benzo(k)fluoranthene		207-08-9	µg/kg	41 J	14 J	86	120	80	99	130	110	29 J	85
Chrysene		218-01-9	µg/kg	180 J	43 J	210	270	240	270	280	290	120	220
Dibenz(a,h)anthracene		53-70-3	µg/kg	< 15 UJ	< 68 U	27 J	28 J	20 J	28 J	29 J	42 J	12 J	23 J
Fluoranthene		206-44-0	µg/kg	470 J	140	500	710	410	830	940	650	310	680
Fluorene		86-73-7	µg/kg	150 J	44 J	60	130	53	120	140	93	45	160
Indeno(1,2,3-cd)pyrene		193-39-5	µg/kg	94	25 J	140	170	170	200	200	220	67	150
Naphthalene		91-20-3	µg/kg	1200 J	340	190	180	130	350	390	190	120	420
Phenanthrene		85-01-8	µg/kg	590 J	190	340	620	410	610	690	490	260	730
Pyrene		129-00-0	µg/kg	550 J	160	600	790	600	1000	1100	830	340	800
Total PAHs	(b)	T_PAH (PDI)	µg/kg	4500	1300	3200	4400	3000	5000	5600	4400	1900	4600
BaP-TEQ	(b)	T_BaP-TEQ (PDI)	µg/kg	140	71	240	300	220	320	340	360	120	260

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S232	SC-S232	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238	SC-S238
		Sample ID	PDI-SC-S232-2TO4	PDI-SC-S232-4TO6.2	PDI-SC-S238-0TO2	PDI-SC-S238-10TO12.4	PDI-SC-S238-12.4TO13.4	PDI-SC-S238-2TO4	PDI-SC-S238-2TO4D	PDI-SC-S238-4TO6	PDI-SC-S238-6TO8	PDI-SC-S238-8TO10
		Sample Date	8/16/2018	8/16/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018	8/9/2018
		Sample Type Code	N	N	N	N	N	N	FD	N	N	N
		Depth	2-4 ft	4-6.2 ft	0-2 ft	10-12.4 ft	12.4-13.4 ft	2-4 ft	2- ft	4-6 ft	6-8 ft	8-10 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	55.8	65.9	47.9	56.7	56.7	50.8	50.1	50.8	59.7	55.9
Total Solids@70C	TSOLID70	%	58	68	48	57	57	51	51	52	58	57
Total Solids (%)	%SOLID	%	57.4	65.3	47.9	57.2	57.4	52.2	50.9	51.7	59.2	55.4
Clay	GS-Clay	%	13.2	7.9	17.0	16.7	22.3	16.1		21.4	14.0	9.5
Gravel	GS-Gravel	%	0	0	0	2.8	0.7	0		0.5	1.5	0.8
Sand, Coarse	GS-Csand	%	0.1	0	0	1.0	0.4	0		0.2	0.5	0.5
Sand, Fine (#200) (d)	GS-Fsand-200	%	21.17	40.17	7.716	4.497	6.124	2.838		3.636	3.86	6.66
Sand, Fine (#230) (d)	GS-Fsand	%	24.3	50.2	10.1	6.6	7.2	4.0		4.2	6.3	9.3
Sand, Medium	GS-Msand	%	0.8	0.3	0.3	0.2	0.9	0.2		0.2	0.1	0.2
Silt (#200) (d)	GS-Silt-200	%	64.72	51.62	74.88	75.10	69.57	80.96		74.06	80.13	82.43
Silt (#230) (d)	GS-Silt	%	61.6	41.6	72.5	73.0	68.5	79.8		73.5	77.7	79.8
Percent Fines (e)	GS-FINES	%	77.92	59.52	91.88	91.8	91.87	97.06		95.46	94.13	91.93
Liquid Limit	GS-LL	None								93		
Plasticity Index	GS-PI	None								44		
Plasticity Limit	GS-PL	None								49		
Total Organic Carbon	TOC	mg/kg	79000	29000	59000	44000	49000	71000	71000	70000	37000	50000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S245	SC-S245	SC-S248	SC-S248	SC-S248	SC-S251	SC-S254	SC-S254	SC-S254	SC-S254
			Sample ID	PDI-SC-S245-0TO2	PDI-SC-S245-2TO3.8	PDI-SC-S248-0TO2	PDI-SC-S248-2TO4	PDI-SC-S248-4TO6.2	PDI-SC-S251-0TO2.5	PDI-SC-S254-0.3TO2	PDI-SC-S254-10TO12	PDI-SC-S254-12TO14	PDI-SC-S254-14TO15.4
			Sample Date	7/25/2018	7/25/2018	8/7/2018	8/7/2018	8/7/2018	7/27/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018
			Sample Type Code	N	N	N	N	N	N	N	N	N	N
			Depth	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft	4-6.2 ft	0-2.5 ft	0.3-2 ft	10-12 ft	12-14 ft	14-15.4 ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		0.082	0.31	0.067	0.054	0.020	0.065	0.91 J	0.73 J	0.41	0.41 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.014	0.13	0.012 JN	0.012	0.0033 JN	0.0041	0.13	0.15 J	0.12	0.097
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.00096 J	0.0084	0.00089 J	0.00077 J	0.00039 J+	0.00027 JN	0.0097	0.0092 J	0.0098	0.0070
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.00064 J+	0.0023 J	0.00086 J	0.00059 JN	< 0.000084 U	0.00077 J	0.0066	0.0051 J	0.0033 J	0.0026 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.0029 J	0.0045	0.0011 J	0.00082 J	0.00039 J	0.00042 J	0.0090	0.0034 J	0.0053	0.0042
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.0026 J	0.013	0.0026 J	0.0020 J	0.00081 J	0.0079	0.030	0.022	0.015	0.013
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.0016 J	0.022	0.00068 J	0.00064 J	0.00025 J	0.00043 J	0.012	0.0090	0.0092	0.0071
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.0018 J	0.0056	0.0020 J	0.0013 J	0.00073 J	0.0021 J	0.019	0.0067	0.0059	0.0054
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		0.00014 J	0.00096 J	0.00024 J+	< 0.00014 U	< 0.00015 U	< 0.000080 U	< 0.0011 U	< 0.0010 U	< 0.0010 U	< 0.00072 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		< 0.00019 U	0.0016 J	0.00039 J	< 0.000094 U	0.00014 JN	0.00028 J	0.0042 J	0.0032 J	0.0015 J	0.0015 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.00081 JN	0.0015 J	0.00029 J	0.00019 JN	0.00011 J	< 0.000070 U	0.0025 J	0.0012 JN	0.0011 J	0.0014 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.00097 J	0.0017 JN	0.00035 J	< 0.00022 U	0.00014 J	0.00018 J	0.0033 J	0.0028 J	0.0016 J	0.0021 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.0017 JN	0.0016 J	0.00034 J	< 0.00012 U	0.00012 J	< 0.000073 U	0.0025 J	0.0014 J	0.0014 J	0.0012 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.00027 JN	0.0022	0.00028 JN	0.00023 JN	0.00031 JN	< 0.00035 U	0.0026	0.0015	0.00091	0.00085 JN
2,3,7,8-TCDF	51207-31-9	µg/kg		0.0017	0.00088 J	0.00059 J	0.00066 J	0.00044 J	0.00039 JN	0.0011	0.00088	0.00070 J	0.00067 J
OCDD	3268-87-9	µg/kg		0.71	6.2 J	0.64	0.60	0.27	0.47	14 J	14 J	8.7 J	8.6 J
OCDF	39001-02-0	µg/kg		0.032	0.41	0.049	0.051	0.017	0.013	0.49	0.74	0.60	0.47
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.0033	0.016	0.0026	0.0017	0.0011	0.0025	0.031	0.024	0.015	0.014
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.0027	0.016	0.0025	0.0015	0.00076	0.0025	0.031	0.023	0.015	0.014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.0024	0.016	0.0023	0.0014	0.00061	0.0023	0.031	0.023	0.015	0.014
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 2.7 UJ	< 3.6 UJ	< 4.8 U	< 3.5 U	< 3.5 U	< 2.7 U	< 3.7 U	< 3.4 U	< 3.3 UJ	< 3.2 U
Aroclor 1221	11104-28-2	µg/kg		< 2.7 U	< 3.6 UJ	< 4.8 UJ	< 3.5 UJ	< 3.5 UJ	< 2.7 UJ	< 3.7 U	< 3.4 U	< 3.3 UJ	< 3.2 U
Aroclor 1232	11141-16-5	µg/kg		< 2.7 U	< 3.6 UJ	< 4.8 U	< 3.5 U	< 3.5 U	< 2.7 U	< 3.7 U	< 3.4 U	< 3.3 UJ	< 3.2 U
Aroclor 1242	53469-21-9	µg/kg		< 2.7 U	< 3.6 UJ	2.2 J	< 3.5 U	< 3.5 U	< 2.7 U	< 3.7 U	< 3.4 U	< 3.3 UJ	< 3.2 U
Aroclor 1248	12672-29-6	µg/kg		< 2.7 UJ	< 3.6 UJ	< 4.8 U	< 3.5 U	< 3.5 U	< 2.7 U	< 3.7 U	< 3.4 U	< 3.3 UJ	< 3.2 U
Aroclor 1254	11097-69-1	µg/kg		230 J	< 3.6 UJ	3.3 J	< 3.5 U	< 3.5 U	5.0 J	< 3.7 U	< 3.4 U	< 3.3 UJ	< 3.2 U
Aroclor 1260	11096-82-5	µg/kg		< 2.7 U	12 J	< 4.8 U	13 J	1.9 J	< 2.7 UJ	160 J	41 J	19 J	8.5 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		230	12	5.5	13	1.9	5	160	41	19	8.5
Pesticides													
2,4-DDD	53-19-0	µg/kg		1.89	2.42	0.300 J	3.27 J	0.353 J	0.145 J	1.63 J	1.05 J	2.25 J	1.64 J
2,4-DDE	3424-82-6	µg/kg		0.114 J	0.307 J	0.0759 J	0.123 J	0.0899 J	0.0515 J	0.546 J	0.486 J	0.495 J	0.341 J
2,4-DDT	789-02-6	µg/kg		0.121 J	0.076 JN	0.128 J	0.502 J	0.113 J	< 0.0392 U	0.128 J	0.076 JN	0.174 J	0.0736 J
4,4'-DDD	72-54-8	µg/kg		3.58	8.49	0.987 J	15.7	1.20 J	0.400 J	6.01	3.92	7.55	5.47
4,4'-DDE	72-55-9	µg/kg		2.54	4	2.10 J	3.56	1.58 J	0.500 J	9.19	6.70	6.67	4.46
4,4'-DDT	50-29-3	µg/kg		< 0.338 U	< 0.233 U	0.370 J	2.00	0.25 JN	< 0.124 U	0.26 JN	0.269 J	0.29 JN	0.158 J
DDx (b)	T_DDx (PDI)	µg/kg		8.41	15.4	3.96	25.2	3.59	1.16	17.8	12.5	17.4	12.1
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		25	170	16 J	70 J	98	16	110	120	150	130
Acenaphthene	83-32-9	µg/kg		150	110	30	99	160	640	82	61	140	87
Acenaphthylene	208-96-8	µg/kg		25	120	24	21	84	8.6	44	43	77	76
Anthracene	120-12-7	µg/kg		73	85	36	82	200	20	89	74	95	100
Benz(a)anthracene	56-55-3	µg/kg		220	80	55	88	280	19	180	140	130	170
Benzo(a)pyrene	50-32-8	µg/kg		140	64	25	49	240	19	120	110	96	120
Benzo(b)fluoranthene	205-99-2	µg/kg		240	96	42	74	250	29	170	160	120	150
Benzo(g,h,i)perylene	191-24-2	µg/kg		110	66	21 J	38	250	15	120	120	120	130
Benzo(k)fluoranthene	207-08-9	µg/kg		75	32 J	17 J	30	90	7.7	49	44	35	44
Chrysene	218-01-9	µg/kg		250	140	61	86	270	30	200	170	140	180
Dibenz(a,h)anthracene	53-70-3	µg/kg		21	8.3 J	4.7 J	6.6 J	37	3.5 J	19	20	13 J	18
Fluoranthene	206-44-0	µg/kg		550	350	200	440	770	110	360	330	400	410
Fluorene	86-73-7	µg/kg		92	94	38	140	160	38	58	61	110	80
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		100	53	24	40	210	17	120	130	110	120
Naphthalene	91-20-3	µg/kg		82	380	25	180 J	220	160	84	140	310	240
Phenanthrene	85-01-8	µg/kg		410	450	150	450 J	710	460	350	330	470	430
Pyrene	129-00-0	µg/kg		510	410	160	330	900	130	410	380	500	500
Total PAHs (b)	T_PAH (PDI)	µg/kg		3100	2700	930	2200	4900	1700	2600	2400	3000	3000
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		220	96	42	76	350	29	190	170	150	180

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S245	SC-S245	SC-S248	SC-S248	SC-S248	SC-S251	SC-S254	SC-S254	SC-S254	SC-S254
		Sample ID	PDI-SC-S245-0TO2	PDI-SC-S245-2TO3.8	PDI-SC-S248-0TO2	PDI-SC-S248-2TO4	PDI-SC-S248-4TO6.2	PDI-SC-S251-0TO2.5	PDI-SC-S254-0.3TO2	PDI-SC-S254-10TO12	PDI-SC-S254-12TO14	PDI-SC-S254-14TO15.4
		Sample Date	7/25/2018	7/25/2018	8/7/2018	8/7/2018	8/7/2018	7/27/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	0-2 ft	2-3.8 ft	0-2 ft	2-4 ft	4-6.2 ft	0-2.5 ft	0.3-2 ft	10-12 ft	12-14 ft	14-15.4 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	72.9	55.2	39.7	55.1	56.6	72.9	53.1	57.9	59.3	60.6
Total Solids@70C	TSOLID70	%	76	58	41	58	58	84	54	60	60	62
Total Solids (%)	%SOLID	%	71	55.1	44.9	56.5	56.8	81.1	54.9	56.9	61.4	61.7
Clay	GS-Clay	%	3.6	11.2	3.1	10.0	13.7	3.1	15.4	12.2	9.3	10.3
Gravel	GS-Gravel	%	4.3	0.7	0	0	0	1.0	0	0	0	1.5
Sand, Coarse	GS-Csand	%	1.3	0.3	0	0.7	0	1.3	0	0.9	1.2	0.5
Sand, Fine (#200) (d)	GS-Fsand-200	%	49.63	8.34	12.84	29.52	13.06	51.0	24	22.16	26.4	21.65
Sand, Fine (#230) (d)	GS-Fsand	%	51.6	11.4	15.6	35.1	15.9	52.7	27.8	27.4	26.4	27.6
Sand, Medium	GS-Msand	%	23.3	1.1	0.4	2.4	0.8	30.2	0.2	0.3	0.3	0.3
Silt (#200) (d)	GS-Silt-200	%	17.86	78.45	83.65	57.47	72.43	13.5	60.39	64.43	62.8	65.74
Silt (#230) (d)	GS-Silt	%	15.9	75.4	80.9	51.9	69.6	11.8	56.6	59.2	62.8	59.8
Percent Fines (e)	GS-FINES	%	21.46	89.65	86.75	67.47	86.13	16.6	75.79	76.63	72.1	76.04
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	5000	57000	53000	31000 J	41000	3900	51000	36000	46000	44000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
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b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

			Location	SC-S254	SC-S254	SC-S254	SC-S254	SC-S255	SC-S255	SC-S255	SC-S256	SC-S256	SC-S256
			Sample ID	PDI-SC-S254-2TO4	PDI-SC-S254-4TO6	PDI-SC-S254-6TO8	PDI-SC-S254-8TO10	PDI-SC-S255-0TO2.1	PDI-SC-S255-0TO2.1D	PDI-SC-S255-2.1TO4.3	PDI-SC-S256-0TO2	PDI-SC-S256-2TO4	PDI-SC-S256-2TO4D
			Sample Date	8/6/2018	8/6/2018	8/6/2018	8/6/2018	9/5/2018	9/5/2018	9/5/2018	8/16/2018	8/16/2018	8/16/2018
			Sample Type Code	N	N	N	N	N	FD	N	N	N	FD
			Depth	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2.1 ft	0- ft	2.1-4.3 ft	0-2 ft	2-4 ft	2- ft
Chemical	**CAS_RN**	**Units**											
Dioxins and Furans													
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg		1.1 J	0.51	0.46 J	1.5 J	0.023	0.022	0.24	0.083	0.27	0.23
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg		0.18	0.089	0.12	0.19	0.0049	0.0044	0.050	0.015 JN	0.044	0.037 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg		0.012	0.0063	0.0094	0.012	0.00056 J+	0.00049 J+	0.0032 J	0.0013 J+	0.0028 J+	0.0029 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg		0.0085	0.0038 J	0.0052	0.0095	0.00041 J+	0.00039 J+	0.0013 J	0.0011 J	0.0026 J	0.0024 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg		0.015	0.0060	0.0066	0.011	0.00054 J	0.00053 J	0.0037 J	0.0013 J	0.0036 J	0.0034 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg		0.043	0.019	0.021	0.047	0.00095 J	0.0012 J	0.0062	0.0035 J	0.011	0.010
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg		0.012	0.0066	0.0090	0.0083	0.00030 J	0.00034 J	0.0013 J	0.00080 J	0.0019 J	0.0019 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg		0.022	0.010	0.0099	0.032	0.00084 J	0.00079 J	0.0032 J	0.0022 J	0.0050	0.0042
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg		< 0.00088 U	< 0.00066 U	< 0.00064 U	< 0.0010 U	< 0.0010 U	< 0.00097 U	< 0.00085 U	< 0.00070 U	< 0.00074 U	< 0.00067 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg		0.0054	0.0027 J	0.0036 J	0.0082	0.00021 J	0.00017 JN	0.00068 J	0.00048 J	0.0012 J	0.0012 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg		0.0028 J	0.0017 J	0.0020 J	0.0015 J	0.00036 J+	0.00037 J+	0.00043 J+	0.00029 J+	0.00058 JN	0.00065 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg		0.0034 J	0.0021 J	0.0020 J	0.0029 J	0.00018 J	0.00019 J	0.00061 J	0.00055 J	0.0014 J	0.0013 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg		0.0027 J	0.0015 J	0.0017 J	0.0016 J	0.00023 J+	0.00019 JN	0.00065 J	0.00038 J	0.00097 J	0.00091 J
2,3,7,8-TCDD	1746-01-6	µg/kg		0.0027	0.0017	0.0017	0.0032	0.000061 JN	0.000079 JN	0.00016 JN	< 0.00012 U	0.00025 JN	0.00026 JN
2,3,7,8-TCDF	51207-31-9	µg/kg		0.0012	0.0012	0.00097 JN	0.00077 J	0.00048 J+	0.00048 J+	0.00051 J+	0.00076 J	0.00090	0.00080 J
OCDD	3268-87-9	µg/kg		15 J	7.8 J	8.0 J	18 J	0.20	0.20	2.6	0.65	2.3	1.9
OCDF	39001-02-0	µg/kg		0.70	0.50	0.42	0.78	0.018	0.017	0.38	0.049	0.14	0.13
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg		0.037	0.018	0.02	0.046	0.0011	0.0011	0.0066	0.0029	0.0083	0.0075
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg		0.037	0.018	0.02	0.046	0.0011	0.00082	0.0065	0.0029	0.0082	0.0073
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg		0.037	0.018	0.02	0.046	0.001	0.00074	0.0064	0.0028	0.008	0.0072
Polychlorinated Biphenyls (PCBs)													
Aroclor 1016	12674-11-2	µg/kg		< 3.6 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.0 U	< 3.0 UJ	< 3.1 UJ	< 3.3 U	< 3.3 UJ	< 3.2 UJ
Aroclor 1221	11104-28-2	µg/kg		< 3.6 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.0 U	< 3.0 UJ	< 3.1 UJ	< 3.3 U	< 3.3 UJ	< 3.2 UJ
Aroclor 1232	11141-16-5	µg/kg		< 3.6 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.0 U	< 3.0 UJ	< 3.1 UJ	< 3.3 U	< 3.3 UJ	< 3.2 UJ
Aroclor 1242	53469-21-9	µg/kg		< 3.6 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.0 U	< 3.0 UJ	< 3.1 UJ	< 3.3 U	< 3.3 UJ	< 3.2 UJ
Aroclor 1248	12672-29-6	µg/kg		< 3.6 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.0 U	< 3.0 UJ	< 3.1 UJ	< 3.3 U	< 3.3 UJ	< 3.2 UJ
Aroclor 1254	11097-69-1	µg/kg		< 3.6 U	< 3.4 U	< 3.4 U	< 3.4 U	< 3.0 U	< 3.0 UJ	< 3.1 UJ	< 3.3 U	< 3.3 UJ	< 3.2 UJ
Aroclor 1260	11096-82-5	µg/kg		78 J	58 J	11 J	55 J	4.8 J	3.5 J	120 J	7.1	58 J	59 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg		78	58	11	55	4.8	3.5	120	7.1	58	59
Pesticides													
2,4-DDD	53-19-0	µg/kg		1.66 J	1.29 J	0.688 J	1.46 J	0.078 JN	0.0717 J	0.303 J	0.091 JN	0.216 J	< 0.52 U
2,4-DDE	3424-82-6	µg/kg		0.483 J	0.390 J	0.240 J	0.494 J	< 0.025 U	0.012 JN	0.042 JN	< 0.020 U	< 0.0539 U	< 0.42 U
2,4-DDT	789-02-6	µg/kg		0.12 JN	0.065 JN	0.074 JN	0.0875 J	< 0.028 U	< 0.031 U	< 0.035 U	< 0.033 UJ	< 0.025 UJ	< 0.25 U
4,4'-DDD	72-54-8	µg/kg		6.49	4.75	2.42	4.22	0.316 J	0.267 J	0.935 J	0.439 J	0.822 J	< 0.25 U
4,4'-DDE	72-55-9	µg/kg		6.98	6.72	4.42	7.42	0.648 J	0.598 J	0.974 J	0.981 J	1.39 J	1.71
4,4'-DDT	50-29-3	µg/kg		1.16 J	0.263 J	0.233 J	0.274 J	0.25 JN	0.0961 J	0.094 JN	< 0.086 UJ	< 0.048 UJ	< 0.79 U
DDx (b)	T_DDx (PDI)	µg/kg		16.9	13.5	8.08	14	1.31	1.06	2.37	1.55	2.45	2.11
Semivolatile Organics													
2-Methylnaphthalene	91-57-6	µg/kg		130	140	44	130	2.4 J	3.4 J	8.4 J	< 190 U	< 180 U	< 180 U
Acenaphthene	83-32-9	µg/kg		73	92	32	64	5.1 J	3.8 J	12 J	43 J	52 J	55 J
Acenaphthylene	208-96-8	µg/kg		44	43	31	45	15 J	8.9 J	17	< 190 U	< 180 U	< 180 U
Anthracene	120-12-7	µg/kg		82	83	43	90	11	13	26	39 J	72 J	62 J
Benz(a)anthracene	56-55-3	µg/kg		210	180	150	180	71	51	110	72 J	89 J	79 J
Benzo(a)pyrene	50-32-8	µg/kg		160	120	87	120	110	71	140	99 J	130 J	130 J
Benzo(b)fluoranthene	205-99-2	µg/kg		230	180	140	180	110	78	160	100 J	150 J	140 J
Benzo(g,h,i)perylene	191-24-2	µg/kg		170	130	85	110	100	64	120	120 J	140 J	130 J
Benzo(k)fluoranthene	207-08-9	µg/kg		68	51	39	51	32	22	34	47 J	56 J	50 J
Chrysene	218-01-9	µg/kg		220	190	150	190	94	71	150	120 J	170 J	150 J
Dibenz(a,h)anthracene	53-70-3	µg/kg		24	19	15 J	20	20	15	25	< 190 U	< 180 U	< 180 U
Fluoranthene	206-44-0	µg/kg		480	380	290	400	200	160	320	300	390	360
Fluorene	86-73-7	µg/kg		71	68	34	74	11	13	22	20 J	35 J	33 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg		160	100	88	93	150	100	200	110 J	120 J	110 J
Naphthalene	91-20-3	µg/kg		100	110	55	92	7.8	8.2	18	< 190 U	35 J	34 J
Phenanthrene	85-01-8	µg/kg		430	380	190	390	79	95	150	180 J	260	240
Pyrene	129-00-0	µg/kg		550	460	320	450	270	200	400	350	450	410
Total PAHs (b)	T_PAH (PDI)	µg/kg		3200	2700	1800	2700	1300	980	1900	1800	2300	2200
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg		240	190	140	190	160	110	210	220	260	250

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S254	SC-S254	SC-S254	SC-S254	SC-S255	SC-S255	SC-S255	SC-S256	SC-S256	SC-S256
		Sample ID	PDI-SC-S254-2TO4	PDI-SC-S254-4TO6	PDI-SC-S254-6TO8	PDI-SC-S254-8TO10	PDI-SC-S255-0TO2.1	PDI-SC-S255-0TO2.1D	PDI-SC-S255-2.1TO4.3	PDI-SC-S256-0TO2	PDI-SC-S256-2TO4	PDI-SC-S256-2TO4D
		Sample Date	8/6/2018	8/6/2018	8/6/2018	8/6/2018	9/5/2018	9/5/2018	9/5/2018	8/16/2018	8/16/2018	8/16/2018
		Sample Type Code	N	N	N	N	N	FD	N	N	N	FD
		Depth	2-4 ft	4-6 ft	6-8 ft	8-10 ft	0-2.1 ft	0- ft	2.1-4.3 ft	0-2 ft	2-4 ft	2- ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	52.4	57.1	56.5	57.4	66.2	65.6	63.7	59.7	59.7	61.4
Total Solids@70C	TSOLID70	%	54	57	56	58	67	66	65	61	61	61
Total Solids (%)	%SOLID	%	54.2	57.4	54.3	57.6	63.9	64.6	64.8	58.5	59.9	61.8
Clay	GS-Clay	%	16.1	17.4	15.3	12.0	5.4		4.3	5.5	6.5	
Gravel	GS-Gravel	%	0	0	0	0	0		0.1	0	0.1	
Sand, Coarse	GS-Csand	%	0.7	0	1.7	1.0	0.3		0.6	0.2	0	
Sand, Fine (#200) (d)	GS-Fsand-200	%	16	20.01	15.4	17.37	25.5		23.26	5.624	8.445	
Sand, Fine (#230) (d)	GS-Fsand	%	18.9	23.5	15.4	21.6	34.4		35.8	10.7	13.2	
Sand, Medium	GS-Msand	%	0.2	0.1	0.1	0.3	1.5		3.2	0.2	0.2	
Silt (#200) (d)	GS-Silt-200	%	66.89	62.48	67.5	69.42	67.29		68.63	88.47	84.75	
Silt (#230) (d)	GS-Silt	%	64.0	59.0	67.5	65.2	58.4		56.1	83.4	80.0	
Percent Fines (e)	GS-FINES	%	82.99	79.88	82.8	81.42	72.69		72.93	93.97	91.25	
Liquid Limit	GS-LL	None										
Plasticity Index	GS-PI	None										
Plasticity Limit	GS-PL	None										
Total Organic Carbon	TOC	mg/kg	52000	42000	42000	48000	21000	25000	33000	35000	45000	50000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S256	SC-S256	SC-S256	SC-S256	SC-S257	SC-S257	SC-S257	SC-S257	SC-S257	SC-S257
		Sample ID	PDI-SC-S256-4TO6	PDI-SC-S256-6TO8	PDI-SC-S256-8TO9.7	PDI-SC-S256-9.7TO10.7	PDI-SC-S257-0TO2	PDI-SC-S257-10TO12	PDI-SC-S257-12TO14.2	PDI-SC-S257-2TO4	PDI-SC-S257-4TO6	PDI-SC-S257-6TO8
		Sample Date	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	4-6 ft	6-8 ft	8-9.7 ft	9.7-10.7 ft	0-2 ft	10-12 ft	12-14.2 ft	2-4 ft	4-6 ft	6-8 ft
Chemical	**CAS_RN**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.21	0.21	0.22	0.21	0.082	0.19 J	0.27 J	0.62	1.3 J	0.43
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.035 JN	0.040	0.048	0.063	0.015	0.088 J	0.12	0.077	0.17	0.11 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0027 J+	0.0040 J+	0.0035 J+	0.0046	< 0.00068 U	0.0052	0.0064	0.0060	0.013 J	0.0074
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0024 J	0.0024 J	0.0022 J	0.0019 J	0.00059 J+	0.0014 J	0.0018 J	0.0034 JN	0.010	0.0034 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0037 J	0.0037 J	0.0042	0.0049	0.0015 J	0.0035 J	0.0061	0.0065	0.0067	0.0049
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0095	0.011	0.012	0.013	0.0031 JN	0.0064	0.011	0.018	0.048	0.015
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0021 J	0.0035 J	0.0046	0.0073	0.00088 J	0.011 J	0.0083	0.0059	0.011 JN	0.0058
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0043	0.0044	0.0051	0.0047	0.0024 J	0.0035 J	0.0041 J	0.013	0.041	0.0055
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00070 U	< 0.00070 U	< 0.00081 U	< 0.00085 U	< 0.00011 U	< 0.00070 U	< 0.00090 U	< 0.00054 U	< 0.0019 U	< 0.00060 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0011 J	0.0020 J	0.0014 J	0.0013 J	0.00050 J	< 0.00030 U	0.0014 J	0.0028 J	0.011	0.0014 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00071 J	0.00091 JN	0.00097 J	0.0012 J	0.00039 J	0.0010 J	0.0010 J	0.0011 J	0.0015 J	0.00079 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0015 J	0.0021 J	0.0019 J	0.0013 J	0.00031 JN	< 0.00080 U	0.0021 J	0.0017 JN	0.0029 J	< 0.00094 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0011 J	0.0017 J	0.0015 J	0.0014 J	0.00043 J	0.00079 JN	0.0014 J	0.0011 J	< 0.00097 U	0.0010 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00028 JN	0.00099	0.00083	0.00066 JN	0.00022 JN	0.00085	0.0028	0.0012	0.0053	0.00067 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0011	0.0041	0.0031	0.0019	0.00088 J	0.00047 J	0.00064 JN	0.00087	0.0016	0.00062 J
OCDD	3268-87-9	µg/kg	1.8	2.2	2.6	3.4 J	0.86	4.5 J	4.6 J	7.9 J	17 J	8.6 J
OCDF	39001-02-0	µg/kg	0.13	0.16	0.17	0.18	0.060	0.29	0.45	0.33	0.83	0.61
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0073	0.0099	0.0096	0.0098	0.0031	0.0082	0.014	0.019	0.049	0.014
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0071	0.0099	0.0096	0.0094	0.0027	0.0079	0.014	0.018	0.049	0.014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.007	0.0099	0.0096	0.0091	0.0025	0.0078	0.013	0.018	0.049	0.014
Polychlorinated Biphenyls (PCBs)												
Aroclor 1016	12674-11-2	µg/kg	7.6 J	22 J	19	4.9 J	< 3.5 U	< 3.1 U	< 3.2 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1221	11104-28-2	µg/kg	< 3.1 UJ	< 3.1 UJ	< 3.2 U	< 3.2 UJ	< 3.5 U	< 3.1 U	< 3.2 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1232	11141-16-5	µg/kg	< 3.1 UJ	< 3.1 UJ	< 3.2 UJ	< 3.2 UJ	< 3.5 U	< 3.1 U	< 3.2 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1242	53469-21-9	µg/kg	< 3.1 UJ	< 3.1 UJ	< 3.2 U	< 3.2 UJ	< 3.5 U	< 3.1 U	< 3.2 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1248	12672-29-6	µg/kg	< 3.1 UJ	< 3.1 UJ	< 3.2 U	< 3.2 UJ	< 3.5 U	< 3.1 U	< 3.2 U	< 3.4 U	< 3.4 U	13 J
Aroclor 1254	11097-69-1	µg/kg	< 3.1 UJ	< 3.1 UJ	< 3.2 U	< 3.2 UJ	19 J	< 3.1 U	< 3.2 U	< 3.4 U	< 3.4 U	< 3.4 U
Aroclor 1260	11096-82-5	µg/kg	70 J	190 J	92	20 J	< 3.5 U	5.1 J	9.3 J	40 J	220 J	18 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	78	210	110	25	19	5.1	9.3	40	220	31
Pesticides												
2,4-DDD	53-19-0	µg/kg	< 0.53 U	< 0.29 U	< 0.099 U	< 0.24 U	0.209 J	0.800 J	1.34 J	0.866 J	2.28	0.854 J
2,4-DDE	3424-82-6	µg/kg	< 0.39 UJ	< 0.27 U	0.19 JN	< 0.15 U	0.0706 J	0.160 J	0.393 J	0.265 J	0.595 J	0.282 J
2,4-DDT	789-02-6	µg/kg	< 0.25 U	< 0.17 U	< 0.13 U	< 0.29 U	0.0822 J	0.044 JN	0.0711 J	0.0940 J	0.15 JN	0.064 JN
4,4'-DDD	72-54-8	µg/kg	1.59	2.52	2.21	1.42 J	0.670 J	2.70	4.14	3.19	6.31	3.30
4,4'-DDE	72-55-9	µg/kg	2.49 J	2.62	3.57	2.06	1.53 J	2.57	5.22	4.57	9.60	4.43
4,4'-DDT	50-29-3	µg/kg	< 0.69 U	< 0.49 U	< 0.25 U	< 0.51 U	0.275 J	0.124 J	0.270 J	0.255 J	0.462 J	0.21 JN
DDx (b)	T_DDx (PDI)	µg/kg	4.43	5.39	6.1	3.74	2.84	6.4	11.4	9.24	19.4	9.14
Semivolatile Organics												
2-Methylnaphthalene	91-57-6	µg/kg	< 180 U	35 J	51 J	82	17	74	120	48	180	48
Acenaphthene	83-32-9	µg/kg	< 180 U	< 180 U	58 J	160	16 J	64	94	32	48	44
Acenaphthylene	208-96-8	µg/kg	< 180 U	< 180 U	39 J	68 J	19	57	61	34	49	19 J
Anthracene	120-12-7	µg/kg	< 180 U	67 J	57 J	100	31	77	91	46	100	55
Benz(a)anthracene	56-55-3	µg/kg	87 J	100 J	88	130	53	97	110	130	180	100
Benzo(a)pyrene	50-32-8	µg/kg	140 J	150 J	120	100	50	88	82	120	120	68
Benzo(b)fluoranthene	205-99-2	µg/kg	180	170 J	140	130	73	110	110	160	170	99
Benzo(g,h,i)perylene	191-24-2	µg/kg	150 J	150 J	130	95	67	120	120	140	130	76
Benzo(k)fluoranthene	207-08-9	µg/kg	54 J	73 J	59 J	45 J	24	33	34	46	48	33
Chrysene	218-01-9	µg/kg	160 J	180	160	160	75	110	150	160	210	110
Dibenz(a,h)anthracene	53-70-3	µg/kg	< 180 U	< 180 U	24 J	21 J	8.8 J	14	14 J	19	21	11 J
Fluoranthene	206-44-0	µg/kg	280	380	370	530	190	290	330	320	360	230
Fluorene	86-73-7	µg/kg	< 180 U	< 180 U	50 J	100	22	61	72	47	83	39
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	130 J	140 J	110	76 J	65	110	110	130	130	79
Naphthalene	91-20-3	µg/kg	39 J	94 J	150	320	27	150	210	59	100	56
Phenanthrene	85-01-8	µg/kg	140 J	280	310	540	160	310	460	270	410	230
Pyrene	129-00-0	µg/kg	350	470	460	560	200	370	430	390	420	260
Total PAHs (b)	T_PAH (PDI)	µg/kg	1900	2500	2400	3200	1100	2100	2600	2200	2800	1600
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	270	280	180	160	78	130	130	180	190	110

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S256	SC-S256	SC-S256	SC-S256	SC-S257	SC-S257	SC-S257	SC-S257	SC-S257	SC-S257
		Sample ID	PDI-SC-S256-4TO6	PDI-SC-S256-6TO8	PDI-SC-S256-8TO9.7	PDI-SC-S256-9.7TO10.7	PDI-SC-S257-0TO2	PDI-SC-S257-10TO12	PDI-SC-S257-12TO14.2	PDI-SC-S257-2TO4	PDI-SC-S257-4TO6	PDI-SC-S257-6TO8
		Sample Date	8/16/2018	8/16/2018	8/16/2018	8/16/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018	8/6/2018
		Sample Type Code	N	N	N	N	N	N	N	N	N	N
		Depth	4-6 ft	6-8 ft	8-9.7 ft	9.7-10.7 ft	0-2 ft	10-12 ft	12-14.2 ft	2-4 ft	4-6 ft	6-8 ft
Chemical	**CAS_RN**	**Units**										
Other												
Total Solids@104C	TSOLID	%	63.7	62.0	62.1	61.6	54.7	63.5	60.7	57.4	57.6	58.1
Total Solids@70C	TSOLID70	%	63	62	62	64	55	64	61	59	59	57
Total Solids (%)	%SOLID	%	64.7	60.9	60.4	59.4	54.1	62.9	56	59.6	55.7	57.5
Clay	GS-Clay	%	7.4	8.7	9.6	8.4	11.1	10.3	15.1	14.7	16.0	14.9
Gravel	GS-Gravel	%	0	0	0	0	0	3.4	0	0	2.0	0.9
Sand, Coarse	GS-Csand	%	0.3	0.1	0.1	0	0	0.5	0.3	0.1	0.3	0.9
Sand, Fine (#200) (d)	GS-Fsand-200	%	12.97	12.46	14.66	36.3	12.23	20.49	11.42	10.11	18.27	14.29
Sand, Fine (#230) (d)	GS-Fsand	%	18.0	17.2	19.5	39.1	18.0	24.2	14.8	15.0	23.0	17.5
Sand, Medium	GS-Msand	%	1.8	1.1	0.9	2.9	0.6	0.1	0.1	0.4	0.2	0.2
Silt (#200) (d)	GS-Silt-200	%	77.52	77.73	74.73	52.29	76.06	65.10	73.07	74.68	63.22	68.80
Silt (#230) (d)	GS-Silt	%	72.5	73.0	69.9	49.5	70.3	61.4	69.7	69.8	58.5	65.6
Percent Fines (e)	GS-FINES	%	84.92	86.43	84.33	60.69	87.16	75.4	88.17	89.38	79.22	83.7
Liquid Limit	GS-LL	None								56		
Plasticity Index	GS-PI	None								17		
Plasticity Limit	GS-PL	None								39		
Total Organic Carbon	TOC	mg/kg	53000	51000	65000	67000	33000	39000	43000	39000	46000	43000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S257	SC-S257	SC-S260	SC-S260	SC-S260	SC-S260	SC-S260	SC-S263	SC-S263
		Sample ID	PDI-SC-S257-6TO8D	PDI-SC-S257-8TO10	PDI-SC-S260-0TO1.3	PDI-SC-S260-1.3TO2.6	PDI-SC-S260-2.6TO4.2	PDI-SC-S260-4.2TO6	PDI-SC-S260-6TO7	PDI-SC-S263-0TO2	PDI-SC-S263-2TO3.8
		Sample Date	8/6/2018	8/6/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018	8/16/2018	8/16/2018
		Sample Type Code	FD	N	N	N	N	N	N	N	N
		Depth	6- ft	8-10 ft	0-1.3 ft	1.3-2.6 ft	2.6-4.2 ft	4.2-6 ft	6-7 ft	0-2 ft	2-3.8 ft
Chemical	**CAS_RN**	**Units**									
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.56 J	0.39	0.15	0.23	0.0082	0.0010 J+	0.0015 J	0.018	0.045
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.13	0.18	0.18	0.50	0.018	0.00029 J+	0.00023 J+	0.0026 JN	0.0053
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0091	0.0058 J	0.072	0.23	0.0070	0.00036 J+	0.00045 J+	< 0.00056 U	0.0014 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0041 J	0.0029 J	0.0019 JN	0.0026 J	0.00020 J+	< 0.000094 U	< 0.00013 U	0.00024 J+	0.00043 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0059	0.0052	0.40	1.1	0.10	0.00038 J	0.00013 J	0.00028 JN	0.00057 J+
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.018	0.018	0.010	0.011	0.00046 J	0.000064 J	0.000085 JN	0.00077 J	0.0018 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0064	0.013	0.10	0.32	0.021	0.00021 J+	0.000098 J+	0.00021 J+	0.00044 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0067	0.0063	0.0050 J	0.0048	0.00045 J	0.00013 J+	0.00017 J+	0.00053 J	0.0010 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00093 U	< 0.00099 U	0.0072	0.021	0.0020 J+	< 0.0012 U	< 0.0011 U	< 0.00055 U	< 0.00072 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.0016 J	0.0016 J	0.0017 J	0.0030 J	0.00012 J	< 0.000024 U	0.000040 JN	0.000097 J	0.00019 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00093 J	0.0011 J	0.19	0.68	0.098	< 0.00036 U	< 0.00021 U	0.00019 J+	0.00021 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.0022 J	0.0026 J	0.013	0.054	0.0048	< 0.000036 U	0.000034 JN	0.00010 JN	0.00029 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0011 J	0.0018 J	0.065	0.33	0.041	< 0.000030 U	0.00011 J+	0.00012 J+	0.00019 J+
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00058 JN	0.00079 J	0.00095 J	0.0023	0.00023 J	< 0.000037 U	< 0.000029 U	< 0.000018 U	< 0.000020 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00066 J	0.00079 J	0.11	0.61 J	0.036	0.00021 J+	0.00040 J+	0.00022 J+	0.00044 J
OCDD	3268-87-9	µg/kg	11 J	5.8 J	1.5	2.4	0.096	0.015	0.024	0.16	0.40
OCDF	39001-02-0	µg/kg	0.75	0.47	0.42	1.1	0.026	0.00083 J+	0.00088 J+	0.0087	0.024
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.017	0.016	0.097	0.35	0.032	0.00018	0.00025	0.00066	0.0014
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.017	0.016	0.097	0.35	0.032	0.00018	0.0002	0.00059	0.0014
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.017	0.015	0.097	0.35	0.032	0.00012	0.00014	0.00057	0.0014
Polychlorinated Biphenyls (PCBs)											
Aroclor 1016	12674-11-2	µg/kg	< 3.4 U	< 3.2 U	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	< 2.7 U	< 2.9 U
Aroclor 1221	11104-28-2	µg/kg	< 3.4 U	< 3.2 U	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	< 2.7 U	< 2.9 U
Aroclor 1232	11141-16-5	µg/kg	< 3.4 U	< 3.2 U	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	< 2.7 UJ	< 2.9 UJ
Aroclor 1242	53469-21-9	µg/kg	< 3.4 U	< 3.2 U	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	< 2.7 U	< 2.9 U
Aroclor 1248	12672-29-6	µg/kg	5.5 J	< 3.2 U	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	< 2.7 U	< 2.9 U
Aroclor 1254	11097-69-1	µg/kg	< 3.4 U	< 3.2 U	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	< 2.7 U	< 2.9 U
Aroclor 1260	11096-82-5	µg/kg	6.2 J	11 J	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	2.5 J	4.4
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	12	11	< 4.4 U	< 3.7 U	< 2.8 U	< 2.5 U	< 2.4 U	2.5	4.4
Pesticides											
2,4-DDD	53-19-0	µg/kg	1.08 J	1.48 J	112	567	8.90	< 0.025 U	0.0489 J	0.108 J	0.240 J
2,4-DDE	3424-82-6	µg/kg	0.318 J	0.461 J	3.73	12.8 J	0.205 J	< 0.014 U	< 0.0085 U	0.0233 J	0.0467 J
2,4-DDT	789-02-6	µg/kg	0.127 J	0.0958 J	24.6	91.9	1.53	< 0.041 U	< 0.020 U	0.054 JN	< 0.027 UJ
4,4'-DDD	72-54-8	µg/kg	4.04	4.94	292	1070	16.7	< 0.037 U	0.0787 J	0.344 J	1.01 J
4,4'-DDE	72-55-9	µg/kg	5.09	5.84	25.7	58.1	0.942 J	0.023 JN	0.0286 J	0.518 J	1.36 J
4,4'-DDT	50-29-3	µg/kg	0.351 J	0.246 J	356	1340	15.0	< 0.075 U	0.0982 J	0.193 J	0.151 J
DDx (b)	T_DDx (PDI)	µg/kg	11	13.1	814	3140	43.3	0.0605	0.264	1.24	2.82
Semivolatile Organics											
2-Methylnaphthalene	91-57-6	µg/kg	66	230	290	450	59	56	37	< 33 U	< 73 U
Acenaphthene	83-32-9	µg/kg	45	170	950	290	170	360	120	5.2 J	20 J
Acenaphthylene	208-96-8	µg/kg	36 J	110	440	92	120	110	99	4.3 J	< 73 U
Anthracene	120-12-7	µg/kg	61	240	1100	440	250	400	220	7.9 J	11 J
Benz(a)anthracene	56-55-3	µg/kg	140	250	2100	700	430	540	510	29 J	25 J
Benzo(a)pyrene	50-32-8	µg/kg	91	250	2200	640	420	460	980	60	32 J
Benzo(b)fluoranthene	205-99-2	µg/kg	140	300	1900	750	370	390	820	47	40 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	99	320	1200	580	310	230	1200	47	23 J
Benzo(k)fluoranthene	207-08-9	µg/kg	38	88	640	240	120	140	220	18 J	15 J
Chrysene	218-01-9	µg/kg	150	300	2200	840	390	480	560	41	40 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	15	31	240	70	42	49	78	< 33 U	< 73 U
Fluoranthene	206-44-0	µg/kg	280	910	4900	2600	1000	1000	1300	81	81
Fluorene	86-73-7	µg/kg	48	170	510	320	120	200	73	5.1 J	14 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	98	230	1300	580	310	270	940	43	23 J
Naphthalene	91-20-3	µg/kg	76	450	1200	2000	260	220	230	6.3 J	12 J
Phenanthrene	85-01-8	µg/kg	260	960	3200	1400	820	970	770	38	57 J
Pyrene	129-00-0	µg/kg	330	1100	6600	2900	1400	1600	2500	100	81
Total PAHs (b)	T_PAH (PDI)	µg/kg	2000	6100	31000	15000	6600	7500	11000	570	550
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	140	360	3000	920	570	630	1300	89	77

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S257	SC-S257	SC-S260	SC-S260	SC-S260	SC-S260	SC-S260	SC-S263	SC-S263
		Sample ID	PDI-SC-S257-6TO8D	PDI-SC-S257-8TO10	PDI-SC-S260-0TO1.3	PDI-SC-S260-1.3TO2.6	PDI-SC-S260-2.6TO4.2	PDI-SC-S260-4.2TO6	PDI-SC-S260-6TO7	PDI-SC-S263-0TO2	PDI-SC-S263-2TO3.8
		Sample Date	8/6/2018	8/6/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018	9/6/2018	8/16/2018	8/16/2018
		Sample Type Code	FD	N	N	N	N	N	N	N	N
		Depth	6- ft	8-10 ft	0-1.3 ft	1.3-2.6 ft	2.6-4.2 ft	4.2-6 ft	6-7 ft	0-2 ft	2-3.8 ft
Chemical	**CAS_RN**	**Units**									
Other											
Total Solids@104C	TSOLID	%	57.1	61.0	44.2	53.9	70.8	79.1	78.5	73.2	67.2
Total Solids@70C	TSOLID70	%	59	61	45	55	72	81	77	74	61
Total Solids (%)	%SOLID	%	55.9	59.1	45.5	56.4	71.8	80.6	77.4	68	65.6
Clay	GS-Clay	%		11.7	8.1	6.3	3.6	0.9	1.7	5.1	6.8
Gravel	GS-Gravel	%		1.4	6.6 L	6.4	0.1	0	0	0	30.0
Sand, Coarse	GS-Csand	%		0.7	2.0	0.9	0.1	0.1	0	1.4	2.2
Sand, Fine (#200) (d)	GS-Fsand-200	%		7.981	24.38	34.9	75.46	87.39	85.07	70.24	39.09
Sand, Fine (#230) (d)	GS-Fsand	%		11.0	28.8	40.6	77.8	88.6	86.0	73.2	42.7
Sand, Medium	GS-Msand	%		0.2	2.6	1.6	1.0	3.3	4.6	6.4	2.8
Silt (#200) (d)	GS-Silt-200	%		78.11	56.31	49.79	19.73	8.503	8.622	16.75	19.10
Silt (#230) (d)	GS-Silt	%		75.1	51.9	44.1	17.4	7.3	7.7	13.8	15.5
Percent Fines (e)	GS-FINES	%		89.81	64.41	56.09	23.33	9.403	10.322	21.85	25.9
Liquid Limit	GS-LL	None								0	
Plasticity Index	GS-PI	None								< 0 U	
Plasticity Limit	GS-PL	None								0	
Total Organic Carbon	TOC	mg/kg	42000	50000	100000	54000	13000	970 J	4400	14000	20000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
FD = field duplicate sample
ft = feet
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S263
		Sample ID	PDI-SC-S263-3.8TO5.9
		Sample Date	8/16/2018
		Sample Type Code	N
		Depth	3.8-5.9 ft
Chemical	**CAS_RN**	**Units**	
Dioxins and Furans			
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.083
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.013
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	0.0013 J+
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00080 J+
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0013 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0051
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00080 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0022 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00074 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00047 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00036 J+
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.00045 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00038 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00034 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00063 J
OCDD	3268-87-9	µg/kg	0.83
OCDF	39001-02-0	µg/kg	0.039
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0033
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0031
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.003
Polychlorinated Biphenyls (PCBs)			
Aroclor 1016	12674-11-2	µg/kg	< 3.0 UJ
Aroclor 1221	11104-28-2	µg/kg	< 3.0 UJ
Aroclor 1232	11141-16-5	µg/kg	< 3.0 UJ
Aroclor 1242	53469-21-9	µg/kg	< 3.0 UJ
Aroclor 1248	12672-29-6	µg/kg	< 3.0 UJ
Aroclor 1254	11097-69-1	µg/kg	< 3.0 UJ
Aroclor 1260	11096-82-5	µg/kg	4.8 J
Total PCB Aroclors (b)	T_PCBAr (PDI)	µg/kg	4.8
Pesticides			
2,4-DDD	53-19-0	µg/kg	0.656 J
2,4-DDE	3424-82-6	µg/kg	0.0929 J
2,4-DDT	789-02-6	µg/kg	0.095 JN
4,4'-DDD	72-54-8	µg/kg	2.02 J
4,4'-DDE	72-55-9	µg/kg	2.40 J
4,4'-DDT	50-29-3	µg/kg	0.286 J
DDx (b)	T_DDx (PDI)	µg/kg	5.55
Semivolatile Organics			
2-Methylnaphthalene	91-57-6	µg/kg	15 J
Acenaphthene	83-32-9	µg/kg	15 J
Acenaphthylene	208-96-8	µg/kg	14 J
Anthracene	120-12-7	µg/kg	20 J
Benz(a)anthracene	56-55-3	µg/kg	33 J
Benzo(a)pyrene	50-32-8	µg/kg	47 J
Benzo(b)fluoranthene	205-99-2	µg/kg	54 J
Benzo(g,h,i)perylene	191-24-2	µg/kg	41 J
Benzo(k)fluoranthene	207-08-9	µg/kg	18 J
Chrysene	218-01-9	µg/kg	51 J
Dibenz(a,h)anthracene	53-70-3	µg/kg	< 67 U
Fluoranthene	206-44-0	µg/kg	110
Fluorene	86-73-7	µg/kg	16 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	41 J
Naphthalene	91-20-3	µg/kg	40 J
Phenanthrene	85-01-8	µg/kg	86
Pyrene	129-00-0	µg/kg	110
Total PAHs (b)	T_PAH (PDI)	µg/kg	740
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	94

Table A.2a-1. Chemical Results for PDI Subsurface Sediment Core Samples

		Location	SC-S263
		Sample ID	PDI-SC-S263-3.8TO5.9
		Sample Date	8/16/2018
		Sample Type Code	N
		Depth	3.8-5.9 ft
Chemical	**CAS_RN**	**Units**	
Other			
Total Solids@104C	TSOLID	%	66.9
Total Solids@70C	TSOLID70	%	69
Total Solids (%)	%SOLID	%	63.5
Clay	GS-Clay	%	4.7
Gravel	GS-Gravel	%	48.0
Sand, Coarse	GS-Csand	%	2.1
Sand, Fine (#200) (d)	GS-Fsand-200	%	28.55
Sand, Fine (#230) (d)	GS-Fsand	%	31.9
Sand, Medium	GS-Msand	%	0.9
Silt (#200) (d)	GS-Silt-200	%	15.74
Silt (#230) (d)	GS-Silt	%	12.4
Percent Fines (e)	GS-FINES	%	20.44
Liquid Limit	GS-LL	None	
Plasticity Index	GS-PI	None	
Plasticity Limit	GS-PL	None	
Total Organic Carbon	TOC	mg/kg	32000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
+/- = Indicates the result may be biased high/low
JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UJ = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. The lab reported fine sand and silt fractions based on #230 sieve size; these two fractions were adjusted to the QAPP-specified #200 sieve size using the increment between #230 and #200 as reported by the lab.

e. Sum of silt (#200) and clay fractions.

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DDx = dichlorodiphenyltrichloroethane and its derivatives
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HxCDD = hexachlorodibenzo-p-dioxin
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PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QAPP = Quality Assurance Project Plan
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T06A			T06B		
		Sample ID	PDI-ST-T06A-1810	PDI-ST-T06A-1901	PDI-ST-T06A-1905	PDI-ST-T06B-1810	PDI-ST-T06B-1901	PDI-ST-T06B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	CAS_RN	Units						
Dioxins and Furans								
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.11 J	0.063 J	0.034	0.081 J	0.073 J	0.027
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.019 J	0.020 JN	0.0078 JN	0.017 JN	0.016 JN	0.0047 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0012 UJ	< 0.00041 UJ	< 0.00035 U	< 0.00096 UJ	< 0.00032 UJ	< 0.00022 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.00076 UJ	0.0012 J	0.00067 J	0.0014 J	0.0014 J	0.00057 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.0011 UJ	0.0016 J	0.00056 J	< 0.0013 UJ	0.0013 J	0.00047 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0064 J	0.0030 J	0.0015 JN	0.0052 J	0.0034 J	0.0015 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0011 UJ	0.00065 J	0.00031 J	< 0.0012 UJ	0.00085 J	0.00034 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0038 J	0.0029 J	0.0011 J	0.0034 JN	0.0031 J	0.00090 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.00060 UJ	0.00022 J+	0.00030 J	< 0.00065 UJ	0.00024 J+	0.00076 J+
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.00061 UJ	0.00061 J	0.00024 JN	< 0.00053 UJ	0.00058 JN	< 0.00014 U
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.00048 UJ	0.00027 J	< 0.00011 U	< 0.00042 UJ	< 0.00010 UJ	< 0.00010 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.00072 UJ	0.00051 J	0.00017 J	< 0.00076 UJ	0.00052 J	0.00022 JN
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.00053 UJ	0.00043 J	< 0.00013 U	0.00092 J	0.00035 J	< 0.00012 U
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00063 J	0.00027 JN	< 0.00014 U	< 0.00045 UJ	0.00046 JN	< 0.00015 U
2,3,7,8-TCDF	51207-31-9	µg/kg	0.0015 JN	0.00062 J	< 0.00010 U	0.0013 JN	0.00067 J	0.00028 JN
OCDD	3268-87-9	µg/kg	0.94 J	0.56 J	0.32	0.65 J	0.67 J	0.26
OCDF	39001-02-0	µg/kg	0.061 J	0.12 J	0.034	0.045 J	0.056 J	0.013
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0037	0.0031	0.0013	0.0029	0.0034	0.00098
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0035	0.003	0.00096	0.0024	0.0027	0.00082
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.0032	0.0029	0.00084	0.0021	0.0024	0.00075
Polychlorinated Biphenyls (PCBs)								
PCB-1	2051-60-7	µg/kg	< 0.00054 U	0.0040 JN	< 0.00053 U	< 0.00043 U	0.0069 JN	< 0.00076 U
PCB-2	2051-61-8	µg/kg	< 0.00058 U	0.0039 JN	< 0.00054 U	0.0026 JN	0.0072 J	0.0055 J
PCB-3	2051-62-9	µg/kg	< 0.00058 U	0.0029 JN	< 0.00051 U	< 0.00051 U	0.0061 J	< 0.00089 U
PCB-4	13029-08-8	µg/kg	0.054 JN	0.0090 JN	0.0095 JN	0.016 JN	0.012 JN	0.012 JN
PCB-5	16605-91-7	µg/kg	< 0.0035 U	< 0.0035 UJ	< 0.0033 U	< 0.0033 U	< 0.0033 UJ	< 0.0057 U
PCB-6	25569-80-6	µg/kg	0.024	< 0.0031 UJ	< 0.0029 U	0.0036 JN	0.0040 JN	0.038 JN
PCB-7	33284-50-3	µg/kg	< 0.0032 U	0.0032 JN	< 0.0029 U	< 0.0030 U	< 0.0030 UJ	< 0.0051 U
PCB-8	34883-43-7	µg/kg	0.031 J	0.0088 JN	0.0092 JN	0.013 JN	0.0075 JN	0.016 JN
PCB-9	34883-39-1	µg/kg	< 0.0032 U	< 0.0033 UJ	< 0.0030 U	< 0.0031 U	< 0.0031 UJ	< 0.0053 U
PCB-10	33146-45-1	µg/kg	0.0035 JN	< 0.0035 UJ	< 0.0032 U	< 0.0033 U	< 0.0033 UJ	< 0.0056 U
PCB-11	2050-67-1	µg/kg	0.13	0.071 J	0.052	0.088	0.082 J	0.054
PCB-12/13	2974-92-7	µg/kg	0.0057 JN	0.0052 JN	< 0.0029 U	0.0042 JN	0.0061 JN	< 0.0051 U
PCB-14	34883-41-5	µg/kg	< 0.0027 U	< 0.0027 UJ	< 0.0025 U	< 0.0025 U	< 0.0025 UJ	< 0.0043 U
PCB-15	2050-68-2	µg/kg	0.024	0.0084 JN	0.0062 JN	0.016 JN	0.011 JN	0.0067 JN
PCB-16	38444-78-9	µg/kg	0.014 J	0.0039 JN	0.0085 J	0.0060 JN	0.0064 JN	0.020 JN
PCB-17	37680-66-3	µg/kg	0.041	0.013 J	0.011 JN	0.015 JN	0.015 J	0.035 JN
PCB-18/30	37680-65-2	µg/kg	0.044	0.014 J	0.017 JN	0.030 J	0.018 J	0.063 JN
PCB-19	38444-73-4	µg/kg	0.089	0.019 JN	0.011	0.019	0.013 J	0.0058 JN
PCB-20/28	38444-84-7	µg/kg	0.087	0.037 J	0.031	0.058	0.043 J	0.093
PCB-21/33	55702-46-0	µg/kg	0.021 JN	0.012 J	0.0095 J	0.020 JN	0.015 JN	0.029
PCB-22	38444-85-8	µg/kg	0.017 J	0.0085 JN	0.0055 JN	0.018	0.010 JN	0.022
PCB-23	55720-44-0	µg/kg	< 0.0014 U	< 0.0011 UJ	< 0.0014 U	< 0.0014 U	< 0.0012 UJ	< 0.0020 U
PCB-24	55702-45-9	µg/kg	< 0.00058 U	0.0011 JN	< 0.0013 U	< 0.00040 U	< 0.00049 UJ	< 0.0019 U
PCB-25	55712-37-3	µg/kg	0.016 J	0.0034 J	0.0033 JN	0.0071 J	0.0043 JN	0.046 JN
PCB-26/29	38444-81-4	µg/kg	0.023 J	0.0063 J	0.0057 J	0.012 J	0.0098 J	0.086
PCB-27	38444-76-7	µg/kg	0.013 J	0.0041 J	0.0068 J	< 0.00035 U	0.0047 J	0.0045 JN
PCB-31	16606-02-3	µg/kg	0.074	0.029 J	0.024	0.064	0.038 J	0.093
PCB-32	38444-77-8	µg/kg	0.031	0.0091 J	0.012	0.011 J	0.012 J	0.020
PCB-34	37680-68-5	µg/kg	< 0.0014 U	< 0.0012 UJ	< 0.0014 U	< 0.0015 U	< 0.0013 UJ	< 0.0021 U
PCB-35	37680-69-6	µg/kg	0.0029 J	< 0.0012 UJ	< 0.0014 U	0.0039 JN	< 0.0012 UJ	< 0.0020 U
PCB-36	38444-87-0	µg/kg	< 0.0013 U	< 0.0011 UJ	< 0.0013 U	< 0.0014 U	< 0.0012 UJ	< 0.0019 U
PCB-37	38444-90-5	µg/kg	0.029	0.012 J	0.0077 JN	0.030	0.015 J	0.014
PCB-38	53555-66-1	µg/kg	< 0.0014 U	< 0.0012 UJ	< 0.0014 U	< 0.0015 U	< 0.0013 UJ	< 0.0021 U
PCB-39	38444-88-1	µg/kg	< 0.0013 U	< 0.0011 UJ	< 0.0013 U	< 0.0013 U	< 0.0012 UJ	< 0.0019 U
PCB-40/41/71	38444-93-8	µg/kg	0.087	0.028 J	0.016 JN	0.12	0.042 J	0.055

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T06A			T06B		
		Sample ID	PDI-ST-T06A-1810	PDI-ST-T06A-1901	PDI-ST-T06A-1905	PDI-ST-T06B-1810	PDI-ST-T06B-1901	PDI-ST-T06B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	CAS_RN	Units						
PCB-42	36559-22-5	µg/kg	0.031	0.014 J	0.015	0.056	0.020 J	0.034
PCB-43/73	70362-46-8	µg/kg	0.018 J	0.0052 JN	< 0.0023 U	0.019 J	0.0085 JN	< 0.0039 U
PCB-44/47/65	41464-39-5	µg/kg	0.38	0.13 J	0.047	0.55	0.14 J	0.13
PCB-45/51	70362-45-7	µg/kg	0.054	0.020 J	< 0.0025 U	0.023 JN	0.015 JN	0.028
PCB-46	41464-47-5	µg/kg	0.0086 J	< 0.0032 UJ	< 0.0031 U	0.0083 JN	0.0033 JN	< 0.0053 U
PCB-48	70362-47-9	µg/kg	0.020 J	0.0096 JN	0.0064 JN	0.037	0.012 J	0.018
PCB-49/69	41464-40-8	µg/kg	0.20	0.066 J	0.037	0.29	0.083 J	0.094
PCB-50/53	62796-65-0	µg/kg	0.060	0.022 J	0.011 J	0.044	0.017 JN	0.026
PCB-52	35693-99-3	µg/kg	0.68	0.17 J	0.080	1.3	0.27 J	0.19
PCB-54	15968-05-5	µg/kg	0.017 J	0.0053 JN	< 0.0013 U	0.0042 JN	0.0039 J	< 0.0014 U
PCB-55	74338-24-2	µg/kg	< 0.0022 U	0.0035 J	< 0.0018 U	0.0093 JN	0.0034 JN	< 0.0030 U
PCB-56	41464-43-1	µg/kg	0.081	0.029 J	0.017	0.13	0.039 J	0.026
PCB-57	70424-67-8	µg/kg	< 0.0022 U	< 0.0019 UJ	< 0.0018 U	< 0.0027 U	< 0.00027 UJ	< 0.0031 U
PCB-58	41464-49-7	µg/kg	< 0.0023 U	< 0.0019 UJ	< 0.0018 U	0.0040 J	< 0.00027 UJ	< 0.0031 U
PCB-59/62/75	74472-33-6	µg/kg	0.012 J	< 0.0018 UJ	< 0.0017 U	0.015 J	0.0067 J	0.013 J
PCB-60	33025-41-1	µg/kg	0.038	0.012 JN	0.0054 JN	0.058	0.021 J	0.013
PCB-61/70/74/76	33284-53-6	µg/kg	0.67	0.17 J	0.075 JN	1.2	0.26 J	0.12
PCB-63	74472-34-7	µg/kg	0.0074 JN	< 0.0017 UJ	< 0.0016 U	0.012 J	0.0043 JN	< 0.0028 U
PCB-64	52663-58-8	µg/kg	0.088	0.031 J	0.018 JN	0.17	0.047 J	0.042 JN
PCB-66	32598-10-0	µg/kg	0.22	0.072 J	0.045	0.36	0.10 J	0.072
PCB-67	73575-53-8	µg/kg	< 0.0019 U	< 0.0016 UJ	< 0.0015 U	0.0075 J	< 0.00023 UJ	< 0.0027 U
PCB-68	73575-52-7	µg/kg	< 0.0020 U	< 0.0016 UJ	< 0.0016 U	< 0.0024 U	0.0019 JN	< 0.0027 U
PCB-72	41464-42-0	µg/kg	< 0.0022 U	< 0.0018 UJ	< 0.0017 U	< 0.0027 U	< 0.00026 UJ	< 0.0030 U
PCB-77	32598-13-3	µg/kg	0.048 JN	0.013 J	0.0059 J	0.094	0.022 JN	0.0081 J
PCB-78	70362-49-1	µg/kg	< 0.0023 U	< 0.0019 UJ	< 0.0018 U	< 0.0028 U	< 0.00027 UJ	< 0.0031 U
PCB-79	41464-48-6	µg/kg	0.0059 JN	< 0.0016 UJ	< 0.0016 U	0.015 J	0.0031 JN	< 0.0027 U
PCB-80	33284-52-5	µg/kg	< 0.0019 U	< 0.0016 UJ	< 0.0015 U	< 0.0024 U	< 0.00023 UJ	< 0.0027 U
PCB-81	70362-50-4	µg/kg	< 0.0020 U	< 0.0017 UJ	< 0.0016 U	0.0035 J	< 0.00025 UJ	< 0.0028 U
PCB-82	52663-62-4	µg/kg	0.19	0.041 J	0.011 JN	0.36	0.074 J	0.016 JN
PCB-83/99	60145-20-2	µg/kg	0.83	0.18 J	0.061 JN	1.5	0.29 J	0.13
PCB-84	52663-60-2	µg/kg	0.39	0.080 J	0.029 JN	0.76	0.12 J	0.065 JN
PCB-85/116/117	65510-45-4	µg/kg	0.28	0.056 JN	0.019 JN	0.52	0.10 J	0.034 JN
PCB-86/87/97/109/119/125	55312-69-1	µg/kg	1.1	0.21 J	0.075	2.0	0.35 J	0.12
PCB-88/91	55215-17-3	µg/kg	0.21	0.050 J	0.020 JN	0.35	0.057 JN	0.040
PCB-89	73575-57-2	µg/kg	< 0.00068 U	0.0042 JN	< 0.0021 U	0.028	< 0.00030 UJ	< 0.0037 U
PCB-90/101/113	68194-07-0	µg/kg	1.6	0.31 J	0.11	2.8	0.50 J	0.21
PCB-92	52663-61-3	µg/kg	0.27	0.059 J	0.021	0.46	0.089 J	0.047
PCB-93/100	73575-56-1	µg/kg	0.034 J	0.012 JN	0.0053 JN	0.048	0.0096 J	0.0077 JN
PCB-94	73575-55-0	µg/kg	0.011 J	< 0.00033 UJ	< 0.0021 U	0.012 JN	< 0.00030 UJ	< 0.0037 U
PCB-95	38379-99-6	µg/kg	1.2	0.25 J	0.10	2.2	0.39 J	0.22
PCB-96	73575-54-9	µg/kg	0.012 JN	< 0.00025 UJ	< 0.0016 U	0.020	0.0047 J	< 0.0028 U
PCB-98/102	60233-25-2	µg/kg	0.035 JN	0.013 J	0.0093 J	0.074	0.016 J	0.013 JN
PCB-103	60145-21-3	µg/kg	0.016 J	0.0048 J	< 0.0019 U	0.013 JN	0.0045 J	< 0.0033 U
PCB-104	56558-16-8	µg/kg	< 0.00046 U	< 0.00022 UJ	< 0.0014 U	< 0.00047 U	< 0.00020 UJ	< 0.0025 U
PCB-105	32598-14-4	µg/kg	0.66	0.12 J	0.047	1.2	0.19 J	0.054
PCB-106	70424-69-0	µg/kg	< 0.0031 U	< 0.0020 UJ	< 0.0016 U	< 0.0035 U	< 0.0022 UJ	< 0.0033 U
PCB-107	70424-68-9	µg/kg	0.10 JN	0.026 J	0.0096 JN	0.20	0.035 J	0.012 JN
PCB-108/124	70362-41-3	µg/kg	0.065	0.014 J	0.0057 JN	0.12	0.023 J	0.0071 JN
PCB-110/115	38380-03-9	µg/kg	1.9	0.38 J	0.13	3.3	0.58 J	0.23
PCB-111	39635-32-0	µg/kg	< 0.00042 U	< 0.00020 UJ	< 0.0013 U	< 0.00044 U	< 0.00019 UJ	< 0.0023 U
PCB-112	74472-36-9	µg/kg	0.011 J	< 0.00021 UJ	< 0.0014 U	< 0.00046 U	0.0015 JN	< 0.0024 U
PCB-114	74472-37-0	µg/kg	0.038	< 0.0019 UJ	< 0.0015 U	0.071	0.012 J	< 0.0030 U
PCB-118	31508-00-6	µg/kg	1.6	0.30 J	0.11	2.7	0.47 J	0.14
PCB-120	68194-12-7	µg/kg	< 0.00043 U	< 0.00021 UJ	< 0.0013 U	< 0.00045 U	< 0.00019 UJ	< 0.0023 U
PCB-121	56558-18-0	µg/kg	< 0.00044 U	< 0.00021 UJ	< 0.0014 U	< 0.00046 U	< 0.00020 UJ	< 0.0024 U
PCB-122	76842-07-4	µg/kg	0.022 JN	< 0.0023 UJ	< 0.0019 U	0.056	0.0080 JN	< 0.0039 U
PCB-123	65510-44-3	µg/kg	0.033 JN	0.0059 J	< 0.0016 U	0.044 JN	0.0092 JN	< 0.0032 U

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T06A			T06B		
		Sample ID	PDI-ST-T06A-1810	PDI-ST-T06A-1901	PDI-ST-T06A-1905	PDI-ST-T06B-1810	PDI-ST-T06B-1901	PDI-ST-T06B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	CAS_RN	Units						
PCB-126	57465-28-8	µg/kg	0.020 JN	< 0.0022 UJ	< 0.0019 U	0.043	< 0.0025 UJ	< 0.0039 U
PCB-127	39635-33-1	µg/kg	< 0.0031 U	< 0.0020 UJ	< 0.0016 U	< 0.0035 U	< 0.0022 UJ	< 0.0033 U
PCB-128/166	38380-07-3	µg/kg	0.35	0.071 J	0.029 JN	0.62	0.12 J	0.035 JN
PCB-129/138/160/163	55215-18-4	µg/kg	2.2	0.49 J	0.19	3.5	0.73 J	0.29
PCB-130	52663-66-8	µg/kg	0.14	0.028 JN	0.017 JN	0.25	0.047 J	0.021 JN
PCB-131	61798-70-7	µg/kg	0.030	< 0.0029 UJ	< 0.0036 U	0.064	0.014 J	< 0.0077 U
PCB-132	38380-05-1	µg/kg	0.67	0.14 J	0.049 JN	1.2	0.21 J	0.095
PCB-133	35694-04-3	µg/kg	0.026	0.0063 J	< 0.0033 U	0.038	0.012 J	< 0.0070 U
PCB-134/143	52704-70-8	µg/kg	0.12	0.023 JN	0.0058 JN	0.20	0.043 J	0.015 J
PCB-135/151	52744-13-5	µg/kg	0.50	0.12 J	0.046	0.68	0.16 J	0.095
PCB-136	38411-22-2	µg/kg	0.21	0.044 J	0.018	0.30	0.058 J	0.035
PCB-137	35694-06-5	µg/kg	0.12	0.023 J	0.0097 J	0.22	0.039 J	0.017 JN
PCB-139/140	56030-56-9	µg/kg	0.033 J	0.0062 JN	< 0.0029 U	0.073	0.012 J	< 0.0063 U
PCB-141	52712-04-6	µg/kg	0.35	0.081 J	0.030 JN	0.54	0.12 J	0.051
PCB-142	41411-61-4	µg/kg	< 0.0053 U	< 0.0026 UJ	< 0.0033 U	< 0.0055 U	< 0.0031 UJ	< 0.0070 U
PCB-144	68194-14-9	µg/kg	0.066	0.014 J	< 0.0020 U	0.11	0.021 J	0.012 JN
PCB-145	74472-40-5	µg/kg	< 0.00053 U	< 0.00014 UJ	< 0.0015 U	0.0037 JN	< 0.00025 UJ	< 0.0024 U
PCB-146	51908-16-8	µg/kg	0.27	0.065 J	0.036	0.39	0.099 J	0.040 JN
PCB-147/149	68194-13-8	µg/kg	1.4	0.35 J	0.15	2.1	0.47 J	0.26
PCB-148	74472-41-6	µg/kg	0.0030 JN	< 0.00020 UJ	< 0.0022 U	0.0030 JN	0.0019 J	< 0.0034 U
PCB-150	68194-08-1	µg/kg	0.0046 J	0.0014 J	< 0.0015 U	0.0030 J	0.0012 JN	< 0.0023 U
PCB-152	68194-09-2	µg/kg	0.0021 J	< 0.00015 UJ	< 0.0016 U	0.0038 J	< 0.00026 UJ	< 0.0025 U
PCB-153/168	35065-27-1	µg/kg	1.4	0.36 J	0.15	2.1	0.48 J	0.24
PCB-154	60145-22-4	µg/kg	0.024	0.0039 JN	< 0.0017 U	0.032	0.010 JN	0.0045 J
PCB-155	33979-03-2	µg/kg	< 0.00051 U	< 0.00014 UJ	< 0.0015 U	< 0.00071 U	< 0.00024 UJ	< 0.0023 U
PCB-156/157	38380-08-4	µg/kg	0.31	0.056 J	0.020 JN	0.51	0.084 J	0.025 JN
PCB-158	74472-42-7	µg/kg	0.25	0.051 J	0.020	0.40	0.077 J	0.029
PCB-159	39635-35-3	µg/kg	< 0.0036 U	< 0.0018 UJ	< 0.0022 U	0.0090 J	0.0041 J	< 0.0047 U
PCB-161	74472-43-8	µg/kg	< 0.0035 U	< 0.0017 UJ	< 0.0022 U	< 0.0037 U	< 0.0020 UJ	< 0.0046 U
PCB-162	39635-34-2	µg/kg	0.0070 JN	< 0.0017 UJ	< 0.0022 U	0.015 J	< 0.0020 UJ	< 0.0046 U
PCB-164	74472-45-0	µg/kg	0.14	0.033 J	0.014	0.23	0.048 J	0.027
PCB-165	74472-46-1	µg/kg	< 0.0040 U	< 0.0020 UJ	< 0.0025 U	< 0.0042 U	< 0.0023 UJ	< 0.0053 U
PCB-167	52663-72-6	µg/kg	0.092	0.016 J	0.0087 J	0.16	0.030 J	< 0.0034 U
PCB-169	32774-16-6	µg/kg	< 0.0026 U	< 0.0013 UJ	< 0.0017 U	< 0.0027 U	< 0.0016 UJ	< 0.0037 U
PCB-170	35065-30-6	µg/kg	0.38	0.095 J	0.048	0.46	0.12 J	0.057 JN
PCB-171/173	52663-71-5	µg/kg	0.11	0.029 J	< 0.0039 U	0.13	0.036 J	0.025
PCB-172	52663-74-8	µg/kg	0.061	0.016 J	< 0.0039 U	0.060	0.022 J	0.016
PCB-174	38411-25-5	µg/kg	0.30	0.093 J	0.046	0.31	0.10 J	0.052
PCB-175	40186-70-7	µg/kg	0.013 J	0.0036 JN	< 0.0036 U	0.014 J	0.0020 JN	< 0.0047 U
PCB-176	52663-65-7	µg/kg	0.039	0.0087 J	< 0.0027 U	0.037	0.013 J	0.018
PCB-177	52663-70-4	µg/kg	0.19	0.053 JN	0.023	0.19	0.070 J	0.039
PCB-178	52663-67-9	µg/kg	0.064	0.020 J	0.013	0.056	0.023 J	0.019
PCB-179	52663-64-6	µg/kg	0.12	0.045 J	0.018	0.10	0.045 J	0.035
PCB-180/193	35065-29-3	µg/kg	0.69	0.20 J	0.085	0.68	0.20 J	0.11
PCB-181	74472-47-2	µg/kg	< 0.0021 U	< 0.00089 UJ	< 0.0035 U	0.010 J	0.0020 JN	< 0.0047 U
PCB-182	60145-23-5	µg/kg	0.0058 J	< 0.00086 UJ	< 0.0034 U	0.0079 J	< 0.00029 UJ	< 0.0045 U
PCB-183/185	52663-69-1	µg/kg	0.21	0.059 J	0.026 JN	0.20	0.069 J	0.033 JN
PCB-184	74472-48-3	µg/kg	< 0.0017 U	< 0.00073 UJ	< 0.0029 U	< 0.0021 U	< 0.00024 UJ	< 0.0038 U
PCB-186	74472-49-4	µg/kg	< 0.0017 U	< 0.00071 UJ	< 0.0028 U	< 0.0021 U	< 0.00024 UJ	< 0.0037 U
PCB-187	52663-68-0	µg/kg	0.36	0.13 J	0.063	0.32	0.14 J	0.077
PCB-188	74487-85-7	µg/kg	< 0.0015 U	< 0.00060 UJ	< 0.0023 U	< 0.0018 U	< 0.00020 UJ	< 0.0030 U
PCB-189	39635-31-9	µg/kg	0.015 J	0.0046 JN	< 0.0033 U	0.020 JN	< 0.0022 UJ	< 0.0066 U
PCB-190	41411-64-7	µg/kg	0.064	0.019 J	< 0.0026 U	0.071	0.021 J	0.010 J
PCB-191	74472-50-7	µg/kg	0.014 J	0.0031 JN	< 0.0027 U	0.021	0.0073 JN	< 0.0035 U
PCB-192	74472-51-8	µg/kg	< 0.0018 U	< 0.00075 UJ	< 0.0030 U	< 0.0022 U	< 0.00025 UJ	< 0.0039 U
PCB-194	35694-08-7	µg/kg	0.13	0.047 J	0.020 JN	0.10	0.049 J	0.041
PCB-195	52663-78-2	µg/kg	0.056	0.021 J	< 0.0052 U	0.044	0.023 J	< 0.011 U

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T06A			T06B		
		Sample ID	PDI-ST-T06A-1810	PDI-ST-T06A-1901	PDI-ST-T06A-1905	PDI-ST-T06B-1810	PDI-ST-T06B-1901	PDI-ST-T06B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	**CAS_RN**	**Units**						
PCB-196	42740-50-1	µg/kg	0.062	0.020 J	0.012	0.051	0.019 JN	0.012 JN
PCB-197	33091-17-7	µg/kg	0.0056 J	0.0014 JN	< 0.0022 U	0.0042 JN	0.0024 J	< 0.0036 U
PCB-198/199	68194-17-2	µg/kg	0.15	0.044 JN	0.029	0.13	0.057 J	0.044
PCB-200	52663-73-7	µg/kg	0.015 JN	0.0042 J	< 0.0019 U	0.0094 J	0.0037 JN	< 0.0032 U
PCB-201	40186-71-8	µg/kg	0.012 JN	0.0047 J	< 0.0020 U	0.012 JN	0.0054 JN	< 0.0033 U
PCB-202	2136-99-4	µg/kg	0.028	0.0094 JN	< 0.0022 U	0.028	0.0096 JN	0.012
PCB-203	52663-76-0	µg/kg	0.089	0.031 J	0.013	0.071	0.035 J	0.021 JN
PCB-204	74472-52-9	µg/kg	< 0.0018 U	< 0.00036 UJ	< 0.0022 U	< 0.0019 U	< 0.00030 UJ	< 0.0036 U
PCB-205	74472-53-0	µg/kg	< 0.0045 U	< 0.0013 UJ	< 0.0040 U	< 0.0045 U	< 0.0011 UJ	< 0.0087 U
PCB-206	40186-72-9	µg/kg	0.070	0.027 JN	0.012 JN	0.065 JN	0.041 J	< 0.013 U
PCB-207	52663-79-3	µg/kg	< 0.0041 U	0.0027 JN	< 0.0025 U	< 0.0036 U	0.0049 J	< 0.0086 U
PCB-208	52663-77-1	µg/kg	0.019 JN	0.0082 JN	< 0.0024 U	0.021	0.011 JN	< 0.0086 U
PCB-209	2051-24-3	µg/kg	0.076	0.048 J	0.038	0.067	0.046 J	0.041
Total PCBs (b)	T_PCBCg (PDI)	µg/kg	26	6.24	2.6	41	8.87	4.8
Pesticides								
2,4-DDD	53-19-0	µg/kg	< 0.73 U	< 0.38 U	0.14	< 0.77 U	< 0.39 U	0.15
2,4-DDE	3424-82-6	µg/kg	< 0.73 U	< 0.38 U	< 0.11 U	< 0.77 U	< 0.39 U	< 0.13 U
2,4-DDT	789-02-6	µg/kg	< 0.73 U	< 0.38 U	< 0.11 UJ	< 0.77 U	< 0.39 U	< 0.13 UJ
4,4'-DDD	72-54-8	µg/kg	< 0.73 U	0.79	0.60	< 0.77 U	0.74	0.62
4,4'-DDE	72-55-9	µg/kg	1.4	1.5	1.1 J	1.4	1.4	1.0 J
4,4'-DDT	50-29-3	µg/kg	0.42 J	1.1	0.49	0.37 J	2.3	0.38
DDx (b)	T_DDx (PDI)	µg/kg	2.2	3.6	2.4	2.2	4.6	2.2
Aldrin	309-00-2	µg/kg	1.6	< 0.38 U	< 0.11 U	< 0.77 U	< 0.39 U	< 0.13 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.5 U	< 0.76 U	0.081 J	< 1.5 U	< 0.79 U	0.084 J
cis-Nonachlor	5103-73-1	µg/kg	< 0.73 U	< 0.38 U	< 0.11 U	< 0.77 U	< 0.39 U	< 0.13 U
Dieldrin	60-57-1	µg/kg	< 1.5 U	< 0.76 U	0.17 J	< 1.5 U	< 0.79 U	0.18 J
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.73 U	< 0.38 U	< 0.11 U	< 0.77 U	< 0.39 U	< 0.13 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.5 U	< 0.76 U	0.087 J	< 1.5 U	< 0.79 U	0.096 J
Heptachlor	76-44-8	µg/kg	< 0.73 U	< 0.38 U	< 0.11 U	< 0.77 U	< 0.39 U	< 0.13 U
Oxychlordane	27304-13-8	µg/kg	< 1.5 U	< 0.76 U	0.29	< 1.5 U	< 0.79 U	2.1
trans-Nonachlor	39765-80-5	µg/kg	< 1.5 U	< 0.76 U	0.12 J	< 1.5 U	< 0.79 U	0.12 J
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.5 U	< 0.76 U	0.63	< 1.5 U	< 0.79 U	2.5
Metals								
Arsenic	7440-38-2	mg/kg	8.4	7.2	4.2	7.3	6.9	5.0
Cadmium	7440-43-9	mg/kg	0.30 J	0.21 J	0.15 J	0.28 J	0.21 J	0.13 J
Copper	7440-50-8	mg/kg	58	46	29	51	43	32
Lead	7439-92-1	mg/kg	22	12	7.6	18	13	9.4 J
Mercury	7439-97-6	mg/kg	0.27	0.066 J	0.076	0.16	0.070 J	0.10 J
Tri-n-butyltin	36643-28-4	µg/kg	< 3.9 U	< 3.9 U	< 2.1 U	< 3.9 U	< 4.0 U	< 2.6 U
Zinc	7440-66-6	mg/kg	170	120	75	140	110	96
Polycyclic Aromatic Hydrocarbons (PAHs)								
2-Methylnaphthalene	91-57-6	µg/kg	1.9 J	0.97 J	0.53 J	1.8 J	0.93 J	0.99 J
Acenaphthene	83-32-9	µg/kg	2.2 J	0.81 J	0.52 J	5.0	3.3	2.8 J
Acenaphthylene	208-96-8	µg/kg	2.0 J	0.91 J	0.51 J	2.0 J	2.9	0.99 J
Anthracene	120-12-7	µg/kg	5.0	2.8	1.2	5.4	7.3	2.0
Benz(a)anthracene	56-55-3	µg/kg	16	9.5	2.2	11	27	5.3
Benzo(a)pyrene	50-32-8	µg/kg	16	15 J	3.4	15	37	7.4
Benzo(b)fluoranthene	205-99-2	µg/kg	30	13	4.7	20	36	9.4
Benzo(g,h,i)perylene	191-24-2	µg/kg	18 J	8.4	4.2	17	18	7.2
Benzo(k)fluoranthene	207-08-9	µg/kg	9.9	5.6	1.7	7.1	13	3.3
Chrysene	218-01-9	µg/kg	23	13	3.6	14	30	8.1
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.9	1.1	0.61	2.4	4.6	1.5
Dibenzofuran	132-64-9	µg/kg	2.0 J	0.69 J	0.58	1.9	0.81 J	0.82 J
Fluoranthene	206-44-0	µg/kg	54	31	7.2	33	40	11
Fluorene	86-73-7	µg/kg	2.8	0.76 J	0.68	2.7	2.5	1.2 J
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	15	6.8	3.9 J	13	19	6.6 J
Naphthalene	91-20-3	µg/kg	2.9 J	1.3 J	1.0 J	3.3	1.4 J	2.2 J

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T06A			T06B		
		Sample ID	PDI-ST-T06A-1810	PDI-ST-T06A-1901	PDI-ST-T06A-1905	PDI-ST-T06B-1810	PDI-ST-T06B-1901	PDI-ST-T06B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	**CAS_RN**	**Units**						
Phenanthrene	85-01-8	µg/kg	21	7.2	4.0	20	22	6.7
Pyrene	129-00-0	µg/kg	52	26	6.4	36	39	11 J
Total PAHs (b)	T_PAH (PDI)	µg/kg	270	140	46	210	300	88
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	25	19	5.1	22	50	11
Semivolatile Organic Carbons (SVOCs)								
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	150 J	< 200 U	53 J	140 J	< 200 U	51 J
Total petroleum hydrocarbons (TPH)								
TPH-Diesel Range Organics	68334-30-5	mg/kg	150 J	130 J	71 J	190	170 J	87 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	760	730	440	640	940	620
Other								
Total Solids@104C (e)	TSOLID	%	23.5	25.2	45.8	28.1	24.7	40.1
Total Solids@104C (d)	TSOLID	%	25.6	25.6	46.2	25.3	25.0	38.5
Total Solids@70C (e)	TSOLID70	%	25	25	48	25	24	50
Clay	GS-Clay	%	16.5	10.0	7.4	18.9	10.2	7.7
Gravel	GS-Gravel	%	0	0	0.1	0	0	0.1
Sand, Coarse	GS-Csand	%	0	0	0.1	0.1	0.1	0.3
Sand, Fine (#200)	GS-Fsand-200	%	7.7	13.4	51.2	5.9	13.5	65.3
Sand, Fine (#230)	GS-Fsand	%	9.5	16.7	55.1	7.8	17.0	68.3
Sand, Medium	GS-Msand	%	0.2	0.2	1.1	0.4	0.7	2.6
Silt (#200)	GS-Silt-200	%	75.5	76.4	40.1	74.8	75.6	24.1
Silt (#230)	GS-Silt	%	73.7	73.1	36.2	72.9	72.1	21.1
Percent Fines (f)	GS-FINES	%	92	86.4	47.5	93.7	85.8	31.8
Total Organic Carbon	TOC	mg/kg	38000	36000	43000	39000	40000	23000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
NJ = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UP = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. Solids results provided by ALS-Kelso Laboratory with the pesticide, PAH, SVOC, and tri-n-butyltin data.

e. Solids results provided by TestAmerica-WA Laboratory with the metals, TPH, and physical parameters.

f. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
BHC = benzene hexachloride
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
SVOC = semivolatile organic compound
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence
TPH = total petroleum hydrocarbon

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T07A			T07B		
		Sample ID	PDI-ST-T07A-1810	PDI-ST-T07A-1901	PDI-ST-T07A-1905	PDI-ST-T07B-1810	PDI-ST-T07B-1901	PDI-ST-T07B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	CAS_RN	Units						
Dioxins and Furans								
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.36 J	0.071 J	0.023	0.13 J	0.064 J	0.067
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.060 J	0.017 JN	0.0047 JN	0.029 JN	0.015 JN	0.0085 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0043 UJ	0.0010 J	< 0.00025 U	0.0022 J	< 0.00027 UJ	< 0.00036 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.0031 UJ	0.0013 J	0.00069 J	< 0.00097 UJ	0.0012 J	0.00074 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.0047 UJ	0.0012 J	0.00045 J	< 0.0013 UJ	0.0011 J	0.00062 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0098 J	0.0033 J	0.0014 J	0.0079 J	0.0032 J	0.0020 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0044 UJ	< 0.00019 UJ	0.00035 J	< 0.0010 UJ	0.00065 J	0.00038 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0088 JN	0.0029 J	0.0014 J	0.0044 J	0.0025 J	0.0015 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0025 UJ	0.00013 J+	0.00038 J	< 0.00062 UJ	0.00014 JN	< 0.00017 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	< 0.0032 UJ	0.00056 JN	0.00042 J	< 0.00079 UJ	0.00055 J	0.00035 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	< 0.0026 UJ	0.00029 J	< 0.00014 U	< 0.00070 UJ	0.00025 JN	< 0.00013 U
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0028 UJ	0.00050 J	0.00022 JN	0.0013 J	0.00051 J	0.00028 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	< 0.0030 UJ	0.00032 J	< 0.00016 U	< 0.00085 UJ	0.00025 JN	< 0.00015 U
2,3,7,8-TCDD	1746-01-6	µg/kg	< 0.0023 UJ	0.00095 JN	0.00028 JN	0.0011 JN	0.00026 JN	0.00058 J
2,3,7,8-TCDF	51207-31-9	µg/kg	< 0.0017 UJ	0.00055 J	0.00037 J	0.0019 J	0.00056 J	0.00044 J
OCDD	3268-87-9	µg/kg	5.4 J	0.62 J	0.19	1.0 J	0.55 J	0.59
OCDF	39001-02-0	µg/kg	0.65 J	0.091 J	0.014	0.080 J	0.050 J	0.034
TCDD-TEQ (b)	T_DF_TEQ (PDI)	µg/kg	0.0095	0.0037	0.0016	0.005	0.0028	0.0025
TCDD-TEQ (EMPC=half) (c)	T_DF_TEQ(E_0.5)	µg/kg	0.0086	0.0027	0.0014	0.004	0.0026	0.0023
TCDD-TEQ (EMPC=0) (c)	T_DF_TEQ(E_0)	µg/kg	0.007	0.0022	0.0012	0.0035	0.0025	0.0021
Polychlorinated Biphenyls (PCBs)								
PCB-1	2051-60-7	µg/kg	< 0.00044 U	< 0.00048 UJ	< 0.00049 U	0.0015 JN	< 0.00044 UJ	< 0.00051 U
PCB-2	2051-61-8	µg/kg	< 0.00050 U	0.0042 JN	< 0.00051 U	0.0039 J	< 0.00054 UJ	0.0020 JN
PCB-3	2051-62-9	µg/kg	< 0.00053 U	< 0.00061 UJ	< 0.00049 U	< 0.00048 U	< 0.00063 UJ	0.0060 JN
PCB-4	13029-08-8	µg/kg	< 0.0049 U	0.010 JN	0.0082 JN	0.0070 JN	0.0067 JN	0.028
PCB-5	16605-91-7	µg/kg	< 0.0038 U	< 0.0045 UJ	< 0.0030 U	< 0.0036 U	< 0.0038 UJ	< 0.0032 U
PCB-6	25569-80-6	µg/kg	< 0.0033 U	0.0055 JN	0.0056 JN	0.0040 JN	< 0.0033 UJ	0.031
PCB-7	33284-50-3	µg/kg	< 0.0034 U	< 0.0040 UJ	< 0.0027 U	< 0.0033 U	< 0.0034 UJ	0.0086 J
PCB-8	34883-43-7	µg/kg	0.015 JN	0.014 J	0.0094 J	0.012 JN	0.0078 JN	0.14
PCB-9	34883-39-1	µg/kg	< 0.0035 U	< 0.0041 UJ	< 0.0028 U	< 0.0034 U	< 0.0035 UJ	0.011 J
PCB-10	33146-45-1	µg/kg	< 0.0037 U	< 0.0044 UJ	< 0.0030 U	< 0.0036 U	< 0.0037 UJ	< 0.0031 U
PCB-11	2050-67-1	µg/kg	0.13	0.069 JN	0.035	0.11	0.062 JN	0.033
PCB-12/13	2974-92-7	µg/kg	0.0049 JN	0.0067 JN	0.0035 J	0.0040 JN	0.0041 JN	0.012 JN
PCB-14	34883-41-5	µg/kg	< 0.0029 U	< 0.0034 UJ	< 0.0023 U	< 0.0027 U	< 0.0029 UJ	< 0.0024 U
PCB-15	2050-68-2	µg/kg	0.018 JN	0.010 JN	0.0059 JN	0.016 JN	0.0091 J	0.086
PCB-16	38444-78-9	µg/kg	0.011 JN	0.012 J	0.0074 JN	0.0084 JN	0.0058 J	0.032
PCB-17	37680-66-3	µg/kg	0.020 JN	0.014 J	0.015	0.015 J	0.0058 JN	0.031 JN
PCB-18/30	37680-65-2	µg/kg	0.040 J	0.034 J	0.023	0.028 J	0.014 J	0.067
PCB-19	38444-73-4	µg/kg	0.0055 J	< 0.00075 UJ	< 0.0014 U	0.0030 JN	0.0017 JN	0.0084 J
PCB-20/28	38444-84-7	µg/kg	0.088	0.058 J	0.032	0.059	0.033 JN	0.082
PCB-21/33	55702-46-0	µg/kg	0.033 J	0.021 J	0.012 J	0.023 J	0.011 J	0.042
PCB-22	38444-85-8	µg/kg	0.026	0.015 JN	0.0090 J	0.018 J	0.010 J	0.026 JN
PCB-23	55720-44-0	µg/kg	< 0.0015 U	< 0.0013 UJ	< 0.00091 U	< 0.0012 U	< 0.00097 UJ	< 0.00097 U
PCB-24	55702-45-9	µg/kg	< 0.00049 U	< 0.00052 UJ	< 0.00097 U	0.0015 JN	< 0.00034 UJ	< 0.0015 U
PCB-25	55712-37-3	µg/kg	0.012 J	< 0.0011 UJ	0.0043 JN	0.0051 J	0.0034 JN	0.0086 JN
PCB-26/29	38444-81-4	µg/kg	0.018 J	0.011 J	0.0077 JN	0.011 J	0.0053 JN	0.017 JN
PCB-27	38444-76-7	µg/kg	0.0036 JN	< 0.00045 UJ	0.0034 JN	0.0019 JN	< 0.00029 UJ	0.0045 JN
PCB-31	16606-02-3	µg/kg	0.071	0.045 J	0.025	0.048	0.028 J	0.074
PCB-32	38444-77-8	µg/kg	0.013 JN	0.013 J	0.0078 J	0.011 J	0.0055 JN	0.020
PCB-34	37680-68-5	µg/kg	< 0.0015 U	< 0.0013 UJ	< 0.00095 U	< 0.0012 U	< 0.0010 UJ	< 0.0010 U
PCB-35	37680-69-6	µg/kg	< 0.0015 U	< 0.0013 UJ	< 0.00092 U	< 0.0012 U	< 0.00098 UJ	0.0017 JN
PCB-36	38444-87-0	µg/kg	< 0.0014 U	< 0.0012 UJ	< 0.00089 U	< 0.0011 U	< 0.00094 UJ	< 0.00094 U
PCB-37	38444-90-5	µg/kg	0.027	0.015 J	0.0090 J	0.021 J	0.012 J	0.022
PCB-38	53555-66-1	µg/kg	< 0.0015 U	< 0.0013 UJ	< 0.00095 U	< 0.0012 U	< 0.0010 UJ	< 0.0010 U
PCB-39	38444-88-1	µg/kg	< 0.0014 U	< 0.0012 UJ	< 0.00085 U	< 0.0011 U	< 0.00091 UJ	< 0.00091 U
PCB-40/41/71	38444-93-8	µg/kg	0.052 J	0.034 J	0.026 J	0.029 J	0.017 J	0.030 J

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T07A			T07B		
		Sample ID	PDI-ST-T07A-1810	PDI-ST-T07A-1901	PDI-ST-T07A-1905	PDI-ST-T07B-1810	PDI-ST-T07B-1901	PDI-ST-T07B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	CAS_RN	Units						
PCB-42	36559-22-5	µg/kg	0.029	0.019 J	0.014 JN	0.016 J	0.012 JN	0.014 JN
PCB-43/73	70362-46-8	µg/kg	0.0043 JN	< 0.0028 UJ	< 0.0011 U	0.0037 J	< 0.0018 UJ	0.0044 J
PCB-44/47/65	41464-39-5	µg/kg	0.22	0.12 J	0.061	0.073	0.051 J	0.060
PCB-45/51	70362-45-7	µg/kg	0.026 J	0.014 J	0.0093 J	0.0076 JN	0.0054 JN	0.014 J
PCB-46	41464-47-5	µg/kg	0.0052 JN	< 0.0037 UJ	< 0.0015 U	0.0043 J	< 0.0024 UJ	< 0.0024 U
PCB-48	70362-47-9	µg/kg	0.019 J	0.012 J	0.0062 JN	0.011 J	0.0048 J	0.0064 JN
PCB-49/69	41464-40-8	µg/kg	0.097	0.055 J	0.042	0.051	0.032 J	0.035
PCB-50/53	62796-65-0	µg/kg	0.0092 JN	0.0063 JN	0.0078 J	0.0087 J	0.0064 J	0.014 JN
PCB-52	35693-99-3	µg/kg	0.21	0.12 J	0.081	0.12	0.067 J	0.094
PCB-54	15968-05-5	µg/kg	< 0.000074 U	< 0.000041 UJ	< 0.0011 U	< 0.000098 U	< 0.000015 UJ	< 0.0014 U
PCB-55	74338-24-2	µg/kg	0.0057 JN	< 0.0021 UJ	< 0.00083 U	0.0041 JN	< 0.0014 UJ	< 0.0014 U
PCB-56	41464-43-1	µg/kg	0.046	0.027 J	0.021	0.030	0.018 J	0.020
PCB-57	70424-67-8	µg/kg	< 0.0020 U	< 0.0022 UJ	< 0.00085 U	< 0.0019 U	< 0.0014 UJ	< 0.0014 U
PCB-58	41464-49-7	µg/kg	< 0.0020 U	< 0.0022 UJ	< 0.00086 U	< 0.0019 U	< 0.0014 UJ	< 0.0014 U
PCB-59/62/75	74472-33-6	µg/kg	0.0081 J	0.0053 JN	0.0043 JN	0.0054 J	< 0.0013 UJ	0.0079 J
PCB-60	33025-41-1	µg/kg	0.019 J	0.012 JN	0.0095 J	0.015 J	0.0096 J	0.0084 JN
PCB-61/70/74/76	33284-53-6	µg/kg	0.24	0.13 J	0.085	0.15	0.083 J	0.083
PCB-63	74472-34-7	µg/kg	0.0052 J	< 0.0020 UJ	< 0.00077 U	0.0027 J	< 0.0013 UJ	< 0.0013 U
PCB-64	52663-58-8	µg/kg	0.044	0.031 J	0.021	0.031	0.018 J	0.025
PCB-66	32598-10-0	µg/kg	0.13	0.078 J	0.047	0.080	0.052 J	0.047
PCB-67	73575-53-8	µg/kg	0.0023 JN	< 0.0019 UJ	< 0.00073 U	< 0.0016 U	< 0.0012 UJ	< 0.0012 U
PCB-68	73575-52-7	µg/kg	0.015 J	< 0.0019 UJ	< 0.00075 U	0.0020 J	< 0.0012 UJ	< 0.0012 U
PCB-72	41464-42-0	µg/kg	0.0049 JN	< 0.0021 UJ	< 0.00083 U	0.0027 J	< 0.0014 UJ	< 0.0014 U
PCB-77	32598-13-3	µg/kg	0.013 J	0.0087 J	0.0058 J	0.011 J	0.0080 JN	0.0086 J
PCB-78	70362-49-1	µg/kg	< 0.0020 U	< 0.0022 UJ	< 0.00086 U	< 0.0019 U	< 0.0014 UJ	< 0.0014 U
PCB-79	41464-48-6	µg/kg	< 0.0017 U	< 0.0019 UJ	< 0.00074 U	< 0.0016 U	< 0.0012 UJ	< 0.0012 U
PCB-80	33284-52-5	µg/kg	< 0.0017 U	< 0.0019 UJ	< 0.00073 U	< 0.0016 U	< 0.0012 UJ	< 0.0012 U
PCB-81	70362-50-4	µg/kg	< 0.0018 U	< 0.0020 UJ	< 0.00080 U	< 0.0017 U	< 0.0013 UJ	< 0.0013 U
PCB-82	52663-62-4	µg/kg	0.032 JN	0.021 J	0.0098 J	0.025 JN	0.016 JN	0.013 JN
PCB-83/99	60145-20-2	µg/kg	0.24	0.11 J	0.062 JN	0.15	0.081 J	0.075
PCB-84	52663-60-2	µg/kg	0.079	0.040 J	0.021 JN	0.051	0.022 JN	0.028 JN
PCB-85/116/117	65510-45-4	µg/kg	0.070 J	0.034 JN	0.020 J	0.050 J	0.026 J	0.021 J
PCB-86/87/97/109/119/125	55312-69-1	µg/kg	0.22	0.12 J	0.061	0.14 JN	0.082 J	0.076
PCB-88/91	55215-17-3	µg/kg	0.049 JN	0.027 J	0.014 JN	0.028 J	0.016 J	0.020 J
PCB-89	73575-57-2	µg/kg	0.0034 JN	0.0024 J	< 0.0011 U	< 0.00055 U	< 0.00022 UJ	< 0.0024 U
PCB-90/101/113	68194-07-0	µg/kg	0.37	0.19 J	0.099	0.23	0.13 J	0.13
PCB-92	52663-61-3	µg/kg	0.069	0.030 J	0.021	0.042	0.019 JN	0.025
PCB-93/100	73575-56-1	µg/kg	0.0047 JN	0.0065 J	< 0.0010 U	0.0026 JN	0.0018 JN	< 0.0021 U
PCB-94	73575-55-0	µg/kg	< 0.00079 U	< 0.00029 UJ	< 0.0011 U	< 0.00055 U	< 0.00022 UJ	< 0.0024 U
PCB-95	38379-99-6	µg/kg	0.28	0.13 J	0.077	0.18	0.087 J	0.10
PCB-96	73575-54-9	µg/kg	< 0.00060 U	< 0.00022 UJ	< 0.00086 U	< 0.00042 U	< 0.00017 UJ	< 0.0018 U
PCB-98/102	60233-25-2	µg/kg	0.011 J	0.0048 JN	< 0.00098 U	0.0063 J	0.0042 J	< 0.0020 U
PCB-103	60145-21-3	µg/kg	0.0077 J	0.0028 J	< 0.0010 U	< 0.00049 U	< 0.00020 UJ	< 0.0021 U
PCB-104	56558-16-8	µg/kg	< 0.00053 U	< 0.00019 UJ	< 0.00077 U	< 0.00037 U	< 0.00015 UJ	< 0.0016 U
PCB-105	32598-14-4	µg/kg	0.12	0.071 J	0.030	0.097	0.050 J	0.043
PCB-106	70424-69-0	µg/kg	< 0.0029 U	< 0.0020 UJ	< 0.0013 U	< 0.0026 U	< 0.0018 UJ	< 0.0021 U
PCB-107	70424-68-9	µg/kg	0.028	0.014 JN	0.0083 J	0.020 J	0.012 J	0.012
PCB-108/124	70362-41-3	µg/kg	0.013 J	0.0061 JN	< 0.0013 U	0.010 J	0.0050 J	< 0.0021 U
PCB-110/115	38380-03-9	µg/kg	0.42	0.22 J	0.11	0.29	0.16 J	0.14
PCB-111	39635-32-0	µg/kg	0.0030 J	< 0.00018 UJ	< 0.00071 U	< 0.00034 U	< 0.00014 UJ	< 0.0015 U
PCB-112	74472-36-9	µg/kg	0.0039 JN	0.0038 JN	< 0.00075 U	< 0.00036 U	0.00084 JN	< 0.0016 U
PCB-114	74472-37-0	µg/kg	0.0056 JN	< 0.0019 UJ	< 0.0012 U	0.0035 JN	< 0.0017 UJ	< 0.0019 U
PCB-118	31508-00-6	µg/kg	0.32	0.16 J	0.079	0.25	0.12 J	0.098
PCB-120	68194-12-7	µg/kg	0.0044 J	< 0.00018 UJ	< 0.00072 U	0.0015 JN	< 0.00014 UJ	< 0.0015 U
PCB-121	56558-18-0	µg/kg	< 0.00051 U	< 0.00019 UJ	< 0.00074 U	< 0.00036 U	< 0.00014 UJ	< 0.0015 U
PCB-122	76842-07-4	µg/kg	< 0.0034 U	< 0.0024 UJ	< 0.0015 U	< 0.0030 U	< 0.0021 UJ	< 0.0024 U
PCB-123	65510-44-3	µg/kg	0.0077 J	0.0028 JN	0.0020 J	0.0036 JN	< 0.0018 UJ	0.0024 JN

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T07A			T07B		
		Sample ID	PDI-ST-T07A-1810	PDI-ST-T07A-1901	PDI-ST-T07A-1905	PDI-ST-T07B-1810	PDI-ST-T07B-1901	PDI-ST-T07B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	CAS_RN	Units						
PCB-126	57465-28-8	µg/kg	< 0.0031 U	< 0.0023 UJ	< 0.0015 U	0.0032 J	< 0.0020 UJ	< 0.0025 U
PCB-127	39635-33-1	µg/kg	< 0.0029 U	< 0.0020 UJ	< 0.0013 U	< 0.0026 U	< 0.0018 UJ	< 0.0021 U
PCB-128/166	38380-07-3	µg/kg	0.075	0.045 J	0.017 JN	0.060	0.033 JN	0.030
PCB-129/138/160/163	55215-18-4	µg/kg	0.57	0.31 J	0.13	0.44	0.26 J	0.23
PCB-130	52663-66-8	µg/kg	0.039	0.020 J	0.0077 JN	0.020 JN	0.015 JN	0.011 J
PCB-131	61798-70-7	µg/kg	< 0.0056 U	< 0.0032 UJ	< 0.0024 U	< 0.0049 U	< 0.0025 UJ	< 0.0042 U
PCB-132	38380-05-1	µg/kg	0.15	0.081 J	0.033	0.10	0.060 J	0.065
PCB-133	35694-04-3	µg/kg	0.0072 J	< 0.0029 UJ	< 0.0022 U	0.0054 JN	0.0029 JN	< 0.0038 U
PCB-134/143	52704-70-8	µg/kg	0.027 J	0.013 JN	0.0035 J	0.019 J	0.0090 J	0.0089 JN
PCB-135/151	52744-13-5	µg/kg	0.15	0.069 J	0.033	0.084 JN	0.056 J	0.062
PCB-136	38411-22-2	µg/kg	0.056	0.024 J	0.013	0.029 JN	0.012 JN	0.017 JN
PCB-137	35694-06-5	µg/kg	0.021 J	0.014 J	0.0059 JN	0.018 J	0.010 J	0.0074 JN
PCB-139/140	56030-56-9	µg/kg	0.0090 JN	< 0.0025 UJ	< 0.0020 U	0.0061 J	< 0.0020 UJ	< 0.0034 U
PCB-141	52712-04-6	µg/kg	0.075	0.044 J	0.017 JN	0.065	0.036 J	0.037 JN
PCB-142	41411-61-4	µg/kg	< 0.0051 U	< 0.0028 UJ	< 0.0022 U	< 0.0044 U	< 0.0023 UJ	< 0.0038 U
PCB-144	68194-14-9	µg/kg	0.016 J	0.0042 JN	0.0031 JN	0.0098 J	0.0063 J	< 0.0013 U
PCB-145	74472-40-5	µg/kg	< 0.00028 U	< 0.00011 UJ	< 0.00076 U	< 0.00027 U	< 0.000071 UJ	< 0.0010 U
PCB-146	51908-16-8	µg/kg	0.095	0.045 J	0.016	0.061	0.034 J	0.037
PCB-147/149	68194-13-8	µg/kg	0.41	0.22 J	0.10	0.29	0.17 J	0.19
PCB-148	74472-41-6	µg/kg	0.0026 JN	< 0.00015 UJ	< 0.0011 U	< 0.00038 U	< 0.00010 UJ	< 0.0014 U
PCB-150	68194-08-1	µg/kg	0.0019 JN	0.00069 JN	< 0.00072 U	< 0.00026 U	< 0.000068 UJ	< 0.00096 U
PCB-152	68194-09-2	µg/kg	< 0.00029 U	< 0.00011 UJ	< 0.00078 U	< 0.00028 U	< 0.000073 UJ	< 0.0010 U
PCB-153/168	35065-27-1	µg/kg	0.42	0.24 J	0.11	0.31	0.20 J	0.20
PCB-154	60145-22-4	µg/kg	0.011 J	0.0041 JN	< 0.00086 U	0.0073 JN	0.0019 JN	< 0.0011 U
PCB-155	33979-03-2	µg/kg	0.0011 J	< 0.00010 UJ	< 0.00073 U	< 0.00026 U	< 0.000068 UJ	< 0.00096 U
PCB-156/157	38380-08-4	µg/kg	0.053	0.025 JN	0.014 J	0.046	0.024 J	0.018 JN
PCB-158	74472-42-7	µg/kg	0.047	0.028 J	0.013	0.038	0.022 J	0.020
PCB-159	39635-35-3	µg/kg	0.0040 JN	< 0.0019 UJ	< 0.0015 U	< 0.0030 U	< 0.0015 UJ	< 0.0025 U
PCB-161	74472-43-8	µg/kg	< 0.0034 U	< 0.0019 UJ	< 0.0015 U	< 0.0029 U	< 0.0015 UJ	< 0.0025 U
PCB-162	39635-34-2	µg/kg	< 0.0033 U	< 0.0019 UJ	< 0.0014 U	< 0.0029 U	< 0.0015 UJ	< 0.0025 U
PCB-164	74472-45-0	µg/kg	0.032	0.020 J	0.0094 J	0.027	0.016 J	0.013 JN
PCB-165	74472-46-1	µg/kg	< 0.0038 U	< 0.0022 UJ	< 0.0017 U	< 0.0033 U	< 0.0017 UJ	< 0.0029 U
PCB-167	52663-72-6	µg/kg	0.017 J	0.0096 J	< 0.0011 U	0.014 J	0.0091 J	0.0087 J
PCB-169	32774-16-6	µg/kg	< 0.0024 U	< 0.0015 UJ	< 0.0011 U	< 0.0021 U	< 0.0012 UJ	< 0.0020 U
PCB-170	35065-30-6	µg/kg	0.13	0.066 J	0.028 JN	0.11	0.058 J	0.068
PCB-171/173	52663-71-5	µg/kg	0.036 J	0.017 JN	0.0091 JN	0.028 JN	0.018 J	0.016 JN
PCB-172	52663-74-8	µg/kg	0.021 JN	0.0096 JN	< 0.0012 U	0.021 J	0.0095 JN	0.0096 J
PCB-174	38411-25-5	µg/kg	0.11	0.065 J	0.026	0.10	0.054 J	0.075
PCB-175	40186-70-7	µg/kg	< 0.0021 U	0.0029 J	< 0.0011 U	0.0059 J	< 0.00071 UJ	< 0.00093 U
PCB-176	52663-65-7	µg/kg	0.011 JN	0.0061 JN	< 0.00085 U	0.010 J	0.0068 J	0.0084 J
PCB-177	52663-70-4	µg/kg	0.082	0.037 JN	0.016	0.061	0.036 J	0.047
PCB-178	52663-67-9	µg/kg	0.023 JN	0.016 J	0.0086 J	0.024 JN	0.011 JN	0.020
PCB-179	52663-64-6	µg/kg	0.051	0.030 J	0.013 JN	0.042	0.025 J	0.033
PCB-180/193	35065-29-3	µg/kg	0.26	0.13 J	0.028	0.23	0.13 J	0.14
PCB-181	74472-47-2	µg/kg	< 0.0020 U	0.0017 J	< 0.0011 U	< 0.0017 U	< 0.00070 UJ	< 0.00093 U
PCB-182	60145-23-5	µg/kg	< 0.0020 U	< 0.00047 UJ	< 0.0011 U	< 0.0016 U	< 0.00068 UJ	< 0.00089 U
PCB-183/185	52663-69-1	µg/kg	0.080	0.047 J	0.021	0.070	0.038 J	0.042
PCB-184	74472-48-3	µg/kg	< 0.0017 U	< 0.00040 UJ	< 0.00092 U	< 0.0014 U	< 0.00058 UJ	< 0.00076 U
PCB-186	74472-49-4	µg/kg	< 0.0016 U	< 0.00039 UJ	< 0.00090 U	< 0.0013 U	< 0.00056 UJ	< 0.00074 U
PCB-187	52663-68-0	µg/kg	0.18	0.10 J	0.039 JN	0.15	0.089 J	0.095
PCB-188	74487-85-7	µg/kg	< 0.0014 U	< 0.00034 UJ	< 0.00076 U	< 0.0012 U	< 0.00049 UJ	< 0.00062 U
PCB-189	39635-31-9	µg/kg	< 0.0036 U	< 0.0023 UJ	< 0.0029 U	< 0.0030 U	< 0.0019 UJ	< 0.0030 U
PCB-190	41411-64-7	µg/kg	0.025	0.012 JN	0.0044 JN	0.021 J	0.013 JN	0.0064 JN
PCB-191	74472-50-7	µg/kg	0.0073 J	< 0.00037 UJ	< 0.00085 U	0.0054 J	0.0027 J	< 0.00070 U
PCB-192	74472-51-8	µg/kg	< 0.0017 U	< 0.00041 UJ	< 0.00095 U	< 0.0014 U	< 0.00059 UJ	< 0.00078 U
PCB-194	35694-08-7	µg/kg	0.062	0.030 J	0.013 JN	0.065	0.035 J	0.026
PCB-195	52663-78-2	µg/kg	0.025	0.016 J	0.0086 JN	0.023	0.016 J	0.010 JN

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T07A			T07B		
		Sample ID	PDI-ST-T07A-1810	PDI-ST-T07A-1901	PDI-ST-T07A-1905	PDI-ST-T07B-1810	PDI-ST-T07B-1901	PDI-ST-T07B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	**CAS_RN**	**Units**						
PCB-196	42740-50-1	µg/kg	0.031	0.012 JN	0.0058 JN	0.023 JN	0.012 J	0.011 J
PCB-197	33091-17-7	µg/kg	< 0.0014 U	< 0.00038 UJ	< 0.00087 U	< 0.0011 U	< 0.00020 UJ	< 0.00081 U
PCB-198/199	68194-17-2	µg/kg	0.067 JN	0.045 J	0.015 JN	0.080	0.037 J	0.024 JN
PCB-200	52663-73-7	µg/kg	0.0070 J	0.0041 J	< 0.00077 U	0.0069 JN	0.0031 JN	< 0.00072 U
PCB-201	40186-71-8	µg/kg	0.0084 J	0.0048 J	< 0.00079 U	0.0084 J	0.0031 JN	0.0061 J
PCB-202	2136-99-4	µg/kg	0.020 J	0.0097 J	0.0055 J	0.020 J	0.0093 JN	0.0099 JN
PCB-203	52663-76-0	µg/kg	0.048	0.021 JN	0.0093 JN	0.044	0.022 J	0.014 JN
PCB-204	74472-52-9	µg/kg	< 0.0014 U	< 0.00038 UJ	< 0.00087 U	< 0.0011 U	< 0.00020 UJ	< 0.00081 U
PCB-205	74472-53-0	µg/kg	< 0.0044 U	< 0.0014 UJ	< 0.0018 U	< 0.0033 U	< 0.0011 UJ	< 0.0016 U
PCB-206	40186-72-9	µg/kg	0.042 JN	0.027 J	0.014	0.046	0.030 J	0.029
PCB-207	52663-79-3	µg/kg	< 0.0037 U	< 0.0012 UJ	< 0.0021 U	< 0.0044 U	0.0029 JN	0.0030 JN
PCB-208	52663-77-1	µg/kg	0.017 J	0.011 J	< 0.0020 U	0.013 JN	0.0082 J	0.0047 JN
PCB-209	2051-24-3	µg/kg	0.067	0.047 J	0.021 JN	0.065	0.042 JN	0.048
Total PCBs (b)	T_PCBCg (PDI)	µg/kg	7.8	4.21	2.1	5.6	3.13	3.8
Pesticides								
2,4-DDD	53-19-0	µg/kg	< 0.89 U	< 0.40 U	0.18	< 0.88 U	< 0.38 U	0.15
2,4-DDE	3424-82-6	µg/kg	< 0.89 U	< 0.40 U	< 0.11 U	< 0.88 U	< 0.38 U	< 0.13 U
2,4-DDT	789-02-6	µg/kg	< 0.89 U	< 0.40 U	< 0.11 UJ	< 0.88 U	< 0.38 U	0.28 J
4,4'-DDD	72-54-8	µg/kg	< 0.89 U	2.5	0.66	< 0.88 U	0.59	0.67
4,4'-DDE	72-55-9	µg/kg	1.3	1.6	1.2 J	1.3	1.4	1.3 J
4,4'-DDT	50-29-3	µg/kg	< 0.89 U	0.80	0.57	< 0.88 U	0.83	0.87
DDx (b)	T_DDx (PDI)	µg/kg	1.7	5.1	2.7	1.7	3.0	3.3
Aldrin	309-00-2	µg/kg	< 0.89 U	< 0.40 U	< 0.11 U	0.71 J	< 0.38 U	< 0.13 U
alpha-Chlordane	5103-71-9	µg/kg	< 1.8 U	< 0.81 U	0.099 J	< 1.8 U	< 0.75 U	0.18 J
cis-Nonachlor	5103-73-1	µg/kg	< 0.89 U	< 0.40 U	< 0.11 U	< 0.88 U	< 0.38 U	< 0.13 U
Dieldrin	60-57-1	µg/kg	< 1.8 U	0.37 J	0.18 J	< 1.8 U	< 0.75 U	0.24 J
gamma-BHC (Lindane)	58-89-9	µg/kg	< 0.89 U	< 0.40 U	< 0.11 U	< 0.88 U	< 0.38 U	< 0.13 U
gamma-Chlordane	5566-34-7	µg/kg	< 1.8 U	< 0.81 U	0.11 J	< 1.8 U	< 0.75 U	0.19 J
Heptachlor	76-44-8	µg/kg	< 0.89 U	< 0.40 U	< 0.11 U	< 0.88 U	< 0.38 U	< 0.13 U
Oxychlordane	27304-13-8	µg/kg	< 1.8 U	< 0.81 U	0.43	< 1.8 U	< 0.75 U	< 0.25 U
trans-Nonachlor	39765-80-5	µg/kg	< 1.8 U	< 0.81 U	0.14 J	< 1.8 U	0.22 J	0.27
Total Chlordanes (b)	T_Clrdn (PDI)	µg/kg	< 1.8 U	< 0.81 U	0.83	< 1.8 U	0.60	0.77
Metals								
Arsenic	7440-38-2	mg/kg	10	6.7	4.5	9.3	7.1	4.5
Cadmium	7440-43-9	mg/kg	0.36 J	0.21 J	0.20 J	0.33 J	0.24 J	0.14 J
Copper	7440-50-8	mg/kg	68	43	29	65	46	29
Lead	7439-92-1	mg/kg	24	11	11	25	11	7.8
Mercury	7439-97-6	mg/kg	0.21	0.054 J	0.070	0.18	0.087 J	0.13
Tri-n-butyltin	36643-28-4	µg/kg	< 4.4 U	< 4.0 U	< 2.2 U	< 4.7 U	< 3.8 U	< 2.5 U
Zinc	7440-66-6	mg/kg	200	110	80	190	110	82
Polycyclic Aromatic Hydrocarbons (PAHs)								
2-Methylnaphthalene	91-57-6	µg/kg	1.3 J	0.67 J	0.51 J	1.6 J	0.40 J	0.69 J
Acenaphthene	83-32-9	µg/kg	0.60 J	2.8	0.55 J	0.93 J	0.30 J	0.56 J
Acenaphthylene	208-96-8	µg/kg	1.2 J	0.50 J	0.43 J	1.9 J	0.39 J	0.52 J
Anthracene	120-12-7	µg/kg	2.7	4.3	1.4	3.5	0.97 J	1.5
Benz(a)anthracene	56-55-3	µg/kg	9.0	14	2.1	11	4.2 J	3.1
Benzo(a)pyrene	50-32-8	µg/kg	12	30	3.1	16	11 J	4.7
Benzo(b)fluoranthene	205-99-2	µg/kg	16	20	4.5	21	7.4 J	6.4
Benzo(g,h,i)perylene	191-24-2	µg/kg	12	13	3.7	19	5.2 J	5.1
Benzo(k)fluoranthene	207-08-9	µg/kg	6.1	8.6	1.5	7.6	3.1 J	2.3
Chrysene	218-01-9	µg/kg	12	20	3.5	17	6.6	5.0
Dibenz(a,h)anthracene	53-70-3	µg/kg	2.2	2.7	0.60	3.1	0.79 J	0.86
Dibenzofuran	132-64-9	µg/kg	0.99 J	1.5	0.56 J	1.2 J	0.38 J	0.63
Fluoranthene	206-44-0	µg/kg	19	32	6.0	27	9.2	8.1
Fluorene	86-73-7	µg/kg	1.1 J	2.2	0.62	1.6	0.35 J	0.79
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	9.9	12	3.4 J	14	4.4 J	4.7 J
Naphthalene	91-20-3	µg/kg	1.8 J	1.5 J	0.97 J	2.1 J	0.80 J	3.1

Table A.3a-1. Chemical Results for PDI Sediment Trap Samples

		Location	T07A			T07B		
		Sample ID	PDI-ST-T07A-1810	PDI-ST-T07A-1901	PDI-ST-T07A-1905	PDI-ST-T07B-1810	PDI-ST-T07B-1901	PDI-ST-T07B-1905
		Date	10/31/2018	1/30/2019	5/1/2019	10/31/2018	1/30/2019	5/1/2019
		Sample Type Code	N	N	N	N	N	N
Chemical	**CAS_RN**	**Units**						
Phenanthrene	85-01-8	µg/kg	7.9	23	4.2	13	4.3 J	5.3
Pyrene	129-00-0	µg/kg	21	29	5.5	32	9.2 J	7.3
Total PAHs (b)	T_PAH (PDI)	µg/kg	140	220	43	190	69	60
BaP-TEQ (b)	T_BaP-TEQ (PDI)	µg/kg	18	37	4.7	24	13	7
Semivolatile Organic Carbons (SVOCs)								
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	120 J	< 210 U	85 J	180 J	< 200 U	82 J
Total petroleum hydrocarbons (TPH)								
TPH-Diesel Range Organics	68334-30-5	mg/kg	170 J	190 J	140	160 J	330 J	200 J
TPH-Motor Oil Range Organics	TPH-MOIL	mg/kg	630	990	750	730	1300 J	760
Other								
Total Solids@104C (e)	TSOLID	%	19.9	23.8	49.7	21.7	25.2	41.9
Total Solids@104C (d)	TSOLID	%	22.3	24.6	44.6	21.4	26.3	39.4
Total Solids@70C (e)	TSOLID70	%	22	23	50	22	26	45
Clay	GS-Clay	%	17.1	10.7	6.2	18.4	16.3	8.5
Gravel	GS-Gravel	%	0	0	1.0	0	0	0
Sand, Coarse	GS-Csand	%	0	0.3	0.8	0	0.2	0.7
Sand, Fine (#200)	GS-Fsand-200	%	7.3	16.7	54.8	11.6	8.6	51.1
Sand, Fine (#230)	GS-Fsand	%	9.8	19.4	57.0	14.7	13.4	54.2
Sand, Medium	GS-Msand	%	0.3	1.4	2.3	0.2	1.0	1.9
Silt (#200)	GS-Silt-200	%	75.3	70.9	34.9	69.8	73.8	37.7
Silt (#230)	GS-Silt	%	72.8	68.2	32.7	66.7	69.0	34.6
Percent Fines (f)	GS-FINES	%	92.4	81.6	41.1	88.2	90.1	46.2
Total Organic Carbon	TOC	mg/kg	38000	50000	59000	36000	47000	59000

Notes:

a. Qualifiers:
J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
NJ = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U = Not detected at detection limit shown.
UP = Not detected; sample detection limit is estimated.

b. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C3).

c. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

d. Solids results provided by ALS-Kelso Laboratory with the pesticide, PAH, SVOC, and tri-n-butyltin data.

e. Solids results provided by TestAmerica-WA Laboratory with the metals, TPH, and physical parameters.

f. Sum of silt (#200) and clay fractions.

Acronyms:

µg/kg = microgram per kilogram
BaP = benzo(a)pyrene
BHC = benzene hexachloride
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
ID = identifier
mg/kg = milligram per kilogram
N = normal sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
SVOC = semivolatile organic compound
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence
TPH = total petroleum hydrocarbon

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T01-1808					PDI-WS-T02-1808				
		Location	T01					T02				
		Date	8/25/2018					8/24/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN											
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.0376 J	15.1 J	1.16	465	1.19 J	0.0302 JN	12.7 JN	1.14	481	1.17 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		0.0051 JN	2.05 JN	0.311	125	0.316 J	0.0035 JN	1.47 JN	0.271	114	0.275 J
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.00264 U	< 1.06 U	0.0254 J	10.2 J	0.0254 J	< 0.00203 U	< 0.854 U	0.0243 J	10.2 J	0.0243 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.00215 U	< 0.866 U	0.0172 J	6.91 J	0.0172 J	< 0.00385 U	< 1.62 U	0.019 J	7.98 J	0.019 J
1,2,3,4,7,8-HxCDF	70648-26-9		0.00391 J	1.57 J	0.0338 J	13.6 J	0.0377 J	< 0.00203 U	< 0.854 U	0.0597 J	25.1 J	0.0597 J
1,2,3,6,7,8-HxCDD	57653-85-7		0.00303 JN	1.22 JN	0.0585 J	23.5 J	0.0615 J	< 0.00376 U	< 1.58 U	0.0521 J	21.9 J	0.0521 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.00215 U	< 0.866 U	0.0175 J	7.05 J	0.0175 J	< 0.00203 U	< 0.854 U	0.0245 J	10.3 J	0.0245 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.00215 U	< 0.866 U	0.0245 JN	9.86 JN	0.0245 J	< 0.00378 U	< 1.59 U	0.0312 JN	13.1 JN	0.0312 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	< 0.0103 U	< 4.34 U	< 0.0124 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	0.0142 JN	5.96 JN	0.0142 J
1,2,3,7,8-PeCDF	57117-41-6		0.00751 JN	3.02 JN	0.0211 J	8.47 J	0.0286 J	< 0.00203 U	< 0.854 U	0.0304 J	12.8 J	0.0304 J
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	0.0124 J	5.23 J	0.0124 J
2,3,4,7,8-PeCDF	57117-31-4		0.00249 JN	1.00 JN	0.0162 JN	6.53 JN	0.0187 JN	< 0.00203 U	< 0.854 U	0.0166 J	6.96 J	0.0166 J
2,3,7,8-TCDD	1746-01-6		< 0.00215 U	< 0.866 U	0.0112 JN	4.49 JN	0.0112 J	< 0.00238 U	< 1.00 U	< 0.0103 U	< 4.34 U	< 0.0127 U
2,3,7,8-TCDF	51207-31-9		0.0108	4.35	0.0134 J	5.38 J	0.0242 J	0.00583 J	2.45 J	0.0295 J	12.4 J	0.0353 J
OCDD	3268-87-9		0.336	135	11.9	4770	12.2	0.63	265	9.2	3870	9.83
OCDF	39001-02-0		0.0107 J	4.30 J	1.23	495	1.24 J	0.00694 J	2.92 J	0.742	312	0.749 J
TCDD-TEQ	(a) T_DF_TEQ (PDI)		0.00435		0.0574		0.0617	0.0023		0.0654		0.0677
TCDD-TEQ (EMPC=half)	(b) T_DF_TEQ(E_0.5)		0.00303		0.0389		0.0389	0.00196		0.0481		0.0478
TCDD-TEQ (EMPC=0)	(b) T_DF_TEQ(E_0)		0.00195		0.0336		0.0355	0.000774		0.0429		0.0437
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7		0.9 J+	362 J+	0.122	49.0	1.02 J	0.649 J+	273 J+	0.109 J-	45.8 J-	0.758 J
PCB-10	33146-45-1		0.552	222	< 0.109 U	< 44.0 U	0.552	0.521	219	< 0.106 U	< 44.5 U	0.521
PCB-103	60145-21-3		0.0861 JN	34.6 JN	0.0721 JN	29.0 JN	0.158 JN	0.129	54.4	0.118	49.8	0.248
PCB-104	56558-16-8		0.0218 J	8.78 J	0.0244 JN	9.82 JN	0.0463 J	0.0264 JN	11.1 JN	0.0254 JN	10.7 JN	0.0518 JN
PCB-105	32598-14-4		0.617	248	1.31	528	1.93	0.461	194	1.3	546	1.76
PCB-106	70424-69-0		< 0.0131 U	< 5.27 U	< 0.0204 U	< 8.21 U	< 0.0335 U	< 0.00492 U	< 2.07 U	< 0.0123 U	< 5.18 U	< 0.0172 U
PCB-107/124	PCB-107/124		0.0781 J	31.4 J	0.14	56.2	0.218 J	0.063	26.5	0.148 JN	62.1 JN	0.211 J
PCB-109	74472-35-8		0.13 JN	52.1 JN	0.279	112	0.408 J	0.146	61.4	0.304	128	0.45
PCB-11	2050-67-1		16.2 J-	6510 J-	4.88 J+	1960 J+	21.1 J	8.66	3640	2.85 J+	1200 J+	11.5 J
PCB-110/115	PCB-110/115		3.63	1460	4.18	1680	7.81	2.93	1230	4.49	1890	7.42
PCB-111	39635-32-0		< 0.0107 U	< 4.29 U	< 0.0143 U	< 5.74 U	< 0.025 U	0.00442 JN	1.86 JN	< 0.0151 U	< 6.37 U	0.00442 J
PCB-112	74472-36-9		< 0.0101 U	< 4.08 U	< 0.0139 U	< 5.59 U	< 0.0241 U	< 0.00388 U	< 1.63 U	< 0.0148 U	< 6.21 U	< 0.0186 U
PCB-114	74472-37-0		0.0316 J	12.7 J	0.0943	37.9	0.126 J	0.0331	13.9	0.0794 J	33.4 J	0.112 J
PCB-118	31508-00-6		1.57	630	3.26	1310	4.83	1.29	544	3.31	1390	4.6
PCB-12/13	PCB-12/13		0.381 JN	153 JN	0.146 JN	58.8 JN	0.527 JN	0.175 J+	73.5 J+	0.142 JN	59.8 JN	0.317 J
PCB-120	68194-12-7		< 0.01 U	< 4.04 U	0.0331 JN	13.3 JN	0.0331 J	0.0174 JN	7.30 JN	0.0438 JN	18.4 JN	0.0611 JN
PCB-121	56558-18-0		< 0.0108 U	< 4.34 U	< 0.0146 U	< 5.85 U	< 0.0253 U	0.00656 J	2.76 J	< 0.0154 U	< 6.49 U	0.00656 J
PCB-122	76842-07-4		0.0259 JN	10.4 JN	0.0371 J	14.9 J	0.0629 J	0.0216	9.09	0.0495 JN	20.8 JN	0.0711 J
PCB-123	65510-44-3		0.0291 JN	11.7 JN	0.0846 JN	34.0 JN	0.114 JN	0.025 JN	10.5 JN	0.0685 JN	28.8 JN	0.0935 JN
PCB-126	57465-28-8		< 0.0134 U	< 5.37 U	0.0348 JN	14.0 JN	0.0348 J	< 0.00578 U	< 2.43 U	0.0347 JN	14.6 JN	0.0347 J
PCB-127	39635-33-1		< 0.0133 U	< 5.36 U	< 0.023 U	< 9.25 U	< 0.0363 U	< 0.00554 U	< 2.33 U	< 0.0139 U	< 5.83 U	< 0.0194 U
PCB-128/166	PCB-128/166		0.196	78.9	1	404	1.2	0.212	89.1	1.17	492	1.38
PCB-129/138/160/163	PCB-129/138/_C		1.69	681	5.87	2360	7.56	1.67	702	7.32	3080	8.99
PCB-130	52663-66-8		0.112	44.9	0.391	157	0.502	0.0975	41.0	0.445	187	0.542
PCB-131	61798-70-7		0.021 JN	8.46 JN	0.0846 JN	34.0 JN	0.106 JN	0.0234	9.85	0.0699 J	29.4 J	0.0933 J
PCB-132	38380-05-1		0.704	283	1.86	746	2.56	0.697	293	2.2	926	2.9
PCB-133	35694-04-3		0.0413 JN	16.6 JN	0.138 JN	55.5 JN	0.179 JN	0.0518	21.8	0.156	65.5	0.208
PCB-134/143	PCB-134/143		0.135	54.2	0.323 JN	130 JN	0.458 J	0.126	53.0	0.378	159	0.504
PCB-135/151/154	PCB-135/151/154		0.896	360	2.15	863	3.04	0.992	417	2.71	1140	3.7
PCB-136	38411-22-2		0.383	154	0.652	262	1.03	0.402 JN	169 JN	0.923	388	1.32 J
PCB-137	35694-06-5		0.0542	21.8	0.208 JN	83.5 JN	0.262 J	0.0535	22.5	0.238 JN	100 JN	0.291 J
PCB-139/140	PCB-139/140		0.0301	12.1	0.11	44.2	0.14	0.0312	13.1	0.12	50.4	0.151
PCB-14	34883-41-5		< 0.0261 U	< 10.5 U	< 0.111 U	< 44.7 U	< 0.137 U	< 0.0257 U	< 10.8 U	< 0.107 U	< 45.1 U	< 0.133 U

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T01-1808					PDI-WS-T02-1808				
	Location	T01					T02				
	Date	8/25/2018					8/24/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-141	52712-04-6	0.331	133	1.04	419	1.37	0.316	133	1.31	551	1.63
PCB-142	41411-61-4	< 0.00617 U	< 2.48 U	< 0.0333 U	< 13.4 U	< 0.0395 U	< 0.00704 U	< 2.96 U	< 0.0238 U	< 10.0 U	< 0.0308 U
PCB-144	68194-14-9	0.0391 J+	15.7 J+	0.222 JN	89.3 JN	0.261 J	0.107	44.9	0.266	112	0.373
PCB-145	74472-40-5	< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	0.00247 JN	1.04 JN	< 0.0103 U	< 4.34 U	0.00247 J
PCB-146	51908-16-8	0.313	126	1.34	538	1.65	0.388	163	1.53	642	1.91
PCB-147/149	PCB-147/149	1.92	772	5.85	2350	7.77	2.19	921	6.99	2940	9.18
PCB-148	74472-41-6	0.0098 J	3.94 J	0.0376 J	15.1 J	0.0474 J	0.0144 JN	6.05 JN	0.0426 JN	17.9 JN	0.057 JN
PCB-15	2050-68-2	1.32	532	0.57 J+	229 J+	1.89 J	0.899	378	0.459 J+	193 J+	1.36 J
PCB-150	68194-08-1	0.0113 J	4.56 J	0.0264 JN	10.6 JN	0.0377 J	0.0149 J	6.26 J	0.0371 JN	15.6 JN	0.052 J
PCB-152	68194-09-2	0.00552 JN	2.22 JN	0.0123 J	4.94 J	0.0178 J	0.00778 J	3.27 J	0.0143 JN	6.00 JN	0.022 J
PCB-153/168	PCB-153/168	1.53 J-	616 J-	5.02	2020	6.56 J	1.59	668	6.49	2730	8.08
PCB-155	33979-03-2	0.00279 JN	1.12 JN	0.0135 JN	5.43 JN	0.0163 JN	0.00285 JN	1.20 JN	0.0114 JN	4.79 JN	0.0142 JN
PCB-156/157	PCB-156/157	0.105	42.3	0.602	242	0.707	0.0949	39.9	0.663	279	0.758
PCB-158	74472-42-7	0.139	55.7	0.48	193	0.619	0.13	54.7	0.595	250	0.725
PCB-159	39635-35-3	0.0111 JN	4.48 JN	< 0.0243 U	< 9.76 U	0.0111 J	0.0147 JN	6.18 JN	0.112 JN	47.2 JN	0.127 JN
PCB-16	38444-78-9	1.97	790	0.361 J+	145 J+	2.33 J	1.29	543	0.373 J+	157 J+	1.66 J
PCB-161	74472-43-8	< 0.0044 U	< 1.77 U	< 0.0227 U	< 9.12 U	< 0.0271 U	< 0.00495 U	< 2.08 U	< 0.0162 U	< 6.83 U	< 0.0212 U
PCB-162	39635-34-2	< 0.00388 U	< 1.56 U	< 0.0222 U	< 8.92 U	< 0.0261 U	< 0.00449 U	< 1.89 U	< 0.0159 U	< 6.68 U	< 0.0204 U
PCB-164	74472-45-0	0.125	50.1	0.423	170	0.548	0.133	56.1	0.516	217	0.649
PCB-165	74472-46-1	< 0.00485 U	< 1.95 U	< 0.0269 U	< 10.8 U	< 0.0317 U	< 0.00559 U	< 2.35 U	< 0.0193 U	< 8.12 U	< 0.0249 U
PCB-167	52663-72-6	0.041	16.5	0.233	93.5	0.274	0.0383	16.1	0.243	102	0.281
PCB-169	32774-16-6	< 0.00473 U	< 1.90 U	< 0.0368 U	< 14.8 U	< 0.0415 U	< 0.00523 U	< 2.20 U	< 0.0264 U	< 11.1 U	< 0.0316 U
PCB-17	37680-66-3	5.75	2310	0.776 J+	312 J+	6.52 J	3.73	1570	0.564 J	237 J	4.3 J
PCB-170	35065-30-6	0.143 J+	57.5 J+	1.3	523	1.44 J	0.157 JN	66.0 JN	1.79	754	1.95 J
PCB-171/173	PCB-171/173	0.0669 J+	26.9 J+	0.453 JN	182 JN	0.52 J	0.0642 J+	27.0 J+	0.571	240	0.635 J
PCB-172	52663-74-8	0.0373 JN	15.0 JN	0.254	102	0.291 J	0.0361 J+	15.2 J+	0.34 JN	143 JN	0.376 J
PCB-174	38411-25-5	0.249 J+	100 J+	1.28	515	1.53 J	0.262 J+	110 J+	1.88	790	2.14 J
PCB-175	40186-70-7	0.0107 JN	4.29 JN	0.0555 JN	22.3 JN	0.0661 JN	0.0106 JN	4.46 JN	0.0747 JN	31.4 JN	0.0853 JN
PCB-176	52663-65-7	0.0328 J	13.2 J	0.189 JN	76.0 JN	0.222 J	0.0369 JN	15.5 JN	0.257	108	0.294 J
PCB-177	52663-70-4	0.105 J+	42.1 J+	0.868	349	0.973 J	0.107 JN	45.2 JN	1.01	425	1.12 J
PCB-178	52663-67-9	0.0644 JN	25.9 JN	0.351	141	0.415 J	0.0687 J+	28.9 J+	0.473	199	0.542 J
PCB-179	52663-64-6	0.148 J+	59.6 J+	0.654	263	0.802 J	0.158 J+	66.3 J+	0.961	404	1.12 J
PCB-18/30	PCB-18/30	5.52	2220	0.973 J+	391 J+	6.5 J	3.26	1370	0.849 J+	357 J+	4.11 J
PCB-180/193	PCB-180/193	0.45 J+	181 J+	3.73	1500	4.18 J	0.488 J+	205 J+	4.92	2070	5.41 J
PCB-181	74472-47-2	< 0.00218 U	< 0.875 U	0.0381 JN	15.3 JN	0.0381 J	< 0.00203 U	< 0.854 U	0.0218 J	9.18 J	0.0218 J
PCB-182	60145-23-5	< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	< 0.0103 U	< 4.34 U	< 0.0124 U
PCB-183/185	PCB-183/185	0.163 J+	65.5 J+	1	403	1.17 J	0.185 J+	77.6 J+	1.38	580	1.56 J
PCB-184	74472-48-3	< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	0.013 J	5.48 J	0.013 J
PCB-186	74472-49-4	< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	< 0.0103 U	< 4.34 U	< 0.0124 U
PCB-187	52663-68-0	0.284 J	114 J	2.64	1060	2.92 J	0.414 J	174 J	3.4	1430	3.81 J
PCB-188	74487-85-7	< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	0.00323 JN	1.36 JN	< 0.0103 U	< 4.34 U	0.00323 J
PCB-189	39635-31-9	0.00368 JN	1.48 JN	0.0368 J	14.8 J	0.0405 J	0.00485 J	2.04 J	0.0514 JN	21.6 JN	0.0562 J
PCB-19	38444-73-4	5.82	2340	0.378 J+	152 J+	6.2 J	7.42	3120	0.507	213	7.93
PCB-190	41411-64-7	0.0358 J+	14.4 J+	0.279	112	0.314 J	0.03 J+	12.6 J+	0.361	152	0.391 J
PCB-191	74472-50-7	0.00789 JN	3.17 JN	0.0627 J	25.2 J	0.0706 J	0.00923 JN	3.88 JN	0.0697 J	29.3 J	0.0789 J
PCB-192	74472-51-8	< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	< 0.0103 U	< 4.34 U	< 0.0124 U
PCB-194	35694-08-7	0.0542 JN	21.8 JN	0.749	301	0.803 J	0.0518 J+	21.8 J+	0.977	411	1.03 J
PCB-195	52663-78-2	0.0243 JN	9.76 JN	0.289	116	0.313 J	0.0238 JN	10.0 JN	0.435	183	0.459 J
PCB-196	42740-50-1	0.0338 J+	13.6 J+	0.386	155	0.419 J	0.0371 J+	15.6 J+	0.476	200	0.513 J
PCB-197/200	PCB-197/200	0.0113 JN	4.56 JN	0.178 JN	71.5 JN	0.189 JN	0.0128 JN	5.39 JN	0.196	82.5	0.209 J
PCB-198/199	PCB-198/199	0.105 J+	42.4 J+	1.02	412	1.13 J	0.106 J+	44.4 J+	1.31	549	1.41 J
PCB-2	2051-61-8	0.336 J+	135 J+	0.177 J+	71.2 J+	0.513 J+	0.221 J+	92.8 J+	0.146 J+	61.3 J+	0.366 J+
PCB-20/28	PCB-20/28	6.12	2460	2.08 J+	835 J+	8.2 J	3.23	1360	1.78 J+	748 J+	5.01 J

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T01-1808					PDI-WS-T02-1808				
	Location	T01					T02				
	Date	8/25/2018					8/24/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-201	40186-71-8	0.0131 J+	5.27 J+	0.115	46.1	0.128 J	0.0124 JN	5.23 JN	0.171	71.9	0.183 J
PCB-202	2136-99-4	0.0276 J+	11.1 J+	0.269	108	0.296 J	0.0281 J+	11.8 J+	0.35	147	0.378 J
PCB-203	52663-76-0	0.057 J+	22.9 J+	0.58	233	0.637 J	0.0642 JN	27.0 JN	0.946	398	1.01 J
PCB-204	74472-52-9	< 0.00215 U	< 0.866 U	< 0.0107 U	< 4.31 U	< 0.0129 U	< 0.00203 U	< 0.854 U	< 0.0103 U	< 4.34 U	< 0.0124 U
PCB-205	74472-53-0	0.00445 JN	1.79 JN	0.0313 JN	12.6 JN	0.0358 JN	0.0035 JN	1.47 JN	0.0592 J	24.9 J	0.0627 J
PCB-206	40186-72-9	0.0435 J+	17.5 J+	0.657	264	0.7 J	0.0328 J+	13.8 J+	0.849	357	0.882 J
PCB-207	52663-79-3	0.00582 J+	2.34 J+	0.0871 JN	35.0 JN	0.0929 J	0.00889 J+	3.74 J+	0.108	45.5	0.117 J
PCB-208	52663-77-1	0.0152 JN	6.13 JN	0.299 JN	120 JN	0.314 JN	0.017 J+	7.16 J+	0.35	147	0.367 J
PCB-209	2051-24-3	0.0311 J+	12.5 J+	0.637	256	0.668 J	0.03 JN	12.6 JN	1.07	452	1.1 J
PCB-21/33	PCB-21/33	6.39	2570	0.891 J+	358 J+	7.28 J	3.26 J+	1370 J+	0.78 J+	328 J+	4.04 J+
PCB-22	38444-85-8	1.91	768	0.577 J+	232 J+	2.49 J	0.987	415	0.54 J+	227 J+	1.53 J
PCB-23	55720-44-0	< 0.0223 U	< 8.95 U	< 0.0228 U	< 9.18 U	< 0.0451 U	< 0.0226 U	< 9.50 U	< 0.0128 U	< 5.40 U	< 0.0354 U
PCB-24	55702-45-9	0.0719 JN	28.9 JN	0.0125 JN	5.03 JN	0.0844 JN	0.044 JN	18.5 JN	0.0117 J+	4.90 J+	0.0556 J
PCB-25	55712-37-3	2.02 J+	814 J+	0.388 J+	156 J+	2.41 J+	1.97 J+	828 J+	0.359 J+	151 J+	2.33 J+
PCB-26/29	PCB-26/29	1.4	563	0.358 J+	144 J+	1.76 J	0.692	291	0.29 J+	122 J+	0.982 J
PCB-27	38444-76-7	0.729 J-	293 J-	0.108 J+	43.5 J+	0.837 J	0.604	254	0.128 J+	54.0 J+	0.732 J
PCB-3	2051-62-9	0.443 J+	178 J+	< 0.155 U	< 62.3 U	0.443 J	0.252 J+	106 J+	< 0.131 U	< 54.9 U	0.252 J
PCB-31	16606-02-3	4.53	1820	1.39 J+	560 J+	5.92 J	2.45	1030	1.24 J+	522 J+	3.69 J
PCB-32	38444-77-8	1.75 J-	704 J-	0.245 J	98.5 J	2 J	0.966 J-	406 J-	0.156 J	65.4 J	1.12 J
PCB-34	37680-68-5	0.0542 J	21.8 J	0.0336 JN	13.5 JN	0.0878 J	0.0257 JN	10.8 JN	< 0.0149 U	< 6.28 U	0.0257 J
PCB-35	37680-69-6	0.0706 J	28.4 J	0.0557 J+	22.4 J+	0.126 J	0.0552 J	23.2 J	0.0433 J+	18.2 J+	0.0985 J
PCB-36	38444-87-0	< 0.0196 U	< 7.87 U	< 0.0191 U	< 7.68 U	< 0.0387 U	0.0307 J	12.9 J	0.038 J	16.0 J	0.0687 J
PCB-37	38444-90-5	0.679	273	0.505	203	1.18	0.483	203	0.473	199	0.956
PCB-38	53555-66-1	< 0.021 U	< 8.43 U	< 0.0204 U	< 8.19 U	< 0.0413 U	< 0.0213 U	< 8.95 U	< 0.0124 U	< 5.22 U	< 0.0337 U
PCB-39	38444-88-1	0.0602 J	24.2 J	0.0209 JN	8.42 JN	0.0811 J	0.0376 JN	15.8 JN	0.0304 JN	12.8 JN	0.068 JN
PCB-4	13029-08-8	8.28	3330	0.333 J+	134 J+	8.62 J	8.23	3460	0.369 J+	155 J+	8.6 J
PCB-40/41/71	PCB-40/41/71	2.39	962	1.13 J+	455 J+	3.52 J	1.81	763	1.02 J+	430 J+	2.84 J
PCB-42	36559-22-5	1.26	506	0.577 J+	232 J+	1.84 J	0.828	348	0.49 J+	206 J+	1.32 J
PCB-43	70362-46-8	0.227	91.4	0.0557 JN	22.4 JN	0.283 J	0.112 JN	47.2 JN	< 0.0103 U	< 4.34 U	0.112 J
PCB-44/47/65	PCB-44/47/65	20 J+	8060 J+	5.55 J+	2230 J+	25.6 J+	11.5 J+	4850 J+	6.66 J+	2800 J+	18.2 J+
PCB-45/51	PCB-45/51	90 J+	36200 J+	1.62 J+	650 J+	91.7 J+	49.9 J+	21000 J+	1.75 J+	736 J+	51.7 J+
PCB-46	41464-47-5	0.779	313	0.129 J+	52.0 J+	0.908 J	0.449	189	0.118 J+	49.5 J+	0.567 J
PCB-48	70362-47-9	0.739	297	0.333 J+	134 J+	1.07 J	0.518	218	0.314 J+	132 J+	0.832 J
PCB-49/69	PCB-49/69	4.28	1720	1.64	658	5.92	3.02	1270	1.63	684	4.65
PCB-5	16605-91-7	0.0789 JN	31.7 JN	< 0.121 U	< 48.7 U	0.0789 J	< 0.0283 U	< 11.9 U	< 0.117 U	< 49.3 U	< 0.146 U
PCB-50/53	PCB-50/53	2.05	825	0.46	185	2.51	1.62	680	0.518	218	2.14
PCB-52	35693-99-3	7.36	2960	2.76 J+	1110 J+	10.1 J	4.92	2070	2.66 J+	1120 J+	7.59 J
PCB-54	15968-05-5	0.478	192	0.0938 J+	37.7 J+	0.571 J	0.756	318	0.144	60.7	0.901
PCB-55	74338-24-2	0.0398 JN	16.0 JN	< 0.0323 U	< 13.0 U	0.0398 J	< 0.0158 U	< 6.65 U	< 0.0252 U	< 10.6 U	< 0.041 U
PCB-56	41464-43-1	1.28	516	1.05	424	2.34	0.83	349	0.882	371	1.71
PCB-57	70424-67-8	< 0.018 U	< 7.23 U	< 0.0291 U	< 11.7 U	< 0.0471 U	0.0152 JN	6.39 JN	< 0.0228 U	< 9.58 U	0.0152 J
PCB-58	41464-49-7	< 0.0188 U	< 7.57 U	< 0.0299 U	< 12.0 U	< 0.0487 U	0.0158 JN	6.66 JN	< 0.0234 U	< 9.84 U	0.0158 J
PCB-59/62/75	PCB-59/62/75	0.478	192	0.208 J+	83.5 J+	0.685 J	0.326	137	0.196 J+	82.4 J+	0.522 J
PCB-6	25569-80-6	1.13 J+	456 J+	0.22 JN	88.4 JN	1.35 J	0.509 J+	214 J+	0.179 JN	75.2 JN	0.688 J
PCB-60	33025-41-1	0.55	221	0.448	180	0.998	0.357	150	0.376	158	0.732
PCB-61/70/74/76	PCB-61/70/74/76	4.4	1770	3.58	1440	7.99	3.16	1330	3.28	1380	6.44
PCB-63	74472-34-7	0.116	46.7	0.101 JN	40.5 JN	0.217 J	0.102	43.1	0.0897	37.7	0.192
PCB-64	52663-58-8	1.97	790	0.928	373	2.89	1.29	541	0.813	342	2.1
PCB-66	32598-10-0	2.61	1050	2.41 J+	967 J+	5.02 J	1.9	797	2.16 J+	909 J+	4.06 J
PCB-67	73575-53-8	0.059 J	23.7 J	0.0418 JN	16.8 JN	0.101 J	0.0592 J	24.9 J	0.0507 JN	21.3 JN	0.11 J
PCB-68	73575-52-7	16.3 J+	6570 J+	0.843 J+	339 J+	17.2 J+	11.7 J+	4930 J+	0.882 J+	371 J+	12.6 J+
PCB-7	33284-50-3	0.415 JN	167 JN	0.175 JN	70.4 JN	0.591 JN	0.181 J+	76.1 J+	0.154 J+	64.7 J+	0.335 J+

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T01-1808					PDI-WS-T02-1808				
	Location	T01					T02				
	Date	8/25/2018					8/24/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-72	41464-42-0	0.0652 JN	26.2 JN	0.0537 J	21.6 J	0.119 J	0.0602 JN	25.3 JN	0.0652 J	27.4 J	0.125 J
PCB-73	74338-23-1	0.0614 J	24.7 J	< 0.0107 U	< 4.31 U	0.0614 J	< 0.011 U	< 4.63 U	< 0.0103 U	< 4.34 U	< 0.0213 U
PCB-77	32598-13-3	0.174	69.8	0.254	102	0.427	0.126	53.1	0.25	105	0.376
PCB-78	70362-49-1	< 0.0193 U	< 7.74 U	< 0.0316 U	< 12.7 U	< 0.0508 U	< 0.0156 U	< 6.55 U	< 0.0247 U	< 10.4 U	< 0.0403 U
PCB-79	41464-48-6	< 0.0157 U	< 6.32 U	0.0366 JN	14.7 JN	0.0366 J	0.0464 JN	19.5 JN	0.0468 JN	19.7 JN	0.0932 JN
PCB-8	34883-43-7	4.13	1660	0.729 J+	293 J+	4.86 J	2.02 J+	848 J+	0.597 J+	251 J+	2.61 J+
PCB-80	33284-52-5	< 0.0176 U	< 7.06 U	< 0.0291 U	< 11.7 U	< 0.0467 U	< 0.0142 U	< 5.97 U	< 0.0229 U	< 9.64 U	< 0.0371 U
PCB-81	70362-50-4	< 0.0183 U	< 7.36 U	< 0.0291 U	< 11.7 U	< 0.0474 U	< 0.0144 U	< 6.07 U	< 0.023 U	< 9.66 U	< 0.0374 U
PCB-82	52663-62-4	0.383	154	0.45	181	0.833	0.273	115	0.433	182	0.706
PCB-83/99	PCB-83/99	1.98	797	2.51	1010	4.5	1.72	722	2.62	1100	4.33
PCB-84	52663-60-2	1.01	405	0.843	339	1.85	0.939	395	0.913	384	1.85
PCB-85/116/117	PCB-85/116/117	0.56	225	0.721	290	1.28	0.43	181	0.694	292	1.12
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	2.05	823	2.61 J+	1050 J+	4.66 J	1.76 J+	738 J+	2.66 J+	1120 J+	4.42 J+
PCB-88/91	PCB-88/91	0.756	304	0.619	249	1.38	0.702	295	0.697	293	1.4
PCB-89	73575-57-2	0.0604 JN	24.3 JN	0.0368 JN	14.8 JN	0.0973 JN	0.04	16.8	0.0419 JN	17.6 JN	0.0818 J
PCB-9	34883-39-1	0.303 J+	122 J+	< 0.109 U	< 43.9 U	0.303 J	0.134 J+	56.3 J+	< 0.105 U	< 44.3 U	0.134 J
PCB-90/101/113	PCB-90/101/113	2.94	1180	3.71	1490	6.64	3.12	1310	4.3	1810	7.42
PCB-92	52663-61-3	0.659 JN	265 JN	0.779	313	1.44 J	0.687	289	0.906	381	1.59
PCB-93/95/98/100/102	PCB-93/95/98/_C	3.81	1530	3.03	1220	6.84	3.78	1590	3.33	1400	7.11
PCB-94	73575-55-0	0.0473 J	19.0 J	0.0264 J	10.6 J	0.0736 J	0.0661	27.8	0.0466 J	19.6 J	0.113 J
PCB-96	73575-54-9	0.0644 J	25.9 J	0.0326 JN	13.1 JN	0.097 J	0.0711	29.9	0.0471 J	19.8 J	0.118 J
Total PCBs (a)	T_PCBCg (PDI)	269		112		381	179		124		303

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 402 L
Transect 02 Volume = 420.5 L
Transect 03 Volume = 400 L
Transect 04 Volume = 401.3 L
Transect 05 Volume = 400 L
Transect 06 Volume = 405.2 L
Transect 07 Volume = 403 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TEQ = toxicity equivalence

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T03-1808					PDI-WS-T04-1808				
		Location	T03					T04				
		Date	8/22/2018					8/23/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN											
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.032 J	12.8 J	1.93	773	1.96 J	0.0339 J	13.6 J	1.27	510	1.3 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		0.00345 JN	1.38 JN	0.443	177	0.446 J	0.00738 JN	2.96 JN	0.374	150	0.381 J
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.00216 U	< 0.862 U	0.0355 J	14.2 J	0.0355 J	< 0.00212 U	< 0.852 U	0.0501 J	20.1 J	0.0501 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.00263 U	< 1.05 U	0.0216 J	8.63 J	0.0216 J	< 0.00218 U	< 0.874 U	0.0157 JN	6.29 JN	0.0157 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.00216 U	< 0.862 U	0.0975 J	39.0 J	0.0975 J	0.00815 J	3.27 J	0.201 J	80.8 J	0.209 J
1,2,3,6,7,8-HxCDD	57653-85-7		< 0.00265 U	< 1.06 U	0.0793 J	31.7 J	0.0793 J	0.00331 JN	1.33 JN	0.0586 JN	23.5 JN	0.0619 JN
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.00216 U	< 0.862 U	0.0363 J	14.5 J	0.0363 J	< 0.00212 U	< 0.852 U	0.0528 J	21.2 J	0.0528 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.00263 U	< 1.05 U	0.0438 JN	17.5 JN	0.0438 J	< 0.0022 U	< 0.884 U	0.0404 JN	16.2 JN	0.0404 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.00216 U	< 0.862 U	< 0.0109 U	< 4.35 U	< 0.013 U	< 0.00212 U	< 0.852 U	< 0.0108 U	< 4.33 U	< 0.0129 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.00216 U	< 0.862 U	0.0111 J	4.42 J	0.0111 J	< 0.00212 U	< 0.852 U	< 0.0108 U	< 4.33 U	< 0.0129 U
1,2,3,7,8-PeCDF	57117-41-6		< 0.00216 U	< 0.862 U	0.0408 JN	16.3 JN	0.0408 J	0.00528 JN	2.12 JN	0.0967 J	38.8 J	0.102 J
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.00216 U	< 0.862 U	0.0155 J	6.19 J	0.0155 J	< 0.00212 U	< 0.852 U	0.0161 J	6.46 J	0.0161 J
2,3,4,7,8-PeCDF	57117-31-4		< 0.00216 U	< 0.862 U	0.0247 J	9.88 J	0.0247 J	0.00376 J	1.51 J	0.0446 J	17.9 J	0.0484 J
2,3,7,8-TCDD	1746-01-6		0.00263 JN	1.05 JN	< 0.0109 U	< 4.35 U	0.00263 J	< 0.00212 U	< 0.852 U	< 0.0108 U	< 4.33 U	< 0.0129 U
2,3,7,8-TCDF	51207-31-9		0.0081 J	3.24 J	0.048 JN	19.2 JN	0.0561 J	0.0144	5.79	0.0915	36.7	0.106
OCDD	3268-87-9		0.473	189	22.1	8820	22.5	0.454	182	10.9	4380	11.4
OCDF	39001-02-0		0.00633 J	2.53 J	1.21	483	1.21 J	0.0148 J	5.92 J	0.902	362	0.917 J
TCDD-TEQ (a)	T_DF_TEQ (PDI)		0.00502		0.0905		0.0896	0.00549		0.0898		0.0952
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)		0.00235		0.0849		0.0841	0.00492		0.0783		0.08
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)		0.00127		0.0794		0.0807	0.00386		0.0729		0.0768
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7		1.14 J+	457 J+	0.157	62.6	1.3 J	1.2 J+	482 J+	0.166 J-	66.5 J-	1.37 J
PCB-10	33146-45-1		0.918	367	< 0.125 U	< 50.1 U	0.918	0.887	356	< 0.0837 U	< 33.6 U	0.887
PCB-103	60145-21-3		0.236	94.4	0.217 JN	86.8 JN	0.453 J	0.269	108	0.222	88.9	0.491
PCB-104	56558-16-8		0.0513	20.5	0.0333 JN	13.3 JN	0.0845 J	0.0576	23.1	0.0399 JN	16.0 JN	0.0974 J
PCB-105	32598-14-4		0.97	388	2.7	1080	3.67	0.845	339	1.88	755	2.73
PCB-106	70424-69-0		< 0.0134 U	< 5.34 U	< 0.0215 U	< 8.59 U	< 0.0348 U	< 0.00738 U	< 2.96 U	< 0.0191 U	< 7.66 U	< 0.0265 U
PCB-107/124	PCB-107/124		0.134	53.4	0.31	124	0.444	0.107	42.8	0.211	84.7	0.318
PCB-109	74472-35-8		0.273	109	0.62	248	0.893	0.254	102	0.416	167	0.67
PCB-11	2050-67-1		11.5	4600	4.58 J	1830 J	16.1 J	8.72	3500	3.76 J+	1510 J+	12.5 J
PCB-110/115	PCB-110/115		6.03	2410	8.9	3560	14.9	5.38	2160	6.4	2570	11.8
PCB-111	39635-32-0		< 0.00945 U	< 3.78 U	< 0.0119 U	< 4.74 U	< 0.0213 U	0.0107 J	4.29 J	< 0.0122 U	< 4.88 U	0.0107 J
PCB-112	74472-36-9		< 0.00915 U	< 3.66 U	< 0.0115 U	< 4.60 U	< 0.0207 U	< 0.00628 U	< 2.52 U	< 0.0118 U	< 4.75 U	< 0.0181 U
PCB-114	74472-37-0		0.0538	21.5	0.156 JN	62.4 JN	0.21 J	0.0508	20.4	0.128	51.4	0.179
PCB-118	31508-00-6		2.63	1050	6.9	2760	9.53	2.32	930	4.86	1950	7.18
PCB-12/13	PCB-12/13		0.343 J+	137 J+	0.358 J	143 J	0.7 J	0.279 J+	112 J+	0.17	68.2	0.449 J
PCB-120	68194-12-7		0.0226	9.05	0.0553 J	22.1 J	0.0779 J	0.0307 JN	12.3 JN	0.0556 J	22.3 J	0.0862 J
PCB-121	56558-18-0		0.0118 J	4.73 J	0.0205 JN	8.19 JN	0.0323 J	0.0123 J	4.93 J	< 0.0124 U	< 4.97 U	0.0123 J
PCB-122	76842-07-4		0.0408	16.3	0.107 JN	42.7 JN	0.148 J	0.0341 JN	13.7 JN	0.0733 J	29.4 J	0.107 J
PCB-123	65510-44-3		0.0553 JN	22.1 JN	0.129 JN	51.6 JN	0.184 JN	0.0436 JN	17.5 JN	0.126 JN	50.4 JN	0.169 JN
PCB-126	57465-28-8		< 0.0161 U	< 6.42 U	0.0455 JN	18.2 JN	0.0455 J	< 0.00885 U	< 3.55 U	0.0606 JN	24.3 JN	0.0606 J
PCB-127	39635-33-1		< 0.015 U	< 5.99 U	< 0.0242 U	< 9.67 U	< 0.0392 U	< 0.0083 U	< 3.33 U	< 0.0215 U	< 8.63 U	< 0.0298 U
PCB-128/166	PCB-128/166		0.433	173	2.35	938	2.78	0.401	161	1.63	654	2.03
PCB-129/138/160/163	PCB-129/138/_C		3.3	1320	14.6	5830	17.9	3.56	1430	11.2	4480	14.7
PCB-130	52663-66-8		0.214	85.5	0.86	344	1.07	0.194	77.9	0.611 JN	245 JN	0.805 J
PCB-131	61798-70-7		0.0488	19.5	0.163	65.2	0.212	0.0319	12.8	0.113	45.3	0.145
PCB-132	38380-05-1		1.41	564	4.45	1780	5.86	1.36	546	3.34	1340	4.7
PCB-133	35694-04-3		0.085	34.0	0.27	108	0.355	0.0962	38.6	0.238	95.7	0.335
PCB-134/143	PCB-134/143		0.265	106	0.695	278	0.96	0.248	99.4	0.581	233	0.828
PCB-135/151/154	PCB-135/151/154		1.91	762	4.73	1890	6.63	2.11	846	3.99	1600	6.1
PCB-136	38411-22-2		0.753	301	1.55	621	2.31	0.825	331	1.36	547	2.19
PCB-137	35694-06-5		0.0988	39.5	0.58	232	0.679	0.087 JN	34.9 JN	0.436	175	0.523 J
PCB-139/140	PCB-139/140		0.0778	31.1	0.24	95.9	0.318	0.0738 JN	29.6 JN	0.175	70.3	0.249 J
PCB-14	34883-41-5		< 0.033 U	< 13.2 U	< 0.126 U	< 50.5 U	< 0.159 U	< 0.0267 U	< 10.7 U	< 0.085 U	< 34.1 U	< 0.112 U

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T03-1808					PDI-WS-T04-1808				
	Location	T03					T04				
	Date	8/22/2018					8/23/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-141	52712-04-6	0.628	251	2.3	920	2.93	0.613	246	1.86	745	2.47
PCB-142	41411-61-4	< 0.016 U	< 6.39 U	< 0.0443 U	< 17.7 U	< 0.0602 U	< 0.0127 U	< 5.11 U	< 0.0216 U	< 8.68 U	< 0.0344 U
PCB-144	68194-14-9	0.192	76.6	0.585	234	0.777	0.218	87.3	0.456	183	0.674
PCB-145	74472-40-5	< 0.00216 U	< 0.862 U	< 0.0109 U	< 4.35 U	< 0.013 U	< 0.00212 U	< 0.852 U	< 0.0108 U	< 4.33 U	< 0.0129 U
PCB-146	51908-16-8	0.665	266	2.6	1040	3.27	0.74	297	2.21	886	2.95
PCB-147/149	PCB-147/149	4.3	1720	13	5210	17.3	4.41	1770	10.9	4360	15.3
PCB-148	74472-41-6	0.0211 JN	8.45 JN	0.0755 JN	30.2 JN	0.0966 JN	0.0254 JN	10.2 JN	0.0568 JN	22.8 JN	0.0822 JN
PCB-15	2050-68-2	1.97	786	1.33	531	3.29	1.31	524	0.508 J+	204 J+	1.81 J
PCB-150	68194-08-1	0.028 JN	11.2 JN	0.0733 J	29.3 J	0.101 J	0.0304 JN	12.2 JN	0.0578 J	23.2 J	0.0882 J
PCB-152	68194-09-2	0.0116 J	4.64 J	0.0193 JN	7.71 JN	0.0309 J	0.0162 JN	6.52 JN	0.0248 J	9.96 J	0.0411 J
PCB-153/168	PCB-153/168	3	1200	12.1	4840	15.1	3.07	1230	9.39	3770	12.5
PCB-155	33979-03-2	0.00388 JN	1.55 JN	0.0212 JN	8.46 JN	0.025 JN	0.00546 JN	2.19 JN	0.0126 JN	5.07 JN	0.0181 JN
PCB-156/157	PCB-156/157	0.212	84.6	1.41	564	1.62	0.19	76.1	0.984	395	1.17
PCB-158	74472-42-7	0.265	106	1.24	495	1.5	0.262	105	0.85	341	1.11
PCB-159	39635-35-3	0.0278 JN	11.1 JN	< 0.0315 U	< 12.6 U	0.0278 J	0.0279	11.2	< 0.0158 U	< 6.33 U	0.0279
PCB-16	38444-78-9	2.8	1120	1.02 J	406 J	3.82 J	2.25	901	0.513 J+	206 J+	2.76 J
PCB-161	74472-43-8	< 0.0114 U	< 4.56 U	< 0.031 U	< 12.4 U	< 0.0424 U	< 0.00895 U	< 3.59 U	< 0.0147 U	< 5.91 U	< 0.0237 U
PCB-162	39635-34-2	< 0.0101 U	< 4.02 U	0.0635 JN	25.4 JN	0.0635 J	< 0.00812 U	< 3.26 U	< 0.0144 U	< 5.78 U	< 0.0225 U
PCB-164	74472-45-0	0.25	100	0.995	398	1.25	0.243	97.7	0.69	277	0.934
PCB-165	74472-46-1	< 0.0126 U	< 5.02 U	< 0.035 U	< 14.0 U	< 0.0476 U	< 0.0101 U	< 4.06 U	< 0.0175 U	< 7.03 U	< 0.0276 U
PCB-167	52663-72-6	0.082	32.8	0.523	209	0.605	0.0705	28.3	0.349	140	0.419
PCB-169	32774-16-6	< 0.012 U	< 4.80 U	< 0.035 U	< 14.0 U	< 0.047 U	< 0.0102 U	< 4.09 U	< 0.0208 U	< 8.33 U	< 0.0309 U
PCB-17	37680-66-3	6.45	2580	1.49 J	595 J	7.94 J	6.28	2520	0.81 J	325 J	7.09 J
PCB-170	35065-30-6	0.288 J+	115 J+	3.1	1240	3.39 J	0.346 J+	139 J+	2.59	1040	2.94 J
PCB-171/173	PCB-171/173	0.136 J+	54.4 J+	0.93	372	1.07 J	0.135 J+	54.0 J+	0.797	320	0.932 J
PCB-172	52663-74-8	0.0723	28.9	0.51	204	0.582	0.0745 JN	29.9 JN	0.478	192	0.553 J
PCB-174	38411-25-5	0.498	199	3.03	1210	3.52	0.493	198	2.74	1100	3.23
PCB-175	40186-70-7	0.0204	8.14	0.123	49.0	0.143	0.0203	8.16	0.121 JN	48.6 JN	0.141 J
PCB-176	52663-65-7	0.0728	29.1	0.44	176	0.513	0.076	30.5	0.356	143	0.432
PCB-177	52663-70-4	0.227 JN	90.8 JN	1.53	610	1.75 J	0.208	83.4	1.6	641	1.81
PCB-178	52663-67-9	0.13	51.9	0.773	309	0.902	0.135	54.2	0.643	258	0.778
PCB-179	52663-64-6	0.283	113	1.55	620	1.83	0.331	133	1.29	519	1.62
PCB-18/30	PCB-18/30	6.55	2620	1.98 J	792 J	8.53 J	5.61	2250	1.19 J+	477 J+	6.8 J
PCB-180/193	PCB-180/193	0.913 J+	365 J+	8.33	3330	9.24 J	1.04	417	7.28	2920	8.32
PCB-181	74472-47-2	0.00733 J	2.93 J	0.0415 JN	16.6 JN	0.0488 J	0.00787 JN	3.16 JN	0.0491 JN	19.7 JN	0.057 JN
PCB-182	60145-23-5	0.00475 JN	1.90 JN	0.028 J	11.2 J	0.0328 J	< 0.00262 U	< 1.05 U	0.0319 J	12.8 J	0.0319 J
PCB-183/185	PCB-183/185	0.32	128	2.29	914	2.61	0.364	146	1.89	759	2.26
PCB-184	74472-48-3	< 0.00216 U	< 0.862 U	0.0143 JN	5.72 JN	0.0143 J	0.00274 JN	1.10 JN	< 0.0108 U	< 4.33 U	0.00274 J
PCB-186	74472-49-4	< 0.00216 U	< 0.862 U	< 0.0109 U	< 4.35 U	< 0.013 U	< 0.00212 U	< 0.852 U	< 0.0108 U	< 4.33 U	< 0.0129 U
PCB-187	52663-68-0	0.76	304	5.55	2220	6.31	0.78	313	4.78	1920	5.56
PCB-188	74487-85-7	< 0.00216 U	< 0.862 U	0.0184 J	7.36 J	0.0184 J	< 0.00212 U	< 0.852 U	0.0211 JN	8.45 JN	0.0211 J
PCB-189	39635-31-9	0.0101 JN	4.03 JN	0.103 JN	41.3 JN	0.113 JN	0.0115 J	4.61 J	0.0852 J	34.2 J	0.0967 J
PCB-19	38444-73-4	13.4	5370	0.885	354	14.3	15.1	6070	0.837	336	16
PCB-190	41411-64-7	0.0745	29.8	0.59	236	0.665	0.0685 J+	27.5 J+	0.541	217	0.609 J
PCB-191	74472-50-7	0.0149 J	5.94 J	0.122	48.6	0.136 J	0.0144 J	5.76 J	0.113	45.3	0.127 J
PCB-192	74472-51-8	< 0.00216 U	< 0.862 U	< 0.0109 U	< 4.35 U	< 0.013 U	< 0.00243 U	< 0.977 U	< 0.0108 U	< 4.33 U	< 0.0132 U
PCB-194	35694-08-7	0.126 J+	50.3 J+	1.72	688	1.85 J	0.109 J+	43.6 J+	1.44	579	1.55 J
PCB-195	52663-78-2	0.0495 JN	19.8 JN	0.705	282	0.755 J	0.0588 J+	23.6 J+	0.608	244	0.667 J
PCB-196	42740-50-1	0.0858 J+	34.3 J+	0.945	378	1.03 J	0.0668 JN	26.8 JN	0.758 JN	304 JN	0.824 JN
PCB-197/200	PCB-197/200	0.0255 J	10.2 J	0.35	140	0.376 J	0.0297 J	11.9 J	0.309	124	0.339 J
PCB-198/199	PCB-198/199	0.24 J+	95.8 J+	2.45	979	2.69 J	0.178 JN	71.5 JN	1.86	746	2.04 J
PCB-2	2051-61-8	0.212 J+	84.6 J+	0.2 J+	80.0 J+	0.412 J+	0.185 J+	74.1 J+	0.182 J+	72.9 J+	0.366 J+
PCB-20/28	PCB-20/28	7.38	2950	5.75 J	2300 J	13.1 J	4.54	1820	2.42 J+	973 J+	6.96 J

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T03-1808					PDI-WS-T04-1808				
	Location	T03					T04				
	Date	8/22/2018					8/23/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-201	40186-71-8	0.0293 J+	11.7 J+	0.288	115	0.317 J	0.0246 J+	9.86 J+	0.216	86.5	0.24 J
PCB-202	2136-99-4	0.0498 J+	19.9 J+	0.585	234	0.635 J	0.0476 J+	19.1 J+	0.426	171	0.474 J
PCB-203	52663-76-0	0.159 J+	63.6 J+	1.62	647	0.123	0.106 J+	42.4 J+	1.24	496	1.34 J
PCB-204	74472-52-9	< 0.00216 U	< 0.862 U	< 0.0109 U	< 4.35 U	< 0.013 U	< 0.00212 U	< 0.852 U	< 0.0108 U	< 4.33 U	< 0.0129 U
PCB-205	74472-53-0	0.00488 J+	1.95 J+	0.093 JN	37.2 JN	0.0979 J	0.00695 JN	2.79 JN	0.0805 JN	32.3 JN	0.0874 JN
PCB-206	40186-72-9	0.136 J+	54.3 J+	1.6	638	1.73 J	0.0648 J+	26.0 J+	0.989	397	1.05 J
PCB-207	52663-79-3	0.0245 J+	9.79 J+	0.173	69.1	0.197 J	0.0144 JN	5.78 JN	0.136	54.5	0.15 J
PCB-208	52663-77-1	0.059 J+	23.6 J+	0.625	250	0.684 J	0.0279 J+	11.2 J+	0.349	140	0.377 J
PCB-209	2051-24-3	0.0473 J+	18.9 J+	1.44 JN	575 JN	1.48 J	0.0459 JN	18.4 JN	1.17	468	1.21 J
PCB-21/33	PCB-21/33	7.23	2890	2.28 J	913 J	9.51 J	5.36	2150	1.17 J+	469 J+	6.53 J
PCB-22	38444-85-8	2.49	997	1.59 J	637 J	4.09 J	1.61	647	0.738 J+	296 J+	2.35 J
PCB-23	55720-44-0	< 0.0295 U	< 11.8 U	< 0.024 U	< 9.61 U	< 0.0535 U	< 0.0174 U	< 6.99 U	< 0.0108 U	< 4.33 U	< 0.0282 U
PCB-24	55702-45-9	0.113	45.0	0.0358 J+	14.3 J+	0.148 J	0.0905	36.3	0.0145 J+	5.80 J+	0.105 J
PCB-25	55712-37-3	2.34 J+	935 J+	0.778 J	311 J	3.12 J	2.11 J+	845 J+	0.563 J+	226 J+	2.67 J+
PCB-26/29	PCB-26/29	1.35	539	0.763	305	2.11	1	402	0.419 J+	168 J+	1.42 J
PCB-27	38444-76-7	0.953	381	0.318	127	1.27	1.12	451	0.171 J+	68.8 J+	1.3 J
PCB-3	2051-62-9	0.385 J+	154 J+	0.203 J+	81.1 J+	0.588 J+	0.379 J+	152 J+	0.201 J+	80.7 J+	0.58 J+
PCB-31	16606-02-3	5.58	2230	3.7 J	1480 J	9.28 J	3.61	1450	1.71 J+	686 J+	5.32 J
PCB-32	38444-77-8	2.36 J-	943 J-	0.518 J	207 J	2.88 J	2.43	976	0.223 J	89.5 J	2.66 J
PCB-34	37680-68-5	0.0585 J	23.4 J	0.037 J+	14.8 J+	0.0955 J	0.0568 JN	22.8 JN	< 0.0231 U	< 9.28 U	0.0568 J
PCB-35	37680-69-6	0.114 JN	45.7 JN	0.134 J	53.4 J	0.248 J	0.0573 JN	23.0 JN	0.0772 J+	31.0 J+	0.135 J
PCB-36	38444-87-0	0.0383 J	15.3 J	0.131 J	52.2 J	0.169 J	< 0.0153 U	< 6.15 U	0.0765 J	30.7 J	0.0765 J
PCB-37	38444-90-5	1.15	459	1.44	574	2.58	0.683	274	0.523	210	1.21
PCB-38	53555-66-1	< 0.0278 U	< 11.1 U	< 0.0237 U	< 9.47 U	< 0.0514 U	< 0.0164 U	< 6.59 U	< 0.0108 U	< 4.33 U	< 0.0272 U
PCB-39	38444-88-1	0.065 JN	26.0 JN	0.0703 J	28.1 J	0.135 J	0.0708 J	28.4 J	0.0456 JN	18.3 JN	0.116 J
PCB-4	13029-08-8	15.9	6340	0.68 J+	272 J+	16.5 J	15.6	6270	0.503 J+	202 J+	16.1 J
PCB-40/41/71	PCB-40/41/71	3.83	1530	2.63	1050	6.45	2.84	1140	1.52	608	4.36
PCB-42	36559-22-5	1.76	703	1.34	535	3.1	1.31	525	0.713	286	2.02
PCB-43	70362-46-8	0.328	131	0.177	70.6	0.504	0.171	68.5	0.0795 J	31.9 J	0.25 J
PCB-44/47/65	PCB-44/47/65	28.5 J+	11400 J+	14.1 J+	5630 J+	42.6 J+	24.1 J+	9670 J+	10.8 J+	4320 J+	34.9 J+
PCB-45/51	PCB-45/51	97 J+	38800 J+	3.83	1530	101 J	79.7 J+	32000 J+	2.87 J+	1150 J+	82.6 J+
PCB-46	41464-47-5	0.945	378	0.27	108	1.22	0.743	298	0.162 J+	64.9 J+	0.904 J
PCB-48	70362-47-9	1.15	459	0.853	341	2	0.787	316	0.444 J+	178 J+	1.23 J
PCB-49/69	PCB-49/69	5.9	2360	3.75	1500	9.65	5.11	2050	2.41	968	7.52
PCB-5	16605-91-7	0.117 JN	46.7 JN	< 0.136 U	< 54.4 U	0.117 J	0.0979 JN	39.3 JN	< 0.0927 U	< 37.2 U	0.0979 J
PCB-50/53	PCB-50/53	2.95	1180	1.12	448	4.07	3.14	1260	0.87	349	4.01
PCB-52	35693-99-3	9.68	3870	5.98	2390	15.7	8.35	3350	3.91	1570	12.3
PCB-54	15968-05-5	1.27	508	0.206	82.3	1.48	1.5	601	0.222	89.1	1.72
PCB-55	74338-24-2	< 0.0143 U	< 5.71 U	< 0.0543 U	< 21.7 U	< 0.0685 U	< 0.0204 U	< 8.17 U	< 0.0235 U	< 9.43 U	< 0.0439 U
PCB-56	41464-43-1	1.69	674	1.97	786	3.65	1.4	563	1.39	558	2.79
PCB-57	70424-67-8	0.0343 JN	13.7 JN	< 0.0495 U	< 19.8 U	0.0343 J	< 0.0187 U	< 7.51 U	< 0.0212 U	< 8.50 U	< 0.0399 U
PCB-58	41464-49-7	0.0258 JN	10.3 JN	< 0.0528 U	< 21.1 U	0.0258 J	0.0217 JN	8.72 JN	< 0.0218 U	< 8.73 U	0.0217 J
PCB-59/62/75	PCB-59/62/75	0.68	272	0.478	191	1.16	0.516	207	0.269	108	0.785
PCB-6	25569-80-6	1.15 J+	458 J+	0.398 J	159 J	1.54 J	0.862 J+	346 J+	0.203 J+	81.6 J+	1.07 J+
PCB-60	33025-41-1	0.768	307	0.925	370	1.69	0.66	265	0.611	245	1.27
PCB-61/70/74/76	PCB-61/70/74/76	6.38	2550	7.13	2850	13.5	4.96	1990	4.51	1810	9.47
PCB-63	74472-34-7	0.173	69.3	0.171	68.4	0.344	0.142	56.9	0.115	46.1	0.257
PCB-64	52663-58-8	2.65	1060	2.03	812	4.68	2.01	805	1.18	474	3.19
PCB-66	32598-10-0	3.85	1540	4.5 J	1800 J	8.35 J	3.14	1260	3.02 J+	1210 J+	6.15 J
PCB-67	73575-53-8	0.0895	35.8	0.111 JN	44.3 JN	0.2 J	0.0606 J	24.3 J	0.0675 J	27.1 J	0.128 J
PCB-68	73575-52-7	16.4 J+	6550 J+	1.49 J	597 J	17.9 J	9.27 J+	3720 J+	1.37 J+	548 J+	10.6 J+
PCB-7	33284-50-3	0.438 J+	175 J+	0.288 JN	115 JN	0.725 J	0.339 J+	136 J+	0.267 J+	107 J+	0.606 J+

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T03-1808					PDI-WS-T04-1808				
	Location	T03					T04				
	Date	8/22/2018					8/23/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-72	41464-42-0	0.111	44.4	0.0708 J	28.3 J	0.182 J	0.109	43.7	0.073 JN	29.3 JN	0.182 J
PCB-73	74338-23-1	0.193	77.2	< 0.0109 U	< 4.35 U	0.193	0.157 JN	62.9 JN	< 0.0108 U	< 4.33 U	0.157 J
PCB-77	32598-13-3	0.23	91.8	0.475	190	0.705	0.217	86.9	0.331	133	0.548
PCB-78	70362-49-1	< 0.0141 U	< 5.63 U	< 0.0533 U	< 21.3 U	< 0.0673 U	< 0.0201 U	< 8.05 U	< 0.023 U	< 9.24 U	< 0.0431 U
PCB-79	41464-48-6	< 0.0115 U	< 4.60 U	0.123	49.1	0.123	0.126	50.5	0.067 JN	26.9 JN	0.193 J
PCB-8	34883-43-7	4.98	1990	1.59 J	636 J	6.57 J	3.69 J+	1480 J+	0.815 J+	327 J+	4.5 J+
PCB-80	33284-52-5	< 0.0129 U	< 5.14 U	< 0.048 U	< 19.2 U	< 0.0609 U	< 0.0183 U	< 7.34 U	< 0.0213 U	< 8.55 U	< 0.0396 U
PCB-81	70362-50-4	< 0.021 U	< 8.38 U	< 0.0503 U	< 20.1 U	< 0.0712 U	< 0.0156 U	< 6.25 U	< 0.0213 U	< 8.53 U	< 0.0368 U
PCB-82	52663-62-4	0.58	232	1.05	420	1.63	0.503	202	0.653	262	1.16
PCB-83/99	PCB-83/99	3.3	1320	4.8	1920	8.1	3.04	1220	3.91	1570	6.95
PCB-84	52663-60-2	1.84	736	1.73	691	3.57	1.75	702	1.27	510	3.02
PCB-85/116/117	PCB-85/116/117	0.835	334	1.43	571	2.26	0.785	315	1.02	411	1.81
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	3.6 J+	1440 J+	5.3 J+	2120 J+	8.9 J+	3.31 J+	1330 J+	3.91 J+	1570 J+	7.23 J+
PCB-88/91	PCB-88/91	1.34	535	1.34	534	2.67	1.35	540	1.12	451	2.47
PCB-89	73575-57-2	0.0785	31.4	0.0903 JN	36.1 JN	0.169 J	0.0688	27.6	0.0596 JN	23.9 JN	0.128 J
PCB-9	34883-39-1	0.338	135	0.148 JN	59.0 JN	0.485 J	0.267 J+	107 J+	< 0.0835 U	< 33.5 U	0.267 J
PCB-90/101/113	PCB-90/101/113	5.93	2370	8.1	3240	14	5.68	2280	6.38	2560	12.1
PCB-92	52663-61-3	1.31	522	1.68	670	2.98	1.26	504	1.33	533	2.58
PCB-93/95/98/100/102	PCB-93/95/98/_C	7.53	3010	6.35	2540	13.9	7.2	2890	5.16	2070	12.4
PCB-94	73575-55-0	0.125	49.9	0.0968 JN	38.7 JN	0.222 J	0.154	62.0	0.0952	38.2	0.25
PCB-96	73575-54-9	0.14	55.8	0.0838 J	33.5 J	0.223 J	0.16	64.1	0.0845 JN	33.9 JN	0.244 J
Total PCBs (a)	T_PCBCg (PDI)	347		246		591	295		181		476

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 402 L
Transect 02 Volume = 420.5 L
Transect 03 Volume = 400 L
Transect 04 Volume = 401.3 L
Transect 05 Volume = 400 L
Transect 06 Volume = 405.2 L
Transect 07 Volume = 403 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TEQ = toxicity equivalence

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T05-1808					PDI-WS-T06-1808				
		Location	T05					T06				
		Date	8/21/2018					8/24/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN											
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.00868 J	3.47 J	0.963	385	0.971 J	0.0195 JN	7.89 JN	0.792	321	0.812 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		0.00241 J	0.965 J	0.216 J	86.3 J	0.218 J	0.00262 J	1.06 J	0.182 J	73.9 J	0.185 J
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.00214 U	< 0.855 U	0.0161 J	6.44 J	0.0161 J	< 0.00211 U	< 0.856 U	0.0148 J	5.99 J	0.0148 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.00214 U	< 0.855 U	0.0152 JN	6.07 JN	0.0152 J	< 0.00211 U	< 0.856 U	0.015 JN	6.09 JN	0.015 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.00214 U	< 0.855 U	0.0163 J	6.52 J	0.0163 J	< 0.00211 U	< 0.856 U	0.0152 J	6.14 J	0.0152 J
1,2,3,6,7,8-HxCDD	57653-85-7		< 0.00214 U	< 0.855 U	0.055 J	22.0 J	0.055 J	0.00215 JN	0.872 JN	0.0397 J	16.1 J	0.0419 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	0.011 J	4.46 J	0.011 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.00214 U	< 0.855 U	0.0204 JN	8.14 JN	0.0204 J	< 0.00211 U	< 0.856 U	0.0291 JN	11.8 JN	0.0291 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00224 U	< 0.908 U	0.0106 JN	4.30 JN	0.0106 J
1,2,3,7,8-PeCDF	57117-41-6		< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	0.0118 J	4.79 J	0.0118 J
2,3,4,7,8-PeCDF	57117-31-4		< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
2,3,7,8-TCDD	1746-01-6		0.00226 J	0.902 J	< 0.011 U	< 4.39 U	0.00226 J	< 0.00211 U	< 0.856 U	0.0117 JN	4.75 JN	0.0117 J
2,3,7,8-TCDF	51207-31-9		0.00218 JN	0.873 JN	< 0.011 U	< 4.39 U	0.00218 J	0.00257 JN	1.04 JN	< 0.0106 U	< 4.30 U	0.00257 J
OCDD	3268-87-9		0.113	45.1	7.78	3110	7.89	0.313	127	7.92	3210	8.24
OCDF	39001-02-0		0.00353 JN	1.41 JN	0.528	211	0.531 J	< 0.00299 U	< 1.21 U	0.405 J	164 J	0.405 J
TCDD-TEQ	(a) T_DF_TEQ (PDI)		0.00369		0.0306		0.0343	0.00191		0.0485		0.0496
TCDD-TEQ (EMPC=half)	(b) T_DF_TEQ(E_0.5)		0.00347		0.0271		0.0273	0.00124		0.0231		0.0237
TCDD-TEQ (EMPC=0)	(b) T_DF_TEQ(E_0)		0.0024		0.0216		0.024	0.00012		0.0202		0.0203
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7		1.57 J+	626 J+	0.173 J-	69.2 J-	1.74 J	0.563 J+	228 J+	0.104 JN	42.1 JN	0.667 J
PCB-10	33146-45-1		1.42	566	< 0.0675 U	< 27.0 U	1.42	0.13 JN	52.6 JN	< 0.0772 U	< 31.3 U	0.13 J
PCB-103	60145-21-3		0.17 JN	67.8 JN	0.149	59.7	0.319 J	0.0536	21.7	< 0.0439 U	< 17.8 U	0.0536
PCB-104	56558-16-8		0.0425 JN	17.0 JN	0.0348 J+	13.9 J+	0.0773 J	0.00516 JN	2.09 JN	< 0.0106 U	< 4.30 U	0.00516 J
PCB-105	32598-14-4		0.623	249	1.79	716	2.41	0.429	174	0.585 JN	237 JN	1.01 J
PCB-106	70424-69-0		< 0.0164 U	< 6.55 U	< 0.039 U	< 15.6 U	< 0.0554 U	< 0.00521 U	< 2.11 U	< 0.0553 U	< 22.4 U	< 0.0605 U
PCB-107/124	PCB-107/124		0.0785 JN	31.4 JN	0.21	83.9	0.288 J	0.0553	22.4	< 0.0627 U	< 25.4 U	0.0553
PCB-109	74472-35-8		0.202	80.7	0.45	180	0.652	0.132	53.5	0.211 JN	85.3 JN	0.343 J
PCB-11	2050-67-1		7.45	2980	3.08 J+	1230 J+	10.5 J	12.9	5210	3.46 J+	1400 J+	16.3 J
PCB-110/115	PCB-110/115		3.83	1530	6.9	2760	10.7	2.57	1040	1.73 JN	703 JN	4.3 J
PCB-111	39635-32-0		< 0.0146 U	< 5.85 U	< 0.0131 U	< 5.22 U	< 0.0277 U	< 0.00385 U	< 1.56 U	< 0.0383 U	< 15.5 U	< 0.0421 U
PCB-112	74472-36-9		< 0.0139 U	< 5.56 U	< 0.0127 U	< 5.09 U	< 0.0266 U	< 0.00373 U	< 1.51 U	< 0.0365 U	< 14.8 U	< 0.0403 U
PCB-114	74472-37-0		0.0408 J	16.3 J	0.101 JN	40.5 JN	0.142 J	0.0254 JN	10.3 JN	0.039 J	15.8 J	0.0644 J
PCB-118	31508-00-6		1.75	698	4.73	1890	6.47	1.13	458	1.68	679	2.81
PCB-12/13	PCB-12/13		0.473	189	0.201	80.4	0.674	0.165 JN	67.0 JN	0.0945 JN	38.3 JN	0.26 JN
PCB-120	68194-12-7		< 0.0138 U	< 5.51 U	0.042 J	16.8 J	0.042 J	0.00908 JN	3.68 JN	< 0.0358 U	< 14.5 U	0.00908 J
PCB-121	56558-18-0		< 0.0148 U	< 5.92 U	< 0.0133 U	< 5.32 U	< 0.0281 U	< 0.00387 U	< 1.57 U	< 0.038 U	< 15.4 U	< 0.0419 U
PCB-122	76842-07-4		0.032 JN	12.8 JN	0.0605 J	24.2 J	0.0925 J	0.0205	8.29	< 0.0671 U	< 27.2 U	0.0205
PCB-123	65510-44-3		0.0305 JN	12.2 JN	0.0788 J	31.5 J	0.109 J	0.0343 JN	13.9 JN	0.037 JN	15.0 JN	0.0713 JN
PCB-126	57465-28-8		< 0.0172 U	< 6.88 U	0.0473 JN	18.9 JN	0.0473 J	0.00595 JN	2.41 JN	0.0232 JN	9.40 JN	0.0291 JN
PCB-127	39635-33-1		< 0.0167 U	< 6.66 U	< 0.044 U	< 17.6 U	< 0.0607 U	< 0.00585 U	< 2.37 U	< 0.0642 U	< 26.0 U	< 0.07 U
PCB-128/166	PCB-128/166		0.253	101	1.54 J-	614 J-	1.79 J	0.19 J-	77.0 J-	0.701	284	0.891 J
PCB-129/138/160/163	PCB-129/138/_C		2.23	891	9.75	3900	12	1.45	589	3.73	1510	5.18
PCB-130	52663-66-8		0.126	50.4	0.583	233	0.709	0.0992	40.2	0.232	93.9	0.331
PCB-131	61798-70-7		0.0275	11.0	0.111	44.3	0.138	0.0219	8.88	0.0424 JN	17.2 JN	0.0644 J
PCB-132	38380-05-1		0.948	379	3.3	1320	4.25	0.518	210	0.96	389	1.48
PCB-133	35694-04-3		0.0645	25.8	0.192 JN	76.6 JN	0.256 J	0.0346	14.0	0.0706 J	28.6 J	0.105 J
PCB-134/143	PCB-134/143		0.168	67.0	0.548	219	0.715	0.104	42.0	0.19	76.8	0.293
PCB-135/151/154	PCB-135/151/154		1.38	552	3.63	1450	5.01	0.721	292	1.05	427	1.77
PCB-136	38411-22-2		0.565	226	1.28	510	1.84	0.281	114	0.311	126	0.592
PCB-137	35694-06-5		0.0693	27.7	0.405	162	0.474	0.0607	24.6	0.145 JN	58.8 JN	0.206 J
PCB-139/140	PCB-139/140		0.0405	16.2	0.185	73.9	0.225	0.0313	12.7	0.0548 J	22.2 J	0.0861 J
PCB-14	34883-41-5		< 0.0273 U	< 10.9 U	< 0.0685 U	< 27.4 U	< 0.0958 U	< 0.022 U	< 8.91 U	< 0.0777 U	< 31.5 U	< 0.0997 U

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T05-1808					PDI-WS-T06-1808				
	Location	T05					T06				
	Date	8/21/2018					8/24/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-141	52712-04-6	0.46	184	1.83	731	2.29	0.218	88.4	0.58	235	0.798
PCB-142	41411-61-4	< 0.0106 U	< 4.25 U	< 0.0393 U	< 15.7 U	< 0.0499 U	< 0.00489 U	< 1.98 U	< 0.0187 U	< 7.57 U	< 0.0236 U
PCB-144	68194-14-9	0.144	57.6	0.45	180	0.594	0.077	31.2	0.159	64.6	0.236
PCB-145	74472-40-5	< 0.00225 U	< 0.899 U	< 0.011 U	< 4.39 U	< 0.0132 U	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
PCB-146	51908-16-8	0.448	179	2.08	830	2.52	0.262	106	0.664 JN	269 JN	0.925 J
PCB-147/149	PCB-147/149	2.9	1160	10	4000	12.9	1.56	633	3.01	1220	4.57
PCB-148	74472-41-6	0.0166 J	6.62 J	0.053 J	21.2 J	0.0696 J	0.00664 JN	2.69 JN	< 0.0106 U	< 4.30 U	0.00664 J
PCB-15	2050-68-2	2.05	818	0.813	325	2.86	0.575	233	0.299 J+	121 J+	0.874 J
PCB-150	68194-08-1	0.0198 JN	7.91 JN	0.0635 J	25.4 J	0.0833 J	0.0055 J	2.23 J	0.012 JN	4.88 JN	0.0175 J
PCB-152	68194-09-2	0.013 J	5.18 J	0.0219 J	8.75 J	0.0348 J	0.00291 JN	1.18 JN	< 0.0106 U	< 4.30 U	0.00291 J
PCB-153/168	PCB-153/168	2.04	815	8.73	3490	10.8	1.29	524	3.16	1280	4.45
PCB-155	33979-03-2	0.00488 JN	1.95 JN	0.0147 JN	5.88 JN	0.0196 JN	0.00412 JN	1.67 JN	0.0134 JN	5.43 JN	0.0175 JN
PCB-156/157	PCB-156/157	0.126	50.5	0.91	364	1.04	0.0908	36.8	0.383	155	0.473
PCB-158	74472-42-7	0.173	69.2	0.84	336	1.01	0.113	45.8	0.323	131	0.436
PCB-159	39635-35-3	< 0.0073 U	< 2.92 U	< 0.0288 U	< 11.5 U	< 0.0361 U	0.0101 JN	4.09 JN	0.0555 J	22.5 J	0.0656 J
PCB-16	38444-78-9	3.03	1210	0.678 J+	271 J+	3.7 J	0.713 J+	289 J+	0.296 J+	120 J+	1.01 J+
PCB-161	74472-43-8	< 0.00758 U	< 3.03 U	< 0.0268 U	< 10.7 U	< 0.0343 U	< 0.00348 U	< 1.41 U	< 0.0131 U	< 5.32 U	< 0.0166 U
PCB-162	39635-34-2	< 0.00668 U	< 2.67 U	< 0.0263 U	< 10.5 U	< 0.0329 U	< 0.00308 U	< 1.25 U	< 0.0119 U	< 4.83 U	< 0.015 U
PCB-164	74472-45-0	0.162	64.9	0.688	275	0.85	0.0987	40.0	0.235	95.2	0.334
PCB-165	74472-46-1	< 0.00835 U	< 3.34 U	< 0.0318 U	< 12.7 U	< 0.0401 U	< 0.00383 U	< 1.55 U	< 0.0148 U	< 6.01 U	< 0.0187 U
PCB-167	52663-72-6	0.0518	20.7	0.35	140	0.402	0.0373 JN	15.1 JN	0.136	55.2	0.173 J
PCB-169	32774-16-6	< 0.00798 U	< 3.19 U	< 0.0298 U	< 11.9 U	< 0.0377 U	< 0.00365 U	< 1.48 U	< 0.0139 U	< 5.65 U	< 0.0176 U
PCB-17	37680-66-3	8.53	3410	1.7 J	681 J	10.2 J	1.93	781	0.469 J+	190 J+	2.4 J
PCB-170	35065-30-6	0.211 J+	84.4 J+	2.19	877	2.4 J	0.109 J+	44.2 J+	1.06	428	1.17 J
PCB-171/173	PCB-171/173	0.0843 J+	33.7 J+	0.785	314	0.869 J	0.0501 J+	20.3 J+	0.358	145	0.408 J
PCB-172	52663-74-8	0.0503	20.1	0.433	173	0.483	0.0326 JN	13.2 JN	0.209	84.6	0.241 J
PCB-174	38411-25-5	0.315 J+	126 J+	2.47	988	2.79 J	0.195 J+	79.1 J+	1.15	468	1.35 J
PCB-175	40186-70-7	0.0123 JN	4.93 JN	0.117	46.7	0.129 J	0.00864 J+	3.50 J+	0.0568 J	23.0 J	0.0654 J
PCB-176	52663-65-7	0.0465 J+	18.6 J+	0.335 JN	134 JN	0.382 J	0.0252 J+	10.2 J+	0.154	62.5	0.179 J
PCB-177	52663-70-4	0.147 J+	58.9 J+	1.34	536	1.49 J	0.1 J+	40.7 J+	0.624	253	0.725 J
PCB-178	52663-67-9	0.094	37.6	0.65	260	0.744	0.0664 J+	26.9 J+	0.321 JN	130 JN	0.387 J
PCB-179	52663-64-6	0.204	81.6	1.16	465	1.37	0.116 J+	47.1 J+	0.531	215	0.647 J
PCB-18/30	PCB-18/30	7.33	2930	1.71 J+	682 J+	9.03 J	1.82 J+	737 J+	0.696 J+	282 J+	2.51 J+
PCB-180/193	PCB-180/193	0.643 J+	257 J+	6.58	2630	7.22 J	0.343 J+	139 J+	3.11	1260	3.45 J
PCB-181	74472-47-2	0.0033 JN	1.32 JN	0.028 JN	11.2 JN	0.0313 JN	< 0.00234 U	< 0.949 U	< 0.0106 U	< 4.30 U	< 0.013 U
PCB-182	60145-23-5	< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00218 U	< 0.882 U	< 0.0106 U	< 4.30 U	< 0.0128 U
PCB-183/185	PCB-183/185	0.22 J+	87.8 J+	1.79	715	2.01 J	0.13 J+	52.8 J+	0.911	369	1.04 J
PCB-184	74472-48-3	0.00229 JN	0.915 JN	< 0.011 U	< 4.39 U	0.00229 J	0.00227 JN	0.918 JN	0.0142 JN	5.76 JN	0.0165 JN
PCB-186	74472-49-4	< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
PCB-187	52663-68-0	0.38 J	152 J	4.25 J-	1700 J-	4.63 J	0.289 J	117 J	2.2	890	2.49 J
PCB-188	74487-85-7	0.003 JN	1.20 JN	0.0161 J	6.45 J	0.0191 J	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
PCB-189	39635-31-9	0.00685 JN	2.74 JN	0.0583 J	23.3 J	0.0651 J	0.00328 JN	1.33 JN	0.0422 J	17.1 J	0.0455 J
PCB-19	38444-73-4	27	10800	1.35	541	28.4	0.802	325	0.103 J+	41.7 J+	0.905 J
PCB-190	41411-64-7	0.0443 JN	17.7 JN	0.478	191	0.522 J	0.0316 J+	12.8 J+	0.254	103	0.286 J
PCB-191	74472-50-7	0.00683 J+	2.73 J+	0.0928 JN	37.1 JN	0.0996 J	0.00415 JN	1.68 JN	0.0424 JN	17.2 JN	0.0466 JN
PCB-192	74472-51-8	< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
PCB-194	35694-08-7	0.0783 JN	31.3 JN	1.3	519	1.38 J	0.0405 J+	16.4 J+	0.624	253	0.665 J
PCB-195	52663-78-2	0.03 J+	12.0 J+	0.553	221	0.583 J	0.0174 J+	7.07 J+	0.281	114	0.299 J
PCB-196	42740-50-1	0.0468 J+	18.7 J+	0.665	266	0.712 J	0.0271 JN	11.0 JN	0.338	137	0.365 J
PCB-197/200	PCB-197/200	0.0186 JN	7.42 JN	0.268 JN	107 JN	0.286 JN	0.0165 JN	6.69 JN	0.24 JN	97.1 JN	0.256 JN
PCB-198/199	PCB-198/199	0.127 J+	50.7 J+	1.74	697	1.87 J	0.0916 J+	37.1 J+	0.908	368	1 J
PCB-2	2051-61-8	0.173 J+	69.3 J+	0.159 J+	63.5 J+	0.332 J+	0.185 J+	75.0 J+	0.139 J+	56.3 J+	0.324 J+
PCB-20/28	PCB-20/28	5.93	2370	3.8 J+	1520 J+	9.73 J	2.08	844	1.14 J+	461 J+	3.22 J

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T05-1808					PDI-WS-T06-1808				
	Location	T05					T06				
	Date	8/21/2018					8/24/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-201	40186-71-8	0.0126 JN	5.05 JN	0.221	88.2	0.233 J	0.0109 JN	4.41 JN	0.119	48.4	0.13 J
PCB-202	2136-99-4	0.033 J+	13.2 J+	0.455 JN	182 JN	0.488 J	0.0252 J+	10.2 J+	0.269	109	0.294 J
PCB-203	52663-76-0	0.084 J+	33.6 J+	1.09	436	1.17 J	0.0639 J+	25.9 J+	0.619	251	0.683 J
PCB-204	74472-52-9	< 0.00214 U	< 0.855 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.00211 U	< 0.856 U	< 0.0106 U	< 4.30 U	< 0.0127 U
PCB-205	74472-53-0	0.00443 J+	1.77 J+	0.0678 JN	27.1 JN	0.0722 J	0.00439 JN	1.78 JN	0.039 JN	15.8 JN	0.0434 JN
PCB-206	40186-72-9	0.055 J+	22.0 J+	0.968	387	1.02 J	0.036 JN	14.6 JN	0.508	206	0.544 J
PCB-207	52663-79-3	0.0113 JN	4.52 JN	0.124	49.5	0.135 J	0.00992 J+	4.02 J+	0.0684 J	27.7 J	0.0783 J
PCB-208	52663-77-1	0.0171 J+	6.85 J+	0.355	142	0.372 J	0.0169 J+	6.86 J+	0.18 JN	73.0 JN	0.197 J
PCB-209	2051-24-3	0.0258 J+	10.3 J+	1.12	446	1.14 J	0.0221 J+	8.94 J+	0.647	262	0.669 J
PCB-21/33	PCB-21/33	7.23	2890	1.62 J+	648 J+	8.85 J	2.86 J+	1160 J+	0.612 J+	248 J+	3.47 J+
PCB-22	38444-85-8	1.99	796	1.05 J+	419 J+	3.04 J	0.743	301	0.375 J+	152 J+	1.12 J
PCB-23	55720-44-0	< 0.0258 U	< 10.3 U	< 0.0157 U	< 6.28 U	< 0.0415 U	< 0.0186 U	< 7.52 U	< 0.0106 U	< 4.30 U	< 0.0292 U
PCB-24	55702-45-9	0.115	45.8	0.0298 J+	11.9 J+	0.144 J	0.0299 JN	12.1 JN	< 0.0106 U	< 4.30 U	0.0299 J
PCB-25	55712-37-3	1.91 J+	764 J+	0.768 J+	307 J+	2.68 J+	0.748 J+	303 J+	0.313 J+	127 J+	1.06 J+
PCB-26/29	PCB-26/29	1.48	591	0.62 J+	248 J+	2.1 J	0.385	156	0.214 J+	86.6 J+	0.599 J
PCB-27	38444-76-7	1.63	653	0.238 J+	95.0 J+	1.87 J	0.195	78.9	0.0617 J+	25.0 J+	0.256 J
PCB-3	2051-62-9	0.538 J+	215 J+	0.207 J+	82.7 J+	0.744 J+	0.291 J+	118 J+	< 0.113 U	< 45.8 U	0.291 J
PCB-31	16606-02-3	4.93	1970	2.63 J+	1050 J+	7.55 J	1.5	607	0.898 J+	364 J+	2.4 J
PCB-32	38444-77-8	3.95 J-	1580 J-	0.34 J	136 J	4.29 J	0.462 J+	187 J+	0.228 JN	92.3 JN	0.689 J
PCB-34	37680-68-5	0.045 JN	18.0 JN	0.0475 J+	19.0 J+	0.0925 J	< 0.0181 U	< 7.32 U	< 0.0106 U	< 4.30 U	< 0.0287 U
PCB-35	37680-69-6	0.0763 J	30.5 J	0.0755 JN	30.2 JN	0.152 J	0.0637 JN	25.8 JN	0.0605 J+	24.5 J+	0.124 J
PCB-36	38444-87-0	0.0475 J	19.0 J	0.0653 J	26.1 J	0.113 J	< 0.0163 U	< 6.62 U	0.0284 J	11.5 J	0.0284 J
PCB-37	38444-90-5	0.873	349	0.825	330	1.7	0.341	138	0.257 J+	104 J+	0.597 J
PCB-38	53555-66-1	< 0.0242 U	< 9.69 U	< 0.0152 U	< 6.06 U	< 0.0394 U	< 0.0175 U	< 7.09 U	< 0.0106 U	< 4.30 U	< 0.0281 U
PCB-39	38444-88-1	0.0553 J	22.1 J	0.062 J	24.8 J	0.117 J	< 0.0171 U	< 6.92 U	< 0.0106 U	< 4.30 U	< 0.0277 U
PCB-4	13029-08-8	35.5	14200	0.95	380	36.5	2.44	987	0.218 J+	88.2 J+	2.65 J
PCB-40/41/71	PCB-40/41/71	2.49	996	1.79	716	4.28	0.8 J+	324 J+	0.427 J+	173 J+	1.23 J+
PCB-42	36559-22-5	1.08	431	0.925	370	2	0.42 J+	170 J+	0.222 J+	90.1 J+	0.642 J+
PCB-43	70362-46-8	0.141 JN	56.4 JN	0.11	43.9	0.251 J	0.0538 J+	21.8 J+	0.0311 JN	12.6 JN	0.0849 J
PCB-44/47/65	PCB-44/47/65	26.3 J+	10500 J+	12 J+	4780 J+	38.2 J+	10.9 J+	4420 J+	3.87 J+	1570 J+	14.8 J+
PCB-45/51	PCB-45/51	105 J+	41900 J+	4.23	1690	109 J	48.1 J+	19500 J+	0.995 J+	403 J+	49.1 J+
PCB-46	41464-47-5	0.843	337	0.22	87.9	1.06	0.229 JN	92.8 JN	0.0538 JN	21.8 JN	0.283 JN
PCB-48	70362-47-9	0.758	303	0.595	238	1.35	0.249	101	0.154 J+	62.6 J+	0.404 J
PCB-49/69	PCB-49/69	4.45	1780	2.78	1110	7.23	1.5	609	0.632 J+	256 J+	2.13 J
PCB-5	16605-91-7	0.0738 JN	29.5 JN	< 0.0748 U	< 29.9 U	0.0738 J	0.0424 JN	17.2 JN	< 0.0839 U	< 34.0 U	0.0424 J
PCB-50/53	PCB-50/53	3.28	1310	0.938	375	4.21	0.427	173	0.154 J+	62.2 J+	0.58 J
PCB-52	35693-99-3	7.38	2950	4.45	1780	11.8	3.04	1230	1.34 J+	541 J+	4.37 J
PCB-54	15968-05-5	1.72	686	0.241	96.2	1.96	0.0444 JN	18.0 JN	< 0.0106 U	< 4.30 U	0.0444 J
PCB-55	74338-24-2	0.063 J	25.2 J	< 0.0453 U	< 18.1 U	0.063 J	< 0.0189 U	< 7.66 U	< 0.0186 U	< 7.55 U	< 0.0375 U
PCB-56	41464-43-1	1.06	423	1.44	575	2.5	0.434	176	0.338 J+	137 J+	0.772 J
PCB-57	70424-67-8	< 0.0117 U	< 4.68 U	< 0.0408 U	< 16.3 U	< 0.0525 U	< 0.0174 U	< 7.04 U	< 0.017 U	< 6.88 U	< 0.0344 U
PCB-58	41464-49-7	< 0.0123 U	< 4.90 U	< 0.042 U	< 16.8 U	< 0.0543 U	< 0.0182 U	< 7.38 U	< 0.0181 U	< 7.33 U	< 0.0363 U
PCB-59/62/75	PCB-59/62/75	0.453	181	0.313	125	0.765	0.148 JN	60.0 JN	0.0696 J+	28.2 J+	0.218 J
PCB-6	25569-80-6	1.45	581	0.283 J+	113 J+	1.74 J	0.375 J+	152 J+	0.171 J+	69.4 J+	0.546 J+
PCB-60	33025-41-1	0.475	190	0.643	257	1.12	0.276	112	0.182 J+	73.7 J+	0.458 J
PCB-61/70/74/76	PCB-61/70/74/76	4.15	1660	5.33	2130	9.48	2.19	887	1.5 J+	606 J+	3.68 J
PCB-63	74472-34-7	0.0983 JN	39.3 JN	0.124	49.4	0.222 J	0.057 JN	23.1 JN	0.0316 J	12.8 J	0.0886 J
PCB-64	52663-58-8	1.6	639	1.33	532	2.93	0.698	283	0.353 J+	143 J+	1.05 J
PCB-66	32598-10-0	2.29	915	3.18 J+	1270 J+	5.46 J	1.04	420	0.864 J+	350 J+	1.9 J
PCB-67	73575-53-8	0.063 J	25.2 J	0.0828 J	33.1 J	0.146 J	0.0368 JN	14.9 JN	0.0177 J	7.18 J	0.0545 J
PCB-68	73575-52-7	9.08 J+	3630 J+	2.18	872	11.3 J	8.61 J+	3490 J+	0.518 J+	210 J+	9.13 J+
PCB-7	33284-50-3	0.613	245	0.335 J+	134 J+	0.948 J	0.145 JN	58.9 JN	0.217 JN	88.1 JN	0.363 JN

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T05-1808					PDI-WS-T06-1808				
		Location	T05					T06				
		Date	8/21/2018					8/24/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN											
PCB-72	41464-42-0		0.0555 J	22.2 J	0.0633 JN	25.3 JN	0.119 J	0.041 JN	16.6 JN	0.0209 JN	8.47 JN	0.0619 JN
PCB-73	74338-23-1		0.159	63.5	< 0.011 U	< 4.39 U	0.159	0.022 J	8.90 J	< 0.0106 U	< 4.30 U	0.022 J
PCB-77	32598-13-3		0.138	55.0	0.353	141	0.49	0.109	44.2	0.116	47.1	0.225
PCB-78	70362-49-1		< 0.0125 U	< 5.01 U	< 0.0443 U	< 17.7 U	< 0.0568 U	< 0.0186 U	< 7.55 U	< 0.0183 U	< 7.41 U	< 0.0369 U
PCB-79	41464-48-6		< 0.0102 U	< 4.09 U	0.0713 J	28.5 J	0.0713 J	0.0193 J	7.81 J	0.0299 J	12.1 J	0.0491 J
PCB-8	34883-43-7		6.18	2470	1.03 J+	411 J+	7.2 J	1.47 J+	595 J+	0.592 J+	240 J+	2.06 J+
PCB-80	33284-52-5		< 0.0114 U	< 4.57 U	< 0.041 U	< 16.4 U	< 0.0524 U	< 0.0239 U	< 9.69 U	< 0.0165 U	< 6.67 U	< 0.0404 U
PCB-81	70362-50-4		< 0.01 U	< 4.00 U	< 0.0413 U	< 16.5 U	< 0.0513 U	< 0.0171 U	< 6.93 U	< 0.0165 U	< 6.69 U	< 0.0336 U
PCB-82	52663-62-4		0.32	128	0.698	279	1.02	0.231	93.6	0.15 JN	60.6 JN	0.381 J
PCB-83/99	PCB-83/99		2.01	802	3.98	1590	5.98	1.42	575	0.955 JN	387 JN	2.37 J
PCB-84	52663-60-2		1.15	461	1.37	546	2.52	0.768	311	0.257 JN	104 JN	1.02 J
PCB-85/116/117	PCB-85/116/117		0.518	207	1.13	452	1.65	0.41	166	0.304 JN	123 JN	0.713 J
PCB-86/87/97/108/119/125	PCB-86/87/97/_C		2.19	877	4.43 J+	1770 J+	6.62 J	1.51 J+	612 J+	0.903	366	2.41 J
PCB-88/91	PCB-88/91		0.875	350	1.09	434	1.96	0.491	199	0.167 JN	67.8 JN	0.658 J
PCB-89	73575-57-2		0.0458 JN	18.3 JN	0.0665 JN	26.6 JN	0.112 JN	0.0262	10.6	< 0.0536 U	< 21.7 U	0.0262
PCB-9	34883-39-1		0.28 J+	112 J+	0.0833 JN	33.3 JN	0.363 J	0.102 J+	41.3 J+	0.0923 JN	37.4 JN	0.194 J
PCB-90/101/113	PCB-90/101/113		3.73	1490	6.6	2640	10.3	2.41	978	1.51	611	3.92
PCB-92	52663-61-3		0.758	303	1.35	538	2.1	0.538	218	0.326 JN	132 JN	0.864 J
PCB-93/95/98/100/102	PCB-93/95/98/_C		4.85	1940	5.2	2080	10.1	2.76	1120	1.11 JN	450 JN	3.87 J
PCB-94	73575-55-0		0.0838 JN	33.5 JN	0.0923 JN	36.9 JN	0.176 JN	0.0267	10.8	< 0.0545 U	< 22.1 U	0.0267
PCB-96	73575-54-9		0.106	42.2	0.0783 J	31.3 J	0.184 J	0.0294	11.9	< 0.0259 U	< 10.5 U	0.0294
Total PCBs	T_PCBCg (PDI)	(a)	346		188		534	138		65.2		203

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 402 L
Transect 02 Volume = 420.5 L
Transect 03 Volume = 400 L
Transect 04 Volume = 401.3 L
Transect 05 Volume = 400 L
Transect 06 Volume = 405.2 L
Transect 07 Volume = 403 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TEQ = toxicity equivalence

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T07-1808				
		Location	T07				
		Date	8/23/2018				
		Sample Type	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN						
Dioxins and Furans							
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.00878 JN	3.54 JN	0.553	223	0.562 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		< 0.00213 U	< 0.860 U	0.13 J	52.2 J	0.13 J
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.00213 U	< 0.860 U	0.0113 J	4.57 J	0.0113 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
1,2,3,6,7,8-HxCDD	57653-85-7		< 0.00213 U	< 0.860 U	0.0288 J	11.6 J	0.0288 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.00213 U	< 0.860 U	0.0323 JN	13.0 JN	0.0323 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.00216 U	< 0.872 U	< 0.0105 U	< 4.25 U	< 0.0127 U
1,2,3,7,8-PeCDF	57117-41-6		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
2,3,4,7,8-PeCDF	57117-31-4		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
2,3,7,8-TCDD	1746-01-6		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
2,3,7,8-TCDF	51207-31-9		< 0.00213 U	< 0.860 U	< 0.0105 U	< 4.25 U	< 0.0127 U
OCDD	3268-87-9		0.0665 J	26.8 J	4.74	1910	4.81 J
OCDF	39001-02-0		0.0032 JN	1.29 JN	0.27 J	109 J	0.274 J
TCDD-TEQ	(a) T_DF_TEQ (PDI)		0.00119		0.0208		0.022
TCDD-TEQ (EMPC=half)	(b) T_DF_TEQ(E_0.5)		0.0011		0.0176		0.0155
TCDD-TEQ (EMPC=0)	(b) T_DF_TEQ(E_0)		0.00002		0.0123		0.0124
Polychlorinated Biphenyls (PCBs)							
PCB-1	2051-60-7		0.625 J+	252 J+	0.101 J	40.8 J	0.727 J
PCB-10	33146-45-1		0.0784 JN	31.6 JN	< 0.148 UJ	< 59.8 UJ	0.0784 J
PCB-103	60145-21-3		0.0313 JN	12.6 JN	< 0.0285 UJ	< 11.5 UJ	0.0313 J
PCB-104	56558-16-8		< 0.0149 U	< 5.99 U	0.0183 JN	7.36 JN	0.0183 J
PCB-105	32598-14-4		0.323	130	0.571 J	230 J	0.893 J
PCB-106	70424-69-0		< 0.02 U	< 8.06 U	< 0.0273 UJ	< 11.0 UJ	< 0.0473 UJ
PCB-107/124	PCB-107/124		0.0395 J	15.9 J	0.0576 JN	23.2 JN	0.097 J
PCB-109	74472-35-8		0.104	42.1	0.135 JN	54.5 JN	0.24 J
PCB-11	2050-67-1		14.4 JN	5810 JN	2.85 J	1150 J	17.3 J
PCB-110/115	PCB-110/115		1.54	622	1.62 J	653 J	3.16 J
PCB-111	39635-32-0		< 0.01 U	< 4.04 U	< 0.0253 UJ	< 10.2 UJ	< 0.0353 UJ
PCB-112	74472-36-9		< 0.00953 U	< 3.84 U	< 0.0246 UJ	< 9.93 UJ	< 0.0342 UJ
PCB-114	74472-37-0		0.0318 JN	12.8 JN	0.0548 JN	22.1 JN	0.0866 JN
PCB-118	31508-00-6		0.886	357	1.4 JN	565 JN	2.29 J
PCB-12/13	PCB-12/13		0.161 JN	65.0 JN	< 0.156 UJ	< 63.0 UJ	0.161 J
PCB-120	68194-12-7		< 0.00943 U	< 3.80 U	< 0.0244 UJ	< 9.83 UJ	< 0.0338 UJ
PCB-121	56558-18-0		< 0.0101 U	< 4.09 U	< 0.0258 UJ	< 10.4 UJ	< 0.036 UJ
PCB-122	76842-07-4		< 0.0216 U	< 8.72 U	< 0.032 UJ	< 12.9 UJ	< 0.0536 UJ
PCB-123	65510-44-3		< 0.0187 U	< 7.55 U	0.0591 JN	23.8 JN	0.0591 J
PCB-126	57465-28-8		< 0.0226 U	< 9.10 U	< 0.035 UJ	< 14.1 UJ	< 0.0576 UJ
PCB-127	39635-33-1		< 0.0203 U	< 8.20 U	< 0.0308 UJ	< 12.4 UJ	< 0.0511 UJ
PCB-128/166	PCB-128/166		0.129 J	52.0 J	0.437 J	176 J	0.566 J
PCB-129/138/160/163	PCB-129/138/_C		1.03	414	2.56 J	1030 J	3.58 J
PCB-130	52663-66-8		0.0747	30.1	0.164 JN	66.2 JN	0.239 J
PCB-131	61798-70-7		0.017 J+	6.87 J+	0.0509 JN	20.5 JN	0.0679 J
PCB-132	38380-05-1		0.34 J+	137 J+	0.744 JN	300 JN	1.08 J
PCB-133	35694-04-3		0.0216	8.70	0.0417 J	16.8 J	0.0633 J
PCB-134/143	PCB-134/143		0.0727 JN	29.3 JN	0.147 J	59.1 J	0.219 J
PCB-135/151/154	PCB-135/151/154		0.459 J+	185 J+	0.762 J	307 J	1.22 J
PCB-136	38411-22-2		0.172 J+	69.3 J+	0.21 JN	84.7 JN	0.382 J
PCB-137	35694-06-5		0.034 J+	13.7 J+	0.102 J	41.2 J	0.136 J
PCB-139/140	PCB-139/140		0.0212 J+	8.55 J+	< 0.0251 UJ	< 10.1 UJ	0.0212 J
PCB-14	34883-41-5		< 0.0159 U	< 6.39 U	< 0.151 UJ	< 60.7 UJ	< 0.166 UJ

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T07-1808				
	Location	T07				
	Date	8/23/2018				
	Sample Type	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-141	52712-04-6	0.14 J+	56.3 J+	0.318 JN	128 JN	0.457 J
PCB-142	41411-61-4	< 0.00593 U	< 2.39 U	< 0.0283 UJ	< 11.4 UJ	< 0.0342 UJ
PCB-144	68194-14-9	0.0449 J+	18.1 J+	0.0742 JN	29.9 JN	0.119 J
PCB-145	74472-40-5	< 0.00213 U	< 0.860 U	< 0.0156 UJ	< 6.28 UJ	< 0.0177 UJ
PCB-146	51908-16-8	0.188	75.7	0.489 J	197 J	0.677 J
PCB-147/149	PCB-147/149	1.09 J+	438 J+	2.11 J	850 J	3.2 J
PCB-148	74472-41-6	0.00404 JN	1.63 JN	< 0.02 UJ	< 8.06 UJ	0.00404 J
PCB-15	2050-68-2	0.429 J+	173 J+	0.275 JN	111 JN	0.705 J
PCB-150	68194-08-1	0.00442 JN	1.78 JN	< 0.0151 UJ	< 6.09 UJ	0.00442 J
PCB-152	68194-09-2	< 0.00213 U	< 0.860 U	< 0.0139 UJ	< 5.62 UJ	< 0.0161 UJ
PCB-153/168	PCB-153/168	0.883	356	2.14 J	862 J	3.02 J
PCB-155	33979-03-2	0.00593 JN	2.39 JN	0.0146 JN	5.87 JN	0.0205 JN
PCB-156/157	PCB-156/157	0.0653 J+	26.3 J+	0.295 J	119 J	0.361 J
PCB-158	74472-42-7	0.0849	34.2	0.188 JN	75.8 JN	0.273 J
PCB-159	39635-35-3	< 0.00407 U	< 1.64 U	< 0.0206 UJ	< 8.29 UJ	< 0.0246 UJ
PCB-16	38444-78-9	0.586 J+	236 J+	0.253 J	102 J	0.839 J
PCB-161	74472-43-8	< 0.00422 U	< 1.70 U	< 0.0192 UJ	< 7.74 UJ	< 0.0234 UJ
PCB-162	39635-34-2	< 0.00372 U	< 1.50 U	< 0.0188 UJ	< 7.58 UJ	< 0.0225 UJ
PCB-164	74472-45-0	0.0645	26.0	0.162 JN	65.1 JN	0.226 J
PCB-165	74472-46-1	< 0.00467 U	< 1.88 U	< 0.0229 UJ	< 9.21 UJ	< 0.0275 UJ
PCB-167	52663-72-6	0.0288	11.6	0.126 JN	50.7 JN	0.155 J
PCB-169	32774-16-6	< 0.00434 U	< 1.75 U	< 0.0231 UJ	< 9.31 UJ	< 0.0274 UJ
PCB-17	37680-66-3	1.98	798	0.427 J	172 J	2.41 J
PCB-170	35065-30-6	0.0824 J+	33.2 J+	0.551 J	222 J	0.633 J
PCB-171/173	PCB-171/173	0.0367 J+	14.8 J+	0.163 J	65.5 J	0.199 J
PCB-172	52663-74-8	0.0219 JN	8.84 JN	0.137 J	55.1 J	0.159 J
PCB-174	38411-25-5	0.126 J+	50.8 J+	0.452 J	182 J	0.578 J
PCB-175	40186-70-7	0.00677 J+	2.73 J+	< 0.0207 UJ	< 8.33 UJ	0.00677 J
PCB-176	52663-65-7	0.0197 JN	7.92 JN	0.0824 J	33.2 J	0.102 J
PCB-177	52663-70-4	0.067 J+	27.0 J+	0.295 J	119 J	0.362 J
PCB-178	52663-67-9	0.0491 J+	19.8 J+	0.149 J	60.1 J	0.198 J
PCB-179	52663-64-6	0.0859 J+	34.6 J+	0.247 JN	99.6 JN	0.333 J
PCB-18/30	PCB-18/30	1.34 J+	542 J+	0.645 JN	260 JN	1.99 J
PCB-180/193	PCB-180/193	0.223 J+	90.0 J+	1.34 J	542 J	1.57 J
PCB-181	74472-47-2	< 0.0029 U	< 1.17 U	< 0.0218 UJ	< 8.80 UJ	< 0.0247 UJ
PCB-182	60145-23-5	< 0.0027 U	< 1.09 U	0.0227 JN	9.13 JN	0.0227 J
PCB-183/185	PCB-183/185	0.096 J+	38.7 J+	0.333 JN	134 JN	0.429 J
PCB-184	74472-48-3	0.0035 JN	1.41 JN	< 0.0146 UJ	< 5.90 UJ	0.0035 J
PCB-186	74472-49-4	< 0.00227 U	< 0.913 U	< 0.0163 UJ	< 6.56 UJ	< 0.0185 UJ
PCB-187	52663-68-0	0.172 J	69.3 J	1.16 J	468 J	1.33 J
PCB-188	74487-85-7	< 0.00213 U	< 0.860 U	0.0195 J	7.86 J	0.0195 J
PCB-189	39635-31-9	< 0.00283 U	< 1.14 U	0.0235 JN	9.46 JN	0.0235 J
PCB-19	38444-73-4	0.345 JN	139 JN	< 0.067 UJ	< 27.0 UJ	0.345 J
PCB-190	41411-64-7	0.0209 J+	8.43 J+	0.0965 JN	38.9 JN	0.117 J
PCB-191	74472-50-7	0.00457 JN	1.84 JN	< 0.0182 UJ	< 7.33 UJ	0.00457 J
PCB-192	74472-51-8	< 0.00258 U	< 1.04 U	< 0.0199 UJ	< 8.03 UJ	< 0.0225 UJ
PCB-194	35694-08-7	0.0256 J+	10.3 J+	0.328 J	132 J	0.353 J
PCB-195	52663-78-2	0.0162 J+	6.54 J+	0.0945 JN	38.1 JN	0.111 J
PCB-196	42740-50-1	0.0172 JN	6.95 JN	0.158 J	63.6 J	0.175 J
PCB-197/200	PCB-197/200	0.00769 J	3.10 J	0.0792 JN	31.9 JN	0.0868 J
PCB-198/199	PCB-198/199	0.0454 J+	18.3 J+	0.382 J	154 J	0.428 J
PCB-2	2051-61-8	0.204 J+	82.3 J+	0.112 JN	45.2 JN	0.316 J
PCB-20/28	PCB-20/28	1.55 J	625 J	0.985 J	397 J	2.54 J

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T07-1808				
	Location	T07				
	Date	8/23/2018				
	Sample Type	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-201	40186-71-8	0.00754 JN	3.04 JN	0.0404 JN	16.3 JN	0.048 JN
PCB-202	2136-99-4	0.017 JN	6.85 JN	0.145 JN	58.3 JN	0.162 JN
PCB-203	52663-76-0	0.0293 JN	11.8 JN	0.241 J	97.2 J	0.27 J
PCB-204	74472-52-9	< 0.00213 U	< 0.860 U	< 0.0167 UJ	< 6.71 UJ	< 0.0188 UJ
PCB-205	74472-53-0	< 0.00213 U	< 0.860 U	< 0.016 UJ	< 6.44 UJ	< 0.0181 UJ
PCB-206	40186-72-9	0.0215 JN	8.65 JN	0.275 JN	111 JN	0.297 JN
PCB-207	52663-79-3	0.0064 J+	2.58 J+	0.0303 JN	12.2 JN	0.0367 J
PCB-208	52663-77-1	0.00876 J+	3.53 J+	0.108 JN	43.7 JN	0.117 J
PCB-209	2051-24-3	0.0142 JN	5.74 JN	0.499 J	201 J	0.513 J
PCB-21/33	PCB-21/33	3.8 J+	1530 J+	0.479 J	193 J	4.28 J
PCB-22	38444-85-8	0.325 J+	131 J+	0.288 J	116 J	0.613 J
PCB-23	55720-44-0	< 0.0164 U	< 6.61 U	< 0.027 UJ	< 10.9 UJ	< 0.0434 UJ
PCB-24	55702-45-9	0.0217 JN	8.74 JN	< 0.0214 UJ	< 8.64 UJ	0.0217 J
PCB-25	55712-37-3	0.764 J+	308 J+	0.303 J	122 J	1.07 J
PCB-26/29	PCB-26/29	0.298 J+	120 J+	0.162 J	65.4 J	0.46 J
PCB-27	38444-76-7	0.151 J+	60.7 J+	0.0586 JN	23.6 JN	0.209 J
PCB-3	2051-62-9	0.27 J+	109 J+	< 0.148 UJ	< 59.5 UJ	0.27 J
PCB-31	16606-02-3	1.07 J+	432 J+	0.725 J	292 J	1.8 J
PCB-32	38444-77-8	0.248 J	100 J	0.179 JN	72.1 JN	0.427 J
PCB-34	37680-68-5	< 0.016 U	< 6.43 U	< 0.0268 UJ	< 10.8 UJ	< 0.0428 UJ
PCB-35	37680-69-6	0.0437 JN	17.6 JN	0.0308 JN	12.4 JN	0.0744 JN
PCB-36	38444-87-0	0.0362 J	14.6 J	< 0.0245 UJ	< 9.89 UJ	0.0362 J
PCB-37	38444-90-5	0.219 J+	88.4 J+	0.16 JN	64.4 JN	0.379 J
PCB-38	53555-66-1	< 0.0155 U	< 6.23 U	< 0.0263 UJ	< 10.6 UJ	< 0.0418 UJ
PCB-39	38444-88-1	0.0228 J	9.18 J	< 0.0261 UJ	< 10.5 UJ	0.0228 J
PCB-4	13029-08-8	1.76 J+	711 J+	0.205 JN	82.8 JN	1.97 J
PCB-40/41/71	PCB-40/41/71	0.573 J+	231 J+	0.328 J	132 J	0.901 J
PCB-42	36559-22-5	0.275 J+	111 J+	0.16 J	64.4 J	0.435 J
PCB-43	70362-46-8	0.0437 JN	17.6 JN	0.0251 JN	10.1 JN	0.0687 JN
PCB-44/47/65	PCB-44/47/65	14.6 J+	5880 J+	5.24 J	2110 J	19.8 J
PCB-45/51	PCB-45/51	75.4 J+	30400 J+	1.71 J	689 J	77.1 J
PCB-46	41464-47-5	0.226	90.9	0.0658 JN	26.5 JN	0.291 J
PCB-48	70362-47-9	0.195 J+	78.4 J+	0.155 J	62.3 J	0.349 J
PCB-49/69	PCB-49/69	1.06 J+	429 J+	0.546 J	220 J	1.61 J
PCB-5	16605-91-7	0.0278 JN	11.2 JN	< 0.165 UJ	< 66.3 UJ	0.0278 J
PCB-50/53	PCB-50/53	0.318 J+	128 J+	0.129 J	52.1 J	0.447 J
PCB-52	35693-99-3	2.43	980	1.22 J	493 J	3.66 J
PCB-54	15968-05-5	0.0198 JN	7.98 JN	< 0.0115 UJ	< 4.62 UJ	0.0198 J
PCB-55	74338-24-2	< 0.0158 U	< 6.38 U	< 0.03 UJ	< 12.1 UJ	< 0.0459 UJ
PCB-56	41464-43-1	0.268 J+	108 J+	0.242 J	97.5 J	0.51 J
PCB-57	70424-67-8	< 0.0146 U	< 5.87 U	< 0.027 UJ	< 10.9 UJ	< 0.0416 UJ
PCB-58	41464-49-7	< 0.0153 U	< 6.15 U	< 0.0278 UJ	< 11.2 UJ	< 0.0431 UJ
PCB-59/62/75	PCB-59/62/75	0.103 JN	41.7 JN	0.0898 JN	36.2 JN	0.193 JN
PCB-6	25569-80-6	0.318 J+	128 J+	< 0.147 UJ	< 59.2 UJ	0.318 J
PCB-60	33025-41-1	0.179 J+	72.1 J+	0.115 J	46.4 J	0.294 J
PCB-61/70/74/76	PCB-61/70/74/76	1.5	603	1.16 J	468 J	2.66 J
PCB-63	74472-34-7	0.0362 J	14.6 J	< 0.0273 UJ	< 11.0 UJ	0.0362 J
PCB-64	52663-58-8	0.521 J+	210 J+	0.285 J	115 J	0.806 J
PCB-66	32598-10-0	0.742 J+	299 J+	0.67 J	270 J	1.41 J
PCB-67	73575-53-8	0.0305 J	12.3 J	< 0.0235 UJ	< 9.46 UJ	0.0305 J
PCB-68	73575-52-7	10.8 J+	4340 J+	0.935 J	377 J	11.7 J
PCB-7	33284-50-3	0.171 J+	68.9 J+	0.308 JN	124 JN	0.479 J

Table A.4a-1. Results for PDI Low-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T07-1808				
	Location	T07				
	Date	8/23/2018				
	Sample Type	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-72	41464-42-0	0.0303 J	12.2 J	0.0313 JN	12.6 JN	0.0615 J
PCB-73	74338-23-1	< 0.00963 U	< 3.88 U	< 0.0126 UJ	< 5.06 UJ	< 0.0222 UJ
PCB-77	32598-13-3	0.0873	35.2	0.117 JN	47.1 JN	0.204 J
PCB-78	70362-49-1	< 0.0156 U	< 6.29 U	< 0.0295 UJ	< 11.9 UJ	< 0.0451 UJ
PCB-79	41464-48-6	< 0.0127 U	< 5.13 U	0.0243 JN	9.78 JN	0.0243 J
PCB-8	34883-43-7	1.07 J+	430 J+	0.506 JN	204 JN	1.57 J
PCB-80	33284-52-5	< 0.0142 U	< 5.73 U	< 0.0273 UJ	< 11.0 UJ	< 0.0415 UJ
PCB-81	70362-50-4	< 0.013 U	< 5.22 U	< 0.0285 UJ	< 11.5 UJ	< 0.0415 UJ
PCB-82	52663-62-4	0.133	53.8	0.149 JN	60.0 JN	0.282 J
PCB-83/99	PCB-83/99	0.923	372	0.918 J	370 J	1.84 J
PCB-84	52663-60-2	0.439	177	0.305 J	123 J	0.744 J
PCB-85/116/117	PCB-85/116/117	0.261	105	0.266 JN	107 JN	0.526 J
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	0.958	386	1.05 JN	423 JN	2.01 J
PCB-88/91	PCB-88/91	0.323	130	0.206 J	83.1 J	0.529 J
PCB-89	73575-57-2	0.0204 JN	8.23 JN	< 0.0345 UJ	< 13.9 UJ	0.0204 J
PCB-9	34883-39-1	0.0769 J+	31.0 J+	< 0.148 UJ	< 59.6 UJ	0.0769 J
PCB-90/101/113	PCB-90/101/113	1.51	608	1.45 J	585 J	2.96 J
PCB-92	52663-61-3	0.315	127	0.285 J	115 J	0.6 J
PCB-93/95/98/100/102	PCB-93/95/98/_C	1.69	683	1.13 J	455 J	2.82 J
PCB-94	73575-55-0	< 0.0144 U	< 5.80 U	< 0.035 UJ	< 14.1 UJ	< 0.0494 UJ
PCB-96	73575-54-9	0.0136 J+	5.50 J+	0.0175 JN	7.05 JN	0.0311 J
Total PCBs (a)	T_PCBCg (PDI)	158		50.7		208

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 402 L
Transect 02 Volume = 420.5 L
Transect 03 Volume = 400 L
Transect 04 Volume = 401.3 L
Transect 05 Volume = 400 L
Transect 06 Volume = 405.2 L
Transect 07 Volume = 403 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TEQ = toxicity equivalence

Table A.4a-2. Results for PDI Low-Flow Surface Water Samples - Pesticides and PAHs

		Sample Location	PDI-WS-T01-1808 T01					PDI-WS-T02-1808 T02				
		Date	8/25/2018					8/24/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.014	5.63	0.00639 J	2.57 J	0.0204 J	0.0203	8.53	0.00908 J	3.82 J	0.0294 J
2,4-DDE	3424-82-6		0.00112 J	0.451 J	0.00124 J	0.499 J	0.00236 J	0.00113 J	0.475 J	0.00151 J	0.637 J	0.00264 J
2,4-DDT	789-02-6		0.000806 J	0.324 J	0.00218 JN	0.876 JN	0.00299 J	0.00119 J	0.501 J	0.00269 J	1.13 J	0.00388 J
4,4'-DDD	72-54-8		0.0376	15.1	0.02 J	8.02 J	0.0575 J	0.0388	16.3	0.024 J	10.1 J	0.0628 J
4,4'-DDE	72-55-9		0.0251	10.1	0.0425	17.1	0.0677	0.0213	8.97	0.0411	17.3	0.0625
4,4'-DDT	50-29-3		0.00129 J+	0.518 J+	0.0171 J	6.89 J	0.0184 J	0.00184 J+	0.772 J+	0.00804 J	3.38 J	0.00987 J
DDD	DDD (PDI)	(a)	0.0516		0.0264		0.0779	0.0591		0.0331		0.0922
DDE	DDE (PDI)	(a)	0.0262		0.0437		0.0701	0.0224		0.0426		0.0651
DDT	DDT (PDI)	(a)	0.0021		0.0193		0.0214	0.00303		0.0107		0.0138
DDx	T_DDx (PDI)	(a)	0.0799		0.0894		0.169	0.0846		0.0864		0.171
Aldrin	309-00-2		0.000771 J	0.310 J	0.00113 J	0.454 J	0.0019 J	0.00106 J	0.444 J	0.00116 J	0.488 J	0.00222 J
alpha-Chlordane	5103-71-9		0.00291 J+	1.17 J+	0.0016 J	0.644 J	0.00451 J	0.00307 J+	1.29 J+	0.00177 J	0.746 J	0.00484 J
cis-Nonachlor	5103-73-1		0.00103 J	0.416 J	0.000915 JN	0.368 JN	0.00195 J	0.00122 J	0.511 J	0.0011 J	0.462 J	0.00231 J
Oxychlordane	27304-13-8		0.000575 JN	0.231 JN	< 0.000649 UJ	< 0.261 UJ	0.000575 J	< 0.000609 UJ	< 0.256 UJ	< 0.000616 UJ	< 0.259 UJ	< 0.00122 UJ
trans-Chlordane	5103-74-2		0.00266 J+	1.07 J+	0.00204 J	0.819 J	0.0047 J	0.00259 J+	1.09 J+	0.00211 J	0.888 J	0.0047 J
trans-Nonachlor	39765-80-5		0.0024 J+	0.965 J+	0.0022 J	0.886 J	0.0046 J	0.00271 J+	1.14 J+	0.00259 J	1.09 J	0.0053 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.00958		0.00708		0.0163	0.00989		0.00788		0.0178
Semivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.00861	3.46	0.00393 J+	1.58 J+	0.0125 J	0.00842	3.54	0.00378 J+	1.59 J+	0.0122 J
Benz(a)anthracene	56-55-3		0.161 JN	64.7 JN	0.353 JN	142 JN	0.514 JN	0.223 JN	93.6 JN	0.53 JN	223 JN	0.753 JN
Benzo(a)pyrene	50-32-8		0.0238 J	9.58 J	0.328 J	132 J	0.352 J	0.0359 J	15.1 J	0.545 J	229 J	0.58 J
Benzo(b)fluoranthene	205-99-2		0.0473 J	19.0 J	0.473 J	190 J	0.52 J	0.0516 J	21.7 J	0.549 J	231 J	0.601 J
Benzo(g,h,i)perylene	191-24-2		0.0159 J	6.38 J	0.443 J+	178 J+	0.459 J	0.0199 J	8.36 J	0.614 J	258 J	0.633 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.0299 J	12.0 J	0.326 J	131 J	0.356 J	0.0423 J	17.8 J	0.461 J	194 J	0.504 J
Chrysene	218-01-9		0.291	117	0.649 J	261 J	0.94 J	0.357 J	150 J	0.825 J	347 J	1.18 J
Dibenz(a,h)anthracene	53-70-3		< 0.0113 U	< 4.56 U	0.124 J+	49.8 J+	0.124 J	0.00694 JN	2.92 JN	0.0918 J+	38.6 J+	0.0987 J
Naphthalene	91-20-3		5.62 J+	2260 J+	0.356 J+	143 J+	5.98 J+	2.81 J	1180 J	0.409 J+	172 J+	3.22 J
Indeno(1,2,3-cd)pyrene	193-39-5		0.0167 JN	6.73 JN	0.398 JN	160 JN	0.415 JN	0.0206 JN	8.67 JN	0.523 JN	220 JN	0.544 JN
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.0525		0.578		0.625	0.0731		0.802		0.875

Notes:

Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low.
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

(a) Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:
- Transect 01 Volume = 402 L
- Transect 02 Volume = 420.5 L
- Transect 03 Volume = 400 L
- Transect 04 Volume = 401.3 L
- Transect 05 Volume = 400 L
- Transect 06 Volume = 405.2 L
- Transect 07 Volume = 403 L

Acronyms:
- µg = microgram
- BaP = benzo(a)pyrene
- CAS_RN = Chemical Abstracts Service Registry Number
- DDD = dichlorodiphenyldichloroethane
- DDE = dichlorodiphenyldichloroethylene
- DDT = dichlorodiphenyltrichloroethane
- DDx = dichlorodiphenyltrichloroethane and its derivatives
- EPA = U.S. Environmental Protection Agency
- FD = Field duplicate sample
- L = Liter
- N = normal field sample
- ng = nanogram
- PAH = polycyclic aromatic hydrocarbon
- PDI = Pre-Remedial Design Investigation
- SVOC = semivolatile organic compound
- TEQ = toxicity equivalence

Table A.4a-2. Results for PDI Low-Flow Surface Water Samples - Pesticides and PAHs

		Sample Location	PDI-WS-T03-1808 T03					PDI-WS-T04-1808 T04				
		Date	8/22/2018					8/23/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.0413	16.5	0.0165 J	6.59 J	0.0577 J	0.0601	24.1	0.0302 J	12.1 J	0.0902 J
2,4-DDE	3424-82-6		0.00211 J	0.842 J	0.00223 J	0.890 J	0.00433 J	0.00334 J	1.34 J	0.00366 J	1.47 J	0.007 J
2,4-DDT	789-02-6		0.00236 J	0.945 J	0.00465 J	1.86 J	0.00701 J	0.00486 J	1.95 J	0.0234 J	9.38 J	0.0282 J
4,4'-DDD	72-54-8		0.0705	28.2	0.0368 J	14.7 J	0.107 J	0.0982	39.4	0.0601	24.1	0.158
4,4'-DDE	72-55-9		0.0315	12.6	0.0565	22.6	0.088	0.0371	14.9	0.0591	23.7	0.0962
4,4'-DDT	50-29-3		0.00455 J+	1.82 J+	0.0203 J	8.11 J	0.0248 J	0.00857	3.44	0.0284 J	11.4 J	0.037 J
DDD	(a) DDD (PDI)		0.112		0.0533		0.165	0.158		0.0903		0.248
DDE	(a) DDE (PDI)		0.0336		0.0587		0.0923	0.0404		0.0628		0.1032
DDT	(a) DDT (PDI)		0.00691		0.025		0.0318	0.0134		0.0518		0.0652
DDx	(a) T_DDx (PDI)		0.152		0.137		0.289	0.212		0.205		0.417
Aldrin	309-00-2		0.00162 J	0.649 J	0.00125 J	0.498 J	0.00287 J	0.00144 JN	0.576 JN	0.00126 J	0.507 J	0.0027 J
alpha-Chlordane	5103-71-9		0.00548 J	2.19 J	0.00253 J	1.01 J	0.008 J	0.00635 J	2.55 J	0.0022 J	0.882 J	0.00855 J
cis-Nonachlor	5103-73-1		0.00173 JN	0.692 JN	0.00168 JN	0.672 JN	0.00341 JN	0.00215 J	0.861 J	0.00131 J	0.527 J	0.00346 J
Oxychlordane	27304-13-8		< 0.000618 UJ	< 0.247 UJ	< 0.00067 UJ	< 0.268 UJ	< 0.00129 UJ	< 0.000852 UJ	< 0.342 UJ	< 0.00065 UJ	< 0.261 UJ	< 0.0015 UJ
trans-Chlordane	5103-74-2		0.00423 J+	1.69 J+	0.00298 J	1.19 J	0.0072 J	0.00556 J+	2.23 J+	0.00279 J	1.12 J	0.00835 J
trans-Nonachlor	39765-80-5		0.00445 J	1.78 J	0.00365 J	1.46 J	0.0081 J	0.00483 J	1.94 J	0.00321 J	1.29 J	0.00805 J
Total Chlordanes	(a) T_Clrdn (PDI)		0.0162		0.0112		0.0274	0.0193		0.00984		0.0292
Semivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0143	5.73	0.00475 J+	1.90 J+	0.0191 J	0.0169	6.77	0.00536 J+	2.15 J+	0.0222 J
Benz(a)anthracene	56-55-3		0.393 JN	157 JN	0.7 JN	280 JN	1.09 JN	0.238 JN	95.7 JN	0.349 JN	140 JN	0.587 JN
Benzo(a)pyrene	50-32-8		0.0463 J	18.5 J	0.753 J	301 J	0.799 J	0.0284 J	11.4 J	0.292 J	117 J	0.32 J
Benzo(b)fluoranthene	205-99-2		0.0875 J	35.0 J	0.755 J	302 J	0.843 J	0.0571 J	22.9 J	0.459 J	184 J	0.516 J
Benzo(g,h,i)perylene	191-24-2		0.0238 JN	9.52 JN	0.9 J	360 J	0.924 J	0.0176 JN	7.05 JN	0.436 J+	175 J+	0.454 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.065 J	26.0 J	0.753 J	301 J	0.818 J	0.0436 J	17.5 J	0.311 J	125 J	0.355 J
Chrysene	218-01-9		0.63	252	1.08	432	1.71	0.351	141	0.598 J	240 J	0.949 J
Dibenz(a,h)anthracene	53-70-3		0.00693 J	2.77 J	0.127 J+	50.9 J+	0.134 J	0.008 JN	3.21 JN	0.0867 J+	34.8 J+	0.0947 J
Naphthalene	91-20-3		4.78 J+	1910 J+	0.493 J+	197 J+	5.27 J+	4.93 J+	1980 J+	0.396 J+	159 J+	5.33 J+
Indeno(1,2,3-cd)pyrene	193-39-5		0.0198 JN	7.92 JN	0.74 JN	296 JN	0.76 JN	0.0179 JN	7.19 JN	0.307 JN	123 JN	0.324 JN
BaP-TEQ	(a) T_BaP-TEQ (PDI)		0.105		1.11		1.21	0.0685		0.494		0.562

Notes:

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- +/- = Indicates the result may be biased high/low.
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- UJ = Not detected; sample detection limit is estimated.

(a) Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:
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- CAS_RN = Chemical Abstracts Service Registry Number
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- DDE = dichlorodiphenyldichloroethylene
- DDT = dichlorodiphenyltrichloroethane
- DDx = dichlorodiphenyltrichloroethane and its derivatives
- EPA = U.S. Environmental Protection Agency
- FD = Field duplicate sample
- L = Liter
- N = normal field sample
- ng = nanogram
- PAH = polycyclic aromatic hydrocarbon
- PDI = Pre-Remedial Design Investigation
- SVOC = semivolatile organic compound
- TEQ = toxicity equivalence

Table A.4a-2. Results for PDI Low-Flow Surface Water Samples - Pesticides and PAHs

		Sample	PDI-WS-T05-1808					PDI-WS-T06-1808				
		Location	T05					T06				
		Date	8/21/2018					8/24/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.0058 J	2.32 J	0.0033 J	1.32 J	0.0091 J	0.00437 J	1.77 J	0.00179 J	0.726 J	0.00616 J
2,4-DDE	3424-82-6		0.00058 J	0.232 J	0.000928 J	0.371 J	0.00151 J	0.000464 J	0.188 J	< 0.000654 U	< 0.265 U	0.000464 J
2,4-DDT	789-02-6		0.000373 JN	0.149 JN	0.00179 JN	0.714 JN	0.00216 JN	0.000454 J	0.184 J	0.00168 JN	0.679 JN	0.00213 J
4,4'-DDD	72-54-8		0.0172	6.86	0.0109 J	4.36 J	0.0281 J	0.014	5.69	0.00639 J	2.59 J	0.0204 J
4,4'-DDE	72-55-9		0.0159	6.37	0.0333 J	13.3 J	0.0492 J	0.0186	7.52	0.0214 J	8.66 J	0.0399 J
4,4'-DDT	50-29-3		0.000638 J+	0.255 J+	0.00445 J	1.78 J	0.00509 J	0.00098 J+	0.397 J+	0.00457 J	1.85 J	0.00555 J
DDD	DDD (PDI)	(a)	0.023		0.0142		0.0372	0.0184		0.00818		0.0266
DDE	DDE (PDI)	(a)	0.0165		0.0342		0.0507	0.0191		0.0217		0.0404
DDT	DDT (PDI)	(a)	0.00101		0.00624		0.00725	0.00143		0.00625		0.00768
DDx	T_DDx (PDI)	(a)	0.0405		0.0547		0.0952	0.0389		0.0362		0.0746
Aldrin	309-00-2		0.00121 J	0.484 J	0.00144 J	0.575 J	0.00265 J	0.000839 J	0.340 J	< 0.000654 U	< 0.265 U	0.000839 J
alpha-Chlordane	5103-71-9		0.00448 J+	1.79 J+	0.00232 J	0.928 J	0.0068 J	0.00466 J+	1.89 J+	0.00158 J	0.640 J	0.00624 J
cis-Nonachlor	5103-73-1		0.00153 J	0.612 J	0.00149 J	0.594 J	0.00302 J	0.00157 J	0.638 J	0.00109 JN	0.443 JN	0.00267 J
Oxychlordane	27304-13-8		< 0.000688 UJ	< 0.275 UJ	< 0.000648 UJ	< 0.259 UJ	< 0.00134 UJ	0.000661 JN	0.268 JN	< 0.000654 UJ	< 0.265 UJ	0.000661 J
trans-Chlordane	5103-74-2		0.00393 J+	1.57 J+	0.00305 J	1.22 J	0.00698 J	0.00353 J+	1.43 J+	0.0018 J	0.729 J	0.00533 J
trans-Nonachlor	39765-80-5		0.00358 J+	1.43 J+	0.00315 J	1.26 J	0.00673 J	0.00422 J	1.71 J	0.00223 JN	0.902 JN	0.00645 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.0139		0.0103		0.0242	0.0146		0.00703		0.0214
Semivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0112	4.47	0.00398 J+	1.59 J+	0.0152 J	0.0157	6.35	0.00358 J+	1.45 J+	0.0192 J
Benz(a)anthracene	56-55-3		0.118 JN	47.0 JN	0.214 JN	85.6 JN	0.332 JN	0.0459 JN	18.6 JN	0.116 JN	47.0 JN	0.162 JN
Benzo(a)pyrene	50-32-8		0.0088 JN	3.52 JN	0.159 J+	63.4 J+	0.167 J	0.00824 JN	3.34 JN	0.118 JN	47.7 JN	0.126 JN
Benzo(b)fluoranthene	205-99-2		0.026 J	10.4 J	0.268 J	107 J	0.294 J	0.00792 J	3.21 J	0.162 J	65.7 J	0.17 J
Benzo(g,h,i)perylene	191-24-2		< 0.00498 U	< 1.99 U	0.28 J+	112 J+	0.28 J	0.0076 JN	3.08 JN	0.246 J+	99.6 J+	0.253 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.0144 J	5.76 J	0.228 J	91.0 J	0.242 J	0.00602 JN	2.44 JN	0.122 JN	49.5 JN	0.128 JN
Chrysene	218-01-9		0.198 J	79.2 J	0.45 J+	180 J+	0.648 J	0.093 J	37.7 J	0.242 J+	98.1 J+	0.335 J
Dibenz(a,h)anthracene	53-70-3		< 0.00535 U	< 2.14 U	0.0508 JN	20.3 JN	0.0508 J	< 0.00612 U	< 2.48 U	0.0464 JN	18.8 JN	0.0464 J
Naphthalene	91-20-3		4.63 J+	1850 J+	0.355 J+	142 J+	4.98 J+	4.44 J+	1800 J+	0.244 J+	98.9 J+	4.69 J+
Indeno(1,2,3-cd)pyrene	193-39-5		< 0.00623 U	< 2.49 U	0.207 JN	82.6 JN	0.207 J	< 0.00666 U	< 2.70 U	0.154 JN	62.5 JN	0.154 J
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.0262		0.281		0.304	0.0168		0.209		0.223

Notes:

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Acronyms:

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DDD = dichlorodiphenyldichloroethane

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DDx = dichlorodiphenyltrichloroethane and its derivatives

EPA = U.S. Environmental Protection Agency

FD = Field duplicate sample

L = Liter

N = normal field sample

ng = nanogram

PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

TEQ = toxicity equivalence

Table A.4a-2. Results for PDI Low-Flow Surface Water Samples - Pesticides and PAHs

		Sample Location	PDI-WS-T07-1808				
		Date	T07		8/23/2018		
		Sample Type	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**						
Pesticides							
2,4-DDD	53-19-0		0.00382 J	1.54 J	0.00138 J	0.557 J	0.0052 J
2,4-DDE	3424-82-6		0.000352 J	0.142 J	< 0.000638 U	< 0.257 U	0.000352 J
2,4-DDT	789-02-6		0.000469 J	0.189 J	0.00143 JN	0.578 JN	0.0019 J
4,4'-DDD	72-54-8		0.0112	4.52	0.00429 J	1.73 J	0.0155 J
4,4'-DDE	72-55-9		0.0148	5.98	0.0159 J	6.39 J	0.0307 J
4,4'-DDT	50-29-3		0.00113 J+	0.457 J+	0.00367 J	1.48 J	0.00481 J
DDD	DDD (PDI)	(a)	0.015		0.00567		0.0207
DDE	DDE (PDI)	(a)	0.0152		0.0162		0.0311
DDT	DDT (PDI)	(a)	0.0016		0.0051		0.00671
DDx	T_DDx (PDI)	(a)	0.0318		0.027		0.0585
Aldrin	309-00-2		0.000663 J	0.267 J	< 0.000638 U	< 0.257 U	0.000663 J
alpha-Chlordane	5103-71-9		0.004 J	1.61 J	0.00127 J	0.512 J	0.00527 J
cis-Nonachlor	5103-73-1		0.00161 J	0.647 J	0.00111 JN	0.448 JN	0.00272 J
Oxychlordane	27304-13-8		< 0.000839 UJ	< 0.338 UJ	< 0.000638 UJ	< 0.257 UJ	< 0.00148 UJ
trans-Chlordane	5103-74-2		0.00313 J+	1.26 J+	0.00145 J	0.585 J	0.00458 J
trans-Nonachlor	39765-80-5		0.00402 J	1.62 J	0.00231 J	0.932 J	0.00633 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.0132		0.00646		0.0196
Semivolatile Organics (SVOCs)							
Hexachlorobenzene	118-74-1		0.0161	6.47	0.00328 J+	1.32 J+	0.0193 J
Benz(a)anthracene	56-55-3		0.0452 JN	18.2 JN	0.0868 JN	35.0 JN	0.132 JN
Benzo(a)pyrene	50-32-8		< 0.00576 U	< 2.32 U	0.0886 J+	35.7 J+	0.0886 J
Benzo(b)fluoranthene	205-99-2		0.00734 J	2.96 J	0.114 J+	46.0 J+	0.121 J
Benzo(g,h,i)perylene	191-24-2		0.00841 JN	3.39 JN	0.19 J+	76.5 J+	0.198 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.00742 JN	2.99 JN	0.096 JN	38.7 JN	0.103 JN
Chrysene	218-01-9		0.0864 J	34.8 J	0.189 J+	76.1 J+	0.275 J
Dibenz(a,h)anthracene	53-70-3		0.00506 JN	2.04 JN	0.0447 JN	18.0 JN	0.0497 JN
Naphthalene	91-20-3		5.04 J+	2030 J+	0.256 JN	103 JN	5.29 J
Indeno(1,2,3-cd)pyrene	193-39-5		0.0063 JN	2.54 JN	0.135 JN	54.3 JN	0.141 JN
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.014		0.168		0.179

Notes:

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PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

TEQ = toxicity equivalence

Table A.4a-3. Results for PDI Low-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	PDI-WS-T01-1808		PDI-WS-T01E-1808	PDI-WS-T01N-1808	PDI-WS-T01W-1808	PDI-WS-T02-1808			PDI-WS-T02E-1808
	Location	T01		T01-1E	T01-1N	T01-1W	T02			T02-2E
	Date	8/25/2018		8/25/2018	8/25/2018	8/24/2018	8/24/2018			8/24/2018
	Sample Type	N	N	N	N	N	N	N	FD	N
	Fraction	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole	Whole	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2	0.96 J	0.97 J				0.79 J	0.84 J		
Chromium	7440-47-3	< 0.40 U	< 0.40 U				< 0.40 U	< 0.40 U		
Copper	7440-50-8	1.0 J	1.1 J				0.75 J	0.84 J		
Zinc	7440-66-6	< 7.0 U	2.2 J				< 7.0 U	2.2 J		
Tri-n-butyltin	36643-28-4		< 0.050 U					< 0.050 U	< 0.050 U	
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7		< 1.0 UJ					< 1.0 UJ	< 1.0 UJ	
MCPP	93-65-2		< 1.1 U					< 1.1 U		
Pentachlorophenol (a)	87-86-5		< 1.0 U					< 1.0 U	< 1.0 U	
Pentachlorophenol (b)	87-86-5		< 0.025 U					< 0.025 U		
Ethylbenzene	100-41-4			< 3.0 U	< 3.0 U	< 3.0 U				< 3.0 U

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

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a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-3. Results for PDI Low-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	PDI-WS-T02N-1808	PDI-WS-T02W-1808	PDI-WS-T03-1808		PDI-WS-T03E-1808	PDI-WS-T03N-1808	PDI-WS-T03W-1808
	Location	T02-2N	T02-2W	T03		T03-3E	T03-3N	T03-3W
	Date	8/23/2018	8/23/2018	8/22/2018		8/22/2018	8/22/2018	8/22/2018
	Sample Type	N	N	N	N	N	N	N
	Fraction	Whole	Whole	Dissolved	Whole	Whole	Whole	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**							
Metals								
Arsenic	7440-38-2			0.64 J	0.80 J			
Chromium	7440-47-3			1.5 J	< 0.40 U			
Copper	7440-50-8			1.0 J	1.1 J			
Zinc	7440-66-6			< 7.0 U	2.4 J			
Tri-n-butyltin	36643-28-4				< 0.050 U			
Semivolatile Organics (SVOCs)								
Bis(2-ethylhexyl)phthalate	117-81-7				< 0.95 UJ			
MCPP	93-65-2				< 1.1 U			
Pentachlorophenol (a)	87-86-5				< 0.95 U			
Pentachlorophenol (b)	87-86-5				< 0.025 UJ			
Ethylbenzene	100-41-4	< 3.0 U	< 3.0 U			< 3.0 U	< 3.0 U	< 3.0 U

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

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a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

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mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-3. Results for PDI Low-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	PDI-WS-T04-1808				PDI-WS-T04E-1808	PDI-WS-T04E-1808-D	PDI-WS-T04N-1808	PDI-WS-T04W-1808
	Location	T04				T04-4E	T04-4E	T04-4N	T04-4W
	Date	8/23/2018				8/22/2018	8/22/2018	8/22/2018	8/23/2018
	Sample Type	N	N	FD	FD	N	FD	N	N
	Fraction	Dissolved	Whole	Dissolved	Whole	Whole	Whole	Whole	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**								
Metals									
Arsenic	7440-38-2	0.63 J	0.64 J	0.63 J	0.57 J				
Chromium	7440-47-3	10 J	< 0.40 U	2.2 J	< 0.40 U				
Copper	7440-50-8	2.4	0.67 J	1.1 J	0.76 J				
Zinc	7440-66-6	< 7.0 U	< 7.0 U	< 7.0 U	< 7.0 U				
Tri-n-butyltin	36643-28-4		< 0.050 U						
Semivolatile Organics (SVOCs)									
Bis(2-ethylhexyl)phthalate	117-81-7		< 1.0 UJ						
MCPP	93-65-2		< 1.1 U		< 1.1 U				
Pentachlorophenol (a)	87-86-5		< 1.0 U						
Pentachlorophenol (b)	87-86-5		< 0.025 U		< 0.025 U				
Ethylbenzene	100-41-4					< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-3. Results for PDI Low-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	PDI-WS-T05-1808		PDI-WS-T05E-1808	PDI-WS-T05N-1808	PDI-WS-T05W-1808	PDI-WS-T06-1808		PDI-WS-T06E-1808
	Location	T05		T05-5E	T05-5N	T05-5W	T06		T06-6E
	Date	8/21/2018		8/21/2018	8/21/2018	8/21/2018	8/24/2018		8/24/2018
	Sample Type	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**								
Metals									
Arsenic	7440-38-2	0.62 J	0.80 J				0.58 J	0.61 J	
Chromium	7440-47-3	1.7 J	5.2 J				< 0.40 U	< 0.40 U	
Copper	7440-50-8	3.4	1.1 J				0.73 J	0.84 J	
Zinc	7440-66-6	< 7.0 U	2.8 J				< 7.0 U	2.1 J	
Tri-n-butyltin	36643-28-4		< 0.050 U					< 0.050 U	
Semivolatile Organics (SVOCs)									
Bis(2-ethylhexyl)phthalate	117-81-7		< 0.94 UJ					< 0.94 UJ	
MCPP	93-65-2		< 1.1 U					< 1.1 U	
Pentachlorophenol (a)	87-86-5		< 0.94 U					< 0.94 U	
Pentachlorophenol (b)	87-86-5		< 0.025 UJ					< 0.025 U	
Ethylbenzene	100-41-4			< 3.0 U	< 3.0 U	< 3.0 U			< 3.0 U

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-3. Results for PDI Low-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	PDI-WS-T06N-1808	PDI-WS-T06W-1808	PDI-WS-T07-1808		PDI-WS-T07E-1808	PDI-WS-T07N-1808	PDI-WS-T07W-1808
	Location	T06-6N	T06-6W	T07		T07-7E	T07-7N	T07-7W
	Date	8/24/2018	8/24/2018	8/23/2018		8/23/2018	8/23/2018	8/23/2018
	Sample Type	N	N	N	N	N	N	N
	Fraction	Whole	Whole	Dissolved	Whole	Whole	Whole	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**							
Metals								
Arsenic	7440-38-2			0.69 J	0.60 J			
Chromium	7440-47-3			< 0.40 U	< 0.40 U			
Copper	7440-50-8			1.3 J	1.4 J			
Zinc	7440-66-6			< 7.0 U	3.1 J			
Tri-n-butyltin	36643-28-4				< 0.050 U			
Semivolatile Organics (SVOCs)								
Bis(2-ethylhexyl)phthalate	117-81-7				1.1 J			
MCPP	93-65-2				< 1.1 U			
Pentachlorophenol (a)	87-86-5				< 0.96 U			
Pentachlorophenol (b)	87-86-5				< 0.025 U			
Ethylbenzene	100-41-4	< 3.0 U	< 3.0 U			< 3.0 U	< 3.0 U	< 3.0 U

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-4. Results for PDI Low-Flow Surface Water Samples - Physical Parameters

	Sample	PDI-WS-T01-1808		PDI-WS-T02-1808		PDI-WS-T03-1808		PDI-WS-T04-1808			
	Location	T01		T02		T03		T04			
	Date	8/25/2018		8/24/2018		8/22/2018		8/23/2018			
	Sample Type	N	N	N	N	N	N	N	N	FD	FD
	Fraction	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole
	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Parameter	**CAS_RN**										
Calcium	7440-70-2	16		10		9.2		6.9		6.5	
Magnesium	7439-95-4	5.1		3.8		3.6		2.7		2.5	
Total Dissolved Solids	TDS		71		66		39		46		36
Total Organic Carbon	TOC		2.0 J		2.0 J		2.2 J		2.4 J		2.2 J
Total Suspended Solids	TSS		4.6		3.6		7.8		2.6		2.8
Hardness as CaCO3	HARD	60		41		38		28		27	
Dissolved Organic Carbon	DOC	2.3 J		2.0 J		1.9 J		2.2 J		2.1 J	

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

Acronyms:

CaCO3 = calcium carbonate
CAS_RN = Chemical Abstracts Service Registry Number
DOC = dissolved organic carbon
FD = field duplicate sample
L = liter
mg = milligram
N = normal field sample
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
TDS = total dissolved solids
TOC = total organic carbon
TSS = total suspended solids

Table A.4a-4. Results for PDI Low-Flow Surface Water Samples - Physical Parameters

	Sample	PDI-WS-T05-1808		PDI-WS-T06-1808		PDI-WS-T07-1808	
	Location	T05		T06		T07	
	Date	8/21/2018		8/24/2018		8/23/2018	
	Sample Type	N	N	N	N	N	N
	Fraction	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole
	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Parameter	**CAS_RN**						
Calcium	7440-70-2	6.0		6.8		6.4	
Magnesium	7439-95-4	2.3		2.6		2.4	
Total Dissolved Solids	TDS		52		44		30
Total Organic Carbon	TOC		1.7 J		2.8 J		4.5 J
Total Suspended Solids	TSS		5.8		4.2		2.6
Hardness as CaCO3	HARD	24		28		26	
Dissolved Organic Carbon	DOC	1.8 J		3.2 J		5.0 J	

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

Acronyms:

CaCO3 = calcium carbonate
CAS_RN = Chemical Abstracts Service Registry Number
DOC = dissolved organic carbon
FD = field duplicate sample
L = liter
mg = milligram
N = normal field sample
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
TDS = total dissolved solids
TOC = total organic carbon
TSS = total suspended solids

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T01					T02				
Sample		PDI-WS-T01-1811					PDI-WS-T02-1811				
Date		11/28/2018					11/30/2018				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**										
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	0.0323 J+	4.87 J+	2.07	312	2.1 J	0.0167 JN	2.51 JN	2.38	358	2.4 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	< 0.00564 U	< 0.851 U	0.236	35.6	0.236	< 0.00568 U	< 0.853 U	0.344	51.6	0.344
1,2,3,4,7,8,9-HpCDF	55673-89-7	< 0.00564 U	< 0.851 U	0.0174 JN	2.63 JN	0.0174 J	< 0.00568 U	< 0.853 U	0.0214 JN	3.21 JN	0.0214 J
1,2,3,4,7,8-HxCDD	39227-28-6	< 0.00564 U	< 0.851 U	0.0246 JN	3.72 JN	0.0246 J	< 0.00568 U	< 0.853 U	0.028 J	4.21 J	0.028 J
1,2,3,4,7,8-HxCDF	70648-26-9	< 0.00564 U	< 0.851 U	0.0378 J	5.71 J	0.0378 J	< 0.00568 U	< 0.853 U	0.0479 J	7.20 J	0.0479 J
1,2,3,6,7,8-HxCDD	57653-85-7	< 0.00564 U	< 0.851 U	0.0587 J	8.86 J	0.0587 J	< 0.00568 U	< 0.853 U	0.0635 J	9.54 J	0.0635 J
1,2,3,6,7,8-HxCDF	57117-44-9	< 0.00564 U	< 0.851 U	0.0115 JN	1.73 JN	0.0115 J	< 0.00568 U	< 0.853 U	0.0206 J	3.09 J	0.0206 J
1,2,3,7,8,9-HxCDD	19408-74-3	< 0.00564 U	< 0.851 U	0.0561 JN	8.47 JN	0.0561 J	< 0.00568 U	< 0.853 U	0.0892 JN	13.4 JN	0.0892 J
1,2,3,7,8,9-HxCDF	72918-21-9	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00589 U	< 0.884 U	< 0.0116 U
1,2,3,7,8-PeCDD	40321-76-4	< 0.00564 U	< 0.851 U	0.00702 JN	1.06 JN	0.00702 J	< 0.00568 U	< 0.853 U	0.0178 J	2.68 J	0.0178 J
1,2,3,7,8-PeCDF	57117-41-6	< 0.00564 U	< 0.851 U	0.0201 J	3.04 J	0.0201 J	< 0.00568 U	< 0.853 U	0.0204 J	3.07 J	0.0204 J
2,3,4,6,7,8-HxCDF	60851-34-5	< 0.00564 U	< 0.851 U	0.00921 JN	1.39 JN	0.00921 J	< 0.00568 U	< 0.853 U	0.0138 JN	2.08 JN	0.0138 J
2,3,4,7,8-PeCDF	57117-31-4	< 0.00564 U	< 0.851 U	0.00702 J	1.06 J	0.00702 J	< 0.00568 U	< 0.853 U	0.0121 JN	1.82 JN	0.0121 J
2,3,7,8-TCDD	1746-01-6	< 0.00564 U	< 0.851 U	0.00728 JN	1.10 JN	0.00728 J	< 0.00568 U	< 0.853 U	0.00732 JN	1.10 JN	0.00732 J
2,3,7,8-TCDF	51207-31-9	< 0.00564 U	< 0.851 U	0.0155 JN	2.34 JN	0.0155 J	< 0.00568 U	< 0.853 U	0.0252 JN	3.79 JN	0.0252 J
OCDD	3268-87-9	0.358	54.1	13.6	2050	13.9	0.241 JN	36.2 JN	21.8	3280	22.1 J
OCDF	39001-02-0	< 0.0098 U	< 1.48 U	0.599	90.4	0.599	< 0.00979 U	< 1.47 U	0.905	136	0.905
TCDD-TEQ (a)	T_DF_TEQ (PDI)	0.00325		0.0661		0.0668	0.00308		0.0927		0.0933
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	0.00325		0.0415		0.0433	0.00291		0.0732		0.0743
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	0.00043		0.0397		0.0401	0.0000723		0.071		0.0711
Polychlorinated Biphenyls (PCBs)											
PCB-1	2051-60-7	1.28	193	0.112	16.9	1.39	0.832	125	0.128 J	19.3 J	0.961 J
PCB-2	2051-61-8	0.314	47.4	0.103	15.5	0.417	0.262	39.3	0.128	19.3	0.39
PCB-3	2051-62-9	0.372	56.2	0.0947	14.3	0.467	0.291	43.7	0.101	15.1	0.391
PCB-4	13029-08-8	3.99	602	0.211 J+	31.9 J+	4.2 J	2.06 J	310 J	0.239 J+	35.9 J+	2.3 J
PCB-5	16605-91-7	0.0599 JN	9.05 JN	< 0.0321 U	< 4.84 U	0.0599 J	< 0.0519 UJ	< 7.79 UJ	< 0.0294 U	< 4.42 U	< 0.0813 UJ
PCB-6	25569-80-6	0.682	103	0.136 J+	20.6 J+	0.819 J	0.404 JN	60.7 JN	0.154 J+	23.2 J+	0.559 J
PCB-7	33284-50-3	0.12	18.1	0.0311 JN	4.69 JN	0.151 J	0.0919 J	13.8 J	0.032 JN	4.81 JN	0.124 J
PCB-8	34883-43-7	3.09	466	0.525 J+	79.3 J+	3.61 J	1.79 J	269 J	0.583 J+	87.5 J+	2.37 J
PCB-9	34883-39-1	0.223	33.7	0.0447 JN	6.75 JN	0.268 J	0.146 J	21.9 J	0.0401 J+	6.03 J+	0.186 J
PCB-10	33146-45-1	0.195 JN	29.4 JN	< 0.0287 U	< 4.33 U	0.195 J	0.0912 J	13.7 J	< 0.026 U	< 3.91 U	0.0912 J
PCB-11	2050-67-1	8.28	1250	1.99	300	10.3	6.86 J	1030 J	2.35	353	9.21 J
PCB-12/13	PCB-12/13	< 0.261 U	< 39.4 U	0.0728 JN	11.0 JN	0.0728 J	< 0.168 UJ	< 25.2 UJ	0.101 JN	15.1 JN	0.101 J
PCB-14	34883-41-5	< 0.0279 U	< 4.21 U	< 0.0298 U	< 4.50 U	< 0.0577 U	< 0.0474 UJ	< 7.12 UJ	< 0.0274 U	< 4.11 U	< 0.0748 UJ
PCB-15	2050-68-2	0.821	124	0.389	58.7	1.21	0.576	86.5	0.422	63.4	0.998
PCB-16	38444-78-9	1.19	179	0.219 J+	33.1 J+	1.4 J	0.812	122	0.24 J+	36.1 J+	1.05 J
PCB-17	37680-66-3	2.17	327	0.452 J+	68.3 J+	2.62 J	1.23	184	0.409 J+	61.4 J+	1.63 J
PCB-18/30	PCB-18/30	2.54	383	0.579 J	87.5 J	3.12 J	1.7	256	0.548 J+	82.3 J+	2.25 J
PCB-19	38444-73-4	1.94	293	0.173 JN	26.1 JN	2.11 J	1.05	158	0.223	33.5	1.27
PCB-20/28	PCB-20/28	2.97	448	1.24	187	4.21	2.14	322	1.42	213	3.56
PCB-21/33	PCB-21/33	1.41	213	0.555	83.8	1.97	1.04	156	0.603	90.5	1.64
PCB-22	38444-85-8	1.33	201	0.368	55.5	1.7	0.859	129	0.453 JN	68.0 JN	1.31 J
PCB-23	55720-44-0	< 0.00907 U	< 1.37 U	0.00868 JN	1.31 JN	0.00868 J	< 0.0123 U	< 1.85 U	< 0.00589 U	< 0.884 U	< 0.0182 U
PCB-24	55702-45-9	0.0504	7.61	0.0114 JN	1.72 JN	0.0618 J	0.0303 JN	4.55 JN	0.00899 J+	1.35 J+	0.0393 J
PCB-25	55712-37-3	0.695	105	0.182	27.5	0.877	0.531	79.8	0.273	41.0	0.804
PCB-26/29	PCB-26/29	0.61	92.1	0.2	30.2	0.81	0.406	61.0	0.248	37.2	0.654
PCB-27	38444-76-7	0.444	67.0	0.0695 J+	10.5 J+	0.513 J	0.236	35.5	0.0692 J+	10.4 J+	0.306 J
PCB-31	16606-02-3	2.22	335	0.834	126	3.05	1.58	238	1.07	160	2.65
PCB-32	38444-77-8	1.12 J	169 J	0.284 J	42.9 J	1.4 J	0.786 J	118 J	0.297 J+	44.6 J+	1.08 J
PCB-34	37680-68-5	0.0221 JN	3.33 JN	0.0185 JN	2.80 JN	0.0406 JN	0.0192 J	2.89 J	0.0134 JN	2.02 JN	0.0327 J
PCB-35	37680-69-6	0.0728	11.0	0.035 J+	5.28 J+	0.108 J	0.0564	8.47	0.0584	8.77	0.115
PCB-36	38444-87-0	0.0371 J	5.60 J	0.0164 JN	2.48 JN	0.0535 J	0.03 J	4.51 J	0.0236 JN	3.54 JN	0.0536 J
PCB-37	38444-90-5	0.394	59.5	0.346	52.2	0.74	0.286	43.0	0.375	56.4	0.662
PCB-38	53555-66-1	0.0131 J	1.98 J	< 0.00571 U	< 0.862 U	0.0131 J	0.0173 JN	2.60 JN	0.00666 JN	1.00 JN	0.024 JN

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T01					T02				
Sample		PDI-WS-T01-1811					PDI-WS-T02-1811				
Date		11/28/2018					11/30/2018				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-39	38444-88-1	0.0349 J	5.27 J	0.0208 J	3.14 J	0.0557 J	0.0236 JN	3.54 JN	0.00806 J	1.21 J	0.0316 J
PCB-40/41/71	PCB-40/41/71	1.29	195	0.682	103	1.97	0.839	126	0.739	111	1.58
PCB-42	36559-22-5	0.662	100	0.366	55.3	1.03	0.472	70.9	0.391	58.7	0.863
PCB-43	70362-46-8	0.0861	13.0	0.0203 JN	3.07 JN	0.106 J	0.0712	10.7	0.0443 J	6.65 J	0.116 J
PCB-44/47/65	PCB-44/47/65	7.62	1150	3.01	455	10.6	3.99	599	2.56	384	6.54
PCB-45/51	PCB-45/51	8.61	1300	1.47	222	10.1	6.15	923	0.859	129	7
PCB-46	41464-47-5	0.244	36.9	0.0894 JN	13.5 JN	0.334 J	0.151 JN	22.7 JN	0.0826	12.4	0.234 J
PCB-48	70362-47-9	0.401	60.6	0.207	31.3	0.609	0.274	41.1	0.261	39.2	0.535
PCB-49/69	PCB-49/69	2.34	354	1.11	168	3.46	1.53	230	1.39	209	2.92
PCB-50/53	PCB-50/53	0.868	131	0.276	41.7	1.14	0.55	82.6	0.323	48.5	0.873
PCB-52	35693-99-3	3.87	584	1.94	293	5.81	2.67	401	2.3	346	4.97
PCB-54	15968-05-5	0.182	27.5	0.0435 J	6.57 J	0.226 J	0.113 JN	17.0 JN	0.0486	7.30	0.162 J
PCB-55	74338-24-2	< 0.0235 U	< 3.55 U	< 0.0179 U	< 2.71 U	< 0.0415 U	0.0258 JN	3.88 JN	< 0.0278 U	< 4.18 U	0.0258 J
PCB-56	41464-43-1	0.584	88.2	0.636	96.0	1.22	0.453	68.0	0.866	130	1.32
PCB-57	70424-67-8	< 0.0224 U	< 3.38 U	< 0.016 U	< 2.42 U	< 0.0384 U	< 0.0221 U	< 3.32 U	< 0.0247 U	< 3.71 U	< 0.0468 U
PCB-58	41464-49-7	< 0.0244 U	< 3.68 U	< 0.0166 U	< 2.51 U	< 0.041 U	< 0.0241 U	< 3.62 U	< 0.0266 U	< 4.00 U	< 0.0507 U
PCB-59/62/75	PCB-59/62/75	0.204 JN	30.8 JN	0.119	17.9	0.323 J	0.148	22.2	0.136	20.5	0.284
PCB-60	33025-41-1	0.229	34.6	0.24	36.3	0.47	0.168	25.3	0.272	40.9	0.441
PCB-61/70/74/76	PCB-61/70/74/76	2.72	411	2.6	393	5.32	2.04	306	3.48	522	5.51
PCB-63	74472-34-7	0.0854	12.9	0.0695	10.5	0.155	0.0642	9.64	0.0799	12.0	0.144
PCB-64	52663-58-8	0.927	140	0.59	89.1	1.52	0.686	103	0.64	96.2	1.33
PCB-66	32598-10-0	1.54	232	1.81	273	3.34	1.13	169	2.32 J	348 J	3.44 J
PCB-67	73575-53-8	0.0402 J	6.07 J	0.0396 J	5.98 J	0.0798 J	0.0279 JN	4.19 JN	0.0434 JN	6.52 JN	0.0713 JN
PCB-68	73575-52-7	4.19	632	0.425	64.2	4.61	2.91	437	0.338	50.7	3.25
PCB-72	41464-42-0	0.0609 JN	9.19 JN	0.0385 JN	5.81 JN	0.0993 JN	0.0501 JN	7.52 JN	0.0523 JN	7.85 JN	0.102 JN
PCB-73	74338-23-1	0.0315 JN	4.75 JN	< 0.00571 U	< 0.862 U	0.0315 J	0.0179 J	2.69 J	< 0.00589 U	< 0.884 U	0.0179 J
PCB-77	32598-13-3	0.108	16.3	0.175	26.5	0.283	0.0719	10.8	0.219	32.9	0.291
PCB-78	70362-49-1	< 0.0207 U	< 3.12 U	< 0.0152 U	< 2.30 U	< 0.0359 U	< 0.0204 U	< 3.07 U	< 0.0254 U	< 3.82 U	< 0.0459 U
PCB-79	41464-48-6	0.031 J	4.68 J	0.0585	8.83	0.0895 J	0.0362 J	5.44 J	0.0746 JN	11.2 JN	0.111 J
PCB-80	33284-52-5	< 0.0196 U	< 2.96 U	< 0.0144 U	< 2.17 U	< 0.034 U	< 0.0194 U	< 2.92 U	< 0.023 U	< 3.45 U	< 0.0424 U
PCB-81	70362-50-4	< 0.0187 U	< 2.83 U	< 0.0123 U	< 1.85 U	< 0.031 U	< 0.0192 U	< 2.89 U	< 0.0182 U	< 2.74 U	< 0.0375 U
PCB-82	52663-62-4	0.239	36.1	0.41	61.9	0.649	0.19	28.6	0.495	74.4	0.686
PCB-83/99	PCB-83/99	1.64	248	2.36	357	4.01	1.28	192	3.02	454	4.3
PCB-84	52663-60-2	0.781	118	0.868	131	1.65	0.605	90.8	0.999	150	1.6
PCB-85/116/117	PCB-85/116/117	0.37	55.9	0.587	88.6	0.957	0.298	44.7	0.739	111	1.04
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	1.63 J	246 J	2.36 J	356 J	3.99 J	1.19 J	179 J	2.92 J	439 J	4.11 J
PCB-88/91	PCB-88/91	0.564	85.2	0.601	90.7	1.16	0.417	62.6	0.752	113	1.17
PCB-89	73575-57-2	0.0329 J	4.97 J	0.0381 J	5.76 J	0.0711 J	0.0233 JN	3.50 JN	0.0374 JN	5.62 JN	0.0607 JN
PCB-90/101/113	PCB-90/101/113	2.83	428	3.83	578	6.66	2.14	321	4.56	685	6.7
PCB-92	52663-61-3	0.781	118	0.801	121	1.58	0.564	84.7	0.999	150	1.56
PCB-93/95/98/100/102	PCB-93/95/98/_C	3.17	478	2.81	425	5.98	2.34	352	3.36	505	5.71
PCB-94	73575-55-0	0.0523 JN	7.89 JN	0.035 J	5.29 J	0.0873 J	0.0296 JN	4.44 JN	0.0351 JN	5.27 JN	0.0646 JN
PCB-96	73575-54-9	0.0438 J	6.61 J	0.0364 J	5.49 J	0.0801 J	0.0403 JN	6.05 JN	0.0327 J	4.91 J	0.073 J
PCB-103	60145-21-3	0.115 JN	17.4 JN	0.0675 JN	10.2 JN	0.183 JN	0.0661 JN	9.93 JN	0.108	16.2	0.174 J
PCB-104	56558-16-8	0.0102 J	1.54 J	0.0146 JN	2.21 JN	0.0248 J	0.0147 JN	2.21 JN	0.00879 JN	1.32 JN	0.0235 JN
PCB-105	32598-14-4	0.458	69.2	1.05 JN	158 JN	1.5 J	0.345	51.8	1.47	221	1.82
PCB-106	70424-69-0	< 0.00974 U	< 1.47 U	< 0.0146 U	< 2.21 U	< 0.0244 U	< 0.00568 U	< 0.853 U	< 0.0123 U	< 1.84 U	< 0.0179 U
PCB-107/124	PCB-107/124	0.0644	9.72	0.121 JN	18.3 JN	0.186 J	0.0603	9.06	0.185 JN	27.8 JN	0.245 J
PCB-109	74472-35-8	0.12	18.1	0.246	37.2	0.366	0.0999	15.0	0.388	58.3	0.488
PCB-110/115	PCB-110/115	3.05	461	4.19	633	7.25	2.31	347	5.33	801	7.64
PCB-111	39635-32-0	< 0.00564 U	< 0.851 U	0.00589 JN	0.889 JN	0.00589 J	< 0.00568 U	< 0.853 U	0.0108 JN	1.62 JN	0.0108 J
PCB-112	74472-36-9	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00589 U	< 0.884 U	< 0.0116 U
PCB-114	74472-37-0	0.0253 J	3.82 J	0.0635	9.59	0.0888 J	0.0238 J	3.58 J	0.0726 JN	10.9 JN	0.0964 J
PCB-118	31508-00-6	1.42	214	2.82	426	4.24	1.11	167	3.83	576	4.95
PCB-120	68194-12-7	0.024 JN	3.63 JN	0.0238 JN	3.59 JN	0.0478 JN	0.0227 JN	3.41 JN	0.0411 JN	6.17 JN	0.0638 JN

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T01					T02				
Sample		PDI-WS-T01-1811					PDI-WS-T02-1811				
Date		11/28/2018					11/30/2018				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-121	56558-18-0	< 0.00564 U	< 0.851 U	0.00695 JN	1.05 JN	0.00695 J	< 0.00568 U	< 0.853 U	0.0124 J	1.86 J	0.0124 J
PCB-122	76842-07-4	0.0165 JN	2.49 JN	0.0421 JN	6.35 JN	0.0585 JN	0.0189 JN	2.84 JN	0.0627 JN	9.42 JN	0.0816 JN
PCB-123	65510-44-3	0.0407 JN	6.15 JN	0.0445 JN	6.72 JN	0.0852 JN	0.0268 JN	4.03 JN	0.0567 JN	8.51 JN	0.0835 JN
PCB-126	57465-28-8	< 0.00914 U	< 1.38 U	0.0176 JN	2.66 JN	0.0176 J	< 0.00568 U	< 0.853 U	0.0353 JN	5.30 JN	0.0353 J
PCB-127	39635-33-1	< 0.00947 U	< 1.43 U	< 0.0128 U	< 1.93 U	< 0.0223 U	< 0.00568 U	< 0.853 U	< 0.0135 U	< 2.03 U	< 0.0192 U
PCB-128/166	PCB-128/166	0.152	23.0	0.634	95.8	0.787	0.127 JN	19.1 JN	1.09	163	1.21 J
PCB-129/138/160/163	PCB-129/138/_C	1.42	214	4.79	723	6.21	1.06	159	7.52	1130	8.58
PCB-130	52663-66-8	0.0828	12.5	0.292	44.1	0.375	0.0746	11.2	0.473	71.0	0.547
PCB-131	61798-70-7	0.0223 JN	3.36 JN	0.0619	9.34	0.0841 J	0.014 J	2.10 J	0.0656	9.85	0.0796 J
PCB-132	38380-05-1	0.549	82.9	1.68	253	2.22	0.415	62.4	2.48	373	2.9
PCB-133	35694-04-3	0.0357 J+	5.39 J+	0.0921	13.9	0.128 J	0.0246 J+	3.70 J+	0.136	20.5	0.161 J
PCB-134/143	PCB-134/143	0.107	16.2	0.254	38.4	0.362	0.0772	11.6	0.345 JN	51.8 JN	0.422 J
PCB-135/151/154	PCB-135/151/154	1.11	167	1.89	285	2.99	0.832	125	2.58	388	3.42
PCB-136	38411-22-2	0.302	45.6	0.618	93.3	0.92	0.203	30.5	0.812	122	1.02
PCB-137	35694-06-5	0.0502 JN	7.58 JN	0.135	20.4	0.185 J	0.0528	7.93	0.322	48.4	0.375
PCB-139/140	PCB-139/140	0.0267 J	4.03 J	0.0954 JN	14.4 JN	0.122 J	0.0191 JN	2.87 JN	0.145 JN	21.8 JN	0.164 JN
PCB-141	52712-04-6	0.261	39.4	0.768	116	1.03	0.201	30.2	1.26	190	1.47
PCB-142	41411-61-4	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.0142 U	< 2.14 U	< 0.0199 U
PCB-144	68194-14-9	0.106 JN	16.0 JN	0.192	29.0	0.298 J	0.0712	10.7	0.256	38.5	0.328
PCB-145	74472-40-5	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00589 U	< 0.884 U	< 0.0116 U
PCB-146	51908-16-8	0.434	65.6	0.921	139	1.35	0.3	45.0	1.36	205	1.66
PCB-147/149	PCB-147/149	1.91	289	3.87	585	5.79	1.48	222	5.49	824	6.96
PCB-148	74472-41-6	0.0102 JN	1.54 JN	0.0203 JN	3.06 JN	0.0305 JN	0.0103 JN	1.55 JN	0.0342 JN	5.13 JN	0.0445 JN
PCB-150	68194-08-1	< 0.00564 U	< 0.851 U	0.0302 J	4.56 J	0.0302 J	< 0.00568 U	< 0.853 U	0.02 JN	3.00 JN	0.02 J
PCB-152	68194-09-2	< 0.00564 U	< 0.851 U	0.00868 JN	1.31 JN	0.00868 J	< 0.00568 U	< 0.853 U	0.0105 JN	1.58 JN	0.0105 J
PCB-153/168	PCB-153/168	1.38	209	4.03	609	5.42	1.09	163	6.46	970	7.54
PCB-155	33979-03-2	< 0.00564 U	< 0.851 U	0.00967 JN	1.46 JN	0.00967 J	0.00654 JN	0.982 JN	0.0115 JN	1.72 JN	0.018 JN
PCB-156/157	PCB-156/157	0.105	15.9	0.543	82.0	0.648	0.0839 J+	12.6 J+	0.766	115	0.85 J
PCB-158	74472-42-7	0.13	19.6	0.417	63.0	0.547	0.0939	14.1	0.686	103	0.78
PCB-159	39635-35-3	0.0128 J	1.94 J	< 0.00571 U	< 0.862 U	0.0128 J	0.0121 JN	1.81 JN	0.117 JN	17.6 JN	0.129 JN
PCB-161	74472-43-8	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00932 U	< 1.40 U	< 0.015 U
PCB-162	39635-34-2	0.00579 JN	0.874 JN	0.00618 JN	0.933 JN	0.012 JN	< 0.00568 U	< 0.853 U	0.0133 JN	2.00 JN	0.0133 J
PCB-164	74472-45-0	0.0993 JN	15.0 JN	0.333	50.3	0.432 J	0.0792	11.9	0.485	72.9	0.565
PCB-165	74472-46-1	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.011 U	< 1.65 U	< 0.0167 U
PCB-167	52663-72-6	0.0351 JN	5.30 JN	0.199	30.1	0.234 J	0.0248 JN	3.72 JN	0.246	37.0	0.271 J
PCB-169	32774-16-6	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00872 U	< 1.31 U	< 0.0144 U
PCB-170	35065-30-6	0.14 J+	21.2 J+	1.22	184	1.36 J	0.0892 JN	13.4 JN	1.75	263	1.84 J
PCB-171/173	PCB-171/173	0.0462	6.98	0.35	52.8	0.396	0.0397 J	5.96 J	0.581	87.3	0.621 J
PCB-172	52663-74-8	0.0301 JN	4.54 JN	0.237 JN	35.8 JN	0.267 JN	0.0191 JN	2.87 JN	0.349	52.4	0.368 J
PCB-174	38411-25-5	0.182 JN	27.5 JN	1.05	158	1.23 J	0.126 JN	18.9 JN	2.02	304	2.15 J
PCB-175	40186-70-7	0.00755 JN	1.14 JN	0.0412 JN	6.22 JN	0.0487 JN	0.00633 JN	0.951 JN	0.0746 JN	11.2 JN	0.0809 JN
PCB-176	52663-65-7	0.0223 JN	3.37 JN	0.153	23.1	0.175 J	0.0174 JN	2.62 JN	0.265	39.8	0.282 J
PCB-177	52663-70-4	0.119	18.0	0.815	123	0.934	0.0852 JN	12.8 JN	1.1	165	1.18 J
PCB-178	52663-67-9	0.0513 J+	7.75 J+	0.265	40.0	0.316 J	0.0401 J+	6.02 J+	0.529	79.5	0.569 J
PCB-179	52663-64-6	0.0947 JN	14.3 JN	0.51	77.0	0.605 J	0.0699 JN	10.5 JN	0.872	131	0.942 J
PCB-180/193	PCB-180/193	0.454 J+	68.5 J+	3.49	527	3.94 J	0.348 J+	52.3 J+	4.85	729	5.2 J
PCB-181	74472-47-2	< 0.00564 U	< 0.851 U	0.0209 JN	3.15 JN	0.0209 J	< 0.00568 U	< 0.853 U	0.0214 JN	3.21 JN	0.0214 J
PCB-182	60145-23-5	< 0.00564 UJ	< 0.851 UJ	0.0155 JN	2.34 JN	0.0155 J	< 0.00568 U	< 0.853 U	0.0282 J	4.24 J	0.0282 J
PCB-183/185	PCB-183/185	0.13 JN	19.6 JN	0.722	109	0.852 J	0.0952 JN	14.3 JN	1.36	204	1.45 J
PCB-184	74472-48-3	< 0.00564 U	< 0.851 U	0.00828 JN	1.25 JN	0.00828 J	< 0.00568 U	< 0.853 U	0.0171 JN	2.57 JN	0.0171 J
PCB-186	74472-49-4	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00589 U	< 0.884 U	< 0.0116 U
PCB-187	52663-68-0	0.277 J+	41.8 J+	1.42	215	1.7 J	0.194 J+	29.2 J+	2.74	411	2.93 J
PCB-188	74487-85-7	< 0.00564 U	< 0.851 U	0.00617 J	0.931 J	0.00617 J	< 0.00568 U	< 0.853 U	0.00925 JN	1.39 JN	0.00925 J
PCB-189	39635-31-9	< 0.00564 U	< 0.851 U	0.0483 JN	7.30 JN	0.0483 J	< 0.00568 U	< 0.853 U	0.0712	10.7	0.0712
PCB-190	41411-64-7	0.0297 JN	4.49 JN	0.242	36.5	0.271 J	0.026 JN	3.90 JN	0.4	60.1	0.426 J

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Location	T01					T02				
	Sample	PDI-WS-T01-1811					PDI-WS-T02-1811				
	Date	11/28/2018					11/30/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**										
PCB-191	74472-50-7	< 0.00564 U	< 0.851 U	0.0559	8.44	0.0559	< 0.00568 U	< 0.853 U	0.0892	13.4	0.0892
PCB-192	74472-51-8	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00589 U	< 0.884 U	< 0.0116 U
PCB-194	35694-08-7	0.0577 J+	8.71 J+	0.735	111	0.793 J	0.0443 JN	6.65 JN	0.999	150	1.04 J
PCB-195	52663-78-2	0.0249 JN	3.76 JN	0.309	46.7	0.334 J	0.0176 J+	2.65 J+	0.445	66.8	0.462 J
PCB-196	42740-50-1	0.0264 JN	3.99 JN	0.42	63.4	0.446 J	0.0152 JN	2.28 JN	0.513	77.1	0.528 J
PCB-197/200	PCB-197/200	0.0143 J	2.16 J	0.153 JN	23.1 JN	0.167 J	0.00932 JN	1.40 JN	0.214 JN	32.1 JN	0.223 JN
PCB-198/199	PCB-198/199	0.0742 JN	11.2 JN	0.901	136	0.975 J	0.0582 JN	8.74 JN	1.4	211	1.46 J
PCB-201	40186-71-8	0.00861 JN	1.30 JN	0.109	16.4	0.117 J	0.0064 JN	0.962 JN	0.153	23.0	0.16 J
PCB-202	2136-99-4	0.0245 J+	3.70 J+	0.235 JN	35.5 JN	0.26 J	0.00866 JN	1.30 JN	0.331	49.7	0.34 J
PCB-203	52663-76-0	0.0436 JN	6.59 JN	0.599	90.4	0.642 J	0.0344 JN	5.16 JN	0.839	126	0.873 J
PCB-204	74472-52-9	< 0.00564 U	< 0.851 U	< 0.00571 U	< 0.862 U	< 0.0113 U	< 0.00568 U	< 0.853 U	< 0.00589 U	< 0.884 U	< 0.0116 U
PCB-205	74472-53-0	< 0.00564 U	< 0.851 U	0.0397 JN	6.00 JN	0.0397 J	< 0.00568 U	< 0.853 U	0.0581 JN	8.72 JN	0.0581 J
PCB-206	40186-72-9	0.034 JN	5.14 JN	0.669	101	0.703 J	0.0423 JN	6.35 JN	1.06	159	1.1 J
PCB-207	52663-79-3	< 0.0113 U	< 1.70 U	0.0722 JN	10.9 JN	0.0722 J	< 0.015 U	< 2.25 U	0.107	16.0	0.107
PCB-208	52663-77-1	0.0235 JN	3.55 JN	0.232	35.0	0.255 J	< 0.017 U	< 2.56 U	0.357	53.6	0.357
PCB-209	2051-24-3	0.0295 JN	4.45 JN	0.689	104	0.718 J	0.028 JN	4.20 JN	1.38	208	1.41 J
Total PCBs (a)	T_PCBCg (PDI)	104		86.5		190	71.9		116		188

Notes:

Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low.
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:
- Transect 01 Volume= 150.8 L
- Transect 02 Volume = 150.2 L
- Transect 03 Volume = 150.2 L
- Transect 04 Volume = 150 L
- Transect 05 Volume = 225 L
- Transect 06 Volume = 150 L
- Transect 07 Volume = 150 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Location	T03					T04				
	Sample	PDI-WS-T03-1811					PDI-WS-T04-1812				
	Date	11/27/2018					12/1/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**										
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	0.0547 J+	8.21 J+	2.36	354	2.41 J	0.0164 J+	2.46 J+	0.687	103	0.703 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	0.00905 J	1.36 J	0.206	30.9	0.215 J	< 0.00565 U	< 0.847 U	0.175	26.2	0.175
1,2,3,4,7,8,9-HpCDF	55673-89-7	< 0.00565 U	< 0.849 U	0.0138 J	2.08 J	0.0138 J	< 0.00565 U	< 0.847 U	0.009 JN	1.35 JN	0.009 J
1,2,3,4,7,8-HxCDD	39227-28-6	< 0.00565 U	< 0.849 U	0.028 JN	4.21 JN	0.028 J	< 0.00565 U	< 0.847 U	0.01 JN	1.50 JN	0.01 J
1,2,3,4,7,8-HxCDF	70648-26-9	< 0.00565 U	< 0.849 U	0.0299 J	4.49 J	0.0299 J	< 0.00565 U	< 0.847 U	0.0259 J	3.88 J	0.0259 J
1,2,3,6,7,8-HxCDD	57653-85-7	< 0.00565 UJ	< 0.849 UJ	0.0712 J	10.7 J	0.0712 J	< 0.00565 UJ	< 0.847 UJ	0.0263 J	3.94 J	0.0263 J
1,2,3,6,7,8-HxCDF	57117-44-9	< 0.00565 U	< 0.849 U	0.0156 J	2.35 J	0.0156 J	< 0.00565 U	< 0.847 U	0.00853 JN	1.28 JN	0.00853 J
1,2,3,7,8,9-HxCDD	19408-74-3	< 0.00565 UJ	< 0.849 UJ	0.0679 JN	10.2 JN	0.0679 J	< 0.00565 UJ	< 0.847 UJ	0.0395 JN	5.92 JN	0.0395 J
1,2,3,7,8,9-HxCDF	72918-21-9	< 0.00565 U	< 0.849 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	< 0.00727 U	< 1.09 U	< 0.0129 U
1,2,3,7,8-PeCDD	40321-76-4	< 0.00565 U	< 0.849 U	0.00746 J	1.12 J	0.00746 J	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
1,2,3,7,8-PeCDF	57117-41-6	< 0.00565 U	< 0.849 U	0.0122 J	1.83 J	0.0122 J	< 0.00565 U	< 0.847 U	0.00813 JN	1.22 JN	0.00813 J
2,3,4,6,7,8-HxCDF	60851-34-5	< 0.00565 U	< 0.849 U	0.00952 J	1.43 J	0.00952 J	< 0.00565 U	< 0.847 U	0.00635 JN	0.953 JN	0.00635 J
2,3,4,7,8-PeCDF	57117-31-4	< 0.00565 U	< 0.849 U	0.00806 JN	1.21 JN	0.00806 J	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
2,3,7,8-TCDD	1746-01-6	< 0.00565 U	< 0.849 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	0.00673 JN	1.01 JN	0.00673 J
2,3,7,8-TCDF	51207-31-9	< 0.00565 U	< 0.849 U	0.0178 J	2.67 J	0.0178 J	< 0.00565 U	< 0.847 U	0.0121 J	1.82 J	0.0121 J
OCDD	3268-87-9	0.528	79.3	14.2	2140	14.8	0.191 J+	28.7 J+	6.93	1040	7.12 J
OCDF	39001-02-0	< 0.015 U	< 2.26 U	0.494	74.2	0.494	< 0.0118 U	< 1.77 U	0.454	68.1	0.454
TCDD-TEQ (a)	T_DF_TEQ (PDI)	0.00362		0.0672		0.0709	0.00305		0.0337		0.0367
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	0.00362		0.0552		0.056	0.00305		0.0202		0.0206
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	0.000796		0.0524		0.0532	0.000221		0.0173		0.0175
Polychlorinated Biphenyls (PCBs)											
PCB-1	2051-60-7	1.27	191	0.116 J	17.4 J	1.39 J	0.391	58.6	0.0787	11.8	0.469
PCB-2	2051-61-8	0.324	48.6	0.0899	13.5	0.413	0.208	31.2	0.0651	9.77	0.273
PCB-3	2051-62-9	0.36	54.1	0.0939 JN	14.1 JN	0.454 J	0.205	30.7	0.0767	11.5	0.281
PCB-4	13029-08-8	3.01	452	0.236 J+	35.4 J+	3.25 J	1.17	175	0.205 J+	30.8 J+	1.37 J
PCB-5	16605-91-7	< 0.146 U	< 22.0 U	< 0.0264 U	< 3.96 U	< 0.173 U	< 0.0659 U	< 9.89 U	< 0.0211 U	< 3.16 U	< 0.087 U
PCB-6	25569-80-6	0.464	69.7	0.128 J+	19.3 J+	0.593 J	0.227 J+	34.1 J+	0.105 J+	15.8 J+	0.333 J+
PCB-7	33284-50-3	0.236 JN	35.4 JN	0.0275 J	4.13 J	0.263 J	0.0767 JN	11.5 JN	0.0266 JN	3.99 JN	0.103 JN
PCB-8	34883-43-7	1.87	281	0.493 J+	74.1 J+	2.36 J	0.773 J	116 J	0.378 J+	56.7 J+	1.15 J
PCB-9	34883-39-1	0.152 JN	22.8 JN	0.0385 JN	5.79 JN	0.19 JN	0.09 JN	13.5 JN	0.0418 JN	6.27 JN	0.132 JN
PCB-10	33146-45-1	0.14 JN	21.1 JN	< 0.0236 U	< 3.54 U	0.14 J	< 0.0595 U	< 8.92 U	< 0.0187 U	< 2.80 U	< 0.0781 U
PCB-11	2050-67-1	6.92 J	1040 J	1.88 J	282 J	8.8 J	3.77 J	565 J	1.42	213	5.19 J
PCB-12/13	PCB-12/13	0.362 JN	54.4 JN	0.0905	13.6	0.453 J	0.319 JN	47.9 JN	0.063 JN	9.45 JN	0.382 JN
PCB-14	34883-41-5	< 0.136 U	< 20.4 U	< 0.0245 U	< 3.68 U	< 0.16 U	< 0.0626 U	< 9.39 U	< 0.0196 U	< 2.94 U	< 0.0822 U
PCB-15	2050-68-2	0.819	123	0.334 J+	50.1 J+	1.15 J	0.391 J+	58.6 J+	0.227 J+	34.1 J+	0.618 J+
PCB-16	38444-78-9	1.05 JN	157 JN	0.24 J+	36.0 J+	1.28 J	0.444	66.6	0.193 JN	28.9 JN	0.637 J
PCB-17	37680-66-3	2.02	303	0.621	93.2	2.64	0.72	108	0.357 J+	53.5 J+	1.08 J
PCB-18/30	PCB-18/30	1.84	276	0.564 J+	84.7 J+	2.4 J	0.94	141	0.466 J+	69.9 J+	1.41 J
PCB-19	38444-73-4	1.45	218	0.262	39.4	1.71	0.641	96.2	0.145	21.7	0.786
PCB-20/28	PCB-20/28	2.86	430	1.22	183	4.08	1.43 J+	214 J+	0.907 J+	136 J+	2.33 J+
PCB-21/33	PCB-21/33	3.21	482	0.606	91.0	3.81	0.673	101	0.456 J+	68.4 J+	1.13 J
PCB-22	38444-85-8	1.09 J	164 J	0.413	62.0	1.5 J	0.617	92.5	0.301 J+	45.2 J+	0.918 J
PCB-23	55720-44-0	< 0.032 U	< 4.81 U	< 0.00561 U	< 0.842 U	< 0.0376 U	< 0.0276 U	< 4.14 U	< 0.00578 U	< 0.867 U	< 0.0334 U
PCB-24	55702-45-9	0.0384 JN	5.77 JN	0.00699 J+	1.05 J+	0.0454 J	0.0217 J+	3.26 J+	0.00727 J+	1.09 J+	0.029 J+
PCB-25	55712-37-3	1.23	184	0.202	30.4	1.43	0.257	38.5	0.098	14.7	0.355
PCB-26/29	PCB-26/29	0.603	90.6	0.193	29.0	0.796	0.257 JN	38.6 JN	0.161 J+	24.2 J+	0.419 J
PCB-27	38444-76-7	0.112 JN	16.8 JN	0.0647 J+	9.72 J+	0.177 J	0.08 J	12.0 J	0.0443 J+	6.64 J+	0.124 J
PCB-31	16606-02-3	2.16	324	0.872	131	3.03	1.02	153	0.707 J+	106 J+	1.73 J
PCB-32	38444-77-8	0.999	150	0.246 J	36.9 J	1.24 J	0.48	72.0	0.235 JN	35.3 JN	0.715 J
PCB-34	37680-68-5	< 0.0304 U	< 4.56 U	0.00726 JN	1.09 JN	0.00726 J	< 0.0262 U	< 3.93 U	< 0.00578 U	< 0.867 U	< 0.032 U
PCB-35	37680-69-6	0.0952 JN	14.3 JN	0.0519	7.79	0.147 J	0.0341 J	5.12 J	0.0379 J	5.68 J	0.072 J
PCB-36	38444-87-0	0.0699 J	10.5 J	0.0192 J	2.89 J	0.0891 J	0.0269 JN	4.04 JN	0.0133 JN	2.00 JN	0.0403 JN
PCB-37	38444-90-5	0.465	69.8	0.358	53.7	0.822	0.212 JN	31.8 JN	0.253	37.9	0.465 J
PCB-38	53555-66-1	< 0.028 U	< 4.21 U	< 0.00561 U	< 0.842 U	< 0.0336 U	< 0.0242 U	< 3.63 U	< 0.00578 U	< 0.867 U	< 0.03 U

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T03					T04				
Sample		PDI-WS-T03-1811					PDI-WS-T04-1812				
Date		11/27/2018					12/1/2018				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-39	38444-88-1	< 0.029 U	< 4.35 U	< 0.00561 U	< 0.842 U	< 0.0346 U	< 0.025 U	< 3.75 U	< 0.00578 U	< 0.867 U	< 0.0308 U
PCB-40/41/71	PCB-40/41/71	1.17	176	0.653	98.1	1.82	0.523	78.5	0.487	73.1	1.01
PCB-42	36559-22-5	0.571	85.8	0.342	51.4	0.913	0.298	44.7	0.249	37.4	0.547
PCB-43	70362-46-8	0.0806	12.1	0.0416 JN	6.25 JN	0.122 J	0.0255 JN	3.82 JN	0.0445 JN	6.68 JN	0.07 JN
PCB-44/47/65	PCB-44/47/65	13.6	2040	2.88	433	16.5	6.33	950	4.57	685	10.9
PCB-45/51	PCB-45/51	58.6	8800	1.72	259	60.3	4	600	1.17	176	5.17
PCB-46	41464-47-5	0.234	35.2	0.0799	12.0	0.314	0.088	13.2	0.0537 JN	8.06 JN	0.142 J
PCB-48	70362-47-9	0.326	48.9	0.211	31.7	0.537	0.189	28.3	0.161	24.2	0.35
PCB-49/69	PCB-49/69	2.49	374	1.09	163	3.58	0.973	146	0.787	118	1.76
PCB-50/53	PCB-50/53	0.846	127	0.246	36.9	1.09	0.299	44.9	0.193	29.0	0.493
PCB-52	35693-99-3	4.33	650	1.8	271	6.13	1.88	282	1.44	216	3.32
PCB-54	15968-05-5	0.157 J	23.6 J	0.0623	9.36	0.219 J	0.0529 JN	7.94 JN	0.0233 JN	3.50 JN	0.0763 JN
PCB-55	74338-24-2	< 0.0146 U	< 2.20 U	0.0192 JN	2.88 JN	0.0192 J	< 0.0149 U	< 2.24 U	< 0.0157 U	< 2.35 U	< 0.0306 U
PCB-56	41464-43-1	0.566	85.0	0.638	95.8	1.2	0.325 JN	48.8 JN	0.521	78.1	0.846 J
PCB-57	70424-67-8	< 0.014 U	< 2.10 U	< 0.0159 U	< 2.39 U	< 0.0299 U	< 0.0136 U	< 2.04 U	< 0.0139 U	< 2.09 U	< 0.0275 U
PCB-58	41464-49-7	< 0.0152 U	< 2.28 U	< 0.0165 U	< 2.48 U	< 0.0317 U	< 0.0137 U	< 2.05 U	< 0.015 U	< 2.25 U	< 0.0287 U
PCB-59/62/75	PCB-59/62/75	0.203	30.5	0.107 JN	16.0 JN	0.31 J	0.094 JN	14.1 JN	0.0893	13.4	0.183 J
PCB-60	33025-41-1	0.216	32.4	0.231	34.7	0.447	0.137	20.6	0.195	29.2	0.332
PCB-61/70/74/76	PCB-61/70/74/76	2.59	389	2.5	375	5.09	1.3	195	1.98	297	3.28
PCB-63	74472-34-7	0.0859	12.9	0.0573	8.61	0.143	0.0389 J	5.84 J	0.0415 JN	6.22 JN	0.0804 J
PCB-64	52663-58-8	0.819	123	0.52	78.1	1.34	0.446	66.9	0.403	60.4	0.849
PCB-66	32598-10-0	1.48	223	1.7 J	255 J	3.18 J	0.773 J	116 J	1.35 J	203 J	2.13 J
PCB-67	73575-53-8	0.0388 J	5.83 J	0.0304 J	4.57 J	0.0692 J	0.0183 JN	2.75 JN	0.0212 JN	3.18 JN	0.0395 JN
PCB-68	73575-52-7	15.2	2280	0.519	77.9	15.7	1.85	277	0.767	115	2.61
PCB-72	41464-42-0	< 0.0136 U	< 2.04 U	0.0533 JN	8.01 JN	0.0533 J	< 0.0131 U	< 1.97 U	< 0.0136 U	< 2.04 U	< 0.0267 U
PCB-73	74338-23-1	0.0383 JN	5.75 JN	0.0162 JN	2.43 JN	0.0545 JN	0.00987 JN	1.48 JN	< 0.00578 U	< 0.867 U	0.00987 J
PCB-77	32598-13-3	0.111	16.7	0.19	28.5	0.301	0.0635	9.52	0.149	22.4	0.213
PCB-78	70362-49-1	< 0.0129 U	< 1.94 U	< 0.0152 U	< 2.28 U	< 0.0281 U	< 0.0133 U	< 1.99 U	< 0.0143 U	< 2.15 U	< 0.0276 U
PCB-79	41464-48-6	0.0316 J	4.75 J	0.0416 JN	6.25 JN	0.0732 J	0.0169 J	2.53 J	0.0423 J	6.35 J	0.0592 J
PCB-80	33284-52-5	< 0.0123 U	< 1.84 U	< 0.0143 U	< 2.15 U	< 0.0266 U	< 0.012 U	< 1.80 U	< 0.0129 U	< 1.94 U	< 0.0249 U
PCB-81	70362-50-4	< 0.0121 U	< 1.82 U	< 0.012 U	< 1.80 U	< 0.0241 U	< 0.0109 U	< 1.63 U	< 0.0111 U	< 1.66 U	< 0.0219 U
PCB-82	52663-62-4	0.237	35.6	0.357	53.6	0.594	0.162	24.3	0.31	46.5	0.472
PCB-83/99	PCB-83/99	1.62	243	2.32	349	3.94	0.807	121	1.57	235	2.37
PCB-84	52663-60-2	0.806	121	0.746	112	1.55	0.363	54.4	0.593	89.0	0.956
PCB-85/116/117	PCB-85/116/117	0.359	53.9	0.553	83.0	0.911	0.189	28.3	0.43	64.5	0.619
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	1.53	230	2.2 J	331 J	3.74 J	0.86 J	129 J	1.69 J	253 J	2.55 J
PCB-88/91	PCB-88/91	0.607	91.2	0.561	84.3	1.17	0.217	32.6	0.37	55.5	0.587
PCB-89	73575-57-2	0.0326 J	4.90 J	0.022 JN	3.31 JN	0.0547 J	0.0133 J	1.99 J	0.0313 JN	4.70 JN	0.0446 J
PCB-90/101/113	PCB-90/101/113	2.75	413	3.48	522	6.23	1.32	198	2.47	371	3.79
PCB-92	52663-61-3	0.752	113	0.739	111	1.49	0.386	57.9	0.538	80.7	0.924
PCB-93/95/98/100/102	PCB-93/95/98/_C	3.14	471	2.59	389	5.73	1.3	195	1.95	293	3.25
PCB-94	73575-55-0	0.0427 J	6.41 J	0.0366 JN	5.49 JN	0.0792 J	0.0215 JN	3.22 JN	0.0169 JN	2.53 JN	0.0383 JN
PCB-96	73575-54-9	0.0478 JN	7.18 JN	0.0355 JN	5.33 JN	0.0833 JN	0.0155 J	2.32 J	0.0201 J	3.02 J	0.0356 J
PCB-103	60145-21-3	0.11	16.5	0.0739	11.1	0.184	0.0355 J	5.33 J	0.0502 JN	7.53 JN	0.0857 J
PCB-104	56558-16-8	0.019 J	2.86 J	0.0101 JN	1.51 JN	0.0291 J	0.00747 JN	1.12 JN	< 0.00578 U	< 0.867 U	0.00747 J
PCB-105	32598-14-4	0.409	61.5	0.965	145	1.37	0.266	39.9	0.893	134	1.16
PCB-106	70424-69-0	< 0.00806 U	< 1.21 U	< 0.0142 U	< 2.14 U	< 0.0223 U	< 0.00611 U	< 0.917 U	< 0.0119 U	< 1.79 U	< 0.018 U
PCB-107/124	PCB-107/124	0.0497 JN	7.47 JN	0.115	17.2	0.164 J	0.0425 JN	6.37 JN	0.109	16.3	0.151 J
PCB-109	74472-35-8	0.124	18.6	0.278	41.7	0.401	0.0649 JN	9.73 JN	0.202 JN	30.3 JN	0.267 JN
PCB-110/115	PCB-110/115	2.96	444	3.94	592	6.9	1.61	241	3.06	459	4.67
PCB-111	39635-32-0	< 0.00569 U	< 0.855 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-112	74472-36-9	< 0.00565 U	< 0.849 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-114	74472-37-0	0.0244 J	3.66 J	0.0419 J	6.30 J	0.0663 J	0.0169 JN	2.54 JN	0.0458 JN	6.87 JN	0.0627 JN
PCB-118	31508-00-6	1.32	198	2.69	404	4.01	0.76	114	2.21	331	2.97
PCB-120	68194-12-7	0.0169 JN	2.54 JN	0.03 JN	4.51 JN	0.0469 JN	0.00733 J	1.10 J	0.0187 JN	2.80 JN	0.026 J

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location	T03					T04				
Sample	PDI-WS-T03-1811					PDI-WS-T04-1812				
Date	11/27/2018					12/1/2018				
Sample Type	N	N	N	N	N	N	N	N	N	N
Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN									
PCB-121	56558-18-0	0.00812 JN	1.22 JN	< 0.00561 U	< 0.842 U	0.00812 J	0.00663 J	0.995 J	< 0.00578 U	< 0.867 U	0.00663 J
PCB-122	76842-07-4	0.0107 J	1.61 J	0.0338 JN	5.08 JN	0.0445 J	0.00907 J	1.36 J	0.0328 J	4.92 J	0.0419 J
PCB-123	65510-44-3	0.0312 JN	4.68 JN	0.0503 JN	7.55 JN	0.0814 JN	0.0281 JN	4.22 JN	0.0361 JN	5.41 JN	0.0642 JN
PCB-126	57465-28-8	< 0.00786 U	< 1.18 U	0.0166 JN	2.50 JN	0.0166 J	< 0.00589 U	< 0.883 U	0.0152 JN	2.28 JN	0.0152 J
PCB-127	39635-33-1	< 0.00786 U	< 1.18 U	< 0.0125 U	< 1.87 U	< 0.0203 U	< 0.00635 U	< 0.953 U	< 0.0131 U	< 1.97 U	< 0.0195 U
PCB-128/166	PCB-128/166	0.182	27.3	0.621	93.3	0.803	0.107	16.1	0.581	87.1	0.688
PCB-129/138/160/163	PCB-129/138/_C	1.34	201	5.01	753	6.35	0.813	122	4.15	622	4.96
PCB-130	52663-66-8	0.0925 JN	13.9 JN	0.274 JN	41.2 JN	0.367 JN	0.0569 JN	8.54 JN	0.265	39.7	0.322 J
PCB-131	61798-70-7	0.0199 JN	2.99 JN	0.0617 JN	9.27 JN	0.0816 JN	0.0176 J	2.64 J	0.0522 JN	7.83 JN	0.0698 J
PCB-132	38380-05-1	0.516	77.5	1.77	266	2.29	0.287	43.1	1.44	216	1.73
PCB-133	35694-04-3	0.0316 J+	4.74 J+	0.0972 JN	14.6 JN	0.129 J	0.0165 J+	2.48 J+	0.0733	11.0	0.0899 J
PCB-134/143	PCB-134/143	0.11 JN	16.5 JN	0.26 JN	39.1 JN	0.37 JN	0.0549	8.24	0.2	30.0	0.255
PCB-135/151/154	PCB-135/151/154	0.872 J	131 J	2.07	311	2.94 J	0.465 J	69.7 J	1.42	213	1.88 J
PCB-136	38411-22-2	0.262	39.4	0.64	96.2	0.903	0.14 JN	21.0 JN	0.457	68.5	0.597 J
PCB-137	35694-06-5	0.0439 JN	6.60 JN	0.165	24.8	0.209 J	0.0407 JN	6.10 JN	0.175 JN	26.2 JN	0.215 JN
PCB-139/140	PCB-139/140	0.0278 J	4.17 J	0.111	16.6	0.138 J	0.012 JN	1.80 JN	0.0713	10.7	0.0833 J
PCB-141	52712-04-6	0.218	32.8	0.766	115	0.984	0.132	19.8	0.707	106	0.839
PCB-142	41411-61-4	< 0.00565 U	< 0.849 U	< 0.0133 U	< 2.00 U	< 0.019 U	< 0.00565 U	< 0.847 U	< 0.0127 U	< 1.91 U	< 0.0184 U
PCB-144	68194-14-9	0.0892	13.4	0.209	31.4	0.298	0.0673	10.1	0.163	24.4	0.23
PCB-145	74472-40-5	< 0.00565 U	< 0.849 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-146	51908-16-8	0.358	53.8	0.985	148	1.34	0.195 JN	29.3 JN	0.74	111	0.935 J
PCB-147/149	PCB-147/149	1.91	287	4.51	677	6.42	1.13	170	2.98	447	4.11
PCB-148	74472-41-6	0.00959 JN	1.44 JN	0.0219 J	3.29 J	0.0315 J	0.00773 JN	1.16 JN	0.0109 JN	1.64 JN	0.0187 JN
PCB-150	68194-08-1	0.00719 J	1.08 J	0.0275 J	4.13 J	0.0347 J	< 0.00565 U	< 0.847 U	0.0117 JN	1.75 JN	0.0117 J
PCB-152	68194-09-2	< 0.00565 U	< 0.849 U	0.00939 JN	1.41 JN	0.00939 J	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-153/168	PCB-153/168	1.55	233	4.15	624	5.71	0.787	118	3.39	509	4.18
PCB-155	33979-03-2	< 0.00565 U	< 0.849 U	0.00759 J	1.14 J	0.00759 J	0.00813 JN	1.22 JN	0.0066 JN	0.990 JN	0.0147 JN
PCB-156/157	PCB-156/157	0.0939 JN	14.1 JN	0.551	82.7	0.644 J	0.064 J+	9.60 J+	0.425	63.7	0.489 J
PCB-158	74472-42-7	0.105	15.7	0.418	62.8	0.523	0.0733	11.0	0.368	55.2	0.441
PCB-159	39635-35-3	0.0198 JN	2.98 JN	< 0.00719 U	< 1.08 U	0.0198 J	< 0.00565 U	< 0.847 U	0.0627	9.41	0.0627
PCB-161	74472-43-8	< 0.00565 U	< 0.849 U	< 0.00772 U	< 1.16 U	< 0.0134 U	< 0.00565 U	< 0.847 U	< 0.00833 U	< 1.25 U	< 0.014 U
PCB-162	39635-34-2	< 0.00565 U	< 0.849 U	0.00992 JN	1.49 JN	0.00992 J	< 0.00565 U	< 0.847 U	0.00927 J	1.39 J	0.00927 J
PCB-164	74472-45-0	0.101	15.2	0.324	48.7	0.425	0.0538	8.07	0.283	42.5	0.337
PCB-165	74472-46-1	< 0.00565 U	< 0.849 U	< 0.00965 U	< 1.45 U	< 0.0153 U	< 0.00565 U	< 0.847 U	< 0.0098 U	< 1.47 U	< 0.0154 U
PCB-167	52663-72-6	0.0401 JN	6.03 JN	0.192	28.9	0.233 J	0.0205 JN	3.07 JN	0.141	21.2	0.162 J
PCB-169	32774-16-6	< 0.00565 U	< 0.849 U	< 0.00706 U	< 1.06 U	< 0.0127 U	< 0.00565 U	< 0.847 U	< 0.00693 U	< 1.04 U	< 0.0126 U
PCB-170	35065-30-6	0.129 JN	19.4 JN	1.3	195	1.43 J	0.0793 J+	11.9 J+	0.94	141	1.02 J
PCB-171/173	PCB-171/173	0.0555	8.34	0.342	51.3	0.397	0.0333 JN	4.99 JN	0.305	45.8	0.339 J
PCB-172	52663-74-8	0.0316 J+	4.74 J+	0.237	35.6	0.269 J	0.0208 JN	3.12 JN	0.159	23.9	0.18 J
PCB-174	38411-25-5	0.2	30.0	1.02	153	1.22	0.125 JN	18.8 JN	1.11	166	1.23 J
PCB-175	40186-70-7	< 0.00565 U	< 0.849 U	0.047 JN	7.06 JN	0.047 J	< 0.00565 U	< 0.847 U	0.046 JN	6.90 JN	0.046 J
PCB-176	52663-65-7	0.027 J	4.05 J	0.166	24.9	0.193 J	0.0125 JN	1.87 JN	0.128	19.2	0.14 J
PCB-177	52663-70-4	0.109 J	16.3 J	0.826	124	0.934 J	0.0565 J+	8.48 J+	0.597	89.5	0.653 J
PCB-178	52663-67-9	0.0509 J+	7.65 J+	0.31	46.5	0.361 J	< 0.00565 U	< 0.847 U	0.239	35.9	0.239
PCB-179	52663-64-6	0.0932	14.0	0.57	85.6	0.663	0.0577	8.65	0.437	65.6	0.495
PCB-180/193	PCB-180/193	0.45 J+	67.6 J+	3.44	517	3.89 J	0.239 J+	35.8 J+	2.36	354	2.6 J
PCB-181	74472-47-2	< 0.00565 U	< 0.849 U	0.0188 J	2.82 J	0.0188 J	< 0.00565 U	< 0.847 U	0.0127 JN	1.90 JN	0.0127 J
PCB-182	60145-23-5	< 0.00565 U	< 0.849 U	0.0128 JN	1.92 JN	0.0128 J	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-183/185	PCB-183/185	0.131	19.7	0.746	112	0.877	0.0867	13.0	0.713	107	0.8
PCB-184	74472-48-3	< 0.00565 U	< 0.849 U	0.0131 J	1.97 J	0.0131 J	0.00727 JN	1.09 JN	0.00947 JN	1.42 JN	0.0167 JN
PCB-186	74472-49-4	< 0.00565 U	< 0.849 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-187	52663-68-0	0.316 J+	47.5 J+	1.47	221	1.79 J	0.191 J+	28.7 J+	1.43	215	1.62 J
PCB-188	74487-85-7	< 0.00565 U	< 0.849 U	0.00686 JN	1.03 JN	0.00686 J	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-189	39635-31-9	< 0.00565 U	< 0.849 U	0.0513 JN	7.71 JN	0.0513 J	< 0.00565 U	< 0.847 U	0.0307 JN	4.61 JN	0.0307 J
PCB-190	41411-64-7	0.0334 J+	5.01 J+	0.277	41.6	0.31 J	0.0175 JN	2.62 JN	0.243	36.4	0.26 J

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Location	T03					T04				
	Sample	PDI-WS-T03-1811					PDI-WS-T04-1812				
	Date	11/27/2018					12/1/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-191	74472-50-7	< 0.00565 U	< 0.849 U	0.0605	9.08	0.0605	< 0.00565 U	< 0.847 U	0.0368 JN	5.52 JN	0.0368 J
PCB-192	74472-51-8	< 0.00565 U	< 0.849 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-194	35694-08-7	0.113 J+	16.9 J+	0.832	125	0.945 J	0.0993 J+	14.9 J+	0.489	73.3	0.588 J
PCB-195	52663-78-2	0.0306 J+	4.60 J+	0.358	53.7	0.388 J	0.0255 J+	3.83 J+	0.195	29.3	0.221 J
PCB-196	42740-50-1	0.0712	10.7	0.48	72.1	0.551	0.0833	12.5	0.265 JN	39.7 JN	0.348 J
PCB-197/200	PCB-197/200	0.0152 J	2.29 J	0.147	22.1	0.162 J	0.0239 JN	3.58 JN	0.139	20.8	0.163 J
PCB-198/199	PCB-198/199	0.144 JN	21.7 JN	0.979	147	1.12 J	0.165	24.8	0.753	113	0.919
PCB-201	40186-71-8	0.0105 JN	1.58 JN	0.129	19.4	0.14 J	0.00953 JN	1.43 JN	0.0807 JN	12.1 JN	0.0902 JN
PCB-202	2136-99-4	0.0332 JN	4.99 JN	0.263	39.5	0.296 J	0.0236 JN	3.54 JN	0.172	25.8	0.196 J
PCB-203	52663-76-0	0.105 J+	15.7 J+	0.63	94.6	0.734 J	0.154	23.1	0.413	62.0	0.567
PCB-204	74472-52-9	< 0.00565 U	< 0.849 U	< 0.00561 U	< 0.842 U	< 0.0113 U	< 0.00565 U	< 0.847 U	< 0.00578 U	< 0.867 U	< 0.0114 U
PCB-205	74472-53-0	0.00739 JN	1.11 JN	0.0381 J	5.72 J	0.0455 J	< 0.00565 U	< 0.847 U	0.0186 JN	2.79 JN	0.0186 J
PCB-206	40186-72-9	0.157	23.6	0.568	85.3	0.725	0.183	27.4	0.411	61.6	0.593
PCB-207	52663-79-3	0.0332 JN	4.99 JN	0.0772	11.6	0.11 J	0.0308 J	4.62 J	0.0479 JN	7.18 JN	0.0787 J
PCB-208	52663-77-1	0.0605	9.09	0.206	31.0	0.267	0.0713	10.7	0.144	21.6	0.215
PCB-209	2051-24-3	0.0456 JN	6.85 JN	0.501	75.3	0.547 J	0.0418 J+	6.27 J+	0.319	47.9	0.361 J
Total PCBs (a)	T_PCBCg (PDI)	167		86.5		253	50.1		68.9		119

Notes:

Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low.
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:
- Transect 01 Volume= 150.8 L
- Transect 02 Volume = 150.2 L
- Transect 03 Volume = 150.2 L
- Transect 04 Volume = 150 L
- Transect 05 Volume = 225 L
- Transect 06 Volume = 150 L
- Transect 07 Volume = 150 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T05					T06				
Sample		PDI-WS-T05-1811					PDI-WS-T06-1811				
Date		11/27/2018					11/30/2018				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**										
Dioxins and Furans											
1,2,3,4,6,7,8-HpCDD	35822-46-9	0.0284 J+	6.38 J+	1.85	416	1.88 J	0.0158 J+	2.37 J+	1.17	175	1.18 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	0.0038 JN	0.856 JN	0.27	60.8	0.274 J	< 0.00567 U	< 0.850 U	0.205	30.7	0.205
1,2,3,4,7,8,9-HpCDF	55673-89-7	< 0.00377 U	< 0.848 U	0.016 J	3.59 J	0.016 J	< 0.00567 U	< 0.850 U	0.0138 JN	2.07 JN	0.0138 J
1,2,3,4,7,8-HxCDD	39227-28-6	< 0.00377 U	< 0.848 U	0.0227 J	5.10 J	0.0227 J	< 0.00567 U	< 0.850 U	0.0161 JN	2.41 JN	0.0161 J
1,2,3,4,7,8-HxCDF	70648-26-9	< 0.00377 U	< 0.848 U	0.016 JN	3.61 JN	0.016 J	< 0.00567 U	< 0.850 U	0.0129 JN	1.94 JN	0.0129 J
1,2,3,6,7,8-HxCDD	57653-85-7	< 0.00377 UJ	< 0.848 UJ	0.0529 J	11.9 J	0.0529 J	< 0.00567 U	< 0.850 U	0.0395 J	5.93 J	0.0395 J
1,2,3,6,7,8-HxCDF	57117-44-9	< 0.00377 U	< 0.848 U	0.012 JN	2.69 JN	0.012 J	< 0.00567 U	< 0.850 U	0.0086 J	1.29 J	0.0086 J
1,2,3,7,8,9-HxCDD	19408-74-3	< 0.00377 UJ	< 0.848 UJ	0.0596 JN	13.4 JN	0.0596 J	< 0.00567 U	< 0.850 U	0.0513 JN	7.69 JN	0.0513 J
1,2,3,7,8,9-HxCDF	72918-21-9	< 0.00377 U	< 0.848 U	< 0.00498 U	< 1.12 U	< 0.00875 U	< 0.00567 U	< 0.850 U	< 0.00661 U	< 0.991 U	< 0.0123 U
1,2,3,7,8-PeCDD	40321-76-4	< 0.00377 U	< 0.848 U	0.00738 JN	1.66 JN	0.00738 J	< 0.00567 U	< 0.850 U	0.0106 J	1.59 J	0.0106 J
1,2,3,7,8-PeCDF	57117-41-6	< 0.00377 U	< 0.848 U	< 0.00427 U	< 0.961 U	< 0.00804 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
2,3,4,6,7,8-HxCDF	60851-34-5	< 0.00377 U	< 0.848 U	0.00991 JN	2.23 JN	0.00991 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
2,3,4,7,8-PeCDF	57117-31-4	< 0.00377 U	< 0.848 U	0.00551 J	1.24 J	0.00551 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
2,3,7,8-TCDD	1746-01-6	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	0.0131 JN	1.97 JN	0.0131 J
2,3,7,8-TCDF	51207-31-9	< 0.00377 U	< 0.848 U	0.00662 J	1.49 J	0.00662 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
OCDD	3268-87-9	0.398	89.5	16.2	3650	16.6	0.202 J+	30.3 J+	12.4	1860	12.6 J
OCDF	39001-02-0	< 0.00377 U	< 0.848 U	0.631	142	0.631	< 0.00933 U	< 1.40 U	0.537	80.5	0.537
TCDD-TEQ (a)	T_DF_TEQ (PDI)	0.00233		0.0553		0.0577	0.00305		0.0552		0.0562
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	0.00229		0.0382		0.0395	0.00305		0.0363		0.038
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	0.000403		0.0363		0.0367	0.000219		0.033		0.0333
Polychlorinated Biphenyls (PCBs)											
PCB-1	2051-60-7	1.37	309	0.101 J	22.7 J	1.47 J	0.353	53.0	0.0733 J	11.0 J	0.427 J
PCB-2	2051-61-8	0.332	74.8	0.0667	15.0	0.399	0.227	34.0	0.114	17.1	0.341
PCB-3	2051-62-9	0.348	78.2	0.0756	17.0	0.423	0.207	31.1	0.08	12.0	0.287
PCB-4	13029-08-8	3.24	728	0.267 J+	60.0 J+	3.5 J	0.827	124	0.135 J+	20.3 J+	0.962 J
PCB-5	16605-91-7	< 0.0902 U	< 20.3 U	< 0.0232 U	< 5.21 U	< 0.113 U	< 0.0633 U	< 9.49 U	< 0.0187 U	< 2.81 U	< 0.082 U
PCB-6	25569-80-6	0.404	90.9	0.138 J+	31.1 J+	0.542 J	0.205 J+	30.7 J+	0.0907 J+	13.6 J+	0.295 J+
PCB-7	33284-50-3	0.16	36.1	0.0313 JN	7.05 JN	0.192 J	0.0767	11.5	0.0172 J	2.58 J	0.0939 J
PCB-8	34883-43-7	1.43	321	0.622 J+	140 J+	2.05 J	0.887 J+	133 J+	0.276 J+	41.4 J+	1.16 J+
PCB-9	34883-39-1	0.107 JN	24.1 JN	0.0386 JN	8.68 JN	0.146 JN	0.0893 J+	13.4 J+	0.0353 JN	5.30 JN	0.125 J
PCB-10	33146-45-1	0.109 JN	24.6 JN	< 0.0207 U	< 4.66 U	0.109 J	< 0.0571 U	< 8.56 U	< 0.0166 U	< 2.49 U	< 0.0737 U
PCB-11	2050-67-1	7.64 J	1720 J	1.92	433	9.57 J	4.71 J	706 J	1.26	189	5.97 J
PCB-12/13	PCB-12/13	0.267 JN	60.0 JN	0.0764	17.2	0.343 J	< 0.118 U	< 17.7 U	0.0603 JN	9.04 JN	0.0603 J
PCB-14	34883-41-5	< 0.084 U	< 18.9 U	< 0.0215 U	< 4.84 U	< 0.106 U	< 0.0601 U	< 9.01 U	< 0.0175 U	< 2.62 U	< 0.0775 U
PCB-15	2050-68-2	0.604	136	0.498	112	1.1	0.327 J+	49.1 J+	0.149 J+	22.4 J+	0.477 J+
PCB-16	38444-78-9	0.72	162	0.644	145	1.36	0.38	57.0	0.106 JN	15.9 JN	0.486 J
PCB-17	37680-66-3	1.6	361	0.898	202	2.5	0.636	95.4	0.191 J+	28.6 J+	0.827 J
PCB-18/30	PCB-18/30	1.71	384	1.52	342	3.23	0.827	124	0.313 J+	47.0 J+	1.14 J
PCB-19	38444-73-4	0.924	208	0.272	61.1	1.2	0.187 JN	28.0 JN	0.0501 JN	7.51 JN	0.237 JN
PCB-20/28	PCB-20/28	1.96	442	2.72	612	4.68	1.07 J+	161 J+	0.505 J+	75.8 J+	1.58 J+
PCB-21/33	PCB-21/33	1.99	447	1.11	249	3.09	0.626	93.9	0.253 J+	38.0 J+	0.879 J
PCB-22	38444-85-8	0.8	180	0.84	189	1.64	0.469 J+	70.3 J+	0.156 J+	23.4 J+	0.625 J+
PCB-23	55720-44-0	< 0.0183 U	< 4.11 U	< 0.00916 U	< 2.06 U	< 0.0274 U	< 0.0109 U	< 1.64 U	< 0.00619 U	< 0.929 U	< 0.0171 U
PCB-24	55702-45-9	0.0184 J+	4.15 J+	0.0191 J+	4.29 J+	0.0375 J+	0.0132 JN	1.98 JN	< 0.00564 U	< 0.846 U	0.0132 J
PCB-25	55712-37-3	0.385	86.7	0.444	100	0.83	0.215	32.2	0.0662 J+	9.93 J+	0.281 J
PCB-26/29	PCB-26/29	0.399	89.8	0.42	94.6	0.82	0.192 J+	28.8 J+	0.0867 J+	13.0 J+	0.279 J+
PCB-27	38444-76-7	0.153 J	34.5 J	0.141	31.7	0.294 J	0.101	15.1	0.0247 J+	3.71 J+	0.125 J
PCB-31	16606-02-3	1.48	333	2.07	465	3.55	0.813 J+	122 J+	0.391 J+	58.7 J+	1.2 J+
PCB-32	38444-77-8	0.68	153	0.72	162	1.4	0.229 J	34.3 J	0.115 J+	17.3 J+	0.344 J
PCB-34	37680-68-5	0.0188 JN	4.22 JN	0.0127 J	2.86 J	0.0315 J	< 0.0105 U	< 1.57 U	0.0072 JN	1.08 JN	0.0072 J
PCB-35	37680-69-6	0.0689 JN	15.5 JN	0.0631	14.2	0.132 J	0.0386 JN	5.79 JN	0.0273 JN	4.09 JN	0.0659 JN
PCB-36	38444-87-0	0.0282 J	6.35 J	0.0243 JN	5.46 JN	0.0525 J	0.0149 J	2.23 J	0.011 JN	1.65 JN	0.0259 J
PCB-37	38444-90-5	0.311	70.0	0.631	142	0.942	0.163 J+	24.4 J+	0.119 J+	17.8 J+	0.281 J+
PCB-38	53555-66-1	< 0.016 U	< 3.60 U	< 0.00809 U	< 1.82 U	< 0.0241 U	< 0.00933 U	< 1.40 U	0.0158 JN	2.37 JN	0.0158 J

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T05					T06				
Sample		PDI-WS-T05-1811					PDI-WS-T06-1811				
Date		11/27/2018					11/30/2018				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-39	38444-88-1	< 0.0166 U	< 3.73 U	0.039	8.77	0.039	< 0.0101 U	< 1.52 U	< 0.00582 U	< 0.873 U	< 0.016 U
PCB-40/41/71	PCB-40/41/71	0.707	159	1.68	378	2.39	0.391	58.6	0.253 J+	38.0 J+	0.644 J
PCB-42	36559-22-5	0.353	79.5	0.787	177	1.14	0.203 J+	30.4 J+	0.125 J+	18.8 J+	0.328 J+
PCB-43	70362-46-8	0.0493	11.1	0.115	25.9	0.164	0.0234 J	3.51 J	0.0265 J	3.98 J	0.0499 J
PCB-44/47/65	PCB-44/47/65	19.1	4300	6.53	1470	25.6	5.11	767	1.35	203	6.47
PCB-45/51	PCB-45/51	32.4	7290	1.84	414	34.2	5.57	835	0.687	103	6.25
PCB-46	41464-47-5	0.158	35.6	0.204	45.9	0.362	0.074 JN	11.1 JN	0.0299 JN	4.48 JN	0.104 JN
PCB-48	70362-47-9	0.26	58.4	0.644	145	0.904	0.145	21.8	0.11 J+	16.5 J+	0.255 J
PCB-49/69	PCB-49/69	1.24	280	1.86	419	3.11	0.615 J+	92.3 J+	0.435	65.3	1.05 J
PCB-50/53	PCB-50/53	0.422	95.0	0.533	120	0.956	0.165 JN	24.7 JN	0.084	12.6	0.249 J
PCB-52	35693-99-3	2.33	525	3.2	720	5.53	1.25	187	1.27	191	2.52
PCB-54	15968-05-5	0.0724 JN	16.3 JN	0.0341	7.68	0.107 J	0.011 JN	1.65 JN	< 0.00564 U	< 0.846 U	0.011 J
PCB-55	74338-24-2	< 0.0254 U	< 5.72 U	0.048	10.8	0.048	0.0199 JN	2.98 JN	< 0.0221 U	< 3.32 U	0.0199 J
PCB-56	41464-43-1	0.449	101	1.66	374	2.11	0.229	34.3	0.36	54.0	0.589
PCB-57	70424-67-8	< 0.0242 U	< 5.45 U	< 0.024 U	< 5.40 U	< 0.0482 U	< 0.0157 U	< 2.36 U	< 0.0196 U	< 2.94 U	< 0.0353 U
PCB-58	41464-49-7	< 0.0264 U	< 5.94 U	< 0.0249 U	< 5.60 U	< 0.0513 U	< 0.0159 U	< 2.38 U	< 0.0211 U	< 3.17 U	< 0.037 U
PCB-59/62/75	PCB-59/62/75	0.131	29.5	0.258	58.0	0.389	0.0687 J+	10.3 J+	0.048 J+	7.20 J+	0.117 J+
PCB-60	33025-41-1	0.225	50.7	0.587	132	0.812	0.133	20.0	0.134 JN	20.1 JN	0.267 J
PCB-61/70/74/76	PCB-61/70/74/76	2.08	467	5.24	1180	7.32	0.987	148	1.56	234	2.55
PCB-63	74472-34-7	0.0462	10.4	0.121	27.3	0.168	0.0211 JN	3.16 JN	< 0.0199 U	< 2.98 U	0.0211 J
PCB-64	52663-58-8	0.636	143	1.26	284	1.9	0.356 J+	53.4 J+	0.271	40.7	0.627 J
PCB-66	32598-10-0	1.08	243	3.14	706	4.22	0.504 J+	75.6 J+	0.78 J	117 J	1.28 J
PCB-67	73575-53-8	0.0252 J	5.66 J	0.0796 JN	17.9 JN	0.105 J	0.0187 JN	2.81 JN	< 0.0165 U	< 2.48 U	0.0187 J
PCB-68	73575-52-7	9.07	2040	0.951	214	10	2.31	346	0.259	38.9	2.57
PCB-72	41464-42-0	< 0.0236 U	< 5.31 U	0.025 JN	5.63 JN	0.025 J	< 0.0152 U	< 2.28 U	< 0.0191 U	< 2.87 U	< 0.0343 U
PCB-73	74338-23-1	0.0119 JN	2.67 JN	< 0.00386 U	< 0.868 U	0.0119 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-77	32598-13-3	0.108	24.3	0.295	66.4	0.403	0.043 JN	6.45 JN	0.105	15.7	0.148 J
PCB-78	70362-49-1	< 0.0224 U	< 5.04 U	< 0.0229 U	< 5.15 U	< 0.0453 U	< 0.0154 U	< 2.31 U	< 0.0202 U	< 3.03 U	< 0.0356 U
PCB-79	41464-48-6	0.0187 J	4.21 J	0.052	11.7	0.0707 J	< 0.0117 U	< 1.75 U	0.0519	7.78	0.0519
PCB-80	33284-52-5	< 0.0212 U	< 4.78 U	< 0.0216 U	< 4.86 U	< 0.0428 U	< 0.0139 U	< 2.09 U	< 0.0182 U	< 2.73 U	< 0.0321 U
PCB-81	70362-50-4	< 0.0217 U	< 4.88 U	< 0.0177 U	< 3.98 U	< 0.0394 U	< 0.0125 U	< 1.87 U	< 0.0151 U	< 2.27 U	< 0.0276 U
PCB-82	52663-62-4	0.268	60.3	0.547	123	0.815	0.0827	12.4	0.286	42.9	0.369
PCB-83/99	PCB-83/99	1.21	273	2.44	550	3.66	0.424	63.6	1.48	222	1.9
PCB-84	52663-60-2	0.516	116	1.12	253	1.64	0.241	36.1	0.601	90.1	0.841
PCB-85/116/117	PCB-85/116/117	0.384	86.4	0.8	180	1.18	0.142 J+	21.3 J+	0.468	70.2	0.61 J
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	1.29	291	2.84 J	639 J	4.13 J	0.535 J	80.3 J	1.75 J	263 J	2.29 J
PCB-88/91	PCB-88/91	0.357	80.4	0.667	150	1.02	0.125 J+	18.7 J+	0.34	51.0	0.465 J
PCB-89	73575-57-2	0.0245 JN	5.52 JN	0.0578	13.0	0.0823 J	0.013 JN	1.95 JN	0.0232 J	3.48 J	0.0362 J
PCB-90/101/113	PCB-90/101/113	1.95	438	3.94	887	5.89	0.76	114	2.46	369	3.22
PCB-92	52663-61-3	0.444	100	0.738	166	1.18	0.195 J+	29.3 J+	0.488	73.2	0.683 J
PCB-93/95/98/100/102	PCB-93/95/98/_C	1.85	416	3.3	742	5.15	0.76	114	1.82	273	2.58
PCB-94	73575-55-0	0.0239 JN	5.38 JN	0.0359	8.07	0.0598 J	< 0.00567 U	< 0.850 U	0.00813 JN	1.22 JN	0.00813 J
PCB-96	73575-54-9	0.0279 J	6.28 J	0.0409	9.20	0.0688 J	0.0072 JN	1.08 JN	0.0129 JN	1.93 JN	0.0201 JN
PCB-103	60145-21-3	0.0361	8.12	0.0693	15.6	0.105	0.00707 JN	1.06 JN	0.0249 J	3.74 J	0.032 J
PCB-104	56558-16-8	0.00427 JN	0.961 JN	0.0056 JN	1.26 JN	0.00987 JN	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-105	32598-14-4	0.582	131	1.33	300	1.92	0.22	33.0	0.98	147	1.2
PCB-106	70424-69-0	< 0.00613 U	< 1.38 U	< 0.0123 U	< 2.76 U	< 0.0184 U	< 0.00567 U	< 0.850 U	< 0.00733 U	< 1.10 U	< 0.013 U
PCB-107/124	PCB-107/124	0.0693	15.6	0.153	34.5	0.223	0.0277 JN	4.15 JN	0.142	21.3	0.17 J
PCB-109	74472-35-8	0.0982	22.1	0.261	58.7	0.359	0.0374 J	5.61 J	0.17	25.5	0.207 J
PCB-110/115	PCB-110/115	2.28	512	4.76	1070	7.03	0.927	139	2.83	425	3.76
PCB-111	39635-32-0	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-112	74472-36-9	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-114	74472-37-0	0.0386 JN	8.69 JN	0.0662	14.9	0.105 J	0.0148 JN	2.22 JN	0.0439 JN	6.59 JN	0.0587 JN
PCB-118	31508-00-6	1.34	302	3.03	681	4.37	0.532	79.8	2.12	318	2.65
PCB-120	68194-12-7	0.0107 JN	2.40 JN	0.0213 JN	4.79 JN	0.032 JN	0.00687 JN	1.03 JN	< 0.00564 U	< 0.846 U	0.00687 J

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T05					T06				
Sample		PDI-WS-T05-1811					PDI-WS-T06-1811				
Date		11/27/2018					11/30/2018				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-121	56558-18-0	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-122	76842-07-4	0.019 JN	4.27 JN	0.0649 JN	14.6 JN	0.0839 JN	< 0.00631 U	< 0.947 U	0.0271 JN	4.06 JN	0.0271 J
PCB-123	65510-44-3	0.0462 JN	10.4 JN	0.0658 JN	14.8 JN	0.112 JN	0.0184 JN	2.76 JN	0.0349 JN	5.24 JN	0.0533 JN
PCB-126	57465-28-8	< 0.00613 U	< 1.38 U	0.0269 JN	6.06 JN	0.0269 J	< 0.00567 U	< 0.850 U	0.0141 JN	2.12 JN	0.0141 J
PCB-127	39635-33-1	< 0.00596 U	< 1.34 U	< 0.0108 U	< 2.42 U	< 0.0167 U	< 0.00575 U	< 0.863 U	< 0.00813 U	< 1.22 U	< 0.0139 U
PCB-128/166	PCB-128/166	0.149	33.6	0.716	161	0.865	0.084 J+	12.6 J+	0.639	95.9	0.723 J
PCB-129/138/160/163	PCB-129/138/_C	1.19	267	5.96	1340	7.14	0.523 J+	78.5 J+	3.81	572	4.34 J
PCB-130	52663-66-8	0.0796 JN	17.9 JN	0.324	72.9	0.404 J	0.0326 JN	4.89 JN	0.257	38.5	0.289 J
PCB-131	61798-70-7	0.0205 JN	4.62 JN	0.0649	14.6	0.0854 J	< 0.00567 U	< 0.850 U	0.0573 JN	8.60 JN	0.0573 J
PCB-132	38380-05-1	0.418	94.1	2.11	475	2.53	0.175	26.3	1.27	191	1.45
PCB-133	35694-04-3	0.0287 JN	6.45 JN	0.0933	21.0	0.122 J	0.011 JN	1.65 JN	0.068 JN	10.2 JN	0.079 JN
PCB-134/143	PCB-134/143	0.0796	17.9	0.287	64.5	0.366	0.0346 J	5.19 J	0.201 JN	30.2 JN	0.236 J
PCB-135/151/154	PCB-135/151/154	0.622 J	140 J	2.22	500	2.84 J	0.263 J+	39.4 J+	1	150	1.26 J
PCB-136	38411-22-2	0.18 JN	40.6 JN	0.707	159	0.887 J	0.0667 JN	10.0 JN	0.333	49.9	0.399 J
PCB-137	35694-06-5	0.06	13.5	0.184	41.4	0.244	0.0291 JN	4.37 JN	0.211	31.6	0.24 J
PCB-139/140	PCB-139/140	0.0213 J	4.80 J	0.0889 JN	20.0 JN	0.11 J	0.0105 JN	1.58 JN	0.0813 JN	12.2 JN	0.0919 JN
PCB-141	52712-04-6	0.19	42.7	1.02	230	1.21	0.0827 J+	12.4 J+	0.639	95.9	0.722 J
PCB-142	41411-61-4	< 0.00377 U	< 0.848 U	< 0.0111 U	< 2.50 U	< 0.0149 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-144	68194-14-9	0.0778 JN	17.5 JN	0.26	58.4	0.337 J	0.0273 JN	4.10 JN	0.127	19.0	0.154 J
PCB-145	74472-40-5	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-146	51908-16-8	0.236	53.2	0.991	223	1.23	0.135 J+	20.3 J+	0.539	80.9	0.675 J
PCB-147/149	PCB-147/149	1.39	313	4.49	1010	5.88	0.637	95.6	2.56	384	3.2
PCB-148	74472-41-6	0.0101 JN	2.27 JN	0.0152 JN	3.42 JN	0.0253 JN	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-150	68194-08-1	0.00524 J	1.18 J	0.0168 JN	3.77 JN	0.022 J	< 0.00567 U	< 0.850 U	0.00753 JN	1.13 JN	0.00753 J
PCB-152	68194-09-2	< 0.00377 U	< 0.848 U	0.00707 J	1.59 J	0.00707 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-153/168	PCB-153/168	1.23	276	4.84	1090	6.07	0.484 J+	72.6 J+	2.95	442	3.43 J
PCB-155	33979-03-2	0.00609 JN	1.37 JN	0.00782 J	1.76 J	0.0139 J	< 0.00567 U	< 0.850 U	0.00847 JN	1.27 JN	0.00847 J
PCB-156/157	PCB-156/157	0.113	25.4	0.636	143	0.748	0.0515 JN	7.72 JN	0.465	69.8	0.517 J
PCB-158	74472-42-7	0.112	25.3	0.52	117	0.632	0.0427 JN	6.41 JN	0.401	60.2	0.444 J
PCB-159	39635-35-3	0.0126 JN	2.83 JN	0.0831 JN	18.7 JN	0.0957 JN	< 0.00567 U	< 0.850 U	0.0465 JN	6.98 JN	0.0465 J
PCB-161	74472-43-8	< 0.00377 U	< 0.848 U	< 0.00649 U	< 1.46 U	< 0.0103 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-162	39635-34-2	< 0.00377 U	< 0.848 U	0.0135 JN	3.03 JN	0.0135 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-164	74472-45-0	0.0702 JN	15.8 JN	0.426	95.8	0.496 J	0.0373 JN	5.59 JN	0.253	37.9	0.29 J
PCB-165	74472-46-1	< 0.00377 U	< 0.848 U	< 0.00804 U	< 1.81 U	< 0.0118 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-167	52663-72-6	0.0384 JN	8.63 JN	0.247	55.5	0.285 J	0.0212 J+	3.18 J+	0.154	23.1	0.175 J
PCB-169	32774-16-6	< 0.00377 U	< 0.848 U	< 0.00649 U	< 1.46 U	< 0.0103 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-170	35065-30-6	0.123	27.6	1.77	398	1.89	0.068 J+	10.2 J+	0.733	110	0.801 J
PCB-171/173	PCB-171/173	0.0471 JN	10.6 JN	0.462	104	0.509 J	0.0259 JN	3.89 JN	0.256 JN	38.4 JN	0.282 JN
PCB-172	52663-74-8	0.0256 J	5.75 J	0.301	67.7	0.326 J	0.0183 JN	2.74 JN	0.155	23.3	0.174 J
PCB-174	38411-25-5	0.137 JN	30.9 JN	1.43	321	1.56 J	0.0613 J+	9.20 J+	0.753	113	0.815 J
PCB-175	40186-70-7	0.00662 JN	1.49 JN	0.0671	15.1	0.0737 J	< 0.00567 U	< 0.850 U	0.0317 JN	4.76 JN	0.0317 J
PCB-176	52663-65-7	0.0193 JN	4.34 JN	0.207	46.6	0.226 J	< 0.00567 U	< 0.850 U	0.0953	14.3	0.0953
PCB-177	52663-70-4	0.084 JN	18.9 JN	1.06	238	1.14 J	0.0423 JN	6.35 JN	0.439	65.8	0.481 J
PCB-178	52663-67-9	0.044 JN	9.90 JN	0.374	84.1	0.418 J	0.0376 JN	5.64 JN	0.2	30.0	0.238 J
PCB-179	52663-64-6	0.0716	16.1	0.72	162	0.792	0.0303 JN	4.55 JN	0.305	45.8	0.336 J
PCB-180/193	PCB-180/193	0.406 J+	91.4 J+	4.8	1080	5.21 J	0.203 J+	30.5 J+	1.87	280	2.07 J
PCB-181	74472-47-2	< 0.00377 U	< 0.848 U	0.018 JN	4.04 JN	0.018 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-182	60145-23-5	< 0.00377 U	< 0.848 U	0.0104 J	2.35 J	0.0104 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-183/185	PCB-183/185	0.101 JN	22.8 JN	1.07	241	1.17 J	0.0522 J+	7.83 J+	0.47	70.5	0.522 J
PCB-184	74472-48-3	0.00462 JN	1.04 JN	0.00933 J	2.10 J	0.014 J	< 0.00567 U	< 0.850 U	0.0123 J	1.85 J	0.0123 J
PCB-186	74472-49-4	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-187	52663-68-0	0.221	49.8	1.97	443	2.19	0.165 JN	24.8 JN	1.03	155	1.2 J
PCB-188	74487-85-7	< 0.00377 U	< 0.848 U	0.006 JN	1.35 JN	0.006 J	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-189	39635-31-9	0.00438 JN	0.986 JN	0.0622	14.0	0.0666 J	< 0.00567 U	< 0.850 U	0.0183 JN	2.75 JN	0.0183 J
PCB-190	41411-64-7	0.0332 JN	7.48 JN	0.339	76.3	0.372 J	0.0161 JN	2.41 JN	0.187	28.0	0.203 J

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Location	T05					T06				
	Sample	PDI-WS-T05-1811					PDI-WS-T06-1811				
	Date	11/27/2018					11/30/2018				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-191	74472-50-7	0.00773 JN	1.74 JN	0.0702 JN	15.8 JN	0.078 JN	< 0.00567 U	< 0.850 U	0.0306 JN	4.59 JN	0.0306 J
PCB-192	74472-51-8	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-194	35694-08-7	0.144	32.3	1.09	245	1.23	0.0585 JN	8.78 JN	0.437	65.5	0.495 J
PCB-195	52663-78-2	0.0467	10.5	0.435	97.9	0.482	0.0191 JN	2.87 JN	0.183	27.5	0.202 J
PCB-196	42740-50-1	0.124	28.0	0.622	140	0.747	0.0299 J+	4.49 J+	0.206	30.9	0.236 J
PCB-197/200	PCB-197/200	0.0268 JN	6.04 JN	0.2	45.0	0.227 J	0.0159 J	2.39 J	0.0753	11.3	0.0913 J
PCB-198/199	PCB-198/199	0.223	50.2	1.41	317	1.63	0.082 JN	12.3 JN	0.575	86.2	0.657 J
PCB-201	40186-71-8	0.0154 JN	3.46 JN	0.169	38.0	0.184 J	< 0.00567 U	< 0.850 U	0.0713	10.7	0.0713
PCB-202	2136-99-4	0.0355	7.99	0.337 JN	75.8 JN	0.372 J	0.0132 JN	1.98 JN	0.157	23.6	0.171 J
PCB-203	52663-76-0	0.151 JN	33.9 JN	0.947	213	1.1 J	0.0379 JN	5.69 JN	0.331	49.6	0.369 J
PCB-204	74472-52-9	< 0.00377 U	< 0.848 U	< 0.00386 U	< 0.868 U	< 0.00763 U	< 0.00567 U	< 0.850 U	< 0.00564 U	< 0.846 U	< 0.0113 U
PCB-205	74472-53-0	0.00436 JN	0.981 JN	0.0596	13.4	0.0639 J	< 0.00567 U	< 0.850 U	0.0229 J	3.44 J	0.0229 J
PCB-206	40186-72-9	0.262	59.0	0.742	167	1	0.0503 JN	7.55 JN	0.356	53.4	0.406 J
PCB-207	52663-79-3	0.0388	8.72	0.092 JN	20.7 JN	0.131 J	< 0.0153 U	< 2.29 U	0.0491 JN	7.37 JN	0.0491 J
PCB-208	52663-77-1	0.105	23.6	0.268	60.4	0.373	0.0181 J	2.72 J	0.14	21.0	0.158 J
PCB-209	2051-24-3	0.0345 JN	7.77 JN	0.573	129	0.608 J	0.0313 JN	4.70 JN	0.329	49.3	0.36 J
Total PCBs (a)	T_PCBCg (PDI)	122		122		244	41.1		54.4		95.5

Notes:

Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low.
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:
- Transect 01 Volume= 150.8 L
- Transect 02 Volume = 150.2 L
- Transect 03 Volume = 150.2 L
- Transect 04 Volume = 150 L
- Transect 05 Volume = 225 L
- Transect 06 Volume = 150 L
- Transect 07 Volume = 150 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Location	T07				
		Sample	PDI-WS-T07-1811				
		Date	11/28/2018				
		Sample Type	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**						
Dioxins and Furans							
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.0212 JN	3.18 JN	1.87	280	1.89 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		< 0.00567 U	< 0.851 U	0.233	34.9	0.233
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.00567 U	< 0.851 U	0.0189 JN	2.83 JN	0.0189 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.00567 U	< 0.851 U	0.0241 J	3.61 J	0.0241 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.00567 U	< 0.851 U	0.0134 JN	2.01 JN	0.0134 J
1,2,3,6,7,8-HxCDD	57653-85-7		< 0.00567 UJ	< 0.851 UJ	0.0544 J	8.16 J	0.0544 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.00567 U	< 0.851 U	0.0119 J	1.78 J	0.0119 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.00567 UJ	< 0.851 UJ	0.0501 JN	7.51 JN	0.0501 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.00567 U	< 0.851 U	0.00629 JN	0.944 JN	0.00629 J
1,2,3,7,8-PeCDF	57117-41-6		< 0.00567 U	< 0.851 U	0.00614 JN	0.921 JN	0.00614 J
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.00567 U	< 0.851 U	0.00853 J	1.28 J	0.00853 J
2,3,4,7,8-PeCDF	57117-31-4		< 0.00567 U	< 0.851 U	0.00625 JN	0.937 JN	0.00625 J
2,3,7,8-TCDD	1746-01-6		< 0.00567 U	< 0.851 U	0.007 JN	1.05 JN	0.007 J
2,3,7,8-TCDF	51207-31-9		< 0.00567 U	< 0.851 U	0.00576 JN	0.864 JN	0.00576 J
OCDD	3268-87-9		0.311	46.6	15.4	2310	15.7
OCDF	39001-02-0		< 0.00567 U	< 0.851 U	0.687	103	0.687
TCDD-TEQ	(a) T_DF_TEQ (PDI)		0.00314		0.0585		0.0591
TCDD-TEQ (EMPC=half)	(b) T_DF_TEQ(E_0.5)		0.00293		0.0375		0.039
TCDD-TEQ (EMPC=0)	(b) T_DF_TEQ(E_0)		0.0000933		0.0357		0.0358
Polychlorinated Biphenyls (PCBs)							
PCB-1	2051-60-7		0.92	138	0.09 J	13.5 J	1.01 J
PCB-2	2051-61-8		0.225	33.7	0.065	9.75	0.29
PCB-3	2051-62-9		0.237	35.6	0.0639 JN	9.59 JN	0.301 J
PCB-4	13029-08-8		1.51	226	0.177 JN	26.6 JN	1.68 J
PCB-5	16605-91-7		0.0439 JN	6.58 JN	< 0.0284 U	< 4.26 U	0.0439 J
PCB-6	25569-80-6		0.275	41.2	0.0893 J+	13.4 J+	0.364 J
PCB-7	33284-50-3		0.115 JN	17.2 JN	< 0.0258 U	< 3.87 U	0.115 J
PCB-8	34883-43-7		1.05 J+	158 J+	0.341 J+	51.1 J+	1.39 J+
PCB-9	34883-39-1		0.102 J+	15.3 J+	0.0353 J+	5.29 J+	0.137 J+
PCB-10	33146-45-1		0.0651	9.77	< 0.0252 U	< 3.78 U	0.0651
PCB-11	2050-67-1		5.5	825	1.82	273	7.32
PCB-12/13	PCB-12/13		0.286 JN	42.9 JN	< 0.0273 U	< 4.10 U	0.286 J
PCB-14	34883-41-5		< 0.0377 U	< 5.66 U	< 0.0265 U	< 3.97 U	< 0.0642 U
PCB-15	2050-68-2		0.411 J+	61.7 J+	0.175 J+	26.3 J+	0.587 J+
PCB-16	38444-78-9		0.426	63.9	0.135 J+	20.3 J+	0.561 J
PCB-17	37680-66-3		1.05	157	0.275 J+	41.2 J+	1.32 J
PCB-18/30	PCB-18/30		0.907	136	0.325 J+	48.8 J+	1.23 J
PCB-19	38444-73-4		0.232 JN	34.8 JN	0.0526 JN	7.89 JN	0.285 JN
PCB-20/28	PCB-20/28		1.25 J+	188 J+	0.559 J+	83.8 J+	1.81 J+
PCB-21/33	PCB-21/33		1.55	233	0.321 J+	48.2 J+	1.87 J
PCB-22	38444-85-8		0.539	80.9	0.205 J+	30.7 J+	0.744 J
PCB-23	55720-44-0		< 0.0261 U	< 3.92 U	< 0.00554 U	< 0.831 U	< 0.0317 U
PCB-24	55702-45-9		0.0237 JN	3.56 JN	0.007 JN	1.05 JN	0.0307 JN
PCB-25	55712-37-3		0.305	45.8	0.092	13.8	0.397
PCB-26/29	PCB-26/29		0.211 J+	31.7 J+	0.114 J+	17.1 J+	0.325 J+
PCB-27	38444-76-7		0.111 JN	16.7 JN	0.0281 JN	4.22 JN	0.139 JN
PCB-31	16606-02-3		0.987	148	0.443 J+	66.4 J+	1.43 J
PCB-32	38444-77-8		0.379 JN	56.8 JN	0.13 J+	19.5 J+	0.509 J
PCB-34	37680-68-5		< 0.0248 U	< 3.72 U	0.00662 JN	0.993 JN	0.00662 J
PCB-35	37680-69-6		0.0547 J	8.21 J	0.0372 J	5.58 J	0.0919 J
PCB-36	38444-87-0		0.0277 J	4.16 J	0.0203 J	3.05 J	0.0481 J
PCB-37	38444-90-5		0.178 J+	26.7 J+	0.139 JN	20.9 JN	0.317 J
PCB-38	53555-66-1		< 0.0229 U	< 3.43 U	< 0.00554 U	< 0.831 U	< 0.0284 U

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T07				
Sample		PDI-WS-T07-1811				
Date		11/28/2018				
Sample Type		N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-39	38444-88-1	< 0.0237 U	< 3.55 U	< 0.00554 U	< 0.831 U	< 0.0292 U
PCB-40/41/71	PCB-40/41/71	0.371 J+	55.6 J+	0.293	43.9	0.663 J
PCB-42	36559-22-5	0.189 J+	28.4 J+	0.136	20.4	0.325 J
PCB-43	70362-46-8	0.0308 JN	4.62 JN	0.023 JN	3.45 JN	0.0538 JN
PCB-44/47/65	PCB-44/47/65	13.3	1990	4.99	749	18.3
PCB-45/51	PCB-45/51	29.1	4360	1.63	244	30.7
PCB-46	41464-47-5	0.0887	13.3	< 0.00554 U	< 0.831 U	0.0887
PCB-48	70362-47-9	0.144 JN	21.6 JN	0.0907 JN	13.6 JN	0.235 JN
PCB-49/69	PCB-49/69	0.687 J+	103 J+	0.405	60.7	1.09 J
PCB-50/53	PCB-50/53	0.178	26.7	0.0847	12.7	0.263
PCB-52	35693-99-3	1.26	189	0.86	129	2.12
PCB-54	15968-05-5	0.00727 J	1.09 J	< 0.00554 U	< 0.831 U	0.00727 J
PCB-55	74338-24-2	< 0.0191 U	< 2.87 U	< 0.0253 U	< 3.79 U	< 0.0444 U
PCB-56	41464-43-1	0.185	27.7	0.295	44.2	0.479
PCB-57	70424-67-8	< 0.0182 U	< 2.73 U	< 0.0224 U	< 3.36 U	< 0.0406 U
PCB-58	41464-49-7	< 0.0199 U	< 2.98 U	< 0.0242 U	< 3.63 U	< 0.0441 U
PCB-59/62/75	PCB-59/62/75	0.0793 J+	11.9 J+	0.0579 JN	8.69 JN	0.137 J
PCB-60	33025-41-1	0.103 J+	15.4 J+	0.123 JN	18.5 JN	0.226 J
PCB-61/70/74/76	PCB-61/70/74/76	0.88	132	1.08	162	1.96
PCB-63	74472-34-7	0.0251 J	3.76 J	< 0.0227 U	< 3.41 U	0.0251 J
PCB-64	52663-58-8	0.327 J+	49.1 J+	0.246	36.9	0.573 J
PCB-66	32598-10-0	0.465 J+	69.7 J+	0.656 J	98.4 J	1.12 J
PCB-67	73575-53-8	0.0196 JN	2.94 JN	< 0.0189 U	< 2.83 U	0.0196 J
PCB-68	73575-52-7	7.13	1070	0.987	148	8.12
PCB-72	41464-42-0	< 0.0177 U	< 2.66 U	< 0.0219 U	< 3.28 U	< 0.0396 U
PCB-73	74338-23-1	0.00617 JN	0.926 JN	< 0.00554 U	< 0.831 U	0.00617 J
PCB-77	32598-13-3	0.063 JN	9.45 JN	0.096	14.4	0.159 J
PCB-78	70362-49-1	< 0.0169 U	< 2.53 U	< 0.0231 U	< 3.46 U	< 0.0399 U
PCB-79	41464-48-6	0.0149 JN	2.23 JN	0.0221 J	3.32 J	0.037 J
PCB-80	33284-52-5	< 0.016 U	< 2.40 U	< 0.0208 U	< 3.12 U	< 0.0368 U
PCB-81	70362-50-4	< 0.0155 U	< 2.32 U	< 0.0169 U	< 2.53 U	< 0.0323 U
PCB-82	52663-62-4	0.0933 JN	14.0 JN	0.157 JN	23.6 JN	0.251 JN
PCB-83/99	PCB-83/99	0.502	75.3	0.86	129	1.36
PCB-84	52663-60-2	0.233	34.9	0.291	43.7	0.524
PCB-85/116/117	PCB-85/116/117	0.147 J+	22.0 J+	0.279	41.8	0.425 J
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	0.608 J	91.2 J	0.94 J	141 J	1.55 J
PCB-88/91	PCB-88/91	0.157	23.6	0.173	25.9	0.33
PCB-89	73575-57-2	0.0107 JN	1.61 JN	< 0.00554 U	< 0.831 U	0.0107 J
PCB-90/101/113	PCB-90/101/113	0.873	131	1.35	203	2.23
PCB-92	52663-61-3	0.231	34.7	0.282	42.3	0.513
PCB-93/95/98/100/102	PCB-93/95/98/_C	0.927	139	0.94	141	1.87
PCB-94	73575-55-0	< 0.00601 U	< 0.902 U	< 0.00554 U	< 0.831 U	< 0.0116 U
PCB-96	73575-54-9	0.00953 JN	1.43 JN	0.00558 JN	0.837 JN	0.0151 JN
PCB-103	60145-21-3	0.0144 JN	2.16 JN	0.0117 JN	1.75 JN	0.0261 JN
PCB-104	56558-16-8	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-105	32598-14-4	0.217	32.5	0.567	85.1	0.784
PCB-106	70424-69-0	< 0.00649 U	< 0.974 U	< 0.00747 U	< 1.12 U	< 0.014 U
PCB-107/124	PCB-107/124	0.0245 J	3.67 J	0.0747 JN	11.2 JN	0.0991 J
PCB-109	74472-35-8	0.0431 JN	6.47 JN	0.123	18.5	0.166 J
PCB-110/115	PCB-110/115	1.01	152	1.64	246	2.65
PCB-111	39635-32-0	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-112	74472-36-9	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-114	74472-37-0	0.0176 J	2.64 J	0.0358 JN	5.37 JN	0.0534 J
PCB-118	31508-00-6	0.535	80.2	1.26	189	1.79
PCB-120	68194-12-7	< 0.00567 U	< 0.851 U	0.0115 JN	1.73 JN	0.0115 J

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

Location		T07				
Sample		PDI-WS-T07-1811				
Date		11/28/2018				
Sample Type		N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-121	56558-18-0	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-122	76842-07-4	< 0.00664 U	< 0.996 U	0.0191 JN	2.86 JN	0.0191 J
PCB-123	65510-44-3	0.0245 JN	3.67 JN	0.0246 JN	3.69 JN	0.0491 JN
PCB-126	57465-28-8	< 0.00617 U	< 0.926 U	0.0167 JN	2.51 JN	0.0167 J
PCB-127	39635-33-1	< 0.00631 U	< 0.946 U	< 0.0082 U	< 1.23 U	< 0.0145 U
PCB-128/166	PCB-128/166	0.0693 J+	10.4 J+	0.388	58.2	0.457 J
PCB-129/138/160/163	PCB-129/138/_C	0.546 J+	81.9 J+	2.71	406	3.25 J
PCB-130	52663-66-8	0.0353 J+	5.29 J+	0.152	22.8	0.187 J
PCB-131	61798-70-7	0.0106 J	1.59 J	0.0185 J	2.78 J	0.0291 J
PCB-132	38380-05-1	0.184	27.6	0.74	111	0.924
PCB-133	35694-04-3	< 0.00656 U	< 0.984 U	0.0321 JN	4.82 JN	0.0321 J
PCB-134/143	PCB-134/143	0.039 JN	5.85 JN	0.123	18.5	0.162 J
PCB-135/151/154	PCB-135/151/154	0.334	50.1	0.713	107	1.05
PCB-136	38411-22-2	0.0657	9.85	0.201	30.1	0.266
PCB-137	35694-06-5	0.0316 JN	4.74 JN	0.0967 JN	14.5 JN	0.128 JN
PCB-139/140	PCB-139/140	0.0108 JN	1.62 JN	0.0221 JN	3.32 JN	0.0329 JN
PCB-141	52712-04-6	0.0887 J+	13.3 J+	0.481	72.1	0.569 J
PCB-142	41411-61-4	< 0.00567 U	< 0.851 U	< 0.00987 U	< 1.48 U	< 0.0155 U
PCB-144	68194-14-9	0.0303 J	4.54 J	0.0813 JN	12.2 JN	0.112 J
PCB-145	74472-40-5	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-146	51908-16-8	0.135 J+	20.2 J+	0.39	58.5	0.525 J
PCB-147/149	PCB-147/149	0.636	95.4	1.82	273	2.46
PCB-148	74472-41-6	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-150	68194-08-1	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-152	68194-09-2	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-153/168	PCB-153/168	0.598	89.7	2.17	326	2.77
PCB-155	33979-03-2	< 0.00567 U	< 0.851 U	0.00913 J	1.37 J	0.00913 J
PCB-156/157	PCB-156/157	0.0487 J+	7.31 J+	0.286	42.9	0.335 J
PCB-158	74472-42-7	0.0525	7.87	0.252	37.8	0.304
PCB-159	39635-35-3	< 0.00567 U	< 0.851 U	0.0606 JN	9.09 JN	0.0606 J
PCB-161	74472-43-8	< 0.00567 U	< 0.851 U	< 0.00649 U	< 0.974 U	< 0.0122 U
PCB-162	39635-34-2	< 0.00567 U	< 0.851 U	< 0.00621 U	< 0.932 U	< 0.0119 U
PCB-164	74472-45-0	0.0384 JN	5.76 JN	0.181 JN	27.1 JN	0.219 JN
PCB-165	74472-46-1	< 0.00567 U	< 0.851 U	< 0.0076 U	< 1.14 U	< 0.0133 U
PCB-167	52663-72-6	0.0199 JN	2.99 JN	0.1	15.0	0.12 J
PCB-169	32774-16-6	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-170	35065-30-6	0.0707 J+	10.6 J+	0.82	123	0.891 J
PCB-171/173	PCB-171/173	0.021 JN	3.15 JN	0.236	35.4	0.257 J
PCB-172	52663-74-8	0.0133 JN	1.99 JN	0.173	26.0	0.187 J
PCB-174	38411-25-5	0.0753 J+	11.3 J+	0.9	135	0.975 J
PCB-175	40186-70-7	< 0.00567 U	< 0.851 U	0.029 JN	4.35 JN	0.029 J
PCB-176	52663-65-7	0.0133 J	2.00 J	0.0973 JN	14.6 JN	0.111 J
PCB-177	52663-70-4	0.0449 JN	6.74 JN	0.476	71.4	0.521 J
PCB-178	52663-67-9	0.0191 JN	2.87 JN	0.203	30.5	0.222 J
PCB-179	52663-64-6	0.0417 J	6.25 J	0.337	50.5	0.378 J
PCB-180/193	PCB-180/193	0.227 J+	34.1 J+	2.39	359	2.62 J
PCB-181	74472-47-2	< 0.00567 U	< 0.851 U	0.007 JN	1.05 JN	0.007 J
PCB-182	60145-23-5	< 0.00567 UJ	< 0.851 UJ	0.00623 JN	0.934 JN	0.00623 J
PCB-183/185	PCB-183/185	0.0546 JN	8.19 JN	0.576	86.4	0.631 J
PCB-184	74472-48-3	< 0.00567 U	< 0.851 U	0.0205 JN	3.07 JN	0.0205 J
PCB-186	74472-49-4	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-187	52663-68-0	0.12 J+	18.0 J+	1.29	193	1.41 J
PCB-188	74487-85-7	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-189	39635-31-9	< 0.00567 U	< 0.851 U	0.0259 JN	3.88 JN	0.0259 J
PCB-190	41411-64-7	< 0.0107 U	< 1.61 U	0.214	32.1	0.214

Table A.4a-5. Results for PDI Storm-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Location	T07				
	Sample	PDI-WS-T07-1811				
	Date	11/28/2018				
	Sample Type	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-191	74472-50-7	< 0.00567 U	< 0.851 U	0.0443 J	6.64 J	0.0443 J
PCB-192	74472-51-8	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-194	35694-08-7	0.0424 J+	6.36 J+	0.613	92.0	0.656 J
PCB-195	52663-78-2	0.0131 J+	1.96 J+	0.23	34.5	0.243 J
PCB-196	42740-50-1	0.0244 JN	3.66 JN	0.323	48.5	0.348 J
PCB-197/200	PCB-197/200	0.0147 JN	2.21 JN	0.0987	14.8	0.113 J
PCB-198/199	PCB-198/199	0.047 J+	7.05 J+	0.847	127	0.894 J
PCB-201	40186-71-8	< 0.00567 U	< 0.851 U	0.0727	10.9	0.0727
PCB-202	2136-99-4	0.0223 J+	3.35 J+	0.155	23.2	0.177 J
PCB-203	52663-76-0	0.0331 JN	4.97 JN	0.539	80.9	0.572 J
PCB-204	74472-52-9	< 0.00567 U	< 0.851 U	< 0.00554 U	< 0.831 U	< 0.0112 U
PCB-205	74472-53-0	< 0.00567 U	< 0.851 U	0.0369 J	5.53 J	0.0369 J
PCB-206	40186-72-9	0.0405 J	6.07 J	0.439	65.8	0.479 J
PCB-207	52663-79-3	< 0.0131 U	< 1.97 U	0.0511 JN	7.67 JN	0.0511 J
PCB-208	52663-77-1	0.0201 JN	3.01 JN	0.121	18.2	0.141 J
PCB-209	2051-24-3	0.0253 JN	3.79 JN	0.29	43.5	0.315 J
Total PCBs (a)	T_PCBCg (PDI)	83.3		49.6		133

Notes:

Qualifiers:
- J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.
- +/- = Indicates the result may be biased high/low.
- JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U = Not detected at detection limit shown.
- UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:
- Transect 01 Volume= 150.8 L
- Transect 02 Volume = 150.2 L
- Transect 03 Volume = 150.2 L
- Transect 04 Volume = 150 L
- Transect 05 Volume = 225 L
- Transect 06 Volume = 150 L
- Transect 07 Volume = 150 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.4a-6. Results for PDI Storm-Flow Surface Water Samples - Pesticides and PAHs

		Sample Location	T01					T02				
		Date	PDI-WS-T01-1811 11/28/2018					PDI-WS-T02-1811 11/30/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.00558 J	0.842 J	0.00362 J	0.547 J	0.0092 J	0.00444 J	0.667 J	0.006 J	0.901 J	0.0104 J
2,4-DDE	3424-82-6		0.000656 JN	0.099 JN	0.000656 J	0.099 J	0.00131 J	0.000606 JN	0.091 JN	0.00111 J	0.167 J	0.00172 J
2,4-DDT	789-02-6		0.00109 JN	0.164 JN	0.00215 J	0.324 J	0.00323 J	0.00143 JN	0.215 JN	0.00726 J	1.09 J	0.00869 J
4,4'-DDD	72-54-8		0.0129 J	1.95 J	0.00907 J	1.37 J	0.022 J	0.0119 J	1.79 J	0.0162 J	2.44 J	0.0282 J
4,4'-DDE	72-55-9		0.0119 J	1.79 J	0.0179 J	2.71 J	0.0298 J	0.014 J	2.11 J	0.0407	6.12	0.0548 J
4,4'-DDT	50-29-3		0.00188 J	0.284 J	0.0164 J	2.47 J	0.0182 J	0.00385 J	0.579 J	0.0296	4.45	0.0335 J
DDD	T_DDD (PDI)	(a)	0.0185		0.0127		0.0312	0.0163		0.0222		0.0386
DDE	T_DDE (PDI)	(a)	0.0126		0.0186		0.0311	0.0146		0.0418		0.0565
DDT	T_DDT (PDI)	(a)	0.00297		0.0186		0.0214	0.00528		0.0369		0.0422
DDx	T_DDx (PDI)	(a)	0.034		0.0498		0.0837	0.0362		0.101		0.137
Aldrin	309-00-2		< 0.000391 U	< 0.0591 U	0.000523 JN	0.079 JN	0.000523 J	< 0.000699 U	< 0.105 U	0.000839 JN	0.126 JN	0.000839 J
alpha-Chlordane	5103-71-9		0.00269 J	0.406 J	0.00115 JN	0.174 JN	0.00384 J	0.003 J	0.451 J	0.00238 J	0.357 J	0.00538 J
cis-Nonachlor	5103-73-1		0.000954 JN	0.144 JN	0.00117 JN	0.177 JN	0.00213 JN	0.000965 J	0.145 J	0.00174 JN	0.262 JN	0.00271 J
Oxychlordane	27304-13-8		< 0.000854 U	< 0.129 U	0.00043 J	0.065 J	0.00043 J	< 0.000759 U	< 0.114 U	0.000752 JN	0.113 JN	0.000752 J
trans-Chlordane	5103-74-2		0.00217 J	0.327 J	0.00128 JN	0.194 JN	0.00345 J	0.00238 J	0.357 J	0.0026 J	0.390 J	0.00497 J
trans-Nonachlor	39765-80-5		0.00225 J	0.340 J	0.00164 J+	0.247 J+	0.00389 J	0.00238 J	0.358 J	0.00346 J	0.519 J	0.00584 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.00849		0.00567		0.0137	0.0091		0.0109		0.0197
Semivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0283	4.28	0.00328 J	0.495 J	0.0316 J	0.0255	3.83	0.00448 J	0.673 J	0.03 J
Benz(a)anthracene	56-55-3		0.0967 JN	14.6 JN	0.295 JN	44.5 JN	0.391 JN	0.0826 JN	12.4 JN	0.474 JN	71.2 JN	0.557 JN
Benzo(a)pyrene	50-32-8		< 0.0213 U	< 3.21 U	0.314 J	47.4 J	0.314 J	< 0.0179 U	< 2.69 U	0.571	85.8	0.571
Benzo(b)fluoranthene	205-99-2		0.0131 JN	1.98 JN	0.344 J	51.9 J	0.357 J	0.0267 J	4.01 J	0.579	86.9	0.605 J
Benzo(g,h,i)perylene	191-24-2		< 0.0169 U	< 2.55 U	0.359 J	54.2 J	0.359 J	< 0.0162 U	< 2.44 U	0.646	97.0	0.646
Benzo(j,k)fluoranthene	BKJFLANTH		0.0349 JN	5.27 JN	0.395 J	59.7 J	0.43 J	0.022 JN	3.31 JN	0.492	73.9	0.514 J
Chrysene	218-01-9		0.198 J	29.9 J	0.477 J	72.1 J	0.675 J	0.174 J	26.1 J	0.739	111	0.913 J
Dibenz(a,h)anthracene	53-70-3		< 0.0186 U	< 2.81 U	0.0523 J+	7.89 J+	0.0523 J	< 0.0129 U	< 1.94 U	0.0799 J+	12.0 J+	0.0799 J
Naphthalene	91-20-3		6.69 J+	1010 J+	0.236 J+	35.6 J+	6.92 J+	6.58 J+	989 J+	0.354 J+	53.2 J+	6.94 J+
Indeno(1,2,3-cd)pyrene	193-39-5		< 0.0189 U	< 2.85 U	0.303 JN	45.8 JN	0.303 J	0.0194 JN	2.91 JN	0.518	77.8	0.537 J
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.0222		0.465		0.476	0.0222		0.814		0.827

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume= 150.8 L

Transect 02 Volume = 150.2 L

Transect 03 Volume = 150.2 L

Transect 04 Volume = 150 L

Transect 05 Volume = 225 L

Transect 06 Volume = 150 L

Transect 07 Volume = 150 L

Acronyms:

BaP = benzo(a)pyrene

CAS_RN = Chemical Abstracts Service Registry Number

DDD = dichlorodiphenyldichloroethane

DDE = dichlorodiphenyldichloroethylene

DDT = dichlorodiphenyltrichloroethane

DDx = dichlorodiphenyltrichloroethane and its derivatives

EPA = U.S. Environmental Protection Agency

L = liter

N = normal field sample

ng = nanogram

PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

TEQ = toxicity equivalence

Table A.4a-6. Results for PDI Storm-Flow Surface Water Samples - Pesticides and PAHs

		Sample Location	T03					T04				
		Date	PDI-WS-T03-1811					PDI-WS-T04-1812				
			11/27/2018					12/1/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.00556 J	0.835 J	0.00407 J	0.611 J	0.00963 J	0.00561 J	0.841 J	0.00482 J	0.723 J	0.0104 J
2,4-DDE	3424-82-6		0.000513 JN	0.077 JN	0.000559 J	0.084 J	0.00107 J	0.000627 J	0.094 J	0.00064 J	0.096 J	0.00127 J
2,4-DDT	789-02-6		0.00125 JN	0.188 JN	0.00184 J	0.276 J	0.00309 J	0.00119 JN	0.178 JN	0.00262 J	0.393 J	0.00381 J
4,4'-DDD	72-54-8		0.0128 J	1.93 J	0.00892 J	1.34 J	0.0218 J	0.0119 J	1.79 J	0.0105 J	1.58 J	0.0225 J
4,4'-DDE	72-55-9		0.0114 J	1.71 J	0.0155 J	2.33 J	0.0269 J	0.0101 J	1.51 J	0.0168 J	2.52 J	0.0269 J
4,4'-DDT	50-29-3		0.00271 J	0.407 J	0.00779 J	1.17 J	0.0105 J	0.00269 J	0.404 J	0.0293	4.39	0.032 J
DDD (a)	T_DDD (PDI)		0.0184		0.013		0.0314	0.0175		0.0153		0.0329
DDE (a)	T_DDE (PDI)		0.0119		0.0161		0.028	0.0107		0.0174		0.0282
DDT (a)	T_DDT (PDI)		0.00396		0.00963		0.0136	0.00388		0.0319		0.0358
DDx (a)	T_DDx (PDI)		0.0342		0.0387		0.073	0.0321		0.0647		0.0969
Aldrin	309-00-2		< 0.000759 U	< 0.114 U	0.000379 JN	0.057 JN	0.000379 J	< 0.000353 U	< 0.0529 U	0.00042 JN	0.063 JN	0.00042 J
alpha-Chlordane	5103-71-9		0.00278 J	0.418 J	0.00125 J	0.187 J	0.00403 J	0.00254 J	0.381 J	0.00158 JN	0.237 JN	0.00412 J
cis-Nonachlor	5103-73-1		0.000885 JN	0.133 JN	0.000779 JN	0.117 JN	0.00166 JN	< 0.000621 U	< 0.0931 U	0.0014 J	0.210 J	0.0014 J
Oxychlordane	27304-13-8		< 0.00064 U	< 0.0962 U	0.000473 JN	0.071 JN	0.000473 J	< 0.000507 U	< 0.0761 U	0.000353 JN	0.053 JN	0.000353 J
trans-Chlordane	5103-74-2		0.00259 J	0.389 J	0.00117 J	0.176 J	0.00376 J	0.00188 JN	0.282 JN	0.00165 J	0.247 J	0.00353 J
trans-Nonachlor	39765-80-5		0.0021 J	0.316 J	0.00153 J+	0.230 J+	0.00364 J	0.00177 J	0.266 J	0.00168 JN	0.252 JN	0.00345 J
Total Chlordanes (a)	T_Clrdn (PDI)		0.00868		0.0052		0.0136	0.0065		0.00666		0.0129
Semivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0276	4.15	0.00289 J	0.434 J	0.0305 J	0.0232	3.48	0.00359 J	0.538 J	0.0268 J
Benz(a)anthracene	56-55-3		0.105 JN	15.8 JN	0.318 JN	47.7 JN	0.423 JN	0.076 JN	11.4 JN	0.23 JN	34.5 JN	0.306 JN
Benzo(a)pyrene	50-32-8		0.0407 JN	6.11 JN	0.331 J	49.7 J	0.372 J	< 0.0185 U	< 2.77 U	0.227 J	34.1 J	0.227 J
Benzo(b)fluoranthene	205-99-2		0.0381 J	5.72 J	0.38 J	57.1 J	0.418 J	0.0245 J	3.67 J	0.321 J	48.2 J	0.346 J
Benzo(g,h,i)perylene	191-24-2		0.125 JN	18.7 JN	0.391 J	58.8 J	0.516 J	< 0.0172 U	< 2.58 U	0.303 J	45.5 J	0.303 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.033 JN	4.95 JN	0.308 J	46.3 J	0.341 J	0.0241 JN	3.61 JN	0.222 J	33.3 J	0.246 J
Chrysene	218-01-9		0.213 J	32.0 J	0.571	85.7	0.784 J	0.19 J	28.5 J	0.407 J	61.0 J	0.597 J
Dibenz(a,h)anthracene	53-70-3		< 0.0159 U	< 2.39 U	0.0549 J+	8.25 J+	0.0549 J	< 0.0108 U	< 1.62 U	0.0417 J+	6.26 J+	0.0417 J
Naphthalene	91-20-3		9.79 J+	1470 J+	0.229 J+	34.4 J+	10 J+	5.55 J+	832 J+	0.189 J+	28.4 J+	5.74 J+
Indeno(1,2,3-cd)pyrene	193-39-5		0.0496 JN	7.45 JN	0.311 JN	46.7 JN	0.361 JN	< 0.0117 U	< 1.76 U	0.225 JN	33.7 JN	0.225 J
BaP-TEQ (a)	T_BaP-TEQ (PDI)		0.0685		0.49		0.551	0.0197		0.349		0.359

Notes:

Qualifiers:

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+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume= 150.8 L

Transect 02 Volume = 150.2 L

Transect 03 Volume = 150.2 L

Transect 04 Volume = 150 L

Transect 05 Volume = 225 L

Transect 06 Volume = 150 L

Transect 07 Volume = 150 L

Acronyms:

BaP = benzo(a)pyrene

CAS_RN = Chemical Abstracts Service Registry Number

DDD = dichlorodiphenyldichloroethane

DDE = dichlorodiphenyldichloroethylene

DDT = dichlorodiphenyltrichloroethane

DDx = dichlorodiphenyltrichloroethane and its derivatives

EPA = U.S. Environmental Protection Agency

L = liter

N = normal field sample

ng = nanogram

PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

TEQ = toxicity equivalence

Table A.4a-6. Results for PDI Storm-Flow Surface Water Samples - Pesticides and PAHs

		Sample Location	T05					T06				
		Date	PDI-WS-T05-1811					PDI-WS-T06-1811				
			11/27/2018					11/30/2018				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.00271 J	0.609 J	0.00276 J	0.620 J	0.00546 J	0.0022 J	0.330 J	0.00157 J	0.236 J	0.00377 J
2,4-DDE	3424-82-6		0.000391 J	0.088 J	0.000738 J	0.166 J	0.00113 J	0.000373 J	0.056 J	0.000387 J	0.058 J	0.00076 J
2,4-DDT	789-02-6		0.00076 J	0.171 J	0.00143 J	0.322 J	0.00219 J	0.000847 JN	0.127 JN	0.00195 J	0.292 J	0.00279 J
4,4'-DDD	72-54-8		0.00662 J	1.49 J	0.00782 J	1.76 J	0.0144 J	0.0061 J	0.915 J	0.00495 J	0.742 J	0.011 J
4,4'-DDE	72-55-9		0.00987 J	2.22 J	0.0194	4.37	0.0293 J	0.0105 J	1.57 J	0.0182 J	2.73 J	0.0287 J
4,4'-DDT	50-29-3		0.00165 J	0.372 J	0.00609 J	1.37 J	0.00774 J	0.00254 J	0.381 J	0.0115 J	1.73 J	0.0141 J
DDD (a)	T_DDD (PDI)		0.00933		0.0106		0.0199	0.0083		0.00652		0.0148
DDE (a)	T_DDE (PDI)		0.0103		0.0201		0.0304	0.0109		0.0186		0.0295
DDT (a)	T_DDT (PDI)		0.00241		0.00752		0.00993	0.00339		0.0135		0.0169
DDx (a)	T_DDx (PDI)		0.022		0.0382		0.0602	0.0226		0.0386		0.0611
Aldrin	309-00-2		< 0.000356 U	< 0.0801 U	0.0011 J	0.247 J	0.0011 J	< 0.000355 U	< 0.0533 U	0.000573 JN	0.086 JN	0.000573 J
alpha-Chlordane	5103-71-9		0.0036 J	0.811 J	0.00297 J	0.668 J	0.00657 J	0.00235 JN	0.352 JN	0.00157 J	0.235 J	0.00391 J
cis-Nonachlor	5103-73-1		0.000889 J	0.200 J	0.00148 JN	0.332 JN	0.00236 J	0.0007 JN	0.105 JN	0.0011 JN	0.165 JN	0.0018 JN
Oxychlordane	27304-13-8		< 0.000871 UJ	< 0.196 UJ	0.00028 JN	0.063 JN	0.00028 J	< 0.000733 U	< 0.110 U	0.00046 J	0.069 J	0.00046 J
trans-Chlordane	5103-74-2		0.00305 J	0.686 J	0.00386 J	0.868 J	0.00691 J	0.00198 J	0.297 J	0.00161 J	0.241 J	0.00359 J
trans-Nonachlor	39765-80-5		0.00242 J	0.544 J	0.00278 J	0.626 J	0.0052 J	0.00215 J	0.323 J	0.00247 JN	0.371 JN	0.00463 J
Total Chlordanes (a)	T_Clrdn (PDI)		0.0104		0.0114		0.0213	0.00755		0.00721		0.0144
Semivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0337	7.58	0.00394 J	0.887 J	0.0376 J	0.0257	3.85	0.00325 J	0.487 J	0.0289 J
Benz(a)anthracene	56-55-3		0.0533 JN	12.0 JN	0.201 JN	45.3 JN	0.255 JN	< 0.0268 U	< 4.02 U	0.127 JN	19.1 JN	0.127 J
Benzo(a)pyrene	50-32-8		< 0.0177 U	< 3.98 U	0.192 J	43.1 J	0.192 J	< 0.0153 U	< 2.29 U	0.117 JN	17.6 JN	0.117 J
Benzo(b)fluoranthene	205-99-2		0.0177 J	3.99 J	0.299 J	67.3 J	0.317 J	< 0.00987 U	< 1.48 U	0.149 J	22.3 J	0.149 J
Benzo(g,h,i)perylene	191-24-2		< 0.012 U	< 2.69 U	0.306 J	68.8 J	0.306 J	< 0.0111 U	< 1.67 U	0.196 J	29.4 J	0.196 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.0151 JN	3.40 JN	0.216 J	48.6 J	0.231 J	< 0.0117 U	< 1.76 U	0.142 J	21.3 J	0.142 J
Chrysene	218-01-9		0.145 J	32.6 J	0.429	96.5	0.574 J	0.104 J	15.6 J	0.227 J	34.0 J	0.331 J
Dibenz(a,h)anthracene	53-70-3		< 0.00809 U	< 1.82 U	0.0383 J+	8.62 J+	0.0383 J	< 0.0111 U	< 1.67 U	0.0283 JN	4.24 JN	0.0283 J
Naphthalene	91-20-3		8 J+	1800 J+	0.196 J+	44.0 J+	8.2 J+	6.8 J+	1020 J+	0.647	97.1	7.45 J
Indeno(1,2,3-cd)pyrene	193-39-5		0.0124 JN	2.78 JN	0.223 J	50.1 J	0.235 J	< 0.0116 U	< 1.74 U	0.132 JN	19.8 JN	0.132 J
BaP-TEQ (a)	T_BaP-TEQ (PDI)		0.0175		0.305		0.314	0.00775		0.188		0.188

Notes:

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JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume= 150.8 L

Transect 02 Volume = 150.2 L

Transect 03 Volume = 150.2 L

Transect 04 Volume = 150 L

Transect 05 Volume = 225 L

Transect 06 Volume = 150 L

Transect 07 Volume = 150 L

Acronyms:

BaP = benzo(a)pyrene

CAS_RN = Chemical Abstracts Service Registry Number

DDD = dichlorodiphenyldichloroethane

DDE = dichlorodiphenyldichloroethylene

DDT = dichlorodiphenyltrichloroethane

DDx = dichlorodiphenyltrichloroethane and its derivatives

EPA = U.S. Environmental Protection Agency

l = Liter

N = normal field sample

ng = nanogram

PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

TEQ = toxicity equivalence

Table A.4a-6. Results for PDI Storm-Flow Surface Water Samples - Pesticides and PAHs

		Sample Location	T07				
		Date	PDI-WS-T07-1811				
			11/28/2018				
		Sample Type	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**						
Pesticides							
2,4-DDD	53-19-0		0.00226 J	0.339 J	0.00205 J	0.307 J	0.00431 J
2,4-DDE	3424-82-6		< 0.000351 U	< 0.0527 U	< 0.000355 U	< 0.0533 U	< 0.000707 U
2,4-DDT	789-02-6		0.000653 JN	0.098 JN	0.00197 J	0.295 J	0.00262 J
4,4'-DDD	72-54-8		0.00633 J	0.949 J	0.00617 J	0.926 J	0.0125 J
4,4'-DDE	72-55-9		0.00827 J	1.24 J	0.0165 J	2.48 J	0.0248 J
4,4'-DDT	50-29-3		0.00235 J	0.353 J	0.00993 J	1.49 J	0.0123 J
DDD (a)	T_DDD (PDI)		0.00859		0.00822		0.0168
DDE (a)	T_DDE (PDI)		0.00845		0.0167		0.0252
DDT (a)	T_DDT (PDI)		0.003		0.0119		0.0149
DDx (a)	T_DDx (PDI)		0.02		0.0368		0.0569
Aldrin	309-00-2		< 0.000351 U	< 0.0527 U	0.000373 JN	0.056 JN	0.000373 J
alpha-Chlordane	5103-71-9		0.00288 J	0.432 J	0.00171 J	0.256 J	0.00459 J
cis-Nonachlor	5103-73-1		0.00137 JN	0.205 JN	0.00177 J	0.266 J	0.00314 J
Oxychlordane	27304-13-8		< 0.00078 U	< 0.117 U	0.00036 J	0.054 J	0.00036 J
trans-Chlordane	5103-74-2		0.00209 J	0.313 J	0.00201 JN	0.302 JN	0.0041 J
trans-Nonachlor	39765-80-5		0.00189 JN	0.283 JN	0.00294 J	0.441 J	0.00483 J
Total Chlordanes (a)	T_Clrdn (PDI)		0.00862		0.00879		0.017
Semivolatile Organics (SVOCs)							
Hexachlorobenzene	118-74-1		0.0251	3.76	0.00407 J	0.610 J	0.0291 J
Benz(a)anthracene	56-55-3		0.0502 JN	7.53 JN	0.112 JN	16.8 JN	0.162 JN
Benzo(a)pyrene	50-32-8		< 0.0186 U	< 2.79 U	0.148 J	22.2 J	0.148 J
Benzo(b)fluoranthene	205-99-2		0.0139 J	2.09 J	0.193 J	29.0 J	0.207 J
Benzo(g,h,i)perylene	191-24-2		< 0.0157 U	< 2.35 U	0.299 J	44.9 J	0.299 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.0187 JN	2.81 JN	0.163 JN	24.4 JN	0.181 JN
Chrysene	218-01-9		0.125 J	18.7 J	0.259 J	38.9 J	0.384 J
Dibenz(a,h)anthracene	53-70-3		< 0.0138 U	< 2.07 U	0.0364 J+	5.46 J+	0.0364 J
Naphthalene	91-20-3		6.61 J+	991 J+	0.193 JN	28.9 JN	6.8 J
Indeno(1,2,3-cd)pyrene	193-39-5		< 0.0163 U	< 2.45 U	0.207 JN	31.0 JN	0.207 J
BaP-TEQ (a)	T_BaP-TEQ (PDI)		0.016		0.237		0.244

Notes:

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a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume= 150.8 L

Transect 02 Volume = 150.2 L

Transect 03 Volume = 150.2 L

Transect 04 Volume = 150 L

Transect 05 Volume = 225 L

Transect 06 Volume = 150 L

Transect 07 Volume = 150 L

Acronyms:

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DDD = dichlorodiphenyldichloroethane

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DDx = dichlorodiphenyltrichloroethane and its derivatives

EPA = U.S. Environmental Protection Agency

L = liter

N = normal field sample

ng = nanogram

PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

TEQ = toxicity equivalence

Table A.4a-7. Results for PDI Storm-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample Location	T01		T01		T01-1E	T01-1N	T01-1N	T01-1W	T01-1W
	Date	PDI-WS-T01-1811 11/28/2018		PDI-WS-T01-1811-D 11/28/2018		PDI-WS-T01E-1811 11/28/2018	PDI-WS-T01N-1811 11/28/2018	PDI-WS-T01N-1811D 11/28/2018	PDI-WS-T01W-1811 11/28/2018	PDI-WS-T01W-1811D 11/28/2018
	Sample Type	N	N	FD	FD	N	N	FD	N	FD
	Fraction	Dissolved	Whole	Dissolved	Whole	Whole	Whole	Whole	Whole	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2	0.45 J	0.55 J	0.59 J	0.48 J					
Chromium	7440-47-3	0.59	0.25 J	0.19 J	0.21 J					
Copper	7440-50-8	0.69 J	0.63 J	0.67 J	0.61 J					
Zinc	7440-66-6	2.7 J	2.3 J	2.4 J	2.1 J					
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7		< 1.0 U		< 0.94 U					
MCPP	93-65-2		< 1.2 U		< 1.1 U					
Pentachlorophenol (a)	87-86-5		< 1.0 U		< 0.94 U					
Pentachlorophenol (b)	87-86-5		< 0.025 U		< 0.027 U					
Ethylbenzene	100-41-4					< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U	< 3.0 U
Tri-n-butyltin	36643-28-4		< 0.050 U		< 0.050 U					

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = Field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

N = normal field sample

PDI = Pre-Remedial Design Investigation

Table A.4a-7. Results for PDI Storm-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample Location	T02		T02-2E	T02-2N	T02-2W	T03		T03-3E	T03-3N
	Date	PDI-WS-T02-1811 11/30/2018		PDI-WS-T02E-1811 11/30/2018	PDI-WS-T02N-1811 11/30/2018	PDI-WS-T02W-1811 11/30/2018	PDI-WS-T03-1811 11/27/2018		PDI-WS-T03E-1811 11/27/2018	PDI-WS-T03N-1811 11/27/2018
	Sample Type	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole	Whole	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2	0.63 J	0.61 J				0.51 J	0.56 J		
Chromium	7440-47-3	< 0.40 U	0.35 J				0.20 J	0.21 J		
Copper	7440-50-8	0.60 J	0.79 J				0.76 J	< 2.0 U		
Zinc	7440-66-6	< 7.0 U	2.9 J				2.4 J	2.6 J		
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7		< 1.0 U					< 0.94 U		
MCPP	93-65-2		< 1.1 U					< 1.1 U		
Pentachlorophenol (a)	87-86-5		< 1.0 U					< 0.94 U		
Pentachlorophenol (b)	87-86-5		< 0.025 U					< 0.025 U		
Ethylbenzene	100-41-4			< 3.0 U	< 3.0 U	< 3.0 U			< 3.0 U	< 3.0 U
Tri-n-butyltin	36643-28-4		< 0.050 U					< 0.050 U		

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = Field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

N = normal field sample

PDI = Pre-Remedial Design Investigation

Table A.4a-7. Results for PDI Storm-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

		Sample Location	T03-3W	T04		T04-4E	T04-4N	T04-4W	T05		T05-5E
		Date	PDI-WS-T03W-1811	PDI-WS-T04-1812		PDI-WS-T04E-1812	PDI-WS-T04N-1812	PDI-WS-T04W-1812	PDI-WS-T05-1811		PDI-WS-T05E-1811
			11/27/2018	12/1/2018		12/1/2018	12/1/2018	12/1/2018	11/27/2018		11/27/2018
		Sample Type	N	N	N	N	N	N	N	N	N
		Fraction	Whole	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole	Whole
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**										
Metals											
Arsenic	7440-38-2			0.55 J	0.44 J				0.52 J	0.61 J	
Chromium	7440-47-3			0.18 J	0.31 J				0.22 J	0.32 J	
Copper	7440-50-8			0.65 J	0.70 J				< 2.0 U	0.64 J	
Zinc	7440-66-6			< 7.0 U	4.0 J				2.7 J	3.2 J	
Semivolatile Organics (SVOCs)											
Bis(2-ethylhexyl)phthalate	117-81-7				< 0.95 U					< 1.0 U	
MCPP	93-65-2				< 1.1 U					< 1.1 U	
Pentachlorophenol (a)	87-86-5				< 0.95 U					< 1.0 U	
Pentachlorophenol (b)	87-86-5				< 0.025 U					0.022 J	
Ethylbenzene	100-41-4	< 3.0 U				< 3.0 U	< 3.0 U	< 3.0 U			< 3.0 U
Tri-n-butyltin	36643-28-4				< 0.050 U					< 0.050 U	

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = Field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

N = normal field sample

PDI = Pre-Remedial Design Investigation

Table A.4a-7. Results for PDI Storm-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample Location	T05-5N	T05-5W	T06		T06-6E	T06-6N	T06-6W	T07	
	Date	PDI-WS-T05N-1811 11/27/2018	PDI-WS-T05W-1811 11/27/2018	PDI-WS-T06-1811 11/30/2018		PDI-WS-T06E-1811 11/30/2018	PDI-WS-T06N-1811 11/30/2018	PDI-WS-T06W-1811 11/30/2018	PDI-WS-T07-1811 11/28/2018	
	Sample Type	N	N	N	N	N	N	N	N	N
	Fraction	Whole	Whole	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole
	Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2			0.48 J	0.53 J				0.59 J	0.46 J
Chromium	7440-47-3			< 0.40 U	0.28 J				0.32 J	< 0.40 U
Copper	7440-50-8			0.98 J	0.68 J				0.78 J	< 2.0 U
Zinc	7440-66-6			< 7.0 U	< 7.0 U				2.8 J	1.9 J
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7				< 1.0 U					< 1.0 U
MCPP	93-65-2				< 1.1 U					< 1.1 U
Pentachlorophenol (a)	87-86-5				< 1.0 U					< 1.0 U
Pentachlorophenol (b)	87-86-5				< 0.025 U					< 0.025 U
Ethylbenzene	100-41-4	< 3.0 U	< 3.0 U			< 3.0 U	< 3.0 U	< 3.0 U		
Tri-n-butyltin	36643-28-4				< 0.050 U					< 0.050 U

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = Field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

N = normal field sample

PDI = Pre-Remedial Design Investigation

Table A.4a-7. Results for PDI Storm-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample Location	T07-7E PDI-WS-T07E-1811	T07-7N PDI-WS-T07N-1811	T07-7W PDI-WS-T07W-1811
	Date	11/28/2018	11/28/2018	11/28/2018
	Sample Type	N	N	N
	Fraction	Whole	Whole	Whole
	Units	µg/L	µg/L	µg/L
Chemical	**CAS_RN**			
Metals				
Arsenic	7440-38-2			
Chromium	7440-47-3			
Copper	7440-50-8			
Zinc	7440-66-6			
Semivolatile Organics (SVOCs)				
Bis(2-ethylhexyl)phthalate	117-81-7			
MCPP	93-65-2			
Pentachlorophenol (a)	87-86-5			
Pentachlorophenol (b)	87-86-5			
Ethylbenzene	100-41-4	< 3.0 U	< 3.0 U	< 3.0 U
Tri-n-butyltin	36643-28-4			

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Pentachlorophenol data obtained from ALS Kelso Laboratory.

b. Pentachlorophenol data obtained from ARI Laboratory.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = Field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

N = normal field sample

PDI = Pre-Remedial Design Investigation

Table A.4a-8. Results for PDI Storm-Flow Surface Water Samples - Physical Parameters

	Sample	T01		T01		T02		T03		T04		T05		T06		T07	
	Location	PDI-WS-T01-1811		PDI-WS-T01-1811-D		PDI-WS-T02-1811		PDI-WS-T03-1811		PDI-WS-T04-1812		PDI-WS-T05-1811		PDI-WS-T06-1811		PDI-WS-T07-1811	
	Date	11/28/2018		11/28/2018		11/30/2018		11/27/2018		12/1/2018		11/27/2018		11/30/2018		11/28/2018	
	Sample Type	N	N	FD	FD	N	N	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole
	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Chemical	**CAS_RN**																
Calcium	7440-70-2	7.9		8.0		8.6		7.9		7.1		7.9		6.6		8.6	
Magnesium	7439-95-4	3.0		3.1		3.0		3.0		2.3		2.6		2.1		2.8	
Total Dissolved Solids	TDS		58		70		37		78		58		52		50		50
Total Organic Carbon	TOC		1.3 J		1.4 J		1.98 J		1.5 J		2.27 J		1.5 J		2.18 J		1.7 J
Total Suspended Solids	TSS		< 2.0 U		< 2.0 U		3.6		< 2.0 U		2.8		< 2.0 U		2.6		< 2.0 U
Hardness as CaCO3	HARD	32		33		34		32		27		31		25		33	
Dissolved Organic Carbon	DOC	1.5 J		2.0 J		1.81 J		1.7 J		2.08 J		2.1 J		2.01 J		2.3 J	

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

Acronyms:

CaCO3 = calcium carbonate
CAS_RN = Chemical Abstracts Service Registry Number
DOC = dissolved organic carbon
FD = Field duplicate sample
L = liter
mg = milligram
N = normal field sample
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
TDS = total dissolved solids
TOC = total organic carbon
TSS = total suspended solids

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T01-1902					PDI-WS-T02-1902				
		Location	T01					T02				
		Date	2/18/2019					2/18/2019				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**											
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.0295 J	11.8 J	1.29	516	1.32 J	0.0185 J	7.40 J	1.79	715	1.81 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		0.00593 J+	2.37 J+	0.237	94.8	0.243 J	< 0.00318 U	< 1.27 U	0.353	141	0.353
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.00209 U	< 0.835 U	0.0157 J	6.26 J	0.0157 J	< 0.0021 U	< 0.839 U	0.0265 JN	10.6 JN	0.0265 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.00209 U	< 0.835 U	< 0.0145 U	< 5.81 U	< 0.0166 U	< 0.0021 U	< 0.839 U	0.0253 JN	10.1 JN	0.0253 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.00209 U	< 0.835 U	0.012 J	4.78 J	0.012 J	< 0.0021 U	< 0.839 U	0.0233 J	9.33 J	0.0233 J
1,2,3,6,7,8-HxCDD	57653-85-7		0.00234 JN	0.936 JN	0.051 J	20.4 J	0.0533 J	< 0.0021 U	< 0.839 U	0.0618 J	24.7 J	0.0618 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.00209 U	< 0.835 U	< 0.00925 U	< 3.70 U	< 0.0113 U	< 0.0021 U	< 0.839 U	0.0139 J	5.56 J	0.0139 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.00209 U	< 0.835 U	0.027 J	10.8 J	0.027 J	< 0.0021 U	< 0.839 U	0.0475 J	19.0 J	0.0475 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.00209 U	< 0.835 U	< 0.0149 U	< 5.94 U	< 0.0169 U	< 0.0021 U	< 0.839 U	< 0.0124 U	< 4.96 U	< 0.0145 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.00209 U	< 0.835 U	< 0.0108 U	< 4.31 U	< 0.0129 U	< 0.0021 U	< 0.839 U	< 0.0183 U	< 7.33 U	< 0.0204 U
1,2,3,7,8-PeCDF	57117-41-6		0.0031 JN	1.24 JN	< 0.0076 U	< 3.04 U	0.0031 J	< 0.0021 U	< 0.839 U	< 0.0145 U	< 5.80 U	< 0.0166 U
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.00209 U	< 0.835 U	< 0.011 U	< 4.39 U	< 0.0131 U	< 0.0021 U	< 0.839 U	0.0121 JN	4.82 JN	0.0121 J
2,3,4,7,8-PeCDF	57117-31-4		< 0.00209 U	< 0.835 U	< 0.00713 U	< 2.85 U	< 0.00921 U	< 0.0021 U	< 0.839 U	< 0.0136 U	< 5.44 U	< 0.0157 U
2,3,7,8-TCDD	1746-01-6		< 0.00209 U	< 0.835 U	< 0.0081 U	< 3.24 U	< 0.0102 U	< 0.0021 U	< 0.839 U	< 0.0115 U	< 4.61 U	< 0.0136 U
2,3,7,8-TCDF	51207-31-9		< 0.00209 U	< 0.835 U	< 0.00625 U	< 2.50 U	< 0.00834 U	< 0.0021 U	< 0.839 U	0.00993 J	3.97 J	0.00993 J
OCDD	3268-87-9		0.32	128	12.2	4880	12.5	0.188	75.2	22.4	8960	22.6
OCDF	39001-02-0		0.0278 JN	11.1 JN	0.59	236	0.618 J	0.00703 JN	2.81 JN	0.943	377	0.95 J
TCDD-TEQ (a)	T_DF_TEQ (PDI)		0.00183		0.0337		0.0355	0.00129		0.0572		0.0585
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)		0.0015		0.0337		0.0355	0.00129		0.0532		0.0585
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)		0.00045		0.0283		0.029	0.000241		0.0441		0.0483
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7		0.405 J	162 J	< 0.125 UJ	< 49.8 UJ	0.405 J	0.335 J	134 J	< 0.283 U	< 113 U	0.335 J
PCB-2	2051-61-8		0.15 J	60.1 J	0.076 J	30.4 J	0.226 J	0.119 J	47.7 J	0.133 J	53.3 J	0.253 J
PCB-3	2051-62-9		0.34 J	136 J	< 0.121 UJ	< 48.5 UJ	0.34 J	0.22	88.0	0.34 JN	136 JN	0.56 J
PCB-4	13029-08-8		1.04 J	416 J	0.227 JN	90.7 JN	1.27 J	0.89 J	356 J	0.216 JN	86.5 JN	1.11 J
PCB-5	16605-91-7		< 0.0222 UJ	< 8.89 UJ	< 0.0608 UJ	< 24.3 UJ	< 0.083 UJ	0.0183 J	7.32 J	< 0.127 U	< 50.6 U	0.0183 J
PCB-6	25569-80-6		0.232 J	92.9 J	0.104 J	41.6 J	0.336 J	0.246 J	98.2 J	0.126	50.4	0.372 J
PCB-7	33284-50-3		0.0895 J	35.8 J	< 0.0555 UJ	< 22.2 UJ	0.0895 J	0.0575 J	23.0 J	< 0.116 U	< 46.3 U	0.0575 J
PCB-8	34883-43-7		0.78 J	312 J	0.393 J	157 J	1.17 J	0.865 J	346 J	0.478	191	1.34 J
PCB-9	34883-39-1		0.0595 J	23.8 J	< 0.0515 UJ	< 20.6 UJ	0.0595 J	0.0613 JN	24.5 JN	< 0.107 U	< 42.9 U	0.0613 J
PCB-10	33146-45-1		0.0363 JN	14.5 JN	< 0.0545 UJ	< 21.8 UJ	0.0363 J	0.0413 J	16.5 J	< 0.114 U	< 45.5 U	0.0413 J
PCB-11	2050-67-1		2 J	798 J	1.48 J	591 J	3.47 J	2.49	997	1.9	760	4.39
PCB-12/13	PCB-12/13		0.126 JN	50.4 JN	0.0663 J	26.5 J	0.192 J	0.127	50.9	< 0.124 U	< 49.6 U	0.127
PCB-14	34883-41-5		< 0.0206 UJ	< 8.22 UJ	< 0.0575 UJ	< 23.0 UJ	< 0.0781 UJ	< 0.014 U	< 5.60 U	< 0.12 U	< 47.9 U	< 0.134 U
PCB-15	2050-68-2		0.375	150	0.453 J	181 J	0.828 J	0.488	195	0.49	196	0.978
PCB-16	38444-78-9		0.275 J	110 J	0.201 J	80.2 J	0.476 J	0.36 J	144 J	0.218 J+	87.0 J+	0.578 J
PCB-17	37680-66-3		0.728 J	291 J	0.625 J	250 J	1.35 J	0.513 J	205 J	0.348 JN	139 JN	0.86 J
PCB-18/30	PCB-18/30		0.743 J	297 J	0.523 J	209 J	1.27 J	0.835 J	334 J	0.628 J+	251 J+	1.46 J
PCB-19	38444-73-4		0.383 J	153 J	0.0975 J	39.0 J	0.48 J	0.34 J	136 J	0.12	48.0	0.46 J
PCB-20/28	PCB-20/28		1.3 J	520 J	1.1 J	438 J	2.4 J	1.64 J	656 J	1.14 J+	457 J+	2.78 J
PCB-21/33	PCB-21/33		2.53 J	1010 J	0.483 J	193 J	3.01 J	0.698 J	279 J	0.433 J+	173 J+	1.13 J
PCB-22	38444-85-8		0.395 J	158 J	0.365 J	146 J	0.76 J	0.565 J	226 J	0.373 J+	149 J+	0.938 J
PCB-23	55720-44-0		< 0.00748 UJ	< 2.99 UJ	< 0.0121 UJ	< 4.85 UJ	< 0.0196 UJ	< 0.0078 UJ	< 3.12 UJ	< 0.0116 U	< 4.65 U	< 0.0194 UJ
PCB-24	55702-45-9		0.0128 JN	5.11 JN	< 0.0146 UJ	< 5.83 UJ	0.0128 J	0.0129 J	5.16 J	< 0.0147 U	< 5.86 U	0.0129 J
PCB-25	55712-37-3		0.755 J	302 J	0.238 J	95.0 J	0.993 J	0.207 J	82.8 J	0.17	67.8	0.377 J
PCB-26/29	PCB-26/29		0.249 J	99.4 J	0.192 J	76.7 J	0.44 J	0.325 J	130 J	0.221 J+	88.4 J+	0.546 J
PCB-27	38444-76-7		0.0955 J	38.2 J	0.0523 J	20.9 J	0.148 J	0.0923 J	36.9 J	0.0608 JN	24.3 JN	0.153 J
PCB-31	16606-02-3		1.01 J	405 J	0.848 J	339 J	1.86 J	1.36 J	543 J	0.878 J+	351 J+	2.24 J
PCB-32	38444-77-8		0.305 J	122 J	0.175 J	69.9 J	0.48 J	0.343 J	137 J	0.17 J	68.0 J	0.513 J
PCB-34	37680-68-5		0.00745 JN	2.98 JN	< 0.0118 UJ	< 4.73 UJ	0.00745 J	< 0.00748 UJ	< 2.99 UJ	< 0.0114 U	< 4.54 U	< 0.0188 UJ
PCB-35	37680-69-6		0.0385 J	15.4 J	0.048 J	19.2 J	0.0865 J	0.037 JN	14.8 JN	0.0578 J	23.1 J	0.0948 J
PCB-36	38444-87-0		0.0216 J	8.65 J	0.03 J	12.0 J	0.0516 J	< 0.00738 UJ	< 2.95 UJ	0.0226 J	9.04 J	0.0226 J
PCB-37	38444-90-5		0.171	68.5	0.4 J	160 J	0.571 J	0.26	104	0.483	193	0.743
PCB-38	53555-66-1		< 0.00708 UJ	< 2.83 UJ	< 0.0122 UJ	< 4.88 UJ	< 0.0193 UJ	< 0.0074 UJ	< 2.96 UJ	< 0.0117 U	< 4.68 U	< 0.0191 UJ

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

Sample		PDI-WS-T01-1902					PDI-WS-T02-1902				
Location		T01					T02				
Date		2/18/2019					2/18/2019				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-39	38444-88-1	0.014 JN	5.61 JN	< 0.0124 UJ	< 4.94 UJ	0.014 J	< 0.00763 UJ	< 3.05 UJ	< 0.0119 U	< 4.75 U	< 0.0195 UJ
PCB-40/41/71	PCB-40/41/71	0.56 J	224 J	0.658 J	263 J	1.22 J	0.615 J	246 J	0.7 JN	280 JN	1.32 J
PCB-42	36559-22-5	0.27 J	108 J	0.355 JN	142 JN	0.625 J	0.33 J	132 J	0.425	170	0.755 J
PCB-43	70362-46-8	< 0.00209 UJ	< 0.835 UJ	0.045 J	18.0 J	0.045 J	0.0488 JN	19.5 JN	0.0613 J	24.5 J	0.11 J
PCB-44/47/65	PCB-44/47/65	11.3 J	4500 J	3.55 J	1420 J	14.8 J	2.24 J	894 J	2.24	895	4.47 J
PCB-45/51	PCB-45/51	59.8 J	23900 J	1.83 J	730 J	61.6 J	2.58 J	1030 J	0.645	258	3.22 J
PCB-46	41464-47-5	0.103 J	41.3 J	0.0668 J	26.7 J	0.17 J	0.0745 J	29.8 J	0.0733 J	29.3 J	0.148 J
PCB-48	70362-47-9	0.172 J	68.6 J	0.223 J	89.0 J	0.394 J	0.216 J	86.4 J	0.263	105	0.479 J
PCB-49/69	PCB-49/69	1.08 J	432 J	1 J	401 J	2.08 J	0.988 J	395 J	1.39	555	2.38 J
PCB-50/53	PCB-50/53	0.268 J	107 J	0.183 J	73.3 J	0.451 J	0.235 J	94.1 J	0.203	81.0	0.438 J
PCB-52	35693-99-3	1.8 J	720 J	1.76 J	702 J	3.56 J	2.12 J	849 J	2.1	840	4.22 J
PCB-54	15968-05-5	0.025 JN	10.0 JN	< 0.0152 UJ	< 6.07 UJ	0.025 J	0.0182 JN	7.27 JN	< 0.0136 U	< 5.44 U	0.0182 J
PCB-55	74338-24-2	< 0.00725 UJ	< 2.90 UJ	< 0.0187 UJ	< 7.46 UJ	< 0.0259 UJ	< 0.00875 UJ	< 3.50 UJ	0.0295 JN	11.8 JN	0.0295 J
PCB-56	41464-43-1	0.28 J	112 J	0.565 J	226 J	0.845 J	0.383 J	153 J	0.73	292	1.11 J
PCB-57	70424-67-8	< 0.0063 UJ	< 2.52 UJ	< 0.017 UJ	< 6.80 UJ	< 0.0233 UJ	< 0.0076 UJ	< 3.04 UJ	< 0.0148 U	< 5.90 U	< 0.0224 UJ
PCB-58	41464-49-7	< 0.00653 UJ	< 2.61 UJ	< 0.0179 UJ	< 7.14 UJ	< 0.0244 UJ	< 0.0079 UJ	< 3.16 UJ	< 0.0155 U	< 6.19 U	< 0.0234 UJ
PCB-59/62/75	PCB-59/62/75	0.0885 J	35.4 J	0.126 J	50.5 J	0.215 J	0.116 J	46.5 J	0.109 JN	43.4 JN	0.225 J
PCB-60	33025-41-1	< 0.00683 UJ	< 2.73 UJ	0.213 J	85.0 J	0.213 J	0.175 J	70.0 J	0.31	124	0.485 J
PCB-61/70/74/76	PCB-61/70/74/76	1.39 J	554 J	2.1 J	841 J	3.49 J	1.79 J	715 J	2.85	1140	4.64 J
PCB-63	74472-34-7	0.034 JN	13.6 JN	0.0478 J	19.1 J	0.0818 J	0.0398 J	15.9 J	0.058 J	23.2 J	0.0978 J
PCB-64	52663-58-8	0.413 J	165 J	0.583 J	233 J	0.995 J	0.51 J	204 J	0.665	266	1.18 J
PCB-66	32598-10-0	0.713 J	285 J	1.37 J	549 J	2.09 J	0.898 J	359 J	1.91 J	763 J	2.81 J
PCB-67	73575-53-8	0.021 J	8.41 J	0.0249 JN	9.97 JN	0.046 J	0.0247 J	9.88 J	0.0383 J	15.3 J	0.063 J
PCB-68	73575-52-7	12.9 J	5170 J	0.998 J	399 J	13.9 J	0.728 J	291 J	0.268	107	0.995 J
PCB-72	41464-42-0	0.0265 J	10.6 J	0.017 JN	6.81 JN	0.0435 J	0.02 J	7.98 J	0.0255 JN	10.2 JN	0.0455 J
PCB-73	74338-23-1	< 0.00209 UJ	< 0.835 UJ	0.0121 JN	4.83 JN	0.0121 J	< 0.0021 UJ	< 0.839 UJ	0.011 JN	4.40 JN	0.011 J
PCB-77	32598-13-3	0.0345 JN	13.8 JN	0.194 J	77.5 J	0.228 J	0.0405	16.2	0.263	105	0.303
PCB-78	70362-49-1	< 0.00685 UJ	< 2.74 UJ	< 0.018 UJ	< 7.21 UJ	< 0.0249 UJ	< 0.00828 UJ	< 3.31 UJ	< 0.0157 U	< 6.26 U	< 0.0239 UJ
PCB-79	41464-48-6	0.0127 JN	5.06 JN	0.0263 JN	10.5 JN	0.0389 JN	0.00795 JN	3.18 JN	0.038 J	15.2 J	0.046 J
PCB-80	33284-52-5	< 0.00608 UJ	< 2.43 UJ	< 0.0163 UJ	< 6.50 UJ	< 0.0223 UJ	< 0.00735 UJ	< 2.94 UJ	< 0.0141 U	< 5.64 U	< 0.0215 UJ
PCB-81	70362-50-4	< 0.00605 U	< 2.42 U	< 0.0189 UJ	< 7.55 UJ	< 0.0249 UJ	< 0.00755 U	< 3.02 U	< 0.0159 U	< 6.37 U	< 0.0235 U
PCB-82	52663-62-4	0.0583	23.3	0.27 J	108 J	0.328 J	0.0738	29.5	0.224 J	89.4 J	0.297 J
PCB-83/99	PCB-83/99	0.543	217	1.46 J	582 J	2 J	0.575	230	1.91	762	2.48
PCB-84	52663-60-2	0.212	84.7	0.463 J	185 J	0.674 J	0.258	103	0.613	245	0.87
PCB-85/116/117	PCB-85/116/117	0.12	48.0	0.445 J	178 J	0.565 J	0.137	54.9	0.615	246	0.752
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	0.445 J	178 J	1.48 J	591 J	1.92 J	0.538 J	215 J	1.97 J	789 J	2.51 J
PCB-88/91	PCB-88/91	0.198	79.0	0.348 J	139 J	0.545 J	0.168 JN	67.1 JN	0.465	186	0.633 J
PCB-89	73575-57-2	0.0103 J	4.13 J	0.0268 J	10.7 J	0.0371 J	0.015 J	6.01 J	0.0335 J	13.4 J	0.0485 J
PCB-90/101/113	PCB-90/101/113	0.873	349	2.08 J	830 J	2.95 J	0.973	389	2.55	1020	3.52
PCB-92	52663-61-3	0.175	69.9	0.423 J	169 J	0.597 J	0.191	76.4	0.518 JN	207 JN	0.709 J
PCB-93/95/98/100/102	PCB-93/95/98/_C	0.848	339	1.53 J	610 J	2.37 J	0.958	383	2.12	848	3.08
PCB-94	73575-55-0	0.00833 JN	3.33 JN	< 0.0157 UJ	< 6.26 UJ	0.00833 J	0.00498 J	1.99 J	0.0227 J	9.08 J	0.0277 J
PCB-96	73575-54-9	0.00738 JN	2.95 JN	0.0108 JN	4.32 JN	0.0182 JN	0.0076 JN	3.04 JN	0.0125 JN	4.98 JN	0.0201 JN
PCB-103	60145-21-3	0.0136 J	5.45 J	0.0368 J	14.7 J	0.0504 J	0.0125 J	4.98 J	0.0555 JN	22.2 JN	0.068 J
PCB-104	56558-16-8	0.00216 JN	0.864 JN	< 0.0104 UJ	< 4.16 UJ	0.00216 J	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-105	32598-14-4	0.157	62.9	0.913 J	365 J	1.07 J	0.203	81.0	1.2	478	1.4
PCB-106	70424-69-0	< 0.00275 U	< 1.10 U	< 0.0135 UJ	< 5.39 UJ	< 0.0162 UJ	< 0.00305 U	< 1.22 U	< 0.0177 U	< 7.06 U	< 0.0207 U
PCB-107/124	PCB-107/124	0.0205 JN	8.18 JN	0.106 J	42.3 J	0.126 J	0.0255	10.2	0.122	48.9	0.148
PCB-109	74472-35-8	0.0383	15.3	0.18 JN	72.1 JN	0.219 J	0.0425	17.0	0.235	94.0	0.278
PCB-110/115	PCB-110/115	0.75	300	2.49 J	997 J	3.24 J	0.855	342	3.23	1290	4.08
PCB-111	39635-32-0	< 0.00209 U	< 0.835 U	< 0.0108 UJ	< 4.33 UJ	< 0.0129 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-112	74472-36-9	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-114	74472-37-0	0.00918 J	3.67 J	0.054 JN	21.6 JN	0.0632 J	0.0123 JN	4.91 JN	0.0598 JN	23.9 JN	0.072 JN
PCB-118	31508-00-6	0.495	198	2.15 J	860 J	2.65 J	0.573	229	2.83	1130	3.4
PCB-120	68194-12-7	0.00315 JN	1.26 JN	0.0124 JN	4.94 JN	0.0155 JN	0.00283 JN	1.13 JN	< 0.0104 U	< 4.16 U	0.00283 J

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T01-1902					PDI-WS-T02-1902				
	Location	T01					T02				
	Date	2/18/2019					2/18/2019				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-121	56558-18-0	< 0.00209 U	< 0.835 U	< 0.0112 UJ	< 4.47 UJ	< 0.0133 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-122	76842-07-4	0.00478 JN	1.91 JN	0.027 JN	10.8 JN	0.0318 JN	0.00445 JN	1.78 JN	0.0288 J	11.5 J	0.0332 J
PCB-123	65510-44-3	0.0118 JN	4.71 JN	0.0498 J	19.9 J	0.0615 J	0.011 JN	4.39 JN	0.073 J	29.2 J	0.084 J
PCB-126	57465-28-8	< 0.00433 U	< 1.73 U	0.0169 J	6.74 J	0.0169 J	< 0.0048 U	< 1.92 U	0.0265 JN	10.6 JN	0.0265 J
PCB-127	39635-33-1	< 0.0033 U	< 1.32 U	< 0.0126 UJ	< 5.03 UJ	< 0.0159 UJ	< 0.00365 U	< 1.46 U	< 0.0165 U	< 6.59 U	< 0.0201 U
PCB-128/166	PCB-128/166	0.0558	22.3	0.458 J	183 J	0.513 J	0.0598 JN	23.9 JN	0.665 JN	266 JN	0.725 JN
PCB-129/138/160/163	PCB-129/138/_C	0.478	191	3.3 J	1320 J	3.78 J	0.468	187	5.23	2090	5.69
PCB-130	52663-66-8	0.0273 JN	10.9 JN	0.22 J	88.0 J	0.247 J	0.0278 JN	11.1 JN	0.298	119	0.325 J
PCB-131	61798-70-7	0.00673 JN	2.69 JN	0.0323 J	12.9 J	0.039 J	0.00483 JN	1.93 JN	0.0403 JN	16.1 JN	0.0451 JN
PCB-132	38380-05-1	0.147	58.7	0.965 J	386 J	1.11 J	0.161	64.4	1.25	500	1.41
PCB-133	35694-04-3	0.00893 JN	3.57 JN	0.0588 JN	23.5 JN	0.0677 JN	< 0.00283 U	< 1.13 U	0.0493 JN	19.7 JN	0.0493 J
PCB-134/143	PCB-134/143	0.0216 JN	8.63 JN	0.144 J	57.6 J	0.166 J	0.0258	10.3	0.172	68.8	0.198
PCB-135/151/154	PCB-135/151/154	0.205	81.8	1.03 J	412 J	1.23 J	0.202	80.8	1.41	565	1.61
PCB-136	38411-22-2	0.0608	24.3	0.373 J	149 J	0.433 J	0.071 JN	28.4 JN	0.488	195	0.559 J
PCB-137	35694-06-5	0.0229 JN	9.14 JN	0.116 J	46.2 J	0.138 J	0.0218 JN	8.73 JN	0.219 JN	87.5 JN	0.241 JN
PCB-139/140	PCB-139/140	0.0116 J	4.64 J	0.0598 J	23.9 J	0.0714 J	0.0106 J	4.24 J	0.0645 JN	25.8 JN	0.0751 J
PCB-141	52712-04-6	0.0838	33.5	0.525 J	210 J	0.609 J	0.0855	34.2	0.805	322	0.891
PCB-142	41411-61-4	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0029 U	< 1.16 U	< 0.0181 U	< 7.23 U	< 0.021 U
PCB-144	68194-14-9	0.0228	9.10	0.114 J	45.6 J	0.137 J	0.0283 JN	11.3 JN	0.223	89.3	0.252 J
PCB-145	74472-40-5	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-146	51908-16-8	0.106	42.3	0.57 J	228 J	0.676 J	0.087	34.8	0.8	320	0.887
PCB-147/149	PCB-147/149	0.43	172	2.73 J	1090 J	3.16 J	0.448	179	4.4	1760	4.85
PCB-148	74472-41-6	< 0.00209 U	< 0.835 U	0.0122 JN	4.88 JN	0.0122 J	< 0.0021 U	< 0.839 U	< 0.0106 UJ	< 4.24 UJ	< 0.0127 UJ
PCB-150	68194-08-1	0.0022 JN	0.878 JN	< 0.0104 UJ	< 4.16 UJ	0.0022 J	0.00278 JN	1.11 JN	< 0.0104 U	< 4.16 U	0.00278 J
PCB-152	68194-09-2	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-153/168	PCB-153/168	0.508	203	2.78 J	1110 J	3.28 J	0.483	193	4.9	1960	5.38
PCB-155	33979-03-2	0.00323 JN	1.29 JN	0.0115 JN	4.59 JN	0.0147 JN	< 0.0021 U	< 0.839 U	0.0179 JN	7.17 JN	0.0179 J
PCB-156/157	PCB-156/157	0.036 J+	14.4 J+	0.375 J	150 J	0.411 J	0.0395 JN	15.8 JN	0.52	208	0.56 J
PCB-158	74472-42-7	0.0405	16.2	0.285 J	114 J	0.326 J	0.047	18.8	0.405 JN	162 JN	0.452 J
PCB-159	39635-35-3	< 0.00209 U	< 0.835 U	0.0443 J	17.7 J	0.0443 J	< 0.00219 U	< 0.876 U	< 0.0113 U	< 4.50 U	< 0.0134 U
PCB-161	74472-43-8	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.012 U	< 4.81 U	< 0.0141 U
PCB-162	39635-34-2	< 0.00209 U	< 0.835 U	0.014 J	5.60 J	0.014 J	< 0.00219 U	< 0.876 U	0.0205 J	8.21 J	0.0205 J
PCB-164	74472-45-0	0.036 JN	14.4 JN	0.238 J	95.3 J	0.274 J	0.0355 JN	14.2 JN	0.323	129	0.358 J
PCB-165	74472-46-1	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.00242 U	< 0.967 U	< 0.0137 U	< 5.49 U	< 0.0161 U
PCB-167	52663-72-6	0.018 JN	7.21 JN	0.16 JN	64.0 JN	0.178 JN	0.0143 JN	5.71 JN	0.188	75.2	0.202 J
PCB-169	32774-16-6	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.00328 U	< 1.31 U	0.0187 J	7.48 J	0.0187 J
PCB-170	35065-30-6	0.054 J+	21.6 J+	0.86 J	344 J	0.914 J	0.053 J+	21.2 J+	1.08	433	1.14 J
PCB-171/173	PCB-171/173	0.0139 J+	5.56 J+	0.233 JN	93.0 JN	0.246 J	0.0143 JN	5.71 JN	0.325	130	0.339 J
PCB-172	52663-74-8	0.0122 J+	4.86 J+	0.153 J	61.2 J	0.165 J	0.012 JN	4.79 JN	0.215	86.0	0.227 J
PCB-174	38411-25-5	0.0553 JN	22.1 JN	0.77 J	308 J	0.825 J	0.044 JN	17.6 JN	1.14	454	1.18 J
PCB-175	40186-70-7	0.00275 JN	1.10 JN	0.0295 J	11.8 J	0.0323 J	< 0.0021 U	< 0.839 U	0.0473 JN	18.9 JN	0.0473 J
PCB-176	52663-65-7	0.00658 JN	2.63 JN	0.093 JN	37.2 JN	0.0996 JN	0.00793 JN	3.17 JN	0.144	57.4	0.151 J
PCB-177	52663-70-4	0.0318 JN	12.7 JN	0.503 J	201 J	0.534 J	0.0303 JN	12.1 JN	0.588	235	0.618 J
PCB-178	52663-67-9	0.018 JN	7.21 JN	0.189 J	75.6 J	0.207 J	0.0159 J+	6.34 J+	0.293	117	0.308 J
PCB-179	52663-64-6	0.027 JN	10.8 JN	0.36 J	144 J	0.387 J	0.026	10.4	0.638	255	0.664
PCB-180/193	PCB-180/193	0.177 J+	70.8 J+	2.26 J	903 J	2.43 J	0.132 JN	52.7 JN	3	1200	3.13 J
PCB-181	74472-47-2	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	0.0173 JN	6.90 JN	0.0173 J
PCB-182	60145-23-5	< 0.00209 U	< 0.835 U	0.011 J	4.39 J	0.011 J	< 0.0021 U	< 0.839 U	0.017 J	6.79 J	0.017 J
PCB-183/185	PCB-183/185	0.0443 JN	17.7 JN	0.49 J	196 J	0.534 J	0.0385 J+	15.4 J+	0.703	281	0.741 J
PCB-184	74472-48-3	< 0.00209 U	< 0.835 U	0.0129 JN	5.15 JN	0.0129 J	< 0.0021 U	< 0.839 U	0.0305 JN	12.2 JN	0.0305 J
PCB-186	74472-49-4	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-187	52663-68-0	0.108 J+	43.2 J+	1.06 J	425 J	1.17 J	0.0855 J+	34.2 J+	1.58	631	1.66 J
PCB-188	74487-85-7	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-189	39635-31-9	0.00315 JN	1.26 JN	0.0275 J	11.0 J	0.0307 J	< 0.0021 U	< 0.839 U	0.0475 J	19.0 J	0.0475 J
PCB-190	41411-64-7	0.0127 JN	5.06 JN	0.177 JN	70.7 JN	0.189 JN	0.0103 JN	4.11 JN	0.238	95.0	0.248 J

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T01-1902					PDI-WS-T02-1902				
	Location	T01					T02				
	Date	2/18/2019					2/18/2019				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-191	74472-50-7	< 0.00209 U	< 0.835 U	0.03 JN	12.0 JN	0.03 J	0.00229 JN	0.917 JN	0.0373 JN	14.9 JN	0.0395 JN
PCB-192	74472-51-8	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-194	35694-08-7	0.046 JN	18.4 JN	0.498 J	199 J	0.544 J	0.0231 J+	9.25 J+	0.645	258	0.668 J
PCB-195	52663-78-2	0.017 JN	6.79 JN	0.245 J	97.8 J	0.261 J	0.0103 JN	4.13 JN	0.318	127	0.328 J
PCB-196	42740-50-1	0.0233 JN	9.33 JN	0.209 JN	83.6 JN	0.232 JN	0.0139 JN	5.55 JN	0.315 JN	126 JN	0.329 JN
PCB-197/200	PCB-197/200	0.00925 JN	3.70 JN	0.0938 JN	37.5 JN	0.103 JN	0.00695 J+	2.78 J+	0.16 JN	64.0 JN	0.167 J
PCB-198/199	PCB-198/199	0.0615 JN	24.6 JN	0.583 J	233 J	0.644 J	0.0325 JN	13.0 JN	0.94	376	0.973 J
PCB-201	40186-71-8	0.00443 JN	1.77 JN	0.074 JN	29.6 JN	0.0784 JN	0.0035 J	1.40 J	0.113 JN	45.1 JN	0.116 J
PCB-202	2136-99-4	0.0107 JN	4.26 JN	0.192 JN	76.9 JN	0.203 JN	0.0101 JN	4.05 JN	0.213	85.3	0.223 J
PCB-203	52663-76-0	0.0473 JN	18.9 JN	0.363 JN	145 JN	0.41 JN	< 0.0183 U	< 7.32 U	0.56	224	0.56
PCB-204	74472-52-9	< 0.00209 U	< 0.835 U	< 0.0104 UJ	< 4.16 UJ	< 0.0125 UJ	< 0.0021 U	< 0.839 U	< 0.0104 U	< 4.16 U	< 0.0125 U
PCB-205	74472-53-0	0.0034 J	1.36 J	0.0355 J	14.2 J	0.0389 J	< 0.0021 U	< 0.839 U	0.0328 J	13.1 J	0.0328 J
PCB-206	40186-72-9	0.0533 J+	21.3 J+	0.44 J	176 J	0.493 J	< 0.026 U	< 10.4 U	0.563	225	0.563
PCB-207	52663-79-3	0.00925 J+	3.70 J+	0.0518 JN	20.7 JN	0.061 J	< 0.00395 U	< 1.58 U	0.0783 JN	31.3 JN	0.0783 J
PCB-208	52663-77-1	0.0186 J+	7.44 J+	0.175 J	70.1 J	0.194 J	0.0093 JN	3.72 JN	0.237	94.7	0.246 J
PCB-209	2051-24-3	0.0313 J+	12.5 J+	0.83 J	332 J	0.861 J	0.0173 J+	6.91 J+	1.14	454	1.15 J
Total PCBs (a)	T_PCBCg (PDI)	114		64.4		178	36.3		81.4		118

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 400 L

Transect 02 Volume = 400 L

Transect 03 Volume = 400 L

Transect 04 Volume = 402 L

Transect 05 Volume = 422 L

Transect 06 Volume = 400 L

Transect 07 Volume = 400 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number

EMPC = estimated maximum possible concentration

EPA = U.S. Environmental Protection Agency

HpCDD = heptachlorodibenzo-p-dioxin

HpCDF = heptachlorodibenzofuran

HxCDD = hexachlorodibenzo-p-dioxin

HxCDF = hexachlorodibenzofuran

L = liter

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T03-1902					PDI-WS-T04-1902				
		Location	T03					T04				
		Date	2/18/2019					2/17/2019				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**											
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.0288 J	11.5 J	1.89	754	1.91 J	0.0261 J	10.5 J	1.75	705	1.78 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		0.00628 JN	2.51 JN	0.39	156	0.396 J	0.00413 JN	1.66 JN	0.45	181	0.454 J
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.0021 U	< 0.839 U	0.0199 JN	7.97 JN	0.0199 J	< 0.00209 U	< 0.840 U	0.0455 JN	18.3 JN	0.0455 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.0021 U	< 0.839 U	0.0293 JN	11.7 JN	0.0293 J	< 0.00209 U	< 0.840 U	0.0222 J	8.92 J	0.0222 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.0021 U	< 0.839 U	0.0268 J	10.7 J	0.0268 J	0.00249 JN	1.00 JN	0.125	50.4	0.128 J
1,2,3,6,7,8-HxCDD	57653-85-7		0.00235 JN	0.938 JN	0.075 J	30.0 J	0.0773 J	< 0.00209 U	< 0.840 U	0.0667 J	26.8 J	0.0667 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.0021 U	< 0.839 U	0.0156 JN	6.24 JN	0.0156 J	< 0.00209 U	< 0.840 U	0.0358 J	14.4 J	0.0358 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.0021 U	< 0.839 U	0.043 J	17.2 J	0.043 J	< 0.00209 U	< 0.840 U	0.0525 J	21.1 J	0.0525 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.0021 U	< 0.839 U	< 0.0155 U	< 6.19 U	< 0.0176 U	< 0.00209 U	< 0.840 U	< 0.00622 U	< 2.50 U	< 0.00831 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.0021 U	< 0.839 U	< 0.0157 U	< 6.28 U	< 0.0178 U	< 0.00209 U	< 0.840 U	0.0133 JN	5.35 JN	0.0133 J
1,2,3,7,8-PeCDF	57117-41-6		< 0.0021 U	< 0.839 U	< 0.0138 U	< 5.52 U	< 0.0159 U	0.00245 J	0.984 J	0.0801 J	32.2 J	0.0825 J
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.0021 U	< 0.839 U	0.0112 JN	4.49 JN	0.0112 J	< 0.00209 U	< 0.840 U	0.0163 J	6.55 J	0.0163 J
2,3,4,7,8-PeCDF	57117-31-4		< 0.0021 U	< 0.839 U	< 0.012 U	< 4.79 U	< 0.0141 U	< 0.00209 U	< 0.840 U	0.048 J	19.3 J	0.048 J
2,3,7,8-TCDD	1746-01-6		< 0.0021 U	< 0.839 U	< 0.00973 U	< 3.89 U	< 0.0118 U	< 0.00209 U	< 0.840 U	0.00898 JN	3.61 JN	0.00898 J
2,3,7,8-TCDF	51207-31-9		< 0.0021 U	< 0.839 U	0.011 JN	4.41 JN	0.011 J	0.00294 JN	1.18 JN	0.197	79.2	0.2 J
OCDD	3268-87-9		0.305	122	20.6	8220	20.9	0.212	85.4	17	6840	17.2
OCDF	39001-02-0		0.0164 J+	6.57 J+	0.943	377	0.959 J	0.0107 JN	4.32 JN	0.903	363	0.914 J
TCDD-TEQ	(a) T_DF_TEQ (PDI)		0.00173		0.0585		0.0601	0.00203		0.119		0.12
TCDD-TEQ (EMPC=half)	(b) T_DF_TEQ(E_0.5)		0.00143		0.0516		0.0601	0.00144		0.102		0.12
TCDD-TEQ (EMPC=0)	(b) T_DF_TEQ(E_0)		0.000384		0.0437		0.0512	0.000398		0.0957		0.12
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7		0.44 J	176 J	0.303 J+	121 J+	0.743 J	0.383	154	< 0.175 U	< 70.4 U	0.383
PCB-2	2051-61-8		0.159 J	63.4 J	0.121	48.2	0.279 J	0.122	49.2	0.1	40.3	0.223
PCB-3	2051-62-9		0.335 J	134 J	< 0.25 U	< 99.8 U	0.335 J	0.281	113	< 0.187 U	< 75.0 U	0.281
PCB-4	13029-08-8		1.3 J	518 J	0.433	173	1.73 J	1.08 J	433 J	< 1.24 U	< 500 U	1.08 J
PCB-5	16605-91-7		0.026 JN	10.4 JN	< 0.164 U	< 65.7 U	0.026 J	0.0194 J	7.78 J	< 0.806 U	< 324 U	0.0194 J
PCB-6	25569-80-6		0.239 J	95.7 J	0.197	78.7	0.436 J	0.199 J	79.9 J	< 0.731 U	< 294 U	0.199 J
PCB-7	33284-50-3		0.053 J	21.2 J	< 0.15 U	< 60.1 U	0.053 J	0.0731 J	29.4 J	< 0.751 U	< 302 U	0.0731 J
PCB-8	34883-43-7		0.775 J	310 J	0.64	256	1.42 J	0.677 J	272 J	< 0.669 U	< 269 U	0.677 J
PCB-9	34883-39-1		0.067 J	26.8 J	< 0.139 U	< 55.7 U	0.067 J	0.0525 J	21.1 J	< 0.726 U	< 292 U	0.0525 J
PCB-10	33146-45-1		0.0695 J	27.8 J	< 0.148 U	< 59.1 U	0.0695 J	0.0485 J	19.5 J	< 0.729 U	< 293 U	0.0485 J
PCB-11	2050-67-1		2.58 J	1030 J	2.38	952	4.96 J	2.06 J	830 J	2.01	809	4.08 J
PCB-12/13	PCB-12/13		0.116 JN	46.4 JN	0.163	65.0	0.279 J	0.0925 J	37.2 J	< 0.784 U	< 315 U	0.0925 J
PCB-14	34883-41-5		< 0.0177 UJ	< 7.08 UJ	< 0.156 U	< 62.3 U	< 0.173 UJ	< 0.00393 UJ	< 1.58 UJ	< 0.744 U	< 299 U	< 0.748 UJ
PCB-15	2050-68-2		0.438 J	175 J	0.7	280	1.14 J	0.376	151	< 0.781 U	< 314 U	0.376
PCB-16	38444-78-9		0.405 J	162 J	0.245 JN	97.8 JN	0.65 J	0.366	147	0.254 JN	102 JN	0.619 J
PCB-17	37680-66-3		0.565 J	226 J	0.423 J	169 J	0.988 J	0.724	291	0.49 J+	197 J+	1.21 J
PCB-18/30	PCB-18/30		0.975 J	390 J	0.645 J+	258 J+	1.62 J	0.958	385	0.542 J+	218 J+	1.5 J
PCB-19	38444-73-4		0.533 J	213 J	0.164 JN	65.5 JN	0.696 J	0.418	168	0.106 JN	42.5 JN	0.524 J
PCB-20/28	PCB-20/28		1.63 J	651 J	1.36	545	2.99 J	1.23	495	1.43	575	2.66
PCB-21/33	PCB-21/33		0.628 J	251 J	0.54 J+	216 J+	1.17 J	1.75	703	0.52 J+	209 J+	2.27 J
PCB-22	38444-85-8		0.52 J	208 J	0.438 J+	175 J+	0.958 J	0.388	156	0.413 J+	166 J+	0.801 J
PCB-23	55720-44-0		< 0.00825 UJ	< 3.30 UJ	< 0.0135 U	< 5.38 U	< 0.0217 UJ	0.00438 J	1.76 J	< 0.0244 U	< 9.81 U	0.00438 J
PCB-24	55702-45-9		0.0113 JN	4.52 JN	< 0.0166 U	< 6.62 U	0.0113 J	0.0159 JN	6.39 JN	< 0.0348 U	< 14.0 U	0.0159 J
PCB-25	55712-37-3		0.194 J	77.5 J	0.223	89.3	0.417 J	0.55	221	0.201	80.8	0.751
PCB-26/29	PCB-26/29		0.328 J	131 J	0.275	110	0.603 J	0.254	102	0.284	114	0.537
PCB-27	38444-76-7		0.103 J	41.2 J	0.0823 J	32.9 J	0.185 J	0.118	47.5	0.0572 JN	23.0 JN	0.175 J
PCB-31	16606-02-3		1.28 J	513 J	1.04 J+	417 J+	2.33 J	0.933	375	1.12	449	2.05
PCB-32	38444-77-8		0.438 J	175 J	0.155 J	62.1 J	0.593 J	0.313	126	0.254	102	0.567
PCB-34	37680-68-5		0.00905 JN	3.62 JN	< 0.0131 U	< 5.25 U	0.00905 J	0.0123 J	4.94 J	< 0.0235 U	< 9.45 U	0.0123 J
PCB-35	37680-69-6		0.0375 J	15.0 J	0.0683 J	27.3 J	0.106 J	0.0391 JN	15.7 JN	0.0565 JN	22.7 JN	0.0955 JN
PCB-36	38444-87-0		0.0119 JN	4.75 JN	0.0458 JN	18.3 JN	0.0576 JN	0.0156 JN	6.27 JN	0.0237 JN	9.54 JN	0.0393 JN
PCB-37	38444-90-5		0.241 J	96.2 J	0.528	211	0.768 J	0.191	76.6	0.483	194	0.673
PCB-38	53555-66-1		< 0.00783 UJ	< 3.13 UJ	< 0.0135 U	< 5.41 U	< 0.0214 UJ	0.00378 JN	1.52 JN	< 0.0238 U	< 9.55 U	0.00378 J

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

Sample		PDI-WS-T03-1902					PDI-WS-T04-1902				
Location		T03					T04				
Date		2/18/2019					2/17/2019				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-39	38444-88-1	< 0.00808 UJ	< 3.23 UJ	0.0167 JN	6.68 JN	0.0167 J	0.0153 JN	6.15 JN	< 0.0232 U	< 9.34 U	0.0153 J
PCB-40/41/71	PCB-40/41/71	0.615 J	246 J	0.805 JN	322 JN	1.42 J	0.624	251	0.856	344	1.48
PCB-42	36559-22-5	0.34 J	136 J	0.44	176	0.78 J	0.351	141	0.48 JN	193 JN	0.831 J
PCB-43	70362-46-8	0.0573 J	22.9 J	0.0533 JN	21.3 JN	0.111 J	0.046	18.5	0.0405 J	16.3 J	0.0866 J
PCB-44/47/65	PCB-44/47/65	1.97 J	787 J	2.44	977	4.41 J	7.61	3060	3.13	1260	10.7
PCB-45/51	PCB-45/51	2.28 J	910 J	0.83	332	3.11 J	33.6	13500	1.37	549	34.9
PCB-46	41464-47-5	0.085 JN	34.0 JN	0.0785 J	31.4 J	0.164 J	0.142 JN	56.9 JN	0.0871	35.0	0.229 J
PCB-48	70362-47-9	0.217 J	86.9 J	0.26	104	0.477 J	0.184	73.9	0.256	103	0.44
PCB-49/69	PCB-49/69	1.08 J	430 J	1.27	509	2.35 J	1.19	478	1.32	529	2.5
PCB-50/53	PCB-50/53	0.27 J	108 J	0.215	86.1	0.485 J	0.303	122	0.248	99.7	0.551
PCB-52	35693-99-3	2.09 J	837 J	2.23	890	4.32 J	1.94	779	2.14	862	4.08
PCB-54	15968-05-5	0.0263 J	10.5 J	< 0.0176 U	< 7.03 U	0.0263 J	0.0301 JN	12.1 JN	< 0.0183 U	< 7.35 U	0.0301 J
PCB-55	74338-24-2	< 0.00928 UJ	< 3.71 UJ	0.036 J	14.4 J	0.036 J	< 0.0187 U	< 7.52 U	< 0.0361 U	< 14.5 U	< 0.0548 U
PCB-56	41464-43-1	0.378 J	151 J	0.773	309	1.15 J	0.303	122	0.841	338	1.14
PCB-57	70424-67-8	< 0.00805 UJ	< 3.22 UJ	< 0.0138 U	< 5.53 U	< 0.0219 UJ	< 0.0163 U	< 6.54 U	< 0.0343 U	< 13.8 U	< 0.0506 U
PCB-58	41464-49-7	< 0.00835 UJ	< 3.34 UJ	< 0.0145 U	< 5.80 U	< 0.0229 UJ	< 0.0169 U	< 6.81 U	< 0.0371 U	< 14.9 U	< 0.054 U
PCB-59/62/75	PCB-59/62/75	0.109 J	43.7 J	0.154	61.5	0.263 J	0.119	48.0	0.13 JN	52.2 JN	0.249 J
PCB-60	33025-41-1	0.153 J	61.0 J	0.29	116	0.443 J	0.111	44.6	0.331	133	0.442
PCB-61/70/74/76	PCB-61/70/74/76	1.82 J	726 J	2.83	1130	4.64 J	1.3	524	3.06	1230	4.36
PCB-63	74472-34-7	0.0408 JN	16.3 JN	0.066 J	26.4 J	0.107 J	0.0336	13.5	0.0784 J	31.5 J	0.112 J
PCB-64	52663-58-8	0.515 J	206 J	0.695	278	1.21 J	0.51	205	0.734	295	1.24
PCB-66	32598-10-0	0.955 J	382 J	1.84 J	737 J	2.8 J	0.682 J	274 J	1.94	779	2.62 J
PCB-67	73575-53-8	0.0248 J	9.93 J	0.0445 JN	17.8 JN	0.0693 J	0.0161 JN	6.49 JN	0.0415 JN	16.7 JN	0.0577 JN
PCB-68	73575-52-7	0.5 J	200 J	0.255	102	0.755 J	6.04	2430	0.706	284	6.75
PCB-72	41464-42-0	0.0243 J	9.71 J	0.0247 JN	9.89 JN	0.049 J	< 0.0162 U	< 6.51 U	0.0398 J	16.0 J	0.0398 J
PCB-73	74338-23-1	< 0.0021 UJ	< 0.839 UJ	0.0191 JN	7.65 JN	0.0191 J	0.0266	10.7	< 0.0197 U	< 7.93 U	0.0266
PCB-77	32598-13-3	0.0458 J	18.3 J	0.295	118	0.341 J	0.0423	17.0	0.276	111	0.318
PCB-78	70362-49-1	< 0.00878 UJ	< 3.51 UJ	< 0.0147 U	< 5.86 U	< 0.0234 UJ	< 0.0187 U	< 7.50 U	< 0.0363 U	< 14.6 U	< 0.055 U
PCB-79	41464-48-6	0.0132 JN	5.29 JN	0.0365 J	14.6 J	0.0497 J	< 0.0146 U	< 5.88 U	0.0423 JN	17.0 JN	0.0423 J
PCB-80	33284-52-5	< 0.00778 UJ	< 3.11 UJ	< 0.0132 U	< 5.28 U	< 0.021 UJ	< 0.0161 U	< 6.46 U	< 0.0333 U	< 13.4 U	< 0.0494 U
PCB-81	70362-50-4	< 0.00788 UJ	< 3.15 UJ	< 0.0147 U	< 5.87 U	< 0.0226 UJ	< 0.0195 U	< 7.82 U	< 0.0376 U	< 15.1 U	< 0.057 U
PCB-82	52663-62-4	0.076 J	30.4 J	0.35	140	0.426 J	0.0714 JN	28.7 JN	0.393	158	0.464 J
PCB-83/99	PCB-83/99	0.6 J	240 J	2.04	816	2.64 J	0.627	252	1.93	774	2.55
PCB-84	52663-60-2	0.245 J	98.0 J	0.605	242	0.85 J	0.266	107	0.664 JN	267 JN	0.93 J
PCB-85/116/117	PCB-85/116/117	0.148 J	59.0 J	0.628	251	0.775 J	0.135	54.4	0.572	230	0.707
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	0.57 J	228 J	2.03 J	812 J	2.6 J	0.537 J	216 J	2.13 J	857 J	2.67 J
PCB-88/91	PCB-88/91	0.178 J	71.0 J	0.418	167	0.595 J	0.196	78.9	0.47	189	0.666
PCB-89	73575-57-2	0.0115 J	4.59 J	0.027 JN	10.8 JN	0.0385 J	0.016 JN	6.42 JN	0.0311 JN	12.5 JN	0.0471 JN
PCB-90/101/113	PCB-90/101/113	1.07 J	426 J	2.8	1120	3.87 J	0.935	376	3.26	1310	4.19
PCB-92	52663-61-3	0.215 J	86.1 J	0.59	236	0.805 J	0.213	85.8	0.667	268	0.88
PCB-93/95/98/100/102	PCB-93/95/98/_C	1.02 J	406 J	2.08	831	3.09 J	0.98	394	2.38	955	3.36
PCB-94	73575-55-0	0.0101 J	4.03 J	0.0171 JN	6.84 JN	0.0272 J	0.00958 J	3.85 J	< 0.0179 U	< 7.21 U	0.00958 J
PCB-96	73575-54-9	0.0116 JN	4.64 JN	0.0138 J	5.53 J	0.0254 J	0.0107 J	4.29 J	0.0261 J	10.5 J	0.0368 J
PCB-103	60145-21-3	0.0157 JN	6.26 JN	0.0438 JN	17.5 JN	0.0594 JN	0.0228	9.15	0.0418 JN	16.8 JN	0.0646 J
PCB-104	56558-16-8	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	0.00346 JN	1.39 JN	< 0.0183 U	< 7.35 U	0.00346 J
PCB-105	32598-14-4	0.203 J	81.0 J	1.27	508	1.47 J	0.187	75.0	1.3	524	1.49
PCB-106	70424-69-0	< 0.0032 UJ	< 1.28 UJ	< 0.0147 U	< 5.87 U	< 0.0179 UJ	< 0.00248 U	< 0.996 U	< 0.0294 U	< 11.8 U	< 0.0318 U
PCB-107/124	PCB-107/124	0.0298 J	11.9 J	0.128	51.3	0.158 J	0.0205 JN	8.24 JN	0.123	49.6	0.144 J
PCB-109	74472-35-8	0.0503 J	20.1 J	0.25	100	0.3 J	0.0398	16.0	0.286	115	0.326
PCB-110/115	PCB-110/115	0.925 J	370 J	3.5	1400	4.43 J	0.988	397	3.76	1510	4.74
PCB-111	39635-32-0	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.013 U	< 5.24 U	< 0.0151 U
PCB-112	74472-36-9	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0128 U	< 5.13 U	< 0.0149 U
PCB-114	74472-37-0	0.00988 J	3.95 J	0.0645 J	25.8 J	0.0744 J	0.0135 JN	5.43 JN	0.0803 J	32.3 J	0.0939 J
PCB-118	31508-00-6	0.64 J	256 J	3.03	1210	3.67 J	0.57	229	3.36	1350	3.93
PCB-120	68194-12-7	0.00515 J	2.06 J	0.0174 JN	6.97 JN	0.0226 J	0.00821 J	3.30 J	0.019 JN	7.62 JN	0.0272 J

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T03-1902					PDI-WS-T04-1902				
	Location	T03					T04				
	Date	2/18/2019					2/17/2019				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-121	56558-18-0	< 0.0021 UJ	< 0.839 UJ	< 0.0107 U	< 4.27 U	< 0.0128 UJ	< 0.00209 U	< 0.840 U	< 0.0127 U	< 5.11 U	< 0.0148 U
PCB-122	76842-07-4	0.0043 JN	1.72 JN	0.0483 J	19.3 J	0.0526 J	0.00669 J	2.69 J	0.0478 JN	19.2 JN	0.0545 J
PCB-123	65510-44-3	0.0195 JN	7.78 JN	0.0555 JN	22.2 JN	0.075 JN	0.0216 JN	8.70 JN	0.0776 J	31.2 J	0.0993 J
PCB-126	57465-28-8	< 0.00483 UJ	< 1.93 UJ	0.0192 JN	7.66 JN	0.0192 J	< 0.00383 U	< 1.54 U	< 0.0338 U	< 13.6 U	< 0.0377 U
PCB-127	39635-33-1	< 0.00383 UJ	< 1.53 UJ	< 0.0137 U	< 5.48 U	< 0.0175 UJ	< 0.00301 U	< 1.21 U	< 0.0326 U	< 13.1 U	< 0.0356 U
PCB-128/166	PCB-128/166	0.0733 J	29.3 J	0.67	268	0.743 J	0.0657	26.4	0.853	343	0.919
PCB-129/138/160/163	PCB-129/138/_C	0.63 J	252 J	4.63	1850	5.26 J	0.502	202	7.64	3070	8.14
PCB-130	52663-66-8	0.0413 J	16.5 J	0.265 JN	106 JN	0.306 J	0.0353	14.2	0.388	156	0.423
PCB-131	61798-70-7	0.00803 JN	3.21 JN	0.034 JN	13.6 JN	0.042 JN	0.0056 JN	2.25 JN	0.0677 JN	27.2 JN	0.0733 JN
PCB-132	38380-05-1	0.177 JN	70.7 JN	1.33	531	1.5 J	0.164	65.9	1.91	768	2.07
PCB-133	35694-04-3	0.0189 J	7.55 J	0.0755 J	30.2 J	0.0944 J	0.00993 J+	3.99 J+	0.128	51.3	0.138 J
PCB-134/143	PCB-134/143	0.0348 JN	13.9 JN	0.206	82.2	0.24 J	0.0296 JN	11.9 JN	0.301	121	0.331 J
PCB-135/151/154	PCB-135/151/154	0.265 J	106 J	1.5	600	1.77 J	0.264	106	2.08	837	2.35
PCB-136	38411-22-2	0.076 J	30.4 J	0.433	173	0.509 J	0.0761	30.6	0.667	268	0.743
PCB-137	35694-06-5	0.0258 JN	10.3 JN	0.193 JN	77.2 JN	0.219 JN	0.0208 JN	8.36 JN	0.156	62.7	0.177 J
PCB-139/140	PCB-139/140	0.0122 J	4.89 J	0.0745 J	29.8 J	0.0867 J	0.00938 JN	3.77 JN	0.0709 JN	28.5 JN	0.0803 JN
PCB-141	52712-04-6	0.109 J	43.7 J	0.838	335	0.947 J	0.0903	36.3	1.33	536	1.42
PCB-142	41411-61-4	< 0.0021 UJ	< 0.839 UJ	< 0.0246 U	< 9.83 U	< 0.0267 UJ	< 0.00209 U	< 0.840 U	< 0.0281 U	< 11.3 U	< 0.0302 U
PCB-144	68194-14-9	0.0283 J	11.3 J	0.157	62.7	0.185 J	0.0266	10.7	0.286 JN	115 JN	0.313 J
PCB-145	74472-40-5	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0141 U	< 5.65 U	< 0.0161 U
PCB-146	51908-16-8	0.12 J	47.8 J	0.813	325	0.932 J	0.102	40.9	1.14	459	1.24
PCB-147/149	PCB-147/149	0.555 J	222 J	3.45	1380	4.01 J	0.445	179	5.65	2270	6.09
PCB-148	74472-41-6	< 0.0021 UJ	< 0.839 UJ	0.0145 JN	5.78 JN	0.0145 J	< 0.00209 U	< 0.840 U	< 0.0176 U	< 7.09 U	< 0.0197 U
PCB-150	68194-08-1	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0132 U	< 5.32 U	< 0.0153 U
PCB-152	68194-09-2	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0124 U	< 4.98 U	< 0.0145 U
PCB-153/168	PCB-153/168	0.603 J	241 J	4.05	1620	4.65 J	0.495	199	6.02	2420	6.51
PCB-155	33979-03-2	< 0.0021 UJ	< 0.839 UJ	0.014 JN	5.58 JN	0.014 J	0.00455 JN	1.83 JN	< 0.0132 U	< 5.29 U	0.00455 J
PCB-156/157	PCB-156/157	0.0468 J	18.7 J	0.538	215	0.584 J	0.0445 J+	17.9 J+	0.734	295	0.778 J
PCB-158	74472-42-7	0.053 JN	21.2 JN	0.403	161	0.456 J	0.046	18.5	0.664	267	0.71
PCB-159	39635-35-3	0.004 JN	1.60 JN	0.0568 JN	22.7 JN	0.0608 JN	< 0.00209 U	< 0.840 U	0.0878 JN	35.3 JN	0.0878 J
PCB-161	74472-43-8	< 0.0021 UJ	< 0.839 UJ	< 0.0164 U	< 6.54 U	< 0.0184 UJ	< 0.00209 U	< 0.840 U	< 0.0192 U	< 7.73 U	< 0.0213 U
PCB-162	39635-34-2	< 0.0021 UJ	< 0.839 UJ	< 0.0152 U	< 6.08 U	< 0.0173 UJ	0.00303 JN	1.22 JN	< 0.0203 U	< 8.17 U	0.00303 J
PCB-164	74472-45-0	0.046 J	18.4 J	0.313 JN	125 JN	0.359 J	0.0396 JN	15.9 JN	0.604	243	0.644 J
PCB-165	74472-46-1	< 0.0021 UJ	< 0.839 UJ	< 0.0187 U	< 7.47 U	< 0.0208 UJ	< 0.00209 U	< 0.840 U	< 0.0221 U	< 8.89 U	< 0.0242 U
PCB-167	52663-72-6	0.0222 J	8.87 J	0.213	85.3	0.235 J	0.0156 JN	6.27 JN	0.291	117	0.307 J
PCB-169	32774-16-6	< 0.00273 UJ	< 1.09 UJ	< 0.0162 U	< 6.48 U	< 0.0189 UJ	< 0.00209 U	< 0.840 U	< 0.0207 U	< 8.32 U	< 0.0228 U
PCB-170	35065-30-6	0.0748 JN	29.9 JN	1.23	492	1.3 J	0.0669	26.9	2.2	883	2.26
PCB-171/173	PCB-171/173	0.018 JN	7.19 JN	0.353 JN	141 JN	0.37 JN	0.0195 JN	7.82 JN	0.629	253	0.649 J
PCB-172	52663-74-8	0.0185 JN	7.38 JN	0.218	87.2	0.236 J	0.0168	6.77	0.356	143	0.373
PCB-174	38411-25-5	0.0643 J	25.7 J	1.19	475	1.25 J	0.0836	33.6	2.12	853	2.21
PCB-175	40186-70-7	0.00403 JN	1.61 JN	0.0398 J	15.9 J	0.0438 J	0.00316 JN	1.27 JN	0.103 JN	41.6 JN	0.107 JN
PCB-176	52663-65-7	0.00933 J	3.73 J	0.133	53.3	0.143 J	0.00821 JN	3.30 JN	0.266	107	0.274 J
PCB-177	52663-70-4	0.0355 JN	14.2 JN	0.68 J	272 J	0.716 J	0.0373 J+	15.0 J+	1.37	551	1.41 J
PCB-178	52663-67-9	0.0268 J	10.7 J	0.31 JN	124 JN	0.337 J	0.0256 JN	10.3 JN	0.488	196	0.513 J
PCB-179	52663-64-6	0.03 JN	12.0 JN	0.513	205	0.543 J	0.0353	14.2	0.789	317	0.824
PCB-180/193	PCB-180/193	0.234 J	93.6 J	3.13	1250	3.36 J	0.205 J+	82.5 J+	5.32	2140	5.53 J
PCB-181	74472-47-2	< 0.0021 UJ	< 0.839 UJ	0.0129 J	5.14 J	0.0129 J	< 0.00209 U	< 0.840 U	< 0.0221 U	< 8.90 U	< 0.0242 U
PCB-182	60145-23-5	< 0.0021 UJ	< 0.839 UJ	0.012 JN	4.79 JN	0.012 J	< 0.00209 U	< 0.840 U	< 0.0213 U	< 8.55 U	< 0.0234 U
PCB-183/185	PCB-183/185	0.0468 J	18.7 J	0.753	301	0.799 J	0.046	18.5	1.44	580	1.49
PCB-184	74472-48-3	< 0.0021 UJ	< 0.839 UJ	0.0154 JN	6.15 JN	0.0154 J	< 0.00209 U	< 0.840 U	0.016 JN	6.44 JN	0.016 J
PCB-186	74472-49-4	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0168 U	< 6.77 U	< 0.0189 U
PCB-187	52663-68-0	0.133 J	53.1 J	1.57	629	1.71 J	0.113 J+	45.5 J+	2.64	1060	2.75 J
PCB-188	74487-85-7	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0179 U	< 7.19 U	< 0.02 U
PCB-189	39635-31-9	0.00668 JN	2.67 JN	0.0448 J	17.9 J	0.0514 J	0.0051 JN	2.05 JN	0.095 JN	38.2 JN	0.1 JN
PCB-190	41411-64-7	0.0181 JN	7.24 JN	0.239	95.4	0.257 J	0.0162 J+	6.51 J+	0.517	208	0.534 J

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T03-1902					PDI-WS-T04-1902				
	Location	T03					T04				
	Date	2/18/2019					2/17/2019				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-191	74472-50-7	0.003 JN	1.20 JN	0.047 J	18.8 J	0.05 J	0.00264 JN	1.06 JN	0.105 JN	42.3 JN	0.108 JN
PCB-192	74472-51-8	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0198 U	< 7.97 U	< 0.0219 U
PCB-194	35694-08-7	0.0758 J	30.3 J	0.663	265	0.738 J	0.0706 J+	28.4 J+	0.983	395	1.05 J
PCB-195	52663-78-2	0.0243 J	9.70 J	0.295 JN	118 JN	0.319 J	0.0207 JN	8.33 JN	0.391 JN	157 JN	0.411 JN
PCB-196	42740-50-1	0.027 JN	10.8 JN	0.338	135	0.365 J	0.046	18.5	0.525 JN	211 JN	0.571 J
PCB-197/200	PCB-197/200	0.0132 JN	5.29 JN	0.149	59.6	0.162 J	0.0173 JN	6.95 JN	0.183 JN	73.5 JN	0.2 JN
PCB-198/199	PCB-198/199	0.104 JN	41.6 JN	0.908	363	1.01 J	0.131 J+	52.8 J+	1.15	463	1.28 J
PCB-201	40186-71-8	0.00525 JN	2.10 JN	0.11	44.0	0.115 J	0.00684 JN	2.75 JN	0.106	42.5	0.113 J
PCB-202	2136-99-4	0.0111 J	4.44 J	0.265 JN	106 JN	0.276 J	0.0168 JN	6.75 JN	0.251 JN	101 JN	0.268 JN
PCB-203	52663-76-0	0.062 JN	24.8 JN	0.573	229	0.635 J	0.0973 JN	39.1 JN	0.654	263	0.751 J
PCB-204	74472-52-9	< 0.0021 UJ	< 0.839 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ	< 0.00209 U	< 0.840 U	< 0.0195 U	< 7.83 U	< 0.0216 U
PCB-205	74472-53-0	0.00575 JN	2.30 JN	0.0385 JN	15.4 JN	0.0443 JN	0.00291 JN	1.17 JN	0.0463 JN	18.6 JN	0.0492 JN
PCB-206	40186-72-9	0.0775 J	31.0 J	0.575 JN	230 JN	0.653 J	0.106 JN	42.7 JN	0.642	258	0.748 J
PCB-207	52663-79-3	0.0153 J	6.10 J	0.0748 J	29.9 J	0.09 J	0.0218 J+	8.78 J+	0.0744 J	29.9 J	0.0962 J
PCB-208	52663-77-1	0.0255 J	10.2 J	0.245	97.8	0.27 J	0.0403 JN	16.2 JN	0.186 JN	74.9 JN	0.227 JN
PCB-209	2051-24-3	0.0375 J	15.0 J	2.53	1010	2.56 J	0.0306 JN	12.3 JN	1.14	458	1.17 J
Total PCBs (a)	T_PCBCg (PDI)	38.3		84.8		123	78.6		105		183

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 400 L
Transect 02 Volume = 400 L
Transect 03 Volume = 400 L
Transect 04 Volume = 402 L
Transect 05 Volume = 422 L
Transect 06 Volume = 400 L
Transect 07 Volume = 400 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TEQ = toxicity equivalence

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T05-1902					PDI-WS-T06-1901				
		Location	T05					T06				
		Date	2/17/2019					1/27/2019				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**											
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.037 J	15.6 J	1.62	685	1.66 J	0.0229 J	9.16 J	1.43 J	572 J	1.45 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		0.00694 J+	2.93 J+	0.41	173	0.417 J	0.00393 J+	1.57 J+	0.223	89.1	0.227 J
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.00199 U	< 0.839 U	0.0254 J	10.7 J	0.0254 J	< 0.00209 U	< 0.837 U	0.0144 JN	5.77 JN	0.0144 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.00199 U	< 0.839 U	0.0188 JN	7.95 JN	0.0188 J	< 0.00209 U	< 0.837 U	0.0166 J	6.63 J	0.0166 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.00199 U	< 0.839 U	0.0201 JN	8.48 JN	0.0201 J	< 0.00209 U	< 0.837 U	0.0146 J	5.82 J	0.0146 J
1,2,3,6,7,8-HxCDD	57653-85-7		0.00236 JN	0.995 JN	0.0616 JN	26.0 JN	0.064 JN	< 0.00209 U	< 0.837 U	0.0528 J	21.1 J	0.0528 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.00199 U	< 0.839 U	0.0166 J	7.01 J	0.0166 J	< 0.00209 U	< 0.837 U	0.0114 JN	4.54 JN	0.0114 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.00199 U	< 0.839 U	0.0379 J	16.0 J	0.0379 J	< 0.00209 U	< 0.837 U	0.0237 JN	9.49 JN	0.0237 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.00199 U	< 0.839 U	< 0.00592 U	< 2.50 U	< 0.00791 U	< 0.00209 U	< 0.837 U	< 0.00625 U	< 2.50 U	< 0.00834 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.00199 U	< 0.839 U	0.0123 JN	5.20 JN	0.0123 J	< 0.00209 U	< 0.837 U	0.00863 J	3.45 J	0.00863 J
1,2,3,7,8-PeCDF	57117-41-6		0.00214 JN	0.903 JN	0.00839 J	3.54 J	0.0105 J	< 0.00209 U	< 0.837 U	< 0.00625 U	< 2.50 U	< 0.00834 U
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.00199 U	< 0.839 U	0.0149 JN	6.29 JN	0.0149 J	< 0.00209 U	< 0.837 U	0.00998 J	3.99 J	0.00998 J
2,3,4,7,8-PeCDF	57117-31-4		< 0.00199 U	< 0.839 U	0.00784 J	3.31 J	0.00784 J	< 0.00209 U	< 0.837 U	< 0.00625 U	< 2.50 U	< 0.00834 U
2,3,7,8-TCDD	1746-01-6		< 0.00199 U	< 0.839 U	< 0.00592 U	< 2.50 U	< 0.00791 U	< 0.00209 U	< 0.837 U	0.00735 JN	2.94 JN	0.00735 J
2,3,7,8-TCDF	51207-31-9		0.00265 J	1.12 J	< 0.00592 U	< 2.50 U	0.00265 J	< 0.00209 U	< 0.837 U	< 0.00625 U	< 2.50 U	< 0.00834 U
OCDD	3268-87-9		0.372	157	16.2	6830	16.6	0.151	60.4	12	4790	12.1
OCDF	39001-02-0		0.0171 JN	7.21 JN	0.704	297	0.721 J	< 0.0046 U	< 1.84 U	0.49	196	0.49
TCDD-TEQ (a)	T_DF_TEQ (PDI)		0.00212		0.0605		0.0626	0.00136		0.0502		0.0508
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)		0.00181		0.0398		0.0562	0.00136		0.042		0.0508
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)		0.000816		0.0337		0.0523	0.000314		0.0383		0.0496
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7		0.341 J	144 J	< 0.132 U	< 55.9 U	0.341 J	0.325 J	130 J	1.83 J	733 J	2.16 J
PCB-2	2051-61-8		0.132 J	55.8 J	0.0945	39.9	0.227 J	0.166 J	66.2 J	0.163 J	65.0 J	0.328 J
PCB-3	2051-62-9		0.256	108	< 0.167 U	< 70.5 U	0.256	0.323 J	129 J	0.645 J	258 J	0.968 J
PCB-4	13029-08-8		0.794 J	335 J	< 0.263 U	< 111 U	0.794 J	0.65 J	260 J	1.9 J	760 J	2.55 J
PCB-5	16605-91-7		0.0186 JN	7.87 JN	< 0.327 U	< 138 U	0.0186 J	< 0.0318 UJ	< 12.7 UJ	< 0.214 UJ	< 85.4 UJ	< 0.245 UJ
PCB-6	25569-80-6		0.195 J	82.3 J	< 0.294 U	< 124 U	0.195 J	0.141 J	56.5 J	0.575 J	230 J	0.716 J
PCB-7	33284-50-3		0.0623 J	26.3 J	< 0.299 U	< 126 U	0.0623 J	0.0675 J	27.0 J	< 0.195 UJ	< 78.0 UJ	0.0675 J
PCB-8	34883-43-7		0.585 J	247 J	0.536	226	1.12 J	0.468 J	187 J	1.52 J	606 J	1.98 J
PCB-9	34883-39-1		0.0436 JN	18.4 JN	< 0.277 U	< 117 U	0.0436 J	0.0395 J	15.8 J	< 0.181 UJ	< 72.3 UJ	0.0395 J
PCB-10	33146-45-1		0.0436 J	18.4 J	< 0.294 U	< 124 U	0.0436 J	0.029 J	11.6 J	< 0.192 UJ	< 76.8 UJ	0.029 J
PCB-11	2050-67-1		2.18 J	919 J	3.06	1290	5.23 J	1.78 J	712 J	2.08 J	832 J	3.86 J
PCB-12/13	PCB-12/13		0.091 JN	38.4 JN	< 0.32 U	< 135 U	0.091 J	0.0933 J	37.3 J	0.308 J	123 J	0.401 J
PCB-14	34883-41-5		0.0201 JN	8.47 JN	< 0.31 U	< 131 U	0.0201 J	< 0.0295 UJ	< 11.8 UJ	< 0.202 UJ	< 80.9 UJ	< 0.232 UJ
PCB-15	2050-68-2		0.322 J	136 J	0.46	194	0.782 J	0.228 J	91.1 J	1.54 J	614 J	1.76 J
PCB-16	38444-78-9		0.291 J	123 J	0.213 JN	90.0 JN	0.505 J	0.193 J	77.2 J	0.255 J	102 J	0.448 J
PCB-17	37680-66-3		0.536 J	226 J	0.36 J+	152 J+	0.896 J	0.528 J	211 J	0.663 J	265 J	1.19 J
PCB-18/30	PCB-18/30		0.732 J	309 J	0.573 J+	242 J+	1.31 J	0.48 J	192 J	0.88 J	352 J	1.36 J
PCB-19	38444-73-4		0.327 J	138 J	0.0848	35.8	0.412 J	0.18 JN	72.0 JN	0.278 JN	111 JN	0.458 JN
PCB-20/28	PCB-20/28		1.03 J	436 J	1.05 J+	445 J+	2.09 J	0.753 J	301 J	1.33 J	531 J	2.08 J
PCB-21/33	PCB-21/33		1.03 J	436 J	0.443 J+	187 J+	1.48 J	1.25 J	499 J	0.415 J	166 J	1.66 J
PCB-22	38444-85-8		0.344 J	145 J	0.355 J+	150 J+	0.699 J	0.231 J	92.2 J	0.355 J	142 J	0.586 J
PCB-23	55720-44-0		< 0.00555 UJ	< 2.34 UJ	< 0.021 U	< 8.86 U	< 0.0265 UJ	< 0.012 UJ	< 4.79 UJ	< 0.0204 U	< 8.14 U	< 0.0323 UJ
PCB-24	55702-45-9		0.0156 JN	6.60 JN	< 0.0263 U	< 11.1 U	0.0156 J	0.0106 J	4.25 J	< 0.029 U	< 11.6 U	0.0106 J
PCB-25	55712-37-3		0.28 J	118 J	0.195	82.2	0.474 J	0.29 J	116 J	0.229 J	91.4 J	0.519 J
PCB-26/29	PCB-26/29		0.214 J	90.2 J	0.204 J+	86.0 J+	0.418 J	0.139 J	55.6 J	0.375 J	150 J	0.514 J
PCB-27	38444-76-7		0.095 JN	40.1 JN	0.0472 JN	19.9 JN	0.142 JN	0.066 J	26.4 J	0.142 J	56.9 J	0.208 J
PCB-31	16606-02-3		0.822 J	347 J	0.839 J+	354 J+	1.66 J	0.575 J	230 J	1.18 J	470 J	1.75 J
PCB-32	38444-77-8		0.277 J	117 J	0.186 J+	78.3 J+	0.463 J	0.176 J	70.5 J	0.373 J	149 J	0.549 J
PCB-34	37680-68-5		0.00536 J	2.26 J	< 0.0205 U	< 8.64 U	0.00536 J	< 0.0115 UJ	< 4.58 UJ	< 0.0199 U	< 7.94 U	< 0.0313 UJ
PCB-35	37680-69-6		0.0296 JN	12.5 JN	0.0521 JN	22.0 JN	0.0818 JN	0.0226 J	9.03 J	0.0463 J	18.5 J	0.0688 J
PCB-36	38444-87-0		0.0128 JN	5.41 JN	0.028 JN	11.8 JN	0.0408 JN	0.0119 JN	4.75 JN	0.0215 J	8.61 J	0.0334 J
PCB-37	38444-90-5		0.147	62.1	0.37	156	0.517	0.0998 J	39.9 J	0.38	152	0.48 J
PCB-38	53555-66-1		< 0.00526 UJ	< 2.22 UJ	< 0.0211 U	< 8.91 U	< 0.0264 UJ	< 0.0114 UJ	< 4.54 UJ	< 0.0205 U	< 8.19 U	< 0.0318 UJ

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

Sample		PDI-WS-T05-1902					PDI-WS-T06-1901				
Location		T05					T06				
Date		2/17/2019					1/27/2019				
Sample Type		N	N	N	N	N	N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-39	38444-88-1	0.00706 JN	2.98 JN	< 0.0214 U	< 9.04 U	0.00706 J	< 0.0117 UJ	< 4.68 UJ	< 0.0208 U	< 8.30 U	< 0.0325 UJ
PCB-40/41/71	PCB-40/41/71	0.483 J	204 J	0.659	278	1.14 J	0.328 J	131 J	0.393 JN	157 JN	0.72 J
PCB-42	36559-22-5	0.239 J	101 J	0.358	151	0.597 J	0.169 J	67.4 J	0.218	87.0	0.386 J
PCB-43	70362-46-8	0.0382 J	16.1 J	0.041 J	17.3 J	0.0791 J	0.0223 JN	8.90 JN	0.021 J	8.39 J	0.0432 J
PCB-44/47/65	PCB-44/47/65	4.15 J	1750 J	2.46	1040	6.61 J	5.93 J	2370 J	1.9	760	7.83 J
PCB-45/51	PCB-45/51	18.6 J	7840 J	0.853	360	19.4 J	29.3 J	11700 J	0.71 J	284 J	30 J
PCB-46	41464-47-5	0.0953 J	40.2 J	0.0768 JN	32.4 JN	0.172 J	0.0728 JN	29.1 JN	0.0598 JN	23.9 JN	0.133 JN
PCB-48	70362-47-9	0.145 J	61.1 J	0.228	96.1	0.373 J	0.105 J	41.8 J	0.174	69.6	0.279 J
PCB-49/69	PCB-49/69	0.723 J	305 J	0.962	406	1.68 J	0.598 J	239 J	0.718	287	1.32 J
PCB-50/53	PCB-50/53	0.194 J	81.8 J	0.174	73.5	0.368 J	0.135 J	54.0 J	0.173 J	69.3 J	0.308 J
PCB-52	35693-99-3	1.39 J	585 J	1.77	748	3.16 J	1.16 J	462 J	1.51	603	2.66 J
PCB-54	15968-05-5	0.0124 JN	5.25 JN	< 0.0125 U	< 5.27 U	0.0124 J	0.00933 JN	3.73 JN	< 0.0117 U	< 4.68 U	0.00933 J
PCB-55	74338-24-2	< 0.00607 UJ	< 2.56 UJ	< 0.0254 U	< 10.7 U	< 0.0314 UJ	< 0.013 UJ	< 5.20 UJ	< 0.0206 U	< 8.24 U	< 0.0336 UJ
PCB-56	41464-43-1	0.256 J	108 J	0.604	255	0.86 J	0.159 J	63.7 J	0.408	163	0.567 J
PCB-57	70424-67-8	< 0.00526 UJ	< 2.22 UJ	< 0.0232 U	< 9.79 U	< 0.0285 UJ	< 0.0113 UJ	< 4.51 UJ	< 0.0188 U	< 7.51 U	< 0.0301 UJ
PCB-58	41464-49-7	< 0.00547 UJ	< 2.31 UJ	< 0.0244 U	< 10.3 U	< 0.0299 UJ	< 0.0117 UJ	< 4.68 UJ	< 0.0197 U	< 7.88 U	< 0.0314 UJ
PCB-59/62/75	PCB-59/62/75	0.082 JN	34.6 JN	0.116	49.0	0.198 J	0.0608 J	24.3 J	0.0775 JN	31.0 JN	0.138 J
PCB-60	33025-41-1	0.11 J	46.4 J	0.244	103	0.354 J	0.0745 J	29.8 J	0.194	77.5	0.268 J
PCB-61/70/74/76	PCB-61/70/74/76	1.07 J	451 J	2.44	1030	3.51 J	0.808 J	323 J	1.74	696	2.55 J
PCB-63	74472-34-7	0.0289 J	12.2 J	0.0519 J	21.9 J	0.0808 J	0.022 J	8.80 J	0.0465 J	18.6 J	0.0685 J
PCB-64	52663-58-8	0.382 J	161 J	0.607	256	0.988 J	0.265 J	106 J	0.41	164	0.675 J
PCB-66	32598-10-0	0.566 J	239 J	1.56	660	2.13 J	0.438 J	175 J	1.01	403	1.45 J
PCB-67	73575-53-8	0.0155 JN	6.53 JN	0.0332 J	14.0 J	0.0486 J	0.0119 JN	4.75 JN	0.027 J	10.8 J	0.0389 J
PCB-68	73575-52-7	4.29 J	1810 J	0.393	166	4.68 J	5.43 J	2170 J	0.45	180	5.88 J
PCB-72	41464-42-0	0.0141 JN	5.97 JN	0.0239 JN	10.1 JN	0.0381 JN	< 0.0109 UJ	< 4.35 UJ	< 0.0177 U	< 7.07 U	< 0.0286 UJ
PCB-73	74338-23-1	< 0.00199 UJ	< 0.839 UJ	< 0.0138 U	< 5.82 U	< 0.0158 UJ	< 0.0028 UJ	< 1.12 UJ	< 0.0105 U	< 4.19 U	< 0.0133 UJ
PCB-77	32598-13-3	0.0344 JN	14.5 JN	0.222	93.6	0.256 J	0.026 J	10.4 J	0.172	68.7	0.198 J
PCB-78	70362-49-1	< 0.00573 UJ	< 2.42 UJ	< 0.0246 U	< 10.4 U	< 0.0304 UJ	< 0.0123 UJ	< 4.91 UJ	< 0.0199 U	< 7.96 U	< 0.0322 UJ
PCB-79	41464-48-6	0.00998 JN	4.21 JN	0.0353 J	14.9 J	0.0453 J	< 0.00993 UJ	< 3.97 UJ	0.0228 J	9.11 J	0.0228 J
PCB-80	33284-52-5	< 0.00509 UJ	< 2.15 UJ	< 0.0222 U	< 9.36 U	< 0.0273 UJ	< 0.0109 UJ	< 4.36 UJ	< 0.018 U	< 7.18 U	< 0.0289 UJ
PCB-81	70362-50-4	< 0.00557 U	< 2.35 U	< 0.0246 U	< 10.4 U	< 0.0302 U	< 0.0117 UJ	< 4.69 UJ	< 0.0193 U	< 7.72 U	< 0.031 UJ
PCB-82	52663-62-4	0.0628	26.5	0.322	136	0.385	0.041 JN	16.4 JN	0.248	99.2	0.289 J
PCB-83/99	PCB-83/99	0.417	176	1.41	596	1.83	0.328 J	131 J	1.16	463	1.49 J
PCB-84	52663-60-2	0.191	80.7	0.488	206	0.679	0.145 J	58.1 J	0.418 JN	167 JN	0.563 J
PCB-85/116/117	PCB-85/116/117	0.108	45.6	0.502	212	0.61	0.084 J	33.6 J	0.413	165	0.497 J
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	0.422	178	1.47 J	622 J	1.9 J	0.343 J	137 J	1.34 J	537 J	1.69 J
PCB-88/91	PCB-88/91	0.137	57.7	0.308	130	0.445	0.116 J	46.3 J	0.246	98.3	0.362 J
PCB-89	73575-57-2	0.011 JN	4.65 JN	0.0284 J	12.0 J	0.0395 J	0.00813 JN	3.25 JN	< 0.0295 U	< 11.8 U	0.00813 J
PCB-90/101/113	PCB-90/101/113	0.694	293	1.97	831	2.66	0.578 J	231 J	1.85	738	2.42 J
PCB-92	52663-61-3	0.136	57.6	0.445	188	0.582	0.108 J	43.3 J	0.39	156	0.498 J
PCB-93/95/98/100/102	PCB-93/95/98/_C	0.68	287	1.59	672	2.27	0.54 J	216 J	1.48	590	2.02 J
PCB-94	73575-55-0	0.00782 J	3.30 J	< 0.0169 U	< 7.13 U	0.00782 J	0.0043 JN	1.72 JN	< 0.0295 U	< 11.8 U	0.0043 J
PCB-96	73575-54-9	0.00836 J	3.53 J	0.0256 JN	10.8 JN	0.034 J	0.00518 JN	2.07 JN	< 0.0132 U	< 5.26 U	0.00518 J
PCB-103	60145-21-3	0.0106 J	4.48 J	0.0294 JN	12.4 JN	0.04 J	0.00673 JN	2.69 JN	< 0.024 U	< 9.60 U	0.00673 J
PCB-104	56558-16-8	< 0.00199 U	< 0.839 U	0.0136 JN	5.76 JN	0.0136 J	< 0.00209 UJ	< 0.837 UJ	< 0.0137 U	< 5.47 U	< 0.0158 UJ
PCB-105	32598-14-4	0.136	57.4	0.986	416	1.12	0.117 J	46.9 J	0.975	390	1.09 J
PCB-106	70424-69-0	< 0.00313 U	< 1.32 U	< 0.0213 U	< 8.99 U	< 0.0244 U	< 0.00343 UJ	< 1.37 UJ	< 0.0236 U	< 9.44 U	< 0.027 UJ
PCB-107/124	PCB-107/124	0.0191 JN	8.05 JN	0.101	42.6	0.12 J	0.0173 J	6.91 J	0.104	41.6	0.121 J
PCB-109	74472-35-8	0.0254	10.7	0.192 JN	81.0 JN	0.217 J	0.0273 J	10.9 J	0.198	79.3	0.226 J
PCB-110/115	PCB-110/115	0.697	294	2.58	1090	3.28	0.515 J	206 J	2.31	923	2.82 J
PCB-111	39635-32-0	< 0.00199 U	< 0.839 U	< 0.0117 U	< 4.93 U	< 0.0137 U	< 0.00209 UJ	< 0.837 UJ	< 0.0204 U	< 8.17 U	< 0.0225 UJ
PCB-112	74472-36-9	< 0.00199 U	< 0.839 U	< 0.0111 U	< 4.70 U	< 0.0131 U	< 0.00209 UJ	< 0.837 UJ	< 0.0195 U	< 7.78 U	< 0.0215 UJ
PCB-114	74472-37-0	0.01 J	4.22 J	0.0457 J	19.3 J	0.0557 J	0.00428 JN	1.71 JN	0.069 JN	27.6 JN	0.0733 JN
PCB-118	31508-00-6	0.393	166	2.18	922	2.58	0.323 J	129 J	2.16	864	2.48 J
PCB-120	68194-12-7	< 0.00199 U	< 0.839 U	0.0138 J	5.83 J	0.0138 J	0.00263 J	1.05 J	< 0.0193 U	< 7.73 U	0.00263 J

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T05-1902					PDI-WS-T06-1901				
	Location	T05					T06				
	Date	2/17/2019					1/27/2019				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-121	56558-18-0	< 0.00199 U	< 0.839 U	< 0.0121 U	< 5.09 U	< 0.014 U	< 0.00209 UJ	< 0.837 UJ	< 0.0211 U	< 8.43 U	< 0.0232 UJ
PCB-122	76842-07-4	< 0.00372 U	< 1.57 U	0.0384 J	16.2 J	0.0384 J	< 0.00405 UJ	< 1.62 UJ	0.0288 JN	11.5 JN	0.0288 J
PCB-123	65510-44-3	0.0114 JN	4.80 JN	0.0531 J	22.4 J	0.0645 J	0.0099 JN	3.96 JN	0.0573 JN	22.9 JN	0.0672 JN
PCB-126	57465-28-8	< 0.00429 U	< 1.81 U	< 0.0244 U	< 10.3 U	< 0.0287 U	< 0.0056 UJ	< 2.24 UJ	< 0.026 U	< 10.4 U	< 0.0316 UJ
PCB-127	39635-33-1	< 0.00377 U	< 1.59 U	< 0.0199 U	< 8.39 U	< 0.0236 U	< 0.0041 UJ	< 1.64 UJ	< 0.022 U	< 8.81 U	< 0.0261 UJ
PCB-128/166	PCB-128/166	0.0488	20.6	0.514	217	0.563	0.0473 J	18.9 J	0.545	218	0.592 J
PCB-129/138/160/163	PCB-129/138/_C	0.412	174	3.79	1600	4.2	0.36 J	144 J	3.58	1430	3.94 J
PCB-130	52663-66-8	0.0222 JN	9.38 JN	0.185	77.9	0.207 J	0.0255 J	10.2 J	0.175	69.9	0.2 J
PCB-131	61798-70-7	0.00538 JN	2.27 JN	< 0.0379 U	< 16.0 U	0.00538 J	< 0.00385 UJ	< 1.54 UJ	0.0365 J	14.6 J	0.0365 J
PCB-132	38380-05-1	0.113	47.6	1.03	435	1.14	0.091 J	36.4 J	0.883	353	0.974 J
PCB-133	35694-04-3	0.00756 JN	3.19 JN	0.0507 JN	21.4 JN	0.0583 JN	0.00893 JN	3.57 JN	0.0443 J	17.7 J	0.0532 J
PCB-134/143	PCB-134/143	0.018 JN	7.59 JN	0.146	61.5	0.164 J	0.0196 J	7.82 J	0.13 JN	51.9 JN	0.149 J
PCB-135/151/154	PCB-135/151/154	0.158	66.5	0.988	417	1.15	0.124 J	49.7 J	0.848 J	339 J	0.972 J
PCB-136	38411-22-2	0.0455	19.2	0.303 JN	128 JN	0.349 J	0.048 J	19.2 J	0.244	97.4	0.292 J
PCB-137	35694-06-5	0.0163	6.86	0.172 JN	72.4 JN	0.188 J	0.0117 JN	4.69 JN	0.171 JN	68.5 JN	0.183 JN
PCB-139/140	PCB-139/140	0.00469 JN	1.98 JN	0.0346 JN	14.6 JN	0.0393 JN	0.00713 JN	2.85 JN	0.061 J	24.4 J	0.0681 J
PCB-141	52712-04-6	0.0614 JN	25.9 JN	0.564	238	0.625 J	0.0528 J	21.1 J	0.493	197	0.545 J
PCB-142	41411-61-4	< 0.00344 U	< 1.45 U	< 0.037 U	< 15.6 U	< 0.0404 U	< 0.00375 UJ	< 1.50 UJ	< 0.0108 U	< 4.30 U	< 0.0145 UJ
PCB-144	68194-14-9	0.0176 JN	7.41 JN	0.118	49.8	0.136 J	0.0165 JN	6.59 JN	0.131 JN	52.5 JN	0.148 JN
PCB-145	74472-40-5	< 0.00199 U	< 0.839 U	< 0.0104 U	< 4.39 U	< 0.0124 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-146	51908-16-8	0.0678	28.6	0.569	240	0.636	0.0683 J	27.3 J	0.443	177	0.511 J
PCB-147/149	PCB-147/149	0.32	135	2.87	1210	3.19	0.298 J	119 J	2.31 J	925 J	2.61 J
PCB-148	74472-41-6	< 0.00199 U	< 0.839 U	0.017 JN	7.16 JN	0.017 J	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-150	68194-08-1	< 0.00199 U	< 0.839 U	< 0.00983 U	< 4.15 U	< 0.0118 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-152	68194-09-2	< 0.00199 U	< 0.839 U	< 0.00983 U	< 4.15 U	< 0.0118 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-153/168	PCB-153/168	0.363	153	3.18	1340	3.54	0.338 J	135 J	2.44	974	2.77 J
PCB-155	33979-03-2	0.002 JN	0.842 JN	0.018 JN	7.58 JN	0.02 JN	0.0022 JN	0.881 JN	0.013 J	5.18 J	0.0152 J
PCB-156/157	PCB-156/157	0.0325 J+	13.7 J+	0.4	169	0.433 J	0.0318 J	12.7 J	0.44	176	0.472 J
PCB-158	74472-42-7	0.0306	12.9	0.318	134	0.348	0.0253 J	10.1 J	0.278	111	0.303 J
PCB-159	39635-35-3	< 0.00258 U	< 1.09 U	0.04 JN	16.9 JN	0.04 J	< 0.00283 UJ	< 1.13 UJ	0.03 J	12.0 J	0.03 J
PCB-161	74472-43-8	< 0.00244 U	< 1.03 U	< 0.0246 U	< 10.4 U	< 0.0271 U	< 0.00265 UJ	< 1.06 UJ	< 0.0105 U	< 4.19 U	< 0.0131 UJ
PCB-162	39635-34-2	< 0.00258 U	< 1.09 U	< 0.0228 U	< 9.64 U	< 0.0254 U	< 0.00285 UJ	< 1.14 UJ	0.0148 JN	5.93 JN	0.0148 J
PCB-164	74472-45-0	0.0273	11.5	0.232	97.9	0.259	0.0222 JN	8.86 JN	0.197	78.7	0.219 J
PCB-165	74472-46-1	< 0.00287 U	< 1.21 U	< 0.028 U	< 11.8 U	< 0.0308 U	< 0.00313 UJ	< 1.25 UJ	< 0.0105 U	< 4.19 U	< 0.0136 UJ
PCB-167	52663-72-6	0.0118 JN	4.97 JN	0.145	61.2	0.157 J	0.0132 J	5.27 J	0.156 JN	62.2 JN	0.169 J
PCB-169	32774-16-6	< 0.00341 U	< 1.44 U	< 0.0239 U	< 10.1 U	< 0.0273 U	< 0.0047 UJ	< 1.88 UJ	< 0.0105 U	< 4.19 U	< 0.0152 UJ
PCB-170	35065-30-6	0.0429 J+	18.1 J+	0.865	365	0.908 J	0.044 J	17.6 J	0.705	282	0.749 J
PCB-171/173	PCB-171/173	0.015 J+	6.31 J+	0.251	106	0.266 J	0.0116 JN	4.62 JN	0.177	70.8	0.189 J
PCB-172	52663-74-8	0.0155 J	6.54 J	0.161	68.0	0.177 J	< 0.00209 UJ	< 0.837 UJ	0.127	50.9	0.127
PCB-174	38411-25-5	0.0611	25.8	0.886	374	0.947	0.037 JN	14.8 JN	0.538	215	0.575 J
PCB-175	40186-70-7	0.00313 JN	1.32 JN	0.0327 J	13.8 J	0.0358 J	< 0.00209 UJ	< 0.837 UJ	0.0121 JN	4.85 JN	0.0121 J
PCB-176	52663-65-7	0.00806 JN	3.40 JN	0.0931	39.3	0.101 J	0.0052 J	2.08 J	0.0878	35.1	0.093 J
PCB-177	52663-70-4	0.0332 J+	14.0 J+	0.469	198	0.502 J	0.0212 JN	8.49 JN	0.345 JN	138 JN	0.366 JN
PCB-178	52663-67-9	0.0173 JN	7.29 JN	0.213 JN	89.7 JN	0.23 JN	0.0161 J	6.42 J	0.167	66.8	0.183 J
PCB-179	52663-64-6	0.0327 JN	13.8 JN	0.367	155	0.4 J	0.0215 J	8.59 J	0.26	104	0.281 J
PCB-180/193	PCB-180/193	0.144 J+	60.9 J+	2.23	941	2.37 J	0.137 J	54.6 J	1.8	718	1.93 J
PCB-181	74472-47-2	< 0.00199 U	< 0.839 U	< 0.00983 U	< 4.15 U	< 0.0118 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-182	60145-23-5	0.00334 JN	1.41 JN	< 0.00983 U	< 4.15 U	0.00334 J	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-183/185	PCB-183/185	0.0457	19.3	0.569	240	0.614	0.0353 JN	14.1 JN	0.353	141	0.388 J
PCB-184	74472-48-3	< 0.00199 U	< 0.839 U	0.0188 JN	7.94 JN	0.0188 J	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-186	74472-49-4	< 0.00199 U	< 0.839 U	< 0.00983 U	< 4.15 U	< 0.0118 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-187	52663-68-0	0.0931 J+	39.3 J+	1.13	476	1.22 J	0.084 JN	33.6 JN	0.768	307	0.852 J
PCB-188	74487-85-7	< 0.00199 U	< 0.839 U	< 0.00983 U	< 4.15 U	< 0.0118 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-189	39635-31-9	< 0.00199 U	< 0.839 U	0.0467 J	19.7 J	0.0467 J	0.00433 JN	1.73 JN	0.0224 JN	8.95 JN	0.0267 JN
PCB-190	41411-64-7	0.0139 JN	5.88 JN	0.16 JN	67.4 JN	0.174 JN	0.0089 JN	3.56 JN	0.158	63.0	0.166 J

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T05-1902					PDI-WS-T06-1901				
	Location	T05					T06				
	Date	2/17/2019					1/27/2019				
	Sample Type	N	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN										
PCB-191	74472-50-7	< 0.00199 U	< 0.839 U	0.031 JN	13.1 JN	0.031 J	0.00213 JN	0.850 JN	0.0228 JN	9.12 JN	0.0249 JN
PCB-192	74472-51-8	< 0.00199 U	< 0.839 U	< 0.00983 U	< 4.15 U	< 0.0118 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-194	35694-08-7	0.0315 J+	13.3 J+	0.474	200	0.505 J	0.0368 JN	14.7 JN	0.488 J	195 J	0.524 J
PCB-195	52663-78-2	0.00844 JN	3.56 JN	0.205 JN	86.4 JN	0.213 JN	0.0121 J	4.85 J	0.182 JN	72.6 JN	0.194 J
PCB-196	42740-50-1	0.0145 J+	6.12 J+	0.251	106	0.266 J	0.0283 JN	11.3 JN	0.228	91.3	0.257 J
PCB-197/200	PCB-197/200	0.0059 JN	2.49 JN	0.0915	38.6	0.0974 J	0.00543 JN	2.17 JN	0.063 JN	25.2 JN	0.0684 JN
PCB-198/199	PCB-198/199	0.0483 JN	20.4 JN	0.671	283	0.719 J	0.0675 J	27.0 J	0.513 JN	205 JN	0.58 J
PCB-201	40186-71-8	0.00524 JN	2.21 JN	0.0666 JN	28.1 JN	0.0718 JN	0.00373 J	1.49 J	0.0433 JN	17.3 JN	0.047 J
PCB-202	2136-99-4	0.0135 J+	5.70 J+	0.162 JN	68.2 JN	0.175 J	0.0149 JN	5.97 JN	0.125	49.8	0.139 J
PCB-203	52663-76-0	0.0348 J+	14.7 J+	0.424 JN	179 JN	0.459 J	0.0503 JN	20.1 JN	0.29 JN	116 JN	0.34 JN
PCB-204	74472-52-9	< 0.00199 U	< 0.839 U	< 0.0105 U	< 4.45 U	< 0.0125 U	< 0.00209 UJ	< 0.837 UJ	< 0.0105 U	< 4.19 U	< 0.0126 UJ
PCB-205	74472-53-0	0.00282 JN	1.19 JN	0.0227 J	9.56 J	0.0255 J	< 0.00209 UJ	< 0.837 UJ	0.0348 J	13.9 J	0.0348 J
PCB-206	40186-72-9	0.0341 JN	14.4 JN	0.398 JN	168 JN	0.432 JN	0.0515 J	20.6 J	0.375	150	0.427 J
PCB-207	52663-79-3	< 0.00597 U	< 2.52 U	0.0571 J	24.1 J	0.0571 J	0.0125 JN	5.01 JN	0.0585 J	23.4 J	0.071 J
PCB-208	52663-77-1	0.0194 J+	8.20 J+	0.179	75.5	0.198 J	0.0275 JN	11.0 JN	0.152	60.7	0.179 J
PCB-209	2051-24-3	0.0398 JN	16.8 JN	1.08 JN	456 JN	1.12 JN	0.0187 J	7.46 J	0.765	306	0.784 J
Total PCBs (a)	T_PCBCg (PDI)	50.9		65.3		116	60.1		63.9		124

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 400 L

Transect 02 Volume = 400 L

Transect 03 Volume = 400 L

Transect 04 Volume = 402 L

Transect 05 Volume = 422 L

Transect 06 Volume = 400 L

Transect 07 Volume = 400 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number

EMPC = estimated maximum possible concentration

EPA = U.S. Environmental Protection Agency

HpCDD = heptachlorodibenzo-p-dioxin

HpCDF = heptachlorodibenzofuran

HxCDD = hexachlorodibenzo-p-dioxin

HxCDF = hexachlorodibenzofuran

L = liter

N = normal field sample

OCDD = octachlorodibenzodioxin

OCDF = octachlorodibenzofuran

PCB = polychlorinated biphenyl

PDI = Pre-Remedial Design Investigation

PeCDD = pentachlorodibenzo-p-dioxin

PeCDF = pentachlorodibenzofuran

pg = picogram

TEQ = toxicity equivalence

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

		Sample	PDI-WS-T07-1901				
		Location	T07				
		Date	1/26/2019				
		Sample Type	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	**CAS_RN**						
Dioxins and Furans							
1,2,3,4,6,7,8-HpCDD	35822-46-9		0.00858 J+	3.43 J+	1.76	702	1.76 J
1,2,3,4,6,7,8-HpCDF	67562-39-4		0.00365 J+	1.46 J+	0.295	118	0.299 J
1,2,3,4,7,8,9-HpCDF	55673-89-7		< 0.0021 U	< 0.838 U	0.0224 JN	8.94 JN	0.0224 J
1,2,3,4,7,8-HxCDD	39227-28-6		< 0.0021 U	< 0.838 U	0.0224 JN	8.96 JN	0.0224 J
1,2,3,4,7,8-HxCDF	70648-26-9		< 0.0021 U	< 0.838 U	0.0212 J	8.46 J	0.0212 J
1,2,3,6,7,8-HxCDD	57653-85-7		< 0.0021 U	< 0.838 U	0.0703 J	28.1 J	0.0703 J
1,2,3,6,7,8-HxCDF	57117-44-9		< 0.0021 U	< 0.838 U	0.0154 JN	6.14 JN	0.0154 J
1,2,3,7,8,9-HxCDD	19408-74-3		< 0.0021 U	< 0.838 U	0.0388 JN	15.5 JN	0.0388 J
1,2,3,7,8,9-HxCDF	72918-21-9		< 0.0021 U	< 0.838 U	< 0.0112 U	< 4.46 U	< 0.0132 U
1,2,3,7,8-PeCDD	40321-76-4		< 0.0021 U	< 0.838 U	0.0123 J	4.93 J	0.0123 J
1,2,3,7,8-PeCDF	57117-41-6		< 0.0021 U	< 0.838 U	0.0106 J	4.22 J	0.0106 J
2,3,4,6,7,8-HxCDF	60851-34-5		< 0.0021 U	< 0.838 U	0.0118 J	4.71 J	0.0118 J
2,3,4,7,8-PeCDF	57117-31-4		< 0.0021 U	< 0.838 U	0.0089 J	3.56 J	0.0089 J
2,3,7,8-TCDD	1746-01-6		< 0.0021 U	< 0.838 U	< 0.0093 U	< 3.72 U	< 0.0114 U
2,3,7,8-TCDF	51207-31-9		< 0.0021 U	< 0.838 U	0.007 J	2.80 J	0.007 J
OCDD	3268-87-9		0.0863	34.5	16.4	6560	16.5
OCDF	39001-02-0		< 0.00573 U	< 2.29 U	0.793	317	0.793
TCDD-TEQ (a)	T_DF_TEQ (PDI)		0.0012		0.0646		0.0657
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)		0.0012		0.0567		0.0657
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)		0.000148		0.052		0.06
Polychlorinated Biphenyls (PCBs)							
PCB-1	2051-60-7		0.315 J	126 J	< 0.137 U	< 54.8 U	0.315 J
PCB-2	2051-61-8		0.168 J	67.0 J	0.117	46.9	0.285 J
PCB-3	2051-62-9		0.35 J	140 J	< 0.173 U	< 69.2 U	0.35 J
PCB-4	13029-08-8		0.618 J	247 J	0.232 J	92.9 J	0.85 J
PCB-5	16605-91-7		< 0.0368 UJ	< 14.7 UJ	< 0.118 U	< 47.1 U	< 0.155 UJ
PCB-6	25569-80-6		0.136 J	54.2 J	0.12 JN	48.0 JN	0.256 J
PCB-7	33284-50-3		0.0515 JN	20.6 JN	< 0.108 U	< 43.0 U	0.0515 J
PCB-8	34883-43-7		0.498 J	199 J	0.423	169	0.92 J
PCB-9	34883-39-1		0.0375 JN	15.0 JN	< 0.0998 U	< 39.9 U	0.0375 J
PCB-10	33146-45-1		< 0.0325 UJ	< 13.0 UJ	< 0.106 U	< 42.3 U	< 0.138 UJ
PCB-11	2050-67-1		1.77 J	706 J	1.77	708	3.54 J
PCB-12/13	PCB-12/13		0.0678 JN	27.1 JN	< 0.115 U	< 46.1 U	0.0678 J
PCB-14	34883-41-5		< 0.034 UJ	< 13.6 UJ	< 0.112 U	< 44.6 U	< 0.146 UJ
PCB-15	2050-68-2		0.212 JN	84.8 JN	0.448	179	0.66 J
PCB-16	38444-78-9		0.243 J	97.3 J	0.201 J+	80.2 J+	0.444 J
PCB-17	37680-66-3		0.445 J	178 J	0.338 J+	135 J+	0.783 J
PCB-18/30	PCB-18/30		0.57 J	228 J	0.523 J+	209 J+	1.09 J
PCB-19	38444-73-4		0.167 J	66.9 J	0.0743 JN	29.7 JN	0.242 J
PCB-20/28	PCB-20/28		0.855 J	342 J	0.995 J+	398 J+	1.85 J
PCB-21/33	PCB-21/33		0.535 J	214 J	0.408 J+	163 J+	0.943 J
PCB-22	38444-85-8		0.26 J	104 J	0.315 J+	126 J+	0.575 J
PCB-23	55720-44-0		< 0.0105 UJ	< 4.18 UJ	< 0.0201 U	< 8.05 U	< 0.0306 UJ
PCB-24	55702-45-9		0.0125 J	5.00 J	< 0.027 U	< 10.8 U	0.0125 J
PCB-25	55712-37-3		0.232 J	92.7 J	0.116	46.2	0.347 J
PCB-26/29	PCB-26/29		0.173 J	69.0 J	0.189 J+	75.7 J+	0.362 J
PCB-27	38444-76-7		0.0738 J	29.5 J	0.0408 JN	16.3 JN	0.115 J
PCB-31	16606-02-3		0.683 J	273 J	0.765 J+	306 J+	1.45 J
PCB-32	38444-77-8		0.218 J	87.2 J	0.191 J+	76.5 J+	0.409 J
PCB-34	37680-68-5		< 0.01 UJ	< 4.00 UJ	< 0.0196 U	< 7.85 U	< 0.0296 UJ
PCB-35	37680-69-6		0.0285 JN	11.4 JN	0.052 J	20.8 J	0.0805 J
PCB-36	38444-87-0		0.015 J	6.01 J	0.033 JN	13.2 JN	0.048 J
PCB-37	38444-90-5		0.112 J	44.7 J	0.388	155	0.499 J
PCB-38	53555-66-1		< 0.00993 UJ	< 3.97 UJ	< 0.0203 U	< 8.10 U	< 0.0302 UJ

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

Sample		PDI-WS-T07-1901				
Location		T07				
Date		1/26/2019				
Sample Type		N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-39	38444-88-1	< 0.0102 UJ	< 4.09 UJ	< 0.0205 U	< 8.21 U	< 0.0308 UJ
PCB-40/41/71	PCB-40/41/71	0.305 J	122 J	0.508	203	0.813 J
PCB-42	36559-22-5	0.183 J	73.1 J	0.283 JN	113 JN	0.465 J
PCB-43	70362-46-8	0.0275 J	11.0 J	0.036 JN	14.4 JN	0.0635 J
PCB-44/47/65	PCB-44/47/65	3.5 J	1400 J	1.86	744	5.36 J
PCB-45/51	PCB-45/51	7.5 J	3000 J	1.02	407	8.52 J
PCB-46	41464-47-5	0.067 J	26.8 J	0.0558 J	22.3 J	0.123 J
PCB-48	70362-47-9	0.113 JN	45.3 JN	0.197	78.7	0.31 J
PCB-49/69	PCB-49/69	0.56 J	224 J	0.745	298	1.31 J
PCB-50/53	PCB-50/53	0.132 J	52.8 J	0.136	54.5	0.268 J
PCB-52	35693-99-3	1.2 J	478 J	1.42	566	2.61 J
PCB-54	15968-05-5	0.00428 J	1.71 J	< 0.0104 U	< 4.16 U	0.00428 J
PCB-55	74338-24-2	< 0.0198 UJ	< 7.91 UJ	0.0273 J	10.9 J	0.0273 J
PCB-56	41464-43-1	0.19 J	75.9 J	0.463	185	0.652 J
PCB-57	70424-67-8	< 0.0172 UJ	< 6.87 UJ	< 0.0119 U	< 4.77 U	< 0.0291 UJ
PCB-58	41464-49-7	< 0.0178 UJ	< 7.12 UJ	< 0.0125 U	< 5.00 U	< 0.0303 UJ
PCB-59/62/75	PCB-59/62/75	0.055 J	22.0 J	0.0938	37.5	0.149 J
PCB-60	33025-41-1	0.0788 J	31.5 J	0.177	70.7	0.256 J
PCB-61/70/74/76	PCB-61/70/74/76	0.893 J	357 J	1.84	734	2.73 J
PCB-63	74472-34-7	0.0196 JN	7.84 JN	0.043 JN	17.2 JN	0.0626 JN
PCB-64	52663-58-8	0.308 J	123 J	0.45	180	0.758 J
PCB-66	32598-10-0	0.415 J	166 J	1.18	470	1.59 J
PCB-67	73575-53-8	< 0.0148 UJ	< 5.91 UJ	0.0248 JN	9.93 JN	0.0248 J
PCB-68	73575-52-7	2.5 J	1000 J	0.423	169	2.92 J
PCB-72	41464-42-0	< 0.0166 UJ	< 6.62 UJ	0.017 JN	6.80 JN	0.017 J
PCB-73	74338-23-1	< 0.0029 UJ	< 1.16 UJ	< 0.0104 U	< 4.16 U	< 0.0133 UJ
PCB-77	32598-13-3	0.0268 J	10.7 J	0.198 JN	79.2 JN	0.225 J
PCB-78	70362-49-1	< 0.0187 UJ	< 7.47 UJ	< 0.0126 U	< 5.05 U	< 0.0313 UJ
PCB-79	41464-48-6	< 0.0151 UJ	< 6.05 UJ	0.0193 JN	7.73 JN	0.0193 J
PCB-80	33284-52-5	< 0.0166 UJ	< 6.64 UJ	< 0.0114 U	< 4.56 U	< 0.028 UJ
PCB-81	70362-50-4	< 0.0186 UJ	< 7.43 UJ	< 0.0127 U	< 5.06 U	< 0.0312 UJ
PCB-82	52663-62-4	0.0518 JN	20.7 JN	0.242	96.8	0.294 J
PCB-83/99	PCB-83/99	0.338 J	135 J	1.24	494	1.57 J
PCB-84	52663-60-2	0.142 J	56.6 J	0.405	162	0.547 J
PCB-85/116/117	PCB-85/116/117	0.0843 J	33.7 J	0.428	171	0.512 J
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	0.353 J	141 J	1.34 J	535 J	1.69 J
PCB-88/91	PCB-88/91	0.0995 J	39.8 J	0.233 JN	93.3 JN	0.333 J
PCB-89	73575-57-2	< 0.00245 UJ	< 0.978 UJ	< 0.0108 U	< 4.31 U	< 0.0132 UJ
PCB-90/101/113	PCB-90/101/113	0.59 J	236 J	1.76	703	2.35 J
PCB-92	52663-61-3	0.115 J	46.0 J	0.338 JN	135 JN	0.453 J
PCB-93/95/98/100/102	PCB-93/95/98/_C	0.578 J	231 J	1.24	494	1.81 J
PCB-94	73575-55-0	0.0049 JN	1.96 JN	0.0133 JN	5.30 JN	0.0182 JN
PCB-96	73575-54-9	0.00443 JN	1.77 JN	0.0107 J	4.27 J	0.0151 J
PCB-103	60145-21-3	0.0088 JN	3.52 JN	0.0179 JN	7.17 JN	0.0267 JN
PCB-104	56558-16-8	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-105	32598-14-4	0.121 J	48.5 J	0.938	375	1.06 J
PCB-106	70424-69-0	< 0.00231 UJ	< 0.925 UJ	< 0.0188 U	< 7.52 U	< 0.0211 UJ
PCB-107/124	PCB-107/124	0.0237 J	9.46 J	0.0983	39.3	0.122 J
PCB-109	74472-35-8	0.0308 J	12.3 J	0.174	69.4	0.204 J
PCB-110/115	PCB-110/115	0.57 J	228 J	2.3	918	2.87 J
PCB-111	39635-32-0	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-112	74472-36-9	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-114	74472-37-0	0.00768 J	3.07 J	0.0625 J	25.0 J	0.0702 J
PCB-118	31508-00-6	0.35 J	140 J	2.1	840	2.45 J
PCB-120	68194-12-7	0.00335 JN	1.34 JN	0.0111 JN	4.43 JN	0.0144 JN

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

Sample		PDI-WS-T07-1901				
Location		T07				
Date		1/26/2019				
Sample Type		N	N	N	N	N
Fraction		Dissolved	Dissolved	Particulate	Particulate	Whole
Units		pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-121	56558-18-0	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-122	76842-07-4	0.0045 J	1.80 J	0.0373 JN	14.9 JN	0.0418 J
PCB-123	65510-44-3	0.009 JN	3.60 JN	0.0605 JN	24.2 JN	0.0695 JN
PCB-126	57465-28-8	< 0.00358 UJ	< 1.43 UJ	< 0.0198 U	< 7.92 U	< 0.0234 UJ
PCB-127	39635-33-1	< 0.00278 UJ	< 1.11 UJ	< 0.0175 U	< 7.01 U	< 0.0203 UJ
PCB-128/166	PCB-128/166	0.0468 J	18.7 J	0.51	204	0.557 J
PCB-129/138/160/163	PCB-129/138/_C	0.36 J	144 J	3.43	1370	3.79 J
PCB-130	52663-66-8	0.0258 JN	10.3 JN	0.192	76.9	0.218 J
PCB-131	61798-70-7	0.00508 JN	2.03 JN	0.0335 JN	13.4 JN	0.0386 JN
PCB-132	38380-05-1	0.0995 J	39.8 J	0.8	320	0.9 J
PCB-133	35694-04-3	0.00883 JN	3.53 JN	0.0573 JN	22.9 JN	0.0661 JN
PCB-134/143	PCB-134/143	0.0221 JN	8.84 JN	0.108	43.0	0.13 J
PCB-135/151/154	PCB-135/151/154	0.141 J	56.4 J	0.848	339	0.989 J
PCB-136	38411-22-2	0.042 J	16.8 J	0.245	98.0	0.287 J
PCB-137	35694-06-5	0.0241 J	9.63 J	0.162	64.6	0.186 J
PCB-139/140	PCB-139/140	0.0069 JN	2.76 JN	0.0573 JN	22.9 JN	0.0642 JN
PCB-141	52712-04-6	0.055 JN	22.0 JN	0.47	188	0.525 J
PCB-142	41411-61-4	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-144	68194-14-9	0.0189 JN	7.54 JN	0.0923 JN	36.9 JN	0.111 JN
PCB-145	74472-40-5	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-146	51908-16-8	0.0675 J	27.0 J	0.48	192	0.548 J
PCB-147/149	PCB-147/149	0.328 J	131 J	2.24	894	2.56 J
PCB-148	74472-41-6	< 0.0021 UJ	< 0.838 UJ	< 0.0116 U	< 4.63 U	< 0.0137 UJ
PCB-150	68194-08-1	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-152	68194-09-2	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-153/168	PCB-153/168	0.343 J	137 J	2.55	1020	2.89 J
PCB-155	33979-03-2	0.00275 JN	1.10 JN	0.0114 J	4.55 J	0.0141 J
PCB-156/157	PCB-156/157	0.0231 J	9.25 J	0.38	152	0.403 J
PCB-158	74472-42-7	0.0315 JN	12.6 JN	0.318	127	0.349 J
PCB-159	39635-35-3	0.00275 JN	1.10 JN	0.0375 JN	15.0 JN	0.0403 JN
PCB-161	74472-43-8	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-162	39635-34-2	0.00263 JN	1.05 JN	< 0.0104 U	< 4.16 U	0.00263 J
PCB-164	74472-45-0	0.0268 J	10.7 J	0.196	78.5	0.223 J
PCB-165	74472-46-1	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-167	52663-72-6	0.0126 JN	5.04 JN	0.165	66.0	0.178 J
PCB-169	32774-16-6	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-170	35065-30-6	0.052 JN	20.8 JN	0.768 JN	307 JN	0.82 JN
PCB-171/173	PCB-171/173	0.0127 J	5.06 J	0.242	96.8	0.255 J
PCB-172	52663-74-8	0.00458 JN	1.83 JN	0.128	51.0	0.132 J
PCB-174	38411-25-5	0.0405 J	16.2 J	0.713	285	0.753 J
PCB-175	40186-70-7	0.00265 JN	1.06 JN	0.0226 JN	9.03 JN	0.0252 JN
PCB-176	52663-65-7	0.00605 J	2.42 J	0.084	33.6	0.0901 J
PCB-177	52663-70-4	0.0228 JN	9.13 JN	0.45	180	0.473 J
PCB-178	52663-67-9	0.0174 JN	6.95 JN	0.197 JN	78.6 JN	0.214 JN
PCB-179	52663-64-6	0.0159 J	6.36 J	0.28	112	0.296 J
PCB-180/193	PCB-180/193	0.171 J	68.5 J	2.08	832	2.25 J
PCB-181	74472-47-2	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-182	60145-23-5	< 0.0021 UJ	< 0.838 UJ	0.0166 JN	6.64 JN	0.0166 J
PCB-183/185	PCB-183/185	0.0358 J	14.3 J	0.463	185	0.498 J
PCB-184	74472-48-3	< 0.0021 UJ	< 0.838 UJ	0.0153 JN	6.11 JN	0.0153 J
PCB-186	74472-49-4	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-187	52663-68-0	0.0938 J	37.5 J	1.01	404	1.1 J
PCB-188	74487-85-7	0.00222 JN	0.886 JN	< 0.0104 U	< 4.16 U	0.00222 J
PCB-189	39635-31-9	0.00495 J	1.98 J	0.0325 JN	13.0 JN	0.0375 J
PCB-190	41411-64-7	0.0114 JN	4.57 JN	0.163 JN	65.2 JN	0.174 JN

Table A.4a-9. Results for PDI High-Flow Surface Water Samples - Dioxins/Furans and PCBs

	Sample	PDI-WS-T07-1901				
	Location	T07				
	Date	1/26/2019				
	Sample Type	N	N	N	N	N
	Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
	Units	pg/L	pg/sample	pg/L	pg/sample	pg/L
Chemical	CAS_RN					
PCB-191	74472-50-7	0.0057 JN	2.28 JN	0.044 JN	17.6 JN	0.0497 JN
PCB-192	74472-51-8	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-194	35694-08-7	0.13 JN	51.8 JN	0.468	187	0.597 J
PCB-195	52663-78-2	0.036 J	14.4 J	0.203	81.3	0.239 J
PCB-196	42740-50-1	0.0753 J	30.1 J	0.218 JN	87.2 JN	0.293 J
PCB-197/200	PCB-197/200	0.0213 JN	8.50 JN	0.0983	39.3	0.12 J
PCB-198/199	PCB-198/199	0.218 J	87.2 J	0.545	218	0.763 J
PCB-201	40186-71-8	0.00868 J	3.47 J	0.066 J	26.4 J	0.0747 J
PCB-202	2136-99-4	0.0198 JN	7.91 JN	0.198	79.0	0.217 J
PCB-203	52663-76-0	0.172 J	68.8 J	0.403	161	0.575 J
PCB-204	74472-52-9	< 0.0021 UJ	< 0.838 UJ	< 0.0104 U	< 4.16 U	< 0.0125 UJ
PCB-205	74472-53-0	0.00538 JN	2.15 JN	0.0308 J	12.3 J	0.0361 J
PCB-206	40186-72-9	0.222 J	88.7 J	0.453	181	0.674 J
PCB-207	52663-79-3	0.045 J	18.0 J	0.062 JN	24.8 JN	0.107 J
PCB-208	52663-77-1	0.0875 J	35.0 J	0.17	67.8	0.257 J
PCB-209	2051-24-3	0.0345 J	13.8 J	0.95	380	0.985 J
Total PCBs (a)	T_PCBCg (PDI)	33.7		56		89.6

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

Surface Water Volume Collected:

Transect 01 Volume = 400 L
Transect 02 Volume = 400 L
Transect 03 Volume = 400 L
Transect 04 Volume = 402 L
Transect 05 Volume = 422 L
Transect 06 Volume = 400 L
Transect 07 Volume = 400 L

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
L = liter
N = normal field sample
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
pg = picogram
TEQ = toxicity equivalence

Table A.4a-10. Results for PDI High-Flow Surface Water Samples - Pesticides and PAHs

		Sample	PDI-WS-T01-1902					PDI-WS-T02-1902				
		Location	T01					T02				
		Date	2/18/2019					2/18/2019				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.00458 J	1.83 J	0.0086 J	3.44 J	0.0132 J	0.00558 J	2.23 J	0.0112 J	4.47 J	0.0168 J
2,4-DDE	3424-82-6		0.000625 J	0.250 J	0.00246 J	0.982 J	0.00308 J	0.000795 J	0.318 J	0.00333 J	1.33 J	0.00412 J
2,4-DDT	789-02-6		0.00428 J	1.71 J	0.0237 J	9.46 J	0.0279 J	0.0055 J	2.20 J	0.031 J	12.4 J	0.0365 J
4,4'-DDD	72-54-8		0.0088 J	3.52 J	0.026 J	10.4 J	0.0348 J	0.00993 J	3.97 J	0.035 J	14.0 J	0.0449 J
4,4'-DDE	72-55-9		0.022	8.79	0.106	42.3	0.128	0.0263	10.5	0.141	56.3	0.167
4,4'-DDT	50-29-3		0.0142	5.69	0.134 J	53.5 J	0.148 J	0.0164 J	6.55 J	0.17	68.1	0.187 J
DDD	T_DDD (PDI)	(a)	0.0134		0.0346		0.048	0.0155		0.0462		0.0617
DDE	T_DDE (PDI)	(a)	0.0226		0.108		0.131	0.027		0.144		0.171
DDT	T_DDT (PDI)	(a)	0.0185		0.157		0.176	0.0219		0.201		0.223
DDx	T_DDx (PDI)	(a)	0.0545		0.3		0.355	0.0644		0.392		0.456
Aldrin	309-00-2		0.00051 JN	0.204 JN	0.0011 JN	0.438 JN	0.00161 JN	0.000445 JN	0.178 JN	0.00124 J	0.495 J	0.00168 J
alpha-Chlordane	5103-71-9		0.00503 J	2.01 J	0.0069 JN	2.76 JN	0.0119 J	0.00433 J	1.73 J	0.00985 J	3.94 J	0.0142 J
cis-Nonachlor	5103-73-1		0.00191 J	0.764 J	0.00315 JN	1.26 JN	0.00506 J	0.00129 JN	0.515 JN	0.00415 J+	1.66 J+	0.00544 J
Oxychlordane	27304-13-8		0.00108 JN	0.432 JN	0.0012 JN	0.479 JN	0.00228 JN	0.00112 JN	0.448 JN	0.00109 JN	0.436 JN	0.00221 JN
trans-Chlordane	5103-74-2		0.00358 J	1.43 J	0.00815 JN	3.26 JN	0.0117 J	0.0036 J	1.44 J	0.0103 J	4.11 J	0.0139 J
trans-Nonachlor	39765-80-5		0.00365 J	1.46 J	0.00985 J	3.94 J	0.0135 J	0.00328 J	1.31 J	0.0101 J	4.04 J	0.0134 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.0152		0.0292		0.0445	0.0136		0.0355		0.0491
Seimivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0153	6.13	0.00618 J	2.47 J	0.0215 J	0.0182	7.28	0.0078 J	3.12 J	0.026 J
Benz(a)anthracene	56-55-3		0.0117 J	4.68 J	0.148 JN	59.2 JN	0.16 J	0.0201 JN	8.05 JN	0.228 JN	91.2 JN	0.248 JN
Benzo(a)pyrene	50-32-8		< 0.0093 U	< 3.72 U	0.168 J	67.3 J	0.168 J	< 0.00633 U	< 2.53 U	0.258 J	103 J	0.258 J
Benzo(b)fluoranthene	205-99-2		< 0.00608 U	< 2.43 U	0.39 J	156 J	0.39 J	< 0.00403 U	< 1.61 U	0.35 J	140 J	0.35 J
Benzo(j,k)fluoranthene	BKJFLANTH		< 0.0067 U	< 2.68 U	0.136 J	54.5 J	0.136 J	< 0.00453 U	< 1.81 U	0.248 J	99.2 J	0.248 J
Chrysene	218-01-9		0.0428 J	17.1 J	0.305 J	122 J	0.348 J	0.0535 J	21.4 J	0.473 J	189 J	0.526 J
Dibenz(a,h)anthracene	53-70-3		< 0.00755 U	< 3.02 U	< 0.06 U	< 24.0 U	< 0.0676 U	< 0.00943 U	< 3.77 U	< 0.0653 U	< 26.1 U	< 0.0747 U
Naphthalene	91-20-3		5.13 J+	2050 J+	< 0.231 UJ	< 92.3 UJ	5.13 J	3.58 J+	1430 J+	< 0.268 UJ	< 107 UJ	3.58 J
Indeno(1,2,3-cd)pyrene	193-39-5		< 0.0141 U	< 5.63 U	0.214 JN	85.4 JN	0.214 J	< 0.00788 U	< 3.15 U	0.303 JN	121 JN	0.303 J
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.00586		0.275		0.28	0.00678		0.381		0.388

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

(a) Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume = 400 L

Transect 02 Volume = 400 L

Transect 03 Volume = 400 L

Transect 04 Volume = 402 L

Transect 05 Volume = 422 L

Transect 06 Volume = 400 L

Transect 07 Volume = 400 L

Acronyms:

µg = microgram

BaP = benzo(a)pyrene

CAS_RN = Chemical Abstracts Service Registry Number

DDD = dichlorodiphenyldichloroethane

DDE = dichlorodiphenyldichloroethylene

DDT = dichlorodiphenyltrichloroethane

DDx = dichlorodiphenyltrichloroethane and its derivatives

EPA = U.S. Environmental Protection Agency

FD = Field duplicate sample

L = Liter

N = normal field sample

ng = nanogram

PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

TEQ = toxicity equivalence

Table A.4a-10. Results for PDI High-Flow Surface Water Samples - Pesticides and PAHs

		Sample	PDI-WS-T03-1902					PDI-WS-T04-1902				
		Location	T03					T04				
		Date	2/18/2019					2/17/2019				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.0057 J	2.28 J	0.00955 J	3.82 J	0.0153 J	0.017	6.83	0.0254 J	10.2 J	0.0424 J
2,4-DDE	3424-82-6		0.000705 J	0.282 J	0.00303 J	1.21 J	0.00373 J	0.00112 J	0.452 J	0.00388 J	1.56 J	0.005 J
2,4-DDT	789-02-6		0.00435 J	1.74 J	0.0226 J	9.03 J	0.0269 J	0.00465 J	1.87 J	0.0229 J	9.19 J	0.0275 J
4,4'-DDD	72-54-8		0.011 J	4.38 J	0.037 J	14.8 J	0.048 J	0.0208	8.35	0.045	18.1	0.0658
4,4'-DDE	72-55-9		0.0285	11.4	0.13	51.9	0.158	0.0239	9.60	0.102	40.9	0.126
4,4'-DDT	50-29-3		0.0167 J	6.67 J	0.236	94.3	0.252 J	0.0131	5.27	0.11	44.2	0.123
DDD	T_DDD (PDI)	(a)	0.0167		0.0466		0.0632	0.0378		0.0704		0.108
DDE	T_DDE (PDI)	(a)	0.0292		0.133		0.162	0.025		0.106		0.131
DDT	T_DDT (PDI)	(a)	0.021		0.258		0.279	0.0178		0.133		0.151
DDx	T_DDx (PDI)	(a)	0.0669		0.438		0.505	0.0805		0.309		0.389
Aldrin	309-00-2		0.00034 J	0.136 J	0.00123 JN	0.492 JN	0.00157 J	0.000333 JN	0.134 JN	0.000821 JN	0.330 JN	0.00115 JN
alpha-Chlordane	5103-71-9		0.00538 J	2.15 J	0.00775 J	3.10 J	0.0131 J	0.00415 J	1.67 J	0.00624 J	2.51 J	0.0104 J
cis-Nonachlor	5103-73-1		0.00163 JN	0.650 JN	0.00515 JN	2.06 JN	0.00678 JN	< 0.000779 U	< 0.313 U	0.00313 JN	1.26 JN	0.00313 J
Oxychlordane	27304-13-8		0.00186 JN	0.743 JN	< 0.000753 UJ	< 0.301 UJ	0.00186 J	0.00098 JN	0.394 JN	< 0.000771 U	< 0.310 U	0.00098 J
trans-Chlordane	5103-74-2		0.00413 J	1.65 J	0.0098 JN	3.92 JN	0.0139 J	0.00264 J	1.06 J	0.0057 JN	2.29 JN	0.00833 J
trans-Nonachlor	39765-80-5		0.0035 JN	1.40 JN	0.012 JN	4.79 JN	0.0155 JN	0.00251 J	1.01 J	0.00652 JN	2.62 JN	0.00903 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.0165		0.0351		0.0512	0.0107		0.022		0.0319
Seimivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0195	7.80	0.0088 J	3.52 J	0.0283 J	0.0192	7.70	0.00697 J	2.80 J	0.0261 J
Benz(a)anthracene	56-55-3		0.0263 J	10.5 J	0.189 JN	75.6 JN	0.215 J	0.0241 J	9.69 J	0.167 JN	67.1 JN	0.191 J
Benzo(a)pyrene	50-32-8		< 0.00958 U	< 3.83 U	0.217 J	86.8 J	0.217 J	< 0.00734 U	< 2.95 U	0.159 J	64.1 J	0.159 J
Benzo(b)fluoranthene	205-99-2		0.00855 J	3.42 J	0.278 J	111 J	0.286 J	< 0.00512 U	< 2.06 U	0.261 J	105 J	0.261 J
Benzo(j,k)fluoranthene	BKJFLANTH		0.00938 JN	3.75 JN	0.223 J	89.0 J	0.232 J	< 0.0055 U	< 2.21 U	0.193 J	77.5 J	0.193 J
Chrysene	218-01-9		0.073 J	29.2 J	0.463 J	185 J	0.536 J	0.056 J	22.5 J	0.373 J	150 J	0.429 J
Dibenz(a,h)anthracene	53-70-3		< 0.00978 U	< 3.91 U	0.0695 JN	27.8 JN	0.0695 J	< 0.00799 U	< 3.21 U	< 0.0582 U	< 23.4 U	< 0.0662 U
Naphthalene	91-20-3		4.68 J+	1870 J+	0.43 J	172 J	5.11 J	47.5 J+	19100 J+	< 0.261 U	< 105 U	47.5 J
Indeno(1,2,3-cd)pyrene	193-39-5		< 0.00855 U	< 3.42 U	0.295 JN	118 JN	0.295 J	0.00808 JN	3.25 JN	0.236 JN	95.0 JN	0.244 JN
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.00853		0.365		0.369	0.00727		0.257		0.265

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

+/- = Indicates the result may be biased high/low.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

(a) Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume = 400 L

Transect 02 Volume = 400 L

Transect 03 Volume = 400 L

Transect 04 Volume = 402 L

Transect 05 Volume = 422 L

Transect 06 Volume = 400 L

Transect 07 Volume = 400 L

Acronyms:

µg = microgram

BaP = benzo(a)pyrene

CAS_RN = Chemical Abstracts Service Registry Number

DDD = dichlorodiphenyldichloroethane

DDE = dichlorodiphenyldichloroethylene

DDT = dichlorodiphenyltrichloroethane

DDx = dichlorodiphenyltrichloroethane and its derivatives

EPA = U.S. Environmental Protection Agency

FD = Field duplicate sample

L = Liter

N = normal field sample

ng = nanogram

PAH = polycyclic aromatic hydrocarbon

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

TEQ = toxicity equivalence

Table A.4a-10. Results for PDI High-Flow Surface Water Samples - Pesticides and PAHs

		Sample	PDI-WS-T05-1902					PDI-WS-T06-1901				
		Location	T05					T06				
		Date	2/17/2019					1/27/2019				
		Sample Type	N	N	N	N	N	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**											
Pesticides												
2,4-DDD	53-19-0		0.0037 J	1.56 J	0.00618 J	2.61 J	0.00988 J	0.00378 J	1.51 J	0.00493 J	1.97 J	0.0087 J
2,4-DDE	3424-82-6		0.000528 J	0.223 J	0.00205 J	0.863 J	0.00257 J	0.000508 J	0.203 J	0.00127 J	0.509 J	0.00178 J
2,4-DDT	789-02-6		0.00306 J	1.29 J	0.016 J	6.76 J	0.0191 J	0.00318 J	1.27 J	0.0112 J	4.49 J	0.0144 J
4,4'-DDD	72-54-8		0.0078 J	3.29 J	0.0225 J	9.51 J	0.0303 J	0.00798 J	3.19 J	0.0142 J	5.68 J	0.0222 J
4,4'-DDE	72-55-9		0.0209	8.84	0.09	38.0	0.111	0.0159	6.37	0.05	20.0	0.0659
4,4'-DDT	50-29-3		0.0116	4.89	0.21	88.6	0.222	0.0088	3.52	0.0608	24.3	0.0696
DDD	T_DDD (PDI)	(a)	0.0115		0.0287		0.0402	0.0118		0.0191		0.0309
DDE	T_DDE (PDI)	(a)	0.0215		0.0921		0.114	0.0164		0.0513		0.0677
DDT	T_DDT (PDI)	(a)	0.0146		0.226		0.241	0.012		0.072		0.084
DDx	T_DDx (PDI)	(a)	0.0476		0.347		0.394	0.0402		0.142		0.183
Aldrin	309-00-2		0.000618 J	0.261 J	0.00113 J	0.475 J	0.00174 J	0.00045 JN	0.180 JN	< 0.000715 U	< 0.286 U	0.00045 J
alpha-Chlordane	5103-71-9		0.00379 J	1.60 J	0.00547 J	2.31 J	0.00927 J	0.0035 JN	1.40 JN	0.00345 JN	1.38 JN	0.00695 JN
cis-Nonachlor	5103-73-1		0.00113 J+	0.478 J+	0.00505 J+	2.13 J+	0.00618 J+	0.000738 JN	0.295 JN	0.00181 JN	0.722 JN	0.00254 JN
Oxychlordane	27304-13-8		< 0.000374 UJ	< 0.158 UJ	0.000995 J	0.420 J	0.000995 J	< 0.00028 UJ	< 0.112 UJ	< 0.00111 U	< 0.442 U	< 0.00139 UJ
trans-Chlordane	5103-74-2		0.00265 JN	1.12 JN	0.00616 JN	2.60 JN	0.00882 JN	0.00265 J	1.06 J	0.0043 J	1.72 J	0.00695 J
trans-Nonachlor	39765-80-5		0.00258 J	1.09 J	0.00661 JN	2.79 JN	0.00919 J	0.00207 J	0.829 J	0.00395 JN	1.58 JN	0.00602 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.0103		0.0243		0.0345	0.0091		0.0141		0.0232
Seimivolatile Organics (SVOCs)												
Hexachlorobenzene	118-74-1		0.0213	8.97	0.00709 J	2.99 J	0.0283 J	0.0225	9.01	0.00493 J	1.97 J	0.0275 J
Benz(a)anthracene	56-55-3		0.0211 J	8.91 J	0.105 JN	44.5 JN	0.127 J	0.0111 J	4.42 J	0.0825 JN	33.0 JN	0.0936 J
Benzo(a)pyrene	50-32-8		< 0.0161 U	< 6.78 U	0.11 J	46.6 J	0.11 J	< 0.0101 U	< 4.03 U	0.107 J	42.6 J	0.107 J
Benzo(b)fluoranthene	205-99-2		< 0.00986 U	< 4.16 U	0.205 J	86.3 J	0.205 J	< 0.0072 U	< 2.88 U	0.132 J	52.9 J	0.132 J
Benzo(j,k)fluoranthene	BKJFLANTH		< 0.0115 U	< 4.86 U	0.124 J	52.4 J	0.124 J	< 0.00795 U	< 3.18 U	0.104 J	41.7 J	0.104 J
Chrysene	218-01-9		0.0481 J	20.3 J	0.313 J	132 J	0.361 J	0.03 J	12.0 J	0.211 J	84.5 J	0.241 J
Dibenz(a,h)anthracene	53-70-3		< 0.0142 U	< 5.99 U	< 0.0685 U	< 28.9 U	< 0.0827 U	< 0.00603 U	< 2.41 U	< 0.0448 U	< 17.9 U	< 0.0508 U
Naphthalene	91-20-3		2.68 J+	1130 J+	< 0.237 UJ	< 100 UJ	2.68 J	5.3 J+	2120 J+	< 0.255 UJ	< 102 UJ	5.3 J
Indeno(1,2,3-cd)pyrene	193-39-5		< 0.0108 U	< 4.57 U	0.162 JN	68.5 JN	0.162 J	0.00653 JN	2.61 JN	0.114 JN	45.4 JN	0.12 JN
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.0102		0.193		0.203	0.00683		0.163		0.168

Notes:

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JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

(a) Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume = 400 L
Transect 02 Volume = 400 L
Transect 03 Volume = 400 L
Transect 04 Volume = 402 L
Transect 05 Volume = 422 L
Transect 06 Volume = 400 L
Transect 07 Volume = 400 L

Acronyms:

µg = microgram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EPA = U.S. Environmental Protection Agency
FD = Field duplicate sample
L = Liter
N = normal field sample
ng = nanogram
PAH = polycyclic aromatic hydrocarbon
PDI = Pre-Remedial Design Investigation
SVOC = semivolatile organic compound
TEQ = toxicity equivalence

Table A.4a-10. Results for PDI High-Flow Surface Water Samples - Pesticides and PAHs

		Sample	PDI-WS-T07-1901				
		Location	T07				
		Date	1/26/2019				
		Sample Type	N	N	N	N	N
		Fraction	Dissolved	Dissolved	Particulate	Particulate	Whole
		Units	ng/L	ng/sample	ng/L	ng/sample	ng/L
Chemical	**CAS_RN**						
Pesticides							
2,4-DDD	53-19-0		0.00568 J	2.27 J	0.0134 J	5.35 J	0.0191 J
2,4-DDE	3424-82-6		0.00079 J	0.316 J	0.00363 J	1.45 J	0.00442 J
2,4-DDT	789-02-6		0.0058 J	2.32 J	0.0355 J	14.2 J	0.0413 J
4,4'-DDD	72-54-8		0.0107 J	4.29 J	0.0375 J	15.0 J	0.0482 J
4,4'-DDE	72-55-9		0.024	9.59	0.125	50.0	0.149
4,4'-DDT	50-29-3		0.0165	6.60	0.168	67.2	0.185
DDD	T_DDD (PDI)	(a)	0.0164		0.0509		0.0673
DDE	T_DDE (PDI)	(a)	0.0248		0.129		0.153
DDT	T_DDT (PDI)	(a)	0.0223		0.204		0.226
DDx	T_DDx (PDI)	(a)	0.0635		0.383		0.446
Aldrin	309-00-2		0.000218 J	0.087 J	0.00101 J	0.404 J	0.00123 J
alpha-Chlordane	5103-71-9		0.00463 J	1.85 J	0.00768 J	3.07 J	0.0123 J
cis-Nonachlor	5103-73-1		0.00102 J+	0.406 J+	0.00438 J+	1.75 J+	0.00539 J+
Oxychlordane	27304-13-8		0.00101 J	0.402 J	< 0.000738 UJ	< 0.295 UJ	0.00101 J
trans-Chlordane	5103-74-2		0.00318 J	1.27 J	0.0115 J	4.60 J	0.0147 J
trans-Nonachlor	39765-80-5		0.0025 J	1.00 J	0.00773 JN	3.09 JN	0.0102 J
Total Chlordanes	T_Clrdn (PDI)	(a)	0.0123		0.0316		0.0436
Seimivolatile Organics (SVOCs)							
Hexachlorobenzene	118-74-1		0.0149	5.96	0.0068 J	2.72 J	0.0217 J
Benz(a)anthracene	56-55-3		0.00925 J	3.70 J	0.178 JN	71.0 JN	0.187 J
Benzo(a)pyrene	50-32-8		< 0.00638 U	< 2.55 U	0.165 J	65.9 J	0.165 J
Benzo(b)fluoranthene	205-99-2		< 0.00425 U	< 1.70 U	0.21 J	84.0 J	0.21 J
Benzo(j,k)fluoranthene	BKJFLANTH		< 0.00445 U	< 1.78 U	0.181 J	72.2 J	0.181 J
Chrysene	218-01-9		0.0298 J	11.9 J	1.25	498	1.27 J
Dibenz(a,h)anthracene	53-70-3		< 0.00763 U	< 3.05 U	< 0.0445 U	< 17.8 U	< 0.0521 U
Naphthalene	91-20-3		3.78 J+	1510 J+	< 0.242 U	< 96.8 U	3.78 J
Indeno(1,2,3-cd)pyrene	193-39-5		< 0.00618 U	< 2.47 U	0.196 JN	78.5 JN	0.196 J
BaP-TEQ	T_BaP-TEQ (PDI)	(a)	0.00477		0.248		0.253

Notes:

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(a) Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum (see Appendix C.3).

Surface Water Volume Collected:

Transect 01 Volume = 400 L
Transect 02 Volume = 400 L
Transect 03 Volume = 400 L
Transect 04 Volume = 402 L
Transect 05 Volume = 422 L
Transect 06 Volume = 400 L
Transect 07 Volume = 400 L

Acronyms:

µg = microgram
BaP = benzo(a)pyrene
CAS_RN = Chemical Abstracts Service Registry Number
DDD = dichlorodiphenyldichloroethane
DDE = dichlorodiphenyldichloroethylene
DDT = dichlorodiphenyltrichloroethane
DDx = dichlorodiphenyltrichloroethane and its derivatives
EPA = U.S. Environmental Protection Agency
FD = Field duplicate sample
L = Liter
N = normal field sample
ng = nanogram
PAH = polycyclic aromatic hydrocarbon
PDI = Pre-Remedial Design Investigation
SVOC = semivolatile organic compound
TEQ = toxicity equivalence

Table A.4a-11. Results for PDI High-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	PDI-WS-T01-1902		PDI-WS-T01E-1902	PDI-WS-T01N-1902	PDI-WS-T01W-1902	PDI-WS-T02-1902		PDI-WS-T02E-1902	PDI-WS-T02N-1902
	Location	T01		T01-1E	T01-1N	T01-1W	T02		T02-2E	T02-2N
	Date	2/18/2019		2/18/2019	2/18/2019	2/18/2019	2/18/2019		2/18/2019	2/18/2019
	Sample Type	N	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole	Whole	Whole
	Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2	0.34 J	0.47 J				0.28 J	0.47 J		
Chromium	7440-47-3	0.44	1.4				0.37 J	1.4		
Copper	7440-50-8	1.2 J	2.4				1.2 J	2.1		
Zinc	7440-66-6	< 7.0 U	4.7 J				< 7.0 U	4.5 J		
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7		< 1.0 U					< 1.0 U		
MCPP	93-65-2		< 1.1 UJ					< 1.1 UJ		
Pentachlorophenol	87-86-5		< 0.025 U					< 0.025 U		
Ethylbenzene	100-41-4			< 3.0 U	< 3.0 U	< 3.0 U			< 3.0 U	< 3.0 U
Tri-n-butyltin	36643-28-4		< 0.050 U					< 0.050 U		

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-11. Results for PDI High-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	PDI-WS-T02W-1902	PDI-WS-T03-1902		PDI-WS-T03E-1902		T03-3W	PDI-WS-T04-1902		T04-4E
	Location	T02-2W	T03		T03-3N		PDI-WS-T03W-1902	T04		PDI-WS-T04E-1902
	Date	2/18/2019	2/18/2019		2/17/2019		2/18/2019	2/17/2019		2/17/2019
	Sample Type	N	N	N	N	N	N	N	N	N
	Fraction	Whole	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole	Whole
	Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2		0.30 J	0.48 J				0.28 J	0.54 J	
Chromium	7440-47-3		0.52	1.5				0.37 J	1.9	
Copper	7440-50-8		1.2 J	2.1				1.1 J	2.6	
Zinc	7440-66-6		< 7.0 U	4.7 J				< 7.0 U	5.7 J	
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7			< 1.0 U					3.4	
MCPP	93-65-2			< 1.1 UJ					< 1.1 UJ	
Pentachlorophenol	87-86-5			< 0.025 U					< 0.025 U	
Ethylbenzene	100-41-4	< 3.0 U			< 3.0 U	< 3.0 U	< 3.0 U			< 3.0 U
Tri-n-butyltin	36643-28-4			< 0.050 U					< 0.050 U	

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-11. Results for PDI High-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	T04-4N	T04-4W	PDI-WS-T05-1902		T05-5E	T05-5N	T05-5W	PDI-WS-T06-1901	
	Location	PDI-WS-T04N-1902	PDI-WS-T04W-1902	T05		PDI-WS-T05E-1902	PDI-WS-T05N-1902	PDI-WS-T05W-1902	T06	
	Date	2/17/2019	2/17/2019	2/17/2019		2/17/2019	2/17/2019	2/17/2019	1/27/2019	
	Sample Type	N	N	N	N	N	N	N	N	N
	Fraction	Whole	Whole	Dissolved	Whole	Whole	Whole	Whole	Dissolved	Whole
	Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2			0.28 J	0.52 J				0.39 J	0.35 J
Chromium	7440-47-3			0.47	1.9				0.75	0.65
Copper	7440-50-8			1.1 J	2.4				1.5 J	1.4 J
Zinc	7440-66-6			< 7.0 U	5.4 J				< 7.0 U	3.2 J
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7				< 1.0 U					< 1.1 U
MCPP	93-65-2				< 1.1 UJ					< 1.3 U
Pentachlorophenol	87-86-5				< 0.025 U					< 0.025 U
Ethylbenzene	100-41-4	< 3.0 U	< 3.0 U			< 3.0 U	< 3.0 U	< 3.0 U		
Tri-n-butyltin	36643-28-4				< 0.050 U					< 0.050 U

Notes:

Qualifiers:

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UJ = Not detected; sample detection limit is estimated.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-11. Results for PDI High-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	T06-6E	T06-6N	T06-6W	PDI-WS-T07-1901				T07-7E	T07-7N
	Location	PDI-WS-T06E-1901	PDI-WS-T06N-1901	PDI-WS-T06W-1901	T07				PDI-WS-T07E-1901	PDI-WS-T07N-1901
	Date	1/27/2019	1/26/2019	1/26/2019	1/26/2019				1/25/2019	1/26/2019
	Sample Type	N	N	N	N	N	FD	FD	N	N
	Fraction	Whole	Whole	Whole	Dissolved	Whole	Dissolved	Whole	Whole	Whole
	Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chemical	**CAS_RN**									
Metals										
Arsenic	7440-38-2				0.31 J	0.64 J	0.28 J	0.57 J		
Chromium	7440-47-3				0.54	0.83	0.52	0.79		
Copper	7440-50-8				1.1 J	2.0	1.0 J	1.5 J		
Zinc	7440-66-6				< 7.0 U	3.6 J	< 7.0 U	3.4 J		
Semivolatile Organics (SVOCs)										
Bis(2-ethylhexyl)phthalate	117-81-7					< 0.95 U		< 0.95 U		
MCPP	93-65-2					< 1.2 U		< 1.3 U		
Pentachlorophenol	87-86-5					< 0.025 U		< 0.025 U		
Ethylbenzene	100-41-4	< 3.0 U	< 3.0 U	< 3.0 U					< 3.0 U	< 3.0 U
Tri-n-butyltin	36643-28-4					< 0.050 U		< 0.050 U		

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-11. Results for PDI High-Flow Surface Water Samples - Metals, SVOCs, and Ethylbenzene

	Sample	T07-7W	
	Location	PDI-WS-T07W-1901	PDI-WS-T07W-1901-D
	Date	1/25/2019	1/25/2019
	Sample Type	N	FD
	Fraction	Whole	Whole
	Units	ug/L	ug/L
Chemical	**CAS_RN**		
Metals			
Arsenic	7440-38-2		
Chromium	7440-47-3		
Copper	7440-50-8		
Zinc	7440-66-6		
Semivolatile Organics (SVOCs)			
Bis(2-ethylhexyl)phthalate	117-81-7		
MCPP	93-65-2		
Pentachlorophenol	87-86-5		
Ethylbenzene	100-41-4	< 3.0 U	< 3.0 U
Tri-n-butyltin	36643-28-4		

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

Acronyms:

µg = microgram

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

L = liter

MCPP = meta-Chlorophenylpiperazine

mg = milligram

N = normal field sample

PDI = Pre-Remedial Design Investigation

SVOC = semivolatile organic compound

Table A.4a-12. Results for PDI High-Flow Surface Water Samples - Physical Parameters

	Sample	PDI-WS-T01-1902		PDI-WS-T02-1902		PDI-WS-T03-1902		PDI-WS-T04-1902	
	Location	T01		T02		T03		T04	
	Date	2/18/2019		2/18/2019		2/18/2019		2/17/2019	
	Sample Type	N	N	N	N	N	N	N	N
	Fraction	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole
	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Parameter	CAS_RN								
Calcium	7440-70-2	7.3		7.5		7.7		7.6	
Magnesium	7439-95-4	2.5		2.5		2.6		2.5	
Total Dissolved Solids	TDS		49		43		57		37
Total Organic Carbon	TOC		3.06 J		4.31 J		2.82 J		3.38 J
Total Suspended Solids	TSS		4.4		4.8		6.8		7.8
Hardness as CaCO3	HARD	29		29		30		29	
Dissolved Organic Carbon	DOC	2.67 J		3.75		2.35		3.35	

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

Acronyms:

CaCO3 = calcium carbonate
CAS_RN = Chemical Abstracts Service Registry Number
DOC = dissolved organic carbon
FD = field duplicate sample
L = liter
mg = milligram
N = normal field sample
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
TDS = total dissolved solids
TOC = total organic carbon
TSS = total suspended solids

Table A.4a-12. Results for PDI High-Flow Surface Water Samples - Physical Parameters

	Sample	PDI-WS-T05-1902		PDI-WS-T06-1901		PDI-WS-T07-1901		PDI-WS-T07-1901-D	
	Location	T05		T06		T07		T07	
	Date	2/17/2019		1/27/2019		1/26/2019		1/26/2019	
	Sample Type	N	N	N	N	N	N	FD	FD
	Fraction	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole	Dissolved	Whole
	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Parameter	**CAS_RN**								
Calcium	7440-70-2	7.3		6.7		6.5		6.5	
Magnesium	7439-95-4	2.4		2.2		2.1		2.2	
Total Dissolved Solids	TDS		51		55		33		28
Total Organic Carbon	TOC		3.12 J		1.83 J		2.16 J		2.17 J
Total Suspended Solids	TSS		9.8		2.4		4.0		4.4
Hardness as CaCO3	HARD	28		26		25		25	
Dissolved Organic Carbon	DOC	2.20		2.07		2.20		2.09	

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

Acronyms:

CaCO3 = calcium carbonate
CAS_RN = Chemical Abstracts Service Registry Number
DOC = dissolved organic carbon
FD = field duplicate sample
L = liter
mg = milligram
N = normal field sample
PCB = polychlorinated biphenyl
PDI = Pre-Remedial Design Investigation
TDS = total dissolved solids
TOC = total organic carbon
TSS = total suspended solids

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB001	SMB002	SMB003	SMB004	SMB005	SMB006	SMB007	SMB008	SMB009	SMB010
		Sample ID	PDI-TF-SMB001	PDI-TF-SMB002	PDI-TF-SMB003	PDI-TF-SMB004	PDI-TF-SMB005	PDI-TF-SMB006	PDI-TF-SMB007	PDI-TF-SMB008	PDI-TF-SMB009	PDI-TF-SMB010
		Sample Date	8/22/18	9/13/18	8/22/18	9/10/18	8/22/18	9/10/18	8/22/18	8/22/18	8/22/18	8/21/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0000962 JN	0.000207 J	< 0.000169 U	0.000228 J	0.000362 JN	0.000152 JN	0.000224 JN	0.000400 J+	< 0.000175 U	0.000108 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000716 U	< 0.0000716 U	< 0.0000732 U	0.0000916 JN	< 0.0000712 U	< 0.0000734 U	< 0.0000858 U	< 0.0000854 U	< 0.0000869 U	< 0.0000737 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000716 U	< 0.0000716 U	< 0.0000732 U	< 0.0000669 U	< 0.0000712 U	< 0.0000734 U	< 0.0000858 U	< 0.0000854 U	< 0.0000869 U	< 0.0000737 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.000100 JN	< 0.0000716 U	0.000120 JN	0.000135 JN	0.000132 JN	< 0.0000824 U	0.000127 J	< 0.0000917 U	< 0.0000869 U	0.0000814 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.0000716 U	< 0.0000716 U	0.000117 JN	0.000147 JN	0.000155 J	0.000200 JN	0.000128 J	< 0.0000854 U	< 0.0000869 U	0.0000767 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000180 JN	0.000214 J	0.000503 JN	0.000506 JN	0.000650 JN	0.000591 JN	0.000426 JN	0.000199 JN	0.000177 JN	0.000272 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0000716 U	< 0.0000716 U	< 0.0000732 U	0.0000811 J	0.0000975 J	0.000124 JN	< 0.0000858 U	< 0.0000854 U	< 0.0000869 U	< 0.0000737 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000716 U	< 0.0000716 U	< 0.0000744 U	< 0.0000753 U	< 0.000130 U	< 0.0000734 U	< 0.0000858 U	< 0.0000875 U	< 0.0000869 U	< 0.0000737 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000716 U	< 0.0000716 U	< 0.0000732 U	< 0.0000669 U	< 0.0000712 U	< 0.0000734 U	< 0.0000978 U	< 0.0000854 U	< 0.0000869 U	< 0.0000737 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000327 J	0.000292 JN	0.000503 J	0.000454 JN	0.000551 JN	0.000426 JN	0.000588 JN	0.000352 J	0.000544 J	0.000376 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000223 J	0.000176 JN	0.000249 J	0.000322 JN	0.000280 JN	0.000543 J	0.000309 JN	0.000161 JN	0.000171 J	0.000265 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000716 U	< 0.0000716 U	< 0.0000732 U	0.000112 JN	< 0.0000712 U	< 0.0000734 U	0.0000887 J	< 0.0000854 U	< 0.0000869 U	< 0.0000737 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000340 J	0.000228 JN	0.000574 J	0.000601 J	0.000529 JN	0.000730 J	0.000504 JN	0.000311 J	0.000427 J	0.000343 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000227 J	0.000173 J	0.000289 J	0.000283	0.000228 J	0.000359 JN	0.000337 JN	0.000233 JN	0.000243 JN	0.000204 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00170	0.00184	0.00264	0.00168	0.00143	0.00178	0.00149	0.00139	0.00165	0.00149
OCDD	3268-87-9	µg/kg	< 0.000110 U	0.000228 J+	0.000164 JN	0.000253 JN	0.000141 JN	< 0.0000906 U	0.000209 JN	0.000238 J	0.000150 JN	0.000180 J+
OCDF	39001-02-0	µg/kg	< 0.0000716 U	< 0.0000716 U	< 0.0000732 U	0.000111 JN	< 0.0000712 U	< 0.0000734 U	< 0.000107 U	< 0.0000854 U	< 0.0000869 U	< 0.0000737 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.000865	0.00075	0.00131	0.0012	0.0012	0.0013	0.00132	0.000851	0.00111	0.000888
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.000842	0.000527	0.00126	0.000869	0.000672	0.000985	0.000477	0.000705	0.000964	0.000872
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.000833	0.000381	0.00124	0.000642	0.000396	0.000772	0.000183	0.000588	0.000842	0.000868
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.0373	0.0131	0.173	0.0503	0.0300	0.0203	0.0323	0.00388	0.0127	0.00449
PCB-2	2051-61-8	µg/kg	0.00401	0.00211 J	0.0148	0.00575	0.00308	0.00239 J	0.00283 J	0.00249 J	0.00190 JN	0.00306
PCB-3	2051-62-9	µg/kg	0.0228	0.00389	0.109	0.0507	0.0158	0.0104	0.0170	0.00236 JN	0.00640	0.00191 J+
PCB-4	13029-08-8	µg/kg	1.02	0.109	3.35	0.972	0.47	0.338	0.421	0.127	0.288	0.142
PCB-5	16605-91-7	µg/kg	< 0.00414 U	< 0.00289 U	0.0153	< 0.00437 U	0.00439	< 0.00267 U	0.00187 JN	< 0.00138 U	< 0.00275 U	0.00125 JN
PCB-6	25569-80-6	µg/kg	0.265	0.0446	0.744	0.383	0.137	0.107	0.0935	0.0185	0.0536	0.0208
PCB-7	33284-50-3	µg/kg	0.0191 JN	0.00375	0.0608	0.0241	0.0170	0.0119 JN	0.00781	0.00370	0.00643	0.00389
PCB-8	34883-43-7	µg/kg	0.823	0.106	1.52	0.796	0.472	0.293	0.233	0.0691	0.166	0.0898
PCB-9	34883-39-1	µg/kg	0.0372	0.00703	0.123	0.0607	0.0276	0.0212	0.0165	0.00530	0.0121	0.00612
PCB-10	33146-45-1	µg/kg	0.0538	0.0116	0.0957	0.0409	0.0299	0.0188	0.0154	0.00684	0.0154	0.0104
PCB-11	2050-67-1	µg/kg	0.111	0.638	0.234	0.0462	0.143	0.0428	0.0864	0.104	0.101	0.19
PCB-12/13	PCB-12/13	µg/kg	0.0174	0.00650 JN	0.0489	0.0184	0.0135 JN	0.00409 JN	0.00732	0.00236 J	0.00699	0.00403
PCB-14	34883-41-5	µg/kg	< 0.00382 U	< 0.00263 U	< 0.00210 U	< 0.00411 U	< 0.00330 U	< 0.00249 U	< 0.00163 U	< 0.00129 U	< 0.00246 U	< 0.000940 U
PCB-15	2050-68-2	µg/kg	0.229	0.0385	0.514	0.206	0.13	0.0590	0.0877	0.0221	0.0491	0.0230
PCB-16	38444-78-9	µg/kg	0.33	0.0541	0.676	0.341	0.231	0.196	0.141	0.0669	0.138	0.0733
PCB-17	37680-66-3	µg/kg	1.89	0.333	2.83	1.89	0.774	0.631	0.466	0.174	0.382	0.197
PCB-18/30	PCB-18/30	µg/kg	2.11	0.426	3.85	1.98	0.874	0.742	0.603	0.234	0.5	0.253
PCB-19	38444-73-4	µg/kg	0.928	0.131	1.4	0.869	0.527	0.52	0.39	0.268	0.433	0.3
PCB-20/28	PCB-20/28	µg/kg	8.87	1.18	11.5	6.18	2.55	2.13	1.96	0.688	1.38	0.853
PCB-21/33	PCB-21/33	µg/kg	0.892	0.195	0.999	0.895	0.515	0.475	0.296	0.174	0.332	0.207
PCB-22	38444-85-8	µg/kg	1.28	0.163	1.62	0.919	0.483	0.452	0.384	0.157	0.306	0.187
PCB-23	55720-44-0	µg/kg	< 0.00774 U	< 0.00398 U	< 0.00777 U	< 0.0123 U	< 0.00365 U	< 0.00253 U	< 0.00174 U	< 0.00117 U	< 0.00368 U	< 0.00101 U
PCB-24	55702-45-9	µg/kg	0.0158	0.00412 JN	0.0417	0.0270	0.0116	0.00820	0.00795	0.00306 J	0.0102	0.00384
PCB-25	55712-37-3	µg/kg	0.32	0.147	0.688	0.456	0.18	0.176	0.131	0.0641	0.101	0.0598
PCB-26/29	PCB-26/29	µg/kg	0.872	0.317	2.12	1.32	0.385	0.398	0.352	0.214	0.227	0.134
PCB-27	38444-76-7	µg/kg	0.409	0.0965	0.69	0.397	0.157	0.13	0.0979	0.0385	0.0935	0.0433
PCB-31	16606-02-3	µg/kg	3.44	0.753	4.61	2.84	1.22	1.24	0.946	0.426	0.751	0.504
PCB-32	38444-77-8	µg/kg	1.61	0.256	3.66	1.86	0.75	0.432	0.326	0.0954	0.228	0.104
PCB-34	37680-68-5	µg/kg	0.0632	0.0142	0.0869	0.0639	0.0215	0.0166	0.0123	0.00547	0.0106	0.00596
PCB-35	37680-69-6	µg/kg	< 0.00804 U	< 0.00420 U	0.0588 JN	0.0254	< 0.00379 U	< 0.00275 U	< 0.00174 U	0.00200 JN	0.00477	< 0.00102 U
PCB-36	38444-87-0	µg/kg	< 0.00726 U	< 0.00388 U	< 0.00714 U	0.533 JN	< 0.00342 U	< 0.00255 U	< 0.00157 U	< 0.00107 U	0.0827	< 0.000934 U
PCB-37	38444-90-5	µg/kg	0.476	0.0583	0.605	0.308	0.179	0.152	0.161	0.0627	0.0866	0.0538
PCB-38	53555-66-1	µg/kg	0.0180 JN	< 0.00383 U	0.0373	0.0143	0.00425	< 0.00251 U	0.00623 JN	0.00137 J	< 0.00369 U	0.00194 JN

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB001	SMB002	SMB003	SMB004	SMB005	SMB006	SMB007	SMB008	SMB009	SMB010
		Sample ID	PDI-TF-SMB001	PDI-TF-SMB002	PDI-TF-SMB003	PDI-TF-SMB004	PDI-TF-SMB005	PDI-TF-SMB006	PDI-TF-SMB007	PDI-TF-SMB008	PDI-TF-SMB009	PDI-TF-SMB010
		Sample Date	8/22/18	9/13/18	8/22/18	9/10/18	8/22/18	9/10/18	8/22/18	8/22/18	8/22/18	8/21/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.0675	0.00997	0.0955	0.0519	0.0233	0.0167	0.0163	0.00751	0.0119	0.00691 JN
PCB-40/41/71	PCB-40/41/71	µg/kg	5.96	1.05	12.7	5.27	2.9	1.45	1.42	0.554	0.864	0.496
PCB-42	36559-22-5	µg/kg	4.37	0.455	8.11	2.67	1.68	0.775	1.3	0.343	0.505	0.317
PCB-43	70362-46-8	µg/kg	0.583	0.0983	1.34	0.614	0.298	0.143	0.143 JN	0.0524	0.115	0.0553
PCB-44/47/65	PCB-44/47/65	µg/kg	25.1	2.79	41.4	16.9	8.2	4.18	6.96	2.21	3.16	1.93
PCB-45/51	PCB-45/51	µg/kg	1.69	0.283	3.66	1.66	0.811	0.676	0.455	0.217	0.382	0.237
PCB-46	41464-47-5	µg/kg	0.34	0.0591	0.753	0.333	0.158	0.123	0.0904	0.0425	0.0729	0.0377
PCB-48	70362-47-9	µg/kg	1.9	0.289	2.83	1.46	0.645	0.474	0.491	0.198	0.365	0.204
PCB-49/69	PCB-49/69	µg/kg	19.3	2.71	35.6	13.8	6.53	2.9	5.38	1.57	2.08	1.33
PCB-50/53	PCB-50/53	µg/kg	1.56	0.274	2.81	1.43	0.608	0.595	0.4	0.245	0.37	0.211
PCB-52	35693-99-3	µg/kg	32.7	3.86	59.2	22.5	10.2	4.75	7.87	3.11	3.5	2.08
PCB-54	15968-05-5	µg/kg	0.0845	0.0107	0.117	0.118	0.0756	0.105	0.0569	0.0438	0.0724	0.0560
PCB-55	74338-24-2	µg/kg	< 0.0328 U	< 0.00586 U	< 0.0335 U	< 0.0488 U	< 0.0108 U	< 0.00847 U	< 0.0171 U	< 0.0131 U	< 0.0136 U	< 0.00214 U
PCB-56	41464-43-1	µg/kg	5.88	0.574	6.62	3.22	1.23	1.1	1.31	0.423	0.662	0.374
PCB-57	70424-67-8	µg/kg	0.0711	< 0.00540 U	0.137	0.0480	0.0221	0.0144	0.0310	< 0.0119 U	< 0.0125 U	0.00836
PCB-58	41464-49-7	µg/kg	0.0558	0.0160 JN	0.0778	0.0466	0.0176	0.0167 JN	0.0317	< 0.0120 U	< 0.0130 U	0.0107
PCB-59/62/75	PCB-59/62/75	µg/kg	1.81	0.234	2.91	1.29	0.594	0.315	0.515	0.137	0.247	0.139
PCB-60	33025-41-1	µg/kg	7.86	0.526	9.94	5.72	1.97	0.856	2.43	0.384	0.582	0.385
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	37	3.54	41.7	21.7	7.46	5.26	9.62	3.27	3.73	2.39
PCB-63	74472-34-7	µg/kg	1.38	0.166	1.89	1.01	0.401	0.206	0.512	0.105	0.155	0.1
PCB-64	52663-58-8	µg/kg	12.2	1.08	23	8.28	3.88	1.55	3.12	0.702	1.08	0.665
PCB-66	32598-10-0	µg/kg	40.6	3.02	46.7 J	23	8.72	4.38	10.5	2.11	3.23	1.86
PCB-67	73575-53-8	µg/kg	0.247	0.0389	0.33	0.168	0.0693	0.0747	0.0749	0.0312	0.0476	0.0349
PCB-68	73575-52-7	µg/kg	0.148	0.0706	0.119	0.127	0.0502	0.0566	0.0702	0.0374	0.0484	0.0376
PCB-72	41464-42-0	µg/kg	0.257	0.0808	0.298	0.209	0.0771	0.0659	0.111	0.0450	0.0629	0.0456
PCB-73	74338-23-1	µg/kg	0.128	0.0309	< 0.000348 U	0.407	0.0676	0.0330	< 0.000397 U	< 0.000354 U	< 0.000323 U	< 0.000300 U
PCB-77	32598-13-3	µg/kg	0.879	0.108	0.853	0.501	0.178	0.191	0.254	0.0813	0.117	0.0803
PCB-78	70362-49-1	µg/kg	< 0.0334 U	< 0.00586 U	< 0.0323 U	< 0.0471 U	< 0.0110 U	< 0.00859 U	< 0.0165 U	< 0.0126 U	< 0.0136 U	< 0.00207 U
PCB-79	41464-48-6	µg/kg	0.28	0.0371	0.247 JN	0.114 JN	0.0853	0.0585	0.122 JN	0.0593	0.0396	0.0297
PCB-80	33284-52-5	µg/kg	< 0.0300 U	< 0.00529 U	< 0.0291 U	< 0.0417 U	< 0.00990 U	< 0.00754 U	< 0.0156 U	< 0.0114 U	< 0.0124 U	< 0.00191 U
PCB-81	70362-50-4	µg/kg	0.0455 JN	0.00582 JN	0.0355 JN	< 0.0446 U	0.0111 JN	0.00915 JN	< 0.0166 U	< 0.0126 U	< 0.0138 U	0.00358
PCB-82	52663-62-4	µg/kg	1.81	0.233	1.57	0.826	0.607	0.424	0.719	0.476	0.287	0.184
PCB-83/99	PCB-83/99	µg/kg	27.3	3.95	27.3	16.2	8.1	5.03	11.6	4.72	4.13	3.12
PCB-84	52663-60-2	µg/kg	3.04	0.447	2.64	1.51	1.03	0.864	1.09	0.879	0.58	0.325
PCB-85/116/117	PCB-85/116/117	µg/kg	9.33	1.2	10.3	5.5	2.52	1.44	3.72	1.4	1.22	0.845
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	17.2	2.2	17.3 J	9.64	5.59	3.54	7.48 J	4.1 J	2.77 J	1.87 J
PCB-88/91	PCB-88/91	µg/kg	3.6	0.673	3.53	2.06	1.28	0.897	1.38	0.744	0.663	0.429
PCB-89	73575-57-2	µg/kg	0.135	0.0239	0.226	0.121	0.0699	0.0449	0.0313 JN	0.0301	0.0218	0.0148
PCB-90/101/113	PCB-90/101/113	µg/kg	29.5	4.47	29.9	17.1	10.3	6.42	13.7	7.08	5.6	3.99
PCB-92	52663-61-3	µg/kg	5.68	1.06	5.95	3.51	2.08	1.38	2.61	1.43	1.2	0.852
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	13.3	2.37	14.1	8.39	5.26	4.05	5.65	3.91	3.11	2.02
PCB-94	73575-55-0	µg/kg	0.0569	0.0227	0.0757	0.0582	0.0345	0.0400	0.0169	0.0205	0.0237	0.0146
PCB-96	73575-54-9	µg/kg	0.118	0.0289	0.207	0.118	0.0541	0.0426	0.0341	0.0257	0.0278	0.0169
PCB-103	60145-21-3	µg/kg	0.211	0.0798	0.243	0.184	0.138	0.122	0.133	0.0842	0.1	0.0725
PCB-104	56558-16-8	µg/kg	0.00870	0.00208 J	0.0131	0.0136	0.0102	0.0126	0.00476	0.00464	0.00851	0.00614
PCB-105	32598-14-4	µg/kg	12.8	1.67	12.5	7.63	3.19	2.08	6.06	2.36	1.91	1.26
PCB-106	70424-69-0	µg/kg	< 0.0205 U	< 0.00438 U	< 0.0359 U	< 0.0456 U	< 0.0111 U	< 0.00656 U	< 0.0243 U	< 0.0113 U	< 0.0136 U	< 0.00702 U
PCB-107/124	PCB-107/124	µg/kg	0.924	0.136	0.764	0.481	0.242	0.209	0.384	0.229	0.177	0.128
PCB-109	74472-35-8	µg/kg	2.64	0.432	2.39	1.66	0.823	0.588	1.3	0.533	0.514	0.42
PCB-110/115	PCB-110/115	µg/kg	25.9	4.14	26.3	15.6	8.92	5.52	10	6.38	4.62	3.12
PCB-111	39635-32-0	µg/kg	0.0153	0.00937	0.0176	0.0162	0.0101	0.00976	0.0130	0.0115 JN	0.0110	0.00881
PCB-112	74472-36-9	µg/kg	< 0.00264 U	< 0.00176 U	< 0.00750 U	< 0.00758 U	< 0.00391 U	< 0.00179 U	< 0.00398 U	< 0.00292 U	< 0.00271 U	< 0.00182 U
PCB-114	74472-37-0	µg/kg	0.939	0.114	0.918	0.623	0.241	0.16	0.515	0.163	0.132	0.0915
PCB-118	31508-00-6	µg/kg	29.3	4.17	27.1	17	7.77	5.83	15.3	6.55	5.23	3.65
PCB-120	68194-12-7	µg/kg	0.0682	0.0350	0.0825	0.0645	0.0528	0.0433	0.0622	0.0426	0.0445	0.0415

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB001	SMB002	SMB003	SMB004	SMB005	SMB006	SMB007	SMB008	SMB009	SMB010
		Sample ID	PDI-TF-SMB001	PDI-TF-SMB002	PDI-TF-SMB003	PDI-TF-SMB004	PDI-TF-SMB005	PDI-TF-SMB006	PDI-TF-SMB007	PDI-TF-SMB008	PDI-TF-SMB009	PDI-TF-SMB010
		Sample Date	8/22/18	9/13/18	8/22/18	9/10/18	8/22/18	9/10/18	8/22/18	8/22/18	8/22/18	8/21/18
Chemical	**CAS**	**Units**										
PCB-121	56558-18-0	µg/kg	0.00761	0.00649	0.0150	0.0122	0.00936	0.00905 JN	0.00936	0.00596	0.00958	0.00714
PCB-122	76842-07-4	µg/kg	0.175	0.0369 JN	0.152	0.118	0.0566	0.0533	0.0560	0.0349 JN	0.0403	0.0225
PCB-123	65510-44-3	µg/kg	0.723 JN	0.0908 JN	0.56	0.364 JN	0.186 JN	0.133 JN	0.364	0.121	0.121	0.0684
PCB-126	57465-28-8	µg/kg	0.0277 JN	0.00591 JN	< 0.0444 U	< 0.0602 U	0.0133 JN	0.00884 JN	< 0.0317 U	0.0127 JN	0.0208 JN	0.0118 JN
PCB-127	39635-33-1	µg/kg	0.0359	0.00872 JN	0.0399	< 0.0496 U	0.0149	0.0148	< 0.0265 U	0.0191 JN	< 0.0159 U	0.00955
PCB-128/166	PCB-128/166	µg/kg	3.96	1.16	3.65	3.15	1.9	1.63	2.74	1.87	1.4	1.19
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	28.1	8.03	28.9	22.5	14	12.6	19.5	13.3	10.2	8.83
PCB-130	52663-66-8	µg/kg	1.34	0.409	1.15	1.01	0.711	0.616	0.927	0.65	0.525	0.405
PCB-131	61798-70-7	µg/kg	0.12	0.0280	0.0926	0.0860	0.0664	0.0536	0.0688	0.0742	0.0378	0.0302
PCB-132	38380-05-1	µg/kg	3.44	0.913	2.96	2.62	1.94	1.68	2.07	2.12	1.32	0.954
PCB-133	35694-04-3	µg/kg	0.412	0.188	0.463	0.366	0.272	0.245	0.316	0.219	0.2	0.187
PCB-134/143	PCB-134/143	µg/kg	0.598	0.178	0.551	0.464	0.321	0.307	0.334	0.331	0.225	0.171
PCB-135/151/154	PCB-135/151/154	µg/kg	5.35	2.01	5.83	4.74	3.29	3.19	3.58	2.82	2.64	2.01
PCB-136	38411-22-2	µg/kg	1.1	0.397	1.08	1.02	0.675	0.62	0.591	0.651	0.474	0.368
PCB-137	35694-06-5	µg/kg	1.31	0.336	1.08	1.13	0.549	0.457	0.911	0.532	0.373	0.321
PCB-139/140	PCB-139/140	µg/kg	0.475	0.133	0.472	0.346	0.198	0.169	0.314	0.196	0.165	0.132
PCB-141	52712-04-6	µg/kg	3.47	0.908	3.32	2.86	1.65	1.45	2.15	1.5	1.2	0.954
PCB-142	41411-61-4	µg/kg	< 0.0160 U	< 0.0166 U	< 0.0291 U	< 0.0338 U	< 0.0137 U	< 0.00862 U	< 0.0150 U	< 0.0132 U	< 0.00743 U	< 0.0102 U
PCB-144	68194-14-9	µg/kg	0.645	0.166	0.619	0.507	0.359	0.315	0.423	0.311	0.277	0.189
PCB-145	74472-40-5	µg/kg	0.00398	< 0.000839 U	0.00246 JN	0.00421	0.00178 J	0.00291 JN	0.00120 JN	0.00168 J	0.00196 JN	< 0.000568 U
PCB-146	51908-16-8	µg/kg	4.31	1.83	5.01	3.94	2.81	2.6	3.13	2.4	2	1.83
PCB-147/149	PCB-147/149	µg/kg	9.65	3.1	9.75	8.29	6.6	6.42	6.84	6.05	4.96	3.73
PCB-148	74472-41-6	µg/kg	0.0371	0.0349	0.0491	0.0520	0.0461	0.0367	0.0360	0.0311	0.0345	0.0289
PCB-150	68194-08-1	µg/kg	0.0201	0.0146	0.0319	0.0315	0.0238	0.0254	0.0184	0.0175	0.0187	0.0140
PCB-152	68194-09-2	µg/kg	0.0156	0.00693 JN	0.0292	0.0192	0.00934	0.00986	0.00754	0.00843	0.00870 JN	0.00555
PCB-153/168	PCB-153/168	µg/kg	25.3	8.53	28.4	21.4	14.8	13.8	17.2	12	10.5	9.59
PCB-155	33979-03-2	µg/kg	0.00708	0.0103	0.0153	0.0129	0.0106	0.0109	0.0142	0.0110	0.00995	0.0108
PCB-156/157	PCB-156/157	µg/kg	2.61	0.626	2.44	1.87	0.986	0.921	1.82	1.18	0.78	0.649
PCB-158	74472-42-7	µg/kg	2.27	0.555	2.1	1.74	0.999	0.911	1.64	0.968	0.744	0.628
PCB-159	39635-35-3	µg/kg	< 0.0116 U	< 0.0116 U	0.0838	< 0.0248 U	< 0.00992 U	< 0.00641 U	0.0703	0.0555	0.0537	0.0351
PCB-161	74472-43-8	µg/kg	< 0.0116 U	< 0.0109 U	< 0.0194 U	< 0.0236 U	< 0.00995 U	< 0.00621 U	< 0.0104 U	< 0.00883 U	< 0.00533 U	< 0.00707 U
PCB-162	39635-34-2	µg/kg	0.0752	0.0192	0.0526	0.0424	0.0309	0.0225	0.0605	0.0259	0.0351	0.0207
PCB-164	74472-45-0	µg/kg	1.07	0.305	1.07	0.722	0.544	0.483	0.671	0.482	0.43	0.307
PCB-165	74472-46-1	µg/kg	< 0.0130 U	< 0.0132 U	< 0.0225 U	< 0.0281 U	< 0.0111 U	0.00996	< 0.0125 U	< 0.0102 U	0.00899 JN	< 0.00818 U
PCB-167	52663-72-6	µg/kg	0.892	0.251	0.827	0.661	0.433	0.397	0.628	0.433	0.342	0.263
PCB-169	32774-16-6	µg/kg	< 0.0131 U	< 0.0141 U	< 0.0276 U	< 0.0370 U	< 0.0118 U	< 0.0105 U	< 0.0228 U	< 0.00992 U	< 0.00871 U	< 0.00767 U
PCB-170	35065-30-6	µg/kg	3.09	1.23	3.69	2.75	2.08	2.01	2.46	1.69	1.62	1.39
PCB-171/173	PCB-171/173	µg/kg	1	0.408	1.06	0.855	0.698	0.637	0.727	0.478	0.465	0.4
PCB-172	52663-74-8	µg/kg	0.649	0.279	0.725	0.526	0.474	0.504	0.453	0.301	0.316	0.274
PCB-174	38411-25-5	µg/kg	1.74	0.612	1.53	1.46	1.4	1.32	1.22	0.902	0.951	0.691
PCB-175	40186-70-7	µg/kg	0.117	0.0489	0.123	0.106	0.0977	0.0909	0.0966	0.0631	0.0646	0.0534
PCB-176	52663-65-7	µg/kg	0.196	0.0800	0.191	0.187	0.176	0.166	0.151	0.118	0.111	0.0841
PCB-177	52663-70-4	µg/kg	1.3	0.589	1.29	1.1	1.16	1.14	1.32	0.688	0.676	0.595
PCB-178	52663-67-9	µg/kg	0.883	0.454	0.996	0.808	0.699	0.803	0.695	0.478	0.5	0.454
PCB-179	52663-64-6	µg/kg	0.917	0.466	0.955	0.841	0.708	0.684	0.638	0.506	0.529	0.432
PCB-180/193	PCB-180/193	µg/kg	9.13	3.67	12	7.82	7	6.99	8.22	5.01	5.05	4.63
PCB-181	74472-47-2	µg/kg	0.0467	0.0148	0.0455	0.0368	0.0260	0.0244	0.0362	0.0206	0.0184	0.0169
PCB-182	60145-23-5	µg/kg	< 0.000661 U	< 0.000822 U	< 0.000834 U	0.0263	< 0.000744 U	< 0.000713 U	0.0208	0.0161	0.0186	0.0187
PCB-183/185	PCB-183/185	µg/kg	2.69	1.05	2.95	2.3	2.01	1.92	1.95	1.24	1.38	1.15
PCB-184	74472-48-3	µg/kg	0.00832	0.0112	0.0134	0.0122	0.00994	0.0105	0.0105	0.00874	0.00933	0.00909
PCB-186	74472-49-4	µg/kg	< 0.000546 U	< 0.000673 U	< 0.000719 U	< 0.000506 U	< 0.000614 U	< 0.000587 U	< 0.000539 U	< 0.000524 U	0.000720 J	< 0.000364 U
PCB-187	52663-68-0	µg/kg	6.84	3.09	8.4	6.55	5.78	6.24	5.35	3.72	3.85	3.2
PCB-188	74487-85-7	µg/kg	0.00997	0.00914	0.0151	0.0115	0.0135	0.0112	0.0123	0.00853	0.0110	0.00806
PCB-189	39635-31-9	µg/kg	0.0996	0.0385	0.127	0.0884	0.0682	0.0653	0.0851	0.0568	0.0501	0.0428
PCB-190	41411-64-7	µg/kg	0.788	0.326	0.975	0.585	0.484	0.558	0.567	0.374	0.371	0.322

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB001	SMB002	SMB003	SMB004	SMB005	SMB006	SMB007	SMB008	SMB009	SMB010
		Sample ID	PDI-TF-SMB001	PDI-TF-SMB002	PDI-TF-SMB003	PDI-TF-SMB004	PDI-TF-SMB005	PDI-TF-SMB006	PDI-TF-SMB007	PDI-TF-SMB008	PDI-TF-SMB009	PDI-TF-SMB010
		Sample Date	8/22/18	9/13/18	8/22/18	9/10/18	8/22/18	9/10/18	8/22/18	8/22/18	8/22/18	8/21/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.136	0.0487	0.156	0.12	0.0987	0.0942	0.0943	0.0627	0.0666	0.0595
PCB-192	74472-51-8	µg/kg	< 0.000655 U	< 0.000796 U	0.00620 JN	< 0.000577 U	< 0.000736 U	< 0.000694 U	< 0.000629 U	0.00117 JN	< 0.000487 U	< 0.000418 U
PCB-194	35694-08-7	µg/kg	0.912 J	0.388 J	1.26 J	1.02	0.819 J	0.736 J	0.828 J	0.507 J	0.722	0.702
PCB-195	52663-78-2	µg/kg	0.585	0.291	0.903	0.419	0.413	0.488	0.447	0.324	0.338	0.268
PCB-196	42740-50-1	µg/kg	0.642	0.327	1.1	0.541	0.599	0.565	0.548	0.417	0.385	0.299
PCB-197/200	PCB-197/200	µg/kg	0.155	0.0796	0.19	0.136	0.13	0.122 J	0.129	0.0918	0.0867	0.0696
PCB-198/199	PCB-198/199	µg/kg	1.48	0.843	2.3	1.26	1.8	1.5	1.2	0.871	0.824	0.709
PCB-201	40186-71-8	µg/kg	0.151	0.0844	0.18	0.139	0.154	0.14	0.127	0.0837	0.0767	0.0741
PCB-202	2136-99-4	µg/kg	0.459	0.283	0.566	0.403	0.6	0.409	0.405	0.275	0.317	0.287
PCB-203	52663-76-0	µg/kg	1.14	0.589	1.77	0.908	0.983	0.984	0.926	0.661	0.603	0.523
PCB-204	74472-52-9	µg/kg	0.00148 J	0.00109 JN	0.00215 JN	0.00145 JN	0.00181 J	0.00141 JN	0.00140 JN	0.00116 J	0.00171 J	0.000782 JN
PCB-205	74472-53-0	µg/kg	0.0547	0.0289	0.0811	0.0494	0.0451	0.0505	0.0511	0.0301	0.0336	0.0316
PCB-206	40186-72-9	µg/kg	0.41	0.208	0.524	0.377	2.2	0.33	0.382	0.251	0.275	0.253
PCB-207	52663-79-3	µg/kg	0.0511	0.0306	0.0681	0.0505	0.148	0.0452	0.0532	0.0361	0.0406	0.0359
PCB-208	52663-77-1	µg/kg	0.14	0.0902	0.188	0.148	1.13	0.128	0.156	0.0981	0.113	0.0999
PCB-209	2051-24-3	µg/kg	0.112	0.0771	0.175	0.144	0.956	0.115	0.158	0.102	0.101	0.12
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	546	100	675	376	212	156	238	128	119	89.4
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.31	0.942	1.82	2.27	1.91	3.05	1.15	1.81	1.98 J	1.69
2,4-DDE	3424-82-6	µg/kg	0.443	0.490	0.601	0.648	0.635	0.713	0.380	0.531	0.556 J	0.548
2,4-DDT	789-02-6	µg/kg	0.435	0.659	0.582	0.740	0.386	0.765	0.462	0.554	0.629 J	0.491
4,4'-DDD	72-54-8	µg/kg	7.58	10.2	10.3	11.5	10.8	13.0	8.48	9.69	10.2 J	10.3
4,4'-DDE	72-55-9	µg/kg	40.8	57.4	54.0	56.9	50.1	57.0	45.1	50.2	49.8 J	50.4
4,4'-DDT	50-29-3	µg/kg	2.01	2.89	4.34	4.61	2.22	1.85	3.47	2.38	2.77 J	2.63
DDx (a)	T_DDx (PDI)	µg/kg	52.6	72.6	71.6	76.7	66.1	76.4	59	65.2	65.9	66.1
alpha-Chlordane	5103-71-9	µg/kg	0.816	0.699	1.30	1.14	0.985	0.788	0.648	0.902	1.26 J	1.02
cis-Nonachlor	5103-73-1	µg/kg	0.949	0.858	1.32	1.38	1.14	1.06	1.09	1.11	1.32 J	1.16
Oxychlordane	27304-13-8	µg/kg	0.472	0.350 J	0.597	0.562	0.574	0.553	0.446 J	0.489 J	0.618 J	0.506
trans-Chlordane	5103-74-2	µg/kg	0.278 J	0.211 J	0.455 J	0.397 J	0.351 J	0.293 J	0.031 J	0.309 J	0.486 J	0.386 J
trans-Nonachlor	39765-80-5	µg/kg	2.26	2.06	3.46	3.62	2.86	2.63	2.96	2.80	3.18 J	2.88
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	4.78	4.18	7.13	7.1	5.91	5.32	5.18	5.61	6.86	5.95
Aldrin	309-00-2	µg/kg	0.010 J	< 0.0046 U	0.013 J	0.012 J	0.014 JN	0.015 J	0.014 JN	0.015 JN	0.016 J	0.012 J
Dieldrin	60-57-1	µg/kg	1.24	0.988	1.89	1.43	1.60	1.36	2.44	1.13	2.25 J	1.35
Metals												
Arsenic	7440-38-2	mg/kg	0.23	0.37	0.23	0.24	0.22	0.16	0.23	0.19	0.24	0.27
Mercury	7439-97-6	mg/kg	0.077 J	0.090 J	0.103 J	0.099 J	0.097 J	0.092 J	0.078 J	0.080 J	0.081 J	0.070 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	0.872	0.991	1.43	1.09	1.19	0.822	1.03	0.955	1.25 J	1.22
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00473 J	0.00161 J	0.00573 J	0.00593 JN	0.00543 J	0.00365 J	0.00387 J	0.00408 J	0.00387 JN	0.00408 J
PBDE-8/11	PDBE-8/11	µg/kg	0.00413 J	0.00134 J	0.00477 J	0.00583 JN	0.00651 J	0.00423 J	0.00367 J	0.00386 J	0.00366 J	0.00500 J
PBDE-10	51930-04-2	µg/kg	< 0.000486 U	< 0.000451 U	< 0.000579 U	< 0.000718 U	< 0.000529 U	< 0.000531 U	< 0.000619 U	< 0.000553 U	< 0.000443 U	< 0.000406 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00152 J	0.00112 J	0.0184 JN	0.0249 JN	0.00188 JN	0.00178 J	0.00788 JN	0.00737 JN	0.0114 JN	0.00217 JN
PBDE-15	2050-47-7	µg/kg	0.0199	0.0360	0.0229	0.0207	0.0208	0.0157	0.0167 J	0.0192	0.0166 J	0.0222
PBDE-17/25	PBDE-17/25	µg/kg	0.142	0.0820	0.156 JN	0.18 JN	0.203	0.163	0.106 JN	0.107 JN	0.149 JN	0.139 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.473	0.309	0.531	0.461	0.507	0.34	0.456	0.323	0.411	0.349
PBDE-30	155999-95-4	µg/kg	< 0.00209 U	< 0.00320 U	< 0.00289 U	< 0.00272 U	< 0.00274 U	< 0.00302 U	< 0.00309 U	< 0.00237 U	< 0.00339 U	< 0.00237 U
PBDE-32	189084-60-4	µg/kg	< 0.00172 U	< 0.00246 U	< 0.00232 U	< 0.00218 U	< 0.00226 U	< 0.00244 U	< 0.00249 U	< 0.00191 U	< 0.00267 U	< 0.00182 U
PBDE-35	147217-80-9	µg/kg	0.00401 JN	0.00756 JN	0.00556 JN	0.00561 JN	0.00665 JN	0.00393 JN	0.00536 JN	0.00500 JN	0.00590 JN	0.00512 JN
PBDE-37	147217-81-0	µg/kg	0.0108 J	0.0131 J	0.00922 J	0.00863 J	0.00891 J	0.0104 J	0.00932 J	0.00836 J	0.00802 J	0.00998 J
PBDE-047	5436-43-1	µg/kg	18.8	12.3	26.2	20.5	15.2	16	21.7	13.9	15.4	14.4 J
PBDE-49	243982-82-3	µg/kg	0.666	0.737	1.23	1.2	1.09	1.91	0.746	0.821	1.03	0.792
PBDE-51	189084-57-9	µg/kg	0.0402	0.0415	0.0639	0.0636	0.0703	0.0695	0.0342	0.0528	0.0563	0.0412

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB001	SMB002	SMB003	SMB004	SMB005	SMB006	SMB007	SMB008	SMB009	SMB010
		Sample ID	PDI-TF-SMB001	PDI-TF-SMB002	PDI-TF-SMB003	PDI-TF-SMB004	PDI-TF-SMB005	PDI-TF-SMB006	PDI-TF-SMB007	PDI-TF-SMB008	PDI-TF-SMB009	PDI-TF-SMB010
		Sample Date	8/22/18	9/13/18	8/22/18	9/10/18	8/22/18	9/10/18	8/22/18	8/22/18	8/22/18	8/21/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.228	0.179	0.317	0.235	0.2	0.337	0.153	0.218	0.255	0.246
PBDE-71	189084-62-6	µg/kg	0.0240	0.0259	0.0474	0.0433	0.0347	0.0726 JN	0.0281	0.0326	0.0384	0.0227
PBDE-75	189084-63-7	µg/kg	0.0199	0.0202	0.0275	0.0210	0.0174	0.0264	0.0229	0.0184 JN	0.0210 JN	0.0212
PBDE-77	93703-48-1	µg/kg	0.00292 JN	0.00553 JN	< 0.000146 U	< 0.000134 U	0.00328 JN	0.00432 J	< 0.000172 U	0.00339 JN	0.00598 JN	0.00360 JN
PBDE-79	PBDE-79	µg/kg	0.0123 J+	0.0211 JN	0.0403 JN	0.0253 JN	0.0146 J+	0.0206 JN	0.0235 JN	0.0322 JN	0.0248 JN	0.0314 JN
PBDE-85	182346-21-0	µg/kg	< 0.00261 U	< 0.00338 U	< 0.00293 U	< 0.00319 U	< 0.00242 UJ	< 0.00842 U	< 0.00204 U	< 0.00277 U	< 0.00313 U	< 0.00333 U
PBDE-099	60348-60-9	µg/kg	3.29	1.94	4.02	3.12	3.47	13.8	1.98	2.54	3.13	3.62
PBDE-100	189084-64-8	µg/kg	3.36	2.11	4.98	3.4	3.08 J	4.45	4.28	2.7	2.85	2.8
PBDE-105	373594-78-6	µg/kg	< 0.00346 U	< 0.00400 U	< 0.00414 U	< 0.00393 U	< 0.00320 UJ	< 0.0106 U	< 0.00287 U	< 0.00391 U	< 0.00402 U	< 0.00429 U
PBDE-116	189084-65-9	µg/kg	< 0.00495 U	< 0.00542 U	< 0.00601 U	< 0.00531 U	< 0.00458 UJ	< 0.0138 U	< 0.00417 U	< 0.00568 U	< 0.00527 U	< 0.00547 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0854	0.0579	0.114	0.0738	0.0658 J	0.0907	0.111	0.0726	0.0808	0.0821
PBDE-126	366791-32-4	µg/kg	0.00947 J	0.00549 J	0.0168	0.0120 J	0.00921 J	0.0144 J	0.0233	0.00960 J	0.00770 J	0.00638 J
PBDE-128	182677-28-7	µg/kg	0.00255 JN	0.00295 JN	0.00624 JN	0.00357 JN	0.00337 JN	0.00538 J	0.00524 JN	0.00422 JN	0.00396 JN	0.00588 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.000473 JN	0.000380 JN	< 0.00101 U	0.00150 JN	0.000210 JN	0.0116 J	< 0.000616 U	< 0.000775 U	< 0.00101 U	0.00130 J
PBDE-140	243982-83-4	µg/kg	0.00543 J	0.00465 J	0.0105 J	0.00732 J	0.00754 J	0.0440 J	0.00407 JN	0.00691 J	0.00837 JN	0.00970 J
PBDE-153	68631-49-2	µg/kg	0.88	0.554	1.73	0.909	0.653	1.74	0.919	0.672	0.691	0.822
PBDE-154	207122-15-4	µg/kg	0.872 J	0.391 J	1.58	0.818 J	0.643 J	1.44 J	1.27	0.637	0.63	0.67 J
PBDE-155	35854-94-5	µg/kg	0.0791 J	0.0446 J	0.106	0.0963 J	0.0706 J	0.0994 J	0.172	0.0619	0.0637	0.0577 J
PBDE-181	189084-67-1	µg/kg	< 0.000143 U	< 0.000163 U	< 0.000146 U	< 0.000134 U	< 0.000142 U	< 0.000147 U	< 0.000606 U	< 0.000230 U	< 0.000415 U	< 0.000159 U
PBDE-183	207122-16-5	µg/kg	0.00720 JN	0.00359 JN	0.0103 J	0.00503 J	0.00656 JN	0.0192	0.00582 JN	0.00686 J	0.00621 JN	0.00734 J
PBDE-190	189084-68-2	µg/kg	< 0.000194 U	< 0.000238 U	0.000211 JN	< 0.000134 U	< 0.000197 U	< 0.000151 U	0.000180 JN	0.000238 JN	< 0.000228 U	< 0.000233 U
PBDE-203	337513-72-1	µg/kg	0.00167 JN	0.000655 JN	< 0.00157 U	0.000438 JN	0.00154 JN	0.000946 J	< 0.00253 U	< 0.00152 U	< 0.00123 U	0.00146 JN
PBDE-206	63387-28-0	µg/kg	0.0187 JN	< 0.000485 U	< 0.000649 U	0.00294 JN	< 0.000466 U	0.0113 JN	< 0.00398 U	0.00554 JN	< 0.00209 U	< 0.00108 U
PBDE-207	437701-79-6	µg/kg	0.0168 JN	0.00322 JN	< 0.000310 U	0.00515 JN	< 0.000325 U	0.0196 JN	< 0.00237 U	< 0.00491 U	0.00866 J+	< 0.00264 U
PBDE-208	437701-78-5	µg/kg	0.0189 JN	0.00259 JN	< 0.000757 U	< 0.00364 U	< 0.000505 U	0.0114 JN	< 0.000386 U	< 0.00558 U	< 0.00229 U	< 0.00326 U
PBDE-209	1163-19-5	µg/kg	0.4 JN	0.0337 JN	< 0.0284 U	0.0590 JN	0.0346 JN	0.474	0.0743 JN	0.0706 J+	< 0.0303 U	< 0.0376 U
Total PBDE (a)	T_PBDE (PDI)	µg/kg	29.5	18.9	41.3	31.3	25.4	41.2	32.2	22.3	24.9	24.2

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB001	SMB002	SMB003	SMB004	SMB005	SMB006	SMB007	SMB008	SMB009	SMB010
		Sample ID	PDI-TF-SMB001	PDI-TF-SMB002	PDI-TF-SMB003	PDI-TF-SMB004	PDI-TF-SMB005	PDI-TF-SMB006	PDI-TF-SMB007	PDI-TF-SMB008	PDI-TF-SMB009	PDI-TF-SMB010
		Sample Date	8/22/18	9/13/18	8/22/18	9/10/18	8/22/18	9/10/18	8/22/18	8/22/18	8/22/18	8/21/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	5.34	9.17	6.98	5.78	7.09	4.90	4.65	4.73	5.45	6.47
Total Solids@104C	TSOLID	%	26.9	29.9	29.2	27.5	29.7	25.8	27.0	26.1	28.4	28.5

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB011	SMB012	SMB013	SMB014	SMB015	SMB016	SMB017	SMB018	SMB019	SMB020
		Sample ID	PDI-TF-SMB011	PDI-TF-SMB012	PDI-TF-SMB013	PDI-TF-SMB014	PDI-TF-SMB015	PDI-TF-SMB016	PDI-TF-SMB017	PDI-TF-SMB018	PDI-TF-SMB019	PDI-TF-SMB020
		Sample Date	8/21/18	9/5/18	9/10/18	8/21/18	8/21/18	9/10/18	9/5/18	9/10/18	9/6/18	8/21/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000217 JN	0.000116 JN	0.000190 J	< 0.0000732 U	< 0.0000710 U	0.000196 J	0.000153 JN	0.000176 J	0.000173 JN	0.000220 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000731 U	< 0.0000733 U	< 0.0000679 U	< 0.0000732 U	< 0.0000710 U	< 0.0000722 U	< 0.0000743 U	< 0.0000722 U	< 0.0000730 U	< 0.0000743 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000731 U	< 0.0000733 U	< 0.0000679 U	< 0.0000732 U	< 0.0000710 U	< 0.0000722 U	< 0.0000743 U	< 0.0000722 U	< 0.0000730 U	< 0.0000743 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.0000731 U	< 0.0000733 U	0.000136 JN	< 0.0000732 U	0.000107 J	0.000141 JN	0.0000960 JN	< 0.0000722 U	0.000119 J	0.000117 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0000944 J	0.000113 JN	0.000160 JN	< 0.0000732 U	0.0000762 JN	0.000339 J	0.000181 J	0.000116 JN	0.0000866 J	0.000157 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000268 J	0.000212 J	0.000252 JN	0.000132 JN	0.000210 JN	0.000489 JN	0.000349 J	0.000185 JN	0.000323 JN	0.000333 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0000731 U	< 0.0000733 U	0.0000970 JN	< 0.0000732 U	< 0.0000710 U	0.000118 JN	< 0.0000743 U	< 0.0000722 U	< 0.0000730 U	0.0000776 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000731 U	< 0.0000733 U	< 0.0000679 U	< 0.0000732 U	< 0.0000710 U	< 0.0000722 U	< 0.0000743 U	< 0.0000722 U	< 0.0000730 U	< 0.0000743 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000731 U	< 0.0000733 U	< 0.0000679 U	< 0.0000732 U	< 0.0000710 U	< 0.0000819 U	< 0.0000743 U	< 0.0000722 U	< 0.0000730 U	< 0.0000743 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000503 J	0.000399 J	0.000558 JN	0.000293 J	0.000313 J	0.000503 JN	0.000600 J	0.000357 JN	0.000580 J	0.000559 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000336 J	0.000437 J	0.000460 JN	0.000156 J	0.000247 J	0.000576 J	0.000343 JN	0.000302 J	0.000398 J	0.000329 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000731 U	< 0.0000733 U	< 0.0000679 U	< 0.0000732 U	< 0.0000710 U	< 0.0000722 U	< 0.0000743 U	< 0.0000722 U	< 0.0000730 U	< 0.0000743 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000555 J	0.000448 J	0.000698 JN	0.000463 J	0.000426 J	0.000642 JN	0.000621 J	0.000597 J	0.000559 J	0.000504 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000323	0.000210 J	0.000374	0.000223 JN	0.000242 J	0.000337	0.000291 J	0.000261 J	0.000318	0.000309
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00173	0.00212	0.00187 JN	0.00110	0.00175	0.00233	0.00137	0.00178	0.00249	0.00147
OCDD	3268-87-9	µg/kg	0.000853 J	0.000180 J	0.000362 JN	0.000145 J+	0.000258 JN	0.000198 JN	0.000525 J	0.000532 J+	0.000452 J	0.000264 J+
OCDF	39001-02-0	µg/kg	< 0.0000731 U	< 0.0000733 U	0.0000721 JN	< 0.0000732 U	< 0.0000710 U	< 0.0000722 U	< 0.0000743 U	< 0.0000722 U	< 0.0000730 U	< 0.0000905 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00122	0.00101	0.00141	0.000786	0.000908	0.0014	0.00129	0.00102	0.00139	0.00125
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.00122	0.000995	0.000842	0.000658	0.000886	0.000875	0.00127	0.000808	0.00136	0.00123
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.00121	0.00099	0.000563	0.000547	0.000876	0.000623	0.00127	0.000629	0.00135	0.00122
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.0101	0.00435	0.00388	0.0283	0.17	0.0615	0.0176	0.00325	0.00472	0.00452
PCB-2	2051-61-8	µg/kg	0.00210	0.00189 J	0.00107 J+	0.00181 JN	0.00785	0.00310	0.00121 JN	0.000922 J+	0.00141 J+	0.000829 J+
PCB-3	2051-62-9	µg/kg	0.00558	0.00369 JN	0.00292 J+	0.00664	0.0427	0.0149	0.00538 J+	0.00195 J+	0.00231 J+	0.00173 J+
PCB-4	13029-08-8	µg/kg	0.262	0.164	0.129	0.386	1.68	1.77	0.277	0.113	0.182	0.134
PCB-5	16605-91-7	µg/kg	0.00182 JN	< 0.00350 U	< 0.00295 U	0.00469	0.0418	0.0169	< 0.00369 U	< 0.00256 U	< 0.00304 U	0.00119 J
PCB-6	25569-80-6	µg/kg	0.0383	0.0199	0.0158	0.0724	0.537	0.273	0.0409	0.0122	0.0215	0.0197
PCB-7	33284-50-3	µg/kg	0.00600	0.00487	0.00344 JN	0.0161	0.112	0.0592	0.00844	0.00246 J	0.00472 JN	0.00420
PCB-8	34883-43-7	µg/kg	0.133	0.0864	0.0666	0.415	2.52	1.19	0.199	0.0566	0.103	0.0966
PCB-9	34883-39-1	µg/kg	0.00977	0.00640	0.00511 JN	0.0227	0.17	0.11	0.0138	0.00413	0.00535	0.00544
PCB-10	33146-45-1	µg/kg	0.0156	0.0111 JN	0.00640	0.0212	0.108	0.144	0.0257	0.00712 JN	0.0115	0.00909
PCB-11	2050-67-1	µg/kg	0.119	0.117	0.0451	0.0321	0.103	0.0478	0.0269	0.0470	0.0713	0.0411
PCB-12/13	PCB-12/13	µg/kg	0.00539	0.00419	< 0.00286 U	0.00559	0.0593	0.0885	0.00408 JN	0.00250 JN	< 0.00293 U	0.00277 J
PCB-14	34883-41-5	µg/kg	< 0.000206 U	< 0.00321 U	< 0.00277 U	< 0.000906 U	< 0.00165 U	< 0.00282 U	< 0.00339 U	< 0.00238 U	< 0.00281 U	< 0.000835 U
PCB-15	2050-68-2	µg/kg	0.0398	0.0247	0.0194	0.0766	0.706	0.271	0.0368	0.0173	0.0270	0.0204
PCB-16	38444-78-9	µg/kg	0.126	0.0911	0.0777	0.232	1.51	0.924	0.155	0.0662	0.123	0.0882
PCB-17	37680-66-3	µg/kg	0.35	0.279	0.226	0.477	2.08	4.26	0.442	0.215	0.351	0.239
PCB-18/30	PCB-18/30	µg/kg	0.421	0.307	0.26	0.705	3.6	2.84	0.523	0.22	0.362	0.265
PCB-19	38444-73-4	µg/kg	0.502	0.414	0.384	0.481	1.38	3.37	0.443	0.382	0.521	0.369
PCB-20/28	PCB-20/28	µg/kg	1.45	1	1.03	3.13	8.17	9.82	2.37	1.01	1.28	1.09
PCB-21/33	PCB-21/33	µg/kg	0.272	0.23	0.251	0.734	2.48	2.2	0.539	0.199	0.329	0.267
PCB-22	38444-85-8	µg/kg	0.298	0.214	0.232	0.674	2.37	1.64	0.463	0.221	0.292	0.252
PCB-23	55720-44-0	µg/kg	< 0.00106 U	< 0.00211 U	< 0.00330 U	< 0.00220 U	< 0.0156 U	< 0.00966 U	< 0.00372 U	< 0.00192 U	< 0.00243 U	< 0.00200 U
PCB-24	55702-45-9	µg/kg	0.00665	0.00480	0.00405 JN	0.0122	0.0841	0.0574	0.00892	0.00445	0.00456	0.00397
PCB-25	55712-37-3	µg/kg	0.105	0.0743	0.0697	0.154	0.501	0.644	0.117	0.0704	0.0940	0.0756
PCB-26/29	PCB-26/29	µg/kg	0.234	0.163	0.148	0.405	1.17	1.9	0.309	0.149	0.194	0.156
PCB-27	38444-76-7	µg/kg	0.0808	0.0623	0.0571	0.111	0.502	1.5	0.0938	0.0519	0.0788	0.0545
PCB-31	16606-02-3	µg/kg	0.802	0.576	0.567	1.58	5.11	4.37	1.16	0.594	0.737	0.598
PCB-32	38444-77-8	µg/kg	0.194	0.135	0.126	0.306	1.64	1.47	0.229	0.108	0.185	0.14
PCB-34	37680-68-5	µg/kg	0.00898	0.00769	0.00725	0.00959	0.0292	0.0476	0.0102	0.00433	0.00850	0.00574
PCB-35	37680-69-6	µg/kg	0.00270	< 0.00207 U	< 0.00330 U	< 0.00200 U	0.0188	< 0.0105 U	< 0.00365 U	< 0.00208 U	< 0.00238 U	< 0.00202 U
PCB-36	38444-87-0	µg/kg	< 0.000939 U	< 0.00189 U	0.0687	< 0.00189 U	< 0.0137 U	< 0.00972 U	< 0.00333 U	< 0.00193 U	< 0.00225 U	< 0.00185 U
PCB-37	38444-90-5	µg/kg	0.0955	0.0632	0.0784	0.147	0.698	0.52	0.133	0.0800	0.112	0.0796
PCB-38	53555-66-1	µg/kg	0.00171 JN	< 0.00206 U	< 0.00333 U	0.00487 JN	< 0.0148 U	< 0.00956 U	< 0.00364 U	< 0.00189 U	0.00267 J	0.00257 JN

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB011	SMB012	SMB013	SMB014	SMB015	SMB016	SMB017	SMB018	SMB019	SMB020
		Sample ID	PDI-TF-SMB011	PDI-TF-SMB012	PDI-TF-SMB013	PDI-TF-SMB014	PDI-TF-SMB015	PDI-TF-SMB016	PDI-TF-SMB017	PDI-TF-SMB018	PDI-TF-SMB019	PDI-TF-SMB020
		Sample Date	8/21/18	9/5/18	9/10/18	8/21/18	8/21/18	9/10/18	9/5/18	9/10/18	9/6/18	8/21/18
Chemical	**CAS**	**Units**										
PCB-39	38444-88-1	µg/kg	0.0103	0.0101	0.00958	0.0199	0.0460	0.0894	0.0148	0.00791	0.0134	0.0117
PCB-40/41/71	PCB-40/41/71	µg/kg	0.716	0.615	0.641	1.17	2.98	3.89	0.838	0.499	0.968	0.849
PCB-42	36559-22-5	µg/kg	0.501	0.383	0.408	0.788	1.66	1.74	0.538	0.428	0.567	0.52
PCB-43	70362-46-8	µg/kg	0.0775	0.0848	0.0834	0.144	0.34	0.797	0.139	0.0525	0.102	0.0805
PCB-44/47/65	PCB-44/47/65	µg/kg	3.18	2.58	2.73	4.7	7.79	25.6	3.78	2.57	3.49	3.37
PCB-45/51	PCB-45/51	µg/kg	0.441	0.363	0.338	0.442	1.33	2.31	0.374	0.309	0.533	0.404
PCB-46	41464-47-5	µg/kg	0.0677	0.0546	0.0481	0.0822	0.308	0.231	0.0490	0.0411	0.0800	0.0555
PCB-48	70362-47-9	µg/kg	0.31	0.262	0.267	0.554	1.35	2.57	0.412	0.191	0.376	0.333
PCB-49/69	PCB-49/69	µg/kg	2.09	1.67	1.8	3.3	4.98	8.38	2.63	1.73	2.23	2.18
PCB-50/53	PCB-50/53	µg/kg	0.358	0.291	0.296	0.341	1.05	3.18	0.278	0.26	0.461	0.364
PCB-52	35693-99-3	µg/kg	3.42	2.66	2.73	5.06	8.06	11.8	4.3	2.56	3.41	3.38
PCB-54	15968-05-5	µg/kg	0.0872	0.0903	0.0883	0.0712	0.119	1.02	0.0824	0.0836	0.116	0.0871
PCB-55	74338-24-2	µg/kg	0.0390 JN	< 0.0119 U	< 0.0145 U	< 0.00522 U	< 0.00917 U	< 0.00737 U	< 0.00954 U	< 0.00641 U	< 0.00304 U	< 0.00156 U
PCB-56	41464-43-1	µg/kg	0.613	0.485	0.521	0.623	1.19	0.96	0.525	0.458	0.743	0.613
PCB-57	70424-67-8	µg/kg	0.0103 JN	< 0.0109 U	< 0.0134 U	0.0252	0.0358	0.0852	0.0220	0.00960	0.0162	0.0141
PCB-58	41464-49-7	µg/kg	0.0155	0.0146	0.0186	0.0185	0.0195	0.0422	0.0179	0.0121	0.0234	0.0156
PCB-59/62/75	PCB-59/62/75	µg/kg	0.228	0.185	0.203	0.394	0.713	0.995	0.281	0.181	0.245	0.232
PCB-60	33025-41-1	µg/kg	0.537	0.431	0.595	1.01	1.06	1.39	0.841	0.561	0.647	0.595
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	3.23	2.89	3.3	6.01	7.04	9.66	5.72	3.17	3.96	3.75
PCB-63	74472-34-7	µg/kg	0.128	0.116	0.144	0.295	0.297	0.609	0.272	0.144	0.173	0.164
PCB-64	52663-58-8	µg/kg	0.966	0.787	0.87	1.74	3.06	3.42	1.27	0.867	1.07	1.04
PCB-66	32598-10-0	µg/kg	2.44 J	2.3	2.91	4.82	4.88	8	5.02	2.82	3.24	3.29
PCB-67	73575-53-8	µg/kg	0.0526	0.0446	0.0495	0.0947	0.161	0.253	0.0777	0.0404	0.0626	0.0593
PCB-68	73575-52-7	µg/kg	0.0576	0.0456	0.0503	0.0715	0.0871	0.332	0.0773	0.0480	0.0639	0.0628
PCB-72	41464-42-0	µg/kg	0.0642	0.0564	0.0599	0.0996	0.102	0.313	0.0905	0.0485	0.0722	0.0722
PCB-73	74338-23-1	µg/kg	0.0431 JN	0.0526	0.0568	< 0.000833 U	< 0.000475 U	0.188	0.0740	0.0188	0.0647	< 0.000401 U
PCB-77	32598-13-3	µg/kg	0.144	0.0955	0.109	0.14	0.217	0.285	0.2	0.114	0.135	0.125
PCB-78	70362-49-1	µg/kg	< 0.00258 U	< 0.0118 U	< 0.0140 U	< 0.00502 U	< 0.00894 U	< 0.00747 U	< 0.00942 U	< 0.00650 U	< 0.00310 U	< 0.00151 U
PCB-79	41464-48-6	µg/kg	0.0730	0.0365	0.0492 JN	0.0867	0.0929	0.155	0.0642	0.105	0.0790	0.0654
PCB-80	33284-52-5	µg/kg	< 0.00237 U	< 0.0106 U	< 0.0124 U	< 0.00453 U	< 0.00836 U	< 0.00656 U	< 0.00847 U	< 0.00571 U	< 0.00286 U	< 0.00140 U
PCB-81	70362-50-4	µg/kg	0.00735	< 0.0107 U	< 0.0129 U	0.00913 JN	0.0115 JN	0.0121 JN	0.00968	0.00611 JN	0.00773	0.00696
PCB-82	52663-62-4	µg/kg	0.331	0.216	0.272	0.532	0.691	0.522	0.327	0.322	0.458	0.438
PCB-83/99	PCB-83/99	µg/kg	5.11	4.01	4.95	8.79	8.07	24.8	9.46	5.94	6.39	6.5
PCB-84	52663-60-2	µg/kg	0.704	0.482	0.503	0.931	1.27	1.25	0.678	0.515	0.794	0.726
PCB-85/116/117	PCB-85/116/117	µg/kg	1.26	1.01	1.26	2.58	2.24	3.15	2.33	1.47	1.64	1.73
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	3.08 J	2.42	2.79	5.33 J	5.82 J	8.29	4.63	3.19	4.01	4.11 J
PCB-88/91	PCB-88/91	µg/kg	0.882	0.598	0.646	1.08	1.4	1.95	0.912	0.774	0.978	0.984
PCB-89	73575-57-2	µg/kg	0.0216	0.0198	0.0182	0.0270	0.0464	0.0897	0.0184	0.0115	0.0309	0.0269
PCB-90/101/113	PCB-90/101/113	µg/kg	6.9	5.14	5.9	11.7	11.9	28.1	10	6.6	7.93	8.66
PCB-92	52663-61-3	µg/kg	1.48	1.14	1.22	2.45	2.33	5.19	2.09	1.4	1.58	1.79
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	3.86	2.73	2.89	5.61	6.98	16.7	4.55	3.1	4.17	4.66
PCB-94	73575-55-0	µg/kg	0.0359	0.0250	0.0221	0.0273	0.0614	0.831	0.0224	0.0166	0.0446	0.0413
PCB-96	73575-54-9	µg/kg	0.0333	0.0294	0.0253	0.0310	0.0585	0.204	0.0279	0.0152	0.0379	0.0345
PCB-103	60145-21-3	µg/kg	0.14	0.102	0.113	0.153	0.177	0.658	0.115	0.102	0.156	0.161
PCB-104	56558-16-8	µg/kg	0.0123	0.0110	0.00979	0.00870	0.0124	0.0904	0.00639	0.00724	0.0159	0.0154
PCB-105	32598-14-4	µg/kg	1.87 J	1.52	1.99	4.15	3.38	5.39 J	4.53	2.19	2.35	2.81
PCB-106	70424-69-0	µg/kg	< 0.00982 U	< 0.0118 U	< 0.0158 U	< 0.0185 U	< 0.0246 U	< 0.0247 U	< 0.0202 U	< 0.00551 U	< 0.0123 U	< 0.0149 U
PCB-107/124	PCB-107/124	µg/kg	0.202	0.144	0.169	0.343	0.348	0.421	0.392	0.235	0.226	0.251
PCB-109	74472-35-8	µg/kg	0.617	0.456	0.628	1.07	0.957	2.25	1.34	0.745	0.721	0.857
PCB-110/115	PCB-110/115	µg/kg	5.62	4.08	4.65	9.26	10.1	12.9	7.63	5.9	6.35	6.93
PCB-111	39635-32-0	µg/kg	0.0161	0.0109	0.0122	0.0188	0.0107	0.158	0.0144	0.00991	0.0139 JN	0.0160
PCB-112	74472-36-9	µg/kg	< 0.00236 U	< 0.00452 U	< 0.00279 U	< 0.00223 U	< 0.00275 U	< 0.00539 U	< 0.00193 U	< 0.00318 U	< 0.00247 U	< 0.00261 U
PCB-114	74472-37-0	µg/kg	0.133	0.104	0.148	0.296	0.223	0.516	0.351	0.16	0.178	0.193
PCB-118	31508-00-6	µg/kg	5.28	4.36	5.87	12.7	9.68	18	14.2	6.94	6.66	8.27
PCB-120	68194-12-7	µg/kg	0.0663	0.0503	0.0552	0.0820	0.0655	0.276	0.0750	0.0558	0.0654	0.0689

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB011	SMB012	SMB013	SMB014	SMB015	SMB016	SMB017	SMB018	SMB019	SMB020
		Sample ID	PDI-TF-SMB011	PDI-TF-SMB012	PDI-TF-SMB013	PDI-TF-SMB014	PDI-TF-SMB015	PDI-TF-SMB016	PDI-TF-SMB017	PDI-TF-SMB018	PDI-TF-SMB019	PDI-TF-SMB020
		Sample Date	8/21/18	9/5/18	9/10/18	8/21/18	8/21/18	9/10/18	9/5/18	9/10/18	9/6/18	8/21/18
Chemical	**CAS**	**Units**										
PCB-121	56558-18-0	µg/kg	0.0138	0.0118	0.0117	0.0170	0.0147	0.0866	0.0121	0.00897	0.0122	0.0178
PCB-122	76842-07-4	µg/kg	0.0514	0.0303 JN	0.0355	0.0603	0.0842	0.0493	0.0696	0.0300	0.0517	0.0522
PCB-123	65510-44-3	µg/kg	0.12	0.0778	0.0975 JN	0.201	0.155	0.262 JN	0.243	0.137 JN	0.129	0.139
PCB-126	57465-28-8	µg/kg	0.0137 JN	0.0177 JN	0.0202 JN	0.0450 JN	0.0247 JN	0.0318 JN	0.0331 JN	0.00718 JN	0.0189 JN	0.0227 JN
PCB-127	39635-33-1	µg/kg	0.0118	0.0142	0.0225	0.0411	0.0285	0.0822	0.0477	0.0236	0.0218	0.0281
PCB-128/166	PCB-128/166	µg/kg	1.45	1.33	1.82	4.2	3.31	7.74 J	3.57	2.36	1.78	2.88
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	12.2	10	14	30.5	24.8	92.9	30.5	17.6	14.5	20.4
PCB-130	52663-66-8	µg/kg	0.628	0.462	0.61	1.29	1.14	3.16	1.29	0.852	0.736	0.897
PCB-131	61798-70-7	µg/kg	0.0487	0.0334	0.0450	0.112	0.115	0.163	0.0859	0.0749	0.0656	0.0754
PCB-132	38380-05-1	µg/kg	1.85	1.24	1.52	3.06	3.64	10.7	2.35	2.33	2.02	2.41
PCB-133	35694-04-3	µg/kg	0.282	0.23	0.287	0.533	0.425	3.71	0.518	0.307	0.298	0.373
PCB-134/143	PCB-134/143	µg/kg	0.3	0.224	0.274	0.484	0.594	2.37	0.494	0.37	0.367	0.389
PCB-135/151/154	PCB-135/151/154	µg/kg	3.49	2.71	3.19	6.25	6.04	39.7	4.69	3.32	3.76	4.38
PCB-136	38411-22-2	µg/kg	0.666	0.557	0.569	0.919	1.16	6.31	0.741	0.527	0.75	0.77
PCB-137	35694-06-5	µg/kg	0.402	0.373	0.575	1.33	0.995	2.69	1.58	0.822	0.668	0.853
PCB-139/140	PCB-139/140	µg/kg	0.172	0.157	0.198	0.434	0.325	0.672	0.412	0.283	0.216	0.296
PCB-141	52712-04-6	µg/kg	1.52	1.25	1.6	3.49	3.32	17.1	2.6	1.61	1.61	2.25
PCB-142	41411-61-4	µg/kg	< 0.0156 U	< 0.00820 U	< 0.00695 U	< 0.0220 U	< 0.0226 U	< 0.0315 U	< 0.0183 U	< 0.0141 U	< 0.0199 U	< 0.0226 U
PCB-144	68194-14-9	µg/kg	0.321	0.237	0.307	0.711	0.694	4.03	0.557	0.344	0.391	0.441
PCB-145	74472-40-5	µg/kg	0.00146 JN	0.00225 JN	0.00206 JN	< 0.00190 U	< 0.000607 U	0.0545	0.00162 JN	0.00149 JN	0.00209 JN	0.00205 J
PCB-146	51908-16-8	µg/kg	2.33 J	2.06	2.84	5.16	4.26	24.4	5.5	3.02	2.9	3.76
PCB-147/149	PCB-147/149	µg/kg	7.24	4.48	5.87	11	13.5	75	9.27	8.26	7.84	9.02
PCB-148	74472-41-6	µg/kg	0.0491	0.0383	0.0465	0.0617	0.0568	0.42	0.0433	0.0415	0.0558	0.0575
PCB-150	68194-08-1	µg/kg	0.0303	0.0209	0.0256	0.0285	0.0343	0.147	0.0218	0.0215	0.0358	0.0372
PCB-152	68194-09-2	µg/kg	0.0112	0.0101	0.00825	0.0107	0.0151	0.238	0.0106	0.00573	0.0134	0.0149
PCB-153/168	PCB-153/168	µg/kg	12.8	11.3	15.4	31.2	25.4	113	33.7	16.4	15.8	21.2
PCB-155	33979-03-2	µg/kg	0.0158	0.0132	0.0139	0.0162	0.0126	0.0672	0.0156	0.0113	0.0133	0.0232
PCB-156/157	PCB-156/157	µg/kg	0.989	0.761	1.03	2.66	1.86	5.44	3.15	1.49	1.13	1.71
PCB-158	74472-42-7	µg/kg	0.896	0.732	1	2.44	1.85	6.48	1.91	1.24	1.03	1.49
PCB-159	39635-35-3	µg/kg	< 0.0106 U	0.0531	0.0728	0.133	0.148	< 0.0234 U	0.0936	< 0.0105 U	0.0805	0.0950
PCB-161	74472-43-8	µg/kg	< 0.0110 U	< 0.00598 U	< 0.00485 U	< 0.0153 U	< 0.0155 U	< 0.0227 U	< 0.0133 U	< 0.0101 U	< 0.0139 U	< 0.0156 U
PCB-162	39635-34-2	µg/kg	0.0422	0.0282	0.0292	0.0883	0.0598	0.0890 JN	0.0908	0.0450	0.0372	0.0514
PCB-164	74472-45-0	µg/kg	0.568	0.416	0.479	1.01	0.971	4.2	0.94	0.67	0.524	0.739
PCB-165	74472-46-1	µg/kg	< 0.0125 U	0.0102	0.0136	0.0196	< 0.0178 U	0.377	0.0174	< 0.0112 U	< 0.0163 U	< 0.0180 U
PCB-167	52663-72-6	µg/kg	0.448	0.32	0.434	1.12	0.848	2.01	1.25	0.623	0.501	0.719
PCB-169	32774-16-6	µg/kg	< 0.0125 U	< 0.0161 U	< 0.0225 U	< 0.0388 U	< 0.0244 U	< 0.192 U	< 0.0312 U	< 0.0116 U	< 0.0208 U	< 0.0189 U
PCB-170	35065-30-6	µg/kg	2.16	1.54	2.17	5.21	4.2	28.7	4.39	2	2.24	3.34
PCB-171/173	PCB-171/173	µg/kg	0.736	0.513	0.642	1.64	1.39	10.6	1.12	0.653	0.658	1.13
PCB-172	52663-74-8	µg/kg	0.488	0.306	0.402	1.03	0.877	7.79	0.79	0.431	0.443	0.633
PCB-174	38411-25-5	µg/kg	1.62	0.873	1.18	2.6	2.98	44.8	1.63	1.18	1.46	1.97
PCB-175	40186-70-7	µg/kg	0.103	0.0711	0.0898	0.218	0.195	1.83	0.151	0.0844	0.0965	0.142
PCB-176	52663-65-7	µg/kg	0.202	0.116	0.155	0.308	0.379	5.52	0.174	0.154	0.193	0.234
PCB-177	52663-70-4	µg/kg	1.34	0.674	0.923	2.31	2.34	24.1	1.55	1.03	1.11	1.44
PCB-178	52663-67-9	µg/kg	0.795	0.537	0.701	1.45	1.34	14	1.05	0.643	0.687	0.945
PCB-179	52663-64-6	µg/kg	0.907	0.626	0.678	1.18	1.45	17.9	0.752	0.598	0.746	0.945
PCB-180/193	PCB-180/193	µg/kg	7.12	5.02	6.77	17.1	13.9	121 J	14.3	6.34	7.04	10.6
PCB-181	74472-47-2	µg/kg	0.0264	0.0234	0.0279	0.0560	0.0395	0.187	0.0664	0.0417	0.0280	0.0392
PCB-182	60145-23-5	µg/kg	0.0251 JN	0.0204	< 0.000566 U	0.0444	< 0.000643 U	< 0.00232 U	0.0325	< 0.00119 U	0.0286	0.0380 JN
PCB-183/185	PCB-183/185	µg/kg	2.03	1.45	1.85	4.56	4.11	38	3.39	1.73	1.94	2.88
PCB-184	74472-48-3	µg/kg	0.0130	0.0116	0.0155	0.0125	0.0110	0.0344	0.0157	0.0115	0.0112	0.0204
PCB-186	74472-49-4	µg/kg	< 0.000265 U	< 0.000430 U	< 0.000454 U	< 0.00161 U	< 0.000507 U	< 0.00191 U	< 0.000239 U	< 0.000978 U	< 0.000360 U	< 0.000507 U
PCB-187	52663-68-0	µg/kg	4.24 J	3.53	5.44	10.4	10.2	71.6 J	10.4	5.24	5.16	7.27
PCB-188	74487-85-7	µg/kg	0.0158	0.00967 JN	0.0143	0.0199	0.0162	0.19	0.0191	0.0110	0.0132	0.0169
PCB-189	39635-31-9	µg/kg	0.0708	0.0490	0.0671	0.141	0.119	0.818	0.155	0.0660	0.0625	0.1
PCB-190	41411-64-7	µg/kg	0.583	0.385	0.472	1.16	0.985	9.28	1.03	0.507	0.471	0.741

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB011	SMB012	SMB013	SMB014	SMB015	SMB016	SMB017	SMB018	SMB019	SMB020
		Sample ID	PDI-TF-SMB011	PDI-TF-SMB012	PDI-TF-SMB013	PDI-TF-SMB014	PDI-TF-SMB015	PDI-TF-SMB016	PDI-TF-SMB017	PDI-TF-SMB018	PDI-TF-SMB019	PDI-TF-SMB020
		Sample Date	8/21/18	9/5/18	9/10/18	8/21/18	8/21/18	9/10/18	9/5/18	9/10/18	9/6/18	8/21/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.0986	0.0652	0.0947	0.226	0.187	1.65	0.205	0.0996	0.0907	0.144
PCB-192	74472-51-8	µg/kg	< 0.000297 U	< 0.000515 U	< 0.000518 U	< 0.00175 U	< 0.000575 U	< 0.00225 U	< 0.000287 U	< 0.00116 U	< 0.000420 U	< 0.000583 U
PCB-194	35694-08-7	µg/kg	0.818	0.637	0.876	2.22	1.94	27.3	2.1	0.697	0.8 J	1.37
PCB-195	52663-78-2	µg/kg	0.438	0.29	0.363	0.96	0.784	11.6	0.788	0.361	0.419	0.568
PCB-196	42740-50-1	µg/kg	0.53	0.324	0.478	1.17	0.953	16.5	1.09	0.448	0.571	0.712
PCB-197/200	PCB-197/200	µg/kg	0.129 J	0.0864	0.119	0.258	0.239	4.37 J	0.194	0.107	0.127	0.171
PCB-198/199	PCB-198/199	µg/kg	1.35	0.744	1.09	2.72	2.43	35.8	2.51	1.12	1.34	1.61
PCB-201	40186-71-8	µg/kg	0.157	0.0921	0.124	0.293	0.253	4.88	0.251	0.115	0.136	0.2
PCB-202	2136-99-4	µg/kg	0.395	0.295	0.367	0.808	0.72	8.27	0.681	0.33	0.408	0.556
PCB-203	52663-76-0	µg/kg	0.913	0.551	0.792	2.11	1.65	19.5	1.63	0.756	0.921	1.2
PCB-204	74472-52-9	µg/kg	0.00174 JN	0.00109 JN	0.00126 JN	0.00246 JN	0.00184 J	< 0.000439 U	0.00168 J	0.00118 JN	0.000957 JN	0.00266 J
PCB-205	74472-53-0	µg/kg	0.0469	0.0298	0.0415	0.12	0.0913	1.13	0.0834	0.0388	0.0444	0.0627
PCB-206	40186-72-9	µg/kg	0.33	0.216	0.325	0.945	0.57	5.21	0.877	0.32	0.363	0.562
PCB-207	52663-79-3	µg/kg	0.0479	0.0360	0.0469	0.116	0.0769	1.04	0.141	0.0448	0.0526	0.0750
PCB-208	52663-77-1	µg/kg	0.147	0.0904	0.141	0.297	0.216	1.61	0.311	0.138	0.16	0.224
PCB-209	2051-24-3	µg/kg	0.136	0.0976	0.164	0.236	0.158	0.308	0.262	0.165	0.151	0.17
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	140	108	135	280	303	1220	257	149	158	191
Pesticides												
2,4-DDD	53-19-0	µg/kg	3.31	2.19	2.50	1.40	2.75	2.32	1.65	2.05	3.46	2.36
2,4-DDE	3424-82-6	µg/kg	0.761	0.747	0.651	0.460	0.609	0.598	0.376	0.440	0.851	0.690
2,4-DDT	789-02-6	µg/kg	0.863	0.790	0.838	0.334	0.695	0.987	0.614	0.675	0.732	0.902
4,4'-DDD	72-54-8	µg/kg	13.7	10.9	12.0	7.80	11.2	11.7	7.58	11.1	13.7	11.4
4,4'-DDE	72-55-9	µg/kg	66.8	53.5	56.1	46.3	53.2	51.6	48.9	46.7	56.8	64.8
4,4'-DDT	50-29-3	µg/kg	4.19	3.54	4.82	3.57	3.66	6.26	6.36	4.28	3.31	6.99
DDx (a)	T_DDx (PDI)	µg/kg	89.6	71.7	76.9	59.9	72.1	73.5	65.5	65.2	78.9	87.1
alpha-Chlordane	5103-71-9	µg/kg	1.32	1.32	1.07	0.837	1.19	1.62	1.12	0.921	1.13	1.09
cis-Nonachlor	5103-73-1	µg/kg	1.61	1.31	1.42	1.27	1.29	1.70	1.50	1.26	1.28	1.65
Oxychlordane	27304-13-8	µg/kg	0.834	0.605	0.574	0.411 J	0.517	0.862	0.530	0.503	0.562	0.671
trans-Chlordane	5103-74-2	µg/kg	0.465 J	0.489	0.365 J	0.258 J	0.403 J	0.552	0.381 J	0.279 J	0.396 J	0.333 J
trans-Nonachlor	39765-80-5	µg/kg	4.11	3.35	3.99	3.35	3.24	4.54	4.00	3.29	3.31	4.81
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	8.34	7.07	7.42	6.13	6.64	9.27	7.53	6.25	6.68	8.55
Aldrin	309-00-2	µg/kg	0.017 J	0.013 JN	0.011 J	0.008 J	0.014 JN	0.014 J	0.011 JN	0.010 J	0.018 JN	0.010 JN
Dieldrin	60-57-1	µg/kg	2.21	1.32	0.952	0.856	1.58	1.77	1.08	0.860	1.28	0.967
Metals												
Arsenic	7440-38-2	mg/kg	0.32	0.30	0.23	0.17	0.20	0.36	0.21	0.18	0.20	0.32
Mercury	7439-97-6	mg/kg	0.145 J	0.082 J	0.120 J	0.116 J	0.106 J	0.148 J	0.115 J	0.086 J	0.116 J	0.125 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.55	1.24	0.968	0.858	1.31	1.59	1.09	0.893	1.18	0.967
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 1000 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 990 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00445 JN	0.00308 JN	0.00449 J	0.00206 JN	0.00487 J	0.00548 JN	0.00237 J	0.00205 J	0.00376 J	0.00239 J
PBDE-8/11	PDBE-8/11	µg/kg	0.00389 J	0.00299 J	0.00541 JN	0.00209 J	0.00553 J	0.00587 J	0.00221 J	0.00186 JN	0.00390 J	0.00275 J
PBDE-10	51930-04-2	µg/kg	< 0.000216 U	< 0.00131 U	< 0.000813 U	< 0.000830 U	< 0.000709 U	< 0.000650 U	< 0.00129 U	< 0.000750 U	< 0.000555 U	< 0.000389 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00827 JN	0.00859 JN	0.0186 JN	0.00109 J	0.00318 J	0.00256 JN	0.00664 JN	0.00112 J	0.0134 JN	0.00161 J
PBDE-15	2050-47-7	µg/kg	0.0205	0.0184	0.0166	0.0124 J	0.0221	0.0448	0.0163	0.0110 J	0.0160	0.0127 J
PBDE-17/25	PBDE-17/25	µg/kg	0.155	0.124 JN	0.175 JN	0.0928 JN	0.176 JN	0.159	0.0899 JN	0.0890	0.185 JN	0.133 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.365	0.335	0.477	0.511	0.443	0.814	0.538	0.405	0.366	0.456
PBDE-30	155999-95-4	µg/kg	< 0.00279 U	< 0.00417 U	< 0.00227 U	< 0.00359 U	< 0.00523 U	< 0.00370 U	< 0.00406 U	< 0.00574 U	< 0.00277 U	< 0.00336 U
PBDE-32	189084-60-4	µg/kg	< 0.00217 U	< 0.00333 U	< 0.00182 U	< 0.00272 U	< 0.00401 U	< 0.00299 U	< 0.00324 U	< 0.00464 U	< 0.00220 U	< 0.00258 U
PBDE-35	147217-80-9	µg/kg	0.00701 JN	0.00688 J	0.00969 JN	0.00436 JN	0.00839 JN	0.0130 J	0.00987 JN	0.00609 JN	0.00549 JN	0.00807 JN
PBDE-37	147217-81-0	µg/kg	0.0127	0.00815 J	0.0116 J	0.0103 J	0.0127 J	0.0169 J	0.0116 J	0.00867 J	0.0102 J	0.0154 J
PBDE-047	5436-43-1	µg/kg	18	17.8	23.4	32.2	19.7 J	52.7 J	33	20.2	14.3	30.8
PBDE-49	243982-82-3	µg/kg	1.23	0.717	1.27	1.01	1.31	1.16	0.88	0.831	1.17	1.16
PBDE-51	189084-57-9	µg/kg	0.0629	0.0396	0.0530	0.0375	0.0677	0.0436	0.0274	0.0340	0.0656	0.0631

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB011	SMB012	SMB013	SMB014	SMB015	SMB016	SMB017	SMB018	SMB019	SMB020
		Sample ID	PDI-TF-SMB011	PDI-TF-SMB012	PDI-TF-SMB013	PDI-TF-SMB014	PDI-TF-SMB015	PDI-TF-SMB016	PDI-TF-SMB017	PDI-TF-SMB018	PDI-TF-SMB019	PDI-TF-SMB020
		Sample Date	8/21/18	9/5/18	9/10/18	8/21/18	8/21/18	9/10/18	9/5/18	9/10/18	9/6/18	8/21/18
Chemical	**CAS**	**Units**										
PBDE-66	189084-61-5	µg/kg	0.269	0.19	0.331	0.328	0.463	0.494	0.319	0.161	0.26	0.503
PBDE-71	189084-62-6	µg/kg	0.0480	0.0337 JN	0.0434	0.0259 JN	0.0575	0.0290 JN	0.0395	0.0305	0.0624	0.0449
PBDE-75	189084-63-7	µg/kg	0.0267	0.0228	0.0308	0.0197	0.0289	0.0451	0.0298	0.0235 JN	0.0225	0.0435
PBDE-77	93703-48-1	µg/kg	0.00452 J	< 0.000147 U	< 0.000136 U	0.00607 JN	0.00466 JN	0.00680 JN	< 0.000149 U	0.00414 JN	0.00401 J	0.00638 JN
PBDE-79	PBDE-79	µg/kg	0.0337 JN	0.0249 JN	0.0285 JN	0.0350 JN	0.0343 JN	0.0234 JN	0.0371 JN	0.0168 JN	0.0320 JN	0.0557 JN
PBDE-85	182346-21-0	µg/kg	< 0.00210 U	< 0.00451 U	< 0.00399 U	< 0.00542 U	< 0.00842 U	< 0.00407 U	< 0.00637 U	< 0.00495 U	< 0.00381 U	< 0.00752 U
PBDE-099	60348-60-9	µg/kg	6.85	3.7	7.04	5.18	8.15	12.5	8.81	3.1	5.52	10.3
PBDE-100	189084-64-8	µg/kg	3.76	3.01	4.56	5.75	4.68	8.93	6.23	4.42	3.32	6.54
PBDE-105	373594-78-6	µg/kg	< 0.00279 U	< 0.00550 U	< 0.00491 U	< 0.00674 U	< 0.0108 U	< 0.00513 U	< 0.00777 U	< 0.00623 U	< 0.00460 U	< 0.00968 U
PBDE-116	189084-65-9	µg/kg	< 0.00433 U	< 0.00733 U	< 0.00664 U	< 0.00854 U	< 0.0138 U	< 0.00667 U	< 0.0104 U	< 0.00810 U	< 0.00618 U	< 0.0124 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0920	0.1	0.117	0.199	0.151	0.263	0.301	0.136	0.0775	0.202
PBDE-126	366791-32-4	µg/kg	0.00892	< 0.00431 U	0.0122 J	0.0205	0.0155	0.0142 J	0.0181	0.0260	0.00906 J	0.0170
PBDE-128	182677-28-7	µg/kg	0.00502 JN	0.00412 JN	0.00440 JN	0.00941 J	0.00733 JN	0.0125 JN	0.0151 JN	0.00416 JN	0.00546 JN	0.00698 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00134 J	0.000816 JN	0.00146 J	0.00113 J	< 0.000499 U	0.00479 J	0.00261 JN	0.000212 JN	0.000545 JN	0.00126 JN
PBDE-140	243982-83-4	µg/kg	0.0142	0.00909 J	0.0191 J	0.0114 J	0.0183	0.0366 J	0.0238 J	0.00892 J	0.00989 J	0.0193
PBDE-153	68631-49-2	µg/kg	0.987	0.883	1.42 J	1.76	1.28	5.36 J	2.62 J	0.792	0.806	2.02
PBDE-154	207122-15-4	µg/kg	0.974	0.692	1.29 J	1.46 J	1.21	3.12 J	2.23 J	1.09 J	0.702 J	1.7
PBDE-155	35854-94-5	µg/kg	0.114	0.0474	0.114 J	0.181 J	0.133	0.0831 J	0.186 J	0.17 J	0.0750 J	0.143
PBDE-181	189084-67-1	µg/kg	0.000221 JN	< 0.000147 U	< 0.000136 U	< 0.000273 U	< 0.000174 U	0.000581 JN	0.00161 J	0.000493 J	0.000555 JN	< 0.000537 U
PBDE-183	207122-16-5	µg/kg	0.0110	0.00602 JN	0.00838 JN	0.0114 JN	0.0136 JN	0.0427	0.0262	0.00737 JN	0.00701 JN	0.00816 J
PBDE-190	189084-68-2	µg/kg	0.000235 JN	0.000227 JN	0.000248 JN	< 0.000166 U	< 0.000238 U	< 0.000480 U	0.00115 JN	< 0.000144 U	0.000186 JN	0.000967 JN
PBDE-203	337513-72-1	µg/kg	0.00178 JN	0.000440 JN	0.00111 JN	0.00288 JN	0.00241 JN	0.00194 J	0.00449 J	0.00148 JN	< 0.000146 U	0.00312 JN
PBDE-206	63387-28-0	µg/kg	0.00344 JN	0.00279 JN	< 0.000818 U	< 0.00174 U	< 0.00174 U	0.00347 JN	0.00253 JN	0.00350 JN	0.00220 J+	< 0.00189 U
PBDE-207	437701-79-6	µg/kg	0.00308 JN	0.00295 JN	< 0.00272 U	< 0.00280 U	< 0.00102 U	0.00374 JN	0.00891 JN	0.00308 JN	0.00270 JN	0.00349 JN
PBDE-208	437701-78-5	µg/kg	0.00345 JN	0.00195 JN	< 0.00312 U	< 0.00372 U	< 0.00269 U	0.00617 JN	0.00770 J	0.00404 JN	0.00244 JN	< 0.000718 U
PBDE-209	1163-19-5	µg/kg	0.0641 JN	0.0403 J+	< 0.0162 U	< 0.0387 U	< 0.0400 U	0.125 JN	0.0537 J+	0.0480 JN	0.0509 JN	0.0538 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	33.1	27.8	40.5	48.9	38	86.1	55.6	31.6	27.1	54.3

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	4	4
		Location	SMB011	SMB012	SMB013	SMB014	SMB015	SMB016	SMB017	SMB018	SMB019	SMB020
		Sample ID	PDI-TF-SMB011	PDI-TF-SMB012	PDI-TF-SMB013	PDI-TF-SMB014	PDI-TF-SMB015	PDI-TF-SMB016	PDI-TF-SMB017	PDI-TF-SMB018	PDI-TF-SMB019	PDI-TF-SMB020
		Sample Date	8/21/18	9/5/18	9/10/18	8/21/18	8/21/18	9/10/18	9/5/18	9/10/18	9/6/18	8/21/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	6.99	5.77	4.30	3.86	6.84	6.45	4.67	4.04	5.73	4.13
Total Solids@104C	TSOLID	%	27.9	28.5	27.3	26.4	29.0	28.5	26.2	25.0	26.5	26.1

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	3	3
		Location	SMB021	SMB022	SMB023	SMB024	SMB025	SMB026	SMB027	SMB028	SMB029	SMB030
		Sample ID	PDI-TF-SMB021	PDI-TF-SMB022	PDI-TF-SMB023	PDI-TF-SMB024	PDI-TF-SMB025	PDI-TF-SMB026	PDI-TF-SMB027	PDI-TF-SMB028	PDI-TF-SMB029	PDI-TF-SMB030
		Sample Date	8/21/18	8/21/18	8/21/18	8/21/18	8/21/18	9/6/18	9/6/18	8/21/18	8/20/18	8/20/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000691 J	0.000132 J	0.000325 JN	0.000944 J	0.000323 J	0.000401 JN	0.000146 J	0.0000831 J	0.000497 J	0.000167 JN
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000722 U	< 0.0000739 U	< 0.0000730 U	0.000334 JN	< 0.0000708 U	0.0000770 JN	< 0.0000744 U	< 0.0000742 U	< 0.0000700 U	< 0.0000697 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000722 U	< 0.0000739 U	< 0.0000730 U	< 0.0000734 U	< 0.0000708 U	< 0.0000725 U	< 0.0000744 U	< 0.0000742 U	< 0.0000700 U	< 0.0000697 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.000223 JN	< 0.0000777 U	0.0000916 JN	0.000148 J	0.0000990 J	0.000125 JN	0.000107 JN	0.000130 JN	0.000145 J	0.0000790 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.000758 J	0.000179 J	0.000238 J	0.00623	0.000361 J	0.000219 JN	0.000156 J	0.000146 J	0.000226 JN	0.000183 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00100 J	0.000259 JN	0.000469 J	0.00162	0.000557 JN	0.00109 JN	0.000422 J	0.000404 J	0.000415 J	0.000244 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.000178 JN	< 0.0000739 U	< 0.0000730 U	0.00116 J	0.0000994 JN	< 0.0000725 U	< 0.0000744 U	< 0.0000742 U	0.0000865 J	0.0000719 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.000108 J	< 0.0000762 U	< 0.0000730 U	0.0000850 J	< 0.0000708 U	< 0.00194 U	< 0.0000744 U	< 0.0000742 U	< 0.0000700 U	< 0.0000697 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000722 U	< 0.0000739 U	< 0.0000730 U	< 0.0000734 U	< 0.0000708 U	< 0.0000725 U	< 0.0000744 U	< 0.0000742 U	< 0.0000700 U	< 0.0000697 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000895 J	0.000431 J	0.000361 JN	0.00111 J	0.000578 J	0.000764 J	0.000440 J	0.000524 J	0.000585 J	0.000332 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000748 J	0.000281 JN	0.000685 J	0.00123 J	0.000413 J	0.000745 J	0.000398 J	0.000492 J	0.000633 J	0.000770 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000722 U	< 0.0000739 U	< 0.0000730 U	0.000387 J	0.0000740 JN	< 0.0000725 U	< 0.0000744 U	< 0.0000742 U	< 0.0000700 U	< 0.0000697 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00107 J	0.000612 J	0.000898 J	0.00826	0.000918 J	0.000846 J	0.000610 J	0.000781 J	0.000798 J	0.000834 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000483	0.000289 J	0.000261 J	0.000966	0.000334	0.000339	0.000317	0.000350	0.000352	0.000240 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00197	0.00227	0.00197	0.00176	0.00132	0.00294	0.00236	0.00195	0.00245	0.00294
OCDD	3268-87-9	µg/kg	0.000560 J+	0.000174 JN	0.000213 J+	0.00536	0.000380 J+	0.00185 J	0.000191 JN	0.000203 JN	0.000618 JN	0.000329 JN
OCDF	39001-02-0	µg/kg	< 0.0000722 U	< 0.0000739 U	< 0.0000730 U	0.000635 J	< 0.0000708 U	0.000260 J	< 0.0000744 U	< 0.0000742 U	< 0.0000700 U	< 0.0000697 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00216	0.00119	0.0012	0.00575	0.00146	0.00192	0.00126	0.00139	0.00154	0.0012
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.00212	0.00116	0.000999	0.00574	0.00141	0.00177	0.00125	0.00138	0.00152	0.00104
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.00211	0.00115	0.000819	0.00574	0.00138	0.00167	0.00125	0.00137	0.00151	0.000925
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00399	0.00583	0.00484	0.00610	0.00393	0.00541	0.00556	0.00317	0.00439	0.00469
PCB-2	2051-61-8	µg/kg	0.00156 J	0.00152 J	0.00152 J	0.00133 JN	0.000876 J+	0.00168 J+	0.00177 JN	0.000791 J+	0.00115 J	0.00100 JN
PCB-3	2051-62-9	µg/kg	0.00148 J+	0.00222 J	0.00218 J	0.00261 J	0.00155 J+	0.00311 J+	0.00347 JN	0.00153 J+	0.00160 J+	0.00198 J
PCB-4	13029-08-8	µg/kg	0.14	0.242	0.184	0.212	0.141	0.195	0.205	0.129	0.141	0.145
PCB-5	16605-91-7	µg/kg	0.00114 J	0.00170 JN	0.00170 J	0.00245 J	0.00156 J	< 0.00202 U	< 0.00312 U	0.00111 JN	0.000972 J	0.00100 J
PCB-6	25569-80-6	µg/kg	0.0195	0.0289	0.0234	0.0343	0.0206	0.0404	0.0246	0.0163	0.0164	0.0174
PCB-7	33284-50-3	µg/kg	0.00356	0.00667	0.00470	0.00699	0.00454	0.00695	0.00495	0.00287 J	0.00293 JN	0.00335
PCB-8	34883-43-7	µg/kg	0.0871	0.126	0.102	0.138	0.0906	0.186	0.115	0.0759	0.0754	0.0831
PCB-9	34883-39-1	µg/kg	0.00543	0.00988	0.00701	0.00968	0.00615	0.0116	0.00850	0.00473	0.00499	0.00505
PCB-10	33146-45-1	µg/kg	0.00800	0.0191	0.0112	0.0122	0.0101	0.0110	0.0107	0.00718	0.00621 JN	0.00875
PCB-11	2050-67-1	µg/kg	0.0664	0.184	0.0885	0.0550	0.0302	0.0834	0.0787	0.0478	0.0536	0.0473
PCB-12/13	PCB-12/13	µg/kg	0.00325	0.00682	0.00368	0.00324	0.00221 J	0.00587	0.00370	0.00236 J	0.00279 J	0.00242 JN
PCB-14	34883-41-5	µg/kg	< 0.000523 U	< 0.000752 U	< 0.000637 U	< 0.000548 U	< 0.000714 U	< 0.00183 U	< 0.00283 U	< 0.000605 U	< 0.000500 U	< 0.000672 U
PCB-15	2050-68-2	µg/kg	0.0210	0.0397	0.0291	0.0276	0.0191	0.0521	0.0289	0.0173	0.0308	0.0221
PCB-16	38444-78-9	µg/kg	0.109	0.111	0.129	0.149	0.0943	0.336	0.145	0.0790	0.0751	0.0731
PCB-17	37680-66-3	µg/kg	0.237	0.322	0.298	0.331	0.215	0.753	0.357	0.208	0.175	0.179
PCB-18/30	PCB-18/30	µg/kg	0.325	0.358	0.388	0.412	0.268	1.34	0.411	0.263	0.252	0.226
PCB-19	38444-73-4	µg/kg	0.342	0.605	0.481	0.513	0.388	0.493	0.561	0.36	0.365	0.341 J
PCB-20/28	PCB-20/28	µg/kg	1.49	1.26	1.55	1.59	1.12	7	1.28	1.11	0.98	0.828
PCB-21/33	PCB-21/33	µg/kg	0.378	0.207	0.336	0.371	0.272	1.01	0.339	0.255	0.192	0.202
PCB-22	38444-85-8	µg/kg	0.328	0.293	0.322	0.367	0.246	1.01	0.308	0.236	0.182	0.174
PCB-23	55720-44-0	µg/kg	< 0.00136 U	< 0.00286 U	< 0.00173 U	< 0.00296 U	< 0.00179 U	< 0.00637 U	< 0.00330 U	< 0.00103 U	< 0.00114 U	< 0.00121 U
PCB-24	55702-45-9	µg/kg	0.00462	0.00673	0.00529 JN	0.00695	0.00443	0.0181	0.00630	0.00391	0.00347	0.00293 JN
PCB-25	55712-37-3	µg/kg	0.0828	0.105	0.0895	0.108	0.0680	0.156	0.101	0.0739	0.0517	0.0519
PCB-26/29	PCB-26/29	µg/kg	0.207	0.221	0.226	0.245	0.156	0.705	0.206	0.158	0.135	0.118
PCB-27	38444-76-7	µg/kg	0.0535	0.0663	0.0671	0.0745	0.0519	0.157	0.0818	0.0445	0.0420	0.0401
PCB-31	16606-02-3	µg/kg	0.733	0.811	0.849	0.94	0.576	2.34	0.816	0.6	0.463	0.444
PCB-32	38444-77-8	µg/kg	0.161	0.152	0.182	0.179	0.12	0.538	0.19	0.14	0.12	0.122
PCB-34	37680-68-5	µg/kg	0.00765	0.00827	0.00813	0.00875	0.00577	0.0189	0.00832	0.00541	0.00453	0.00387
PCB-35	37680-69-6	µg/kg	0.00483	< 0.00289 U	0.00422	0.00340 JN	0.00238 J	< 0.00620 U	< 0.00322 U	< 0.00104 U	< 0.00104 U	< 0.00111 U
PCB-36	38444-87-0	µg/kg	< 0.00119 U	< 0.00265 U	< 0.00151 U	< 0.00259 U	< 0.00157 U	< 0.00575 U	< 0.00298 U	< 0.000954 U	0.0589	0.0632
PCB-37	38444-90-5	µg/kg	0.0763	0.118	0.101	0.101	0.0822	0.267	0.101	0.0616	0.0796	0.0651
PCB-38	53555-66-1	µg/kg	0.00351 JN	0.00291 JN	0.00296 JN	0.00345 JN	0.00234 J	0.00812	< 0.00315 U	0.00205 J	0.00174 J	0.00197 JN

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	3	3
		Location	SMB021	SMB022	SMB023	SMB024	SMB025	SMB026	SMB027	SMB028	SMB029	SMB030
		Sample ID	PDI-TF-SMB021	PDI-TF-SMB022	PDI-TF-SMB023	PDI-TF-SMB024	PDI-TF-SMB025	PDI-TF-SMB026	PDI-TF-SMB027	PDI-TF-SMB028	PDI-TF-SMB029	PDI-TF-SMB030
		Sample Date	8/21/18	8/21/18	8/21/18	8/21/18	8/21/18	9/6/18	9/6/18	8/21/18	8/20/18	8/20/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.0154	0.00883	0.0113	0.0119	0.00833	0.0489	0.0113	0.0105 JN	0.00722	0.00838
PCB-40/41/71	PCB-40/41/71	µg/kg	0.879	0.54	0.782	0.765	0.53	2.55	0.896	0.743	0.616	0.618
PCB-42	36559-22-5	µg/kg	0.56	0.478	0.541	0.533	0.36	1.55	0.544	0.487	0.437	0.385
PCB-43	70362-46-8	µg/kg	0.106	0.0705	0.0942	0.0935	0.0701	0.333	0.0979	0.0627	0.0623	0.0628
PCB-44/47/65	PCB-44/47/65	µg/kg	3.52	3.1	3.43	3.31	2.56	8.17	3.31	2.85	2.62	2.52
PCB-45/51	PCB-45/51	µg/kg	0.346	0.486	0.403	0.411	0.308	0.685	0.536	0.327	0.254	0.265
PCB-46	41464-47-5	µg/kg	0.0533	0.0615	0.0533	0.0623	0.0418	0.105	0.0780	0.0513	0.0411	0.0405
PCB-48	70362-47-9	µg/kg	0.393	0.232	0.321	0.316	0.237	1.5	0.334	0.279	0.231	0.243
PCB-49/69	PCB-49/69	µg/kg	2.39	2.05	2.41	2.24	1.68	6.49	2.26	1.95	1.8	1.76
PCB-50/53	PCB-50/53	µg/kg	0.285	0.287	0.301	0.307	0.262	0.431	0.395	0.322	0.231	0.218
PCB-52	35693-99-3	µg/kg	3.52	2.84	3.39	3.41	2.53	8.79	3.24	2.96	2.66	2.56
PCB-54	15968-05-5	µg/kg	0.0658	0.119	0.0862	0.0903	0.0777	0.0959	0.115	0.0697	0.0585	0.0662
PCB-55	74338-24-2	µg/kg	< 0.00325 U	< 0.00202 U	< 0.00991 U	< 0.00828 U	< 0.00271 U	< 0.0141 U	< 0.0115 U	< 0.00254 U	< 0.00710 U	< 0.0121 U
PCB-56	41464-43-1	µg/kg	0.588	0.6	0.575	0.532	0.351	1.68	0.705	0.568	0.454	0.428
PCB-57	70424-67-8	µg/kg	0.0133	0.0105	0.0150	0.0134	0.0103	0.0583	0.0120	0.0110	0.0106	< 0.0113 U
PCB-58	41464-49-7	µg/kg	0.0184	0.0138	0.0153	0.0163	0.0120	0.0239 JN	0.0152	0.0126	0.00975	< 0.0118 U
PCB-59/62/75	PCB-59/62/75	µg/kg	0.252	0.205	0.257	0.238	0.182	0.746	0.231	0.204	0.187	0.171
PCB-60	33025-41-1	µg/kg	0.733	0.446	0.962	0.604	0.479	3.7	0.569	0.676	0.652	0.722
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	3.98	3.33	4.34	3.74	2.74	13.9	3.65	3.39	2.97	3.06
PCB-63	74472-34-7	µg/kg	0.2	0.134	0.2	0.166	0.144	0.577	0.134	0.157	0.159	0.168
PCB-64	52663-58-8	µg/kg	1.14	0.887	1.16	1.07	0.783	3.69	1.02	0.953	0.922	0.845
PCB-66	32598-10-0	µg/kg	3.69	2.32	3.97	3.01	2.51	14.1	2.68	3.04	2.95	3.18
PCB-67	73575-53-8	µg/kg	0.0552	0.0610	0.0591	0.0561	0.0458	0.207	0.0565	0.0507	0.0417	0.0312
PCB-68	73575-52-7	µg/kg	0.0625	0.0615	0.0492	0.0556	0.0568	0.0527	0.0503	0.0465	0.0422	0.0328
PCB-72	41464-42-0	µg/kg	0.0761	0.0651	0.0670	0.0658	0.0683	0.116	0.0599	0.0570	0.0480	0.0439
PCB-73	74338-23-1	µg/kg	< 0.000152 U	< 0.000514 U	< 0.000320 U	< 0.000115 U	< 0.000310 U	0.128	0.0641	< 0.000152 U	< 0.000243 U	< 0.000288 U
PCB-77	32598-13-3	µg/kg	0.126	0.145	0.136	0.132	0.0902	0.419	0.114	0.103	0.105	0.11
PCB-78	70362-49-1	µg/kg	< 0.00317 U	< 0.00196 U	< 0.00966 U	< 0.00807 U	< 0.00265 U	< 0.0140 U	< 0.0114 U	< 0.00246 U	< 0.00683 U	< 0.0117 U
PCB-79	41464-48-6	µg/kg	0.116	0.0504	0.0453	0.0523	0.0427	0.0456	0.0514	0.0410	0.0426	0.0312
PCB-80	33284-52-5	µg/kg	< 0.00296 U	< 0.00180 U	< 0.00904 U	< 0.00755 U	< 0.00247 U	< 0.0124 U	< 0.0101 U	< 0.00227 U	< 0.00617 U	< 0.0105 U
PCB-81	70362-50-4	µg/kg	0.00741	0.00661	< 0.00936 U	< 0.00767 U	0.00537 JN	0.0231	< 0.0105 U	0.00550	< 0.00626 U	< 0.0108 U
PCB-82	52663-62-4	µg/kg	0.348	0.3	0.277	0.333	0.273	0.311	0.346	0.293	0.291	0.178
PCB-83/99	PCB-83/99	µg/kg	7.74	4.03	5.52	5.38	5.75	7.69	4.67	4.55	4.78	3.86
PCB-84	52663-60-2	µg/kg	0.567	0.679	0.54	0.638	0.529	0.55	0.698	0.498	0.513	0.335
PCB-85/116/117	PCB-85/116/117	µg/kg	2.04	1.01	1.5	1.42	1.27	2.19	1.16	1.28	1.34	1.12
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	3.91 J	2.96 J	3.08 J	3.27 J	3.12 J	3.95	3.18	2.74 J	2.8 J	1.93 J
PCB-88/91	PCB-88/91	µg/kg	0.8	0.822	0.734	0.787	0.688	0.784	0.828	0.673	0.695	0.42
PCB-89	73575-57-2	µg/kg	0.0233	0.0193 JN	0.0188	0.0201	0.0157	0.0351	0.0256	0.0187	0.0175	0.0156
PCB-90/101/113	PCB-90/101/113	µg/kg	8.47	5.86	6.23	6.63	9.15	7.72	6.22	5.68	5.89	3.99
PCB-92	52663-61-3	µg/kg	1.78	1.22	1.35	1.39	1.71	1.62	1.27	1.17	1.23	0.866
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	3.73	3.42	3.13	3.5	4.5	3.51	3.39	3.13	2.91	1.99
PCB-94	73575-55-0	µg/kg	0.0253	0.0364	0.0264	0.0274	0.0222	0.0226	0.0339	0.0206	0.0150	0.0137
PCB-96	73575-54-9	µg/kg	0.0337	0.0279	0.0277	0.0261	0.0236	0.0420	0.0326	0.0227	0.0212	0.0207
PCB-103	60145-21-3	µg/kg	0.125	0.15	0.127	0.132	0.151	0.112	0.132	0.117	0.11	0.0801
PCB-104	56558-16-8	µg/kg	0.00838	0.0186	0.00953	0.0106 JN	0.00958	0.00886	0.0125	0.00718	0.00456	0.00631
PCB-105	32598-14-4	µg/kg	3.05	1.65	2.31	2.43	2.41	3.54	1.73	2	2.03	1.82
PCB-106	70424-69-0	µg/kg	< 0.0156 U	< 0.00588 U	< 0.0128 U	< 0.0137 U	< 0.0105 U	< 0.0162 U	< 0.00982 U	< 0.00890 U	< 0.00866 U	< 0.00833 U
PCB-107/124	PCB-107/124	µg/kg	0.229	0.181	0.182	0.21	0.175	0.223	0.168	0.18	0.158	0.135
PCB-109	74472-35-8	µg/kg	0.925	0.55	0.652	0.725	0.7	0.787	0.47	0.635	0.545	0.466
PCB-110/115	PCB-110/115	µg/kg	6.56	4.94	4.98	5.43	5.55	6.3	5.1	4.55	4.59	3.03
PCB-111	39635-32-0	µg/kg	0.0148	0.0107	0.0133	0.0147	0.0192	0.0148	0.0127	0.0132	0.0105	0.0102
PCB-112	74472-36-9	µg/kg	< 0.000925 U	< 0.00115 U	< 0.00253 U	< 0.00231 U	< 0.00373 U	< 0.00296 U	< 0.00331 U	< 0.00186 U	< 0.000799 U	< 0.00169 U
PCB-114	74472-37-0	µg/kg	0.213	0.119	0.163	0.169	0.183	0.25	0.116	0.149	0.156	0.146
PCB-118	31508-00-6	µg/kg	9.22	4.88	6.49	6.91	7.03	8.73	4.82	5.75	5.7	5.2
PCB-120	68194-12-7	µg/kg	0.0734	0.0507	0.0584	0.0585	0.0856	0.0624	0.0517	0.0543	0.0495	0.0394

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	3	3
		Location	SMB021	SMB022	SMB023	SMB024	SMB025	SMB026	SMB027	SMB028	SMB029	SMB030
		Sample ID	PDI-TF-SMB021	PDI-TF-SMB022	PDI-TF-SMB023	PDI-TF-SMB024	PDI-TF-SMB025	PDI-TF-SMB026	PDI-TF-SMB027	PDI-TF-SMB028	PDI-TF-SMB029	PDI-TF-SMB030
		Sample Date	8/21/18	8/21/18	8/21/18	8/21/18	8/21/18	9/6/18	9/6/18	8/21/18	8/20/18	8/20/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.0131	0.0124	0.0119	0.0125 JN	0.0162	0.0126	0.0105	0.0123	0.0106	0.00903
PCB-122	76842-07-4	µg/kg	0.0490	0.0477	0.0378	0.0418	0.0376	0.0406	0.0403	0.0378	0.0301	0.0237
PCB-123	65510-44-3	µg/kg	0.144	0.0958	0.104	0.112	0.123	0.147	0.0834	0.106	0.0960	0.0876
PCB-126	57465-28-8	µg/kg	0.0220 JN	0.0131 JN	0.0315 JN	0.0233 JN	0.0559 JN	0.0234 JN	0.0250 JN	0.0158 JN	0.0340 JN	0.0180 JN
PCB-127	39635-33-1	µg/kg	0.0172	0.0131	0.0151	0.0194	0.0227	0.0263	0.0175	0.0198	0.0138	0.0113
PCB-128/166	PCB-128/166	µg/kg	3.35	1.48	2.02	2.15	4.71	2.32	1.59	1.86	1.72	1.28
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	24.3	11.7	14.9	15.7	44.6	18.3	12.5	14.2	11.7	9.24
PCB-130	52663-66-8	µg/kg	0.888	0.593	0.608	0.73	1.37	0.604	0.571	0.601	0.577	0.379
PCB-131	61798-70-7	µg/kg	0.0594	0.0580	0.0508	0.0636	0.102	0.0357	0.0524	0.0510	0.0409	0.0277 JN
PCB-132	38380-05-1	µg/kg	1.83	1.81	1.54	1.86	4.91	1.18	1.65	1.48	1.32	0.779
PCB-133	35694-04-3	µg/kg	0.444	0.243	0.314	0.325	0.704	0.355	0.259	0.296	0.246	0.22
PCB-134/143	PCB-134/143	µg/kg	0.338	0.295	0.259	0.331	0.762	0.214	0.284	0.256	0.228	0.138
PCB-135/151/154	PCB-135/151/154	µg/kg	4.33	3.11	3.3	3.46	13.9	3.35	3.25	2.9	2.84	1.91
PCB-136	38411-22-2	µg/kg	0.76	0.567	0.568	0.606	1.82	0.578	0.623	0.503	0.496	0.329
PCB-137	35694-06-5	µg/kg	0.917	0.397	0.573	0.658	0.726	0.629	0.401	0.541	0.559	0.447
PCB-139/140	PCB-139/140	µg/kg	0.353	0.164	0.226	0.256	0.302	0.251	0.182	0.218	0.181	0.146
PCB-141	52712-04-6	µg/kg	2.25	1.48	1.53	1.7	7.46	1.7	1.44	1.44	1.29	0.951
PCB-142	41411-61-4	µg/kg	< 0.0187 U	< 0.0120 U	< 0.00667 U	< 0.0168 U	< 0.0344 U	< 0.0106 U	< 0.0196 U	< 0.0132 U	< 0.00921 U	< 0.00944 U
PCB-144	68194-14-9	µg/kg	0.362	0.306	0.296	0.345	1.5	0.276	0.301	0.293	0.297	0.179
PCB-145	74472-40-5	µg/kg	0.00213 J	0.00216 JN	< 0.000285 U	0.00152 JN	< 0.000381 U	0.00137 JN	0.00157 JN	0.00101 JN	< 0.0000898 U	0.000735 J
PCB-146	51908-16-8	µg/kg	4.09	2.5	2.84	2.97	8.67	3.44	2.57	2.7	2.31	1.91
PCB-147/149	PCB-147/149	µg/kg	6.61	6.78	5.78	7.14	25.4	4.38	6.15	5.99	4.67	2.83
PCB-148	74472-41-6	µg/kg	0.0479	0.0379	0.0458	0.0479	0.0731	0.0419	0.0432	0.0476	0.0415	0.0280 JN
PCB-150	68194-08-1	µg/kg	0.0230	0.0299	0.0252	0.0270	0.0367	0.0179	0.0298	0.0222	0.0222	0.0138
PCB-152	68194-09-2	µg/kg	0.0142	0.00944	0.00914	0.00872	0.0104 JN	0.0102	0.00971	0.00692	0.00624	0.00548
PCB-153/168	PCB-153/168	µg/kg	25.9	13.2	15.9	16.3	58.4	19.7	13.4	14.4	12.2	10.8
PCB-155	33979-03-2	µg/kg	0.0228	0.0122	0.0180	0.0164	0.0187	0.0157	0.0138	0.0178	0.0153	0.0136
PCB-156/157	PCB-156/157	µg/kg	1.83	0.875	1.15	1.34	2.29	1.38	0.85	1.07	1.11	0.936
PCB-158	74472-42-7	µg/kg	1.76	0.807	1.09	1.18	3.04	1.25	0.845	0.998	0.939	0.707
PCB-159	39635-35-3	µg/kg	0.0662	0.0808	0.0650	0.0677	0.528	0.0470	0.0678	0.0623	0.0516	0.0272
PCB-161	74472-43-8	µg/kg	< 0.0128 U	< 0.00827 U	< 0.00458 U	< 0.0115 U	< 0.0236 U	< 0.00708 U	< 0.0131 U	< 0.00913 U	< 0.00641 U	< 0.00657 U
PCB-162	39635-34-2	µg/kg	0.0680	0.0274	0.0428	0.0374	0.0663 JN	0.0495	0.0334	0.0399	0.0330	0.0312
PCB-164	74472-45-0	µg/kg	0.752	0.51	0.498	0.571	1.6	0.535	0.467	0.553	0.43	0.296
PCB-165	74472-46-1	µg/kg	0.0196	0.0108	0.0145	< 0.0132 U	< 0.0270 U	0.0135	< 0.0156 U	< 0.0106 U	0.0118	0.0121
PCB-167	52663-72-6	µg/kg	0.682	0.404	0.456	0.538	1.11	0.519	0.352	0.432	0.453	0.366
PCB-169	32774-16-6	µg/kg	< 0.0228 U	< 0.0137 U	< 0.0133 U	< 0.0138 U	< 0.0869 U	< 0.0242 U	< 0.0248 U	< 0.0138 U	< 0.0136 U	< 0.0140 U
PCB-170	35065-30-6	µg/kg	3.92	2.13	2.56	2.58	13.1	2.72	2.02	2.38	2.12	1.72
PCB-171/173	PCB-171/173	µg/kg	1.3	0.638	0.801	0.736	4.21	0.782	0.643	0.693	0.708	0.489
PCB-172	52663-74-8	µg/kg	0.747	0.431	0.486	0.45	2.68	0.507	0.424	0.415	0.468	0.345
PCB-174	38411-25-5	µg/kg	1.29	1.42	1.12	1.25	8.98	0.843	1.2	1.16	1.24	0.658
PCB-175	40186-70-7	µg/kg	0.133	0.0910	0.0933	0.0993	0.643	0.0876	0.0845	0.0893	0.0946	0.0637
PCB-176	52663-65-7	µg/kg	0.159	0.174	0.153	0.165	1.12	0.0983	0.158	0.133	0.147	0.0753
PCB-177	52663-70-4	µg/kg	1.37	1.03	1.02	1.1	7.25	0.788	0.962	0.944	1.13	0.646
PCB-178	52663-67-9	µg/kg	1.13	0.639	0.765	0.719	4.09	0.787	0.672	0.649	0.687	0.499
PCB-179	52663-64-6	µg/kg	0.89	0.664	0.677	0.669	4.07	0.589	0.679	0.541	0.625	0.372
PCB-180/193	PCB-180/193	µg/kg	12.8	7.24	7.88	8.25	48.5	8.65	6.46	7.66	6.88	5.55
PCB-181	74472-47-2	µg/kg	0.0500	0.0225	0.0315	0.0273	0.0629	0.0381	0.0264	0.0291	0.0351	0.0269
PCB-182	60145-23-5	µg/kg	0.0347	< 0.000357 U	0.0313	0.0229	< 0.000620 U	< 0.000577 U	< 0.000652 U	0.0245	0.0287	0.0171 JN
PCB-183/185	PCB-183/185	µg/kg	3.38	1.84	2.2	2.09	14	2.19	1.84	1.85	1.89	1.37
PCB-184	74472-48-3	µg/kg	0.0203	0.00991	0.0173	0.0139	0.0189	0.0157	0.0143	0.0139	0.0141	0.0115
PCB-186	74472-49-4	µg/kg	< 0.000319 U	< 0.000284 U	< 0.000427 U	< 0.000254 U	< 0.000489 U	< 0.000475 U	< 0.000537 U	< 0.000485 U	< 0.000270 U	< 0.000218 U
PCB-187	52663-68-0	µg/kg	8.62	5.27	5.75	5.23	36.9	6.34	5.1	4.92	4.99	3.34
PCB-188	74487-85-7	µg/kg	0.0156	0.0140	0.0160	0.0154	0.0265	0.0118	0.0116	0.0141	0.0125	0.00943
PCB-189	39635-31-9	µg/kg	0.123	0.0622	0.0741	0.0808	0.36	0.0797	0.0597	0.0689	0.0653	0.0554
PCB-190	41411-64-7	µg/kg	0.891	0.486	0.558	0.534	3.24	0.628	0.456	0.486	0.506	0.393

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	3	3
		Location	SMB021	SMB022	SMB023	SMB024	SMB025	SMB026	SMB027	SMB028	SMB029	SMB030
		Sample ID	PDI-TF-SMB021	PDI-TF-SMB022	PDI-TF-SMB023	PDI-TF-SMB024	PDI-TF-SMB025	PDI-TF-SMB026	PDI-TF-SMB027	PDI-TF-SMB028	PDI-TF-SMB029	PDI-TF-SMB030
		Sample Date	8/21/18	8/21/18	8/21/18	8/21/18	8/21/18	9/6/18	9/6/18	8/21/18	8/20/18	8/20/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.174	0.0900	0.106	0.101	0.611	0.112	0.0837	0.0898	0.102	0.0741
PCB-192	74472-51-8	µg/kg	< 0.000361 U	< 0.000326 U	< 0.000484 U	< 0.000288 U	< 0.000554 U	< 0.000549 U	< 0.000620 U	< 0.000557 U	< 0.000294 U	< 0.000237 U
PCB-194	35694-08-7	µg/kg	2.09	1.02	1.19	1.14	7.45	0.935 J	0.997	1.1	0.889	0.75
PCB-195	52663-78-2	µg/kg	0.781	0.399	0.48	0.468	3.14	0.531	0.397	0.433	0.389	0.319
PCB-196	42740-50-1	µg/kg	0.91	0.427	0.521	0.541	3.48	0.595	0.471	0.475	0.513	0.413
PCB-197/200	PCB-197/200	µg/kg	0.153	0.113	0.12	0.13	0.856	0.109	0.118	0.111	0.119	0.0768
PCB-198/199	PCB-198/199	µg/kg	2.4	1.1	1.26	1.35	7.42	1.35	1.2	1.15	1.21	0.899
PCB-201	40186-71-8	µg/kg	0.202	0.113	0.131	0.144	0.873	0.126	0.119	0.125	0.139	0.0994
PCB-202	2136-99-4	µg/kg	0.846	0.364	0.462	0.45	1.99	0.469	0.4	0.421	0.374	0.298 J
PCB-203	52663-76-0	µg/kg	1.83	0.736	1.02	0.985	5.16	1.11	0.856	0.839	0.848	0.687
PCB-204	74472-52-9	µg/kg	0.00146 J	0.000939 JN	0.00185 J	0.00177 JN	0.00248 J	0.00174 J	0.00168 J	0.00167 J	0.00139 J	0.00187 JN
PCB-205	74472-53-0	µg/kg	0.0833	0.0453	0.0569	0.0525	0.347	0.0521	0.0487	0.0512	0.0440	0.0392
PCB-206	40186-72-9	µg/kg	1.11	0.349	0.479	0.441	1.37	0.44	0.414	0.462	0.379	0.342
PCB-207	52663-79-3	µg/kg	0.11	0.0466	0.0615	0.0587	0.2	0.0615	0.0554	0.0655	0.0491	0.0494
PCB-208	52663-77-1	µg/kg	0.359	0.153	0.166	0.184	0.394	0.169	0.165	0.172	0.149	0.125
PCB-209	2051-24-3	µg/kg	0.27	0.128	0.208	0.183	0.251	0.195	0.196	0.209	0.191	0.164 J
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	209	132	151	156	431	228	136	136	126	101
Pesticides												
2,4-DDD	53-19-0	µg/kg	2.39	2.80	2.87	2.09	1.66	2.69	3.73	3.04	2.29	2.48
2,4-DDE	3424-82-6	µg/kg	0.836	0.701	0.605	0.569	0.518	0.730	0.846	0.636	0.469	0.530
2,4-DDT	789-02-6	µg/kg	0.795	0.706	0.879	0.795	0.532	0.982	0.867	0.950	0.845	0.897
4,4'-DDD	72-54-8	µg/kg	13.8	9.70	11.6	11.0	9.60	12.2	15.6	14.7	13.0	10.6
4,4'-DDE	72-55-9	µg/kg	68.2	51.3	59.0	58.6	52.6	55.8	56.6	57.5	49.8	39.1
4,4'-DDT	50-29-3	µg/kg	8.07	3.80	5.70	8.91	5.89	9.39	5.11	6.66	6.85	7.19
DDx (a)	T_DDx (PDI)	µg/kg	94.1	69	80.7	82	70.8	81.8	82.8	83.5	73.3	60.8
alpha-Chlordane	5103-71-9	µg/kg	1.34	1.39	1.40	1.39	0.964	7.12	1.33	1.04	1.19	0.986
cis-Nonachlor	5103-73-1	µg/kg	2.25	1.42	1.59	2.19	1.49	3.26	1.34	1.62	1.46	1.22
Oxychlordane	27304-13-8	µg/kg	0.987	0.562	0.604	0.902	0.531	1.87	0.662	0.689	0.561	0.527
trans-Chlordane	5103-74-2	µg/kg	0.441 J	0.536	0.466	0.445 J	0.320 J	3.95	0.469 J	0.330 J	0.358 J	0.300 J
trans-Nonachlor	39765-80-5	µg/kg	5.97	3.59	4.26	5.54	3.81	9.06	3.46	4.34	3.95	3.32
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	11	7.5	8.32	10.5	7.12	25.3	7.26	8.02	7.52	6.35
Aldrin	309-00-2	µg/kg	0.011 J	0.017 J	0.020 J	0.013 J	0.011 J	0.029 J	0.017 J	0.018 J	0.013 J	0.014 J
Dieldrin	60-57-1	µg/kg	1.43	2.05	1.59	1.70	1.14	1.49	1.71	1.18	1.20	1.12
Metals												
Arsenic	7440-38-2	mg/kg	0.26	0.28	0.29	0.28	0.22	0.26	0.23	0.21	0.20	0.19
Mercury	7439-97-6	mg/kg	0.190 J	0.139 J	0.160 J	0.137 J	0.118 J	0.151 J	0.142 J	0.118 J	0.118 J	0.112 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.35	1.66	1.46	1.64	1.13	1.57	1.57	1.20	1.26	1.26
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 970 U	< 1000 U	< 1000 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00289 J	0.00408 J	0.00469 J	0.00348 J	0.00291 J	0.00392 J	0.00411 J	0.00261 J	0.00242 J	0.00315 J
PBDE-8/11	PDBE-8/11	µg/kg	0.00355 JN	0.00403 J	0.00371 J	0.00356 J	0.00276 J	0.00370 J	0.00474 J	0.00296 J	0.00269 J	0.00358 J
PBDE-10	51930-04-2	µg/kg	< 0.000498 U	< 0.000363 U	< 0.000488 U	< 0.000382 U	< 0.000509 U	< 0.000496 U	< 0.000570 U	< 0.000429 U	< 0.000404 U	< 0.000791 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00150 JN	0.00181 J	0.00190 JN	0.00178 J	0.00131 J	0.00820 JN	0.00989 JN	0.00153 J	0.00126 JN	0.00109 JN
PBDE-15	2050-47-7	µg/kg	0.0189	0.0173	0.0178	0.0206	0.0127 J	0.0169	0.0207	0.0147 J	0.0130 J	0.0142
PBDE-17/25	PBDE-17/25	µg/kg	0.117 JN	0.143 JN	0.134 JN	0.153 JN	0.102 JN	0.15 JN	0.177 JN	0.131 JN	0.0954 JN	0.101 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.608	0.326	0.483	0.541	0.441	0.539	0.399	0.443	0.393	0.417
PBDE-30	155999-95-4	µg/kg	< 0.00339 U	< 0.00266 U	< 0.00303 U	< 0.00332 U	< 0.00268 U	< 0.00441 U	< 0.00294 U	< 0.00347 U	< 0.00200 U	< 0.00335 U
PBDE-32	189084-60-4	µg/kg	< 0.00260 U	< 0.00204 U	< 0.00232 U	< 0.00255 U	< 0.00206 U	< 0.00349 U	< 0.00234 U	< 0.00263 U	< 0.00156 U	< 0.00262 U
PBDE-35	147217-80-9	µg/kg	0.0124 JN	0.00571 JN	0.00662 JN	0.00972 JN	0.00632 JN	0.103 JN	0.00898 JN	0.00631 JN	0.00760 JN	0.00682 JN
PBDE-37	147217-81-0	µg/kg	0.0112 J	0.0101 J	0.00845 J	0.0139 J	0.00995 JN	0.0112 JN	0.00917 J	0.0113 J	0.00789 J	0.00846 JN
PBDE-047	5436-43-1	µg/kg	31.8	15.2 J	25.7	32.1	30.3	25.6	16	26.1	23.5	19.7
PBDE-49	243982-82-3	µg/kg	0.97	1.17	0.939	1.28	1.02	0.911	1.52	0.985	0.625	0.604
PBDE-51	189084-57-9	µg/kg	0.0521	0.0473	0.0358	0.0470	0.0346	0.0326	0.0588	0.0423	0.0244	0.0224

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	3	3
		Location	SMB021	SMB022	SMB023	SMB024	SMB025	SMB026	SMB027	SMB028	SMB029	SMB030
		Sample ID	PDI-TF-SMB021	PDI-TF-SMB022	PDI-TF-SMB023	PDI-TF-SMB024	PDI-TF-SMB025	PDI-TF-SMB026	PDI-TF-SMB027	PDI-TF-SMB028	PDI-TF-SMB029	PDI-TF-SMB030
		Sample Date	8/21/18	8/21/18	8/21/18	8/21/18	8/21/18	9/6/18	9/6/18	8/21/18	8/20/18	8/20/18
Chemical	**CAS**	**Units**										
PBDE-66	189084-61-5	µg/kg	0.263	0.208	0.234	0.298	0.288	0.215	0.257	0.23	0.205	0.215
PBDE-71	189084-62-6	µg/kg	0.0206	0.0321	0.0248	0.0347	0.0282	0.0426	0.0436	0.0253	0.0200 JN	0.0304
PBDE-75	189084-63-7	µg/kg	0.0270	0.0250	0.0205	0.0255	0.0247	0.0223	0.0214	0.0197	0.0200	0.0173
PBDE-77	93703-48-1	µg/kg	0.00459 JN	0.00356 JN	0.00414 JN	0.00751 JN	0.00592 JN	0.00335 JN	0.00416 JN	0.00380 J	0.00379 J	0.00347 J
PBDE-79	PBDE-79	µg/kg	0.0236 JN	0.0251 JN	0.0207 JN	0.0404 JN	0.0304 JN	0.0312 JN	0.0214 JN	0.0335 JN	0.0296 JN	0.0249 JN
PBDE-85	182346-21-0	µg/kg	< 0.00462 U	< 0.00330 U	< 0.00310 U	< 0.00414 U	< 0.00495 U	< 0.00434 U	< 0.00455 U	< 0.00276 U	< 0.00355 U	< 0.00431 U
PBDE-099	60348-60-9	µg/kg	3.87	5.23	3.07	5.66	6.01	3.2	3.72	3.86	3.1	2.78
PBDE-100	189084-64-8	µg/kg	4.76	3.61	4.25	5.86	5.65	3.82	2.99	4.44	4.15	3.18
PBDE-105	373594-78-6	µg/kg	< 0.00594 U	< 0.00425 U	< 0.00400 U	< 0.00533 U	< 0.00638 U	< 0.00524 U	< 0.00555 U	< 0.00343 U	< 0.00461 U	< 0.00560 U
PBDE-116	189084-65-9	µg/kg	< 0.00758 U	< 0.00542 U	< 0.00510 U	< 0.00680 U	< 0.00813 U	< 0.00704 U	< 0.00740 U	< 0.00435 U	< 0.00577 U	< 0.00700 U
PBDE-119/120	PBDE-119/120	µg/kg	0.141	0.0935	0.117	0.211	0.178	0.117	0.0756	0.103	0.107	0.121
PBDE-126	366791-32-4	µg/kg	0.00821 J	0.0127 J	0.0156	0.0240	0.0195	0.0107 J	0.00787 J	0.0178	0.0140 J	0.00940 J
PBDE-128	182677-28-7	µg/kg	0.00712 JN	0.00458 JN	0.00469 JN	0.0103 JN	0.00740 JN	0.00426 JN	0.00386 JN	0.00555 JN	0.00574 JN	0.00465 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.000633 JN	0.000994 JN	0.000684 J+	0.00227 J+	0.00184 JN	0.00217 JN	0.000660 JN	0.000989 J+	0.000928 JN	0.000946 J+
PBDE-140	243982-83-4	µg/kg	0.00993 J	0.0113 J	0.00605 J	0.0129 J	0.0139 J	0.0246 J	0.0113 J	0.00996 J	0.00720 J	0.00658 J
PBDE-153	68631-49-2	µg/kg	1.63	0.864	1.24	1.65	1.57	1.76 J	0.893	1.16	0.999	0.943
PBDE-154	207122-15-4	µg/kg	0.998	0.909	0.975	1.56	1.43 J	1.27 J	0.766 J	1.05	1.03	0.773
PBDE-155	35854-94-5	µg/kg	0.0724	0.104	0.126	0.214	0.16 J	0.0807 J	0.0911 J	0.143	0.118	0.0849
PBDE-181	189084-67-1	µg/kg	< 0.000165 U	< 0.000287 U	< 0.000202 U	0.000856 JN	< 0.000957 U	0.000227 JN	0.000157 JN	< 0.000148 U	< 0.000264 U	< 0.000187 U
PBDE-183	207122-16-5	µg/kg	0.00646 J	0.00904 JN	0.00405 JN	0.0168	0.0243	0.00784 J	0.00988 JN	0.00828 JN	0.00668 J	0.00491 J
PBDE-190	189084-68-2	µg/kg	< 0.000179 U	< 0.000157 U	< 0.000184 U	< 0.000495 U	< 0.00149 U	< 0.000145 U	< 0.000149 U	< 0.000185 U	< 0.000243 U	< 0.000295 U
PBDE-203	337513-72-1	µg/kg	< 0.00105 U	0.00278 JN	< 0.00114 U	0.00338 J+	0.00287 JN	0.00121 JN	0.00188 JN	< 0.000992 U	0.00186 JN	0.00207 JN
PBDE-206	63387-28-0	µg/kg	< 0.00106 U	< 0.00228 U	< 0.000439 U	< 0.00227 U	< 0.000662 U	0.00124 JN	0.00278 JN	< 0.00165 U	< 0.00117 U	< 0.000478 U
PBDE-207	437701-79-6	µg/kg	0.00342 J+	0.00365 JN	< 0.000551 U	0.00405 J+	< 0.00197 U	0.00347 JN	0.00104 J+	< 0.000990 U	< 0.00163 U	0.00327 JN
PBDE-208	437701-78-5	µg/kg	< 0.00316 U	< 0.00279 U	< 0.000577 U	0.00699 JN	< 0.00388 U	0.00143 JN	0.00386 JN	< 0.00159 U	< 0.00139 U	0.00717 JN
PBDE-209	1163-19-5	µg/kg	< 0.0147 U	< 0.0388 U	< 0.0176 U	< 0.0278 U	< 0.0274 U	0.0327 J+	0.0473 J+	< 0.0228 U	< 0.0333 U	< 0.0326 U
Total PBDE (a)	T_PBDE (PDI)	µg/kg	45.5	28.1	37.5	49.8	47.4	38	27.2	38.9	34.5	29.1

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	4	4	4	4	4	4	4	4	3	3
		Location	SMB021	SMB022	SMB023	SMB024	SMB025	SMB026	SMB027	SMB028	SMB029	SMB030
		Sample ID	PDI-TF-SMB021	PDI-TF-SMB022	PDI-TF-SMB023	PDI-TF-SMB024	PDI-TF-SMB025	PDI-TF-SMB026	PDI-TF-SMB027	PDI-TF-SMB028	PDI-TF-SMB029	PDI-TF-SMB030
		Sample Date	8/21/18	8/21/18	8/21/18	8/21/18	8/21/18	9/6/18	9/6/18	8/21/18	8/20/18	8/20/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	5.99	7.76	6.83	6.54	5.05	6.38	6.19	4.86	5.20	5.54
Total Solids@104C	TSOLID	%	28.0	29.0	28.6	28.8	26.9	27.1	27.4	26.8	26.8	28.1

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB031	SMB032	SMB033	SMB034	SMB035	SMB036	SMB037	SMB038	SMB039	SMB040
		Sample ID	PDI-TF-SMB031	PDI-TF-SMB032	PDI-TF-SMB033	PDI-TF-SMB034	PDI-TF-SMB035	PDI-TF-SMB036	PDI-TF-SMB037	PDI-TF-SMB038	PDI-TF-SMB039	PDI-TF-SMB040
		Sample Date	9/13/18	8/20/18	9/6/18	9/11/18	9/11/18	8/20/18	9/6/18	8/20/18	8/20/18	8/20/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000334 J	0.0000948 JN	0.000336 JN	0.000137 J	0.0000829 JN	0.000271 JN	0.0000879 JN	0.000155 J	0.000123 JN	0.00490
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0000987 JN	< 0.0000730 U	< 0.0000699 U	< 0.0000731 U	< 0.0000721 U	0.0000748 JN	< 0.0000751 U	< 0.0000735 U	< 0.0000725 U	0.000683 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000727 U	< 0.0000730 U	< 0.0000699 U	< 0.0000731 U	< 0.0000721 U	< 0.0000694 U	< 0.0000751 U	< 0.0000735 U	< 0.0000725 U	< 0.0000741 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.000111 JN	< 0.0000730 U	0.000113 JN	< 0.000126 U	< 0.0000721 U	0.000190 J	< 0.0000751 U	< 0.0000735 U	< 0.0000725 U	0.000209 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.000183 JN	< 0.0000730 U	0.000197 J	0.000149 J	< 0.0000909 U	0.000454 J	0.000368 JN	0.0000938 J	0.000439 J	0.00127 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000690 J	0.000119 J	0.000534 J	0.000333 J	0.000213 J	0.000600 J	0.000240 J	0.000317 J	0.000234 J	0.00159
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.000148 J	< 0.0000730 U	0.0000918 J	0.0000780 J	< 0.0000898 U	0.000180 J	0.000115 JN	< 0.0000735 U	0.000127 J	0.000425 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000727 U	< 0.0000730 U	< 0.0000699 U	< 0.000122 U	< 0.0000721 U	< 0.0000997 U	< 0.0000751 U	< 0.0000735 U	< 0.0000725 U	0.000402 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000727 U	< 0.0000730 U	< 0.0000699 U	< 0.0000731 U	< 0.000115 U	< 0.0000694 U	< 0.0000751 U	< 0.0000735 U	< 0.0000725 U	< 0.0000741 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000613 J	0.000216 JN	0.000756 J	0.000345 J	0.000308 JN	0.000717 J	0.000383 J	0.000383 J	0.000356 J	0.000625 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000654 JN	0.000352 J	0.000557 J	0.000883 J	0.000310 J	0.00155	0.00151	0.000316 J	0.00181	0.00130 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000727 U	< 0.0000730 U	< 0.0000699 U	< 0.0000731 U	< 0.0000943 U	0.0000766 J	< 0.0000751 U	< 0.0000735 U	< 0.0000725 U	0.000178 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000781 J	0.000511 J	0.000728 J	0.000949 J	0.000455 J	0.00161	0.00132 JN	0.000480 J	0.00155	0.00114 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000359	0.000173 J	0.000296	0.000283 JN	0.000308 JN	0.000368	0.000288 J	0.000259 J	0.000289 J	0.000282 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00215	0.00181	0.00185	0.00348	0.00225	0.00548	0.00488	0.00227	0.00768	0.00208
OCDD	3268-87-9	µg/kg	0.000406 JN	0.000125 JN	0.000249 JN	0.000149 J+	0.000185 J+	0.000392 J+	0.000251 J	0.000156 J+	0.000252 J+	0.0142
OCDF	39001-02-0	µg/kg	< 0.0000727 U	< 0.0000827 U	< 0.0000699 U	< 0.0000731 U	0.0000902 JN	0.0000882 J	< 0.0000751 U	< 0.0000735 U	< 0.0000725 U	0.0000821 J
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00156	0.00075	0.00157	0.00135	0.00101	0.00232	0.00168	0.00107	0.00202	0.00197
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.00152	0.000638	0.00156	0.0012	0.000854	0.00232	0.00143	0.00107	0.00202	0.00197
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.00151	0.00053	0.00155	0.00106	0.0007	0.00231	0.00123	0.00107	0.00201	0.00196
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00523	0.00414	0.00599	0.00736	0.00714	0.00552	0.00543	0.00742	0.00747	0.00553
PCB-2	2051-61-8	µg/kg	0.00125 J+	0.000950 J	0.00165 J+	0.00264 J	0.00136 J+	0.00166 J	0.00172 J+	0.00129 J	0.00160 J	0.00111 J
PCB-3	2051-62-9	µg/kg	0.00259 JN	0.00174 J+	0.00336 J+	0.00387	0.00303 J+	0.00226 J	0.00306 JN	0.00264 J	0.00299	0.00210 J
PCB-4	13029-08-8	µg/kg	0.165	0.134	0.211	0.187	0.254	0.161	0.165	0.304	0.219	0.279
PCB-5	16605-91-7	µg/kg	< 0.00277 U	0.000814 J	< 0.00232 U	< 0.00334 U	< 0.00291 U	0.00154 J	< 0.00440 U	0.00153 J	0.00178 JN	0.00114 JN
PCB-6	25569-80-6	µg/kg	0.0181	0.0130	0.0226	0.0360	0.0206	0.0237	0.0224	0.0223	0.0321	0.0206
PCB-7	33284-50-3	µg/kg	0.00358	0.00315 JN	0.00459 JN	0.00522 JN	0.00414	0.00439	0.00451 JN	0.00507	0.00534	0.00431
PCB-8	34883-43-7	µg/kg	0.0756	0.0580	0.0888	0.15	0.0813	0.107	0.0863	0.0969	0.116	0.0866
PCB-9	34883-39-1	µg/kg	0.00555 JN	0.00441	0.00594	0.00864	0.00652	0.00697	0.00680 JN	0.00764	0.00894	0.00598
PCB-10	33146-45-1	µg/kg	0.0121	0.00723	0.0153	0.0125	0.0150	0.00912	0.00898	0.0217	0.0135	0.0231
PCB-11	2050-67-1	µg/kg	0.0916	0.0542	0.0611	0.0590	0.106	0.0673	0.0416	0.133	0.169	0.111
PCB-12/13	PCB-12/13	µg/kg	< 0.00259 U	0.00217 J	0.00455	0.00370 JN	0.00422	0.00370	< 0.00415 U	0.00445	0.00573	0.00468
PCB-14	34883-41-5	µg/kg	< 0.00258 U	< 0.000456 U	< 0.00210 U	< 0.00304 U	< 0.00271 U	< 0.000639 U	< 0.00399 U	< 0.000693 U	< 0.000909 U	< 0.000872 U
PCB-15	2050-68-2	µg/kg	0.0180	0.0820	0.0290	0.0243	0.0271	0.0231	0.0190	0.0301	0.0384	0.0239
PCB-16	38444-78-9	µg/kg	0.0810	0.0655	0.0869	0.178	0.0902	0.0999	0.102	0.0979	0.118	0.0752
PCB-17	37680-66-3	µg/kg	0.298	0.182	0.279	0.539	0.316	0.237	0.258	0.33	0.319	0.266
PCB-18/30	PCB-18/30	µg/kg	0.277	0.212	0.29	0.637	0.28	0.317	0.297	0.334	0.376	0.252
PCB-19	38444-73-4	µg/kg	0.544	0.365	0.586	0.552	0.758	0.408	0.416	0.843	0.53	0.805
PCB-20/28	PCB-20/28	µg/kg	1.04	1.15	1.02	2.11	1.17	1.2	0.919	1.07	1.35	0.885
PCB-21/33	PCB-21/33	µg/kg	0.216	0.116	0.229	0.596	0.193	0.271	0.218	0.174	0.221	0.166
PCB-22	38444-85-8	µg/kg	0.21	0.149	0.197	0.469	0.266	0.257	0.206	0.26	0.308	0.181
PCB-23	55720-44-0	µg/kg	< 0.00172 U	< 0.00155 U	< 0.00228 U	< 0.00580 U	< 0.00151 U	< 0.00220 U	< 0.00138 U	0.00111 JN	< 0.00271 U	< 0.00103 U
PCB-24	55702-45-9	µg/kg	0.00477 JN	0.00366	0.00412	0.00570 JN	0.00514	0.00463	0.00582	0.00781 JN	0.00618	0.00391
PCB-25	55712-37-3	µg/kg	0.0814	0.0534	0.0712	0.129	0.0989	0.0749	0.0663	0.1	0.104	0.0816
PCB-26/29	PCB-26/29	µg/kg	0.167	0.114	0.154	0.32	0.193	0.159	0.131	0.194	0.205	0.167
PCB-27	38444-76-7	µg/kg	0.0758	0.0388	0.0743	0.0928	0.0772	0.0544	0.0621	0.0752	0.0699	0.0715
PCB-31	16606-02-3	µg/kg	0.594	0.411	0.535	1.23	0.712	0.64	0.454	0.709	0.753	0.517
PCB-32	38444-77-8	µg/kg	0.157	0.0822	0.17	0.336	0.157	0.198	0.22	0.145	0.274	0.134
PCB-34	37680-68-5	µg/kg	0.00736	0.00436	0.00576	0.0114	0.00625	0.00609	0.00632	0.00821	0.00910	0.00589
PCB-35	37680-69-6	µg/kg	< 0.00186 U	< 0.00155 U	< 0.00222 U	< 0.00611 U	< 0.00164 U	< 0.00200 U	< 0.00135 U	< 0.000498 U	< 0.00274 U	< 0.00104 U
PCB-36	38444-87-0	µg/kg	< 0.00173 U	< 0.00144 U	< 0.00206 U	< 0.00566 U	< 0.00152 U	< 0.00189 U	< 0.00125 U	< 0.000469 U	< 0.00251 U	< 0.000953 U
PCB-37	38444-90-5	µg/kg	0.0701	0.446	0.0775	0.114	0.111	0.0807	0.0734	0.0909	0.116	0.0614
PCB-38	53555-66-1	µg/kg	< 0.00170 U	< 0.00147 U	< 0.00217 U	< 0.00559 U	0.00172 J	0.00325 JN	0.00334	0.00250 JN	0.00357	0.00256 J

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB031	SMB032	SMB033	SMB034	SMB035	SMB036	SMB037	SMB038	SMB039	SMB040
		Sample ID	PDI-TF-SMB031	PDI-TF-SMB032	PDI-TF-SMB033	PDI-TF-SMB034	PDI-TF-SMB035	PDI-TF-SMB036	PDI-TF-SMB037	PDI-TF-SMB038	PDI-TF-SMB039	PDI-TF-SMB040
		Sample Date	9/13/18	8/20/18	9/6/18	9/11/18	9/11/18	8/20/18	9/6/18	8/20/18	8/20/18	8/20/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.00972	0.00485	0.00822	0.0183	0.0100	0.0165	0.0148	0.00848	0.0206	0.00862 JN
PCB-40/41/71	PCB-40/41/71	µg/kg	0.604	0.375	0.689	1.27	0.566	1.21	1.3	0.604	1.58	0.599
PCB-42	36559-22-5	µg/kg	0.406	0.327	0.401	0.799	0.481	0.716	0.754	0.516	1.08	0.377
PCB-43	70362-46-8	µg/kg	0.0739	0.0383	0.0729	0.147	0.0792	0.122	0.131	0.0805	0.167	0.0687
PCB-44/47/65	PCB-44/47/65	µg/kg	3.1	2.11	3.13	4.61	3.59	3.8	4	3.68	5.86	3.55
PCB-45/51	PCB-45/51	µg/kg	0.494	0.297	0.483	0.596	0.561	0.412	0.518	0.6	0.684	0.482
PCB-46	41464-47-5	µg/kg	0.0503	0.0368	0.0546	0.0829	0.0584	0.0637	0.0928	0.0649	0.106	0.0471
PCB-48	70362-47-9	µg/kg	0.232	0.138	0.246	0.521	0.238	0.446	0.441	0.246	0.568	0.22
PCB-49/69	PCB-49/69	µg/kg	1.92	1.37	1.95	3.23	2.25	2.81	2.72	2.34	4.18	2.26
PCB-50/53	PCB-50/53	µg/kg	0.332	0.193	0.403	0.398	0.335	0.338	0.414	0.332	0.442	0.346
PCB-52	35693-99-3	µg/kg	2.94	2.1	2.77	4.93	3.37	4.22	4.03	3.18	6.33	4.08
PCB-54	15968-05-5	µg/kg	0.13	0.0756	0.137	0.115	0.159	0.0730	0.0823	0.162	0.102	0.152
PCB-55	74338-24-2	µg/kg	< 0.00346 U	< 0.00589 U	< 0.00823 U	< 0.00847 U	< 0.00449 U	< 0.00543 U	< 0.0143 U	< 0.00786 U	< 0.0156 U	< 0.00176 U
PCB-56	41464-43-1	µg/kg	0.475	0.367	0.422	0.961	0.639	0.923	0.89	0.624	1.38	0.433
PCB-57	70424-67-8	µg/kg	0.00877	0.00943	0.0110 JN	0.0179	0.0114	0.0142	0.0140	0.00869	0.0219	0.0133
PCB-58	41464-49-7	µg/kg	0.0147	0.00878 JN	0.0126	0.0139 JN	0.0169	0.0135	0.0188	0.0149	0.0174 JN	0.0223
PCB-59/62/75	PCB-59/62/75	µg/kg	0.19	0.139	0.195	0.326	0.212	0.268	0.277	0.23	0.377	0.195
PCB-60	33025-41-1	µg/kg	0.517	0.485	0.553	1.25	0.5	1.38	1.16	0.456	1.88	0.497
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	3.52	2.6	3.07	5.04	3.96	4.79	4.06	3.47	6.37	3.9
PCB-63	74472-34-7	µg/kg	0.15	0.139	0.145	0.239	0.147	0.266	0.222	0.132	0.357	0.148
PCB-64	52663-58-8	µg/kg	0.83	0.657	0.818	1.73	0.957	1.73	1.58	0.937	2.51	0.83
PCB-66	32598-10-0	µg/kg	3.06	2.43	2.64	4.97	3	5.25	4.63	2.43	7.17	2.75
PCB-67	73575-53-8	µg/kg	0.0539	0.0365	0.0467	0.0729	0.0568	0.0569	0.0519	0.0533	0.0777	0.0635
PCB-68	73575-52-7	µg/kg	0.0595	0.0332	0.0566	0.0465	0.0690	0.0361	0.0420	0.0651	0.0597	0.0633
PCB-72	41464-42-0	µg/kg	0.0617	0.0350	0.0610	0.0597	0.0641	0.0516	0.0676	0.0645	0.0800	0.0751
PCB-73	74338-23-1	µg/kg	0.0209	0.0420	0.0623	0.0434	0.0309	< 0.000319 U	0.0748	< 0.00101 U	< 0.000163 U	< 0.000221 U
PCB-77	32598-13-3	µg/kg	0.125	0.187	0.111	0.208	0.138	0.194	0.154	0.135	0.265	0.1
PCB-78	70362-49-1	µg/kg	< 0.00350 U	< 0.00563 U	< 0.00815 U	< 0.00848 U	< 0.00455 U	< 0.00523 U	< 0.0142 U	< 0.00756 U	< 0.0151 U	< 0.00170 U
PCB-79	41464-48-6	µg/kg	0.133	0.0284	0.0507 JN	0.0496	0.0978	0.0414	0.0446 JN	0.0589	0.0765	0.0811
PCB-80	33284-52-5	µg/kg	< 0.00308 U	< 0.00515 U	< 0.00720 U	< 0.00765 U	< 0.00400 U	< 0.00472 U	< 0.0125 U	< 0.00683 U	< 0.0139 U	< 0.00157 U
PCB-81	70362-50-4	µg/kg	0.00876 JN	0.0108	< 0.00767 U	0.00869 JN	0.00813 JN	0.0105	< 0.0137 U	< 0.00704 U	< 0.0133 U	0.00580 JN
PCB-82	52663-62-4	µg/kg	0.84	0.207	0.297	0.358	0.627	0.321	0.364	0.355	0.464	0.405
PCB-83/99	PCB-83/99	µg/kg	11.3	2.88	5.31	5.36	7.07	4.85	6.33	5.03	7.44	10.7
PCB-84	52663-60-2	µg/kg	1.02	0.489	0.688	0.677	1.25	0.552	0.627	0.858	0.827	0.811
PCB-85/116/117	PCB-85/116/117	µg/kg	2.94	0.745	1.28	1.57	1.89	1.55	1.74	1.23	2.22	2.88
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	8.78	1.86 J	3.02	3.55	5.84	2.87 J	3.36	3.46 J	4.71 J	6.39 J
PCB-88/91	PCB-88/91	µg/kg	1.18	0.532	0.86	0.855	1.22	0.667	0.702	1.03	1.08	1.09
PCB-89	73575-57-2	µg/kg	0.0227	0.0125	0.0234	0.0308	0.0216	0.0331	0.0384	0.0223	0.0432	0.0213
PCB-90/101/113	PCB-90/101/113	µg/kg	15.8	3.78	6.32	6.7	10.4	5.66	6.3	7.39	9.14	13.1
PCB-92	52663-61-3	µg/kg	2.63	0.765	1.38	1.45	1.97	1.15	1.31	1.54	1.78	2.76
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	5.52	2.18	4.45	3.4	5.25	2.92	3.1	4.34	4.54	6.44
PCB-94	73575-55-0	µg/kg	0.0272	0.0204	0.0303	0.0303	0.0377	0.0264	0.0284	0.0454	0.0395	0.0320
PCB-96	73575-54-9	µg/kg	0.0314	0.0205	0.0331	0.0380	0.0351	0.0321	0.0352	0.0379	0.0441	0.0338
PCB-103	60145-21-3	µg/kg	0.159	0.0909	0.139	0.134	0.176	0.0977	0.105	0.198	0.161	0.168
PCB-104	56558-16-8	µg/kg	0.0140	0.0104	0.0134	0.0149	0.0195	0.00622	0.00761	0.0218	0.0148	0.0182
PCB-105	32598-14-4	µg/kg	6.22	1.15	1.97	2.36	3.51	2.47	2.83	1.84	3.67	5.49
PCB-106	70424-69-0	µg/kg	< 0.00980 U	< 0.00559 U	< 0.0102 U	< 0.00723 U	< 0.0109 U	< 0.00760 U	< 0.0179 U	< 0.0126 U	< 0.0151 U	< 0.0203 U
PCB-107/124	PCB-107/124	µg/kg	0.471	0.11	0.166	0.196	0.353	0.194	0.174	0.198	0.244	0.324
PCB-109	74472-35-8	µg/kg	1.35	0.365	0.548	0.564	0.881	0.557	0.612	0.542	0.857	1.24
PCB-110/115	PCB-110/115	µg/kg	13.1	3.01	6.38	5.54	9.23	4.72	4.9	5.94	7.28	11.7
PCB-111	39635-32-0	µg/kg	0.0111	0.00657	0.0160	0.00920 JN	0.0139 JN	0.00983	0.0122	0.0146 JN	0.0159	0.0161
PCB-112	74472-36-9	µg/kg	< 0.00389 U	< 0.00114 U	< 0.00283 U	< 0.00378 U	< 0.00457 U	< 0.00115 U	< 0.00418 U	< 0.00380 U	< 0.00267 U	< 0.00430 U
PCB-114	74472-37-0	µg/kg	0.425	0.106	0.155	0.157	0.231	0.189	0.211	0.123	0.272	0.364
PCB-118	31508-00-6	µg/kg	17.2	3.43	6.1	6.18	9.59	6.2	7.61	5.41	9.21	15
PCB-120	68194-12-7	µg/kg	0.0568	0.0266	0.0638	0.0459	0.0594	0.0392	0.0504	0.0645	0.0638	0.0680

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB031	SMB032	SMB033	SMB034	SMB035	SMB036	SMB037	SMB038	SMB039	SMB040
		Sample ID	PDI-TF-SMB031	PDI-TF-SMB032	PDI-TF-SMB033	PDI-TF-SMB034	PDI-TF-SMB035	PDI-TF-SMB036	PDI-TF-SMB037	PDI-TF-SMB038	PDI-TF-SMB039	PDI-TF-SMB040
		Sample Date	9/13/18	8/20/18	9/6/18	9/11/18	9/11/18	8/20/18	9/6/18	8/20/18	8/20/18	8/20/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.0133	0.00619	0.0159	0.0126	0.0153	0.00986 JN	0.0122	0.0190 JN	0.0147	0.0183
PCB-122	76842-07-4	µg/kg	0.0941 JN	0.0235	0.0360	0.0351	0.0818	0.0426 JN	0.0328	0.0501	0.0672	0.0573
PCB-123	65510-44-3	µg/kg	0.3 JN	0.0628	0.0998	0.117 JN	0.162 JN	0.115	0.12	0.103	0.165	0.166
PCB-126	57465-28-8	µg/kg	0.0139 JN	0.00911 JN	0.0485 JN	0.0100 JN	0.0149 JN	0.0236 JN	< 0.0234 U	0.0161 JN	0.0283 JN	0.0451 JN
PCB-127	39635-33-1	µg/kg	0.0558	0.00835	0.0248	0.0144	0.0272	0.0160	0.0264	0.0141	0.0219	0.0481
PCB-128/166	PCB-128/166	µg/kg	6.04	0.796	2.39	1.57	2.86	1.58	2.08	1.76	2.35	5.07
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	39.9	5.93	20.2	11.7	22	11.9	15.6	15.2	17.7	34.5
PCB-130	52663-66-8	µg/kg	1.91	0.311	0.776	0.517	1.02	0.482	0.539	0.727	0.723	1.15
PCB-131	61798-70-7	µg/kg	0.221	0.0305	0.0593	0.0444	0.141	0.0389	0.0386	0.0789	0.0612	0.0909
PCB-132	38380-05-1	µg/kg	5.93	0.894	1.96	1.53	3.77	1.2	1.2	2.35	1.9	2.59
PCB-133	35694-04-3	µg/kg	0.522	0.132	0.381	0.244	0.36	0.255	0.295	0.331	0.344	0.543
PCB-134/143	PCB-134/143	µg/kg	0.917	0.147	0.35	0.247	0.577	0.203	0.217	0.382	0.319	0.479
PCB-135/151/154	PCB-135/151/154	µg/kg	6.09	1.69	4.54	2.99	4.73	2.68	2.87	4.53	3.69	6.95
PCB-136	38411-22-2	µg/kg	1.35	0.355	0.755	0.577	1.09	0.497	0.526	0.878	0.736	1.07
PCB-137	35694-06-5	µg/kg	2.21	0.28	0.659	0.463	0.836	0.501	0.669	0.481	0.742	1.51
PCB-139/140	PCB-139/140	µg/kg	0.664	0.0878	0.256	0.169	0.289	0.167	0.244	0.205	0.265	0.546
PCB-141	52712-04-6	µg/kg	4.39	0.721	1.96	1.45	2.59	1.47	1.62	2.01	2.11	3.46
PCB-142	41411-61-4	µg/kg	< 0.0239 U	< 0.00761 U	< 0.0228 U	< 0.0239 U	< 0.0144 U	< 0.00900 U	< 0.0136 U	< 0.0145 U	< 0.0152 U	< 0.0113 U
PCB-144	68194-14-9	µg/kg	0.84	0.179	0.397	0.306	0.558	0.285	0.265	0.473	0.356	0.515
PCB-145	74472-40-5	µg/kg	0.00466 JN	0.000864 JN	0.00133 JN	0.00198 J	0.00460 JN	0.00152 JN	< 0.00110 U	0.00238 JN	0.00152 J	0.00199 J
PCB-146	51908-16-8	µg/kg	5.35	1.22	4.2	2.47	3.68	2.36	2.82	3.2	3.3	5.74
PCB-147/149	PCB-147/149	µg/kg	16.3	3.29	7.99	5.44	11.1	4.26	4.51	9.06	6.82	10.5
PCB-148	74472-41-6	µg/kg	0.0602	0.0229 JN	0.0515	0.0429	0.0512	0.0314	0.0391	0.0564	0.0497	0.0598
PCB-150	68194-08-1	µg/kg	0.0384	0.0190	0.0276	0.0260	0.0408	0.0177	0.0200	0.0443	0.0310	0.0244
PCB-152	68194-09-2	µg/kg	0.0190	0.00536 JN	0.0102	0.0108	0.0148	0.00797	0.00872	0.0148	0.0141	0.0177
PCB-153/168	PCB-153/168	µg/kg	34	6.27	20.6	12.6	22.8	14.6	16.8	17.9	20.1	32.2
PCB-155	33979-03-2	µg/kg	0.0166	0.00860	0.0167	0.0143	0.0165	0.0131	0.0158	0.0187	0.0159	0.0203
PCB-156/157	PCB-156/157	µg/kg	4.13	0.625	1.22	0.906	1.94	1.17	1.4	1.11	1.48	3.26
PCB-158	74472-42-7	µg/kg	3.32	0.411	1.25	0.88	1.72	0.938	1.23	1.07	1.32	2.6
PCB-159	39635-35-3	µg/kg	< 0.0178 U	0.0319	0.0833	< 0.0168 U	< 0.0107 U	0.0516	0.0559	0.0955	0.0735	0.102
PCB-161	74472-43-8	µg/kg	< 0.0173 U	< 0.00538 U	< 0.0152 U	< 0.0157 U	< 0.0104 U	< 0.00626 U	< 0.00905 U	< 0.0101 U	< 0.0105 U	< 0.00777 U
PCB-162	39635-34-2	µg/kg	0.0972	0.0196	0.0477	0.0228	0.0362 JN	0.0398	0.0404	0.0287	0.0431	0.0860
PCB-164	74472-45-0	µg/kg	1.41	0.259	0.764	0.459	0.898	0.42	0.45	0.644	0.611	1.34
PCB-165	74472-46-1	µg/kg	< 0.0191 U	< 0.00596 U	< 0.0181 U	< 0.0190 U	0.0119	0.0109	< 0.0108 U	0.0153	0.0145	0.0206
PCB-167	52663-72-6	µg/kg	1.35	0.256	0.602	0.358	0.787	0.478	0.456	0.517	0.537	0.937
PCB-169	32774-16-6	µg/kg	< 0.0206 U	< 0.00561 U	< 0.0466 U	< 0.0211 U	< 0.0183 U	< 0.0233 U	< 0.0201 U	< 0.0274 U	< 0.0156 U	< 0.0229 U
PCB-170	35065-30-6	µg/kg	4.26	0.913	3.08	1.92	3.72	2.82	2.59	3	3.07	5.07
PCB-171/173	PCB-171/173	µg/kg	1.36	0.326	0.892	0.599	1.12	0.763	0.722	0.966	0.912	1.45
PCB-172	52663-74-8	µg/kg	0.82	0.215	0.59	0.402	0.735	0.537	0.47	0.655	0.596	0.897
PCB-174	38411-25-5	µg/kg	2.3	0.714	1.47	1.11	2.15	1.13	0.913	2.12	1.47	1.95
PCB-175	40186-70-7	µg/kg	0.166	0.0480	0.112	0.0804	0.151	0.101	0.0817	0.143	0.119	0.149
PCB-176	52663-65-7	µg/kg	0.249	0.0953	0.171	0.136	0.288	0.142	0.116	0.276	0.174	0.18
PCB-177	52663-70-4	µg/kg	1.78	0.59	1.23	0.846	1.79	1.06	0.758	1.8	1.16	1.6
PCB-178	52663-67-9	µg/kg	1.05	0.308	0.957	0.63	0.993	0.69	0.685	0.952	0.815	1.29
PCB-179	52663-64-6	µg/kg	0.944	0.366	0.776	0.599	1.05	0.598	0.54	1.07	0.746	1.05
PCB-180/193	PCB-180/193	µg/kg	12	3.48	11.2	6.09	11.8	9.45	7.91	10.5	10	14.6
PCB-181	74472-47-2	µg/kg	0.0799	0.0166	0.0358	0.0284	0.0416	0.0380	0.0499	0.0307	0.0507	0.0718
PCB-182	60145-23-5	µg/kg	< 0.000717 U	0.0122	< 0.000657 U	< 0.000621 U	< 0.000709 U	0.0254	< 0.00127 U	0.0329	0.0264 JN	< 0.000799 U
PCB-183/185	PCB-183/185	µg/kg	3.34	0.92	2.53	1.78	3.1	2.18	1.98	2.92	2.46	3.58
PCB-184	74472-48-3	µg/kg	0.0166	0.00800 JN	0.0132	0.0125	0.0124	0.0135	0.0170	0.0134	0.0141	0.0162
PCB-186	74472-49-4	µg/kg	< 0.000590 U	< 0.000239 U	< 0.000541 U	< 0.000508 U	< 0.000583 U	< 0.000271 U	< 0.00104 U	< 0.00152 U	< 0.000454 U	< 0.000635 U
PCB-187	52663-68-0	µg/kg	8.83	2.53	9.66	4.82	7.83	4.99	4.97	7.13	6.14	15.3
PCB-188	74487-85-7	µg/kg	0.0191	0.00522	0.0145	0.0115	0.0156	0.0109	0.0120	0.0196	0.0154	0.0173
PCB-189	39635-31-9	µg/kg	0.145	0.0318	0.0987	0.0560	0.123	0.0892	0.0738	0.0955	0.0930	0.165
PCB-190	41411-64-7	µg/kg	0.836	0.238	0.679	0.418	0.834	0.584	0.533	0.708	0.612	1.06

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB031	SMB032	SMB033	SMB034	SMB035	SMB036	SMB037	SMB038	SMB039	SMB040
		Sample ID	PDI-TF-SMB031	PDI-TF-SMB032	PDI-TF-SMB033	PDI-TF-SMB034	PDI-TF-SMB035	PDI-TF-SMB036	PDI-TF-SMB037	PDI-TF-SMB038	PDI-TF-SMB039	PDI-TF-SMB040
		Sample Date	9/13/18	8/20/18	9/6/18	9/11/18	9/11/18	8/20/18	9/6/18	8/20/18	8/20/18	8/20/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.188	0.0461	0.141	0.0865	0.178	0.125	0.109	0.141	0.136	0.2
PCB-192	74472-51-8	µg/kg	< 0.000698 U	< 0.000257 U	< 0.000625 U	< 0.000601 U	< 0.000689 U	< 0.000295 U	< 0.00120 U	< 0.00165 U	< 0.000522 U	< 0.000730 U
PCB-194	35694-08-7	µg/kg	1.39	0.365	1.37	0.783	1.41	1.29	1.14	1.24	1.5	2.18
PCB-195	52663-78-2	µg/kg	0.65	0.147	0.663	0.342	0.694	0.524	0.454	0.513	0.549	0.834
PCB-196	42740-50-1	µg/kg	0.915	0.22	0.853	0.435	0.835	0.671	0.541	0.705	0.65	0.851
PCB-197/200	PCB-197/200	µg/kg	0.18	0.0579	0.152	0.104	0.181	0.127	0.107	0.171	0.137	0.167
PCB-198/199	PCB-198/199	µg/kg	2.86	0.549	2.79	1.14	1.88	1.42	1.17	1.68	1.48	2.25
PCB-201	40186-71-8	µg/kg	0.233	0.0648	0.189	0.108	0.186	0.15	0.116	0.176	0.153	0.183
PCB-202	2136-99-4	µg/kg	0.921	0.159	0.827	0.33	0.505	0.414	0.419	0.475	0.466	0.692
PCB-203	52663-76-0	µg/kg	1.61	0.361	1.5	0.751	1.17	1.06	0.912	1.14	1.01	1.46
PCB-204	74472-52-9	µg/kg	0.00345 JN	0.000769 JN	0.00234 JN	0.00150 JN	0.00135 JN	0.00192 J	0.00198 JN	0.00186 JN	0.00202 JN	0.00197 JN
PCB-205	74472-53-0	µg/kg	0.0738	0.0174	0.0736	0.0418	0.0659	0.0607	0.0515	0.0602	0.0610	0.0946
PCB-206	40186-72-9	µg/kg	4.5	0.148	3.53	0.339	0.51	0.483	0.407	0.502	0.445	0.752
PCB-207	52663-79-3	µg/kg	0.27	0.0202	0.229	0.0526	0.0661	0.0698	0.0588	0.0611	0.0646	0.0903
PCB-208	52663-77-1	µg/kg	2.01	0.0693	1.87	0.135	0.231	0.177	0.148	0.242	0.164	0.265
PCB-209	2051-24-3	µg/kg	1.69	0.0808	1.84	0.134	0.203	0.238	0.217	0.326	0.191	0.32
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	306	77.1	183	148	214	147	155	169	203	279
Pesticides												
2,4-DDD	53-19-0	µg/kg	2.11	2.44	2.49	4.42	3.77	5.46	6.01	2.92	10.9	3.15
2,4-DDE	3424-82-6	µg/kg	0.452	0.441	0.645	1.02	0.681	1.87	1.27	0.773	1.76	0.867
2,4-DDT	789-02-6	µg/kg	0.541	0.716	6.36	1.77	1.03	8.34	1.79	0.830	4.43	2.66
4,4'-DDD	72-54-8	µg/kg	9.20	8.99	10.4	16.2	13.6	25.7	25.8	10.8	39.6	21.1
4,4'-DDE	72-55-9	µg/kg	49.3	30.3	62.3	54.8	57.5	64.4	60.0	64.4	84.1	60.1
4,4'-DDT	50-29-3	µg/kg	4.98	3.45	10.4 J	9.10	5.77	32.2	12.1	4.80	47.4	42.4
DDx (a)	T_DDx (PDI)	µg/kg	66.6	46.3	92.6	87.3	82.4	138	107	84.5	188	130
alpha-Chlordane	5103-71-9	µg/kg	1.19	0.913	0.977	1.54	1.41	1.63	1.31	1.55	1.52	1.52
cis-Nonachlor	5103-73-1	µg/kg	1.34	0.861	1.28	1.51	1.60	1.40	1.55	1.50	1.62	1.71
Oxychlordane	27304-13-8	µg/kg	0.709	0.322 J	0.602	0.702	0.631	0.781	0.898	0.664	0.736	0.879
trans-Chlordane	5103-74-2	µg/kg	0.429 J	0.323 J	0.316 J	0.506	0.479	0.550	0.417 J	0.580	0.574	0.482
trans-Nonachlor	39765-80-5	µg/kg	3.63	2.23	3.33	3.98	3.97	3.69	4.02	3.95	4.11	4.71
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	7.3	4.65	6.51	8.24	8.09	8.05	8.2	8.24	8.56	9.3
Aldrin	309-00-2	µg/kg	0.009 J	0.013 J	0.010 JN	0.018 J	0.017 JN	0.022 J	0.017 JN	0.015 J	0.023 JN	0.010 JN
Dieldrin	60-57-1	µg/kg	1.28	1.15	1.18	1.67	1.69	1.60	1.27	2.17	2.19	1.79
Metals												
Arsenic	7440-38-2	mg/kg	0.22	0.20	0.18	0.22	0.25	0.18	0.21	0.29	0.32	0.24
Mercury	7439-97-6	mg/kg	0.098 J	0.107 J	0.147 J	0.090 J	0.112 J	0.113 J	0.136 J	0.110 J	0.122 J	0.175 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.50	1.07	1.51	1.71	1.64	1.74	1.56	1.79	2.28	1.77
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 990 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 990 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00300 JN	0.00277 J	0.00243 JN	0.00446 J	0.00483 J	0.00423 J	0.00354 J	0.00382 J	0.00574 J	0.00331 J
PBDE-8/11	PDBE-8/11	µg/kg	0.00288 J	0.00232 J	0.00242 J	0.00429 J	0.00411 J	0.00470 J	0.00364 J	0.00408 J	0.00429 J	0.00312 J
PBDE-10	51930-04-2	µg/kg	< 0.000290 U	< 0.000454 U	< 0.000468 U	< 0.000822 U	< 0.000349 U	< 0.000266 U	< 0.00144 U	< 0.000725 U	< 0.000514 U	< 0.000459 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00128 J	0.00129 J	0.00975 JN	0.00167 J	0.00181 JN	0.00229 J	0.00630 JN	0.00165 J	0.00184 J	0.00145 J
PBDE-15	2050-47-7	µg/kg	0.0171	0.0119 J	0.0160	0.0197	0.0211	0.0190	0.0162	0.0194	0.0189	0.0172
PBDE-17/25	PBDE-17/25	µg/kg	0.127	0.106 JN	0.1 JN	0.177	0.176	0.158 JN	0.14 JN	0.161 JN	0.172 JN	0.114 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.457	0.252	0.57	0.511	0.45	0.446	0.503	0.443	0.46	0.418
PBDE-30	155999-95-4	µg/kg	< 0.00353 U	< 0.00195 U	< 0.00381 U	< 0.00392 U	< 0.00196 U	< 0.00392 U	< 0.00493 U	< 0.00399 U	< 0.00306 U	< 0.00331 U
PBDE-32	189084-60-4	µg/kg	< 0.00285 U	< 0.00153 U	< 0.00302 U	< 0.00301 U	< 0.00162 U	< 0.00298 U	< 0.00390 U	< 0.00302 U	< 0.00232 U	< 0.00251 U
PBDE-35	147217-80-9	µg/kg	0.00604 JN	0.00415 JN	0.00781 JN	0.00968 JN	0.00640 JN	0.0123 JN	0.0105 JN	0.00825 JN	0.00852 JN	0.00952 JN
PBDE-37	147217-81-0	µg/kg	0.00986 J	0.00691 J	0.0117 J	0.0119 J	0.0131 J	0.0109 J	0.0101 J	0.0119 J	0.0107 J	0.0102 J
PBDE-047	5436-43-1	µg/kg	22.7	11.9	27.5	21.6	17.8	17.7	23.6	21.2	25.1	25.2
PBDE-49	243982-82-3	µg/kg	1.06	0.655	1.32	1.02	1.29	1.02	0.989	1.46	1.23	1.03
PBDE-51	189084-57-9	µg/kg	0.0373	0.0282	0.0479	0.0388	0.0552	0.0373	0.0457	0.0562	0.0458	0.0356

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB031	SMB032	SMB033	SMB034	SMB035	SMB036	SMB037	SMB038	SMB039	SMB040
		Sample ID	PDI-TF-SMB031	PDI-TF-SMB032	PDI-TF-SMB033	PDI-TF-SMB034	PDI-TF-SMB035	PDI-TF-SMB036	PDI-TF-SMB037	PDI-TF-SMB038	PDI-TF-SMB039	PDI-TF-SMB040
		Sample Date	9/13/18	8/20/18	9/6/18	9/11/18	9/11/18	8/20/18	9/6/18	8/20/18	8/20/18	8/20/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.325	0.143	0.439	0.215	0.255	0.243	0.304	0.332	0.271	0.294
PBDE-71	189084-62-6	µg/kg	0.0364	0.0179	0.0358	0.0531	0.0361	0.0351	0.0530	0.0551	0.0327	0.0248
PBDE-75	189084-63-7	µg/kg	0.0273	0.0176	0.0360	0.0245	0.0259	0.0199	0.0254	0.0341	0.0328	0.0239
PBDE-77	93703-48-1	µg/kg	< 0.000145 U	0.00262 J	0.00551 J	< 0.000146 U	0.00452 JN	0.00263 JN	0.00377 JN	0.00430 JN	0.00430 J	0.00468 JN
PBDE-79	PBDE-79	µg/kg	0.0223	0.0190 JN	0.0432 JN	0.0188 JN	0.0163 J+	0.0348 JN	0.0552 JN	0.0219 JN	0.0241 JN	0.0383 JN
PBDE-85	182346-21-0	µg/kg	< 0.00480 U	< 0.00338 U	< 0.00636 U	< 0.00486 U	< 0.00287 UJ	< 0.00289 U	< 0.00481 U	< 0.00739 U	< 0.00429 U	< 0.00343 U
PBDE-099	60348-60-9	µg/kg	6.22	3.12	8.03	3.1	6.88 J	3.36	3.91	7.71	4.38	4.64
PBDE-100	189084-64-8	µg/kg	4.6	2.53	5.72	3.41	3.94 J	2.98	4.37	4.82	3.84	3.56
PBDE-105	373594-78-6	µg/kg	< 0.00605 U	< 0.00439 U	< 0.00768 U	< 0.00575 U	< 0.00380 UJ	< 0.00360 U	< 0.00581 U	< 0.00920 U	< 0.00533 U	< 0.00427 U
PBDE-116	189084-65-9	µg/kg	< 0.00786 U	< 0.00549 U	< 0.0103 U	< 0.00779 U	< 0.00543 UJ	< 0.00456 U	< 0.00780 U	< 0.0117 U	< 0.00676 U	< 0.00542 U
PBDE-119/120	PBDE-119/120	µg/kg	0.127	0.0600	0.161	0.129	0.0775 J	0.0941	0.125	0.106	0.117	0.0971
PBDE-126	366791-32-4	µg/kg	0.00890 J	0.00810 J	0.0158	0.0122 J	0.0117 J	0.00813 J	0.00885 J	0.0126 J	0.0108 J	0.00527 J
PBDE-128	182677-28-7	µg/kg	0.00447 JN	0.00242 JN	0.00659 JN	0.00659 JN	0.00479 JN	0.00618 JN	< 0.00284 U	0.00517 JN	0.00510 JN	0.00500 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.000772 JN	0.000909 JN	0.00394 J	0.00137 JN	0.00168 J	0.00174 JN	0.00128 JN	0.00232 JN	0.00167 JN	0.00128 J+
PBDE-140	243982-83-4	µg/kg	0.0142 J	0.00617 J	0.0334 J	0.00674 J	0.0126 JN	0.00875 J	0.00884 J	0.0153	0.0105 J	0.0108 J
PBDE-153	68631-49-2	µg/kg	1.37	0.521	2.56 J	0.859	1.06	0.913	1.34	1.16	1.09	1.11
PBDE-154	207122-15-4	µg/kg	1.14	0.532 J	2.29 J	0.785 J	0.878 J	0.733	1.04	1.15	0.927	0.762
PBDE-155	35854-94-5	µg/kg	0.0867	0.0677 J	0.124 J	0.0856 J	0.107 J	0.0688	0.0847	0.108	0.0897	0.0457
PBDE-181	189084-67-1	µg/kg	< 0.000159 U	< 0.000146 U	0.00122 JN	0.000659 JN	0.000715 JN	0.00113 JN	0.000225 JN	< 0.000166 U	< 0.000145 U	< 0.000314 U
PBDE-183	207122-16-5	µg/kg	0.00517 J	0.00407 J	0.0160	0.00482 JN	0.0104 J	0.00906 J	0.00900 JN	0.00975 JN	0.00693 J	0.00916 JN
PBDE-190	189084-68-2	µg/kg	< 0.000233 U	0.000530 JN	0.000911 JN	< 0.000225 U	< 0.000156 U	0.000710 JN	< 0.000249 U	< 0.000206 U	< 0.000145 U	< 0.000148 U
PBDE-203	337513-72-1	µg/kg	0.000911 JN	< 0.00122 U	0.00223 JN	0.00122 J	0.00839 J	0.00273 J+	0.00217 JN	0.00183 JN	0.00161 JN	0.00179 JN
PBDE-206	63387-28-0	µg/kg	< 0.000583 U	< 0.00165 U	< 0.00115 U	0.00310 JN	0.0393 JN	0.00433 J+	0.00139 J+	< 0.000902 U	< 0.000307 U	< 0.00350 U
PBDE-207	437701-79-6	µg/kg	0.00337 J+	< 0.00302 U	0.00400 JN	0.00796 J+	0.0558 JN	0.00385 JN	0.00149 JN	< 0.00236 U	< 0.00130 U	< 0.00270 U
PBDE-208	437701-78-5	µg/kg	< 0.00129 U	< 0.00270 U	0.00545 JN	0.0103 JN	0.0437 JN	< 0.00134 U	0.00143 JN	< 0.000685 U	< 0.000427 U	< 0.00343 U
PBDE-209	1163-19-5	µg/kg	0.0292 JN	0.0467 JN	0.0414 JN	0.0996 JN	1.13	0.0597 J+	0.0348 JN	< 0.0225 U	< 0.0141 U	0.0718 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	38.4	20.1	49.2	32.2	34.4	28	36.7	38.9	37.9	37.6

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB031	SMB032	SMB033	SMB034	SMB035	SMB036	SMB037	SMB038	SMB039	SMB040
		Sample ID	PDI-TF-SMB031	PDI-TF-SMB032	PDI-TF-SMB033	PDI-TF-SMB034	PDI-TF-SMB035	PDI-TF-SMB036	PDI-TF-SMB037	PDI-TF-SMB038	PDI-TF-SMB039	PDI-TF-SMB040
		Sample Date	9/13/18	8/20/18	9/6/18	9/11/18	9/11/18	8/20/18	9/6/18	8/20/18	8/20/18	8/20/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	5.29	4.83	5.68	5.83	6.23	6.21	5.77	7.67	8.77	6.53
Total Solids@104C	TSOLID	%	27.4	28.8	26.2	26.9	27.9	28.4	28.4	28.2	30.4	29.2

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB041	SMB042	SMB043	SMB044	SMB045	SMB046	SMB047	SMB048	SMB049	SMB050
		Sample ID	PDI-TF-SMB041	PDI-TF-SMB042	PDI-TF-SMB043	PDI-TF-SMB044	PDI-TF-SMB045	PDI-TF-SMB046	PDI-TF-SMB047	PDI-TF-SMB048	PDI-TF-SMB049	PDI-TF-SMB050
		Sample Date	9/6/18	8/20/18	8/20/18	8/20/18	9/7/18	8/18/18	9/7/18	8/23/18	8/18/18	8/23/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000363 J	0.000162 JN	0.000295 JN	0.000353 JN	0.000103 J	0.000125 JN	0.000190 JN	0.000450 JN	0.000482 J	< 0.000172 U
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.0000837 JN	< 0.0000718 U	0.000139 J	0.000128 JN	< 0.0000737 U	< 0.0000720 U	0.000234 JN	0.000105 J	< 0.0000724 U	0.000208 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000731 U	< 0.0000718 U	< 0.0000702 U	< 0.0000728 U	< 0.0000737 U	< 0.0000720 U	0.000184 JN	< 0.0000909 U	< 0.0000724 U	0.0000984 JN
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.000173 JN	< 0.0000718 U	0.000205 J	0.000104 JN	0.000100 J	< 0.0000720 U	0.0000886 JN	0.000278 JN	0.000213 J	< 0.0000731 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00106 J	0.00143 J	0.000321 J	0.000299 J	0.00168	< 0.0000720 U	0.0219	0.00130 J	0.000217 JN	0.0287
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000481 J	0.000339 J	0.000917 J	0.000344 J	0.000404 JN	0.000203 JN	0.000315 J	0.00241	0.00108 J	0.000341 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.000302 J	0.000327 J	0.000261 J	0.000224 J	0.000304 J	< 0.0000720 U	0.00491	0.000221 J	0.0000924 J	0.00510
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.00164 U	< 0.000102 U	0.000183 J	0.000130 J	< 0.0000737 U	< 0.0000720 U	< 0.0000716 U	0.000216 JN	< 0.000228 U	< 0.0000731 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000731 U	< 0.0000718 U	< 0.0000702 U	< 0.0000728 U	< 0.0000737 U	< 0.0000720 U	0.000144 J	< 0.0000869 U	< 0.0000724 U	0.000204 J
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000657 JN	0.000491 J	0.00311	0.000514 J	0.000468 JN	0.000252 J	0.000553 J	0.00369	0.000808 J	0.000423 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.00293	0.00548	0.000648 J	0.000258 JN	0.00395	0.000226 JN	0.0366	0.00104 J	0.000465 J	0.0672
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000731 U	< 0.0000718 U	0.000177 J	0.000289 JN	< 0.0000737 U	< 0.0000720 U	0.000467 J	0.000122 JN	< 0.0000724 U	0.000413 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00230	0.00430	0.00177	0.000997 J	0.00432	0.000311 JN	0.0963	0.00649	0.00145 J	0.0724
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000353	0.000303	0.000608	0.000254 J	0.000455	0.000258 J	0.000306 JN	0.000686	0.000391 JN	0.000325 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00899	0.0165	0.00163	0.00136	0.00725	0.00120	0.0477	0.000946	0.00143	0.0696
OCDD	3268-87-9	µg/kg	0.000261 J	0.000176 JN	0.000415 JN	0.000433 JN	0.000213 J	0.0000947 JN	0.000239 JN	0.00120 J	0.000757 J	0.000304 JN
OCDF	39001-02-0	µg/kg	< 0.0000731 U	< 0.0000718 U	< 0.0000702 U	< 0.0000728 U	< 0.0000737 U	< 0.0000720 U	< 0.0000716 U	< 0.0000869 U	< 0.0000724 U	< 0.0000731 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00298	0.00411	0.00465	0.00136	0.00332	0.000755	0.0384	0.00691	0.00197	0.0349
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	µg/kg	0.00255	0.00411	0.00464	0.00132	0.00304	0.000677	0.0384	0.00686	0.00195	0.0349
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.00222	0.00411	0.00464	0.0013	0.0028	0.00063	0.0384	0.00684	0.00193	0.0349
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00923	0.00706	0.0112	0.0371	0.00775	0.00527	0.257	0.00498	0.0116	0.0306
PCB-2	2051-61-8	µg/kg	0.00179 J+	0.00121 J	0.000908 J+	0.00154 J	0.00154 J+	0.00111	0.00392	0.000912 JN	0.00139	0.00118 J
PCB-3	2051-62-9	µg/kg	0.00391 J+	0.00268 J	0.00423	0.0109	0.00367 J+	0.00238 J+	0.0509	0.00266 JN	0.00354	0.00653
PCB-4	13029-08-8	µg/kg	0.237	0.17	1.36	4.52	0.184	0.189	3.15	0.151	0.255	0.338
PCB-5	16605-91-7	µg/kg	< 0.00285 U	0.00146 J	< 0.000922 U	< 0.00116 U	< 0.00267 U	0.000949	0.0112	< 0.00164 U	0.00104	0.00357
PCB-6	25569-80-6	µg/kg	0.0737	0.0259	0.0233	0.0495	0.0285	0.0134	0.902	0.0142	0.0263	0.212
PCB-7	33284-50-3	µg/kg	0.00663	0.00425 JN	0.00593	0.0164	0.00501	0.00287	0.0318	0.00340 J	0.00365	0.0132
PCB-8	34883-43-7	µg/kg	0.165	0.0993	0.0761	0.12	0.105	0.0610	2.85	0.0687	0.0984	0.363
PCB-9	34883-39-1	µg/kg	0.0114	0.00693	0.00562	0.0114	0.00741	0.00441	0.0769	0.00424 JN	0.00607	0.0215
PCB-10	33146-45-1	µg/kg	0.0130	0.00837	0.152	0.473	0.0110	0.0113	0.158	0.0102	0.0109	0.0198
PCB-11	2050-67-1	µg/kg	0.0830	0.0598	0.0489	0.0656	0.0431	0.0953	0.0103 J+	0.0270	0.0786	0.00785 J+
PCB-12/13	PCB-12/13	µg/kg	0.00772	0.00325	0.00782	0.0251	0.00384 JN	0.00240	0.0553	0.00228 JN	0.00273	0.0113
PCB-14	34883-41-5	µg/kg	< 0.00259 U	< 0.000565 U	< 0.000834 U	< 0.00106 U	< 0.00245 U	< 0.000225 U	< 0.00456 U	< 0.00153 U	< 0.000498 U	< 0.00230 U
PCB-15	2050-68-2	µg/kg	0.0313	0.0205	0.0280	0.0536	0.0196	0.0243	0.131	0.0116	0.0304	0.0220
PCB-16	38444-78-9	µg/kg	0.197	0.0998	0.0469	0.0772	0.112	0.0551	0.559	0.0525	0.0810	0.379
PCB-17	37680-66-3	µg/kg	0.472	0.229	0.491	2.27	0.336	0.183	4.54	0.14	0.239	0.993
PCB-18/30	PCB-18/30	µg/kg	0.6	0.324	0.186	0.502	0.365	0.174	2.04	0.151	0.244	1.5
PCB-19	38444-73-4	µg/kg	0.614	0.357	4.47	19	0.489	0.5	3.22	0.388	0.499	0.502
PCB-20/28	PCB-20/28	µg/kg	1.84	1.38	0.614	1.45	1.43	0.619	7.6	0.426	0.775	5.89
PCB-21/33	PCB-21/33	µg/kg	0.294	0.212	0.116	0.281	0.223	0.104	0.657	0.105	0.144	0.513
PCB-22	38444-85-8	µg/kg	0.42	0.287	0.102	0.17	0.288	0.138	1.06	0.101	0.17	0.701
PCB-23	55720-44-0	µg/kg	0.00142 J	< 0.00189 U	< 0.00129 U	< 0.00283 U	< 0.00215 U	0.000575 J	< 0.0132 U	< 0.00103 U	0.000576 J	< 0.00325 U
PCB-24	55702-45-9	µg/kg	0.00878	0.00559 JN	0.00745	0.0323	0.00880	0.00253	0.0406 JN	0.00246 J	0.00317	0.0206
PCB-25	55712-37-3	µg/kg	0.238	0.0781	0.0687	0.469	0.103	0.0557	1.42	0.0328	0.0646	0.566
PCB-26/29	PCB-26/29	µg/kg	0.397	0.157	0.0898	0.283	0.194	0.105	2.5	0.0648	0.133	0.79
PCB-27	38444-76-7	µg/kg	0.105	0.0694	0.254	1.33	0.0747	0.0419	1.36	0.0387	0.0535	0.267
PCB-31	16606-02-3	µg/kg	1.07	0.523	0.271	0.598	0.668	0.386	3.95	0.214	0.464	1.77
PCB-32	38444-77-8	µg/kg	0.412	0.399	0.205	0.804	0.31	0.0896	3.44	0.0728	0.13	1.52
PCB-34	37680-68-5	µg/kg	0.0132	0.00812	0.00557	0.0296	0.00938	0.00461	0.105	0.00251 J	0.00507	0.0416
PCB-35	37680-69-6	µg/kg	< 0.00127 U	< 0.00173 U	< 0.00128 U	< 0.00258 U	< 0.00211 U	< 0.000483 U	< 0.0129 U	0.00163 JN	< 0.000543 U	0.0716 JN
PCB-36	38444-87-0	µg/kg	< 0.00118 U	< 0.00163 U	< 0.00119 U	< 0.00243 U	< 0.00192 U	< 0.000441 U	< 0.0123 U	< 0.000944 U	< 0.000516 U	< 0.00301 U
PCB-37	38444-90-5	µg/kg	0.129	0.102	0.0429	0.0754	0.0906	0.0583	0.207	0.0370	0.0730	0.329
PCB-38	53555-66-1	µg/kg	0.00652	0.00777	0.00292 JN	0.0397	0.00580 JN	0.00123	0.0208	< 0.000983 U	0.00123	0.0418

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB041	SMB042	SMB043	SMB044	SMB045	SMB046	SMB047	SMB048	SMB049	SMB050
		Sample ID	PDI-TF-SMB041	PDI-TF-SMB042	PDI-TF-SMB043	PDI-TF-SMB044	PDI-TF-SMB045	PDI-TF-SMB046	PDI-TF-SMB047	PDI-TF-SMB048	PDI-TF-SMB049	PDI-TF-SMB050
		Sample Date	9/6/18	8/20/18	8/20/18	8/20/18	9/7/18	8/18/18	9/7/18	8/23/18	8/18/18	8/23/18
Chemical	**CAS**	**Units**										
PCB-39	38444-88-1	µg/kg	0.0267	0.0400	0.00498	0.0114	0.0267	0.00437	0.0908	0.00360 JN	0.00515	0.201
PCB-40/41/71	PCB-40/41/71	µg/kg	2.24	3.36	0.45	1.75	2.31	0.37	11	0.288	0.513	18.6
PCB-42	36559-22-5	µg/kg	1.46	2.18	0.229	0.695	1.46	0.322	6.09	0.19	0.374	12.5
PCB-43	70362-46-8	µg/kg	0.228	0.367	0.0512	0.188	0.282	0.0462	0.87	0.0275	0.0502	1.48
PCB-44/47/65	PCB-44/47/65	µg/kg	7.54	10.1	8.36	121	7.68	2.67	30	1.66	2.88	56.2
PCB-45/51	PCB-45/51	µg/kg	0.957	0.851	0.863	6.27	0.914	0.397	3.53	0.197	0.403	3.61
PCB-46	41464-47-5	µg/kg	0.17	0.153	0.0375	0.118	0.158	0.0357	0.786	0.0228	0.0450	0.744
PCB-48	70362-47-9	µg/kg	0.72	1.23	0.148	0.382	0.784	0.143	2.84	0.102	0.179	5.75
PCB-49/69	PCB-49/69	µg/kg	5.26	7.93	2.01	17.1	5.5	1.57	18.8	0.852	1.82	40.4
PCB-50/53	PCB-50/53	µg/kg	0.652	0.597	0.564	4.43	0.598	0.225	2.47	0.179	0.287	2.82
PCB-52	35693-99-3	µg/kg	7.9	11.7	2.08	6.56	8.14	2.06	29.3	1.22	2.65	60
PCB-54	15968-05-5	µg/kg	0.126	0.0641	0.803	4.22	0.11	0.107	0.182	0.0722	0.101	0.0733
PCB-55	74338-24-2	µg/kg	< 0.00350 U	< 0.0154 U	< 0.00429 U	< 0.0200 U	< 0.0166 U	< 0.000842 U	< 0.0151 U	< 0.00257 U	< 0.00126 U	< 0.0443 U
PCB-56	41464-43-1	µg/kg	1.74	2.32	0.202	0.42	1.59	0.351	3.38	0.172	0.387	3.77
PCB-57	70424-67-8	µg/kg	0.0326	0.0438 JN	0.0133	0.158	0.0258	0.00662	0.0987	0.00526	0.00769	0.197
PCB-58	41464-49-7	µg/kg	0.0222	0.0205	< 0.00411 U	< 0.0195 U	0.0196	0.0209	0.0733	0.0138	0.0120	0.0842
PCB-59/62/75	PCB-59/62/75	µg/kg	0.502	0.696	0.271	3.27	0.52	0.147	1.92	0.0948	0.167	3.31
PCB-60	33025-41-1	µg/kg	2.29	4.94	0.416	0.341	2.57	0.285	7.44	0.255	0.388	28
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	7.18	11	2.02	3.3	7.54	2.25	22.4	1.33	2.59	64.2
PCB-63	74472-34-7	µg/kg	0.412	0.828	0.132	0.362	0.503	0.0876	1.67	0.0770	0.118	5.8
PCB-64	52663-58-8	µg/kg	3.22	5.56	0.527	0.672	3.13	0.562	11.9	0.36	0.742	28.6
PCB-66	32598-10-0	µg/kg	8.56	17.3	2.22	4.26	10.4	1.65	33.9	1.39	2.04	111
PCB-67	73575-53-8	µg/kg	0.105	0.122	0.0236	0.15	0.104	0.0356	0.286	0.0188	0.0430	0.382
PCB-68	73575-52-7	µg/kg	0.0685	0.0393	0.195	2.7	0.0591	0.0553	0.215	0.0434	0.0543	0.154
PCB-72	41464-42-0	µg/kg	0.0895	0.0921	0.0656	0.32	0.0935	0.0528	0.294	0.0360	0.0533	0.312
PCB-73	74338-23-1	µg/kg	0.13	< 0.000204 U	0.126	1.86	0.126	0.0252	0.347	< 0.000360 U	< 0.0000724 U	< 0.000378 U
PCB-77	32598-13-3	µg/kg	0.344	0.486	0.0772	0.0948	0.313	0.0956	0.504	0.0456	0.132	2.74
PCB-78	70362-49-1	µg/kg	< 0.00347 U	< 0.0148 U	< 0.00410 U	< 0.0193 U	< 0.0164 U	< 0.000790 U	< 0.0154 U	< 0.00247 U	< 0.00119 U	< 0.0437 U
PCB-79	41464-48-6	µg/kg	0.0837	0.0933	0.0301	0.267	0.0930	0.0386	0.337	0.0345 JN	0.0406	0.56
PCB-80	33284-52-5	µg/kg	< 0.00306 U	< 0.0134 U	< 0.00376 U	< 0.0174 U	< 0.0147 U	< 0.000729 U	< 0.0142 U	< 0.00223 U	< 0.00108 U	< 0.0398 U
PCB-81	70362-50-4	µg/kg	0.0173	0.0241	0.00370	< 0.0181 U	0.0186	0.00424 JN	0.0316	< 0.00233 U	0.00616 JN	0.19
PCB-82	52663-62-4	µg/kg	0.653	0.665	0.121	0.589	0.629	0.267	2.36	0.157	0.3	3.83
PCB-83/99	PCB-83/99	µg/kg	8.21	10.7	6.25	68	9.52	4.58	22.1	3.51	4.92	54.5
PCB-84	52663-60-2	µg/kg	1.16	0.949	0.263	2.22	1.15	0.566	3.93	0.286	0.647	4.97
PCB-85/116/117	PCB-85/116/117	µg/kg	2.25	4	1.12	4.75	2.74	1.05	6.98	0.832	1.27	17.5
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	5.51	6.41 J	2.04 J	17.3	5.86	2.73	15.5 J	1.69 J	2.96	28.9 J
PCB-88/91	PCB-88/91	µg/kg	1.36	1.27	0.532	9.26	1.27	0.799	3.86	0.437	0.804	6.07
PCB-89	73575-57-2	µg/kg	0.0581	0.0841	0.0105	0.0540	0.0628	0.0147	0.297	0.00877	0.0167	0.497
PCB-90/101/113	PCB-90/101/113	µg/kg	10.3	11.3	5.94	64.9	10.8	6.35	24.6	3.9	6.31	43.8
PCB-92	52663-61-3	µg/kg	1.92	2.2	1.14	13.9	2	1.26	4.17	0.803	1.29	7.15
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	5.25	4.59	4.05	74.7	5.08	3.25	13.5	1.94	3.37	18.4
PCB-94	73575-55-0	µg/kg	0.0464	0.0288	0.0385	0.926	0.0451	0.0327	0.127	0.0153	0.0316	0.131
PCB-96	73575-54-9	µg/kg	0.0547	0.0611	0.0377	0.342	0.0583	0.0299	0.184	0.0136	0.0310	0.242
PCB-103	60145-21-3	µg/kg	0.203	0.118	0.28	7.8	0.174	0.187	0.294	0.103	0.159	0.298
PCB-104	56558-16-8	µg/kg	0.0173	0.00684	0.0442 JN	0.703	0.0158	0.0169	0.0252	0.00518 JN	0.0142	0.0108
PCB-105	32598-14-4	µg/kg	3.79	6.62	1.74	4.33	4.34	1.63	9.81	1.4	1.88	29.2
PCB-106	70424-69-0	µg/kg	< 0.0214 U	< 0.0222 U	< 0.0104 U	0.0638	< 0.0212 U	< 0.00686 U	< 0.00451 U	< 0.00716 U	< 0.00755 U	< 0.0749 U
PCB-107/124	PCB-107/124	µg/kg	0.287	0.388	0.137	0.453	0.287	0.166	0.493	0.0919	0.163	0.877
PCB-109	74472-35-8	µg/kg	0.812	1.15	0.583	1.62	0.97	0.535	2.17	0.426	0.565	5.93
PCB-110/115	PCB-110/115	µg/kg	8.26	9.65	2.77	13.8	8.45	4.52	22.7	2.8	5.08	38.8
PCB-111	39635-32-0	µg/kg	0.0134 JN	0.0122 JN	0.0311	0.256	0.0210	0.0167	0.0242	0.0170	0.0169	0.0290
PCB-112	74472-36-9	µg/kg	< 0.00296 U	< 0.00205 U	< 0.00190 U	3.33	< 0.00398 U	< 0.00182 U	< 0.00688 U	< 0.000977 U	< 0.00177 U	< 0.00636 U
PCB-114	74472-37-0	µg/kg	0.275	0.482	0.151	0.188 JN	0.345	0.12	0.796	0.114	0.148	2.98
PCB-118	31508-00-6	µg/kg	8.81	14.1	5.86	18.9	10.6	5.03	22.1	4.47	6.25	55.1
PCB-120	68194-12-7	µg/kg	0.0555	0.0515	0.0855	0.634	0.0739	0.0625	0.0921	0.0602	0.0653	0.139

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB041	SMB042	SMB043	SMB044	SMB045	SMB046	SMB047	SMB048	SMB049	SMB050
		Sample ID	PDI-TF-SMB041	PDI-TF-SMB042	PDI-TF-SMB043	PDI-TF-SMB044	PDI-TF-SMB045	PDI-TF-SMB046	PDI-TF-SMB047	PDI-TF-SMB048	PDI-TF-SMB049	PDI-TF-SMB050
		Sample Date	9/6/18	8/20/18	8/20/18	8/20/18	9/7/18	8/18/18	9/7/18	8/23/18	8/18/18	8/23/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.0173	0.00963	0.0671	1.69	0.0138	0.0198	0.0175	0.0159	0.0162	0.0129
PCB-122	76842-07-4	µg/kg	0.0651	0.0759	0.0256	0.0803	0.0680	0.0358	0.144	0.0220	0.0395	0.412
PCB-123	65510-44-3	µg/kg	0.179	0.341	0.109	0.404	0.203	0.0789 JN	0.495	0.0827	0.106 JN	1.67
PCB-126	57465-28-8	µg/kg	0.0365 JN	0.0266 JN	0.0309 JN	0.0892 JN	0.0277 JN	0.0164 JN	0.0388 JN	0.00832 JN	0.0823 JN	0.147 JN
PCB-127	39635-33-1	µg/kg	< 0.0239 U	< 0.0227 U	0.0184	0.196	< 0.0241 U	0.0122	0.0359	0.0157	0.0173	< 0.0792 U
PCB-128/166	PCB-128/166	µg/kg	2.18	2.48	1.51	14	2.34	1.47 J	3.08	1.64	1.73	5.57
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	19.3	17.5	26.9	293	18.8	13.1	23.3	14	15.7	59.2
PCB-130	52663-66-8	µg/kg	0.779	0.683	0.825	8.4	0.748	0.615	1.17	0.571	0.66	1.82
PCB-131	61798-70-7	µg/kg	0.0684	0.0437	0.0338	1.06	0.0661	0.0605	0.151	0.0296	0.0498	0.163
PCB-132	38380-05-1	µg/kg	2.39	1.37	1.28	32.5	2.19	1.92	3.83	1.26	1.63	4.22
PCB-133	35694-04-3	µg/kg	0.321	0.33	0.662	6.18	0.371	0.313	0.406	0.32	0.326	0.789
PCB-134/143	PCB-134/143	µg/kg	0.428	0.255	0.339	8.03	0.373	0.306	0.645	0.216	0.273	0.743
PCB-135/151/154	PCB-135/151/154	µg/kg	4.61	3.45	5.06	109	4.3	3.82	6.01	3.06	4.12	11.2
PCB-136	38411-22-2	µg/kg	0.811	0.574	0.733	13.6	0.883	0.783	1.32	0.467	0.671	1.49
PCB-137	35694-06-5	µg/kg	0.579	0.847	0.776	6.38	0.675	0.45	1.15	0.455	0.544	1.99
PCB-139/140	PCB-139/140	µg/kg	0.231	0.268	0.228	2.35	0.245	0.186	0.394	0.156	0.171	0.572
PCB-141	52712-04-6	µg/kg	2.81	2.09	2.47	63.5	2.32	1.68	3.23	1.53	1.87	7.51 J
PCB-142	41411-61-4	µg/kg	< 0.0258 U	< 0.0115 U	< 0.00837 U	< 0.111 U	< 0.0267 U	< 0.00501 U	0.0340	< 0.0204 U	< 0.0121 U	< 0.0461 U
PCB-144	68194-14-9	µg/kg	0.494	0.34	0.447	12.9	0.423	0.39	0.696	0.302	0.393	1.14
PCB-145	74472-40-5	µg/kg	0.00178 JN	0.00202 JN	0.00226 J	0.0375	< 0.000364 U	0.00151 JN	0.00690	0.000667 J	0.000974	0.00623
PCB-146	51908-16-8	µg/kg	3.52	3.22	6.43	60.1	4.21	2.75	4.27	3.52	3.19	10.1
PCB-147/149	PCB-147/149	µg/kg	9.49	4.5	8	198	7.9	7.69	12.7	6.2	6.4	15.4
PCB-148	74472-41-6	µg/kg	0.0593	0.0374	0.103	1.55	0.0572	0.0683	0.0680	0.0561	0.0565	0.0593
PCB-150	68194-08-1	µg/kg	0.0457	0.0165	0.0403	1.19	0.0359	0.0495	0.0484	0.0260	0.0309	0.0279
PCB-152	68194-09-2	µg/kg	0.0168	0.00901	0.0211	0.676	0.0133	0.0172	0.0228	0.00781	0.0102	0.0178
PCB-153/168	PCB-153/168	µg/kg	20.4	18.9	42	595	22.4	15.5	24.2	17.7	18.2	70.2
PCB-155	33979-03-2	µg/kg	0.0202	0.0122	0.0696	1.63	0.0164 JN	0.0204	0.0165	0.0162	0.0160	0.0163
PCB-156/157	PCB-156/157	µg/kg	1.35	1.76	2.56	24.8	1.32	1.02	1.88	1.08	1.4	4.4
PCB-158	74472-42-7	µg/kg	1.36	1.42	1.46	25.1	1.32	0.983	1.78	0.977	1.17	3.64
PCB-159	39635-35-3	µg/kg	0.154	0.0560	0.172	5.36	0.0965	0.0851	< 0.0146 U	0.114	< 0.00830 U	< 0.0333 U
PCB-161	74472-43-8	µg/kg	< 0.0172 U	< 0.00803 U	< 0.00592 U	< 0.0770 U	< 0.0195 U	< 0.00348 U	< 0.0139 U	< 0.0136 U	< 0.00797 U	< 0.0326 U
PCB-162	39635-34-2	µg/kg	0.0408 JN	0.0517	0.0650	0.431	0.0371	0.0323	0.0564	0.0250	0.0375	0.0975
PCB-164	74472-45-0	µg/kg	0.785	0.596	0.848	13.8	0.661	0.548	0.901	0.521	0.595	1.76
PCB-165	74472-46-1	µg/kg	< 0.0205 U	0.0127 JN	0.0396	0.462	< 0.0219 U	0.0172	0.0164	0.0160	0.0148	< 0.0380 U
PCB-167	52663-72-6	µg/kg	0.559	0.613	1.2	11.9	0.551	0.473	0.75	0.524	0.628	1.77
PCB-169	32774-16-6	µg/kg	< 0.0478 U	< 0.0216 U	< 0.0514 U	< 1.43 U	< 0.0342 U	< 0.00770 U	< 0.0414 U	< 0.0221 U	< 0.0180 U	< 0.0475 U
PCB-170	35065-30-6	µg/kg	4.44	3.1	10.5	166	3.39	3.06	3.69	3.81	4.33	12.5
PCB-171/173	PCB-171/173	µg/kg	1.37	0.929	2	51.2	0.953	1.05	1.17	1.1	1.39	4.87
PCB-172	52663-74-8	µg/kg	0.836	0.611	1.86	36.5	0.62	0.648	0.729	0.741	0.944	3.28
PCB-174	38411-25-5	µg/kg	2.88	1.08	3.47	125	1.53	2.19	2.58	2.03	2.1	5.96
PCB-175	40186-70-7	µg/kg	0.18	0.12	0.38	7.71	0.126	0.158	0.169	0.162	0.183	0.577
PCB-176	52663-65-7	µg/kg	0.35	0.115	0.251	13.9	0.21	0.278	0.329	0.226	0.229	0.555
PCB-177	52663-70-4	µg/kg	1.95	1.09	4.52	94.7	1.22	2.04	1.72	1.65	2.1	4.67
PCB-178	52663-67-9	µg/kg	1.1	0.824	2.47	39	0.964	1	1.06	0.97	1.25	3.89
PCB-179	52663-64-6	µg/kg	1.06	0.635	1.28	34.4	0.928	1.02	1.13	0.791	0.954	2.26
PCB-180/193	PCB-180/193	µg/kg	13.6	10.1	41.5	494	11	9.95	11	13.3	14.4	44
PCB-181	74472-47-2	µg/kg	0.0617	0.0867	0.0817	1.26	0.112	0.0341	0.801	0.0313	0.0435	1.16
PCB-182	60145-23-5	µg/kg	< 0.000625 U	0.0283 JN	0.0714	0.494	0.0271	0.0254	0.0332	< 0.000666 U	0.0308	< 0.00110 U
PCB-183/185	PCB-183/185	µg/kg	3.64	2.57	7.53	146	2.76	2.98	3.39	3	3.82	14.2
PCB-184	74472-48-3	µg/kg	0.0133	0.0133	0.0135	0.0848	0.0155	0.0163	0.0208	0.0117	0.0130	0.0293
PCB-186	74472-49-4	µg/kg	< 0.000515 U	< 0.000485 U	< 0.000255 U	< 0.00287 U	< 0.000456 U	< 0.000238 U	0.00888	< 0.000574 U	< 0.000129 U	< 0.000882 UJ
PCB-187	52663-68-0	µg/kg	8.37	5.79	21.6	390	8.44	6.37 J	8.41	8.81	9.25	34.4
PCB-188	74487-85-7	µg/kg	0.0147	0.0116	0.0636	0.573	0.0164	0.0208	0.0183	0.0221	0.0192	0.0217
PCB-189	39635-31-9	µg/kg	0.133	0.0954	0.386	6.68	0.106	0.103	0.119	0.13	0.149	0.388
PCB-190	41411-64-7	µg/kg	0.985	0.685	2.38	42.9	0.757	0.682	0.933	0.775	1.15	4.81

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB041	SMB042	SMB043	SMB044	SMB045	SMB046	SMB047	SMB048	SMB049	SMB050
		Sample ID	PDI-TF-SMB041	PDI-TF-SMB042	PDI-TF-SMB043	PDI-TF-SMB044	PDI-TF-SMB045	PDI-TF-SMB046	PDI-TF-SMB047	PDI-TF-SMB048	PDI-TF-SMB049	PDI-TF-SMB050
		Sample Date	9/6/18	8/20/18	8/20/18	8/20/18	9/7/18	8/18/18	9/7/18	8/23/18	8/18/18	8/23/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.198	0.143	0.514	8.54	0.154	0.145	0.167	0.176	0.226	0.907
PCB-192	74472-51-8	µg/kg	< 0.000595 U	< 0.000527 U	< 0.000274 U	< 0.00313 U	< 0.000547 U	< 0.000259 U	0.00191 JN	< 0.000626 U	< 0.000142 U	< 0.00101 U
PCB-194	35694-08-7	µg/kg	2.24	1.32	6.2	107	1.26 J	1.04	1.68	1.61	1.96	4.23 J
PCB-195	52663-78-2	µg/kg	0.934	0.575	2.49	43.5	0.721	0.632	0.861	0.847	0.931	2.99
PCB-196	42740-50-1	µg/kg	1.1	0.708	3.21	57.3	0.847	0.903	0.921	1.17	1.29	3.53
PCB-197/200	PCB-197/200	µg/kg	0.227	0.124	0.43	10.2	0.17	0.198 J	0.285	0.198	0.211 J	0.643
PCB-198/199	PCB-198/199	µg/kg	2.19	1.46	6.22	101	1.82	2	2.12	2.22	2.79	7.97
PCB-201	40186-71-8	µg/kg	0.233	0.154	0.722	11.4	0.172	0.232	0.231	0.248	0.259	0.691
PCB-202	2136-99-4	µg/kg	0.558	0.453	1.45	15.3	0.518	0.453	0.617	0.521	0.609	1.43
PCB-203	52663-76-0	µg/kg	1.52	1.16	3.37	61.1	1.34	1.35	1.74	1.48	2.06	5.87
PCB-204	74472-52-9	µg/kg	0.00211 J	0.00318	0.00305	0.0194	0.00416 JN	0.00194	0.0271	0.00126 J	0.00186	0.0386
PCB-205	74472-53-0	µg/kg	0.102	0.0680	0.229	5.13	0.0703	0.0702	0.101	0.0821	0.11	0.303
PCB-206	40186-72-9	µg/kg	0.539	0.49	0.972	13.7	0.529	0.384	1.05	0.444	0.654	1.63
PCB-207	52663-79-3	µg/kg	0.0768	0.0677	0.178	2.03	0.0829	0.0530	0.28	0.0712	0.0876	0.311
PCB-208	52663-77-1	µg/kg	0.174	0.151	0.318	2.19	0.179	0.145	0.394	0.164	0.207	0.493
PCB-209	2051-24-3	µg/kg	0.179	0.208	0.177	0.333	0.259	0.146	0.826	0.19	0.177	0.938
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	243	258	295	4130	239	144	529	136	170	1160
Pesticides												
2,4-DDD	53-19-0	µg/kg	10.5	12.8	0.861	2.16	20.1	1.73	58.2	0.903 J	1.81	59.9 J
2,4-DDE	3424-82-6	µg/kg	1.98	3.66	0.294	0.441	3.71	0.454	8.99	0.264 J	0.749	18.0 J
2,4-DDT	789-02-6	µg/kg	7.74	6.77	0.857	0.728	13.2	0.600	32.4	0.363 J	1.27	78.8 J
4,4'-DDD	72-54-8	µg/kg	43.0	53.3	5.08	7.64	59.5	6.22	185	5.15 J	9.17	306 J
4,4'-DDE	72-55-9	µg/kg	90.3	117	39.4	53.2	131	50.9	287	42.1 J	60.7	1380 J
4,4'-DDT	50-29-3	µg/kg	54.6	56.8	10.2	5.47	48.0	3.74	187	6.07 J	11.2	696 J
DDx (a)	T_DDx (PDI)	µg/kg	208	250	56.7	69.6	276	63.6	759	54.9	84.9	2540
alpha-Chlordane	5103-71-9	µg/kg	1.64	1.21	0.913	1.02	1.47	0.993	1.43	0.665 J	1.64	1.06 J
cis-Nonachlor	5103-73-1	µg/kg	1.56	1.29	1.31	1.23	1.73	1.34	1.66	1.05 J	1.86	1.24 J
Oxychlordane	27304-13-8	µg/kg	0.831	0.617	0.654	0.400 J	0.763	0.412	0.734	0.336 J	0.971	0.492 J
trans-Chlordane	5103-74-2	µg/kg	0.617	0.399 J	0.253 J	0.364 J	0.543	0.379	0.533	0.245 J	0.552	0.398 J
trans-Nonachlor	39765-80-5	µg/kg	4.29	3.56	3.64	3.21	4.49	3.35	4.25	2.67 J	5.24	3.35 J
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	8.94	7.08	6.77	6.22	9	6.47	8.61	4.97	10.3	6.54
Aldrin	309-00-2	µg/kg	0.029 J	0.012 J	0.010 J	0.012 JN	0.027 JN	0.016 J	0.027 JN	0.009 JN	0.017 JN	0.016 J
Dieldrin	60-57-1	µg/kg	2.17	1.68	0.951	1.28	1.64	1.26	1.58	0.773 J	1.87	1.11 J
Metals												
Arsenic	7440-38-2	mg/kg	0.24	0.18	0.17	0.23	0.22	0.23	0.23	0.15	0.19	0.18
Mercury	7439-97-6	mg/kg	0.110 J	0.097 J	0.157 J	0.137 J	0.109 J	0.093 J	0.134 J	0.085 J	0.122 J	0.132 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	210 J	< 20000 U	< 20000 U	310 J	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	2.27	2.10	1.18	1.12	2.13	1.14	3.35	0.779 J	1.71	7.19 J
Pentachlorophenol (c)	87-86-5	µg/kg	< 990 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00491 J	0.00313 J	0.00171 JN	0.00267 J	0.00310 J	0.00349 J	0.00366 J	0.00227 J	0.00372 J	0.00273 J
PBDE-8/11	PDBE-8/11	µg/kg	0.00462 J	0.00304 J	0.00229 J	0.00310 J	0.00382 J	0.00275 JN	0.00332 J	0.00208 JN	0.00365 JN	0.00254 J
PBDE-10	51930-04-2	µg/kg	< 0.000379 U	< 0.000333 U	< 0.000268 U	< 0.000460 U	< 0.000904 U	< 0.000444 U	< 0.000608 U	< 0.000454 U	< 0.000145 U	< 0.000514 U
PBDE-12/13	PBDE-12/13	µg/kg	0.0145 JN	0.00141 J	0.00101 JN	0.00200 JN	0.00722 JN	0.0223 JN	0.0117 JN	0.00814 JN	0.0214 JN	0.0123 JN
PBDE-15	2050-47-7	µg/kg	0.0227	0.0149	0.0126 J	0.0127 J	0.0165	0.0127 J	0.0164	0.00944 J	0.0199	0.0120 J
PBDE-17/25	PBDE-17/25	µg/kg	0.188 JN	0.112 JN	0.0623 JN	0.103 JN	0.149 JN	0.109 JN	0.152 JN	0.0821 JN	0.133 JN	0.0989 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.55	0.445	0.35	0.374	0.492	0.318	0.407	0.259	0.41	0.335
PBDE-30	155999-95-4	µg/kg	< 0.00278 U	< 0.00209 U	< 0.00271 U	< 0.00154 U	< 0.00386 U	< 0.00247 U	< 0.00310 U	< 0.00275 U	< 0.00328 U	< 0.00146 U
PBDE-32	189084-60-4	µg/kg	< 0.00221 U	< 0.00164 U	< 0.00212 U	< 0.00117 U	< 0.00308 U	< 0.00200 U	< 0.00246 U	< 0.00216 U	< 0.00238 U	< 0.00115 U
PBDE-35	147217-80-9	µg/kg	0.0115 JN	0.00801 JN	0.00726 JN	0.00601 J	0.00916 JN	0.00428 JN	0.00820 JN	0.00550 JN	0.00623 JN	0.00555 JN
PBDE-37	147217-81-0	µg/kg	0.0122 J	0.00883 J	0.00801 J	0.0150 JN	0.0109 J	0.00917 J	0.00954 J	0.00665 J	0.0125 J	0.00690 J
PBDE-047	5436-43-1	µg/kg	22.1	24.4	21.7	24.1	24	17.2	22.2	14.5	18.1	18.9
PBDE-49	243982-82-3	µg/kg	1.13	0.595	0.564	1.38	1.02	1.09	1.24	0.548	1.54	0.57
PBDE-51	189084-57-9	µg/kg	0.0517	0.0216	0.0161	0.0411	0.0458	0.0454	0.0570	0.0296	0.0595	0.0277

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB041	SMB042	SMB043	SMB044	SMB045	SMB046	SMB047	SMB048	SMB049	SMB050
		Sample ID	PDI-TF-SMB041	PDI-TF-SMB042	PDI-TF-SMB043	PDI-TF-SMB044	PDI-TF-SMB045	PDI-TF-SMB046	PDI-TF-SMB047	PDI-TF-SMB048	PDI-TF-SMB049	PDI-TF-SMB050
		Sample Date	9/6/18	8/20/18	8/20/18	8/20/18	9/7/18	8/18/18	9/7/18	8/23/18	8/18/18	8/23/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.25	0.278	0.251	0.232	0.261	0.297	0.234	0.179	0.272	0.195
PBDE-71	189084-62-6	µg/kg	0.0322	0.0145	0.0155	0.0206	0.0411	0.0444	0.0676	0.0331	0.0607	0.0332
PBDE-75	189084-63-7	µg/kg	0.0293	0.0235	0.0171	0.0282	0.0262	0.0248	0.0261	0.0148 J	0.0243	0.0187
PBDE-77	93703-48-1	µg/kg	0.00427 JN	0.00299 J	0.00321 JN	0.00493 J	0.00326 JN	0.00372 JN	0.00289 J	< 0.000174 U	0.00395 J	< 0.000150 U
PBDE-79	PBDE-79	µg/kg	0.0225 JN	0.0277 JN	0.0237 JN	0.0197 JN	0.0312 JN	0.0338 JN	0.0287 JN	0.0269 JN	0.0300 JN	0.0242 JN
PBDE-85	182346-21-0	µg/kg	< 0.00249 U	< 0.00231 U	< 0.00447 U	< 0.00336 U	< 0.00547 U	< 0.00486 U	< 0.00380 U	< 0.00397 U	< 0.00262 U	< 0.00415 U
PBDE-099	60348-60-9	µg/kg	4.66	3.79	5.86	5.47	5.46	5.9	4.27	4.44	6.14	3.88
PBDE-100	189084-64-8	µg/kg	4.11	3.58	3.3	5.4	4.47	4.18	3.94	3.72	3.95	4.22
PBDE-105	373594-78-6	µg/kg	< 0.00303 U	< 0.00301 U	< 0.00581 U	< 0.00418 U	< 0.00666 U	< 0.00651 U	< 0.00460 U	< 0.00523 U	< 0.00366 U	< 0.00547 U
PBDE-116	189084-65-9	µg/kg	< 0.00404 U	< 0.00376 U	< 0.00726 U	< 0.00530 U	< 0.00888 U	< 0.00818 U	< 0.00618 U	< 0.00579 U	< 0.00480 U	< 0.00604 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0994	0.109	0.0993	0.101	0.101 JN	0.0577	0.0852	0.0656	0.0880	0.0808
PBDE-126	366791-32-4	µg/kg	0.0125 J	0.00599 J	0.00963 JN	0.0210	0.0136 J	0.0150	0.0144	0.0120 J	0.00883 J	0.0153
PBDE-128	182677-28-7	µg/kg	0.00371 JN	0.00491 JN	0.00564 JN	0.00362 JN	0.00404 JN	0.00347 JN	< 0.000419 U	0.00464 JN	0.00831 JN	0.00531 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00112 J	0.000817 J+	0.00188 JN	0.00166 JN	0.000800 J	0.000917 JN	0.000618 J+	< 0.00106 U	0.00196 JN	0.00122 JN
PBDE-140	243982-83-4	µg/kg	0.0102 J	0.00637 J	0.0153 J	0.00995 J	0.0134 J	0.0103 J	0.00757 J	0.0117 J	0.0142 J	0.00907 J
PBDE-153	68631-49-2	µg/kg	0.975	1.06	1.13	1.15	1.34	0.906	0.721	0.851	1.12 J	0.988
PBDE-154	207122-15-4	µg/kg	0.922 J	0.818	0.865 J	1.21	1.1 J	0.827 J	0.84	0.715	0.932 J	1
PBDE-155	35854-94-5	µg/kg	0.115 J	0.0534	0.0744 J	0.174	0.114 J	0.112 J	0.124	0.0876	0.0702 J	0.103
PBDE-181	189084-67-1	µg/kg	0.000465 J	0.000991 JN	< 0.000177 U	< 0.000160 U	0.000276 JN	0.000447 JN	< 0.000143 U	< 0.000174 U	0.000899 J	< 0.00124 U
PBDE-183	207122-16-5	µg/kg	0.00903 J	0.00540 JN	0.0119 J	0.00673 JN	0.00660 J	0.00706 JN	0.00497 JN	0.00767 J	0.0124 J	0.00719 JN
PBDE-190	189084-68-2	µg/kg	0.000359 JN	0.000595 JN	0.00111 JN	< 0.000243 U	0.000288 JN	0.000692 JN	< 0.000143 U	< 0.000191 U	< 0.000161 U	< 0.000255 U
PBDE-203	337513-72-1	µg/kg	0.00293 JN	< 0.000601 U	0.00281 J+	0.00210 J+	0.00176 JN	0.00120 JN	0.000370 J	< 0.00109 U	0.00226 JN	< 0.000209 U
PBDE-206	63387-28-0	µg/kg	0.00124 JN	< 0.000651 U	< 0.00189 U	< 0.00245 U	0.00190 JN	0.00241 JN	0.00143 JN	< 0.00188 U	< 0.00115 U	< 0.000524 U
PBDE-207	437701-79-6	µg/kg	0.00461 JN	0.00362 JN	< 0.00242 U	0.00419 JN	0.00226 JN	0.00139 JN	0.00243 JN	< 0.00120 U	0.00209 JN	< 0.000637 U
PBDE-208	437701-78-5	µg/kg	0.00361 J	< 0.00385 U	< 0.000512 U	< 0.00297 U	0.00355 JN	0.00273 JN	0.00375 JN	< 0.00293 U	0.000622 JN	< 0.000777 U
PBDE-209	1163-19-5	µg/kg	0.0460 JN	< 0.0281 U	< 0.0320 U	0.0651 JN	0.0554 J+	0.0208 J+	0.0326 JN	< 0.0183 U	0.0193 J+	< 0.0205 U
Total PBDE (a)	T_PBDE (PDI)	µg/kg	35.4	35.4	34.4	40	38.8	31.3	34.5	25.6	33.1	30.6

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	3	3	3	3	3	3	3	3	3	3
		Location	SMB041	SMB042	SMB043	SMB044	SMB045	SMB046	SMB047	SMB048	SMB049	SMB050
		Sample ID	PDI-TF-SMB041	PDI-TF-SMB042	PDI-TF-SMB043	PDI-TF-SMB044	PDI-TF-SMB045	PDI-TF-SMB046	PDI-TF-SMB047	PDI-TF-SMB048	PDI-TF-SMB049	PDI-TF-SMB050
		Sample Date	9/6/18	8/20/18	8/20/18	8/20/18	9/7/18	8/18/18	9/7/18	8/23/18	8/18/18	8/23/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	7.76	5.78	4.68	5.26	6.05	5.35	5.16	3.57	5.93	3.68
Total Solids@104C	TSOLID	%	27.5	27.7	26.3	26.3	27.8	26.5	26.0	25.6	27.8	25.5

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	2	2	2	2	SIL	SIL	2	SIL	2	SIL
		Location	SMB051	SMB052	SMB053	SMB054	SMB055	SMB056	SMB057	SMB058	SMB059	SMB060
		Sample ID	PDI-TF-SMB051	PDI-TF-SMB052	PDI-TF-SMB053	PDI-TF-SMB054	PDI-TF-SMB055	PDI-TF-SMB056	PDI-TF-SMB057	PDI-TF-SMB058	PDI-TF-SMB059	PDI-TF-SMB060
		Sample Date	8/22/18	8/18/18	8/22/18	8/23/18	8/22/18	8/22/18	8/17/18	8/22/18	9/6/18	9/7/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.00288 JN	0.000223 J	0.000168 J	0.00140 J	0.00145 JN	0.000380 JN	0.000217 J	< 0.000142 U	0.0000887 JN	0.00725
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	0.000512 J	< 0.0000715 U	0.000102 J	0.000133 J	0.000103 JN	< 0.0000868 U	< 0.0000744 U	< 0.0000724 U	< 0.0000717 U	0.000706 J
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000848 U	< 0.0000715 U	< 0.0000663 U	< 0.0000728 U	< 0.0000732 U	< 0.0000868 U	< 0.0000744 U	< 0.0000724 U	< 0.0000717 U	< 0.0000696 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.00107 JN	< 0.0000715 U	0.000138 J	0.000431 J	0.000186 J	0.000131 JN	< 0.0000744 U	0.000119 J	< 0.0000717 U	0.000509 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.00519	0.00423	0.000125 J	0.000758 J	0.000645 J	0.000171 JN	0.000101 JN	< 0.0000724 U	0.000196 J	0.000957 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.0104	0.000296 JN	0.000440 J	0.00150	0.00202	0.000708 J	0.000177 JN	0.000422 JN	0.000268 J	0.00274
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.00153 J	0.000661 J	0.0000804 JN	0.000449 J	0.000180 JN	< 0.000153 U	< 0.0000744 U	< 0.0000724 U	0.0000773 JN	0.000263 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.000608 J	< 0.0000715 U	< 0.0000663 U	0.000394 J	0.000186 J	< 0.0000868 U	< 0.0000744 U	< 0.0000770 U	< 0.0000717 U	0.000436 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	0.000198 J	< 0.0000715 U	< 0.0000663 U	< 0.0000728 U	< 0.0000736 U	< 0.000180 U	< 0.0000744 U	< 0.0000724 U	< 0.0000717 U	< 0.0000696 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00927	0.000304 JN	0.000432 J	0.00169	0.000782 JN	0.000919 J	0.000266 JN	0.000579 J	0.000505 JN	0.00125 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0100	0.00759	0.000271 J	0.00190	0.000397 J	0.000310 JN	0.000465 JN	0.000145 J	0.000418 J	0.000614 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	0.000838 J	< 0.0000715 U	< 0.0000663 U	0.000199 J	0.000165 JN	< 0.000161 U	< 0.0000744 U	< 0.0000724 U	< 0.0000717 U	0.000151 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.0252	0.00304	0.000451 J	0.00151	0.00128 J	0.000695 JN	0.000455 J	0.000370 JN	0.00115 J	0.00148
2,3,7,8-TCDD	1746-01-6	µg/kg	0.00144	0.000252 J	0.000382	0.000518	0.000306	0.000467	0.000219 J	0.000323	0.000302	0.000596
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00455	0.0108	0.00195	0.00393	0.00101	0.00100	0.00217	0.000712	0.00673	0.00194
OCDD	3268-87-9	µg/kg	0.00356	0.000167 J	< 0.000128 U	0.000995 J	0.000595 JN	0.000346 JN	0.000298 JN	0.000572 J	0.000200 J	0.0185
OCDF	39001-02-0	µg/kg	0.000129 JN	< 0.0000715 U	< 0.0000975 U	< 0.0000728 U	< 0.0000732 U	0.000114 JN	< 0.0000744 U	< 0.0000724 U	< 0.0000717 U	0.000305 JN
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.021	0.0033	0.00124	0.0035	0.00194	0.00182	0.000886	0.00115	0.0019	0.0031
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	µg/kg	0.021	0.00312	0.00123	0.0035	0.0015	0.00166	0.000708	0.00105	0.00163	0.00244
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.0209	0.00296	0.00123	0.0035	0.00111	0.00156	0.000575	0.00099	0.00138	0.00182
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00853	0.00491	0.0384	0.00485	0.00456	0.00617	0.00884	0.00423 JN	0.0798	0.0702
PCB-2	2051-61-8	µg/kg	0.000780 JN	0.000877 J+	0.00508	0.000951 JN	0.00111 J+	0.00116 J	0.00103	0.000888 JN	0.00252 JN	0.00525
PCB-3	2051-62-9	µg/kg	0.00239 JN	0.00206 J+	0.0387	0.00169 JN	0.00245 JN	0.00223 JN	0.00260 J+	0.00139 J+	0.00857	0.0211
PCB-4	13029-08-8	µg/kg	0.15	0.119	0.698	0.125	0.145	0.244	0.183	0.148	0.937	1.1
PCB-5	16605-91-7	µg/kg	< 0.00144 U	0.000967 JN	0.00239	< 0.00166 U	< 0.00396 U	< 0.00128 U	0.00131	< 0.00136 U	0.00476 JN	< 0.00352 U
PCB-6	25569-80-6	µg/kg	0.0157	0.0203	0.149	0.0207	0.0113	0.0114	0.0267	0.00880	0.153	0.0364
PCB-7	33284-50-3	µg/kg	0.00224 J	0.00309	0.0108	0.00332	< 0.00367 U	0.00308 JN	0.00570	0.00206 J	0.0125	0.00919
PCB-8	34883-43-7	µg/kg	0.0637	0.0934	0.364	0.0809	0.0552	0.0545	0.1	0.0406	0.467	0.148
PCB-9	34883-39-1	µg/kg	0.00476	0.00509	0.0231	0.00579	0.00458	0.00417 JN	0.00727	0.00294 JN	0.0391	0.0105
PCB-10	33146-45-1	µg/kg	0.00915	0.00564	0.0248	0.00571	0.00880	0.00918	0.0121	0.00670	0.0482	0.0547
PCB-11	2050-67-1	µg/kg	0.0157	0.0604	0.387	0.0415	0.0479	0.0418	0.0594	0.0270	0.0884	0.0393
PCB-12/13	PCB-12/13	µg/kg	< 0.00136 U	0.00206	0.0174	0.00311 JN	< 0.00373 U	0.00240 JN	0.00311	0.00235 J	0.0109	0.0116
PCB-14	34883-41-5	µg/kg	< 0.00135 U	< 0.000208 U	0.000342 J	< 0.00154 U	< 0.00365 U	< 0.00119 U	0.000178 J	< 0.00121 U	< 0.00213 U	< 0.00325 U
PCB-15	2050-68-2	µg/kg	0.00725	0.0219	0.204	0.0180	0.0163	0.0179	0.0386	0.0119	0.191	0.0617
PCB-16	38444-78-9	µg/kg	0.0481	0.129	0.204	0.0993	0.0451	0.0393	0.0995	0.0390	0.75	0.0908
PCB-17	37680-66-3	µg/kg	0.144	0.248	0.977	0.213	0.187	0.291	0.236	0.293	1.18	1.49
PCB-18/30	PCB-18/30	µg/kg	0.145	0.389	1.07	0.305	0.137	0.14	0.36	0.137	3.12	0.311
PCB-19	38444-73-4	µg/kg	0.33	0.283	0.582	0.268	0.429	0.682	0.317	0.5	1.17	3.6
PCB-20/28	PCB-20/28	µg/kg	0.429	1.53	3.9	0.797	0.492	0.464	1.19	0.441	13.2	1.34
PCB-21/33	PCB-21/33	µg/kg	0.0910	0.274	0.466	0.178	0.0914	0.102	0.196	0.0939	0.918	0.316
PCB-22	38444-85-8	µg/kg	0.0745	0.257	0.565	0.164	0.0892	0.0707	0.237	0.0786	3.11	0.162
PCB-23	55720-44-0	µg/kg	< 0.000919 U	0.000795	< 0.00320 U	< 0.00114 U	< 0.00142 U	< 0.000721 U	0.00103	< 0.000896 U	< 0.0146 U	< 0.00207 U
PCB-24	55702-45-9	µg/kg	0.00170 J	0.00441	0.0147	0.00558	0.00273 JN	0.00317 J	0.00585	0.00282 J	0.118	0.00878
PCB-25	55712-37-3	µg/kg	0.0271	0.0749	0.201	0.0472	0.0419	0.0453	0.0651	0.0438	0.316	0.137
PCB-26/29	PCB-26/29	µg/kg	0.0628	0.164	0.571	0.119	0.0708	0.0668	0.16	0.0623	1.36	0.131
PCB-27	38444-76-7	µg/kg	0.0362	0.0583	0.209	0.0478	0.0446	0.0656	0.0626	0.0599	0.442	0.321
PCB-31	16606-02-3	µg/kg	0.165	0.59	1.55	0.391	0.249	0.207	0.564	0.22	5.14	0.411
PCB-32	38444-77-8	µg/kg	0.0742	0.331	1.07	0.137	0.0803	0.122	0.205	0.119	2.77	0.749
PCB-34	37680-68-5	µg/kg	0.00218 J	0.00743	0.0294	0.00580	0.00246 J	0.00279 JN	0.00613	0.00291	0.0301	0.00791
PCB-35	37680-69-6	µg/kg	< 0.000902 U	< 0.000731 U	< 0.00323 U	< 0.00112 U	< 0.00147 U	< 0.000717 U	< 0.000531 U	0.000958 JN	< 0.0142 U	< 0.00202 U
PCB-36	38444-87-0	µg/kg	< 0.000845 U	< 0.000667 U	< 0.00302 U	0.0630 JN	< 0.00133 U	< 0.000648 U	< 0.000515 U	0.0561 JN	< 0.0132 U	< 0.00191 U
PCB-37	38444-90-5	µg/kg	0.0247	0.0763	0.307	0.0692	0.0450	0.0473	0.0685	0.0327	0.478	0.0660
PCB-38	53555-66-1	µg/kg	0.00121 JN	0.00486	0.00953	0.00254 J	< 0.00132 U	0.00233 J	0.00164	0.00105 JN	< 0.0139 U	0.00382 JN

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	2	2	2	2	SIL	SIL	2	SIL	2	SIL
		Location	SMB051	SMB052	SMB053	SMB054	SMB055	SMB056	SMB057	SMB058	SMB059	SMB060
		Sample ID	PDI-TF-SMB051	PDI-TF-SMB052	PDI-TF-SMB053	PDI-TF-SMB054	PDI-TF-SMB055	PDI-TF-SMB056	PDI-TF-SMB057	PDI-TF-SMB058	PDI-TF-SMB059	PDI-TF-SMB060
		Sample Date	8/22/18	8/18/18	8/22/18	8/23/18	8/22/18	8/22/18	8/17/18	8/22/18	9/6/18	9/7/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.00306 J	0.0279	0.0296	0.00946 JN	0.00303 JN	0.00310 J	0.00735	0.00391	0.0423	0.00850
PCB-40/41/71	PCB-40/41/71	µg/kg	0.208	2.99	3.05	0.687	0.227	0.369	0.499	0.252	4.12	1.01
PCB-42	36559-22-5	µg/kg	0.146	1.81	1.86	0.403	0.185	0.217	0.368	0.189	2.49	0.491
PCB-43	70362-46-8	µg/kg	0.0230	0.267	0.327	0.0647	0.0157 JN	0.0220	0.0694	0.0210	0.384	0.0656
PCB-44/47/65	PCB-44/47/65	µg/kg	1.55	7.87	9.98	2.61	1.96	3.52	3.08	2.53	19.7	8.56
PCB-45/51	PCB-45/51	µg/kg	0.208	0.746	0.982	0.299	0.282	0.653	0.262	0.461	1.61	3.22
PCB-46	41464-47-5	µg/kg	0.0211	0.162	0.206	0.0473	0.0244	0.0308	0.0396	0.0275	0.318	0.125
PCB-48	70362-47-9	µg/kg	0.0820	0.998	0.783	0.249	0.0765	0.0823	0.207	0.0791	1.25	0.227
PCB-49/69	PCB-49/69	µg/kg	0.898	5.36	8.16	1.86	1.2	1.97	1.73	1.38	14.4	4.19
PCB-50/53	PCB-50/53	µg/kg	0.178	0.629	0.839	0.238	0.238	0.497	0.212	0.363	1.23	1.98
PCB-52	35693-99-3	µg/kg	1.27	8.26	12.8	3.21	1.69	2.31	3.83	1.76	48.2	4.51
PCB-54	15968-05-5	µg/kg	0.0752	0.0545	0.0781	0.0476	0.0897	0.159	0.0407	0.124	0.114	0.911
PCB-55	74338-24-2	µg/kg	< 0.00618 U	< 0.00312 U	0.0539	< 0.00583 U	< 0.00392 U	< 0.00507 U	0.0498	< 0.00252 U	< 0.0167 U	< 0.00349 U
PCB-56	41464-43-1	µg/kg	0.106	1.09	2.04	0.357	0.168	0.156	0.384	0.161	3.76	0.404
PCB-57	70424-67-8	µg/kg	< 0.00563 U	0.0220	0.0426	0.0134	0.00429 JN	0.00606	0.00779	0.00536	0.0431	0.00812
PCB-58	41464-49-7	µg/kg	< 0.00570 U	0.0182	0.0319	< 0.00563 U	0.0124	0.0312	0.00873	0.0210	0.0513	0.0577
PCB-59/62/75	PCB-59/62/75	µg/kg	0.0855	0.565	0.764	0.165	0.103	0.148	0.154	0.125	0.779	0.358
PCB-60	33025-41-1	µg/kg	0.247	2.81	3.18	0.594	0.187	0.213	0.471	0.145	3.31	0.361
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	1.41	7.83	13.4	3.16	1.78	2.09	3.67	1.5	39.3	3.09
PCB-63	74472-34-7	µg/kg	0.0921	0.482	0.671	0.175	0.0817	0.116	0.142	0.0758	0.711	0.149
PCB-64	52663-58-8	µg/kg	0.305	3.84	4.65	0.934	0.354	0.389	0.816	0.327	7.41	0.878
PCB-66	32598-10-0	µg/kg	1.58	9.88	13.6 J	3.42	1.55	2.01	2.93	1.34	18.5	2.64
PCB-67	73575-53-8	µg/kg	0.0165	0.0705	0.111	0.0332	0.0166	0.0193	0.0314	0.0178	0.171	0.0327
PCB-68	73575-52-7	µg/kg	0.0314	0.0522	0.0863	0.0449	0.0605	0.0999	0.0508	0.0676	0.0903	0.132
PCB-72	41464-42-0	µg/kg	0.0340	0.0900	0.146	0.0506	0.0573	0.0884	0.0469	0.0669	0.124	0.118
PCB-73	74338-23-1	µg/kg	< 0.000471 U	< 0.0000834 U	< 0.0000663 U	< 0.000799 U	0.0227 JN	0.0532	0.0407	< 0.000435 U	0.314	0.162
PCB-77	32598-13-3	µg/kg	0.0485	0.203	0.396	0.163	0.0676	0.0892	0.107	0.0563	0.383	0.0985
PCB-78	70362-49-1	µg/kg	< 0.00595 U	< 0.00293 U	< 0.00635 U	< 0.00575 U	< 0.00399 U	< 0.00491 U	< 0.00782 U	< 0.00253 U	< 0.0165 U	< 0.00356 U
PCB-79	41464-48-6	µg/kg	0.0208 JN	0.0751	0.0933	0.0629	0.0414	0.0564	0.159	0.0394	1.08	0.0618
PCB-80	33284-52-5	µg/kg	< 0.00537 U	< 0.00270 U	< 0.00581 U	< 0.00524 U	< 0.00358 U	< 0.00463 U	< 0.00732 U	< 0.00230 U	< 0.0146 U	0.00393
PCB-81	70362-50-4	µg/kg	< 0.00561 U	0.00886 JN	0.0226	0.00607 JN	0.00387 JN	< 0.00481 U	0.00669 JN	0.00301 JN	0.0266 JN	0.00606 JN
PCB-82	52663-62-4	µg/kg	0.0868	0.699	0.751	0.299	0.177	0.22	0.404	0.184	7.51	0.279
PCB-83/99	PCB-83/99	µg/kg	4.05	9.88	13.3	8.61	4.26	7.24	7.51	4.61	81.2	8.55
PCB-84	52663-60-2	µg/kg	0.182	1.03	1.27	0.546	0.418	0.544	0.763	0.436	11.7	0.713
PCB-85/116/117	PCB-85/116/117	µg/kg	0.971	3.08	4.59	2.26	0.827	1.31	2.18	0.902	21.7	1.47
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	1.34 J	6.03	6.66 J	4.32 J	2.13	3.16 J	5.1 J	2.29 J	71.1	3.91
PCB-88/91	PCB-88/91	µg/kg	0.28	1.26	1.5	0.811	0.619	0.94	0.85	0.735	10.8	1.2
PCB-89	73575-57-2	µg/kg	0.00566	0.0790	0.0726	0.0244	0.00534 JN	0.00549	0.0177	0.00734 JN	0.235	0.0187
PCB-90/101/113	PCB-90/101/113	µg/kg	3.88	10.6	12.9	9.5	5.43	9.81	9.81	6.52	115	12.9
PCB-92	52663-61-3	µg/kg	0.823	2	2.91	1.97	1.19	2.05	1.8	1.43	19.4	2.46
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	1.74	4.77	6.59	3.8	2.81	4.83	4.07	3.33	50.5	6.74
PCB-94	73575-55-0	µg/kg	0.0119 JN	0.0369	0.0399	0.0201	0.0147	0.0252	0.0182	0.0217	0.141	0.1
PCB-96	73575-54-9	µg/kg	0.0153	0.0601	0.0633	0.0283	0.0136	0.0302	0.0186	0.0208	0.162	0.0820
PCB-103	60145-21-3	µg/kg	0.0761	0.138	0.17	0.132	0.147	0.286	0.0906	0.195	0.467	0.396
PCB-104	56558-16-8	µg/kg	0.00543 JN	0.00616 JN	0.00903	0.00568 JN	0.00742	0.0134	0.00495	0.0106	0.0162	0.0636
PCB-105	32598-14-4	µg/kg	1.8	4.2	7.01	3.43	1.38	2.3	3.61	1.44	37.6	2.07
PCB-106	70424-69-0	µg/kg	< 0.0164 U	< 0.0193 U	< 0.0183 U	< 0.0170 U	< 0.00897 U	< 0.0100 U	< 0.0147 U	< 0.0142 U	< 0.109 U	< 0.0124 U
PCB-107/124	PCB-107/124	µg/kg	0.0937	0.241	0.399	0.224	0.14	0.186	0.326	0.132	3.45	0.206
PCB-109	74472-35-8	µg/kg	0.496	1.01	1.4	1.01	0.583	0.965	0.864	0.532	7.32	0.836
PCB-110/115	PCB-110/115	µg/kg	2.41	8.55	11	7.66	4.06	5.64	8.36	4.2	107	7.22
PCB-111	39635-32-0	µg/kg	0.0155	0.0123	0.0174	0.0139 JN	0.0170	0.0331	0.0107 JN	0.0199	< 0.0196 U	0.0359
PCB-112	74472-36-9	µg/kg	< 0.00176 U	< 0.00484 U	< 0.00138 U	< 0.00198 U	< 0.00218 U	< 0.00301 U	< 0.00321 U	< 0.00309 U	< 0.0192 U	< 0.00473 U
PCB-114	74472-37-0	µg/kg	0.156	0.311	0.541	0.253	0.111	0.186	0.284	0.105	2.59	0.158
PCB-118	31508-00-6	µg/kg	6.47	10.4	17.6	10.5	5.11	8.54	10.9	5.18	98.4	7.42
PCB-120	68194-12-7	µg/kg	0.0605	0.0621	0.0805	0.0664	0.0691	0.146	0.0335	0.0818	0.0986	0.135

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	2	2	2	2	SIL	SIL	2	SIL	2	SIL
		Location	SMB051	SMB052	SMB053	SMB054	SMB055	SMB056	SMB057	SMB058	SMB059	SMB060
		Sample ID	PDI-TF-SMB051	PDI-TF-SMB052	PDI-TF-SMB053	PDI-TF-SMB054	PDI-TF-SMB055	PDI-TF-SMB056	PDI-TF-SMB057	PDI-TF-SMB058	PDI-TF-SMB059	PDI-TF-SMB060
		Sample Date	8/22/18	8/18/18	8/22/18	8/23/18	8/22/18	8/22/18	8/17/18	8/22/18	9/6/18	9/7/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.0134 JN	0.0143	0.0129	0.0127	0.0121	0.0232	0.00930	0.0159	< 0.0198 U	0.0347
PCB-122	76842-07-4	µg/kg	< 0.0195 U	0.0428 JN	0.0753	0.0249	0.0203	0.0309	0.0518 JN	0.0174	0.672	0.0447
PCB-123	65510-44-3	µg/kg	0.0984	0.192 JN	0.372	0.165	0.0845 JN	0.145 JN	0.19 JN	0.0918 JN	1.44	0.0992
PCB-126	57465-28-8	µg/kg	< 0.0179 U	0.0255 JN	0.0333 JN	0.0242 JN	0.0191 JN	0.0302 JN	0.0170 JN	0.0167 JN	< 0.138 U	0.0552 JN
PCB-127	39635-33-1	µg/kg	0.0307	0.0218	0.0208 JN	0.0348	0.0154 JN	0.0327	0.0280	0.0182	0.298	0.0323
PCB-128/166	PCB-128/166	µg/kg	2.81	2.49	2.8	2.76	2.07	4.11	2.26	2.74	26.1	4.53
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	29.3	22.1	21.9	21.9	16.9	38.7	22	21.5	157	51
PCB-130	52663-66-8	µg/kg	0.786	0.736	0.89	0.957	0.782	1.51	0.81	0.909	8.14	1.25
PCB-131	61798-70-7	µg/kg	0.0274	0.0568	0.0658	0.0595	0.0550	0.0840	0.0706	0.0516	1.06	0.112
PCB-132	38380-05-1	µg/kg	0.969	1.97	2.15	1.72	2.01	3.32	1.91	2.22	25.1	4.29
PCB-133	35694-04-3	µg/kg	0.516	0.388	0.405	0.403	0.399	0.762	0.286	0.444	1.71	0.814
PCB-134/143	PCB-134/143	µg/kg	0.194	0.345	0.382	0.327	0.339	0.57	0.365	0.374	3.79	0.724
PCB-135/151/154	PCB-135/151/154	µg/kg	4.49	4.38	4.37	4.27	4.45	9.37	3.04	5.56	20.7	12
PCB-136	38411-22-2	µg/kg	0.463	0.765	0.771	0.739	0.612	1.13	0.566	0.781	5.32	2.09
PCB-137	35694-06-5	µg/kg	0.646	0.695	0.928	0.969	0.486	0.978	0.982	0.49	8.87	0.756
PCB-139/140	PCB-139/140	µg/kg	0.194	0.289	0.336	0.322	0.224	0.349	0.292	0.24	2.73	0.385
PCB-141	52712-04-6	µg/kg	2.62	3.04	2.61	2.01	1.74	4.04	1.56	2.34	16.5	6.96
PCB-142	41411-61-4	µg/kg	< 0.0213 U	< 0.0191 U	< 0.0286 U	< 0.0133 U	< 0.0273 U	< 0.0173 U	< 0.0198 U	< 0.0266 U	< 0.0483 U	< 0.0243 U
PCB-144	68194-14-9	µg/kg	0.374	0.432	0.442	0.429	0.438	0.946	0.332	0.529	3.02	1.22
PCB-145	74472-40-5	µg/kg	< 0.000525 U	0.00227 JN	0.00157	0.00108 JN	< 0.000345 U	0.000913 JN	< 0.000395 U	0.00194 J	0.0198	< 0.000272 U
PCB-146	51908-16-8	µg/kg	6.21	3.94	3.68	3.91	3.94	8.39	3.2	4.65	20.6	8.7
PCB-147/149	PCB-147/149	µg/kg	5.9	7.28	7.88	6.64	8.89	16.4	7.05	10.8	58.3	17.1
PCB-148	74472-41-6	µg/kg	0.0513	0.0506 JN	0.0462	0.0475	0.0676	0.103	0.0346	0.0799	0.135	0.11
PCB-150	68194-08-1	µg/kg	0.0176 JN	0.0270	0.0236	0.0294	0.0298	0.0517	0.0176	0.0425	0.104	0.0508
PCB-152	68194-09-2	µg/kg	0.00516	0.0125	0.0112	0.00954	0.00432	0.00864 JN	0.00826 JN	0.00733 JN	0.0711	0.0362
PCB-153/168	PCB-153/168	µg/kg	40.3	25.4	22.4	21.4	19.1	45	16.2	22.2	114	64.8
PCB-155	33979-03-2	µg/kg	0.0158	0.0207	0.0161	0.0133	0.0135 JN	0.0212	0.00844	0.0149	0.0218	0.0207
PCB-156/157	PCB-156/157	µg/kg	2.34	1.54	1.95	2.04	1.13	2.44	1.75	1.31	16.4	3.07
PCB-158	74472-42-7	µg/kg	1.91	1.58	1.8	1.44	1.1	2.24	1.24	1.3	14.4	3.75
PCB-159	39635-35-3	µg/kg	0.131	0.0821	0.0909	< 0.00960 U	< 0.0198 U	0.247	0.0494	0.144	0.224	< 0.0179 U
PCB-161	74472-43-8	µg/kg	< 0.0142 U	< 0.0133 U	< 0.0194 U	< 0.00938 U	< 0.0198 U	< 0.0120 U	< 0.0136 U	< 0.0190 U	< 0.0322 U	< 0.0170 U
PCB-162	39635-34-2	µg/kg	0.0459	< 0.0120 U	0.0719	0.0689	0.0347	0.0738	0.0503	0.0454	0.398	0.0644
PCB-164	74472-45-0	µg/kg	0.935	0.748	0.84	0.774	0.719	1.36	0.726	0.846	5.26	1.48
PCB-165	74472-46-1	µg/kg	< 0.0165 U	0.0166	< 0.0232 U	0.0137	< 0.0221 U	0.0304	< 0.0159 U	< 0.0213 U	< 0.0383 U	0.0339
PCB-167	52663-72-6	µg/kg	1.05	0.644	0.721	0.802	0.511	1.14	0.614	0.622	5.56	1.09
PCB-169	32774-16-6	µg/kg	< 0.0466 U	< 0.0134 U	< 0.0261 U	< 0.0146 U	< 0.0231 U	< 0.0460 U	< 0.0132 U	< 0.0221 U	< 0.0582 U	< 0.0723 U
PCB-170	35065-30-6	µg/kg	8.89	4.1	3.6	3.1 J	3.2	9.46	2.03	4.36	11.4	17.3
PCB-171/173	PCB-171/173	µg/kg	1.99	1.28	1.16	1.29	0.965	2.24	0.574	1.3	3.31	5.25
PCB-172	52663-74-8	µg/kg	1.62	0.791	0.743	0.874	0.639	1.78	0.383	0.88	1.75	2.8
PCB-174	38411-25-5	µg/kg	2.61	1.83	1.92	2.19	1.98	4.85	0.989	2.7	4.51	5.44
PCB-175	40186-70-7	µg/kg	0.286	0.144	0.14	0.193	0.138	0.364	0.0754	0.198	0.36	0.52
PCB-176	52663-65-7	µg/kg	< 0.000660 U	0.192	0.215	0.262	0.248	0.515	0.0967	0.296	0.566	0.682
PCB-177	52663-70-4	µg/kg	2.68	1.31	1.44	2.08	1.68	4.63	0.766	1.99	4.08	3.96
PCB-178	52663-67-9	µg/kg	2.03	1.1	1.11	1.31	1.03	2.6	0.602	1.35	2.19	3.3
PCB-179	52663-64-6	µg/kg	0.982	0.904	0.96	1.17	0.921	1.98	0.436	1.26	1.91	3.04
PCB-180/193	PCB-180/193	µg/kg	31.8	13	11.8	10.7	10.5	29.9	6.17	14	23.7	49.3
PCB-181	74472-47-2	µg/kg	0.0607	0.125	0.0452	0.0734	0.0299	0.0654	0.0350	0.0306	0.288	0.0900
PCB-182	60145-23-5	µg/kg	< 0.000808 U	0.0300	0.0370	< 0.000966 U	< 0.000465 U	< 0.000750 U	< 0.000535 U	0.0394	0.0895	< 0.000483 U
PCB-183/185	PCB-183/185	µg/kg	6.54	3.41	3.2	3.63	2.83	7.15	1.55	3.67	6.9	13.7
PCB-184	74472-48-3	µg/kg	0.0155	0.0229	0.0181 JN	0.0176 JN	0.00980	0.0132 JN	0.00874	0.00896	0.0256	0.0137
PCB-186	74472-49-4	µg/kg	< 0.000697 U	< 0.000523 U	< 0.000541 UJ	< 0.000773 U	< 0.000384 U	< 0.000615 U	< 0.000437 U	< 0.000266 U	< 0.000856 U	< 0.000401 U
PCB-187	52663-68-0	µg/kg	19.6	8.89	8.77	11	9.5	24.2	5.47	13.5	18.7	23.6
PCB-188	74487-85-7	µg/kg	0.0229	0.0182 JN	0.0155	0.0192	0.0191	0.0378	0.00953	0.0287	0.0326	0.0277
PCB-189	39635-31-9	µg/kg	0.341	0.126	0.145	0.114	0.108	0.313	0.0650	0.144	0.37	0.475
PCB-190	41411-64-7	µg/kg	2.08	0.968	0.99	1.16	0.797	2.29	0.496	1.12	2.07	3.73

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	2	2	2	2	SIL	SIL	2	SIL	2	SIL
		Location	SMB051	SMB052	SMB053	SMB054	SMB055	SMB056	SMB057	SMB058	SMB059	SMB060
		Sample ID	PDI-TF-SMB051	PDI-TF-SMB052	PDI-TF-SMB053	PDI-TF-SMB054	PDI-TF-SMB055	PDI-TF-SMB056	PDI-TF-SMB057	PDI-TF-SMB058	PDI-TF-SMB059	PDI-TF-SMB060
		Sample Date	8/22/18	8/18/18	8/22/18	8/23/18	8/22/18	8/22/18	8/17/18	8/22/18	9/6/18	9/7/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.436	0.193	0.169	0.211	0.148	0.393	0.106	0.2	0.428	0.754
PCB-192	74472-51-8	µg/kg	< 0.000760 U	< 0.000574 U	< 0.000602 UJ	< 0.000882 U	< 0.000460 U	0.0232 JN	< 0.000507 U	< 0.000325 U	< 0.000989 U	< 0.000468 U
PCB-194	35694-08-7	µg/kg	3.81 J	1.48	1.87	0.813 J	1.43	3.38 J	0.792	1.89 J	2.76	7.9
PCB-195	52663-78-2	µg/kg	2.23	0.725	0.787	0.551	0.623	1.93	0.38	0.989	1.13	3.34
PCB-196	42740-50-1	µg/kg	3.22	0.861	0.942	0.833 J	0.734	2.47	0.525	1.16	1.3	4.18
PCB-197/200	PCB-197/200	µg/kg	0.429	0.157	0.172	0.182	0.198	0.499	0.0824	0.259	0.268	0.598
PCB-198/199	PCB-198/199	µg/kg	6.17	1.72	2.22	2.28	1.91	5.67	1.1	2.6	3.38	6.11
PCB-201	40186-71-8	µg/kg	0.633	0.164	0.187	0.246	0.205	0.524	0.0871	0.252	0.308	0.62
PCB-202	2136-99-4	µg/kg	1.25	0.56	0.634	0.488	0.554	1.28	0.268	0.753	0.922	1.55
PCB-203	52663-76-0	µg/kg	4.15	1.41	1.73	1.54	1.29	3.67	0.744	1.78	2.19	5.23
PCB-204	74472-52-9	µg/kg	0.00324 JN	0.00482	0.00229 JN	0.00173 JN	0.000855 JN	0.00268 JN	0.000689 JN	0.00117 J	0.00286 JN	0.00210 JN
PCB-205	74472-53-0	µg/kg	0.185	0.0779	0.0978	0.0668	0.0780	0.195	0.0375	0.1	0.125	0.376
PCB-206	40186-72-9	µg/kg	1.33	0.579	0.648	0.472	0.582	0.851	0.32	0.527	1.03	1.33
PCB-207	52663-79-3	µg/kg	0.201	0.103	0.0814	0.0618	0.0735	0.125	0.0409	0.0746	0.133	0.198
PCB-208	52663-77-1	µg/kg	0.381	0.178	0.245	0.169	0.25	0.299	0.11	0.178	0.347	0.352
PCB-209	2051-24-3	µg/kg	0.257	0.287	0.228	0.197	0.229	0.246	0.133	0.142	0.282	0.245
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	244	252	305	199	151	324	171	184	1470	454
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.495 J	11.1	1.91	2.76 J	0.459	0.447	1.62	0.349 J	3.29	0.938
2,4-DDE	3424-82-6	µg/kg	0.164 J	5.72	0.720	0.535 J	0.161 J	0.137 J	0.327	0.127 J	0.880	0.342
2,4-DDT	789-02-6	µg/kg	0.274 J	53.9	0.477	1.21 J	0.305	0.414	0.496	0.246 J	1.26	0.382
4,4'-DDD	72-54-8	µg/kg	3.38 J	53.7	12.0	10.3 J	4.25	4.87	6.05	2.91 J	13.9	6.08
4,4'-DDE	72-55-9	µg/kg	30.1 J	169	63.9	39.9 J	30.1	38.2	32.6	24.4 J	66.4	33.7
4,4'-DDT	50-29-3	µg/kg	3.10 J	190	4.31	9.80 J	3.40	5.16	3.55	3.12 J	7.59	2.48
DDx (a)	T_DDx (PDI)	µg/kg	37.5	483	83.3	64.5	38.7	49.2	44.6	31.2	93.3	43.9
alpha-Chlordane	5103-71-9	µg/kg	1.02 J	1.38	1.57	0.964 J	0.838	0.670	0.862	0.536 J	1.42	1.13
cis-Nonachlor	5103-73-1	µg/kg	1.27 J	1.82	1.78	1.18 J	0.974	1.18	0.879	0.735 J	1.64	1.37
Oxychlordane	27304-13-8	µg/kg	0.552 J	0.853	0.995	0.459 J	0.481	0.480 J	0.425	0.365 J	0.831	0.752
trans-Chlordane	5103-74-2	µg/kg	0.259 J	0.469	0.490	0.320 J	0.231 J	0.181 J	0.301	0.140 J	0.514	0.341 J
trans-Nonachlor	39765-80-5	µg/kg	3.86 J	4.75	4.22	3.03 J	2.85	3.26	2.34	2.13 J	4.39	3.87
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	6.96	9.27	9.06	5.95	5.37	5.77	4.81	3.91	8.8	7.46
Aldrin	309-00-2	µg/kg	0.011 JN	0.017 J	0.014 J	0.010 JN	0.007 J	0.008 JN	0.016 J	< 0.0045 UJ	0.021 J	0.007 JN
Dieldrin	60-57-1	µg/kg	1.00 J	1.23	2.18	1.27 J	0.996	0.934	1.07	0.668 J	1.77	1.42
Metals												
Arsenic	7440-38-2	mg/kg	0.21	0.31	0.27	0.17	0.15	0.15	0.17	0.16	0.18	0.18
Mercury	7439-97-6	mg/kg	0.151 J	0.120 J	0.171 J	0.100 J	0.100 J	0.100 J	0.072 J	0.075 J	0.122 J	0.157 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	1400 J	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 UJ	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.15 J	2.14	1.48	1.23 J	0.930	0.994	0.976	0.698 J	1.84	1.59
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00207 J	0.00282 J	0.00417 J	0.00373 J	0.00444 J	0.00260 JN	0.00211 J	0.00160 JN	0.00458 J	0.00531 J
PBDE-8/11	PDBE-8/11	µg/kg	0.00192 JN	0.00254 JN	0.00495 J	0.00324 J	0.00405 J	0.00282 J	0.00207 JN	0.00216 J	0.00506 J	0.00620 J
PBDE-10	51930-04-2	µg/kg	< 0.000428 U	< 0.000445 U	< 0.000133 U	< 0.000829 U	< 0.000513 U	< 0.000639 U	< 0.000499 U	< 0.000358 U	< 0.000374 U	< 0.000323 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00693 JN	0.00851 JN	0.0113 JN	0.00721 JN	0.000943 J	0.0181 JN	0.00686 JN	0.0130 JN	0.00904 JN	0.0368 JN
PBDE-15	2050-47-7	µg/kg	0.0107 J	0.0165	0.0311	0.0108 J	0.0128 J	0.0112 J	0.0102 J	0.00819 J	0.0178	0.0180
PBDE-17/25	PBDE-17/25	µg/kg	0.0664 JN	0.0967 JN	0.175	0.102 JN	0.105	0.0598 JN	0.0690 JN	0.0524 JN	0.19 JN	0.123 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.322	0.455	0.59	0.358	0.405	0.364	0.285	0.297	0.614	0.546
PBDE-30	155999-95-4	µg/kg	< 0.00337 U	< 0.00328 U	< 0.00648 U	< 0.00342 U	< 0.00196 U	< 0.00360 U	< 0.00313 U	< 0.00196 U	< 0.00379 U	< 0.00448 U
PBDE-32	189084-60-4	µg/kg	< 0.00265 U	< 0.00265 U	< 0.00511 U	< 0.00269 U	< 0.00162 U	< 0.00290 U	< 0.00241 U	< 0.00154 U	< 0.00302 U	< 0.00355 U
PBDE-35	147217-80-9	µg/kg	0.00523 JN	0.00963 JN	0.0106 JN	0.00580 JN	0.00531 JN	0.00359 JN	0.00440 JN	0.00459 JN	0.0108 JN	0.00882 JN
PBDE-37	147217-81-0	µg/kg	0.00423 JN	0.0101 JN	0.0137 J	0.00682 JN	0.00737 J	0.00640 J	0.00590 JN	0.00556 J	0.0157 J	0.00936 J
PBDE-047	5436-43-1	µg/kg	16.3	29.8	29.2	17	17.2	18.7	13.3	14.4	25.8	21.1
PBDE-49	243982-82-3	µg/kg	0.316	0.82	1.47	0.51	0.541	0.629	0.476	0.641	2.41	0.759
PBDE-51	189084-57-9	µg/kg	0.0156 J	0.0332	0.0632	0.0289	0.0219	0.0275	0.0192	0.0222 JN	0.0638	0.0500

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	2	2	2	2	SIL	SIL	2	SIL	2	SIL
		Location	SMB051	SMB052	SMB053	SMB054	SMB055	SMB056	SMB057	SMB058	SMB059	SMB060
		Sample ID	PDI-TF-SMB051	PDI-TF-SMB052	PDI-TF-SMB053	PDI-TF-SMB054	PDI-TF-SMB055	PDI-TF-SMB056	PDI-TF-SMB057	PDI-TF-SMB058	PDI-TF-SMB059	PDI-TF-SMB060
		Sample Date	8/22/18	8/18/18	8/22/18	8/23/18	8/22/18	8/22/18	8/17/18	8/22/18	9/6/18	9/7/18
Chemical	**CAS**	**Units**										
PBDE-66	189084-61-5	µg/kg	0.152	0.316	0.283	0.235	0.131	0.169	0.139	0.112	0.429	0.165
PBDE-71	189084-62-6	µg/kg	0.0150 J	0.0355	0.0775	0.0366	0.0192	0.0302 JN	0.0150 JN	0.0231	0.0712	0.0279
PBDE-75	189084-63-7	µg/kg	0.0109 J	0.0215	0.0213	0.0186 JN	0.0187	0.0238	0.0161	0.0141 J	0.0356	0.0195
PBDE-77	93703-48-1	µg/kg	< 0.000170 U	0.00451 J	< 0.000133 U	< 0.000146 U	< 0.000146 U	< 0.000174 U	0.00274 J	< 0.000145 U	0.00473 J	0.00313 J
PBDE-79	PBDE-79	µg/kg	0.0306 JN	0.0287 JN	0.0732 JN	0.0398 JN	0.00908 JN	0.0330 JN	0.0254 JN	0.0239 JN	0.0227 JN	0.0238 JN
PBDE-85	182346-21-0	µg/kg	< 0.00534 U	< 0.00304 U	< 0.00782 U	< 0.00651 U	< 0.00272 UJ	< 0.00395 U	< 0.00431 U	< 0.00257 U	< 0.00568 U	< 0.00386 U
PBDE-099	60348-60-9	µg/kg	4.97	5.53	5.77	5.1	2.24	3.67	2.44	2	5.76	2.41
PBDE-100	189084-64-8	µg/kg	2.82	4.44	4.56	3.67	3.6 J	4.32	2.64	3.05	4.79	3.02
PBDE-105	373594-78-6	µg/kg	< 0.00705 U	< 0.00407 U	< 0.0106 U	< 0.00859 U	< 0.00360 UJ	< 0.00558 U	< 0.00547 U	< 0.00329 U	< 0.00692 U	< 0.00467 U
PBDE-116	189084-65-9	µg/kg	< 0.00779 U	< 0.00511 U	< 0.0133 U	< 0.00950 U	< 0.00516 UJ	< 0.00810 U	< 0.00678 U	< 0.00432 U	< 0.00923 U	< 0.00627 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0620	0.0950	0.1	0.0875	0.0787 J	0.117	0.0674	0.0635	0.104	0.0895
PBDE-126	366791-32-4	µg/kg	0.00765 J	0.00879 J	0.0202 J+	0.0141 J	0.0167	0.0306	0.00918 J	0.0186	0.0130 J	0.00945 J
PBDE-128	182677-28-7	µg/kg	0.00495 JN	0.00153 JN	0.00725 JN	0.00991 JN	0.00332 J	0.00815 JN	0.00503 JN	0.00488 JN	0.00322 JN	0.00749 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00121 JN	< 0.000305 UJ	0.000997 JN	0.00149 J+	0.000615 JN	0.00203 JN	0.00166 JN	< 0.000976 U	0.000944 J	0.000956 J
PBDE-140	243982-83-4	µg/kg	0.0145 J	0.00119 JN	0.00868 JN	0.0146	0.00476 J	0.0110 J	0.00581 JN	0.00468 J	0.0153 J	0.00828 JN
PBDE-153	68631-49-2	µg/kg	1.22	1.51	1.61	1.05	0.531 J	0.884	0.575	0.558	1.02	1.02
PBDE-154	207122-15-4	µg/kg	0.715	0.941 J	1.17	0.814	0.745 J	1.19	0.557	0.774	1.11 J	0.771 J
PBDE-155	35854-94-5	µg/kg	0.0492	0.0644 J	0.0993	0.0795	0.126 J	0.224	0.0705	0.14	0.129 J	0.0804 J
PBDE-181	189084-67-1	µg/kg	< 0.000312 U	< 0.000143 U	0.000883 JN	0.00215 JN	< 0.000160 U	< 0.000996 U	0.000778 JN	< 0.000687 U	< 0.000143 U	< 0.000139 U
PBDE-183	207122-16-5	µg/kg	0.0114 J	0.00577 J	0.0103 J	0.0187	0.00565 J	0.0101 J	0.00634 JN	0.00670 JN	0.0118 J	0.00608 J
PBDE-190	189084-68-2	µg/kg	0.00112 JN	0.000665 JN	< 0.000399 U	0.00104 J	< 0.000247 U	0.000501 JN	0.000465 JN	0.000768 JN	< 0.000207 U	0.000400 JN
PBDE-203	337513-72-1	µg/kg	< 0.00221 U	0.000995 JN	0.00227 JN	< 0.00248 U	0.00107 JN	< 0.00199 U	0.00339 J	< 0.00243 U	0.00199 J	0.00195 JN
PBDE-206	63387-28-0	µg/kg	< 0.00108 U	0.00377 JN	< 0.000947 U	< 0.000650 U	< 0.000816 U	< 0.00212 U	< 0.000387 U	< 0.000820 U	0.00147 JN	0.00514 JN
PBDE-207	437701-79-6	µg/kg	< 0.00398 U	0.00230 JN	0.00302 JN	< 0.00134 U	0.00432 J+	< 0.00304 U	0.00516 JN	< 0.00290 U	0.00267 JN	0.00819 JN
PBDE-208	437701-78-5	µg/kg	< 0.00302 U	0.00131 JN	0.0147 JN	< 0.000963 U	0.00439 J+	< 0.00396 U	0.00103 JN	< 0.000893 U	0.00311 JN	0.00759 JN
PBDE-209	1163-19-5	µg/kg	< 0.0159 U	0.0308 JN	0.0505 J	< 0.0105 U	0.0299 JN	< 0.0539 U	0.0727 J+	< 0.0243 U	0.0432 JN	0.0791 J
Total PBDE (a)	T_PBDE (PDI)	µg/kg	27.1	44.3	45.5	29.2	25.9	30.6	20.8	22.3	42.7	30.4

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	2	2	2	2	SIL	SIL	2	SIL	2	SIL
		Location	SMB051	SMB052	SMB053	SMB054	SMB055	SMB056	SMB057	SMB058	SMB059	SMB060
		Sample ID	PDI-TF-SMB051	PDI-TF-SMB052	PDI-TF-SMB053	PDI-TF-SMB054	PDI-TF-SMB055	PDI-TF-SMB056	PDI-TF-SMB057	PDI-TF-SMB058	PDI-TF-SMB059	PDI-TF-SMB060
		Sample Date	8/22/18	8/18/18	8/22/18	8/23/18	8/22/18	8/22/18	8/17/18	8/22/18	9/6/18	9/7/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	4.16	4.50	9.08	5.28	4.72	4.11	4.89	3.28	6.50	7.03
Total Solids@104C	TSOLID	%	27.1	27.3	30.6	25.9	27.7	26.8	25.6	25.7	27.7	28.1

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	SIL	2	SIL	2	2	2	2	SIL	2	2
		Location	SMB061	SMB062	SMB063	SMB064	SMB065	SMB066	SMB067	SMB068	SMB069	SMB070
		Sample ID	PDI-TF-SMB061	PDI-TF-SMB062	PDI-TF-SMB063	PDI-TF-SMB064	PDI-TF-SMB065	PDI-TF-SMB066	PDI-TF-SMB067	PDI-TF-SMB068	PDI-TF-SMB069	PDI-TF-SMB070
		Sample Date	9/11/18	9/11/18	8/13/18	9/11/18	8/23/18	8/23/18	8/17/18	8/22/18	8/23/18	8/23/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000226 JN	0.000226 JN	0.000441 J	0.000250 JN	0.000271 J	0.000488 JN	< 0.0000713 U	0.000376 JN	< 0.000144 U	0.000184 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000712 U	< 0.0000730 U	0.000104 J	0.000116 JN	< 0.0000723 U	< 0.0000734 U	< 0.0000713 U	< 0.0000718 U	< 0.0000732 U	< 0.0000700 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000712 U	< 0.0000730 U	< 0.0000735 U	< 0.0000724 U	< 0.0000723 U	< 0.0000734 U	< 0.0000713 U	< 0.0000718 U	< 0.0000732 U	< 0.0000700 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.000116 JN	< 0.000149 U	0.000142 JN	< 0.0000724 U	< 0.0000750 U	0.000223 JN	< 0.0000713 U	0.000149 JN	0.000137 JN	0.000135 J
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.0000800 JN	0.000222 J	0.000191 J	0.000137 JN	0.0113	0.0000887 JN	< 0.0000713 U	0.000328 J	0.0000815 JN	0.000109 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000355 J	0.000573 JN	0.000694 JN	0.000410 JN	0.000290 J	0.000758 J	0.000161 JN	0.000690 J	0.000270 J	0.000378 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.000107 JN	0.000103 J	< 0.0000735 U	< 0.0000724 U	0.00192	0.0000771 JN	< 0.0000713 U	0.0000761 J	< 0.0000732 U	< 0.0000700 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000712 U	< 0.000147 U	< 0.0000735 U	< 0.0000724 U	< 0.0000732 U	< 0.0000734 U	< 0.0000713 U	< 0.0000718 U	< 0.0000732 U	< 0.0000700 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000712 U	< 0.0000730 U	< 0.0000735 U	< 0.0000850 U	< 0.0000723 U	< 0.0000734 U	< 0.0000713 U	< 0.0000718 U	< 0.0000732 U	< 0.0000700 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000499 JN	0.000905 J	0.000674 J	0.000535 JN	0.000637 J	0.000657 JN	0.000199 JN	0.00123 J	0.000471 JN	0.000398 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000204 J	0.000414 J	0.000237 JN	0.000410 JN	0.0126	0.000238 J	0.000129 J	0.000446 J	0.000174 J	0.000192 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000712 U	0.0000805 JN	< 0.0000735 U	< 0.0000724 U	0.000285 J	< 0.0000734 U	< 0.0000713 U	< 0.0000718 U	< 0.0000732 U	< 0.0000700 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000408 J	0.000993 JN	0.000620 J	0.000423 JN	0.0555	0.000477 J	0.000328 J	0.00119 J	0.000454 J	0.000370 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000383	0.000383	0.000387	0.000273 J	0.000633	0.000880	0.000255 JN	0.000549	0.000401	0.000248 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000952	0.00169	0.00118	0.00169	0.00244	0.00230	0.00152	0.00161	0.00112	0.000954
OCDD	3268-87-9	µg/kg	< 0.000237 U	0.000419 JN	0.00142 J	0.000219 JN	0.00116 JN	0.000292 J	0.000170 JN	0.00147 JN	0.000278 JN	< 0.000105 U
OCDF	39001-02-0	µg/kg	< 0.0000712 U	< 0.0000730 U	0.0000873 JN	< 0.0000725 U	< 0.0000723 U	< 0.0000734 U	< 0.0000713 U	0.0000719 JN	< 0.0000732 U	0.0000861 JN
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00118	0.00188	0.00148	0.00118	0.0199	0.00204	0.000728	0.00244	0.00118	0.000926
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	µg/kg	0.000892	0.00165	0.00142	0.00071	0.0199	0.00166	0.000382	0.00243	0.000917	0.000917
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.000642	0.0015	0.00139	0.000442	0.0199	0.00134	0.000254	0.00242	0.000681	0.000911
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00862	0.0107	0.0139	0.0157	0.00835	0.0181	0.00807 J	0.0117	0.0117	0.00591
PCB-2	2051-61-8	µg/kg	0.00141 J	0.00198 J	0.00214	0.00211 J	0.00127 JN	0.00255 J	0.00160 JN	0.00184 J+	0.00183 J	0.00153 J+
PCB-3	2051-62-9	µg/kg	0.00408	0.00403	0.00478	0.00673	0.00290 J+	0.00825	0.00363 J	0.00418	0.00466 JN	0.00299 J+
PCB-4	13029-08-8	µg/kg	0.233	0.2	0.526	0.214	0.148	0.332	0.329	0.417	0.181	0.354
PCB-5	16605-91-7	µg/kg	< 0.00445 U	< 0.00261 U	0.00102	< 0.00404 U	< 0.00307 U	0.00527	< 0.00474 U	< 0.00325 U	0.00203 J	< 0.00250 U
PCB-6	25569-80-6	µg/kg	0.0205	0.0502	0.0209	0.0370	0.0545	0.113	0.0339	0.0205	0.0576	0.0206
PCB-7	33284-50-3	µg/kg	0.00487	0.00784 JN	0.00477	0.00770 JN	0.00717	0.0151	0.00631 J	0.00563	0.00763	0.00351 JN
PCB-8	34883-43-7	µg/kg	0.0909	0.194	0.112	0.138	0.221	0.49	0.124	0.0886	0.225	0.105
PCB-9	34883-39-1	µg/kg	0.00668	0.0125	0.00629	0.00984 JN	0.0132	0.0285	0.00958	0.00520 JN	0.0131	0.00534
PCB-10	33146-45-1	µg/kg	0.0151	0.0149	0.0245	0.0110	0.00822	0.0150	0.0175	0.0246	0.00779	0.0217
PCB-11	2050-67-1	µg/kg	0.0380	0.0535	0.0927	0.0864	0.00697 J+	0.147	0.172	0.0993	0.0548	0.107
PCB-12/13	PCB-12/13	µg/kg	< 0.00431 U	0.00412 JN	0.00525	0.00519	0.0200	0.0117	0.00752 JN	0.00524	0.00466	0.00298
PCB-14	34883-41-5	µg/kg	< 0.00419 U	< 0.00242 U	< 0.000219 U	< 0.00380 U	< 0.00279 U	< 0.00130 U	< 0.00430 U	< 0.00300 U	< 0.00127 U	< 0.00227 U
PCB-15	2050-68-2	µg/kg	0.0242	0.0341	0.0419	0.0372	0.0176	0.113	0.0383	0.0360	0.0435	0.0159
PCB-16	38444-78-9	µg/kg	0.0970	0.215	0.0608	0.163	0.592	0.722	0.0946	0.0726	0.256	0.0601
PCB-17	37680-66-3	µg/kg	0.593	0.556	0.656	0.406	1.43	1.24	0.284	0.582	0.457	0.22
PCB-18/30	PCB-18/30	µg/kg	0.34	0.679	0.228	0.465	1.53	2.43	0.317	0.218	0.76	0.225
PCB-19	38444-73-4	µg/kg	0.901	0.471	1.57	0.521	1.23	0.635	0.543	1.38	0.308	0.623
PCB-20/28	PCB-20/28	µg/kg	1.45	2.31	0.654	1.48	13.9	8.39	0.898	0.865	1.62	0.767
PCB-21/33	PCB-21/33	µg/kg	0.327	0.459	0.164	0.29	0.905	1.55	0.156	0.197	0.452	0.144
PCB-22	38444-85-8	µg/kg	0.206	0.441	0.0996	0.338	2.76	1.61	0.207	0.139	0.413	0.132
PCB-23	55720-44-0	µg/kg	< 0.00448 U	< 0.00288 U	< 0.000537 U	< 0.00191 U	< 0.0216 U	0.00632	< 0.00399 U	< 0.00228 U	< 0.00137 U	< 0.00123 U
PCB-24	55702-45-9	µg/kg	0.00862	0.0104	0.00450	0.0102	0.0876	0.0442	0.00521 JN	0.00437 JN	0.0108	0.00494 JN
PCB-25	55712-37-3	µg/kg	0.112	0.118	0.0746	0.112	1.25	0.287	0.0819	0.0867	0.116	0.0471
PCB-26/29	PCB-26/29	µg/kg	0.186	0.282	0.0937	0.234	0.429	0.933	0.164	0.104	0.262	0.105
PCB-27	38444-76-7	µg/kg	0.122	0.114	0.138	0.0806	1.3	0.243	0.0646	0.13	0.0762	0.0596
PCB-31	16606-02-3	µg/kg	0.624	1.04	0.277	0.866	1.38	3.82	0.563	0.39	1.05	0.336
PCB-32	38444-77-8	µg/kg	0.366	0.421	0.335	0.231	16.3	1.42	0.153	0.267	0.276	0.183
PCB-34	37680-68-5	µg/kg	0.0136	0.0112	0.00445	0.00960	0.0723	0.0310	0.00711 J	0.00367	0.00977	0.00472
PCB-35	37680-69-6	µg/kg	< 0.00448 U	< 0.00312 U	< 0.000480 U	0.00238 JN	< 0.0227 U	< 0.00104 U	< 0.00420 U	< 0.00237 U	< 0.00136 U	< 0.00130 U
PCB-36	38444-87-0	µg/kg	< 0.00408 U	< 0.00289 U	< 0.000474 U	< 0.00174 U	< 0.0210 U	< 0.000941 U	0.0772	< 0.00214 U	< 0.00123 U	< 0.00120 U
PCB-37	38444-90-5	µg/kg	0.0713	0.115	0.0469	0.129	1.03	0.417	0.0954	0.0790	0.148	0.0454
PCB-38	53555-66-1	µg/kg	< 0.00452 U	< 0.00285 U	0.00255	0.00338 JN	0.192	0.0108	< 0.00401 U	0.00355	0.00294 JN	0.00139 J

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	SIL	2	SIL	2	2	2	2	SIL	2	2
		Location	SMB061	SMB062	SMB063	SMB064	SMB065	SMB066	SMB067	SMB068	SMB069	SMB070
		Sample ID	PDI-TF-SMB061	PDI-TF-SMB062	PDI-TF-SMB063	PDI-TF-SMB064	PDI-TF-SMB065	PDI-TF-SMB066	PDI-TF-SMB067	PDI-TF-SMB068	PDI-TF-SMB069	PDI-TF-SMB070
		Sample Date	9/11/18	9/11/18	8/13/18	9/11/18	8/23/18	8/23/18	8/17/18	8/22/18	8/23/18	8/23/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.0122	0.0176	0.00505	0.0108	1.08	0.0530	0.00771 JN	0.00838	0.0123	0.00656 JN
PCB-40/41/71	PCB-40/41/71	µg/kg	0.962	1.26	0.552	0.659	127	4.09	0.506	0.832	0.867	0.416
PCB-42	36559-22-5	µg/kg	0.623	0.763	0.286	0.511	66.9	2.66	0.406	0.459	0.677	0.252
PCB-43	70362-46-8	µg/kg	0.103	0.138	0.0406	0.0855	7.57	0.371	0.0670 JN	0.0431 JN	0.0909	0.0520
PCB-44/47/65	PCB-44/47/65	µg/kg	6.2	7.08	5.78	4.02	217 J	13	2.91	6.05	3.82	2.19
PCB-45/51	PCB-45/51	µg/kg	1.08	0.989	1.34	0.654	36	1.56	0.452	1.34	0.536	0.256
PCB-46	41464-47-5	µg/kg	0.0935	0.0941	0.0559	0.0723	9.53	0.3	0.0578	0.0761	0.0971	0.0315
PCB-48	70362-47-9	µg/kg	0.327	0.478	0.135	0.267	31.6	1.66	0.202	0.208	0.351	0.155
PCB-49/69	PCB-49/69	µg/kg	4.38	4.47	2.76	2.59	147	9.24	2.04	3.06	2.5	1.5
PCB-50/53	PCB-50/53	µg/kg	0.803	0.606	0.909	0.344	30.5	1.06	0.274	0.942	0.365	0.234
PCB-52	35693-99-3	µg/kg	5.57	8.41	3.14	4.12	223 J	18.4	3.19	3.79	4.08	3.15
PCB-54	15968-05-5	µg/kg	0.238	0.118	0.377	0.123	0.268	0.0881	0.0943	0.327	0.0612	0.0812
PCB-55	74338-24-2	µg/kg	< 0.00933 U	< 0.00663 U	< 0.00120 U	< 0.00429 U	< 0.0525 U	< 0.00812 U	0.0475	< 0.00650 U	< 0.00984 U	< 0.00254 U
PCB-56	41464-43-1	µg/kg	0.509	0.833	0.228	0.647	29.7	2.38	0.42	0.481	0.717	0.275
PCB-57	70424-67-8	µg/kg	0.0102	0.0144	0.00798	0.0123 JN	0.355	0.0307	0.00929	0.00853	0.0149	< 0.00234 U
PCB-58	41464-49-7	µg/kg	0.0590	0.0227	0.0132 JN	0.0209	0.163	0.0232	0.0179	0.0347	0.0191	< 0.00246 U
PCB-59/62/75	PCB-59/62/75	µg/kg	0.356	0.377	0.23	0.236	16.9	0.889	0.183	0.263	0.253	0.123
PCB-60	33025-41-1	µg/kg	0.405	1.09	0.283	0.531	79.1	2.61	0.359	0.4	0.638	0.326
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	5.36	7.6	2.54	4.55	119	16.8	2.92	3.78	4.73	2.55
PCB-63	74472-34-7	µg/kg	0.271	0.288	0.14	0.162	9.24	0.545	0.115	0.139	0.176	0.0929
PCB-64	52663-58-8	µg/kg	1.01	1.87	0.528	1.02	123	5.21	0.765	0.785	1.22	0.584
PCB-66	32598-10-0	µg/kg	4.91	6.25	2.38	3.2	201	12.8	2.05	3.4	3.64	1.89
PCB-67	73575-53-8	µg/kg	0.0459	0.0648	0.0235	0.0638	1.47	0.18	0.0507	0.0422	0.0618	0.0271
PCB-68	73575-52-7	µg/kg	0.165	0.0866	0.11	0.0742	0.194	0.0937	0.0578	0.112	0.0597	0.0370
PCB-72	41464-42-0	µg/kg	0.226	0.0966	0.102	0.0751	0.661	0.139	0.0560	0.0904	0.0553	0.0480
PCB-73	74338-23-1	µg/kg	0.13	0.0445	0.0567	0.0966	0.549	< 0.000245 U	0.0773	0.0884	< 0.000220 U	0.0233
PCB-77	32598-13-3	µg/kg	0.125	0.188	0.0803	0.14	2.63	0.384	0.118	0.137	0.153	0.0679
PCB-78	70362-49-1	µg/kg	< 0.00901 U	< 0.00673 U	< 0.00119 U	< 0.00414 U	< 0.0526 U	< 0.00786 U	< 0.00758 U	< 0.00662 U	< 0.00953 U	< 0.00254 U
PCB-79	41464-48-6	µg/kg	0.0842 JN	0.134	0.0520	0.0876 JN	1.84	0.192	0.129	0.0675	0.0735 JN	0.0507
PCB-80	33284-52-5	µg/kg	< 0.00798 U	< 0.00591 U	0.00247	< 0.00367 U	< 0.0474 U	< 0.00741 U	< 0.00679 U	< 0.00594 U	< 0.00899 U	< 0.00230 U
PCB-81	70362-50-4	µg/kg	< 0.00893 U	0.0118 JN	0.00400 JN	0.00778 JN	0.195 JN	0.0189 JN	0.00887 JN	0.00611 JN	< 0.00943 U	0.00274 JN
PCB-82	52663-62-4	µg/kg	0.383	0.801	0.231	0.478	18.2	1.51	0.407	0.413	0.474	0.31
PCB-83/99	PCB-83/99	µg/kg	12.7	18	10.1	8.53	86.6	17	6.27	7.79	6.62	6.55
PCB-84	52663-60-2	µg/kg	0.912	1.58	0.519	0.981	27	3.6	0.79	0.883	1.06	0.584
PCB-85/116/117	PCB-85/116/117	µg/kg	2.28	4.79	2.01	1.93	33.8	5.11	1.55	1.44	1.72	1.64
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	5.03	10.4	3.64 J	5.54	78.6 J	14.9 J	4.35	4.35	4.82 J	4.33
PCB-88/91	PCB-88/91	µg/kg	1.28	1.98	1.15	1.27	22	3.26	0.999	1.4	1.17	0.751
PCB-89	73575-57-2	µg/kg	0.0263	0.0338	0.0128	0.0212	2.62	0.129	0.0257 JN	0.0239	0.0276	0.0168
PCB-90/101/113	PCB-90/101/113	µg/kg	12.7	21.9	11.1	11.9	106	26.8	10.7	11.7	9.62	12.9
PCB-92	52663-61-3	µg/kg	2.83	4.5	2.44	2.34	18.6	4.86	1.93	2.25	1.92	2.28
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	5.91	10	5.28	5.22	78.2	16	5.06	6.58	5.21	5.25
PCB-94	73575-55-0	µg/kg	0.0484	0.0714	0.0471	0.0402	0.671	0.0772	0.0411	0.0811	0.0337	0.0194
PCB-96	73575-54-9	µg/kg	0.0618	0.0717	0.0566	0.0359	1.27	0.0966	0.0360 JN	0.0555	0.0314	0.0293
PCB-103	60145-21-3	µg/kg	0.316	0.257	0.355	0.217	0.705	0.271	0.181	0.331	0.173	0.113
PCB-104	56558-16-8	µg/kg	0.0202	0.0161	0.0285	0.0217	0.0166	0.0160	0.0187	0.0329	0.0129	0.00646 JN
PCB-105	32598-14-4	µg/kg	3.35	8.29	2.77	3.56	46.6	7.81	2.66	2.24	2.79	2.98
PCB-106	70424-69-0	µg/kg	< 0.0332 U	< 0.0158 U	< 0.00690 U	< 0.0222 U	< 0.0679 U	< 0.0269 U	< 0.0216 U	< 0.0164 U	< 0.00832 U	< 0.0167 U
PCB-107/124	PCB-107/124	µg/kg	0.249	0.641	0.181	0.335	1.88	0.621	0.243	0.241	0.252	0.248
PCB-109	74472-35-8	µg/kg	1.5	1.91	0.873	1.13	7.19	1.52	0.761	0.865	0.72	0.715
PCB-110/115	PCB-110/115	µg/kg	8.69	19	6.33	9.69	112	23.7	8.28	7.91	7.37	9.29
PCB-111	39635-32-0	µg/kg	0.0313	0.0251	0.0488	0.0199	0.0306 JN	0.0169 JN	0.0233	0.0269	0.0159	0.0152 JN
PCB-112	74472-36-9	µg/kg	< 0.00759 U	< 0.00409 U	< 0.00163 U	< 0.00758 U	< 0.0193 U	< 0.00510 U	< 0.00661 U	< 0.00542 U	< 0.00435 U	< 0.00323 U
PCB-114	74472-37-0	µg/kg	0.247	0.553	0.22	0.271	3.6	0.484	0.195	0.171	0.2	0.201
PCB-118	31508-00-6	µg/kg	13.4	25.6	10.3	11.3	83.8	21	8.45	7.56	8.38	9.43
PCB-120	68194-12-7	µg/kg	0.178	0.0941	0.164	0.0815	0.136	0.0714	0.0758	0.109	0.0623	0.0696

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	SIL	2	SIL	2	2	2	2	SIL	2	2
		Location	SMB061	SMB062	SMB063	SMB064	SMB065	SMB066	SMB067	SMB068	SMB069	SMB070
		Sample ID	PDI-TF-SMB061	PDI-TF-SMB062	PDI-TF-SMB063	PDI-TF-SMB064	PDI-TF-SMB065	PDI-TF-SMB066	PDI-TF-SMB067	PDI-TF-SMB068	PDI-TF-SMB069	PDI-TF-SMB070
		Sample Date	9/11/18	9/11/18	8/13/18	9/11/18	8/23/18	8/23/18	8/17/18	8/22/18	8/23/18	8/23/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.0246	0.0222	0.0366	0.0167	< 0.0198 U	0.0180	0.0160 JN	0.0216	0.0140	0.0123
PCB-122	76842-07-4	µg/kg	0.0558	0.0971	0.0313	0.0733	0.657	0.13	0.0618 JN	0.0546	0.0550	0.0337 J
PCB-123	65510-44-3	µg/kg	0.129 JN	0.364 JN	0.113 JN	0.204 JN	2.01 JN	0.384	0.146 JN	0.131 JN	0.162	0.159 JN
PCB-126	57465-28-8	µg/kg	0.0543 JN	0.0238 JN	0.0120 JN	0.0446 JN	0.128 JN	< 0.0346 U	0.153 JN	0.0427 JN	0.0177 JN	0.0475 JN
PCB-127	39635-33-1	µg/kg	0.0435	0.0749	0.0348	0.0438	0.0960	0.0465	0.0294	0.0245 JN	0.0269	0.0293
PCB-128/166	PCB-128/166	µg/kg	3.76	8.23	4.49	3.96	10.3	5.35	4.12	3.58	2.52	6.98
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	30.8	60.3	46	30.8	81.2	41	41.6	37.1	19.7	78.2
PCB-130	52663-66-8	µg/kg	1.05	1.87	1.09	1.41	3.67	1.63	1.36	1.44	0.894	1.52
PCB-131	61798-70-7	µg/kg	0.0723	0.15	0.0641	0.118	0.388	0.196	0.11	0.115	0.0948	0.0792
PCB-132	38380-05-1	µg/kg	2.61	4.22	2.62	3.94	13.2	6.44	3.74	4.26	2.87	3.66
PCB-133	35694-04-3	µg/kg	0.685	0.935	0.877	0.566	1.15	0.615	0.714	0.613	0.387	0.792
PCB-134/143	PCB-134/143	µg/kg	0.466	0.83	0.497	0.617	2.13	0.99	0.559	0.765	0.474	0.594
PCB-135/151/154	PCB-135/151/154	µg/kg	6.07	10.3	9.49	7.08	19.4	9.68	9.45	8.47	5	16.3
PCB-136	38411-22-2	µg/kg	1.1	1.72	1.24	1.18	4.1	2.11	1.36	1.51	0.944	1.55
PCB-137	35694-06-5	µg/kg	1.27	2.67	1.05	1.38	4.15	1.47	0.759	0.714	0.769	0.786
PCB-139/140	PCB-139/140	µg/kg	0.476	0.81	0.491	0.412	1.03	0.522	0.3	0.368	0.272	0.345
PCB-141	52712-04-6	µg/kg	3.06	5.31	4.47	3.47	9.95 J	5.26	5.24	4.46	2.47	9.4
PCB-142	41411-61-4	µg/kg	< 0.0336 U	< 0.0110 U	< 0.0269 U	< 0.0439 U	< 0.101 U	< 0.0265 U	< 0.0770 U	< 0.0312 U	< 0.0194 U	< 0.00998 U
PCB-144	68194-14-9	µg/kg	0.519	0.848	0.733	0.701	2.33	1.11	0.934	0.942	0.567	1.12
PCB-145	74472-40-5	µg/kg	0.00385 JN	0.00204 J	< 0.0000735 U	< 0.000330 U	0.0171	0.00391 JN	< 0.000674 U	< 0.000557 U	0.000766 JN	< 0.000368 U
PCB-146	51908-16-8	µg/kg	6.51	9.19	8.84	6.14	14.1	6.79	8.45	6.96	3.83	13.9
PCB-147/149	PCB-147/149	µg/kg	9.69	14.1	12.5	14.8	43.1	18.9	16.2	17.4	10.4	16.3
PCB-148	74472-41-6	µg/kg	0.109	0.0991	0.128	0.0917	0.126	0.0737	0.0537	0.101	0.0619	0.0583
PCB-150	68194-08-1	µg/kg	0.0531	0.0527	0.0590	0.0630	0.0660	0.0531	0.0411	0.0700	0.0433	0.0245
PCB-152	68194-09-2	µg/kg	0.0242	0.0513	0.0301	0.0184	0.0381	0.0216 JN	0.0131	0.0232	0.0118	0.0125
PCB-153/168	PCB-153/168	µg/kg	39.1	56.9	49.5	31.3	73.9	39.1	44.3	41.1	20.6	82.3
PCB-155	33979-03-2	µg/kg	0.0236	0.0225	0.0302	0.0181	0.0191	0.0156	0.0153 JN	0.0183	0.0141	0.0161
PCB-156/157	PCB-156/157	µg/kg	2.37	5.17	3.52	2.3	6.91	2.82	2.55	2.28	1.42	3.79
PCB-158	74472-42-7	µg/kg	2.17	4.4	3.72	2.11	5.86	2.98	2.55	2.35	1.39	4.6
PCB-159	39635-35-3	µg/kg	0.101	< 0.00816 U	0.157	0.16	< 0.0710 U	0.212	< 0.0615 U	< 0.0226 U	0.122	< 0.00700 U
PCB-161	74472-43-8	µg/kg	< 0.0234 U	< 0.00790 U	< 0.0175 U	< 0.0306 U	< 0.0665 U	< 0.0184 U	< 0.0548 U	< 0.0226 U	< 0.0135 U	< 0.00656 U
PCB-162	39635-34-2	µg/kg	0.0647	0.16	0.0839	0.0520	0.122	0.0744	0.0713	0.0537	0.0472	0.0934
PCB-164	74472-45-0	µg/kg	0.829	1.95	1.16	1.1	3.22	1.57	1.63	1.53	0.761	2.64
PCB-165	74472-46-1	µg/kg	< 0.0278 U	0.0422	0.0388	< 0.0364 U	< 0.0803 U	< 0.0221 U	< 0.0651 U	0.0253	< 0.0162 U	0.0203
PCB-167	52663-72-6	µg/kg	0.866	1.73	1.25	0.895	2.4	1.15	1.2	1.03	0.623	1.83
PCB-169	32774-16-6	µg/kg	< 0.0593 U	< 0.0364 U	< 0.0417 U	< 0.0743 U	< 0.0878 U	< 0.0323 U	< 0.0818 U	< 0.0250 U	< 0.0230 U	< 0.0719 U
PCB-170	35065-30-6	µg/kg	5.14	7.53	14.8	3.95	10.4	6.88	9.39	9.43	3.28	19.5
PCB-171/173	PCB-171/173	µg/kg	1.52	2.4	4.74	1.22	3.5	1.83	2.39	2.68	0.908	5.43
PCB-172	52663-74-8	µg/kg	0.902	1.43	2.39	0.786	2.26	1.14	1.74	1.69	0.632	4.22
PCB-174	38411-25-5	µg/kg	1.76	2.41	3.68	2.6	8.43	3.68	4.07	4.86	1.99	5.37
PCB-175	40186-70-7	µg/kg	0.191	0.25	0.389	0.181	0.483	0.238	0.33	0.335	0.143	0.524
PCB-176	52663-65-7	µg/kg	0.232	0.263	0.424	0.342	0.896	0.472	0.405	0.514	0.253	0.385
PCB-177	52663-70-4	µg/kg	1.65	2.15	4.21	1.98	6.23	2.63	3.05	4.61	1.52	5.26
PCB-178	52663-67-9	µg/kg	1.4	2.15	2.95	1.28	3.18	1.59	1.96	1.99	0.931	4.11
PCB-179	52663-64-6	µg/kg	1.02	1.61	1.92	1.27	3.37	1.76	1.68	1.74	0.954	2.43
PCB-180/193	PCB-180/193	µg/kg	16.5	26.4	45.4	13.7	31.8	20.6	31.2	31	10.6	57.2
PCB-181	74472-47-2	µg/kg	0.0535	0.106	0.102	0.0467	0.835	0.0479	0.0530	0.0703	0.0280	0.0838
PCB-182	60145-23-5	µg/kg	0.0558	< 0.000767 U	0.0832	< 0.000704 U	< 0.00103 U	< 0.000580 U	0.0440 JN	< 0.000871 U	< 0.000283 U	< 0.000659 U
PCB-183/185	PCB-183/185	µg/kg	4.15	6.75	11.4	3.67	10.5	5.25	6.73	7.35	2.82	15.5
PCB-184	74472-48-3	µg/kg	0.0212	0.0223	0.0191	0.0162	0.0284	0.0160	0.0128 JN	0.0109	0.0134	0.0198
PCB-186	74472-49-4	µg/kg	< 0.000405 U	< 0.000631 U	< 0.000179 U	< 0.000565 U	< 0.000841 UJ	< 0.000475 U	< 0.00126 U	< 0.000719 U	< 0.000232 U	< 0.000539 U
PCB-187	52663-68-0	µg/kg	10.4	20.9	19.3	12.7	34.4	16.1	25.3	19.8	7.85	56.7
PCB-188	74487-85-7	µg/kg	0.0282	0.0425	0.0406	0.0301	0.0344	0.0240	0.0268	0.0299	0.0164 JN	0.0223
PCB-189	39635-31-9	µg/kg	0.17	0.256	0.461	0.128	0.372	0.203	0.346	0.326	0.108	0.727
PCB-190	41411-64-7	µg/kg	0.978	1.77	3.52	0.87	2.72	1.48	2.11	2.38	0.687	4.76

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	SIL	2	SIL	2	2	2	2	SIL	2	2
		Location	SMB061	SMB062	SMB063	SMB064	SMB065	SMB066	SMB067	SMB068	SMB069	SMB070
		Sample ID	PDI-TF-SMB061	PDI-TF-SMB062	PDI-TF-SMB063	PDI-TF-SMB064	PDI-TF-SMB065	PDI-TF-SMB066	PDI-TF-SMB067	PDI-TF-SMB068	PDI-TF-SMB069	PDI-TF-SMB070
		Sample Date	9/11/18	9/11/18	8/13/18	9/11/18	8/23/18	8/23/18	8/17/18	8/22/18	8/23/18	8/23/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.242	0.365	0.71	0.182	0.534	0.272	0.419	0.476	0.139	0.881
PCB-192	74472-51-8	µg/kg	< 0.000462 U	< 0.000746 U	< 0.000205 U	< 0.000644 U	< 0.000995 U	< 0.000555 U	< 0.00149 U	< 0.000862 U	< 0.000271 U	< 0.000638 U
PCB-194	35694-08-7	µg/kg	2	4.46	6.3	1.75	4.94	2.34 J	4.79	3.88	1.19 J	8.84
PCB-195	52663-78-2	µg/kg	0.82	1.62	3.39	0.744	2.04	1.43	1.84	2.08	0.605	3.38
PCB-196	42740-50-1	µg/kg	1.18	2.43	4.16	0.987	2.45	1.9	2.05	2.34	0.871	3.73
PCB-197/200	PCB-197/200	µg/kg	0.197	0.469	0.479	0.258	0.678	0.406	0.332	0.39	0.197	0.471
PCB-198/199	PCB-198/199	µg/kg	2.17	7.85	5.26	2.44	6.61	3.95	4.53	4.11	1.92	9.59
PCB-201	40186-71-8	µg/kg	0.271	0.722	0.558	0.28	0.628	0.346	0.352	0.414	0.194	0.538
PCB-202	2136-99-4	µg/kg	0.693	2.05	1.18	0.694	1.47	0.947	0.991	0.857	0.548	1.59
PCB-203	52663-76-0	µg/kg	1.71	6.44	5.26	1.57	4.25	2.8	2.76	2.42	1.38	5.84
PCB-204	74472-52-9	µg/kg	0.00253 J	0.00445	0.00310	0.00133 J	0.0237 JN	0.00263 JN	0.00128 JN	0.00137 JN	0.00112 JN	0.00308
PCB-205	74472-53-0	µg/kg	0.0937	0.178	0.321	0.0844	0.27	0.142	0.226	0.177	0.0682	0.471
PCB-206	40186-72-9	µg/kg	0.557	6.81	1.21	0.601	1.81	0.863	0.787	0.731	0.496	1.54
PCB-207	52663-79-3	µg/kg	0.0841	0.878	0.178	0.0892	0.314	0.11	0.108	0.115	0.0692	0.167
PCB-208	52663-77-1	µg/kg	0.203	2.96	0.283	0.238	0.609	0.317	0.258	0.252	0.188	0.351
PCB-209	2051-24-3	µg/kg	0.192	1.39	0.241	0.264	0.867	0.295	0.234	0.183	0.21	0.268
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	283	489	385	265	2710	500	333	333	202	543
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.11	1.17	0.944	2.31	37.9	2.79	1.51	0.680	2.06 J	0.589
2,4-DDE	3424-82-6	µg/kg	0.317	0.457	0.245	0.557	27.5	1.35	0.562	0.221 J	0.544 J	0.297
2,4-DDT	789-02-6	µg/kg	0.642	0.651	0.649 J	0.784	148	1.73	0.552	0.416	0.683 J	0.342
4,4'-DDD	72-54-8	µg/kg	6.25	6.89	4.87	7.51	304	17.5	6.40	4.91	8.60 J	4.61
4,4'-DDE	72-55-9	µg/kg	49.8	39.2	28.5	50.9	1160	71.3	52.9	30.7	48.5 J	43.0
4,4'-DDT	50-29-3	µg/kg	3.33	5.92	3.97 J	3.53	1570	15.0	4.16	3.28	3.83 J	5.70
DDx (a)	T_DDx (PDI)	µg/kg	61.4	54.3	39.2	65.6	3250	110	66.1	40.2	64.2	54.5
alpha-Chlordane	5103-71-9	µg/kg	1.10	3.38	1.03	1.60	1.60	4.76	1.53	1.02	1.48 J	1.26
cis-Nonachlor	5103-73-1	µg/kg	1.61	3.24	1.44 J	1.67	2.73 J	2.41	1.49	0.949	1.40 J	1.50
Oxychlordane	27304-13-8	µg/kg	0.747	1.67	0.759	0.731	0.978 JN	2.69	0.750	0.656	0.749 J	0.846
trans-Chlordane	5103-74-2	µg/kg	0.313 J	0.868	0.264 J	0.556	0.650	2.23	0.566	0.289 J	0.609 J	0.393 J
trans-Nonachlor	39765-80-5	µg/kg	3.94	9.04	4.09	4.13	5.64	7.98	3.94	2.81	3.95 J	4.20
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	7.71	18.2	7.58	8.69	11.6	20.1	8.28	5.72	8.19	8.2
Aldrin	309-00-2	µg/kg	0.013 JN	0.016 J	< 0.0040 U	0.019 JN	0.018 JN	0.034 J	0.016 J	0.006 J	0.018 J	0.011 J
Dieldrin	60-57-1	µg/kg	1.06	1.65	1.18	1.89	1.36	4.83	2.09	1.55	1.46 J	1.62
Metals												
Arsenic	7440-38-2	mg/kg	0.25	0.20	0.21	0.24	0.50	0.24	0.25	0.21	0.23	0.20
Mercury	7439-97-6	mg/kg	0.138 J	0.196 J	0.141 J	0.122 J	0.128 J	0.114 J	0.147 J	0.097 J	0.079 J	0.175 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	620 J	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.29	1.65	1.29	1.73	2.49	2.14	1.92	1.65	1.30 J	1.71
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 990 UJ	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00553 JN	0.00390 J	0.00233 J	< 0.00161 U	0.00304 J	0.00646 J	0.00388 JN	0.00723 J	0.00281 JN	0.00556 J
PBDE-8/11	PDBE-8/11	µg/kg	0.00488 JN	0.00425 J	0.00289 JN	0.00487 J	0.00390 JN	0.00502 J	0.00353 J	0.00660 J	0.00247 JN	0.00541 J
PBDE-10	51930-04-2	µg/kg	< 0.000822 U	< 0.000521 U	< 0.000417 U	< 0.00168 U	< 0.000615 U	< 0.000355 U	< 0.000554 U	< 0.00101 U	< 0.000427 U	< 0.000686 U
PBDE-12/13	PBDE-12/13	µg/kg	0.0357 JN	0.00179 J	0.0115 JN	0.0411 JN	< 0.000395 U	0.0195 JN	0.0205 JN	0.00167 JN	0.0166 JN	0.00180 J
PBDE-15	2050-47-7	µg/kg	0.0168	0.0248	0.0110	0.0190	0.0106 J	0.0206	0.0200	0.0166	0.0135 J	0.0251
PBDE-17/25	PBDE-17/25	µg/kg	0.156 JN	0.145	0.0955	0.185 JN	0.0978	0.18 JN	0.139 JN	0.165	0.0971 JN	0.215
PBDE-28/33	PBDE-28/33	µg/kg	0.555	0.517	0.382	0.429	0.441	0.586	0.487	0.53	0.414	1.42
PBDE-30	155999-95-4	µg/kg	< 0.00223 U	< 0.00492 U	< 0.00121 U	< 0.00370 U	< 0.00288 U	< 0.00334 U	< 0.00255 U	< 0.00202 U	< 0.00226 U	< 0.00376 U
PBDE-32	189084-60-4	µg/kg	< 0.00179 U	< 0.00378 U	0.00145 J	< 0.00297 U	< 0.00231 U	< 0.00263 U	< 0.00206 U	< 0.00167 U	< 0.00182 U	< 0.00310 U
PBDE-35	147217-80-9	µg/kg	0.00842 JN	0.0205 JN	0.00649 JN	0.00795 JN	0.0111 JN	0.0149 JN	0.00796 JN	0.00732 JN	0.00561 JN	0.00956 JN
PBDE-37	147217-81-0	µg/kg	0.0107 J	0.00945 J	0.00776 J	0.0115 J	0.0106 J	0.0112 J	0.0124 J	0.0168 J	0.00762 J	0.0214
PBDE-047	5436-43-1	µg/kg	24.6	21.4	20.6	19.3	25.8	23.6	23.6	15	16	51.2
PBDE-49	243982-82-3	µg/kg	0.967	0.744	0.565	1.23	0.661	1.35	1.33	0.842	1.06	1.72 J
PBDE-51	189084-57-9	µg/kg	0.0494	0.0292	0.0284	0.0498	0.0361	0.0621	0.0525	0.0626	0.0456	0.0386 J

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	SIL	2	SIL	2	2	2	2	SIL	2	2
		Location	SMB061	SMB062	SMB063	SMB064	SMB065	SMB066	SMB067	SMB068	SMB069	SMB070
		Sample ID	PDI-TF-SMB061	PDI-TF-SMB062	PDI-TF-SMB063	PDI-TF-SMB064	PDI-TF-SMB065	PDI-TF-SMB066	PDI-TF-SMB067	PDI-TF-SMB068	PDI-TF-SMB069	PDI-TF-SMB070
		Sample Date	9/11/18	9/11/18	8/13/18	9/11/18	8/23/18	8/23/18	8/17/18	8/22/18	8/23/18	8/23/18
Chemical	**CAS**	**Units**										
PBDE-66	189084-61-5	µg/kg	0.39	0.23	0.206	0.2	0.258	0.322	0.424	0.343	0.289	0.815 J
PBDE-71	189084-62-6	µg/kg	0.0349	0.0280	0.0132 JN	0.0394	0.0140 J	0.0496	0.0552	0.0346	0.0435	0.0333 J
PBDE-75	189084-63-7	µg/kg	0.0265	0.0150	0.0152	0.0288	0.0262	0.0297	0.0371	0.0268	0.0260	0.0438 J
PBDE-77	93703-48-1	µg/kg	< 0.000142 U	< 0.000146 U	0.00396 J	< 0.000145 U	0.00373 J	< 0.000147 U	0.00536 JN	0.00412 J	< 0.000146 U	0.00817 J
PBDE-79	PBDE-79	µg/kg	0.0321 JN	0.0254 JN	0.0339 JN	0.0312 JN	0.0265	0.0312 JN	0.0349 JN	0.0184	0.0283 JN	0.0227 J
PBDE-85	182346-21-0	µg/kg	< 0.00333 U	< 0.00273 U	< 0.00148 U	< 0.00333 U	< 0.00286 U	< 0.00642 U	0.00388 JN	< 0.00224 U	< 0.00332 U	< 0.00429 UJ
PBDE-099	60348-60-9	µg/kg	5.83	2.51	2.88	3.45	4.46	4.63	6.47	6.79	4.44	8 J
PBDE-100	189084-64-8	µg/kg	3.95	3.11	2.87	4.05	5.46	4.11	4.47	3.2	3.55	7.59 J
PBDE-105	373594-78-6	µg/kg	< 0.00410 U	< 0.00323 U	< 0.00196 U	< 0.00410 U	< 0.00352 U	< 0.00824 U	< 0.00504 U	< 0.00297 U	< 0.00469 U	< 0.00568 UJ
PBDE-116	189084-65-9	µg/kg	< 0.00554 U	< 0.00438 U	< 0.00305 U	< 0.00554 U	< 0.00476 U	< 0.0108 U	< 0.00633 U	< 0.00425 U	< 0.00681 U	< 0.00813 UJ
PBDE-119/120	PBDE-119/120	µg/kg	0.105	0.119	0.132	0.0751	0.128	0.0773	0.0919	0.106	0.0725	0.173 J
PBDE-126	366791-32-4	µg/kg	0.00860 JN	0.00930 J	0.0127	0.0123 J	0.0187	0.0139 J	0.0120 J	0.00974 J	0.0143 J	0.00916 J
PBDE-128	182677-28-7	µg/kg	0.00643 JN	0.00902 JN	0.0107 JN	0.00407 JN	0.00683 JN	0.00768 JN	0.00252 JN	0.0108 JN	0.00487 JN	0.00382 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.000639 JN	0.000887 JN	0.000276 JN	0.000932 J+	0.000715 JN	0.00161 JN	0.00193 J	0.00102 J	0.00115 JN	0.00102 JN
PBDE-140	243982-83-4	µg/kg	0.0120 J	0.00900 J	0.00925	0.00716 J	0.0104 J	0.0119 J	0.0129 J	0.0171 J	0.00874 J	0.0127 JN
PBDE-153	68631-49-2	µg/kg	1.19	1.04	1.03	0.73	1.16	1	1.1	0.889	0.686	2.59 J
PBDE-154	207122-15-4	µg/kg	0.899	0.794 J	0.768 J	0.861	1.27 J	0.894	1.03 J	0.845 J	0.714	1.58 J
PBDE-155	35854-94-5	µg/kg	0.0900	0.0674 J	0.111 J	0.14	0.166 J	0.0964	0.0762 J	0.0737 J	0.106	0.0662 J
PBDE-181	189084-67-1	µg/kg	0.000370 JN	< 0.000156 U	0.000861 J	0.000817 JN	0.000967 J	< 0.000928 U	0.000282 JN	< 0.000144 U	< 0.000776 U	< 0.000140 U
PBDE-183	207122-16-5	µg/kg	0.0108 J	0.00779 J	0.0127	0.00628 J	0.0112 J	0.00949 J	0.00893 JN	0.0223	0.00771 J	0.00505 J
PBDE-190	189084-68-2	µg/kg	0.000546 JN	< 0.000227 U	< 0.00100 U	0.000225 J	< 0.000145 U	0.000254 JN	< 0.000273 U	0.000743 JN	0.00112 JN	< 0.000163 U
PBDE-203	337513-72-1	µg/kg	0.00296 JN	0.00161 JN	0.00236 J	0.00155 JN	0.00224 JN	< 0.00305 U	0.00187 JN	0.00476 JN	< 0.00243 U	0.00147 JN
PBDE-206	63387-28-0	µg/kg	0.00589 JN	< 0.000824 U	0.00313 JN	< 0.000811 U	< 0.00107 U	0.00521 JN	< 0.000496 U	0.00328 JN	< 0.00319 U	0.00175 JN
PBDE-207	437701-79-6	µg/kg	0.0178 JN	< 0.00124 U	0.00733 JN	< 0.00307 U	< 0.00204 U	0.00576 JN	0.00397 JN	0.00363 JN	< 0.00509 U	< 0.00287 U
PBDE-208	437701-78-5	µg/kg	0.0137 J+	0.00306 JN	0.00630 JN	< 0.00288 U	< 0.000275 U	< 0.00337 U	0.00180 J	0.00365 JN	< 0.00654 U	0.00174 JN
PBDE-209	1163-19-5	µg/kg	0.211 J+	< 0.0236 U	0.0549 JN	< 0.0452 U	< 0.0181 U	< 0.0575 U	0.0231 J+	0.0357 J+	< 0.0370 U	0.0551 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	39.3	30.9	29.9	30.9	40.1	37.2	39.5	29.1	27.7	75.7

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	SIL	2	SIL	2	2	2	2	SIL	2	2
		Location	SMB061	SMB062	SMB063	SMB064	SMB065	SMB066	SMB067	SMB068	SMB069	SMB070
		Sample ID	PDI-TF-SMB061	PDI-TF-SMB062	PDI-TF-SMB063	PDI-TF-SMB064	PDI-TF-SMB065	PDI-TF-SMB066	PDI-TF-SMB067	PDI-TF-SMB068	PDI-TF-SMB069	PDI-TF-SMB070
		Sample Date	9/11/18	9/11/18	8/13/18	9/11/18	8/23/18	8/23/18	8/17/18	8/22/18	8/23/18	8/23/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	4.42	6.18	5.35	6.19	5.02	7.34	7.37	6.78	3.27	6.81
Total Solids@104C	TSOLID	%	24.6	27.4	27.2	27.9	26.6	29.1	28.3	29.9	27.3	29.1

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	SIL	1	1	1	1	1	1	1
		Location	SMB071	SMB072	SMB073	SMB074	SMB075	SMB076	SMB077	SMB078	SMB079	SMB080
		Sample ID	PDI-TF-SMB071	PDI-TF-SMB072	PDI-TF-SMB073	PDI-TF-SMB074	PDI-TF-SMB075	PDI-TF-SMB076	PDI-TF-SMB077	PDI-TF-SMB078	PDI-TF-SMB079	PDI-TF-SMB080
		Sample Date	9/8/18	8/17/18	8/13/18	8/17/18	8/17/18	8/23/18	8/17/18	8/17/18	8/17/18	9/11/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000113 JN	0.000215 J	0.000503 J	0.000402 J	0.000126 JN	0.000512 JN	0.00111 J	0.000177 J	< 0.0000724 U	0.000271 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000705 U	< 0.0000711 U	0.0000891 JN	< 0.0000739 U	< 0.0000719 U	< 0.0000848 U	< 0.0000737 U	< 0.0000721 U	< 0.0000724 U	< 0.0000717 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000705 U	< 0.0000711 U	< 0.0000723 U	< 0.0000739 U	< 0.0000719 U	< 0.0000848 U	< 0.0000737 U	< 0.0000721 U	< 0.0000724 U	< 0.0000717 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0000839 J	0.0000915 J	0.000332 J	0.0000868 JN	< 0.0000719 U	0.000161 JN	0.000229 J	0.0000945 JN	0.0000930 JN	0.000100 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.000112 J	0.000103 J	0.000407 J	0.0000985 J	< 0.0000719 U	< 0.0000859 U	0.000335 J	0.000134 J	< 0.0000724 U	0.0000796 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000379 J	0.000375 J	0.00123 J	0.000427 J	0.000170 J	0.000789 J	0.00189	0.000591 J	0.000235 JN	0.000278 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0000737 JN	< 0.0000711 U	0.000133 J	< 0.0000739 U	< 0.0000719 U	0.000115 JN	0.000111 J	0.0000747 J	< 0.0000724 U	< 0.0000717 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000705 U	< 0.0000711 U	0.000177 JN	< 0.0000739 U	< 0.0000719 U	0.000155 J	0.0000780 JN	< 0.0000721 U	< 0.0000946 U	< 0.0000717 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000705 U	< 0.0000711 U	< 0.0000723 U	< 0.0000739 U	< 0.0000719 U	0.000123 JN	< 0.0000737 U	< 0.0000721 U	< 0.0000724 U	< 0.0000717 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000955 J	0.000372 J	0.00135 J	0.000312 JN	0.000271 JN	0.000404 J	0.00108 J	0.000826 J	0.000301 JN	0.000621 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000551 J	0.000138 J	0.000477 J	0.000137 J	0.000310 JN	0.000161 J	0.000382 J	0.000218 J	0.000142 JN	0.000289 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000705 U	< 0.0000711 U	0.000101 JN	< 0.0000739 U	< 0.0000719 U	< 0.0000848 U	0.0000908 J	< 0.0000721 U	< 0.0000724 U	< 0.0000717 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00261	0.000269 JN	0.00109 J	0.000593 J	0.000544 J	0.000376 J	0.00102 J	0.000651 J	0.000288 JN	0.000627 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000840	0.000214 J	0.000558	0.000186 J	0.000259 JN	0.000229 JN	0.000473	0.000447	0.000219 JN	0.000940
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00343	0.000692	0.00144	0.000724	0.00181	0.00108	0.000834	0.00104	0.00179	0.00116
OCDD	3268-87-9	µg/kg	0.000187 J	0.000177 J	0.000461 J	0.000724 J	0.0000827 J	0.000468 JN	0.00322	0.000375 J	0.000116 JN	0.000844 J
OCDF	39001-02-0	µg/kg	< 0.0000705 U	< 0.0000711 U	< 0.0000723 U	< 0.0000739 U	< 0.0000719 U	0.000105 JN	< 0.0000737 U	< 0.0000721 U	< 0.0000724 U	0.000177 JN
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00301	0.000803	0.00264	0.000822	0.000905	0.001	0.00224	0.00167	0.000827	0.00193
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	µg/kg	0.003	0.000759	0.00262	0.000653	0.000497	0.000839	0.00224	0.00167	0.00033	0.00156
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.003	0.000718	0.00261	0.000497	0.000361	0.000724	0.00223	0.00166	0.000179	0.00125
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.253	0.00475	0.0108	0.00421	R	0.00400	0.0156	0.00791	0.00545	0.00942
PCB-2	2051-61-8	µg/kg	0.0150	0.00127	0.00263	0.00113	R	0.00122 J	0.00214	0.00160	0.00136	0.00118 J+
PCB-3	2051-62-9	µg/kg	0.0708	0.00326 JN	0.00267 J+	0.00296 J+	R	0.00301 JN	0.00457	0.00379 J+	0.00253 J+	0.00362 JN
PCB-4	13029-08-8	µg/kg	2.46	0.202	0.385	0.143	R	0.132	0.384	0.128	0.153	0.112
PCB-5	16605-91-7	µg/kg	0.0444	0.000569	0.00140	0.000537 J	R	< 0.00166 U	0.00903	0.00206	0.00112	< 0.00357 U
PCB-6	25569-80-6	µg/kg	1.14	0.0113	0.0223	0.0110	R	0.0162	0.23	0.0418	0.0200	0.0467
PCB-7	33284-50-3	µg/kg	0.151	0.00234	0.00519	0.00229	R	0.00300 J	0.0295	0.00588	0.00409	0.00693 JN
PCB-8	34883-43-7	µg/kg	3.83	0.0536	0.0962	0.0481	R	0.0636	0.841	0.143	0.0731	0.165
PCB-9	34883-39-1	µg/kg	0.257	0.00313	0.00641	0.00324	R	0.00548	0.0495	0.00901	0.00600	0.0106
PCB-10	33146-45-1	µg/kg	0.105	0.0121	0.0222	0.00807	R	0.00725	0.0211	0.00676	0.00888	0.00723
PCB-11	2050-67-1	µg/kg	0.0568	0.0862	0.126	0.0690	R	0.0843	0.0462	0.0750	0.23	0.0501
PCB-12/13	PCB-12/13	µg/kg	0.149	0.00315	0.00549	0.00290	R	0.00204 J	0.0109	0.00617	0.00390	0.00434 JN
PCB-14	34883-41-5	µg/kg	< 0.00343 U	< 0.000204 U	< 0.000265 U	< 0.000138 U	R	< 0.00155 U	0.000456 J	< 0.000253 U	0.000304 J	< 0.00332 U
PCB-15	2050-68-2	µg/kg	1.6	0.0159	0.0229	0.0147	R	0.0151	0.0811	0.0409	0.0284	0.0435
PCB-16	38444-78-9	µg/kg	2.33	0.0378	0.0505	0.0404	0.0287 J	0.0575	0.491	0.133	0.0711	0.129
PCB-17	37680-66-3	µg/kg	4.51	0.124	0.465	0.143	0.0705 J	0.192	0.828	0.309	0.245	0.307
PCB-18/30	PCB-18/30	µg/kg	7.4	0.125	0.186	0.143	0.0650 J	0.18	1.37	0.414	0.247	0.439
PCB-19	38444-73-4	µg/kg	1.41	0.394	0.882	0.316	R	0.324	0.395	0.238	0.411	0.213
PCB-20/28	PCB-20/28	µg/kg	30.3	0.372	0.886	0.454	0.414 J	0.654	2.01	1.3	0.953	1.29
PCB-21/33	PCB-21/33	µg/kg	5.9	0.0703	0.166	0.0775	0.0699 J	0.109	0.6	0.272	0.146	0.276
PCB-22	38444-85-8	µg/kg	4.75	0.0643	0.125	0.0918	0.116 J	0.147	0.433	0.241	0.221	0.219
PCB-23	55720-44-0	µg/kg	0.0178	< 0.000741 U	< 0.000792 U	< 0.00112 U	< 0.000403 UJ	< 0.00136 U	0.00143	< 0.00268 U	0.000909	< 0.00268 U
PCB-24	55702-45-9	µg/kg	0.115	0.00187	0.00313	0.00248 JN	0.00112 JN	0.00373	0.0146	0.00658	0.00348	0.00549
PCB-25	55712-37-3	µg/kg	1.27	0.0279	0.0622	0.0361	0.0362 J	0.0550	0.214	0.0847	0.0873	0.0780
PCB-26/29	PCB-26/29	µg/kg	3.58	0.0600	0.103	0.0784	0.0688 J	0.11	0.417	0.209	0.173	0.194
PCB-27	38444-76-7	µg/kg	0.754	0.0346	0.0962	0.0325	0.0165 J	0.0416	0.128	0.0629	0.0469	0.0577
PCB-31	16606-02-3	µg/kg	14	0.184	0.333	0.265	0.253 J	0.389	1.3	0.662	0.634	0.628
PCB-32	38444-77-8	µg/kg	2.9	0.0773	0.214	0.0713	0.0414 J	0.0964	0.635	0.214	0.128	0.19
PCB-34	37680-68-5	µg/kg	0.0767	0.00227	0.00525 JN	0.00313	0.00263 J	0.00400	0.0160	0.00637	0.00708	0.00863
PCB-35	37680-69-6	µg/kg	< 0.0103 U	0.000894	< 0.000670 U	< 0.00108 U	< 0.000401 UJ	< 0.00133 U	< 0.00106 U	0.00349	< 0.000632 U	< 0.00290 U
PCB-36	38444-87-0	µg/kg	< 0.00976 U	< 0.000649 U	< 0.000662 U	< 0.00102 U	< 0.000366 UJ	< 0.00125 U	< 0.00103 U	< 0.00239 U	< 0.000614 U	< 0.00270 U
PCB-37	38444-90-5	µg/kg	3.56	0.0305	0.0339	0.0355	0.0492	0.0584	0.115	0.0649	0.0827	0.113
PCB-38	53555-66-1	µg/kg	0.0175	0.000802 JN	0.00237	< 0.00111 U	0.000868 J	0.00198 JN	0.00260	0.00324	0.00250	< 0.00265 U

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	SIL	1	1	1	1	1	1	1
		Location	SMB071	SMB072	SMB073	SMB074	SMB075	SMB076	SMB077	SMB078	SMB079	SMB080
		Sample ID	PDI-TF-SMB071	PDI-TF-SMB072	PDI-TF-SMB073	PDI-TF-SMB074	PDI-TF-SMB075	PDI-TF-SMB076	PDI-TF-SMB077	PDI-TF-SMB078	PDI-TF-SMB079	PDI-TF-SMB080
		Sample Date	9/8/18	8/17/18	8/13/18	8/17/18	8/17/18	8/23/18	8/17/18	8/17/18	8/17/18	9/11/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.103	0.00285	0.00546	0.00267 JN	0.00389 J	0.00559	0.0106	0.00805	0.00813	0.00811
PCB-40/41/71	PCB-40/41/71	µg/kg	6.99	0.181	0.487	0.19	0.451 J	0.365	0.935	0.643	0.584	0.517
PCB-42	36559-22-5	µg/kg	4.17	0.115	0.27	0.159	0.402 J	0.307	0.452	0.365	0.476	0.301
PCB-43	70362-46-8	µg/kg	0.697	0.0222	0.0418	0.0278	0.0513 J	0.0361	0.0665	0.0610	0.0805	0.0603
PCB-44/47/65	PCB-44/47/65	µg/kg	21.3	1.14	4.09	1.42	2.96 J	2.68	5.48	3.7	3.54	2.71
PCB-45/51	PCB-45/51	µg/kg	2.36	0.174	0.715	0.206	0.358 J	0.353	1.03	0.4	0.537	0.317
PCB-46	41464-47-5	µg/kg	0.508	0.0187	0.0389	0.0207	0.0393 J	0.0319	0.139	0.0506	0.0530	0.0493
PCB-48	70362-47-9	µg/kg	2.97	0.0731	0.14	0.0854	0.166 J	0.141	0.275	0.244	0.233	0.195
PCB-49/69	PCB-49/69	µg/kg	15.4	0.749	2.22	0.9	1.63 J	1.63	4.22	2.47	2.34	1.72
PCB-50/53	PCB-50/53	µg/kg	1.67	0.164	0.526	0.147	0.188 J	0.222	1.26	0.318	0.287	0.25
PCB-52	35693-99-3	µg/kg	28.4	1.17	2.81	1.44	2.24 J	2.53	5.6	3.74	3.13	2.75
PCB-54	15968-05-5	µg/kg	0.0995	0.0576	0.208	0.0591	0.111 J	0.0746	0.107	0.0481	0.0853	0.0409
PCB-55	74338-24-2	µg/kg	< 0.0353 U	0.0114 JN	< 0.00659 U	0.0173 JN	< 0.00452 UJ	< 0.00607 U	0.0624	0.0534	0.0527	< 0.00514 U
PCB-56	41464-43-1	µg/kg	5.11	0.112	0.238	0.168	0.496 J	0.331	0.315	0.371	0.538	0.284
PCB-57	70424-67-8	µg/kg	0.123	0.00310	0.00831	< 0.00420 U	0.00975 JN	0.00643	0.0153	0.00842	0.0132	0.00642
PCB-58	41464-49-7	µg/kg	0.0784	0.00744	0.0136 JN	0.00761 JN	0.0121 J	< 0.00560 U	0.0231	0.0238	0.0152	0.0158
PCB-59/62/75	PCB-59/62/75	µg/kg	1.68	0.0647	0.205	0.0826	0.165 J	0.137	0.229	0.204	0.208	0.148
PCB-60	33025-41-1	µg/kg	9.08	0.158	0.336	0.153	0.348 J	0.281	0.32	0.441	0.516	0.357
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	39.3	1.2	2.7	1.39	3.04 J	2.51	2.64	3.09	3.57	2.99
PCB-63	74472-34-7	µg/kg	1.58	0.0530	0.136	0.0522	0.116 J	0.0818	0.126	0.143	0.14	0.133
PCB-64	52663-58-8	µg/kg	8.43	0.243	0.558	0.288	0.693 J	0.595	0.658	0.751	0.947	0.591
PCB-66	32598-10-0	µg/kg	37.6	0.946 J	2.42 J	1 J	2.17 J	1.66	2.43	2.63 J	2.71	2.8
PCB-67	73575-53-8	µg/kg	0.653	0.0142	0.0220	0.0178	0.0552 J	0.0368	0.0437	0.0352	0.0560	0.0308
PCB-68	73575-52-7	µg/kg	0.185	0.0238	0.0895	0.0286	0.0813 J	0.0470	0.161	0.0727	0.0635	0.0629
PCB-72	41464-42-0	µg/kg	0.278	0.0250	0.0926	0.0258 JN	0.0653 J	0.0413	0.147	0.0893	0.0629	0.0780
PCB-73	74338-23-1	µg/kg	0.311	0.0167	0.0520	0.0249	0.0266 J	< 0.000440 U	0.157	0.0563	0.0446	0.0165
PCB-77	32598-13-3	µg/kg	1.9	0.0439	0.0696	0.0537	0.116	0.0877	0.0828	0.0854	0.121	0.126
PCB-78	70362-49-1	µg/kg	< 0.0359 U	< 0.00116 U	< 0.00622 U	< 0.00444 U	< 0.00424 UJ	< 0.00584 U	< 0.00350 U	< 0.00257 U	< 0.00700 U	< 0.00521 U
PCB-79	41464-48-6	µg/kg	0.461	0.0186 JN	0.0466	0.0579 JN	0.0583 J	0.0577	0.105	0.0913	0.0545	0.0458
PCB-80	33284-52-5	µg/kg	< 0.0331 U	< 0.00108 U	< 0.00597 U	< 0.00404 U	< 0.00391 UJ	< 0.00528 U	< 0.00313 U	< 0.00237 U	< 0.00656 U	< 0.00458 U
PCB-81	70362-50-4	µg/kg	0.102	0.00221 JN	< 0.00513 U	< 0.00411 U	0.00501 JN	< 0.00535 U	0.00359 JN	0.00526 JN	0.00697 JN	0.00506 JN
PCB-82	52663-62-4	µg/kg	2.06	0.103	0.237	0.155	0.347 J	0.336	0.281	0.276	0.349	0.232
PCB-83/99	PCB-83/99	µg/kg	44.5	3.57	6.78	3.34	5.26 J	4.91	12.9	7.59	5.43	8.97
PCB-84	52663-60-2	µg/kg	3.43	0.222	0.506	0.325	0.693 J	0.638	0.606	0.512	0.756	0.466
PCB-85/116/117	PCB-85/116/117	µg/kg	12.1	0.92	1.38	0.797	1.25 J	1.31	1.56	1.68	1.45	1.97
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	25.8	1.38 J	3 J	1.79 J	3.4 J	3.5 J	4.41	3.21 J	3.8 J	3.36
PCB-88/91	PCB-88/91	µg/kg	4.74	0.319	0.919	0.46	0.88 J	0.947	1.76	0.848	1.02	0.713
PCB-89	73575-57-2	µg/kg	0.14	0.00618	0.0122	0.00702	0.0150 J	0.0148 JN	0.0181 JN	0.0169	0.0212	0.0174
PCB-90/101/113	PCB-90/101/113	µg/kg	56.1	4	8.43	4.49	6.87 J	7.59	20.1	9.07	7.43	11.1
PCB-92	52663-61-3	µg/kg	11	0.842	1.83	0.861	1.36 J	1.48	5.2	1.99	1.43	2.77
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	24.4	1.94	4.31	2.13	3.45 J	3.94	10.3	4.3	4.12	4.94
PCB-94	73575-55-0	µg/kg	0.0712	0.0136	0.0376	0.0142	0.0333 J	0.0299	0.102	0.0304	0.0424	0.0208
PCB-96	73575-54-9	µg/kg	0.128	0.0168	0.0358	0.0168	0.0268 J	0.0274	0.0791	0.0369	0.0342	0.0252
PCB-103	60145-21-3	µg/kg	0.3	0.0733	0.266	0.0975	0.164 J	0.17	1.02	0.256	0.184	0.213
PCB-104	56558-16-8	µg/kg	0.00917	0.00507	0.0172	0.00811	0.0181 J	0.0143	0.0155	0.00682	0.0177	0.00372 JN
PCB-105	32598-14-4	µg/kg	16.7	1.33	2.01	1.39	2.39	2.17	3.07	2.74	1.84	2.94
PCB-106	70424-69-0	µg/kg	< 0.0619 U	< 0.00627 U	< 0.00765 U	< 0.00750 U	< 0.0110 UJ	< 0.0118 U	< 0.0240 U	< 0.0124 U	< 0.00991 U	< 0.0195 U
PCB-107/124	PCB-107/124	µg/kg	1.47	0.0898	0.196	0.121	0.222 J	0.21	0.23	0.194	0.194	0.323
PCB-109	74472-35-8	µg/kg	4.39	0.335	0.771	0.445	0.765 J	0.556	1.16	0.855	0.514	1.02
PCB-110/115	PCB-110/115	µg/kg	51.5	2.59	5.48	2.93	5.37 J	5.91	8.39	5.55	6.05	6.23
PCB-111	39635-32-0	µg/kg	0.0431	0.00895 JN	0.0300	0.00898	0.0166 J	0.0109 JN	0.118	0.0422	0.0146	0.0437
PCB-112	74472-36-9	µg/kg	< 0.0134 U	< 0.00162 U	< 0.00302 U	< 0.00182 U	< 0.00187 UJ	< 0.00390 U	< 0.0115 U	< 0.00304 U	< 0.00442 U	< 0.00358 U
PCB-114	74472-37-0	µg/kg	1.06	0.104	0.146	0.113	0.185	0.156	0.127	0.217	0.138	0.234
PCB-118	31508-00-6	µg/kg	47.7	4.3	6.8	4.69	7.86	6.64	8.58	8.22	5.63	8.53
PCB-120	68194-12-7	µg/kg	0.171	0.0347	0.113	0.0370	0.0678 J	0.0465 JN	0.419	0.139	0.0514	0.185

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	SIL	1	1	1	1	1	1	1
		Location	SMB071	SMB072	SMB073	SMB074	SMB075	SMB076	SMB077	SMB078	SMB079	SMB080
		Sample ID	PDI-TF-SMB071	PDI-TF-SMB072	PDI-TF-SMB073	PDI-TF-SMB074	PDI-TF-SMB075	PDI-TF-SMB076	PDI-TF-SMB077	PDI-TF-SMB078	PDI-TF-SMB079	PDI-TF-SMB080
		Sample Date	9/8/18	8/17/18	8/13/18	8/17/18	8/17/18	8/23/18	8/17/18	8/17/18	8/17/18	9/11/18
Chemical	**CAS**	**Units**										
PCB-121	56558-18-0	µg/kg	0.0247	0.00949	0.0248	0.0114	0.0151 J	0.0160	0.0884	0.0311	0.0164	0.0229
PCB-122	76842-07-4	µg/kg	0.245	0.0206	0.0346	0.0275	0.0486 J	0.0438	< 0.0286 U	0.0310	0.0483	0.0377
PCB-123	65510-44-3	µg/kg	0.963	0.0701	0.0993 JN	0.0901	0.143 JN	0.12	0.157 JN	0.115	0.0961 JN	0.212 JN
PCB-126	57465-28-8	µg/kg	0.185 JN	0.0138 JN	0.0245 JN	0.00901 JN	0.0166 JN	< 0.0142 U	0.191 JN	0.0240 JN	0.0217 JN	0.0461 JN
PCB-127	39635-33-1	µg/kg	0.181	0.0117	0.0247	0.0113	0.0226 J	0.0183	0.0328	0.0218	0.0157	0.0407
PCB-128/166	PCB-128/166	µg/kg	17.3	1.85	2.99	1.51	1.93	1.96	10.8	3.5	1.85	10.5
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	125	21.7	24.5	14.2	16.2	18.6	147	35.1	17	107
PCB-130	52663-66-8	µg/kg	4.83	0.461	1.08	0.544	0.831	0.786	3.55	1.1	0.657	2.33
PCB-131	61798-70-7	µg/kg	0.358	0.0255	0.0703	0.0381	0.0887	0.0759	0.158	0.0620	0.0608	0.0884
PCB-132	38380-05-1	µg/kg	9.65	0.986	2.41	1.27	2.3	2.68	9.69	2.44	2.2	4.36
PCB-133	35694-04-3	µg/kg	1.75	0.311	0.64	0.265	0.348	0.334	3.27	0.987	0.28	1.78
PCB-134/143	PCB-134/143	µg/kg	1.79	0.171	0.432	0.209	0.375	0.425	1.64	0.445	0.339	0.802
PCB-135/151/154	PCB-135/151/154	µg/kg	23.7	4.13	6.5	2.97	3.86	4.99	42.2	9.75	3.82	28
PCB-136	38411-22-2	µg/kg	3.35	0.507	0.941	0.46	0.742	0.921	4.52	1.13	0.89	2
PCB-137	35694-06-5	µg/kg	6.46	0.463	0.84	0.456	0.769	0.577	1.09	0.792	0.5	0.994
PCB-139/140	PCB-139/140	µg/kg	1.66	0.159	0.365	0.136	0.231	0.221	0.876	0.415	0.197	0.533
PCB-141	52712-04-6	µg/kg	12.2	2.09	3.07	1.54	1.73	2.64	17.6	4.25	1.83	11.1
PCB-142	41411-61-4	µg/kg	< 0.0877 U	< 0.0165 U	< 0.0249 U	< 0.0164 U	< 0.0102 U	< 0.0310 U	< 0.127 U	< 0.0305 U	< 0.0196 U	< 0.0102 U
PCB-144	68194-14-9	µg/kg	2.19	0.33	0.615	0.315	0.437	0.593	2.94	0.692	0.364	1.55
PCB-145	74472-40-5	µg/kg	0.00900 JN	0.000680	< 0.0000723 U	0.000989 JN	0.00134 JN	< 0.000706 U	< 0.000881 U	< 0.000247 U	< 0.000332 U	< 0.000520 U
PCB-146	51908-16-8	µg/kg	19.6	3.4	5.61	2.75	3.31	3.42	31.4	8.64	3.29	22.1
PCB-147/149	PCB-147/149	µg/kg	36.2	4.51	9.2	5.24	8.01	11	58.9	11.4	8.68	24
PCB-148	74472-41-6	µg/kg	0.135	0.0232	0.0976	0.0351	0.0497	0.0513	0.539	0.161	0.0564	0.122
PCB-150	68194-08-1	µg/kg	0.0548	0.0130	0.0435	0.0198	0.0389	0.0493	0.238	0.0537	0.0442	0.0346 JN
PCB-152	68194-09-2	µg/kg	0.0775	0.00515 JN	0.0160	0.00573	0.0111	0.0103 JN	0.0288 JN	0.0156	0.0127	0.00969
PCB-153/168	PCB-153/168	µg/kg	110	26	28.8	15.9	17.2	18.9	187	40.2	18	132
PCB-155	33979-03-2	µg/kg	0.0228	0.0115	0.0196	0.0127	0.0166	0.0151	0.0430	0.0236	0.0164	0.0148
PCB-156/157	PCB-156/157	µg/kg	9.14	1.53	1.71	1.21	1.82	1.49	3.81	2.24	0.99	3.71
PCB-158	74472-42-7	µg/kg	8.25	1.36	1.91	0.965	1.2	1.36	6.7	2.45	1.08	5.31
PCB-159	39635-35-3	µg/kg	0.336	< 0.0108 U	0.114	< 0.0117 U	0.0781	0.128	1.1	< 0.0208 U	< 0.0134 U	< 0.00758 U
PCB-161	74472-43-8	µg/kg	< 0.0614 U	< 0.0115 U	< 0.0170 U	< 0.0114 U	< 0.00712 U	< 0.0206 U	< 0.0905 U	< 0.0214 U	< 0.0135 U	< 0.00734 U
PCB-162	39635-34-2	µg/kg	0.322	0.0421 JN	0.0610	0.0417	0.0467	0.0338	0.151	0.0859	0.0313	0.166
PCB-164	74472-45-0	µg/kg	4.43	0.643	0.991	0.454	0.642	0.828	4.76	1.24	0.63	4.01
PCB-165	74472-46-1	µg/kg	< 0.0721 U	< 0.0129 U	0.0333	< 0.0132 U	0.0142	< 0.0239 U	0.182	0.0495	< 0.0158 U	0.0521
PCB-167	52663-72-6	µg/kg	4.17	0.655	0.786	0.561	0.744	0.61	2.92	1.12	0.43	2.49
PCB-169	32774-16-6	µg/kg	< 0.144 U	< 0.0261 U	< 0.0324 U	< 0.0282 U	< 0.00807 U	< 0.0270 U	< 0.218 U	< 0.0678 U	< 0.0150 U	< 0.109 U
PCB-170	35065-30-6	µg/kg	14.6	5.18	6.06	3.39	2.9	3.86 J	33.5	9.76	2.92	29.1
PCB-171/173	PCB-171/173	µg/kg	4.03	1.45	1.89	0.952	0.89	1.27	8.88	3.08	0.837	8.21
PCB-172	52663-74-8	µg/kg	2.98	0.924	1.14	0.727	0.622	0.852	6.26	2.09	0.589	6.61
PCB-174	38411-25-5	µg/kg	6.82	1.44	2.63	1.63	1.86	2.93	19.3	3.63	1.73	11.4
PCB-175	40186-70-7	µg/kg	0.56	0.137	0.236	0.146	0.137	0.162	1.18	0.368	0.127	0.921
PCB-176	52663-65-7	µg/kg	0.59	0.136	0.298	0.172	0.229	0.349	1.81	0.356	0.208	0.807
PCB-177	52663-70-4	µg/kg	5.06	1.62	2.74	1.86	1.95	2.02	15.6	4.21	1.4	11
PCB-178	52663-67-9	µg/kg	4.45	1.09	1.69	0.952	0.937	1.21	10.2	3.17	0.918	8.89
PCB-179	52663-64-6	µg/kg	3.24	0.669	1.24	0.69	0.834	1.23	8.04	2.08	0.871	4.92
PCB-180/193	PCB-180/193	µg/kg	50.6	17.3	19.3	12.5	10.1	12.1 J	111	32.9	9.4	96.1
PCB-181	74472-47-2	µg/kg	0.223	0.0416	0.0513	0.0293	0.0437	0.0298	0.126	0.0618	0.0225	0.143
PCB-182	60145-23-5	µg/kg	< 0.000845 U	0.0231	0.0550	0.0256	< 0.000385 U	< 0.00116 U	< 0.00177 U	0.0808	< 0.000337 U	< 0.000947 U
PCB-183/185	PCB-183/185	µg/kg	14	3.85	5.02	2.79	2.66	3.48	27.6	8.36	2.48	25.8
PCB-184	74472-48-3	µg/kg	0.0301	0.0110	0.0146	0.0108	0.0110	0.0107	< 0.00129 U	0.0198	0.0136	0.0159
PCB-186	74472-49-4	µg/kg	< 0.000702 U	< 0.000391 U	< 0.000241 U	< 0.000332 U	< 0.000312 U	< 0.00100 U	< 0.00145 U	< 0.000381 U	< 0.000275 U	< 0.000780 U
PCB-187	52663-68-0	µg/kg	56.7	10.9	13.1	8.05	7.54	8.89	101	22.3	8.03	110
PCB-188	74487-85-7	µg/kg	0.0660	0.0101	0.0268	0.0142	0.0192	0.0180	0.152	0.0416	0.0138	0.0367
PCB-189	39635-31-9	µg/kg	0.48	0.19	0.182	0.13	0.11	0.12	1.09	0.344	0.0793	0.976
PCB-190	41411-64-7	µg/kg	3.46	1.37	1.48	0.915	0.668	1.12	8.74	2.69	0.603	8.32

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	SIL	1	1	1	1	1	1	1
		Location	SMB071	SMB072	SMB073	SMB074	SMB075	SMB076	SMB077	SMB078	SMB079	SMB080
		Sample ID	PDI-TF-SMB071	PDI-TF-SMB072	PDI-TF-SMB073	PDI-TF-SMB074	PDI-TF-SMB075	PDI-TF-SMB076	PDI-TF-SMB077	PDI-TF-SMB078	PDI-TF-SMB079	PDI-TF-SMB080
		Sample Date	9/8/18	8/17/18	8/13/18	8/17/18	8/17/18	8/23/18	8/17/18	8/17/18	8/17/18	9/11/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.649	0.232	0.297	0.173	0.144	0.224	1.47	0.481	0.147	1.38
PCB-192	74472-51-8	µg/kg	< 0.000819 U	< 0.000419 U	< 0.000251 U	< 0.000366 U	< 0.000339 U	< 0.00109 U	< 0.00171 U	< 0.000427 U	< 0.000319 U	< 0.000922 U
PCB-194	35694-08-7	µg/kg	9.19	2.19	2	1.59	0.939	1.05 J	19.8	4.37	1.18	13.5
PCB-195	52663-78-2	µg/kg	3.25	1.05	1.34	0.874	0.499	0.771	8.06	2.36	0.592	7.37
PCB-196	42740-50-1	µg/kg	4.96	1.08	1.58 JN	0.987	0.768	1.2	7.94	2.56	0.897	6.7
PCB-197/200	PCB-197/200	µg/kg	0.809	0.149	0.277	0.179	0.169	0.253	1.51	0.397	0.162 J	1.16
PCB-198/199	PCB-198/199	µg/kg	14.3	2.33	3.63	2.31	1.9	2.58	18.6	5.76	1.74	19.7
PCB-201	40186-71-8	µg/kg	1.15	0.169	0.352	0.219	0.206	0.236	1.63	0.537	0.161	1.4
PCB-202	2136-99-4	µg/kg	3.6	0.52	0.889	0.527	0.424	0.418	4.14	1.42	0.45	3.6
PCB-203	52663-76-0	µg/kg	9.3	1.83	2.74	1.59	1.15	2.01	11.6	4.2	1.16	11.2
PCB-204	74472-52-9	µg/kg	0.00710	0.00127 JN	0.00190	0.00116	0.00163	0.000959 JN	0.00299 JN	0.00239	0.00144 JN	0.00299 JN
PCB-205	74472-53-0	µg/kg	0.365	0.123	0.14	0.0932	0.0557	0.0758	0.938	0.282	0.0472	0.828
PCB-206	40186-72-9	µg/kg	4.5	0.542	0.85	0.51	0.387	0.351	2.33	1.07	0.326	2.15
PCB-207	52663-79-3	µg/kg	0.636	0.0677	0.119	0.0656	0.0516	0.0456	0.368	0.146	0.0491	0.328
PCB-208	52663-77-1	µg/kg	1.38	0.127	0.264	0.157	0.171	0.106	0.54	0.285	0.134	0.522
PCB-209	2051-24-3	µg/kg	0.929	0.14	0.228	0.155	0.179	0.0949	0.163	0.212	0.119	0.209
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	1220	159	232	130	160	180	1100	321	166	834
Pesticides												
2,4-DDD	53-19-0	µg/kg	1.09	0.476	0.509	0.802	2.36	0.981 J	0.634	1.01	2.47	0.585
2,4-DDE	3424-82-6	µg/kg	0.456	0.164 J	0.175 J	0.228 J	0.553	0.290 J	0.168 J	0.348	0.630	0.223 J
2,4-DDT	789-02-6	µg/kg	1.02	0.166 J	0.334 J	0.286	0.883	0.433 J	0.282	0.353	0.833	0.256
4,4'-DDD	72-54-8	µg/kg	8.46 J	3.09	4.15	3.57	7.87	3.90 J	4.11	6.97	9.49	4.21
4,4'-DDE	72-55-9	µg/kg	48.1	23.8	27.8	31.2	43.4	30.1 J	29.6	49.5	59.7	29.9
4,4'-DDT	50-29-3	µg/kg	9.41 J	2.74	3.36 J	2.19	6.26	1.88 J	2.07	4.08	3.99	3.08
DDx (a)	T_DDx (PDI)	µg/kg	68.5	30.4	36.3	38.3	61.3	37.6	36.9	62.3	77.1	38.3
alpha-Chlordane	5103-71-9	µg/kg	3.51	0.835	3.88	0.788	1.37	1.05 J	1.06	1.38	1.66	1.26
cis-Nonachlor	5103-73-1	µg/kg	2.56	0.985	2.94 J	1.11	1.21	0.975 J	1.15	1.83	1.62	1.48
Oxychlordane	27304-13-8	µg/kg	2.14	0.464	2.28	0.522	0.509	0.481 J	0.580	0.963	0.853	0.857
trans-Chlordane	5103-74-2	µg/kg	1.24	0.267 J	0.968	0.256 J	0.534	0.365 J	0.360 J	0.421 J	0.587	0.403 J
trans-Nonachlor	39765-80-5	µg/kg	7.96	2.68	10.2	3.01	3.07	2.63 J	2.92	5.21	4.42	3.92
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	17.4	5.23	20.3	5.69	6.69	5.5	6.07	9.8	9.14	7.92
Aldrin	309-00-2	µg/kg	0.022 JN	0.015 J	0.007 JN	0.012 JN	0.018 JN	0.009 JN	0.031 J	0.014 JN	0.013 JN	0.010 J
Dieldrin	60-57-1	µg/kg	4.35	1.11	1.37	1.18	1.94	1.61 J	1.22	1.63	2.36	1.26
Metals												
Arsenic	7440-38-2	mg/kg	0.18	0.14	0.15	0.16	0.28	0.22	0.12	0.20	0.29	0.15
Mercury	7439-97-6	mg/kg	0.091 J	0.186 J	0.102 J	0.106 J	0.109 J	0.089 J	0.0969 J	0.180 J	0.100 J	0.132 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	790 J	< 20000 U	2300 J	< 20000 U	< 20000 U	< 20000 U	170 J	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.42	1.13	1.54	1.13	1.70	1.50 J	1.14	1.60	2.12	1.12
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00209 J	0.00244 J	0.00323 JN	0.00184 J	0.00328 JN	0.00319 JN	0.00256 J	0.00270 J	0.00418 JN	0.00151 JN
PBDE-8/11	PDBE-8/11	µg/kg	0.00261 J	0.00223 J	0.00407 J	0.00205 J	0.00308 JN	0.00286 J	0.00269 J	0.00226 J	0.00352 JN	0.00156 J
PBDE-10	51930-04-2	µg/kg	< 0.000411 U	< 0.000217 U	< 0.000145 U	< 0.000243 U	< 0.000512 U	< 0.000843 U	< 0.000648 U	< 0.000359 U	< 0.000859 U	< 0.000711 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00671 JN	0.00285 JN	0.0108 JN	0.00267 JN	0.0212 JN	0.0193 JN	0.0205 JN	0.00811 JN	0.0286 JN	0.000754 JN
PBDE-15	2050-47-7	µg/kg	0.0137 J	0.0126	0.0140	0.0122	0.0167	0.0193	0.0122 J	0.0171	0.0215	0.0132 J
PBDE-17/25	PBDE-17/25	µg/kg	0.0880 JN	0.112	0.12	0.101	0.137 JN	0.127 JN	0.0816 JN	0.108	0.181 JN	0.0654
PBDE-28/33	PBDE-28/33	µg/kg	0.393	0.53	0.467	0.43	0.333	0.583	0.411	0.624	0.525	0.514
PBDE-30	155999-95-4	µg/kg	< 0.00247 U	< 0.00244 U	< 0.00145 U	< 0.00292 U	< 0.00340 U	< 0.00302 U	< 0.00344 U	< 0.00263 U	< 0.00505 U	< 0.00647 U
PBDE-32	189084-60-4	µg/kg	< 0.00196 U	< 0.00188 U	< 0.00112 U	< 0.00225 U	< 0.00246 U	< 0.00243 U	< 0.00278 U	< 0.00208 U	< 0.00408 U	< 0.00522 U
PBDE-35	147217-80-9	µg/kg	0.0147 JN	0.00566 JN	0.00988 JN	0.00557 JN	0.00502 JN	0.00612 JN	0.00809 J	0.0110 JN	0.00921 JN	0.00765 JN
PBDE-37	147217-81-0	µg/kg	0.00802 J	0.00865	0.00987	0.00912	0.00819 J	0.0112 J	0.0110 J	0.0110	0.0107 JN	0.00646 J
PBDE-047	5436-43-1	µg/kg	20	21.4	21.7	18.3	15.2	23	17.7	27.8	18.7	23.4
PBDE-49	243982-82-3	µg/kg	0.647	0.718	0.707	0.687	1.16	1.21	0.473	0.951	1.42	0.513
PBDE-51	189084-57-9	µg/kg	0.0207	0.0175	0.0322	0.0193	0.0495	0.0416	0.0228	0.0307	0.0566	0.0176

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	SIL	1	1	1	1	1	1	1
		Location	SMB071	SMB072	SMB073	SMB074	SMB075	SMB076	SMB077	SMB078	SMB079	SMB080
		Sample ID	PDI-TF-SMB071	PDI-TF-SMB072	PDI-TF-SMB073	PDI-TF-SMB074	PDI-TF-SMB075	PDI-TF-SMB076	PDI-TF-SMB077	PDI-TF-SMB078	PDI-TF-SMB079	PDI-TF-SMB080
		Sample Date	9/8/18	8/17/18	8/13/18	8/17/18	8/17/18	8/23/18	8/17/18	8/17/18	8/17/18	9/11/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.172	0.318	0.188	0.182	0.182	0.391	0.276	0.25	0.417	0.213
PBDE-71	189084-62-6	µg/kg	0.0191	0.0209 JN	0.0173	0.0238	0.0474	0.0489	0.0190	0.0340	0.0595	0.0212
PBDE-75	189084-63-7	µg/kg	0.0157	0.0183	0.0151	0.0136 JN	0.0245	0.0347	0.0218	0.0203	0.0348	0.0166
PBDE-77	93703-48-1	µg/kg	0.00260 J	0.00367 JN	0.00496 JN	0.00567 JN	0.00404 JN	< 0.000170 U	0.00412 JN	0.00388 JN	0.00435 JN	< 0.000143 U
PBDE-79	PBDE-79	µg/kg	0.0238 JN	0.0596 JN	0.0464 JN	0.0453 JN	0.0219 JN	0.0417 JN	0.0232 JN	0.0459 JN	0.0418 JN	0.0129 J+
PBDE-85	182346-21-0	µg/kg	< 0.00199 U	< 0.00228 U	< 0.00148 U	< 0.00190 U	0.00368 J	< 0.00662 U	< 0.00424 U	< 0.00315 U	< 0.00482 U	< 0.00606 U
PBDE-099	60348-60-9	µg/kg	3.83	9.92	3.21	7.68	5.17	7.7	4.03	4.33	8.49	3.62
PBDE-100	189084-64-8	µg/kg	3.22	3.86	3.88	4.04	3.47	4.12	3.34	4.39	4.24	3.59
PBDE-105	373594-78-6	µg/kg	< 0.00241 U	< 0.00304 U	< 0.00197 U	< 0.00254 U	< 0.00434 U	< 0.00935 U	< 0.00569 U	< 0.00420 U	< 0.00646 U	< 0.00763 U
PBDE-116	189084-65-9	µg/kg	< 0.00323 U	< 0.00458 U	< 0.00304 U	< 0.00382 U	< 0.00570 U	< 0.0136 U	< 0.00714 U	< 0.00625 U	< 0.00811 U	< 0.00992 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0769	0.0847	0.113	0.0844	0.0684	0.247	0.0706	0.117	0.0801	0.122
PBDE-126	366791-32-4	µg/kg	0.00991 J	0.00692 J	0.0159	0.0155	0.0111 J	0.0163 J	0.0127 J	0.0114	0.0172	< 0.00591 U
PBDE-128	182677-28-7	µg/kg	0.00550 JN	0.00653 JN	0.0119 JN	0.0123 J	0.00360 JN	0.00516 JN	0.00457 JN	0.0101 JN	0.00505 JN	0.00281 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00109 JN	0.0112 J	< 0.00109 U	0.00549 JN	0.00145 J	0.00294 JN	0.00209 JN	< 0.000416 U	0.00126 JN	0.00110 JN
PBDE-140	243982-83-4	µg/kg	0.00764 J	0.0400 J	0.0145 J	0.0203 J	0.0104 J	0.0192	0.000543 J	0.0153 J	0.0165 J	0.0109 J
PBDE-153	68631-49-2	µg/kg	0.914	1.87	1.12	1.38	0.848 J	1.28	0.763	1.19	1.22	1.47
PBDE-154	207122-15-4	µg/kg	0.694	1.24	1.1	1.12	0.751 J	1.04	0.725	1.03	0.957 J	0.808
PBDE-155	35854-94-5	µg/kg	0.0879	0.0574	0.166	0.126	0.0797 J	0.0904	0.0986	0.0886	0.1 J	0.0503
PBDE-181	189084-67-1	µg/kg	0.000413 JN	0.000262 JN	0.00141 J	0.000845 JN	0.000376 JN	< 0.000683 U	< 0.000203 U	0.000772 J	< 0.000155 U	0.000626 JN
PBDE-183	207122-16-5	µg/kg	0.00723 JN	0.0131	0.00972	0.0155	0.00730 JN	0.0116 J	0.00616 JN	0.00970	0.0141 J	0.00976 JN
PBDE-190	189084-68-2	µg/kg	0.000756 JN	0.000324 JN	< 0.00107 U	< 0.000541 U	< 0.000144 U	0.00119 JN	< 0.000319 U	0.000464 JN	< 0.000243 U	< 0.000245 U
PBDE-203	337513-72-1	µg/kg	0.00145 JN	0.00145 JN	0.00251 JN	0.00362 JN	0.00198 JN	< 0.00106 U	< 0.000147 U	0.00193 JN	0.00218 JN	0.000759 JN
PBDE-206	63387-28-0	µg/kg	0.00315 JN	0.00116 JN	0.000988 JN	0.000437 JN	0.00277 JN	< 0.000989 U	0.00471 JN	0.00153 JN	0.00732 JN	0.00288 JN
PBDE-207	437701-79-6	µg/kg	0.00411 JN	0.000961 JN	< 0.00202 U	0.00148 JN	0.00322 JN	< 0.00124 U	0.00180 JN	0.00315 JN	0.0134 JN	< 0.00203 U
PBDE-208	437701-78-5	µg/kg	0.00253 J	0.00208 JN	0.00335 JN	0.00289 J	0.00226 JN	< 0.00176 U	< 0.000575 U	0.00173 JN	0.0116 JN	0.00309 JN
PBDE-209	1163-19-5	µg/kg	0.0500 J+	< 0.0135 U	0.0197 J+	< 0.0116 U	0.0507 J+	< 0.0278 U	0.0184 J+	0.0220 JN	0.176	0.0492 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	30.3	40.4	33	34.4	27.7	40.1	28.2	41.1	36.9	34.6

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	SIL	1	1	1	1	1	1	1
		Location	SMB071	SMB072	SMB073	SMB074	SMB075	SMB076	SMB077	SMB078	SMB079	SMB080
		Sample ID	PDI-TF-SMB071	PDI-TF-SMB072	PDI-TF-SMB073	PDI-TF-SMB074	PDI-TF-SMB075	PDI-TF-SMB076	PDI-TF-SMB077	PDI-TF-SMB078	PDI-TF-SMB079	PDI-TF-SMB080
		Sample Date	9/8/18	8/17/18	8/13/18	8/17/18	8/17/18	8/23/18	8/17/18	8/17/18	8/17/18	9/11/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	5.12	5.70	6.21	4.61	6.77	5.76	3.59	5.46	8.81	4.84
Total Solids@104C	TSOLID	%	26.7	27.5	27.8	28.8	29.8	27.1	24.3	26.6	29.9	27.6

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	1	1	1	1	1	1	1	1
		Location	SMB081	SMB082	SMB083	SMB084	SMB085	SMB086	SMB087	SMB088	SMB089	SMB090
		Sample ID	PDI-TF-SMB081	PDI-TF-SMB082	PDI-TF-SMB083	PDI-TF-SMB084	PDI-TF-SMB085	PDI-TF-SMB086	PDI-TF-SMB087	PDI-TF-SMB088	PDI-TF-SMB089	PDI-TF-SMB090
		Sample Date	8/23/18	9/8/18	8/23/18	8/17/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0000876 J	0.000180 JN	< 0.000119 U	0.000130 JN	0.0000799 J	0.000115 JN	0.000471 J	0.000282 J	0.000391 JN	0.000137 JN
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000733 U	0.000118 J	< 0.0000842 U	< 0.0000700 U	< 0.0000736 U	< 0.0000740 U	< 0.0000734 U	0.0000909 J	< 0.0000722 U	< 0.0000729 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000733 U	< 0.0000738 U	< 0.0000842 U	< 0.0000700 U	< 0.0000736 U	< 0.0000740 U	< 0.0000734 U	< 0.0000717 U	< 0.0000722 U	< 0.0000729 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.0000733 U	0.0000958 J	< 0.0000842 U	< 0.0000700 U	< 0.0000754 U	0.0000898 JN	0.000236 JN	0.000117 JN	0.000239 J	< 0.0000729 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.0000733 U	< 0.0000738 U	< 0.0000842 U	0.0000750 J	< 0.0000736 U	0.0000791 JN	0.000157 J	0.000134 J	0.000343 J	0.000105 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000235 JN	0.000241 J	0.000219 JN	0.000290 J	0.000191 J	0.000370 J	0.000993 J	0.000567 JN	0.00108 J	0.000253 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0000733 U	< 0.0000738 U	< 0.0000842 U	< 0.0000700 U	< 0.0000736 U	< 0.0000740 U	< 0.0000734 U	0.0000806 JN	0.000341 J	< 0.0000729 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000733 U	< 0.0000738 U	< 0.0000842 U	< 0.0000700 U	< 0.0000772 U	< 0.0000740 U	< 0.000255 U	< 0.0000717 U	0.000170 JN	< 0.0000729 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000733 U	< 0.0000739 U	< 0.0000842 U	< 0.0000700 U	< 0.0000736 U	< 0.0000740 U	< 0.0000734 U	< 0.0000717 U	< 0.0000722 U	< 0.0000729 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000309 J	0.000346 J	0.000354 J	0.000431 J	0.000361 J	0.000422 J	0.000841 J	0.000781 J	0.00101 JN	0.000258 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000101 J	0.000195 JN	0.0000953 JN	0.0000805 J	0.000125 JN	0.000181 J	0.000123 J	0.000293 J	0.000493 J	0.0000950 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000733 U	< 0.0000738 U	< 0.0000842 U	< 0.0000700 U	< 0.0000736 U	< 0.0000740 U	< 0.0000734 U	< 0.0000717 U	0.000111 JN	< 0.0000729 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000273 J	0.000334 JN	0.000283 J	0.000499 JN	0.000419 J	0.000511 J	0.000285 J	0.000469 J	0.00103 J	0.000269 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000271 JN	0.000299 J	0.000240 J	0.000365	0.000276 J	0.000368	0.000467	0.000314	0.000348 JN	0.000167 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000600	0.000777	0.00104	0.00114	0.000749	0.000987	0.00107	0.000564 JN	0.000606	0.000759
OCDD	3268-87-9	µg/kg	< 0.000101 U	0.000459 JN	0.000278 JN	0.000271 J	0.000185 J	0.000317 JN	0.000393 J	0.00104 J	0.000197 J	0.000256 J
OCDF	39001-02-0	µg/kg	< 0.0000733 U	< 0.0000738 U	0.000160 JN	< 0.0000700 U	< 0.0000736 U	< 0.0000740 U	< 0.0000734 U	0.000107 J	< 0.0000722 U	< 0.0000729 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.000753	0.000869	0.000812	0.0011	0.000865	0.00111	0.00166	0.0014	0.00198	0.000625
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.00059	0.000808	0.000794	0.00102	0.000861	0.00109	0.00164	0.00135	0.00144	0.000453
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.000455	0.000758	0.000783	0.000949	0.000858	0.00108	0.00162	0.00132	0.000933	0.000324
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00284 J	0.00306	0.00433	0.0629	0.00538	0.00532	0.00430	0.00271	0.00332	0.00440
PCB-2	2051-61-8	µg/kg	0.000951 JN	0.000903 JN	0.00117 JN	0.00589	0.000894	0.00160	0.000981	0.000925 J+	0.000988	0.000949
PCB-3	2051-62-9	µg/kg	0.00192 J+	0.00230 JN	0.00282 JN	0.0297	0.00267 J+	0.00258 J+	0.00220 J+	0.00226 J+	0.00205 J+	0.00171 J+
PCB-4	13029-08-8	µg/kg	0.0763	0.0845	0.111	0.17	0.114	0.0744	0.122	0.0874	0.0470	0.277
PCB-5	16605-91-7	µg/kg	< 0.00302 U	< 0.00182 U	< 0.00168 U	0.00272	0.00189	0.000894	0.000726	0.000314 JN	0.000578	0.000629 JN
PCB-6	25569-80-6	µg/kg	0.0132	0.00922	0.0149	0.0397	0.0338	0.0271	0.0135	0.00609	0.0102	0.0146
PCB-7	33284-50-3	µg/kg	< 0.00279 U	0.00167 J	0.00259 J	0.00795	0.00625	0.00379	0.00255	0.00123	0.00177	0.00279
PCB-8	34883-43-7	µg/kg	0.0478	0.0286	0.0532	0.126	0.153	0.0794	0.0486	0.0229	0.0364	0.0648
PCB-9	34883-39-1	µg/kg	0.00336 JN	0.00256 JN	0.00416	0.0114	0.0102	0.00621	0.00394	0.00193	0.00294	0.00415
PCB-10	33146-45-1	µg/kg	0.00494	0.00520	0.00612	0.0117	0.00567	0.00366	0.00696	0.00529	0.00252	0.0233
PCB-11	2050-67-1	µg/kg	0.0611	0.0774	0.0951	0.163	0.0879	0.112	0.121	0.0581	0.0716	0.111
PCB-12/13	PCB-12/13	µg/kg	< 0.00284 U	0.00184 JN	0.00223 J	0.0120	0.00256	0.00275	0.00217	0.00239	0.00154	0.00442
PCB-14	34883-41-5	µg/kg	< 0.00278 U	< 0.00166 U	< 0.00157 U	< 0.000235 U	< 0.000408 U	0.000196 JN	< 0.000239 U	< 0.000116 U	< 0.000221 U	< 0.000183 U
PCB-15	2050-68-2	µg/kg	0.0139	0.0108 JN	0.0204	0.0715	0.171	0.0186	0.0174	0.0115	0.0120	0.0149
PCB-16	38444-78-9	µg/kg	0.0414	0.0271	0.0530	0.0807	0.171	0.0519	0.0417	0.0167	0.0306	0.0400
PCB-17	37680-66-3	µg/kg	0.138	0.107	0.169	0.239	0.329	0.187	0.166	0.0968	0.0963	0.587
PCB-18/30	PCB-18/30	µg/kg	0.133	0.0991	0.169	0.28	0.473	0.179	0.148	0.0679	0.108	0.191
PCB-19	38444-73-4	µg/kg	0.224	0.242	0.314	0.313	0.258	0.18	0.378	0.341	0.125	1.26
PCB-20/28	PCB-20/28	µg/kg	0.577	0.311	0.61	0.87	1.41	0.634	0.633	0.291	0.497	0.723
PCB-21/33	PCB-21/33	µg/kg	0.0974	0.0537	0.0958	0.182	0.538	0.126	0.0922	0.0407	0.0832	0.18
PCB-22	38444-85-8	µg/kg	0.0848	0.0524	0.141	0.18	0.355	0.134	0.127	0.0347	0.0848	0.111
PCB-23	55720-44-0	µg/kg	< 0.000807 U	< 0.00115 U	< 0.00117 U	< 0.000953 U	0.00173	0.000543 J	0.000541 J	< 0.000448 U	0.000398 J	< 0.000562 U
PCB-24	55702-45-9	µg/kg	0.00245 J	0.00175 JN	0.00254 J	0.00494	0.00603	0.00319	0.00201	0.00106	0.00153	0.00257
PCB-25	55712-37-3	µg/kg	0.0410	0.0283	0.0532	0.0803	0.0954	0.0524	0.0530	0.0227	0.0278	0.104
PCB-26/29	PCB-26/29	µg/kg	0.0864	0.0607	0.109	0.153	0.228	0.116	0.111	0.0434	0.0715	0.116
PCB-27	38444-76-7	µg/kg	0.0354	0.0260	0.0324	0.0620	0.0509	0.0446	0.0396	0.0289	0.0252	0.156
PCB-31	16606-02-3	µg/kg	0.235	0.159	0.375	0.548	1.01	0.373	0.363	0.104	0.235	0.36
PCB-32	38444-77-8	µg/kg	0.0834	0.0573	0.0779	0.161	0.198	0.0988	0.0993	0.0599	0.0615	0.415
PCB-34	37680-68-5	µg/kg	0.00294	0.00134 J	0.00439	0.00545	0.00544	0.00482	0.00432	0.00123	0.00240	0.00462
PCB-35	37680-69-6	µg/kg	< 0.000838 U	< 0.00116 U	< 0.00115 U	0.00175 JN	< 0.000630 U	< 0.000333 U	< 0.000365 U	0.00214	< 0.000387 U	< 0.000499 U
PCB-36	38444-87-0	µg/kg	< 0.000757 U	< 0.00104 U	< 0.00108 U	< 0.000847 U	< 0.000600 U	< 0.000323 U	< 0.000333 U	< 0.000405 U	< 0.000353 U	< 0.000485 U
PCB-37	38444-90-5	µg/kg	0.0383	0.0307	0.0684	0.0660	0.516	0.0444	0.0482	0.0317	0.0275	0.0522
PCB-38	53555-66-1	µg/kg	0.00119 JN	< 0.00114 U	0.00152 J	0.00132	0.000976	0.00122 JN	0.00145	0.000527 JN	0.000558 J	0.00621

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1
		Segment	SMB081	SMB082	SMB083	SMB084	SMB085	SMB086	SMB087	SMB088	SMB089	SMB090
		Location										
		Sample ID	PDI-TF-SMB081	PDI-TF-SMB082	PDI-TF-SMB083	PDI-TF-SMB084	PDI-TF-SMB085	PDI-TF-SMB086	PDI-TF-SMB087	PDI-TF-SMB088	PDI-TF-SMB089	PDI-TF-SMB090
		Sample Date	8/23/18	9/8/18	8/23/18	8/17/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.00467	0.00194 J	0.00453	0.00776	0.00952	0.00441	0.00416	0.00177 JN	0.00324	0.0149
PCB-40/41/71	PCB-40/41/71	µg/kg	0.304	0.16	0.287	0.552	0.72	0.335	0.381	0.16	0.271	1.27
PCB-42	36559-22-5	µg/kg	0.189	0.11	0.275	0.35	0.418	0.214	0.292	0.0816	0.166	0.562
PCB-43	70362-46-8	µg/kg	0.0239	0.0212	0.0293	0.0560	0.0733	0.0310	0.0443	0.0148	0.0285	0.0832
PCB-44/47/65	PCB-44/47/65	µg/kg	2.32	1.3	2.09	2.69	2.4	1.45	3.17	1.78	1.57	11.8
PCB-45/51	PCB-45/51	µg/kg	0.234	0.187	0.312	0.374	0.357	0.185	0.435	0.188	0.148	1.59
PCB-46	41464-47-5	µg/kg	0.0261	0.0176	0.0305	0.0417	0.0616	0.0249	0.0286	0.0153	0.0158	0.0631
PCB-48	70362-47-9	µg/kg	0.11	0.0596	0.122	0.208	0.334	0.116	0.137	0.0526	0.114	0.373
PCB-49/69	PCB-49/69	µg/kg	1.29	0.765	1.33	1.78	1.55	0.968	1.89	0.762	0.973	7.73
PCB-50/53	PCB-50/53	µg/kg	0.206	0.15	0.178	0.361	0.252	0.181	0.242	0.231	0.136	1.32
PCB-52	35693-99-3	µg/kg	1.91	1.1	1.83	2.96	2.27	1.51	2.43	1.15	1.47	21.3
PCB-54	15968-05-5	µg/kg	0.0542	0.0579	0.0726	0.0581	0.0540	0.0403	0.107	0.0806	0.0427	0.467
PCB-55	74338-24-2	µg/kg	< 0.00367 U	< 0.00240 U	< 0.00747 U	0.0318 JN	< 0.00211 U	0.00779	< 0.000929 U	0.0145 JN	< 0.000722 U	< 0.00998 U
PCB-56	41464-43-1	µg/kg	0.17	0.11	0.311	0.439	0.169	0.282	0.3	0.0706	0.137	0.216
PCB-57	70424-67-8	µg/kg	0.00597 JN	0.00352 JN	< 0.00680 U	0.00760	0.00835	0.00529	0.00819	0.00603	0.00541	0.00968
PCB-58	41464-49-7	µg/kg	0.0111	0.00665	< 0.00689 U	0.0119 JN	0.00525	0.00951	0.0204	0.0122	0.00809	0.0311
PCB-59/62/75	PCB-59/62/75	µg/kg	0.107	0.0629	0.122	0.165	0.177	0.0936	0.162	0.0621	0.0908	0.314
PCB-60	33025-41-1	µg/kg	0.284	0.154	0.252	0.383	0.245	0.273	0.354	0.105	0.206	1.36
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	2.25	1.12	2.06	2.84	2.1	1.9	2.54	1.16	1.57	9.34
PCB-63	74472-34-7	µg/kg	0.0977	0.0549	0.0799	0.0983	0.154	0.0837	0.106	0.0523	0.0719	0.349
PCB-64	52663-58-8	µg/kg	0.38	0.225	0.487	0.679	0.735	0.407	0.58	0.159	0.365	2.35
PCB-66	32598-10-0	µg/kg	1.9	0.972	1.46	1.89 J	1.67	1.25 J	1.89	0.835 J	1.27	6.99 J
PCB-67	73575-53-8	µg/kg	0.0250	0.0139	0.0328	0.0422	0.0369	0.0266	0.0346	0.0137	0.0187	0.0291
PCB-68	73575-52-7	µg/kg	0.0425	0.0317	0.0455	0.0504	0.0354	0.0364	0.0691	0.0531	0.0316	0.118
PCB-72	41464-42-0	µg/kg	0.0408	0.0256	0.0394	0.0476	0.0367	0.0361	0.0581	0.0309	0.0335	0.0726
PCB-73	74338-23-1	µg/kg	0.0281	0.0275	< 0.000507 U	0.0366	< 0.0000818 U	0.0124	0.0313	0.0300	0.0129	0.16
PCB-77	32598-13-3	µg/kg	0.0859	0.0494	0.0866	0.108	0.0626	0.0613	0.0831	0.0475	0.0574	0.0743
PCB-78	70362-49-1	µg/kg	< 0.00373 U	< 0.00231 U	< 0.00719 U	< 0.00166 U	< 0.00201 U	< 0.000900 U	< 0.000871 U	< 0.00260 U	< 0.000677 U	< 0.00950 U
PCB-79	41464-48-6	µg/kg	0.0439 JN	0.0170	0.0391 JN	0.0970 JN	0.0400	0.0325	0.0393	0.0310 JN	0.0258	0.367
PCB-80	33284-52-5	µg/kg	< 0.00335 U	< 0.00215 U	< 0.00650 U	< 0.00153 U	< 0.00182 U	0.000876	0.00159 JN	< 0.00237 U	0.000951	< 0.00873 U
PCB-81	70362-50-4	µg/kg	0.00510 JN	< 0.00216 U	< 0.00662 U	0.00491 JN	0.00247 JN	0.00339 JN	0.00365 JN	< 0.00242 U	0.00250 JN	0.0200 JN
PCB-82	52663-62-4	µg/kg	0.264	0.0672	0.224	0.359	0.124	0.22	0.211	0.155	0.166	1.53
PCB-83/99	PCB-83/99	µg/kg	6.38	2.72	3.63	4.94	4.1	3.4	4.78	3.92	4.02	65.2
PCB-84	52663-60-2	µg/kg	0.41	0.161	0.492	0.683	0.271	0.383	0.436	0.298	0.306	2.01
PCB-85/116/117	PCB-85/116/117	µg/kg	1.63	0.56	0.909	1.25	1.19	0.904	1.24	0.738	0.948	18.5
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	3.32	0.996 J	2.37 J	3.41 J	1.71	1.96 J	2.72 J	1.85 J	1.92	45.4
PCB-88/91	PCB-88/91	µg/kg	0.641	0.251	0.71	0.902	0.431	0.471	0.736	0.521	0.427	4.92
PCB-89	73575-57-2	µg/kg	0.0111	0.00465 JN	0.0121	0.0184	0.00987	0.0122	0.0109	0.00678	0.00945 JN	0.173
PCB-90/101/113	PCB-90/101/113	µg/kg	7.45	2.55	5.2	9.41	4.16	4.3	6.35	4.98	4.53	113
PCB-92	52663-61-3	µg/kg	1.51	0.514	1.05	1.63	0.983	0.854	1.22	0.798	0.918	17.1
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	3.15	1.28	2.73	4.75	2.14	2.12	3.02	2.36	2.29	33.1
PCB-94	73575-55-0	µg/kg	0.0205	0.00833	0.0275	0.0366	0.0164	0.0187	0.0267	0.0215	0.0107	0.148 JN
PCB-96	73575-54-9	µg/kg	0.0227	0.0163	0.0223	0.0295	0.0244	0.0173	0.0364	0.0212	0.0192	0.279
PCB-103	60145-21-3	µg/kg	0.124	0.0703	0.151	0.156	0.0973	0.0767	0.183	0.167	0.0861	0.776
PCB-104	56558-16-8	µg/kg	0.00890	0.00440	0.0153 JN	0.0109	0.00620	0.00555	0.0157	0.00737	0.00311	0.0587
PCB-105	32598-14-4	µg/kg	2.97	0.988	1.41	2.03	1.77	1.48	2.13	1.59	1.49	44.4
PCB-106	70424-69-0	µg/kg	< 0.0191 U	< 0.00760 U	< 0.00653 U	< 0.00820 U	< 0.00805 U	< 0.00436 U	< 0.0134 U	< 0.00749 U	< 0.0101 U	< 0.0187 U
PCB-107/124	PCB-107/124	µg/kg	0.228	0.0666	0.141	0.188	0.115	0.132	0.166	0.141	0.117	0.262
PCB-109	74472-35-8	µg/kg	0.81	0.336	0.425	0.522	0.443	0.458	0.601	0.491	0.494	6.2
PCB-110/115	PCB-110/115	µg/kg	5.51	1.64	4.04	6.54	3.06	3.4	4.55	2.74	3.3	86.8
PCB-111	39635-32-0	µg/kg	0.0104	0.0147	0.0134	0.0123 JN	0.0140	0.00944	0.0167 JN	0.0191	0.0123 JN	0.0166 JN
PCB-112	74472-36-9	µg/kg	< 0.00343 U	< 0.00183 U	< 0.00211 U	< 0.00158 U	< 0.000939 U	< 0.000521 U	< 0.00236 U	< 0.00169 U	< 0.00155 U	< 0.0127 U
PCB-114	74472-37-0	µg/kg	0.224	0.0916	0.112	0.145	0.136	0.105	0.161	0.134	0.128	2.71
PCB-118	31508-00-6	µg/kg	9.19	3.09	4.46	5.78	5.34	4.42	6.45	5.79	5.03	110
PCB-120	68194-12-7	µg/kg	0.0536	0.0434	0.0519 JN	0.0538	0.0520	0.0394	0.0604	0.0511	0.0467	0.0922

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	1	1	1	1	1	1	1	1
		Location	SMB081	SMB082	SMB083	SMB084	SMB085	SMB086	SMB087	SMB088	SMB089	SMB090
		Sample ID	PDI-TF-SMB081	PDI-TF-SMB082	PDI-TF-SMB083	PDI-TF-SMB084	PDI-TF-SMB085	PDI-TF-SMB086	PDI-TF-SMB087	PDI-TF-SMB088	PDI-TF-SMB089	PDI-TF-SMB090
		Sample Date	8/23/18	9/8/18	8/23/18	8/17/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18
Chemical	**CAS**	**Units**										
PCB-121	56558-18-0	µg/kg	0.0148	0.0121	0.0151 JN	0.0144	0.0133	0.00904	0.0213	0.0242	0.0148 JN	0.0801
PCB-122	76842-07-4	µg/kg	0.0470	0.0130	0.0399	0.0409	0.0197	0.0267	0.0398	0.0262	0.0229	< 0.0223 U
PCB-123	65510-44-3	µg/kg	0.156 JN	0.0528	0.0814	0.0999	0.0933 JN	0.0723 JN	0.104 JN	0.0816	0.0934 JN	0.497 JN
PCB-126	57465-28-8	µg/kg	0.0408 JN	0.0238 JN	0.0110 JN	0.0908 JN	0.0891 JN	0.0294 JN	0.0406 JN	0.0180 JN	0.0202 JN	1.02 JN
PCB-127	39635-33-1	µg/kg	0.0357	0.0139	0.0149	0.0173	0.0176	0.0128	0.0221	0.0174	0.0155	0.328
PCB-128/166	PCB-128/166	µg/kg	3.91	1.61	1.67	3.42	2.18	1.49	2.94	2.36	2.34	36.8
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	33	12.9	15.8	31.1	19.4	12.2	30.1	32.1	21.2	344
PCB-130	52663-66-8	µg/kg	1.18	0.377	0.66	0.965	0.571	0.508	0.827	1.01	0.653	8.4
PCB-131	61798-70-7	µg/kg	0.0948	0.0201	0.0490	0.0843	0.0277	0.0461	0.0683	0.0621	0.0435	0.661
PCB-132	38380-05-1	µg/kg	2.04	0.607	1.8	4.1	0.961	1.22	2.14	1.6	1.34	21.6
PCB-133	35694-04-3	µg/kg	0.503	0.372	0.326	0.496	0.369	0.259	0.533	0.61	0.362	2.94
PCB-134/143	PCB-134/143	µg/kg	0.426	0.119	0.297	0.584	0.182	0.211	0.357	0.342	0.258	4.27
PCB-135/151/154	PCB-135/151/154	µg/kg	4.98	2.49	3.69	11.7	5.13	2.81	5.19	5.03	4.18	59.5
PCB-136	38411-22-2	µg/kg	0.754	0.341	0.625	1.79	0.508	0.43	0.754	0.734	0.614	13.4
PCB-137	35694-06-5	µg/kg	1.15	0.353	0.387	0.407	0.573	0.453	0.574	0.448	0.561	9.29
PCB-139/140	PCB-139/140	µg/kg	0.333	0.103	0.165	0.203	0.174	0.155	0.245	0.143	0.173	2.89
PCB-141	52712-04-6	µg/kg	3.02	1.08	1.87	5	2.12	1.32	3	2.69	2.08	46.2
PCB-142	41411-61-4	µg/kg	< 0.00687 U	< 0.00590 U	< 0.0106 U	< 0.0109 U	< 0.00300 U	< 0.00743 U	< 0.0195 U	< 0.0269 U	< 0.0143 U	< 0.0145 U
PCB-144	68194-14-9	µg/kg	0.572	0.199	0.381	0.936	0.323	0.267	0.528	0.86	0.356	7.39
PCB-145	74472-40-5	µg/kg	0.00181 JN	< 0.000456 U	0.00141 JN	< 0.0000700 U	< 0.000165 U	0.000830	< 0.000206 U	0.00141	0.000843 J	< 0.00116 U
PCB-146	51908-16-8	µg/kg	5.62	4.29	3.31	5.88	4	2.24	6.05	6.97	4.21	36.3
PCB-147/149	PCB-147/149	µg/kg	7.94	2.93	8.47	19	4.85	4.76	10.8	9.95	6.6	59.8
PCB-148	74472-41-6	µg/kg	0.0446	0.0243	0.0578	0.0558	0.0400	0.0313	0.0582	0.0488	0.0394	0.213
PCB-150	68194-08-1	µg/kg	0.0262	0.0129	0.0340	0.0385	0.0158	0.0194	0.0385	0.0379	0.0165	0.128
PCB-152	68194-09-2	µg/kg	0.0114	0.00694	0.00770	0.0108	0.00601	0.00749	0.0142	0.00749	0.00596	0.17
PCB-153/168	PCB-153/168	µg/kg	35.8	17.3	18.2	33.2	21	13.4	40.7	38.3	24.6	313
PCB-155	33979-03-2	µg/kg	0.0164	0.0138	0.0150	0.0204	0.0134	0.0139	0.0280	0.0201	0.0167	0.0481
PCB-156/157	PCB-156/157	µg/kg	2.64	0.948	1.06	1.55	1.5	1.06	2.24	3	1.37	26.4
PCB-158	74472-42-7	µg/kg	2.27	0.777	1.1	1.96	1.3	0.972	1.64	2.04	1.33	24.8
PCB-159	39635-35-3	µg/kg	< 0.00498 U	0.0543	0.114	< 0.00743 U	< 0.00206 U	0.0618	0.15	< 0.0193 U	< 0.0103 U	1.45
PCB-161	74472-43-8	µg/kg	< 0.00499 U	< 0.00422 U	< 0.00706 U	< 0.00765 U	< 0.00198 U	< 0.00513 U	< 0.0139 U	< 0.0186 U	< 0.00994 U	< 0.0103 U
PCB-162	39635-34-2	µg/kg	0.0710 JN	0.0232 JN	0.0261	0.0482	0.0523	0.0336	0.0472	0.0469	0.0391	0.372
PCB-164	74472-45-0	µg/kg	1.1	0.4	0.638	1.6	0.813	0.462	0.805	1.42	0.681	10.8
PCB-165	74472-46-1	µg/kg	0.0155	0.0350	0.0176	0.0140	0.0179	0.0129	0.0296	0.0360	0.0136 JN	0.0924
PCB-167	52663-72-6	µg/kg	1.13	0.379	0.478	0.83	0.658	0.46	0.92	1.26	0.607	6.2
PCB-169	32774-16-6	µg/kg	< 0.0259 U	< 0.0317 U	< 0.0201 U	< 0.0390 U	< 0.0326 U	< 0.0321 U	< 0.0538 U	< 0.0775 U	< 0.0202 U	< 0.359 U
PCB-170	35065-30-6	µg/kg	6.9	3.65	3.93	6.5	5.33	3.41	8.02	10.6	5.33	70.4
PCB-171/173	PCB-171/173	µg/kg	1.95	0.762	1.22	2.24	1.61	1.07	1.65	2.28	1.49	20.4
PCB-172	52663-74-8	µg/kg	1.45	0.702	0.879	1.58	1.27	0.746	1.62	2.5	1.11	12.6
PCB-174	38411-25-5	µg/kg	2.68	0.984	2.37	5.6	2.11	1.35	2.95	6.28	2.12	28.5
PCB-175	40186-70-7	µg/kg	0.288	0.13	0.185	0.264	0.212	0.14	0.31	0.594	0.214	2.66
PCB-176	52663-65-7	µg/kg	0.309	0.0824	0.249	0.451	0.154	0.152	0.252	0.542	0.193	3.04
PCB-177	52663-70-4	µg/kg	2.91	1.36	1.97	4.25	2.41	1.54	2.71	6.8	1.91	23.6
PCB-178	52663-67-9	µg/kg	1.71	1.08	1.18	2.46	1.76	0.953	2.13	2.97	1.52	15.4
PCB-179	52663-64-6	µg/kg	1.03	0.488	0.991	2.93	1.04	0.651	1.19	1.08	0.991	17.8
PCB-180/193	PCB-180/193	µg/kg	24.2	16.7	14.1	21.2	18.5	11.6	32.8	51.1	18.2	203
PCB-181	74472-47-2	µg/kg	0.0634	0.0250	0.0264	0.0350	0.0445	0.0301	0.0454	0.0653	0.0347	0.417
PCB-182	60145-23-5	µg/kg	< 0.000693 U	< 0.000695 U	< 0.000927 U	0.0489	< 0.000234 U	0.0193	< 0.000238 U	< 0.000240 U	< 0.000529 U	< 0.00198 U
PCB-183/185	PCB-183/185	µg/kg	5.89	2.68	3.48	6.32	4.62	2.75	5.85	9.71	4.37	54.8
PCB-184	74472-48-3	µg/kg	0.0139	0.0122	0.0135	0.0184	0.0127	0.0145	0.0196	0.00829	0.0181	< 0.00144 U
PCB-186	74472-49-4	µg/kg	< 0.000572 U	< 0.000588 U	< 0.000798 U	< 0.000270 U	< 0.000196 U	< 0.000268 U	< 0.000194 U	< 0.000198 U	< 0.000440 U	< 0.00162 U
PCB-187	52663-68-0	µg/kg	16.6	14.4	10.4	28.9	18.2	7.14	24.7	26.4 J	18.1	128
PCB-188	74487-85-7	µg/kg	0.0184	0.0164	0.0201	0.0193	0.0155	0.0134	0.0244	0.0437	0.0182	0.108
PCB-189	39635-31-9	µg/kg	0.269	0.139	0.132	0.217	0.199	0.125	0.325	0.539	0.166	2.62
PCB-190	41411-64-7	µg/kg	1.71	0.809	0.849	1.77	1.51	0.781	1.76	3.26	1.17	16.8

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1
		Segment	1	1	1	1	1	1	1	1	1	1
		Location	SMB081	SMB082	SMB083	SMB084	SMB085	SMB086	SMB087	SMB088	SMB089	SMB090
		Sample ID	PDI-TF-SMB081	PDI-TF-SMB082	PDI-TF-SMB083	PDI-TF-SMB084	PDI-TF-SMB085	PDI-TF-SMB086	PDI-TF-SMB087	PDI-TF-SMB088	PDI-TF-SMB089	PDI-TF-SMB090
		Sample Date	8/23/18	9/8/18	8/23/18	8/17/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.385	0.202	0.198	0.318	0.282	0.164	0.435	0.698	0.276	3.11
PCB-192	74472-51-8	µg/kg	< 0.000686 U	< 0.000638 U	< 0.000871 U	< 0.000303 U	< 0.000216 U	< 0.000300 U	< 0.000230 U	< 0.000219 U	< 0.000483 U	< 0.00191 U
PCB-194	35694-08-7	µg/kg	2.8 J	2.2	1.52 J	2.79	1.95	1.41	4.7	6.06	2.65	37.4
PCB-195	52663-78-2	µg/kg	1.69	0.923	0.961	1.46	1.16	0.892	1.89	3.12	1.08	14
PCB-196	42740-50-1	µg/kg	2.1	1.33	1.4	1.52	1.46	1.15 JN	2.46	4.29	1.42	15
PCB-197/200	PCB-197/200	µg/kg	0.337	0.2	0.243	0.353	0.218 J	0.174 J	0.298	0.684 J	0.22	2.05
PCB-198/199	PCB-198/199	µg/kg	4.03	3.16	2.82	5.24	4.28	2.71	4.92	7.91	2.99	28.8
PCB-201	40186-71-8	µg/kg	0.429	0.3	0.29	0.333	0.323	0.241	0.395	0.951	0.285	2.64
PCB-202	2136-99-4	µg/kg	0.834	0.558	0.595	1.11	0.781	0.573	1.03	1.18	0.769	6.38
PCB-203	52663-76-0	µg/kg	2.54	1.32	1.81	2.94	2.41	1.71	2.33	3.88	1.85	19
PCB-204	74472-52-9	µg/kg	0.00183 JN	0.00139 JN	0.00110 JN	0.00143	0.00179	0.00171	0.00170 JN	0.00146 JN	0.00208 JN	0.00346 JN
PCB-205	74472-53-0	µg/kg	0.158	0.0799	0.0792	0.183	0.137	0.0889	0.154	0.272	0.111	1.55
PCB-206	40186-72-9	µg/kg	0.812	0.455	0.448	0.901	0.571	0.525	0.703	0.784	0.624	4.26
PCB-207	52663-79-3	µg/kg	0.11	0.0968	0.0647	0.0984	0.0765	0.0701	0.136	0.161	0.104	0.651
PCB-208	52663-77-1	µg/kg	0.229	0.176	0.146	0.333	0.178	0.187	0.207	0.234	0.201	0.842
PCB-209	2051-24-3	µg/kg	0.15	0.135	0.15	0.221	0.161	0.178	0.165	0.111	0.211	0.18
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	252	127	157	291	186	125	270	302	180	2400
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.537	0.362	0.996 J	0.496	0.466	1.08	1.08	0.353	0.813	0.507
2,4-DDE	3424-82-6	µg/kg	0.209 J	0.172 J	0.304 J	0.134 J	0.201	0.452	0.424	0.105 J	0.285	0.217 J
2,4-DDT	789-02-6	µg/kg	0.259	0.230 J	0.418 J	0.188 J	0.243	0.494	0.565	0.214 J	0.564	0.363 J
4,4'-DDD	72-54-8	µg/kg	4.14	2.70	4.56 J	2.43	3.19	8.06	6.03	2.76	5.98	3.81 J
4,4'-DDE	72-55-9	µg/kg	36.0	25.5	39.1 J	28.7	32.3	54.8	55.4	26.3	52.1	31.3 J
4,4'-DDT	50-29-3	µg/kg	2.82	3.06	2.59 J	1.90	3.47	5.10	6.31	2.54	5.26	2.59 J
DDx (a)	T_DDx (PDI)	µg/kg	44	32	48	33.8	39.9	70	69.8	32.3	65	38.8
alpha-Chlordane	5103-71-9	µg/kg	1.05	0.973	1.08 J	0.727	1.05	1.41	1.47	0.528	1.04	1.39
cis-Nonachlor	5103-73-1	µg/kg	1.54	1.22	1.23 J	0.865	1.51	1.48	1.65	0.901	1.72	1.10
Oxychlordane	27304-13-8	µg/kg	0.665	0.513	0.531 J	0.395 J	0.695	0.832	0.801	0.424 J	0.839	0.640
trans-Chlordane	5103-74-2	µg/kg	0.328 J	0.267 J	0.368 J	0.228 J	0.303	0.448 J	0.506	0.151 J	0.305	0.422 J
trans-Nonachlor	39765-80-5	µg/kg	4.25	3.35	3.16 J	2.42	3.97	4.26	4.60	2.60	4.63	3.13
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	7.83	6.32	6.37	4.64	7.53	8.43	9.03	4.6	8.53	6.68
Aldrin	309-00-2	µg/kg	0.009 JN	< 0.0117 U	0.006 JN	0.006 J	0.006 J	0.013 J	0.011 JN	0.008 J	0.014 JN	0.008 J
Dieldrin	60-57-1	µg/kg	1.13	0.988	1.52 J	0.921	1.15	1.70	1.70	0.732	1.27	1.43
Metals												
Arsenic	7440-38-2	mg/kg	0.18	0.19	0.24	0.21	0.20	0.14 J	0.26	0.14 J	0.19	0.18
Mercury	7439-97-6	mg/kg	0.133 J	0.155 J	0.097 J	0.101 J	0.107 J	0.162 J	0.174 J	0.093 J	0.185 J	0.096 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	660 J	< 20000 U	< 20000 U	720 J	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.26	1.13	1.39 J	0.911	1.17	1.98	1.78	0.858	1.50	1.42
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 990 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00302 J	0.00257 J	0.00245 J	0.00436 J	0.00156 JN	0.00507 J	0.00382 JN	0.00102 J	0.00480 JN	0.00222 JN
PBDE-8/11	PDBE-8/11	µg/kg	0.00293 J	0.00195 JN	0.00195 J	0.00287 J	0.00149 JN	0.00548 J	0.00253 J	0.00124 J	0.00475 J	0.00195 JN
PBDE-10	51930-04-2	µg/kg	< 0.000720 U	< 0.000608 U	< 0.000410 U	< 0.000200 U	< 0.000320 U	< 0.000399 U	< 0.000541 U	< 0.000143 U	< 0.000288 U	< 0.000399 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00183 JN	0.00401 JN	0.0155 JN	0.0102 JN	0.00904 JN	0.0115 JN	0.0225 JN	0.00254 JN	0.00257 J	0.0701 JN
PBDE-15	2050-47-7	µg/kg	0.0168	0.0253	0.0142 J	0.0232	0.0150	0.0412	0.0281	0.0101	0.0374	0.0111 JN
PBDE-17/25	PBDE-17/25	µg/kg	0.149	0.13 JN	0.117 JN	0.142	0.0759 JN	0.179 JN	0.238 JN	0.0504	0.243 JN	0.0849 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.588	1.55	0.437	0.894	0.49	0.62	2.45	0.592	2.92	0.449
PBDE-30	155999-95-4	µg/kg	< 0.00251 U	< 0.00448 U	< 0.00318 U	< 0.00314 U	< 0.00260 U	< 0.00303 U	< 0.00538 U	< 0.00219 U	< 0.00471 U	< 0.00123 U
PBDE-32	189084-60-4	µg/kg	< 0.00208 U	< 0.00362 U	< 0.00250 U	< 0.00248 U	< 0.00189 U	< 0.00234 U	< 0.00435 U	< 0.00168 U	< 0.00342 U	< 0.000949 U
PBDE-35	147217-80-9	µg/kg	0.00721 JN	0.0147 JN	0.00373 JN	0.0120 JN	0.00634 JN	0.00699 JN	0.0140 JN	0.00503 JN	0.0135 J	0.0167 JN
PBDE-37	147217-81-0	µg/kg	0.0117 J	0.0146 JN	0.0103 JN	0.0173	0.00893 J	0.0129 JN	0.0291	0.00881 JN	0.0200	0.0143 JN
PBDE-047	5436-43-1	µg/kg	24.9	84.8	19.1	22.6	30.2	20.9	97.1 J	32.4	101 J	23.7
PBDE-49	243982-82-3	µg/kg	0.962	1.09 J	1.06	1.43	0.974	1.76	2.35 J	0.6	2.16 J	0.61
PBDE-51	189084-57-9	µg/kg	0.0371	0.0197 J	0.0371	0.0737	0.0279	0.0584	0.107 J	0.0124	0.0380 J	0.0185

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	1	1	1	1	1	1	1	1
		Location	SMB081	SMB082	SMB083	SMB084	SMB085	SMB086	SMB087	SMB088	SMB089	SMB090
		Sample ID	PDI-TF-SMB081	PDI-TF-SMB082	PDI-TF-SMB083	PDI-TF-SMB084	PDI-TF-SMB085	PDI-TF-SMB086	PDI-TF-SMB087	PDI-TF-SMB088	PDI-TF-SMB089	PDI-TF-SMB090
		Sample Date	8/23/18	9/8/18	8/23/18	8/17/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.336	0.921 J	0.269	0.586	0.396	0.348	1.95 J	0.279	1.06 J	0.215
PBDE-71	189084-62-6	µg/kg	0.0328	0.0288 J	0.0509	0.0526	0.0409	0.0613	0.0883 J	0.0187	0.0626 J	0.0191
PBDE-75	189084-63-7	µg/kg	0.0205	0.0521 J	0.0255 JN	0.0352	0.0240	0.0236	0.0971 J	0.0167	0.0895 J	0.0218
PBDE-77	93703-48-1	µg/kg	0.00392 JN	0.00348 JN	< 0.000168 U	0.00714 JN	0.00398 JN	0.00363 JN	0.0124 JN	0.00374 J	0.00897 J	0.00550 JN
PBDE-79	PBDE-79	µg/kg	0.0248	0.0451 JN	0.0415 JN	0.0501 JN	0.0381 JN	0.0309 JN	0.0729 JN	0.0569 JN	0.0479 JN	0.0279 JN
PBDE-85	182346-21-0	µg/kg	< 0.00204 UJ	0.0105 J	< 0.00600 U	< 0.00354 U	< 0.00283 U	< 0.00494 U	< 0.00791 UJ	< 0.00249 U	< 0.00551 U	< 0.00398 U
PBDE-099	60348-60-9	µg/kg	5.82 J	39.9 J	8.15	8.62	11.9	5.74	34.5 J	10.3	13.7	3.23
PBDE-100	189084-64-8	µg/kg	4.18 J	14.4	4.39	5	4.83	4.12	18.6	5.26	23.3 J	3.51
PBDE-105	373594-78-6	µg/kg	< 0.00270 UJ	< 0.00323 UJ	< 0.00791 U	< 0.00471 U	< 0.00395 U	< 0.00626 U	< 0.0106 UJ	< 0.00332 U	< 0.00768 U	< 0.00504 U
PBDE-116	189084-65-9	µg/kg	< 0.00386 UJ	< 0.00425 U	< 0.00875 U	< 0.00701 U	< 0.00518 U	< 0.00776 U	< 0.0133 UJ	< 0.00500 U	< 0.0101 U	< 0.00625 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0983 J	0.206 J	0.0612	0.111	0.101	0.0945	0.28 J	0.0910	0.446	0.0718
PBDE-126	366791-32-4	µg/kg	0.00845 J	0.0167	0.0169	0.0174	0.00717 J	0.0115 J	0.0271	0.0113	0.0164	0.0107 J
PBDE-128	182677-28-7	µg/kg	0.00523 J	0.00400 JN	0.00295 JN	0.0107 JN	0.00721 JN	0.00725 JN	0.00714 JN	0.00512 JN	0.00649 JN	0.00436 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.000563 JN	0.0317 J	0.00311 J+	0.00256 JN	0.00345 J	0.00420 JN	0.00567 JN	0.00360 JN	0.00210 JN	0.00101 J
PBDE-140	243982-83-4	µg/kg	0.00945 J	0.118 J	0.0184	0.0200 J	0.0260 J	0.0172 J	0.0691 J	0.0265 JN	0.0339 J	0.00571 J
PBDE-153	68631-49-2	µg/kg	1.23	9.46 J	1.16	1.31	2.29	1.3	8.52 J	2.18	8.05 J	1.04
PBDE-154	207122-15-4	µg/kg	0.836 J	5.55	0.994	1.14	1.38 J	1.01 J	5.15 J	1.5	5.77 J	0.741
PBDE-155	35854-94-5	µg/kg	0.0618 J	0.138 J	0.103	0.172	0.0559 J	0.0848 J	0.195 J	0.103	0.115 J	0.0769
PBDE-181	189084-67-1	µg/kg	< 0.000147 U	0.000827 JN	< 0.000485 U	0.000471 JN	0.000667 JN	0.00283 JN	0.000799 JN	0.000571 J	0.000678 JN	0.000750 JN
PBDE-183	207122-16-5	µg/kg	0.00614 J	0.0395	0.0137 J	0.0183	0.0123 J	0.0114 J	0.0201	0.0254	0.0138 JN	0.00474 JN
PBDE-190	189084-68-2	µg/kg	< 0.000172 U	0.00125 JN	0.000818 JN	< 0.000653 U	0.00148 JN	< 0.000209 U	< 0.000258 U	0.000608 JN	0.000218 JN	< 0.000175 U
PBDE-203	337513-72-1	µg/kg	0.000876 JN	< 0.000148 U	< 0.00346 U	0.00223 JN	0.00103 J	0.00603 J	0.00379 JN	0.00259 JN	0.00143 JN	0.00124 JN
PBDE-206	63387-28-0	µg/kg	< 0.000541 U	0.00327 JN	< 0.000643 U	0.00157 JN	< 0.000473 U	0.00436 JN	0.00225 J+	0.00140 JN	< 0.00120 U	0.00268 J+
PBDE-207	437701-79-6	µg/kg	< 0.00189 U	0.00372 JN	< 0.000831 U	0.00241 JN	0.00128 JN	0.00819 J	0.00214 JN	0.00192 JN	0.00449 JN	0.00152 JN
PBDE-208	437701-78-5	µg/kg	< 0.00106 U	0.00518 J	< 0.00369 U	0.000954 J	0.00185 JN	0.00949 JN	0.00367 JN	0.00217 JN	0.00315 JN	0.00284 JN
PBDE-209	1163-19-5	µg/kg	< 0.0185 U	0.0703 J+	< 0.0140 U	0.0879 JN	0.0275 J+	0.0985 JN	0.0272 J+	< 0.0142 U	0.0306 JN	0.0513 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	39.4	159	36.1	42.5	53	36.6	172	53.6	159	34

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide
		Segment	1	1	1	1	1	1	1	1	1	1
		Location	SMB081	SMB082	SMB083	SMB084	SMB085	SMB086	SMB087	SMB088	SMB089	SMB090
		Sample ID	PDI-TF-SMB081	PDI-TF-SMB082	PDI-TF-SMB083	PDI-TF-SMB084	PDI-TF-SMB085	PDI-TF-SMB086	PDI-TF-SMB087	PDI-TF-SMB088	PDI-TF-SMB089	PDI-TF-SMB090
		Sample Date	8/23/18	9/8/18	8/23/18	8/17/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18	8/18/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	4.50	5.02	5.68	7.15	5.46	6.85	6.17	3.96	5.18	5.34
Total Solids@104C	TSOLID	%	25.7	27.8	28.0	29.6	27.4	28.9	27.4	28.7	27.4	26.7

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB091	SMB092	SMB093	SMB094	SMB095	SMB096	SMB097	SMB098	SMB099	SMB100
		Sample ID	PDI-TF-SMB091	PDI-TF-SMB092	PDI-TF-SMB093	PDI-TF-SMB094	PDI-TF-SMB095	PDI-TF-SMB096	PDI-TF-SMB097	PDI-TF-SMB098	PDI-TF-SMB099	PDI-TF-SMB100
		Sample Date	8/18/18	8/18/18	8/18/18	8/16/18	8/23/18	8/16/18	8/16/18	8/24/18	8/16/18	8/16/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000898 JN	0.000106 JN	0.000290 J	0.000975 J	< 0.0000898 U	0.0000964 JN	0.000158 JN	< 0.000173 U	0.000118 JN	0.000161 JN
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000718 U	< 0.0000734 U	< 0.0000718 U	0.0000956 J	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	< 0.0000724 U	< 0.0000720 U	< 0.0000724 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000718 U	< 0.0000734 U	< 0.0000718 U	< 0.0000711 U	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	< 0.0000724 U	< 0.0000720 U	< 0.0000724 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.000278 J	< 0.0000734 U	< 0.0000718 U	0.000398 J	0.000123 J	0.0000999 JN	< 0.0000725 U	0.000135 JN	< 0.0000720 U	0.0000999 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.000191 J	< 0.0000734 U	< 0.0000718 U	0.000275 JN	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	0.0000949 JN	< 0.0000720 U	0.000126 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.00191	0.000332 J	0.000277 J	0.00406	0.000288 J	0.000192 JN	0.000140 JN	0.000326 J	0.000415 J	0.000343 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0000934 J	< 0.0000734 U	< 0.0000718 U	0.000213 J	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	< 0.0000724 U	< 0.0000720 U	0.0000799 JN
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.000177 U	< 0.0000734 U	< 0.0000718 U	0.000232 J	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	< 0.0000724 U	< 0.0000720 U	< 0.0000724 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000718 U	< 0.0000734 U	< 0.0000718 U	< 0.0000711 U	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	< 0.0000724 U	< 0.0000720 U	< 0.0000724 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.00108 J	0.000498 J	0.000344 JN	0.00243	0.000715 J	0.000347 JN	0.000227 J	0.000432 JN	0.000489 J	0.000590 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000773 J	0.000182 J	< 0.000115 U	0.000365 J	0.000130 JN	0.000128 JN	< 0.0000725 U	0.000212 JN	0.000125 J	0.000162 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000718 U	< 0.0000734 U	< 0.0000718 U	0.000274 J	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	< 0.0000724 U	< 0.0000720 U	< 0.0000724 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.00137 J	0.000443 J	0.000419 J	0.000702 J	0.000333 J	0.000212 JN	0.000248 J	0.000365 J	0.000288 J	0.000436 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000344	0.000248 J	0.000235 JN	0.000510	0.000327 JN	0.000225 J	0.000167 J	0.000241 J	0.000348	0.000223 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.00104	0.00186	0.000404	0.000690	0.000822	0.000892	0.000533	0.000496	0.000866	0.000374
OCDD	3268-87-9	µg/kg	0.00341	0.000142 JN	0.000464 JN	0.000861 J	0.000152 JN	0.000226 JN	0.000112 JN	0.000291 JN	0.000193 JN	0.000236 J
OCDF	39001-02-0	µg/kg	< 0.0000718 U	< 0.0000734 U	< 0.000138 U	< 0.0000711 U	< 0.0000729 U	< 0.0000746 U	< 0.0000725 U	< 0.0000724 U	< 0.0000720 U	< 0.0000724 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00223	0.00111	0.000779	0.00379	0.00127	0.000763	0.000541	0.000898	0.00106	0.00106
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	µg/kg	0.00222	0.00111	0.000369	0.00377	0.00127	0.000488	0.000529	0.000649	0.00106	0.001
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.00221	0.0011	0.000197	0.00376	0.00127	0.000314	0.000522	0.000433	0.00106	0.000986
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00642	0.00691	0.00265	0.00227	0.00204 J	0.00323	0.00187	0.00184 J	0.00265	0.00189
PCB-2	2051-61-8	µg/kg	0.000877 J+	0.00145	0.000667 J+	0.000743 J+	0.000998 J	0.00117	0.000683 J+	0.000944 J	0.000857 J+	0.000689 JN
PCB-3	2051-62-9	µg/kg	0.00298	0.00331	0.00147 J+	0.00165 J+	0.00136 JN	0.00213 J+	0.00159 J+	0.00163 JN	0.00173 J+	0.00139 J+
PCB-4	13029-08-8	µg/kg	0.419	0.175	0.0759	0.0534	0.0305	0.0457	0.0433	0.0250	0.0412	0.0190
PCB-5	16605-91-7	µg/kg	< 0.000446 U	0.00125	0.000404 JN	0.000296 JN	< 0.00205 U	0.000586 J	< 0.000288 U	< 0.00153 U	0.000507 JN	0.000257 J
PCB-6	25569-80-6	µg/kg	0.00925	0.0194	0.00658	0.00632	0.0134	0.0135	0.00673	0.00676	0.00756	0.00495
PCB-7	33284-50-3	µg/kg	0.00191	0.00397	0.00121	0.00119	< 0.00186 U	0.00196	0.00119	< 0.00144 U	0.00156	0.000815
PCB-8	34883-43-7	µg/kg	0.0479	0.0794	0.0227	0.0233	0.0406	0.0407	0.0227	0.0225	0.0283	0.0154
PCB-9	34883-39-1	µg/kg	0.00278	0.00571	0.00174	0.00194	0.00368 JN	0.00356	0.00188	0.00175 J	0.00245	0.00127
PCB-10	33146-45-1	µg/kg	0.0344	0.00825	0.00447	0.00309	0.00202 J	0.00195	0.00314	0.00140 J	0.00184	0.000808
PCB-11	2050-67-1	µg/kg	0.0698	0.187	0.0395	0.0531	0.0836	0.12	0.0464	0.0644	0.0949	0.0382
PCB-12/13	PCB-12/13	µg/kg	0.00236	0.00370	0.000894	0.00190	< 0.00199 U	0.00432	0.00193 JN	0.00148 J	0.00155	0.00135
PCB-14	34883-41-5	µg/kg	< 0.000413 U	< 0.000373 U	< 0.000226 U	< 0.000111 U	< 0.00190 U	< 0.000169 U	< 0.000259 U	< 0.00144 U	< 0.000244 U	< 0.000117 U
PCB-15	2050-68-2	µg/kg	0.0183	0.0346	0.00761	0.00905	0.00930	0.0227	0.00688	0.00715	0.0136	0.00504
PCB-16	38444-78-9	µg/kg	0.0196	0.0833	0.0154	0.0252	0.0387	0.0373 JN	0.0294	0.0194	0.0272	0.0148
PCB-17	37680-66-3	µg/kg	0.21	0.234	0.0555	0.0799	0.116	0.109	0.0993	0.0487	0.0882	0.0368
PCB-18/30	PCB-18/30	µg/kg	0.0873	0.248	0.0522	0.0885	0.137	0.144	0.102	0.0629	0.0994	0.0522
PCB-19	38444-73-4	µg/kg	1.56	0.462	0.235	0.156	0.0665	0.0799	0.153	0.0387	0.104	0.0182
PCB-20/28	PCB-20/28	µg/kg	0.578	0.896	0.271	0.331	0.445	0.658	0.317	0.237	0.552	0.201
PCB-21/33	PCB-21/33	µg/kg	0.0703	0.136	0.0330	0.0562	0.0779	0.109	0.0468	0.0373	0.0909	0.0316
PCB-22	38444-85-8	µg/kg	0.0682	0.209	0.0467	0.0639	0.0885	0.111	0.0675	0.0403	0.115	0.0307
PCB-23	55720-44-0	µg/kg	< 0.000272 U	0.000800	< 0.000257 U	< 0.000457 U	< 0.00135 U	< 0.000753 U	0.000324 JN	< 0.000383 U	0.000452 J	< 0.000414 U
PCB-24	55702-45-9	µg/kg	0.00118	0.00353	0.000761	0.00163	0.00168 J	0.00169 JN	0.00205	0.000730 J	0.00141	0.000870
PCB-25	55712-37-3	µg/kg	0.0428	0.0779	0.0195	0.0252	0.0372	0.0425	0.0282	0.0177	0.0401	0.0123
PCB-26/29	PCB-26/29	µg/kg	0.0611	0.153	0.0389	0.0545	0.0863	0.103	0.0581	0.0448	0.0871	0.0319
PCB-27	38444-76-7	µg/kg	0.0821	0.0455	0.0182	0.0191	0.0287	0.0224 JN	0.0249	0.0147	0.0144	0.00968
PCB-31	16606-02-3	µg/kg	0.21	0.586	0.102	0.188	0.264	0.345	0.194	0.117	0.308	0.0872
PCB-32	38444-77-8	µg/kg	0.206	0.111	0.0421	0.0418	0.0508	0.0519	0.0389	0.0246	0.0478	0.0164
PCB-34	37680-68-5	µg/kg	0.00221	0.00615	0.00127	0.00186	0.00315	0.00327	0.00229	0.00158 JN	0.00322	0.000871 JN
PCB-35	37680-69-6	µg/kg	< 0.000271 U	< 0.000483 U	< 0.000255 U	0.000586 JN	< 0.00133 U	0.00123	0.000456 JN	< 0.000376 U	< 0.000292 U	0.000422 J
PCB-36	38444-87-0	µg/kg	< 0.000247 U	< 0.000459 U	< 0.000233 U	< 0.000407 U	0.0313 JN	< 0.000670 U	< 0.000172 U	< 0.000352 U	< 0.000281 U	< 0.000368 U
PCB-37	38444-90-5	µg/kg	0.0559	0.0914	0.0365	0.0277	0.0430	0.0570	0.0230	0.0257	0.0446	0.0146
PCB-38	53555-66-1	µg/kg	0.00236	0.00151	0.000535 J	0.000639 JN	< 0.00132 U	0.00114 JN	0.000786	0.000580 J	0.00123	< 0.000400 U

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment	1	1	1	1	1					
		Location	SMB091	SMB092	SMB093	SMB094	SMB095	SMB096	SMB097	SMB098	SMB099	SMB100
		Sample ID	PDI-TF-SMB091	PDI-TF-SMB092	PDI-TF-SMB093	PDI-TF-SMB094	PDI-TF-SMB095	PDI-TF-SMB096	PDI-TF-SMB097	PDI-TF-SMB098	PDI-TF-SMB099	PDI-TF-SMB100
		Sample Date	8/18/18	8/18/18	8/18/18	8/16/18	8/23/18	8/16/18	8/16/18	8/24/18	8/16/18	8/16/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.00365	0.00605	0.00141	0.00201 JN	0.00327	0.00448	0.00239	0.00207 J	0.00473	0.00124 JN
PCB-40/41/71	PCB-40/41/71	µg/kg	0.406	0.522	0.137	0.136	0.204	0.267	0.13	0.112	0.333	0.0755
PCB-42	36559-22-5	µg/kg	0.286	0.476	0.101	0.11	0.18	0.193	0.117	0.0740	0.262	0.0537
PCB-43	70362-46-8	µg/kg	0.0214	0.0604	0.00961	0.0196	0.0239	0.0386	0.0203	0.0152	0.0340	0.0102
PCB-44/47/65	PCB-44/47/65	µg/kg	6.85	3.47	1.24	0.894	1.22	1.3	1	0.653	1.82	0.409
PCB-45/51	PCB-45/51	µg/kg	0.691	0.488	0.126	0.13	0.145	0.14	0.14	0.0453	0.204	0.0278
PCB-46	41464-47-5	µg/kg	0.0316	0.0498	0.0123	0.0141	0.0193	0.0191	0.0150	0.00739	0.0198	0.00521
PCB-48	70362-47-9	µg/kg	0.0885	0.216	0.0428	0.0613	0.0921	0.132	0.0601	0.0447	0.145	0.0352
PCB-49/69	PCB-49/69	µg/kg	2.53	2.12	0.607	0.587	0.844	0.924	0.636	0.424	1.19	0.276
PCB-50/53	PCB-50/53	µg/kg	0.54	0.264	0.131	0.0781	0.0969	0.0835	0.0865	0.0474	0.0938	0.0272
PCB-52	35693-99-3	µg/kg	2.55	3.03	0.941	0.982	1.31	1.54	0.974	0.914	1.72	0.507
PCB-54	15968-05-5	µg/kg	0.274	0.112	0.0446	0.0292	0.0174	0.0172	0.0308	0.00600	0.0329	0.00217
PCB-55	74338-24-2	µg/kg	< 0.00648 U	< 0.00336 U	< 0.000458 U	0.0131 JN	< 0.00816 U	0.0201 JN	0.0127 JN	< 0.00626 U	< 0.00338 U	0.0108 JN
PCB-56	41464-43-1	µg/kg	0.239	0.554	0.102	0.116	0.176	0.19	0.126	0.0639	0.273	0.0442
PCB-57	70424-67-8	µg/kg	0.00746	0.00918	0.00438	0.00290	< 0.00746 U	< 0.00505 U	0.00257	< 0.00570 U	0.00657	< 0.00186 U
PCB-58	41464-49-7	µg/kg	0.0627	0.0151	0.0105	0.00437 JN	< 0.00788 U	0.00689	0.00694	< 0.00577 U	0.0103	0.00305
PCB-59/62/75	PCB-59/62/75	µg/kg	0.216	0.202	0.0552	0.0537	0.0754	0.0943	0.0595	0.0397	0.115	0.0280
PCB-60	33025-41-1	µg/kg	0.423	0.393	0.183	0.122	0.186	0.255	0.116	0.12	0.319	0.0854
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	2.64	3.21	1.16	0.924	1.45	1.7	0.955	0.879	2.32	0.543
PCB-63	74472-34-7	µg/kg	0.172	0.116	0.0634	0.0381	0.0596	0.0677	0.0380	0.0455	0.0999	0.0285
PCB-64	52663-58-8	µg/kg	0.547	0.861	0.197	0.22	0.347	0.385	0.224	0.161	0.52	0.115
PCB-66	32598-10-0	µg/kg	3.05	2.11	1.1	0.66 J	1.12	1.29 J	0.684 J	0.786	1.69	0.515 J
PCB-67	73575-53-8	µg/kg	0.0248	0.0581	0.0162	0.0136	0.0183	0.0197	0.0139	0.00897	0.0338	0.00664
PCB-68	73575-52-7	µg/kg	0.162	0.0635	0.0402	0.0204	0.0270	0.0232	0.0224	0.0196	0.0436	0.0124
PCB-72	41464-42-0	µg/kg	0.0720	0.0650	0.0275	0.0175	0.0255	0.0254	0.0194	0.0170	0.0429	0.0123
PCB-73	74338-23-1	µg/kg	0.0721	< 0.000136 U	0.0135	0.0127	< 0.000997 U	0.0161	0.0194 JN	< 0.000480 U	0.0217	0.00495
PCB-77	32598-13-3	µg/kg	0.134	0.142	0.0661	0.0565	0.0653	0.0725	0.0415	0.0411	0.0908	0.0318
PCB-78	70362-49-1	µg/kg	< 0.00607 U	< 0.00319 U	< 0.000430 U	< 0.00120 U	< 0.00804 U	< 0.00540 U	< 0.00139 U	< 0.00603 U	< 0.00314 U	< 0.00199 U
PCB-79	41464-48-6	µg/kg	0.0529	0.0484	0.0231	0.0177 JN	0.0254 JN	0.0487 JN	0.0196 JN	0.0177 JN	0.0352	0.0196 JN
PCB-80	33284-52-5	µg/kg	< 0.00560 U	< 0.00289 U	0.000805	< 0.00110 U	< 0.00733 U	< 0.00496 U	< 0.00130 U	< 0.00544 U	< 0.00302 U	< 0.00182 U
PCB-81	70362-50-4	µg/kg	0.00665 JN	0.00634 JN	0.00383 JN	0.00252	< 0.00742 U	< 0.00573 U	0.00211 JN	< 0.00585 U	0.00471 JN	0.00207 JN
PCB-82	52663-62-4	µg/kg	0.287	0.379	0.12	0.0975	0.16	0.15	0.125	0.0863	0.215	0.0638
PCB-83/99	PCB-83/99	µg/kg	8.12	5.35	3.02	1.98	2.9	3.25	2.25	2.59	4.23	1.72
PCB-84	52663-60-2	µg/kg	0.45	0.806	0.234	0.205	0.309	0.282	0.25	0.144	0.432	0.0936
PCB-85/116/117	PCB-85/116/117	µg/kg	1.64	1.36	0.672	0.506	0.771	0.882	0.517	0.656	1.06	0.45
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	3.66	3.53	1.57	1.14 J	1.74 J	1.66 J	1.32 J	1.69 J	2.23	0.728 J
PCB-88/91	PCB-88/91	µg/kg	1.65	1.02	0.438	0.287	0.412	0.389	0.359	0.21	0.586	0.14
PCB-89	73575-57-2	µg/kg	< 0.00975 U	0.0207	0.00425 JN	0.00451	0.00848	0.00927	0.00485 JN	0.00333 JN	0.0112	0.00258
PCB-90/101/113	PCB-90/101/113	µg/kg	12.7	7.31	4.54	2.56	3.67	3.84	3.21	9.27	5.06	1.64
PCB-92	52663-61-3	µg/kg	2.07	1.5	0.74	0.495	0.76	0.803	0.602	1.42	1.03	0.337
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	6.52	4.1	2.19	1.22	1.83	1.87	1.5	3.16	2.35	0.678
PCB-94	73575-55-0	µg/kg	0.0461	0.0452	0.0123	0.00898	0.0133	0.0109	0.0107	0.00402 JN	0.0201	0.00225
PCB-96	73575-54-9	µg/kg	0.0592	0.0385	0.0127	0.00952	0.00966	0.0125	0.0100	0.00495 JN	0.0172	0.00324
PCB-103	60145-21-3	µg/kg	0.487	0.211	0.117	0.0584	0.0787	0.0561	0.0849	0.0488	0.105	0.0256
PCB-104	56558-16-8	µg/kg	0.0247	0.0208	0.00447	0.00430	0.00463	0.00470	0.00535	0.000767 JN	0.00874	0.000412 J
PCB-105	32598-14-4	µg/kg	2.74	1.87	1.14	0.926	1.05	1.44	0.821	1.5	2.2	0.83
PCB-106	70424-69-0	µg/kg	< 0.0301 U	< 0.00671 U	< 0.00803 U	< 0.00462 U	< 0.00660 U	< 0.00756 U	< 0.00587 U	< 0.00711 U	< 0.00614 U	< 0.00929 U
PCB-107/124	PCB-107/124	µg/kg	0.182	0.199	0.0943	0.0783	0.109	0.111	0.0798	0.105	0.175	0.0529 JN
PCB-109	74472-35-8	µg/kg	0.829	0.555	0.386	0.278	0.341	0.405	0.288	0.38	0.627	0.242
PCB-110/115	PCB-110/115	µg/kg	6.04	6.07	2.61	1.97	3.01	3.32	2.21	3.44	3.84	1.25
PCB-111	39635-32-0	µg/kg	0.0382 JN	0.0181	0.0113	0.00583 JN	0.00659	0.00789	0.00920	0.00645	0.0120	0.00519
PCB-112	74472-36-9	µg/kg	< 0.00666 U	< 0.00225 U	< 0.000921 U	< 0.000949 U	< 0.00215 U	< 0.00170 U	< 0.00156 U	< 0.00129 U	< 0.00112 U	< 0.000571 U
PCB-114	74472-37-0	µg/kg	0.23	0.127	0.105	0.0741	0.0860	0.108	0.0632	0.129	0.175	0.0623
PCB-118	31508-00-6	µg/kg	9.71	5.58	4.26	3.08	3.47	4.26	2.57	5.15	6.85	2.61
PCB-120	68194-12-7	µg/kg	0.111	0.0743	0.0359	0.0240	0.0358	0.0339	0.0397	0.0357	0.0514	0.0220

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment	1	1	1	1	1					
		Location	SMB091	SMB092	SMB093	SMB094	SMB095	SMB096	SMB097	SMB098	SMB099	SMB100
		Sample ID	PDI-TF-SMB091	PDI-TF-SMB092	PDI-TF-SMB093	PDI-TF-SMB094	PDI-TF-SMB095	PDI-TF-SMB096	PDI-TF-SMB097	PDI-TF-SMB098	PDI-TF-SMB099	PDI-TF-SMB100
		Sample Date	8/18/18	8/18/18	8/18/18	8/16/18	8/23/18	8/16/18	8/16/18	8/24/18	8/16/18	8/16/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.0788	0.0193	0.0165	0.00622	0.00862	0.00708	0.0119	0.00740	0.0112	0.00351
PCB-122	76842-07-4	µg/kg	0.0515	0.0520	0.0210 JN	0.0181	0.0219	0.0218	0.0158	0.0109	0.0372	0.0120
PCB-123	65510-44-3	µg/kg	0.153 JN	0.0983 JN	0.0630 JN	0.0543	0.0676	0.0788	0.0458	0.0636	0.125 JN	0.0505
PCB-126	57465-28-8	µg/kg	0.118 JN	0.0686 JN	0.0483 JN	0.0132 JN	0.00912 JN	0.0217 JN	0.00774 JN	0.0384 JN	0.0350 JN	0.0144 JN
PCB-127	39635-33-1	µg/kg	0.0360	0.0141	0.0117	0.00756	0.0102	0.0103	0.00697 JN	0.0147	0.0180	< 0.00987 U
PCB-128/166	PCB-128/166	µg/kg	6.37	1.5	2.17	1.09	1.23	1.63	1.07	3.92	1.83 J	0.92
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	77.6	12.6	24.3	10.3	10.4	13.1	10.3	51	15	7.45
PCB-130	52663-66-8	µg/kg	1.95	0.656	0.753	0.353	0.437	0.45	0.422	0.803	0.708	0.263
PCB-131	61798-70-7	µg/kg	0.127	0.0614	0.0477	0.0266	0.0287	0.0291	0.0310	0.0333	0.0515	0.0153
PCB-132	38380-05-1	µg/kg	5.46	1.97	1.59	0.925	1.03	0.985	1.07	1.31	1.54	0.428
PCB-133	35694-04-3	µg/kg	1.28	0.309	0.375	0.18	0.192	0.231	0.24	0.584	0.341	0.142
PCB-134/143	PCB-134/143	µg/kg	0.982	0.305	0.331	0.136	0.17	0.198	0.183	0.268	0.27	0.0835
PCB-135/151/154	PCB-135/151/154	µg/kg	18.2	4.11	4.68	2.13	2.55	3.3	2.77	14.1	3.1	1.18
PCB-136	38411-22-2	µg/kg	2.05	0.798	0.728	0.279	0.341	0.421	0.396	1.48	0.528	0.144
PCB-137	35694-06-5	µg/kg	0.967	0.446	0.403	0.269	0.317	0.329	0.26	0.319	0.633	0.281
PCB-139/140	PCB-139/140	µg/kg	0.334	0.187	0.133	0.0850	0.118	0.126	0.115	0.141	0.195	0.0842
PCB-141	52712-04-6	µg/kg	9.23	1.72	2.65	1.1	1.09	1.35	1.26	9.81	1.72	0.585
PCB-142	41411-61-4	µg/kg	< 0.0549 U	< 0.0108 U	< 0.0241 U	< 0.0131 U	< 0.00726 U	< 0.0102 U	< 0.0150 U	< 0.0107 U	< 0.0124 U	< 0.00270 U
PCB-144	68194-14-9	µg/kg	2.03	0.405	0.662	0.256	0.246	0.235	0.277	0.851	0.329	0.115
PCB-145	74472-40-5	µg/kg	< 0.000728 U	0.00175	< 0.000289 U	< 0.000205 U	0.00136 JN	< 0.000214 U	0.000703 JN	0.00103 JN	0.000693	< 0.000160 U
PCB-146	51908-16-8	µg/kg	15.1	2.74	4.78	1.94	2.07	2.51	2.3	8.45	3.21	1.42
PCB-147/149	PCB-147/149	µg/kg	33.5	6.88	10.5	4.29	4.75	5.17	4.89	6.58	6.36	2.01
PCB-148	74472-41-6	µg/kg	0.178	0.0746	0.0481	0.0229	0.0340	0.0243	0.0459	0.0275	0.0416	0.0143
PCB-150	68194-08-1	µg/kg	0.138	0.0437	0.0318	0.0146	0.0152	0.0127	0.0304	0.0134	0.0263	0.00638
PCB-152	68194-09-2	µg/kg	0.0265	0.0143	0.00461 JN	0.00322	0.00353	0.00550	0.00386	0.00318	0.00747	0.00181
PCB-153/168	PCB-153/168	µg/kg	96.9	14.3	29.8	11.5	11	14.1	12.1	69.5	17.9	8.27
PCB-155	33979-03-2	µg/kg	0.0622	0.0178	0.0143	0.00947	0.0133	0.0140	0.0138	0.0116	0.0229	0.00892
PCB-156/157	PCB-156/157	µg/kg	4.75	0.986	1.62	0.839	0.75	1.03	0.792	2.45	1.57	0.662
PCB-158	74472-42-7	µg/kg	4.16	0.951	1.49	0.702	0.694	0.943	0.716	3.1	1.18	0.528
PCB-159	39635-35-3	µg/kg	0.669	< 0.00747 U	< 0.0174 U	< 0.00892 U	< 0.00524 U	< 0.00694 U	< 0.00974 U	0.144	0.0983	< 0.00184 U
PCB-161	74472-43-8	µg/kg	< 0.0391 U	< 0.00717 U	< 0.0168 U	< 0.00919 U	< 0.00512 U	< 0.00715 U	< 0.0104 U	< 0.00711 U	< 0.00867 U	< 0.00189 U
PCB-162	39635-34-2	µg/kg	0.0755	0.0357	< 0.0152 U	0.0239	0.0244	0.0316	0.0206	0.0293	0.0477	0.0246
PCB-164	74472-45-0	µg/kg	2.55	0.569	0.891	0.341	0.404	0.59	0.404	1.88	0.614	0.238
PCB-165	74472-46-1	µg/kg	0.114	0.0146	0.0214	< 0.0105 U	0.00912	< 0.00818 U	0.0144	0.00945	0.0150	0.00500
PCB-167	52663-72-6	µg/kg	1.94	0.463	0.703	0.362	0.346	0.448	0.366	0.931	0.665	0.286
PCB-169	32774-16-6	µg/kg	< 0.188 U	< 0.0190 U	< 0.0243 U	< 0.0219 U	< 0.00926 U	< 0.0160 U	< 0.0193 U	< 0.0650 U	< 0.0282 U	< 0.0158 U
PCB-170	35065-30-6	µg/kg	20.6	2.59	7.13	3.06	2.23 J	3.44	3.09	15.6	3.72	1.73
PCB-171/173	PCB-171/173	µg/kg	5.18	0.978	1.87	0.882	0.903	1.12	0.979	3.98	1.14	0.525
PCB-172	52663-74-8	µg/kg	3.97	0.636	1.49	0.638	0.639	0.834	0.693	3.1	0.851	0.367
PCB-174	38411-25-5	µg/kg	12.9	2.1	4.44	1.56	1.79	1.63	2.05	2.93	2.16	0.615
PCB-175	40186-70-7	µg/kg	0.919	0.144	0.348	0.133	0.126	0.162	0.154	0.38	0.176	0.0688
PCB-176	52663-65-7	µg/kg	1.25	0.247	0.423	0.187	0.186	0.119	0.235	0.253	0.229	0.0581
PCB-177	52663-70-4	µg/kg	9.48	1.73	3.55	1.65	1.48	1.86	2.03	2.81	2.2	0.697
PCB-178	52663-67-9	µg/kg	5.3	0.968	1.97	0.842	0.988	1.07	1.06	3.69	1.16	0.513
PCB-179	52663-64-6	µg/kg	3.68	0.976	1.33	0.543	0.727	0.802	0.887	2.46	0.823	0.244
PCB-180/193	PCB-180/193	µg/kg	89.8	8.59	27.1	10.9	7.47 J	12.1	10.8	40.3	14.4	6.2
PCB-181	74472-47-2	µg/kg	0.0939	0.0303	0.0413	0.0191	0.0251	0.0262	0.0216	0.0452	0.0340	0.0186
PCB-182	60145-23-5	µg/kg	< 0.00114 U	0.0288	< 0.000559 U	0.0170	< 0.000999 U	0.0252	0.0267	< 0.000489 U	< 0.000275 U	0.0125
PCB-183/185	PCB-183/185	µg/kg	17.8	2.69	6.13	2.55	2.59	3.07	2.79	12.6	3.4	1.42
PCB-184	74472-48-3	µg/kg	0.0158 JN	0.0139	0.0122	0.00922	0.0207	0.0143	0.0123	0.0158	0.0224	0.00999
PCB-186	74472-49-4	µg/kg	< 0.000932 U	< 0.000263 U	< 0.000465 U	< 0.000221 U	< 0.000800 U	< 0.000243 U	< 0.000219 U	< 0.000422 U	< 0.000232 U	< 0.000182 U
PCB-187	52663-68-0	µg/kg	64.8	6.15	20.5	7.75	9.77	12.2	7.74	39.4	9.34 J	3.92
PCB-188	74487-85-7	µg/kg	0.111	0.0183	0.0237	0.0115	0.0115	0.0106	0.0181	0.0111	0.0225	0.00723
PCB-189	39635-31-9	µg/kg	0.852	0.0827	0.231	0.101	0.0604	0.124	0.0948	0.409	0.139	0.0592
PCB-190	41411-64-7	µg/kg	5.4	0.612	1.69	0.74	0.724	0.726	0.801	3.92	0.871	0.43

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Sitewide 1	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB091	SMB092	SMB093	SMB094	SMB095	SMB096	SMB097	SMB098	SMB099	SMB100
		Sample ID	PDI-TF-SMB091	PDI-TF-SMB092	PDI-TF-SMB093	PDI-TF-SMB094	PDI-TF-SMB095	PDI-TF-SMB096	PDI-TF-SMB097	PDI-TF-SMB098	PDI-TF-SMB099	PDI-TF-SMB100
		Sample Date	8/18/18	8/18/18	8/18/18	8/16/18	8/23/18	8/16/18	8/16/18	8/24/18	8/16/18	8/16/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	1.15	0.132	0.405	0.159	0.154	0.182	0.163	0.575	0.198	0.0920
PCB-192	74472-51-8	µg/kg	< 0.00110 U	< 0.000290 U	< 0.000511 U	< 0.000248 U	< 0.000913 U	< 0.000272 U	< 0.000242 U	< 0.000460 U	< 0.000246 U	< 0.000204 U
PCB-194	35694-08-7	µg/kg	13	0.838	2.96	1.59	0.608 J	1.68	1.51	4.39 J	1.47	0.785
PCB-195	52663-78-2	µg/kg	5.04	0.474	1.58	0.676	0.427	0.757	0.725	3.46	0.904	0.379
PCB-196	42740-50-1	µg/kg	6.47	0.773	2.3	0.936	0.633 J	1.1	0.92	3.23	1.31 JN	0.515
PCB-197/200	PCB-197/200	µg/kg	1.11	0.171 J	0.397	0.179 J	0.162	0.153	0.199 J	0.444	0.238 J	0.0815 J
PCB-198/199	PCB-198/199	µg/kg	12.1	1.89	4.21	2.18	2.01	2.92	2.1	8.22	3.37	1.2
PCB-201	40186-71-8	µg/kg	1.23	0.193	0.466	0.231	0.201	0.271	0.229	0.547	0.359	0.116
PCB-202	2136-99-4	µg/kg	2.33	0.437	0.847	0.443	0.408	0.595	0.489	1.64	0.694	0.341
PCB-203	52663-76-0	µg/kg	7.25	1.21	2.47	1.28	1.28	1.67	1.33	5.82	1.86	0.899
PCB-204	74472-52-9	µg/kg	0.00172 JN	0.00152	0.00131 JN	0.000921 JN	0.00203 JN	0.00128	0.00121	0.00262 JN	0.00210 JN	0.00115
PCB-205	74472-53-0	µg/kg	0.548	0.0536	0.135	0.0822	0.0467	0.0852	0.0791	0.329	0.0871	0.0428
PCB-206	40186-72-9	µg/kg	1.48	0.348	0.621	0.395	0.332	0.574	0.418	0.847	0.563	0.452
PCB-207	52663-79-3	µg/kg	0.3	0.0469	0.122	0.0770	0.0483	0.0779	0.0626	0.106	0.0974	0.0629
PCB-208	52663-77-1	µg/kg	0.359	0.142	0.207	0.15	0.135	0.182	0.15	0.218	0.241	0.159
PCB-209	2051-24-3	µg/kg	0.172	0.139	0.189	0.129	0.142	0.156	0.163	0.153	0.173	0.34
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	666	151	214	99.1	105	131	105	375	155	62.1
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.349	2.15	0.416	2.27	0.721 J	0.352	0.657	0.324	0.919	0.770
2,4-DDE	3424-82-6	µg/kg	0.216	0.758	0.142	0.655	0.269 J	0.157 J	0.203 J	0.114 J	0.406	0.369
2,4-DDT	789-02-6	µg/kg	0.128	0.667	0.185	0.924	0.361 J	0.225 J	0.280	0.173 J	0.444	0.547
4,4'-DDD	72-54-8	µg/kg	3.76	8.82	3.23	10.9	4.90 J	2.80	3.40	2.87	5.81	5.73
4,4'-DDE	72-55-9	µg/kg	37.7	60.1	31.4	68.9	47.1 J	35.4	33.7	31.8	62.3	54.6
4,4'-DDT	50-29-3	µg/kg	2.31	4.30	1.92	4.53	3.09 J	2.62	1.86	2.30	4.25	7.92
DDx (a)	T_DDx (PDI)	µg/kg	44.5	76.8	37.3	88.2	56.4	41.6	40.1	37.6	74.1	69.9
alpha-Chlordane	5103-71-9	µg/kg	0.601	1.58	0.585	1.56	1.15 J	0.721	0.703	0.688	1.30	1.32
cis-Nonachlor	5103-73-1	µg/kg	0.990	1.61	0.964	1.55	1.44 J	1.12	0.884	1.07	1.77	1.46
Oxychlordane	27304-13-8	µg/kg	0.448	0.770	0.431	0.796	0.583 J	0.570	0.406 J	0.487	0.809	0.929
trans-Chlordane	5103-74-2	µg/kg	0.185 J	0.578	0.181 J	0.502	0.391 J	0.208 J	0.226 J	0.189 J	0.435	0.419 J
trans-Nonachlor	39765-80-5	µg/kg	2.76	4.15	2.57	4.29	3.70 J	3.09	2.49	3.16	4.86	4.08
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	4.98	8.69	4.73	8.7	7.26	5.71	4.71	5.59	9.17	8.21
Aldrin	309-00-2	µg/kg	0.007 JN	0.015 J	0.008 JN	0.022 JN	0.010 J	0.006 JN	0.006 JN	0.006 J	0.010 JN	0.010 JN
Dieldrin	60-57-1	µg/kg	0.859	2.26	0.834	1.97	1.33 J	1.22	0.992	0.819	1.18	1.66
Metals												
Arsenic	7440-38-2	mg/kg	0.09 J	0.29	0.12 J	0.15	0.17	0.20	0.11 J	0.15	0.25	0.18
Mercury	7439-97-6	mg/kg	0.124 J	0.098 J	0.105 J	0.120 J	0.139 J	0.143 J	0.133 J	0.123 J	0.138 J	0.099 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.02	1.93	0.970	1.97	1.33 J	0.829	0.939	0.958	1.31	1.91
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 1000 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00147 JN	0.00386 J	0.00113 JN	0.00123 JN	0.00192 J	0.00222 J	0.00194 J	0.00144 JN	0.00218 J	0.00117 J
PBDE-8/11	PDBE-8/11	µg/kg	0.000998 JN	0.00301 J	0.00103 JN	0.00122 JN	0.00241 J	0.00182 J	0.00131 JN	0.00159 JN	0.00173 J	0.00109 J
PBDE-10	51930-04-2	µg/kg	< 0.000849 U	< 0.000553 U	< 0.000525 U	< 0.000259 U	< 0.000883 U	< 0.000228 U	< 0.000256 U	< 0.000705 U	< 0.000490 U	< 0.000268 U
PBDE-12/13	PBDE-12/13	µg/kg	0.0319 JN	0.0271 JN	0.00604 JN	0.00325 JN	0.00641 JN	0.00368 JN	0.00386 JN	0.00197 JN	0.0120 JN	0.00105 JN
PBDE-15	2050-47-7	µg/kg	0.00875 J	0.0210	0.00884 J	0.00975	0.0171	0.0192	0.00991	0.0353	0.0133 J	0.0102
PBDE-17/25	PBDE-17/25	µg/kg	0.0432 JN	0.144 JN	0.0465 JN	0.0578	0.113 JN	0.0945	0.0719	0.0554 JN	0.0921 JN	0.0421
PBDE-28/33	PBDE-28/33	µg/kg	0.255	0.443	0.271	0.226	0.444	0.464	0.282	0.414	0.53	0.308
PBDE-30	155999-95-4	µg/kg	< 0.00166 U	< 0.00346 U	< 0.00271 U	< 0.00149 U	< 0.00328 U	< 0.00291 U	< 0.00246 U	< 0.00381 U	< 0.00242 U	< 0.000960 U
PBDE-32	189084-60-4	µg/kg	< 0.00134 U	< 0.00251 U	< 0.00219 U	< 0.00117 U	< 0.00258 U	< 0.00230 U	< 0.00194 U	< 0.00307 U	< 0.00187 U	< 0.000759 U
PBDE-35	147217-80-9	µg/kg	0.00636 JN	0.00660 JN	0.00441 JN	0.00407 JN	0.00692 JN	0.0102 JN	0.00543 JN	0.00447 JN	0.00783 JN	0.00535 JN
PBDE-37	147217-81-0	µg/kg	0.00732 JN	0.0110 J	0.00700 J	0.00626 J	0.0108 JN	0.00962	0.00740 J	0.0193	0.0131 J	0.0103
PBDE-047	5436-43-1	µg/kg	15.8	18.1	14.7	14.3	19.9	21	16.1	24.2	27.4	17.3
PBDE-49	243982-82-3	µg/kg	0.394	1.64	0.452	0.516	0.743	0.876	0.639	0.828	1.12	0.416
PBDE-51	189084-57-9	µg/kg	0.0146	0.0695	0.0189	0.0162	0.0301	0.0250	0.0219	0.0181 JN	0.0403	0.0111

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment	1	1	1	1	1					
		Location	SMB091	SMB092	SMB093	SMB094	SMB095	SMB096	SMB097	SMB098	SMB099	SMB100
		Sample ID	PDI-TF-SMB091	PDI-TF-SMB092	PDI-TF-SMB093	PDI-TF-SMB094	PDI-TF-SMB095	PDI-TF-SMB096	PDI-TF-SMB097	PDI-TF-SMB098	PDI-TF-SMB099	PDI-TF-SMB100
		Sample Date	8/18/18	8/18/18	8/18/18	8/16/18	8/23/18	8/16/18	8/16/18	8/24/18	8/16/18	8/16/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.171	0.325	0.207	0.171	0.179	0.262	0.135	0.541	0.407	0.253
PBDE-71	189084-62-6	µg/kg	0.0149	0.0621	0.0257 JN	0.0215	0.0378	0.0308 JN	0.0243	0.0307	0.0366	0.0146
PBDE-75	189084-63-7	µg/kg	0.0165	0.0327	0.0238	0.0175	0.0235	0.0196	0.0166	0.0897	0.0296	0.0162
PBDE-77	93703-48-1	µg/kg	0.00340 JN	0.00412 JN	0.00271 JN	0.00283 JN	< 0.000146 U	0.00603 J	0.00286 JN	0.0190 JN	0.00445 JN	0.00938
PBDE-79	PBDE-79	µg/kg	0.0269 JN	0.0241 JN	0.0213 JN	0.0370 JN	0.0345 JN	0.0447 JN	0.0434 JN	0.0519 JN	0.0367 JN	0.0499 JN
PBDE-85	182346-21-0	µg/kg	< 0.00388 U	< 0.00238 U	< 0.00272 U	< 0.00196 U	< 0.00493 U	< 0.00188 U	< 0.00269 U	< 0.00555 U	< 0.00365 U	< 0.00227 U
PBDE-099	60348-60-9	µg/kg	4.27	6.29	8.88	7.61	4.17	5.09	4.68	22.8	8.67	5.27
PBDE-100	189084-64-8	µg/kg	3.68	4	4.1	4.03	4.27	3.7	4.17	8.99	5.55	3.57
PBDE-105	373594-78-6	µg/kg	< 0.00520 U	< 0.00331 U	< 0.00364 U	< 0.00260 U	< 0.00650 U	< 0.00250 U	< 0.00358 U	< 0.00783 U	< 0.00463 U	< 0.00301 U
PBDE-116	189084-65-9	µg/kg	< 0.00652 U	< 0.00435 U	< 0.00457 U	< 0.00387 U	< 0.00719 U	< 0.00372 U	< 0.00534 U	< 0.0114 U	< 0.00574 U	< 0.00449 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0688	0.0829	0.0749	0.0666	0.0641	0.104	0.0753	0.324	0.0993	0.0845
PBDE-126	366791-32-4	µg/kg	0.0151	0.00980 J	0.0187	0.0121	0.0178	0.00749	0.0200	0.0782	0.0136 J	0.00765
PBDE-128	182677-28-7	µg/kg	0.00393 JN	0.00465 JN	0.00329 JN	0.00391 JN	0.00646 JN	0.00356 JN	< 0.000285 U	0.00584 JN	0.00678 JN	0.0124 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00136 J	0.00177 J	0.00386 J	0.00301 JN	< 0.00112 U	0.00207 JN	0.00255 JN	0.0433 J	0.00119 JN	0.00252 JN
PBDE-140	243982-83-4	µg/kg	0.0125 J	0.0128 J	0.0211 J	0.0147 J	0.00863 J	0.0118 J	0.00992 J	0.291 J	0.0206 J	0.0140 J
PBDE-153	68631-49-2	µg/kg	1.39	0.909	1.16 J	1.1 J	0.786	1.12	0.83	13.8 J	1.63	1.9
PBDE-154	207122-15-4	µg/kg	1.09 J	0.762	1.21 J	1.09 J	0.937	0.851	0.903	9.65 J	1.16 J	0.961
PBDE-155	35854-94-5	µg/kg	0.0922 J	0.0782	0.119 J	0.111 J	0.112	0.0631	0.151	0.379 J	0.114 J	0.0657
PBDE-181	189084-67-1	µg/kg	0.000289 JN	0.000454 JN	< 0.000151 U	0.00105 J	< 0.000296 U	0.000557 JN	0.000561 JN	< 0.00150 U	< 0.000144 U	0.00133 J
PBDE-183	207122-16-5	µg/kg	0.0164	0.00947 JN	0.0109 J	0.0112	0.00846 J	0.0110	0.00608 J	0.117	0.0153	0.0112
PBDE-190	189084-68-2	µg/kg	0.000609 JN	< 0.000152 U	< 0.000237 U	< 0.000402 U	< 0.000466 U	0.000382 J	0.000305 JN	< 0.00245 U	0.000938 JN	< 0.00159 U
PBDE-203	337513-72-1	µg/kg	0.00146 JN	0.00173 JN	0.00156 JN	0.00173 J	< 0.000991 U	0.00274 JN	0.00169 JN	< 0.00170 U	0.00482 J	0.00377 J
PBDE-206	63387-28-0	µg/kg	< 0.000720 U	0.00637 JN	0.00295 JN	0.00150 JN	< 0.000512 U	0.00209 JN	0.000467 J	< 0.00120 U	0.00414 J+	0.00122 JN
PBDE-207	437701-79-6	µg/kg	0.00152 JN	0.00429 JN	< 0.000592 U	0.00552 JN	< 0.000557 U	0.00331 JN	< 0.000842 U	< 0.00159 U	0.00457 JN	0.00368 JN
PBDE-208	437701-78-5	µg/kg	0.000672 JN	0.00360 JN	0.00294 JN	0.00589 J	< 0.00101 U	0.00403 JN	0.00174 JN	< 0.000414 U	0.00716 JN	0.00624 JN
PBDE-209	1163-19-5	µg/kg	0.0340 JN	0.0620 JN	0.0460 JN	0.0479 JN	< 0.0206 U	0.0320 JN	< 0.0140 U	< 0.0322 U	0.0863 J	0.0469 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	27.5	33.2	31.5	29.5	31.9	33.9	28.2	82.8	47.1	30.4

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Sitewide	Sitewide	Sitewide	Sitewide	Sitewide	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment	1	1	1	1	1					
		Location	SMB091	SMB092	SMB093	SMB094	SMB095	SMB096	SMB097	SMB098	SMB099	SMB100
		Sample ID	PDI-TF-SMB091	PDI-TF-SMB092	PDI-TF-SMB093	PDI-TF-SMB094	PDI-TF-SMB095	PDI-TF-SMB096	PDI-TF-SMB097	PDI-TF-SMB098	PDI-TF-SMB099	PDI-TF-SMB100
		Sample Date	8/18/18	8/18/18	8/18/18	8/16/18	8/23/18	8/16/18	8/16/18	8/24/18	8/16/18	8/16/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	4.56	7.75	5.12	4.75	5.19	5.61	4.06	4.14	4.64	3.98
Total Solids@104C	TSOLID	%	23.8	28.8	29.3	25.1	26.7	27.5	25.5	25.8	26.7	25.8

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB101	SMB102	SMB103	SMB104	SMB105	SMB106	SMB107	SMB108	SMB109	SMB110
		Sample ID	PDI-TF-SMB101	PDI-TF-SMB102	PDI-TF-SMB103	PDI-TF-SMB104	PDI-TF-SMB105	PDI-TF-SMB106	PDI-TF-SMB107	PDI-TF-SMB108	PDI-TF-SMB109	PDI-TF-SMB110
		Sample Date	8/16/18	9/8/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/24/18	9/12/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000112 J	0.000198 JN	0.000210 J	0.000148 J	0.000715 J	0.0000795 JN	0.000485 J	0.000233 J	< 0.0000825 U	0.000710 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000746 U	< 0.0000723 U	< 0.0000731 U	< 0.0000710 U	0.0000935 JN	< 0.0000704 U	0.0000885 JN	< 0.0000728 U	< 0.0000729 U	0.000110 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000746 U	< 0.0000723 U	< 0.0000731 U	< 0.0000710 U	< 0.0000727 U	< 0.0000704 U	< 0.0000700 U	< 0.0000823 U	< 0.0000729 U	< 0.0000723 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.0000746 U	0.000115 JN	< 0.0000731 U	0.0000940 JN	0.000315 J	< 0.0000704 U	0.000165 J	0.0000981 J	0.000125 JN	0.000357 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.0000746 U	< 0.0000723 U	< 0.0000731 U	< 0.0000710 U	0.000495 JN	< 0.0000704 U	0.000138 JN	< 0.0000728 U	0.0000733 JN	0.000290 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000116 J	0.000387 JN	0.000152 JN	0.000273 JN	0.00119 J	0.000154 J	0.000604 J	0.000366 J	0.000299 JN	0.00123 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0000746 U	< 0.0000723 U	< 0.0000731 U	< 0.0000710 U	0.000158 J	< 0.0000704 U	0.000105 JN	< 0.0000728 U	< 0.0000729 U	0.000221 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000746 U	< 0.000279 U	< 0.0000731 U	< 0.0000710 U	0.000185 JN	< 0.0000704 U	< 0.0000700 U	< 0.0000728 U	< 0.0000729 U	0.000129 J
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000746 U	< 0.0000723 U	< 0.0000731 U	< 0.0000710 U	< 0.0000727 U	< 0.0000704 U	< 0.0000700 U	< 0.0000728 U	< 0.0000729 U	< 0.0000723 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000303 J	0.000480 JN	0.000386 J	0.000263 J	0.00234	0.000243 JN	0.000544 J	0.000382 JN	0.000517 JN	0.000884 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0000819 J	0.000136 JN	0.000120 J	0.000112 J	0.000564 J	0.0000993 J	0.000202 J	0.000149 JN	0.000121 JN	0.000272 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000746 U	< 0.0000723 U	< 0.0000731 U	< 0.0000710 U	0.0000842 JN	< 0.0000704 U	< 0.0000700 U	< 0.0000728 U	< 0.0000729 U	0.0000750 J
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000207 J	0.000238 J	0.000361 J	0.000260 J	0.000957 JN	0.000204 JN	0.000366 J	0.000394 JN	0.000272 J	0.000453 JN
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000243 JN	0.000300 JN	0.000274 J	0.000216 J	0.000601	0.000266 JN	0.000268 J	0.000254 J	0.000250 J	0.000450
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000464	0.000762	0.000556	0.000640	0.000734	0.000479	0.000624	0.000920	0.000741	0.000766
OCDD	3268-87-9	µg/kg	0.000319 J	0.000150 J	0.000157 J	0.000211 J	0.00160 J	0.000147 J	0.000578 J	0.000242 J	0.000193 JN	0.000308 J+
OCDF	39001-02-0	µg/kg	< 0.0000746 U	< 0.0000723 U	< 0.0000731 U	< 0.0000710 U	< 0.0000727 U	< 0.0000704 U	< 0.0000700 U	< 0.0000728 U	< 0.0000729 U	< 0.0000723 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.000674	0.000998	0.000849	0.000666	0.00357	0.000641	0.0011	0.000903	0.00098	0.0018
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5)	µg/kg	0.000548	0.000688	0.000837	0.00064	0.00335	0.000199	0.00108	0.000586	0.000664	0.00169
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.000427	0.000448	0.00083	0.000626	0.00321	0.0000663	0.00107	0.000395	0.000406	0.00162
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00237	0.00164 J	0.00178	0.00212	0.00252	0.00195	0.00283	0.00221	0.00202 J	0.00327
PCB-2	2051-61-8	µg/kg	0.000783 J+	0.000828 JN	0.000642 J+	0.00143	0.000846 J+	0.000836 J+	0.00148	0.000955 J+	0.00136 J	0.00246 J
PCB-3	2051-62-9	µg/kg	0.00154 J+	0.00134 J+	0.000976 J+	0.00181 J+	0.00134 J+	0.00175 JN	0.00190 J+	0.00151 J+	0.00173 JN	0.00240 JN
PCB-4	13029-08-8	µg/kg	0.0294	0.0488	0.0154	0.0267	0.0257	0.0181	0.0604	0.0365	0.0264	0.0346
PCB-5	16605-91-7	µg/kg	0.000329 J	< 0.00153 U	0.000269 J	0.000471 J	0.000371 J	0.000458 JN	0.00105 JN	0.000605 JN	< 0.00194 U	< 0.00319 U
PCB-6	25569-80-6	µg/kg	0.00777	0.0111 JN	0.00694	0.0176	0.0170	0.0135	0.0855	0.0341	0.0329	0.0278
PCB-7	33284-50-3	µg/kg	0.00119	0.00245 JN	0.00113	0.00193	0.00215	0.00242	0.00698	0.00363	0.00322 JN	0.00332 JN
PCB-8	34883-43-7	µg/kg	0.0231	0.0337	0.0179	0.0427	0.0452	0.0401	0.181	0.0615	0.0553	0.0775
PCB-9	34883-39-1	µg/kg	0.00205	0.00350 JN	0.00171	0.00367	0.00350	0.00720	0.0147	0.00671	0.00571	0.00689
PCB-10	33146-45-1	µg/kg	0.00114	0.00225 J	0.000637	0.00135	0.00147	0.000927	0.00230	0.00135	< 0.00174 U	< 0.00291 U
PCB-11	2050-67-1	µg/kg	0.0406	0.0882	0.0446	0.0861	0.0955	0.0582	0.118	0.0651	0.0841	0.204
PCB-12/13	PCB-12/13	µg/kg	0.000838	0.00202 J	0.000766	0.00331 JN	0.00154	0.00318 JN	0.00407	0.00233	0.00311 JN	< 0.00295 U
PCB-14	34883-41-5	µg/kg	< 0.000202 U	< 0.00139 U	< 0.0000933 U	< 0.000175 U	< 0.000109 U	< 0.000214 U	< 0.000221 U	< 0.000142 U	< 0.00181 U	< 0.00290 U
PCB-15	2050-68-2	µg/kg	0.00612	0.00832	0.00522	0.0114	0.00948	0.0377	0.0122	0.0129	0.0106	0.0122
PCB-16	38444-78-9	µg/kg	0.0190	0.0263	0.0126	0.0319	0.0243	0.0230 JN	0.0583	0.0336	0.0224	0.0709
PCB-17	37680-66-3	µg/kg	0.0610	0.0912	0.0367	0.112	0.105	0.0828	0.314	0.17	0.117	0.166
PCB-18/30	PCB-18/30	µg/kg	0.0718	0.0958	0.0464	0.123	0.0954	0.149	0.218	0.15	0.0959	0.23
PCB-19	38444-73-4	µg/kg	0.0465	0.0854	0.0113	0.0366	0.0268	0.0185	0.0725	0.0335	0.0249	0.0288
PCB-20/28	PCB-20/28	µg/kg	0.316	0.377	0.174	0.803	0.399	0.794	0.531	0.477	0.321	0.604
PCB-21/33	PCB-21/33	µg/kg	0.0428	0.0575	0.0255	0.0842	0.0409	0.0795	0.0841	0.0675	0.0435	0.148
PCB-22	38444-85-8	µg/kg	0.0625	0.0739	0.0293	0.121	0.0736	0.0838 JN	0.102	0.0818	0.0608	0.135
PCB-23	55720-44-0	µg/kg	0.000239 J	0.000403 JN	0.000168 J	0.000484 JN	0.000299 J	< 0.00101 U	< 0.00121 U	< 0.000790 U	< 0.000852 U	< 0.000899 U
PCB-24	55702-45-9	µg/kg	0.00111	0.00174 JN	0.000631	0.00351	0.00161	0.00180 JN	< 0.000119 U	0.00311	0.00165 J	0.00389 JN
PCB-25	55712-37-3	µg/kg	0.0251	0.0357	0.0143	0.0485	0.0288	0.0366	0.0605	0.0544	0.0329	0.0562
PCB-26/29	PCB-26/29	µg/kg	0.0617	0.0727	0.0333	0.115	0.0753	0.107	0.15	0.134	0.0789	0.124
PCB-27	38444-76-7	µg/kg	0.0162	0.0233	0.0113	0.0435	0.0310	0.0238 JN	0.0958	0.0581	0.0303	0.0342
PCB-31	16606-02-3	µg/kg	0.171	0.24	0.0854	0.296	0.201	0.33	0.377	0.308	0.197	0.395
PCB-32	38444-77-8	µg/kg	0.0308	0.0468	0.0163	0.0780	0.0477	0.0383	0.136	0.0569	0.0365	0.0858
PCB-34	37680-68-5	µg/kg	0.00235	0.00255 J	0.00129	0.00416	0.00261	0.00271 JN	0.00573	0.00469	0.00346	0.00428
PCB-35	37680-69-6	µg/kg	< 0.000186 U	< 0.000310 U	< 0.000138 U	0.00178	< 0.000254 U	< 0.000970 U	< 0.00108 U	0.000897	< 0.000847 U	< 0.000947 U
PCB-36	38444-87-0	µg/kg	< 0.000179 U	< 0.000278 U	< 0.000134 U	< 0.000197 U	< 0.000246 U	< 0.000900 U	< 0.00104 U	< 0.000702 U	< 0.000765 U	< 0.000876 U
PCB-37	38444-90-5	µg/kg	0.0214	0.0282	0.0157	0.0290	0.0309	0.105	0.0290	0.0240	0.0318	0.0494
PCB-38	53555-66-1	µg/kg	0.000510 J	0.000939 JN	0.000395 JN	0.00142	0.000478 J	< 0.000978 U	< 0.00114 U	0.000936 JN	< 0.000833 U	< 0.000865 U

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB101	SMB102	SMB103	SMB104	SMB105	SMB106	SMB107	SMB108	SMB109	SMB110
		Sample ID	PDI-TF-SMB101	PDI-TF-SMB102	PDI-TF-SMB103	PDI-TF-SMB104	PDI-TF-SMB105	PDI-TF-SMB106	PDI-TF-SMB107	PDI-TF-SMB108	PDI-TF-SMB109	PDI-TF-SMB110
		Sample Date	8/16/18	9/8/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/24/18	9/12/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.00188	0.00256 J	0.00148	0.00560	0.00247	0.00227 JN	0.00326	0.00317	0.00210 J	0.00615
PCB-40/41/71	PCB-40/41/71	µg/kg	0.141	0.252	0.0979	0.334	0.166	0.141	0.209	0.193	0.129	0.374
PCB-42	36559-22-5	µg/kg	0.128	0.172	0.0839	0.216	0.112	0.12	0.14	0.143	0.112	0.231
PCB-43	70362-46-8	µg/kg	0.0174	0.0288	0.0133 JN	0.0483	0.0204	0.0260	0.0275	0.0360	0.0195	0.0445
PCB-44/47/65	PCB-44/47/65	µg/kg	0.884	1.31	0.623	1.46	0.768	0.819	1	1.17	0.79	1.31
PCB-45/51	PCB-45/51	µg/kg	0.0813	0.157	< 0.000205 U	0.106	0.0528	0.0512	0.0881	0.0795	0.0576	0.14
PCB-46	41464-47-5	µg/kg	0.0102	0.0194	0.00563	0.0145	0.0105	0.00862	0.0182	0.0121	0.00878 JN	0.0315
PCB-48	70362-47-9	µg/kg	0.0613	0.0946	0.0429	0.152	0.0659	0.0739	0.0885	0.0932	0.0554	0.151
PCB-49/69	PCB-49/69	µg/kg	0.616	0.851	0.45	1.2	0.54	0.577	0.716	0.88	0.575	1.01
PCB-50/53	PCB-50/53	µg/kg	0.0544	0.11	0.0330	0.104	0.0609	0.0566	0.12	0.105	0.0648	0.136
PCB-52	35693-99-3	µg/kg	0.981	1.39	1.02	2.33	0.963	0.966	1.22	1.82	1.02	1.88
PCB-54	15968-05-5	µg/kg	0.0100	0.0178	0.00103 JN	0.00487	0.00276	0.00183 JN	0.00411	0.00351	0.00522 JN	0.00328
PCB-55	74338-24-2	µg/kg	< 0.000420 U	< 0.00301 U	0.0163	0.0408 JN	0.00607	0.0326	0.0137 JN	0.0192	< 0.00467 U	< 0.00247 U
PCB-56	41464-43-1	µg/kg	0.138	0.211	0.0762	0.231	0.135	0.144	0.125	0.196	0.13	0.256
PCB-57	70424-67-8	µg/kg	0.00380	0.00423 JN	0.00312	< 0.0106 U	0.00391	< 0.00583 U	0.00381	0.00578	< 0.00436 U	0.00441 JN
PCB-58	41464-49-7	µg/kg	0.00494	0.00857 JN	0.00460	< 0.0111 U	0.00487	< 0.00614 U	0.00594	0.00911	0.00709	0.00775 JN
PCB-59/62/75	PCB-59/62/75	µg/kg	0.0567	0.0790	0.0419	0.116	0.0579	0.0633	0.0720	0.0832	0.0544	0.0979
PCB-60	33025-41-1	µg/kg	0.158	0.227	0.127	0.419	0.199	0.237	0.158	0.18	0.163	0.185
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	1.11	1.71	1.1	2.25	1.36	1.29	1.18	1.78	1.35	1.76
PCB-63	74472-34-7	µg/kg	0.0495	0.0596	0.0499	0.0905	0.0717	0.0565	0.0517	0.0685	0.0519	0.0609
PCB-64	52663-58-8	µg/kg	0.262	0.374	0.192	0.467	0.252	0.25	0.293	0.294	0.243	0.454
PCB-66	32598-10-0	µg/kg	0.872	1.15	1	1.81 J	1.09 J	1.05 J	0.956 J	1.05 J	1.03	1.18
PCB-67	73575-53-8	µg/kg	0.0170	0.0244	0.00797	0.0297	0.0145	0.0215	0.0156	0.0233	0.0148	0.0222
PCB-68	73575-52-7	µg/kg	0.0258	0.0287	0.0239	0.0230	0.0216	0.0210	0.0228	0.0435	0.0231	0.0323
PCB-72	41464-42-0	µg/kg	0.0271	0.0265	0.0237	0.0317	0.0236	0.0211	0.0254	0.0470	0.0243	0.0346
PCB-73	74338-23-1	µg/kg	0.0103	0.0156 JN	< 0.000162 U	0.0205 JN	0.00373	0.0152	0.0114	0.0191	< 0.000303 U	0.0120
PCB-77	32598-13-3	µg/kg	0.0484	0.0580	0.0365	0.0644	0.0557	0.0641	0.0359	0.0600	0.0598	0.0564
PCB-78	70362-49-1	µg/kg	< 0.000390 U	< 0.00290 U	< 0.00313 U	< 0.0113 U	< 0.000919 U	< 0.00623 U	< 0.00330 U	< 0.00108 U	< 0.00452 U	< 0.00247 U
PCB-79	41464-48-6	µg/kg	0.0341	0.0276	0.0422	0.0839 JN	0.0244	0.0390	0.0184 JN	0.0726 JN	0.0343 JN	0.0281
PCB-80	33284-52-5	µg/kg	< 0.000374 U	< 0.00270 U	< 0.00293 U	< 0.0104 U	< 0.000845 U	< 0.00572 U	< 0.00307 U	< 0.000991 U	< 0.00426 U	< 0.00223 U
PCB-81	70362-50-4	µg/kg	0.00233 JN	0.00395 JN	0.00319 JN	< 0.0112 U	0.00266 JN	< 0.00641 U	< 0.00306 U	0.00335 JN	< 0.00451 U	0.00372 JN
PCB-82	52663-62-4	µg/kg	0.126	0.183	0.265	0.202	0.12	0.129	0.122	0.242	0.168	0.176
PCB-83/99	PCB-83/99	µg/kg	2.4	3.14	4.91	5.83	3.32	2.77	3.24	4.43	4.2	2.76
PCB-84	52663-60-2	µg/kg	0.24	0.352	0.316	0.268	0.219	0.196	0.237	0.387	0.304	0.395
PCB-85/116/117	PCB-85/116/117	µg/kg	0.649	0.784	1.39	1.59	0.896	0.685	0.828	0.959	1.1	0.677
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	1.48 J	2.06 J	3.42 J	2.55 J	1.35 J	1.43 J	1.35 J	2.45 J	2.27 J	1.74
PCB-88/91	PCB-88/91	µg/kg	0.32	0.421	0.385	0.389	0.261	0.259	0.292	0.425	0.381	0.408
PCB-89	73575-57-2	µg/kg	0.00561	0.0113 JN	0.00834	0.0101	0.00531	0.00427	0.00745	0.00849	0.00544	0.0127
PCB-90/101/113	PCB-90/101/113	µg/kg	3.05	3.99	6.89	7.22	3.04	3.16	3.14	5.95	4.6	3.48
PCB-92	52663-61-3	µg/kg	0.61	0.785	1.25	1.29	0.691	0.693	0.688	1.21	1.03	0.744
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	1.39	1.82	2.34	2.43	1.5	1.22	1.43	2.22	1.9	2.01
PCB-94	73575-55-0	µg/kg	0.00695	0.0152	0.00364	0.00668	0.00370	0.00439 JN	0.00616	0.00898	0.00520	0.00939
PCB-96	73575-54-9	µg/kg	0.00797 JN	0.0110	0.00455 JN	0.00973	0.00532	0.00411	0.00789	0.00793	0.00623 JN	0.0131
PCB-103	60145-21-3	µg/kg	0.0565	0.0805	0.0422	0.0637	0.0249	0.0540	0.0450	0.0768	0.0471	0.0672
PCB-104	56558-16-8	µg/kg	0.00231 J	0.00394	0.00107 JN	0.00156	0.000481 J	0.000688 JN	0.000864	0.00139 JN	0.000752 JN	0.00159 J
PCB-105	32598-14-4	µg/kg	0.942	1.18	2.33	2.45	1.54	1.19	1.14	1.79 J	2.07	1
PCB-106	70424-69-0	µg/kg	< 0.00501 U	< 0.00834 U	< 0.0135 U	< 0.00718 U	< 0.00487 U	< 0.00931 U	< 0.00745 U	< 0.00823 U	< 0.0111 U	< 0.00383 U
PCB-107/124	PCB-107/124	µg/kg	0.0937	0.119	0.165	0.169	0.121	0.104	0.0969	0.197	0.189	0.0998
PCB-109	74472-35-8	µg/kg	0.325	0.345	0.805	0.644	0.549	0.377	0.356	0.588	0.584	0.312
PCB-110/115	PCB-110/115	µg/kg	2.38	3.16	6.52	4.46	2.94	2.25	2.33	3.85	3.46	2.69
PCB-111	39635-32-0	µg/kg	0.00767	0.00557 JN	0.00850 JN	0.0124	0.00731	0.00925	0.00849	0.0179	0.0104	0.00826
PCB-112	74472-36-9	µg/kg	< 0.00138 U	< 0.000972 U	< 0.00179 U	< 0.00155 U	< 0.000525 U	< 0.00157 U	< 0.00118 U	< 0.00173 U	< 0.00238 U	< 0.00232 U
PCB-114	74472-37-0	µg/kg	0.0742	0.0879	0.28	0.182	0.141	0.0877	0.0836	0.12	0.151	0.0753
PCB-118	31508-00-6	µg/kg	3.03	3.57	9.91	7.42	5.5	3.64	3.45	5.19	6.73	3.19
PCB-120	68194-12-7	µg/kg	0.0318	0.0292	0.0385 JN	0.0554	0.0322	0.0413	0.0391	0.0677	0.0431	0.0318

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB101	SMB102	SMB103	SMB104	SMB105	SMB106	SMB107	SMB108	SMB109	SMB110
		Sample ID	PDI-TF-SMB101	PDI-TF-SMB102	PDI-TF-SMB103	PDI-TF-SMB104	PDI-TF-SMB105	PDI-TF-SMB106	PDI-TF-SMB107	PDI-TF-SMB108	PDI-TF-SMB109	PDI-TF-SMB110
		Sample Date	8/16/18	9/8/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/24/18	9/12/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.00528	0.00760 JN	0.00465 JN	0.00597	0.00354	0.00514	0.00597	0.00704	0.00457	0.00496 JN
PCB-122	76842-07-4	µg/kg	0.0182	0.0235	< 0.0159 U	0.0332	0.0197	0.0223	0.0194	0.0370	0.0354	0.0260
PCB-123	65510-44-3	µg/kg	0.0529 JN	0.0661	0.17 JN	0.121	0.0940 JN	0.0757	0.0626	0.108	0.121	0.0633 JN
PCB-126	57465-28-8	µg/kg	0.00736 JN	0.0104 JN	0.0219 JN	0.0253 JN	0.0275 JN	< 0.00983 U	0.0138 JN	0.0195 JN	0.0180 JN	0.00579 JN
PCB-127	39635-33-1	µg/kg	0.00970 JN	0.0144	0.0367	0.0241	0.0222	0.00996	0.0123	0.0136	0.0222	0.00800
PCB-128/166	PCB-128/166	µg/kg	1.19	1.25	2.33	3.03	1.68	1.15	1.29	1.5	2.2	1.01
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	11.1	9.76	18.7	27.1	13	8.94	10.6	12.4	16.1	8.09
PCB-130	52663-66-8	µg/kg	0.412	0.442	0.637	0.728	0.542	0.439	0.389	0.62	0.723	0.351
PCB-131	61798-70-7	µg/kg	0.0305 JN	0.0410	0.0440	0.0471	0.0310	0.0276	0.0226	0.0524	0.0481	0.0334
PCB-132	38380-05-1	µg/kg	0.961	1.13	1.43	1.78	0.859	0.845	0.64	1.25	1.25	0.817
PCB-133	35694-04-3	µg/kg	0.184	0.202	0.271	0.365	0.258	0.203	0.208	0.294	0.275	0.173
PCB-134/143	PCB-134/143	µg/kg	0.173	0.196	0.253	0.291	0.171	0.153	0.123	0.242	0.25	0.179
PCB-135/151/154	PCB-135/151/154	µg/kg	2.04	2.18	3.43	6.06	2.69	1.85	1.9	2.89	2.94	2.02
PCB-136	38411-22-2	µg/kg	0.313	0.394	0.449	0.694	0.332	0.263	0.258	0.387	0.438	0.382
PCB-137	35694-06-5	µg/kg	0.31	0.315	1.09	0.592	0.676	0.37	0.36	0.497	0.711	0.301
PCB-139/140	PCB-139/140	µg/kg	0.11	0.133	0.208	0.225	0.162	0.105	0.132	0.152	0.197	0.112
PCB-141	52712-04-6	µg/kg	0.965	1.02	1.76	3.65	1.15	0.836	0.912	1.31	1.41	0.948
PCB-142	41411-61-4	µg/kg	< 0.0102 U	< 0.00644 U	< 0.00924 U	< 0.00550 U	< 0.00743 U	< 0.00631 U	< 0.00990 U	< 0.0166 U	< 0.0173 U	< 0.00946 U
PCB-144	68194-14-9	µg/kg	0.202	0.216	0.29	0.511	0.194	0.168	0.154	0.282	0.29	0.197
PCB-145	74472-40-5	µg/kg	0.000481 JN	< 0.000471 U	0.00139 JN	< 0.000180 U	0.000420 JN	< 0.000443 U	0.000574	0.000927	0.00108 JN	< 0.000639 U
PCB-146	51908-16-8	µg/kg	2	2.08	4.11	4.39	2.53	1.87	1.93	2.75 J	3.48	1.94
PCB-147/149	PCB-147/149	µg/kg	4.29	4.46	6.57	8.36	4.52	3.42	2.9	5.66	5.31	3.62
PCB-148	74472-41-6	µg/kg	0.0262	0.0296	0.0344	0.0244	0.0129	0.0217	0.0213	0.0300	0.0171 JN	0.0232 JN
PCB-150	68194-08-1	µg/kg	0.0135	0.0190	0.00787 JN	0.0130	0.00523	0.0114	0.00905	0.0165	0.0129	0.0145
PCB-152	68194-09-2	µg/kg	0.00260 JN	0.00436 JN	< 0.000194 U	0.00448	0.00277	0.00211	0.00290	0.00383	0.00398 JN	0.00464 JN
PCB-153/168	PCB-153/168	µg/kg	9.98	11.4	18.3	30.7	13.3	9.54	12	14.6	16.8	9.91
PCB-155	33979-03-2	µg/kg	0.0107	0.0178	0.0121	0.0114	0.0116	0.00974	0.0176	0.0110	0.0103	0.0147
PCB-156/157	PCB-156/157	µg/kg	0.626	0.75	2.16	1.94	1.39	0.829	0.872	1.12	1.41	0.656
PCB-158	74472-42-7	µg/kg	0.673	0.695	1.11	2.01	0.932	0.63	0.767	0.902	1.11	0.581
PCB-159	39635-35-3	µg/kg	< 0.00740 U	0.0614	< 0.00633 U	< 0.00375 U	0.0568	< 0.00430 U	< 0.00645 U	< 0.0113 U	0.0659	< 0.00663 U
PCB-161	74472-43-8	µg/kg	< 0.00714 U	< 0.00460 U	< 0.00637 U	< 0.00386 U	< 0.00513 U	< 0.00443 U	< 0.00688 U	< 0.0116 U	< 0.0120 U	< 0.00621 U
PCB-162	39635-34-2	µg/kg	0.0217	0.0190	0.0616	0.0651	0.0498	0.0345	0.0299	0.0495	0.0526	0.0171
PCB-164	74472-45-0	µg/kg	0.365	0.378	0.7	0.928	0.538	0.304	0.33	0.444	0.542	0.251
PCB-165	74472-46-1	µg/kg	< 0.00836 U	0.00967 JN	0.00844 JN	0.0114	0.00740	0.00948	< 0.00770 U	< 0.0133 U	< 0.0144 U	< 0.00750 U
PCB-167	52663-72-6	µg/kg	0.3	0.325	0.811	0.776	0.583	0.374	0.377	0.499	0.63	0.272
PCB-169	32774-16-6	µg/kg	< 0.00854 U	< 0.0152 U	< 0.0171 U	< 0.0339 U	< 0.0285 U	< 0.00650 U	< 0.0217 U	< 0.0198 U	< 0.0177 U	< 0.00954 U
PCB-170	35065-30-6	µg/kg	1.99	2.09 J	2.26	7.75	2.4	1.71	2.11	2.18	2.93	1.75
PCB-171/173	PCB-171/173	µg/kg	0.557	0.557	0.754	2.2	0.76	0.49	0.598	0.55	0.664	0.51
PCB-172	52663-74-8	µg/kg	0.415	0.412	0.537	1.68	0.62	0.376	0.436	0.51	0.549	0.385
PCB-174	38411-25-5	µg/kg	1.18	1.04	1.39	3.05	1.26	0.917	0.72	1.18	1.17	0.61
PCB-175	40186-70-7	µg/kg	0.0780	0.0907	0.0994	0.234	0.101	0.0647	0.0698	0.0852	0.0947	0.0588
PCB-176	52663-65-7	µg/kg	0.123	0.113	0.129	0.25	0.117 JN	0.0967	0.0780	0.128	0.124	0.0778
PCB-177	52663-70-4	µg/kg	0.914	1.05	1.03	2.72 J	1.17	0.912	0.75	1.04	1.12	0.595
PCB-178	52663-67-9	µg/kg	0.744	0.634	0.851	2.04	0.887	0.57	0.713	0.827	0.876	0.505
PCB-179	52663-64-6	µg/kg	0.532	0.481	0.734	1.44	0.76	0.426	0.462	0.606	0.584	0.387
PCB-180/193	PCB-180/193	µg/kg	6.44	7.08	8.87	24.7	9.61	5.88	7.49	7.11	9.84	5.93
PCB-181	74472-47-2	µg/kg	0.0174	0.0192	0.0394	0.0389	0.0417	0.0195	0.0226	0.0238	0.0307	0.0152
PCB-182	60145-23-5	µg/kg	0.0196	0.0167 JN	< 0.000415 U	0.0431	0.0314 JN	0.0191 JN	0.0205	0.0245	< 0.000511 U	< 0.000683 U
PCB-183/185	PCB-183/185	µg/kg	1.61	1.75	2.34	5.98	2.23	1.41	1.63	1.79	2.13	1.46
PCB-184	74472-48-3	µg/kg	0.0119	0.0225	0.0183	0.0145	0.0177 JN	0.0105	0.0207	0.0124	0.0126	0.0163
PCB-186	74472-49-4	µg/kg	< 0.000306 U	< 0.000538 U	< 0.000339 U	< 0.000334 U	< 0.00183 U	< 0.000304 U	< 0.000562 U	< 0.000198 U	< 0.000419 U	< 0.000559 U
PCB-187	52663-68-0	µg/kg	6.34	5.42	14	20.2	11.4	4.44	5.19	5.81	9	4.44
PCB-188	74487-85-7	µg/kg	0.00864	0.0112	0.0100	0.0120	0.00861 J	0.00943	0.0108	0.0135	0.00986	0.00729 JN
PCB-189	39635-31-9	µg/kg	0.0560	0.0695	0.0868	0.235	0.0788	0.0601	0.0678	0.0759	0.0998	0.0592
PCB-190	41411-64-7	µg/kg	0.453	0.398	0.729	2.11	0.807	0.444	0.529	0.471	0.66	0.451

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB101	SMB102	SMB103	SMB104	SMB105	SMB106	SMB107	SMB108	SMB109	SMB110
		Sample ID	PDI-TF-SMB101	PDI-TF-SMB102	PDI-TF-SMB103	PDI-TF-SMB104	PDI-TF-SMB105	PDI-TF-SMB106	PDI-TF-SMB107	PDI-TF-SMB108	PDI-TF-SMB109	PDI-TF-SMB110
		Sample Date	8/16/18	9/8/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/24/18	9/12/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.0861	0.0928	0.137	0.338	0.135	0.0770	0.0868	0.0879	0.116	0.0867
PCB-192	74472-51-8	µg/kg	< 0.000336 U	< 0.000583 U	< 0.000393 U	< 0.000374 U	< 0.00199 U	< 0.000341 U	< 0.000603 U	< 0.000222 U	< 0.000489 U	< 0.000661 U
PCB-194	35694-08-7	µg/kg	0.803	0.852	1.11	3.13	1.15	0.782	0.968	0.95	1.06 J	0.799 J
PCB-195	52663-78-2	µg/kg	0.392	0.392	0.585	1.69	0.696	0.34	0.478	0.356	0.591	0.47
PCB-196	42740-50-1	µg/kg	0.478	0.555	0.834	1.81	0.99	0.414	0.578	0.533	0.794	0.588
PCB-197/200	PCB-197/200	µg/kg	0.105	0.106	0.165	0.301	0.16	0.0926	0.0968	0.13 J	0.15	0.0950
PCB-198/199	PCB-198/199	µg/kg	1.22	1.35	2.51	5.07	2.56	1.27	1.42	1.8	1.95	1.22
PCB-201	40186-71-8	µg/kg	0.108	0.14	0.178	0.33	0.208	0.107	0.124	0.142	0.155	0.109
PCB-202	2136-99-4	µg/kg	0.36	0.369	0.627	1.02 J	0.591	0.368	0.495	0.506	0.514	0.308
PCB-203	52663-76-0	µg/kg	0.774	0.877	1.56	3.2	1.7	0.806	1.13	1.08	1.28	0.886
PCB-204	74472-52-9	µg/kg	0.000760 JN	0.000967 JN	0.00184 JN	0.00172 JN	< 0.00254 U	0.00133	0.00222 JN	0.00201	< 0.000471 U	0.000944 J
PCB-205	74472-53-0	µg/kg	0.0404	0.0415	0.0574	0.226	0.0683	0.0431	0.0505	0.0579	0.0651	0.0456
PCB-206	40186-72-9	µg/kg	0.31	0.351	0.537	0.832	0.534	0.341	0.408	0.48	0.521	0.29
PCB-207	52663-79-3	µg/kg	0.0500	0.0578	0.0846	0.101	0.0736	0.0502	0.0604	0.0662	0.0684	0.0416
PCB-208	52663-77-1	µg/kg	0.126	0.131	0.199	0.24	0.19	0.143	0.152	0.218	0.228	0.106
PCB-209	2051-24-3	µg/kg	0.143	0.153	0.245	0.218	0.179	0.156	0.187	0.219	0.333	0.146
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	87	96.4	155	239	117	81.9	91.8	118	131	86.4
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.550	0.838	0.283	0.695	0.376	0.397	1.16	0.835	0.465 J	2.27
2,4-DDE	3424-82-6	µg/kg	0.257	0.342	0.187	0.302	0.204 J	0.260	0.405	0.598	0.362 J	0.641
2,4-DDT	789-02-6	µg/kg	0.293	0.813	0.186	0.269	0.264	0.216 J	0.455	0.384	0.131 J	0.680
4,4'-DDD	72-54-8	µg/kg	4.61	5.82	3.22	7.71	3.54	4.99	7.97	11.4	4.84 J	14.1
4,4'-DDE	72-55-9	µg/kg	47.6	52.8	41.7	83.0	37.7	75.6	62.2	123	69.4 J	64.8
4,4'-DDT	50-29-3	µg/kg	2.45	2.64	6.43	3.11	2.82	2.62	5.21	4.72	1.66 J	4.20
DDx (a)	T_DDx (PDI)	µg/kg	55.8	63.3	52	95.1	44.9	84.1	77.4	141	76.9	86.7
alpha-Chlordane	5103-71-9	µg/kg	1.33	1.06	0.602	0.886	1.11	0.665	1.40	0.956	0.713 J	2.45
cis-Nonachlor	5103-73-1	µg/kg	1.29	1.29	1.11	1.43	1.47	1.30	1.74	1.84	1.16 J	2.24
Oxychlordane	27304-13-8	µg/kg	0.972	0.753	0.554	0.705	0.678	0.546	0.990	1.07	0.483 J	1.43
trans-Chlordane	5103-74-2	µg/kg	0.593	0.336 J	0.178 J	0.289 J	0.348 J	0.202 J	0.502	0.314 J	0.246 J	0.965
trans-Nonachlor	39765-80-5	µg/kg	3.73	4.00	3.21	3.84	4.16	3.59	5.23	5.57	3.14 J	6.27
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	7.92	7.44	5.65	7.15	7.77	6.3	9.86	9.75	5.74	13.4
Aldrin	309-00-2	µg/kg	0.009 J	0.006 JN	0.006 J	0.010 J	0.008 J	0.008 J	0.031 J	0.009 JN	0.005 JN	0.050 J
Dieldrin	60-57-1	µg/kg	0.954	1.17	0.733	1.27	1.19	0.991	1.86	1.18	0.796 J	4.17
Metals												
Arsenic	7440-38-2	mg/kg	0.16	0.13 J	0.19	0.14	0.16	0.12	0.17	0.13	0.13 J	0.15
Mercury	7439-97-6	mg/kg	0.117 J	0.138 J	0.157 J	0.116 J	0.205 J	0.176 J	0.293 J	0.135 J	0.133 J	0.362
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	1500 J	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	1.21	1.51	0.963	1.40	1.35	0.881	1.91	1.37	0.884 J	3.56
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 990 U	< 1000 U	< 1000 U	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00130 J	0.000837 JN	0.000994 JN	0.00201 J	0.00122 JN	0.00121 J	0.00242 J	0.00128 JN	0.00161 JN	0.00375 JN
PBDE-8/11	PDBE-8/11	µg/kg	0.000980 JN	0.00104 J	0.000951 JN	0.00157 J	0.00139 JN	0.00127 J	0.00244 J	0.00145 J	0.00179 J	0.00541 J
PBDE-10	51930-04-2	µg/kg	< 0.000605 U	< 0.000504 U	< 0.000655 U	< 0.000301 U	< 0.000972 U	< 0.000141 U	< 0.000217 U	< 0.000414 U	< 0.000237 U	< 0.000650 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00439 JN	0.00504 JN	0.00135 JN	0.00220 JN	0.00184 JN	0.00121 JN	0.00229 JN	0.00181 JN	0.00266 JN	0.00384 J
PBDE-15	2050-47-7	µg/kg	0.0114 J	0.0146	0.00891 J	0.0150	0.0116 J	0.00986	0.0204	0.0143	0.0102 J	0.0417
PBDE-17/25	PBDE-17/25	µg/kg	0.0593 JN	0.0662 JN	0.0433 JN	0.0821	0.0615 JN	0.0498	0.112	0.0630	0.0611 JN	0.224
PBDE-28/33	PBDE-28/33	µg/kg	0.325	0.583	0.282	0.484	0.335	0.289	0.677	0.392	0.285	0.624
PBDE-30	155999-95-4	µg/kg	< 0.00279 U	< 0.00250 U	< 0.00144 U	< 0.00210 U	< 0.00179 U	< 0.00246 U	< 0.00232 U	< 0.00171 U	< 0.00229 U	< 0.00609 U
PBDE-32	189084-60-4	µg/kg	< 0.00216 U	< 0.00202 U	< 0.00111 U	< 0.00166 U	< 0.00138 U	< 0.00192 U	< 0.00179 U	< 0.00135 U	< 0.00184 U	< 0.00467 U
PBDE-35	147217-80-9	µg/kg	0.0167 JN	0.00981 JN	0.00485 JN	0.00756 JN	0.00578 JN	0.00555 JN	0.00824 JN	0.00674 JN	0.00340 JN	0.0153 JN
PBDE-37	147217-81-0	µg/kg	0.00659 J	0.0118 JN	0.00733 J	0.0115	0.00623 J	0.00830 J	0.0131	0.00958	0.00635 J	0.0215
PBDE-047	5436-43-1	µg/kg	16.8	21.4	16.2	20.4	16	15.4	26.1	16.1	13.4	19.3
PBDE-49	243982-82-3	µg/kg	0.608	0.9	0.444	0.865	0.739	0.53	0.703	0.828	0.573	1.11
PBDE-51	189084-57-9	µg/kg	0.0215	0.0328	0.0187	0.0335	0.0161	0.0192	0.0278	0.0296	0.0267	0.0601

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB101	SMB102	SMB103	SMB104	SMB105	SMB106	SMB107	SMB108	SMB109	SMB110
		Sample ID	PDI-TF-SMB101	PDI-TF-SMB102	PDI-TF-SMB103	PDI-TF-SMB104	PDI-TF-SMB105	PDI-TF-SMB106	PDI-TF-SMB107	PDI-TF-SMB108	PDI-TF-SMB109	PDI-TF-SMB110
		Sample Date	8/16/18	9/8/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/24/18	9/12/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.228	0.509	0.209	0.237	0.23	0.186	0.294	0.211	0.21	0.33
PBDE-71	189084-62-6	µg/kg	0.0279	0.0411	0.0185	0.0286	0.0232	0.0189	0.0281	0.0278	0.0243	0.0668
PBDE-75	189084-63-7	µg/kg	0.0232	0.0322	0.0188	0.0192	0.0176	0.0136	0.0228	0.0152	0.0179	0.0348
PBDE-77	93703-48-1	µg/kg	0.00458 J	0.00454 J	0.00243 JN	0.00535 JN	0.00320 JN	0.00414 JN	0.00638 J	0.00288 J	< 0.000146 U	< 0.000145 U
PBDE-79	PBDE-79	µg/kg	0.0362 JN	0.0249 JN	0.0287 JN	0.0491 JN	0.0320 JN	0.0469 JN	0.0719 JN	0.0402 JN	0.0273 JN	0.0211
PBDE-85	182346-21-0	µg/kg	< 0.00480 U	< 0.00418 U	< 0.00289 U	< 0.00235 U	< 0.00360 U	< 0.00225 U	< 0.00161 U	< 0.00238 U	< 0.00371 U	< 0.00410 U
PBDE-099	60348-60-9	µg/kg	4.33	11.7	5.52	3.37	3.91	3.87	7.4	4.15	4.52	9.01
PBDE-100	189084-64-8	µg/kg	3.99	5.17	3.56	3.9	3.13	3.21	5.04	3.03	3.06	4.5
PBDE-105	373594-78-6	µg/kg	< 0.00609 U	< 0.00514 U	< 0.00366 U	< 0.00313 U	< 0.00456 U	< 0.00298 U	< 0.00215 U	< 0.00317 U	< 0.00523 U	< 0.00485 U
PBDE-116	189084-65-9	µg/kg	< 0.00755 U	< 0.00675 U	< 0.00454 U	< 0.00467 U	< 0.00566 U	< 0.00463 U	< 0.00324 U	< 0.00472 U	< 0.00759 U	< 0.00657 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0884	0.0902	0.0517	0.0842	0.0728	0.0705	0.0678	0.0650	0.0697	0.0962
PBDE-126	366791-32-4	µg/kg	0.0222	0.0149	0.00824 J	0.0148	0.00728 J	0.00748	0.0159	0.00755	0.00775 J	0.0120 J
PBDE-128	182677-28-7	µg/kg	0.0110 JN	0.00892 JN	0.00515 JN	0.00899 JN	0.00747 JN	0.00535 JN	0.00567 JN	0.00509 JN	0.00592 JN	0.00518 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00127 JN	0.00151 J	0.00211 J	< 0.000567 U	0.00129 JN	0.000913 JN	0.00134 J	0.000608 JN	0.00314 J+	0.00243 J
PBDE-140	243982-83-4	µg/kg	0.0122 J	0.0226 J	0.0118 J	0.0101 J	0.0124 JN	0.00743	0.0121 J	0.00800	0.0113 J	0.0142 J
PBDE-153	68631-49-2	µg/kg	0.846	1.67 J	1.16	0.976	0.997	0.827	1.5	0.747	0.786	1.15 J
PBDE-154	207122-15-4	µg/kg	0.956 J	1.26 J	0.774 J	0.871	0.745 J	0.736	1.04 J	0.595	0.667	0.996 J
PBDE-155	35854-94-5	µg/kg	0.176 J	0.114 J	0.0603 J	0.108	0.0532 J	0.0724	0.121 J	0.0659	0.0540	0.0765 J
PBDE-181	189084-67-1	µg/kg	< 0.000152 U	0.00133 J	< 0.000146 U	0.000367 J	0.000680 JN	0.000489 JN	< 0.000287 U	0.000432 JN	< 0.00173 U	0.000194 JN
PBDE-183	207122-16-5	µg/kg	0.0177	0.0263	0.00930 J	0.00583 J	0.00558 J	0.00722	0.0145	0.00924	0.0161	0.0222 JN
PBDE-190	189084-68-2	µg/kg	< 0.000246 U	< 0.00127 U	0.000705 J	0.000408 JN	0.000570 JN	0.000145 JN	< 0.000485 U	0.000196 JN	0.00222 JN	< 0.000152 U
PBDE-203	337513-72-1	µg/kg	0.000356 JN	0.00358 JN	0.00117 JN	0.000849 JN	0.00173 JN	0.00137 JN	0.00214 J	0.00133 JN	0.00509 J+	0.00365 JN
PBDE-206	63387-28-0	µg/kg	< 0.00155 U	< 0.000469 U	< 0.000923 U	0.000511 JN	< 0.00120 U	0.00196 J	0.000753 JN	0.00128 JN	0.00555 JN	0.00201 JN
PBDE-207	437701-79-6	µg/kg	0.00256 JN	0.00220 JN	0.00205 J	0.00141 JN	0.00276 JN	0.00301 JN	0.00293 JN	0.00119 JN	0.00958 J+	0.00354 JN
PBDE-208	437701-78-5	µg/kg	0.00723 JN	0.00231 JN	0.00355 J	0.000688 JN	0.00341 JN	0.00612 JN	0.00306 JN	0.00121 JN	< 0.00869 U	0.00720 J+
PBDE-209	1163-19-5	µg/kg	0.0261 JN	0.0287 JN	0.0358 JN	< 0.00843 U	0.0278 JN	0.0303 JN	< 0.0193 U	< 0.0157 U	0.11 J+	0.0257 JN
Total PBDE (a)	T_PBDE (PDI)	µg/kg	28.7	43.8	28.5	31.6	26.5	25.4	43.3	26.4	24	37.8

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown	Downtown
		Segment										
		Location	SMB101	SMB102	SMB103	SMB104	SMB105	SMB106	SMB107	SMB108	SMB109	SMB110
		Sample ID	PDI-TF-SMB101	PDI-TF-SMB102	PDI-TF-SMB103	PDI-TF-SMB104	PDI-TF-SMB105	PDI-TF-SMB106	PDI-TF-SMB107	PDI-TF-SMB108	PDI-TF-SMB109	PDI-TF-SMB110
		Sample Date	8/16/18	9/8/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/16/18	8/24/18	9/12/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	4.00	3.84	3.93	4.70	5.05	4.12	6.06	4.97	4.64	8.57
Total Solids@104C	TSOLID	%	26.6	26.7	24.5	26.3	27.1	24.4	28.3	26.1	27.7	28.4

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB111	SMB112	SMB113	SMB114	SMB115	SMB116	SMB117	SMB118	SMB119	SMB120
		Sample ID	PDI-TF-SMB111	PDI-TF-SMB112	PDI-TF-SMB113	PDI-TF-SMB114	PDI-TF-SMB115	PDI-TF-SMB116	PDI-TF-SMB117	PDI-TF-SMB118	PDI-TF-SMB119	PDI-TF-SMB120
		Sample Date	8/16/18	8/16/18	9/8/18	8/15/18	8/15/18	8/15/18	9/9/18	8/15/18	8/24/18	9/9/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000347 J	0.000133 J	0.000184 JN	0.000225 J	< 0.0000820 U	0.000141 JN	0.000701 J	0.000102 J	0.000167 JN	0.000241 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000723 U	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.000396 JN	< 0.0000779 U	< 0.0000727 U	< 0.0000728 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000723 U	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.000701 JN	< 0.0000779 U	< 0.0000727 U	< 0.0000728 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.000231 J	0.000113 J	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.00488	< 0.0000779 U	0.000120 JN	< 0.000136 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	0.000118 J	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	0.0000965 J	0.000434 JN	< 0.0000779 U	< 0.0000727 U	< 0.0000728 U
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000596 J	0.000336 J	0.000366 J	0.000247 J	0.000155 JN	0.000186 J	0.0308	0.000144 JN	0.000338 J	0.000252 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	0.0000944 JN	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.000747 JN	< 0.0000779 U	< 0.0000727 U	< 0.0000728 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	0.0000920 JN	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.00127 J	< 0.0000779 U	< 0.0000727 U	< 0.000139 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000723 U	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.0000908 JN	< 0.0000779 U	< 0.0000727 U	< 0.0000728 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000538 J	0.000249 J	0.000318 J	0.000257 JN	0.000221 JN	0.000349 J	0.0734	0.000224 J	0.000356 J	0.000261 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.000148 J	0.0000901 JN	0.000114 JN	0.000104 J	< 0.0000820 U	0.000127 JN	0.000224 J	0.000103 JN	0.000120 JN	0.000127 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000723 U	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.000581 JN	< 0.0000779 U	< 0.0000727 U	< 0.0000728 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000345 JN	0.000193 J	0.000331 J	0.000229 J	0.000228 JN	0.000314 J	0.00224	0.000230 J	0.000300 JN	0.000175 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000353	0.000283 J	0.000177 J	0.000234 J	0.000150 JN	0.000282 J	0.0236	0.000233 JN	0.000202 JN	0.000183 J
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000910	0.000601 JN	0.000769	0.000457	0.000378	0.000830	0.000113 J	0.000626	0.000511	0.000360
OCDD	3268-87-9	µg/kg	0.000158 J	0.000172 J	0.000430 J	0.000196 JN	0.000338 J+	0.000261 J+	0.000509 J	0.000357 J+	0.000320 J+	0.000438 J
OCDF	39001-02-0	µg/kg	< 0.0000723 U	< 0.0000736 U	< 0.0000730 U	< 0.0000756 U	< 0.0000820 U	< 0.0000745 U	0.000732 J	< 0.0000779 U	< 0.0000727 U	< 0.0000728 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.00121	0.000703	0.000717	0.000639	0.000497	0.000845	0.102	0.000611	0.000754	0.000571
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.00114	0.0007	0.000712	0.000507	0.000148	0.00084	0.101	0.000473	0.000542	0.000434
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.00108	0.000696	0.000708	0.000378	0.0000379	0.000837	0.101	0.000357	0.000441	0.000303
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00375	0.00149 J+	0.00160 J	0.00126 J+	0.00179	0.00112 J+	0.00144 JN	0.00209	0.00170 J+	0.000966 J+
PCB-2	2051-61-8	µg/kg	0.00208	0.000773 J+	0.00123 J+	0.000733 J+	0.000915 J+	0.000664 J+	0.000570 JN	0.000945 J+	0.000918 JN	0.00104 JN
PCB-3	2051-62-9	µg/kg	0.00247 J+	0.00124 JN	0.00140 JN	0.00213 J+	0.00197 J+	0.00153 JN	0.00116 J+	0.00174 J+	0.00163 J+	0.00129 JN
PCB-4	13029-08-8	µg/kg	0.0318	0.0216	0.0164	0.0123	0.0246	0.00908	0.00910	0.0148	0.0122	0.00654
PCB-5	16605-91-7	µg/kg	0.000652	0.000512 JN	< 0.00316 U	0.000326 JN	0.000382 J	< 0.000246 U	< 0.00296 U	0.000251 JN	< 0.00286 U	< 0.000818 U
PCB-6	25569-80-6	µg/kg	0.0177	0.0320	0.0168	0.0139	0.0334	0.00588	0.00840	0.0121	0.0153	0.00341
PCB-7	33284-50-3	µg/kg	0.00274	0.00225	< 0.00283 U	0.00133	0.00263	0.000830	< 0.00271 U	0.00121 JN	< 0.00265 U	0.000749 JN
PCB-8	34883-43-7	µg/kg	0.0535	0.0514	0.0393	0.0261	0.0556	0.0170	0.0164	0.0287	0.0262	0.0100
PCB-9	34883-39-1	µg/kg	0.00446	0.00520	0.00509 JN	0.00270	0.00585	0.00129 JN	0.00258 JN	0.00281 JN	0.00333 JN	0.00116 J
PCB-10	33146-45-1	µg/kg	0.00164	0.000872	< 0.00290 U	0.000632	0.000981	0.000393 JN	< 0.00256 U	0.000701	< 0.00259 U	< 0.000705 U
PCB-11	2050-67-1	µg/kg	0.214	0.0505	0.0851	0.0656	0.0451	0.0408	0.00741 J+	0.0762	0.0419	0.0390
PCB-12/13	PCB-12/13	µg/kg	0.00625	0.00213	< 0.00304 U	0.00107 JN	0.00117 JN	< 0.000225 U	< 0.00274 U	0.00105 JN	< 0.00269 U	< 0.000756 U
PCB-14	34883-41-5	µg/kg	0.000429 J	< 0.000186 U	< 0.00292 U	< 0.000152 U	< 0.000147 U	< 0.000219 U	< 0.00271 U	< 0.000190 U	< 0.00263 U	< 0.000747 U
PCB-15	2050-68-2	µg/kg	0.0170	0.00890	0.00562	0.00753	0.00738	0.00298	< 0.00310 U	0.00564	0.00519	0.00151 JN
PCB-16	38444-78-9	µg/kg	0.0604	0.0288	0.0235	0.0128	0.0227	0.0115	0.0158 JN	0.0201	0.0135	0.0121
PCB-17	37680-66-3	µg/kg	0.121	0.158	0.0841	0.0508	0.117	0.0461	0.0519	0.0635	0.0712	0.0337
PCB-18/30	PCB-18/30	µg/kg	0.195	0.118	0.0878	0.0551	0.0985	0.0438	0.0632	0.0861	0.0559	0.0468
PCB-19	38444-73-4	µg/kg	0.0282	0.0214	0.0298	0.00551	0.0132	0.00674	0.00983 JN	0.0134	0.00749 JN	0.00438 JN
PCB-20/28	PCB-20/28	µg/kg	0.54	0.315	0.277	0.21	0.308	0.197	0.272	0.378	0.172	0.131
PCB-21/33	PCB-21/33	µg/kg	0.117	0.0411	0.0489	0.0310	0.0461	0.0294	0.0432	0.0567	0.0229	0.0209
PCB-22	38444-85-8	µg/kg	0.112	0.0617	0.0571	0.0355	0.0611	0.0357	0.0530	0.0659	0.0313	0.0271
PCB-23	55720-44-0	µg/kg	< 0.00114 U	< 0.000725 U	< 0.000611 U	< 0.000349 U	0.000251 J	< 0.000368 U	< 0.000684 U	0.000342 JN	< 0.000823 U	< 0.000863 U
PCB-24	55702-45-9	µg/kg	0.00278	0.00224	0.00107 J	0.000996	0.00142	0.000707 JN	0.000683 JN	0.00143 JN	0.000863 J	0.000686 JN
PCB-25	55712-37-3	µg/kg	0.0477	0.0395	0.0282	0.0148	0.0337	0.0192	0.0167	0.0249	0.0190	0.00962
PCB-26/29	PCB-26/29	µg/kg	0.11	0.0945	0.0622	0.0394	0.0783	0.0454	0.0473	0.0703	0.0462	0.0230
PCB-27	38444-76-7	µg/kg	0.0270	0.0539	0.0244	0.00812	0.0272	0.0128	0.0168	0.0179	0.0160	0.00660 JN
PCB-31	16606-02-3	µg/kg	0.347	0.229	0.177	0.111	0.196	0.133	0.12	0.188	0.109	0.0776
PCB-32	38444-77-8	µg/kg	0.0651	0.0401	0.0358	0.0149	0.0326	0.0192	0.0237	0.0292	0.0198	0.00878
PCB-34	37680-68-5	µg/kg	0.00363	0.00457	0.00250 JN	0.00186	0.00334	0.00173 JN	0.00248 J	0.00231	0.00157 J	0.000993 J
PCB-35	37680-69-6	µg/kg	0.00179	< 0.000666 U	< 0.000597 U	< 0.000327 U	< 0.000206 U	< 0.000311 U	< 0.000691 U	< 0.000122 U	< 0.000855 U	< 0.000871 U
PCB-36	38444-87-0	µg/kg	< 0.000997 U	< 0.000635 U	< 0.000566 U	< 0.000302 U	< 0.000204 U	< 0.000307 U	< 0.000619 U	< 0.000114 U	< 0.000772 U	< 0.000781 U
PCB-37	38444-90-5	µg/kg	0.0348	0.0182	0.0248	0.0135	0.0184	0.0191	0.00574	0.0194	0.0151	0.0138
PCB-38	53555-66-1	µg/kg	0.00118 JN	0.000757 JN	< 0.000610 U	< 0.000330 U	0.000396 J	< 0.000331 U	< 0.000679 U	0.000672 JN	< 0.000766 U	< 0.000857 U

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB111	SMB112	SMB113	SMB114	SMB115	SMB116	SMB117	SMB118	SMB119	SMB120
		Sample ID	PDI-TF-SMB111	PDI-TF-SMB112	PDI-TF-SMB113	PDI-TF-SMB114	PDI-TF-SMB115	PDI-TF-SMB116	PDI-TF-SMB117	PDI-TF-SMB118	PDI-TF-SMB119	PDI-TF-SMB120
		Sample Date	8/16/18	8/16/18	9/8/18	8/15/18	8/15/18	8/15/18	9/9/18	8/15/18	8/24/18	9/9/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.00507	0.00162 JN	0.00267 J	0.00103	0.00190	0.00242 JN	0.00338	0.00266	0.000804 J	0.00192 JN
PCB-40/41/71	PCB-40/41/71	µg/kg	0.346	0.108	0.165	0.0639	0.108	0.171	0.2	0.135	0.0495	0.109
PCB-42	36559-22-5	µg/kg	0.212	0.0823	0.115	0.0459	0.0875	0.123	0.14	0.11	0.0405	0.0682
PCB-43	70362-46-8	µg/kg	0.0407	0.0204	0.0190	0.0109	0.0182	0.0259 JN	0.0249	0.0179	0.00958	0.0109
PCB-44/47/65	PCB-44/47/65	µg/kg	1.34	0.62	0.797	0.401	0.539	1.48	0.674	0.651	0.292	0.476
PCB-45/51	PCB-45/51	µg/kg	0.107	0.0443	0.0802	0.0170	0.0388	0.0293	0.0495	0.0404	0.0214	0.0241
PCB-46	41464-47-5	µg/kg	0.0248	0.00746	0.0122	0.00314	0.00651	0.00628	0.0107	0.00820	0.00367	0.00504
PCB-48	70362-47-9	µg/kg	0.137	0.0451	0.0661	0.0295	0.0530	0.0677	0.0912	0.0658	0.0252	0.0437
PCB-49/69	PCB-49/69	µg/kg	1.02	0.44	0.556	0.29	0.397	1.15	0.51	0.503	0.213	0.339
PCB-50/53	PCB-50/53	µg/kg	0.101	0.0591	0.0796	0.0138	0.0400	0.0424	0.0433	0.0425	0.0243	0.0293
PCB-52	35693-99-3	µg/kg	1.77	0.703	0.905	0.531	0.649	5.12	0.88	1.21	0.372	0.838
PCB-54	15968-05-5	µg/kg	0.00301	0.00207	0.00796	0.000448 JN	0.00107	0.000837	0.00162 J	0.00148	0.000862 J	0.000904 J
PCB-55	74338-24-2	µg/kg	0.0169 JN	0.00907 JN	< 0.00262 U	< 0.00313 U	< 0.000515 U	< 0.0109 U	< 0.00251 U	< 0.00210 U	< 0.00301 U	< 0.00232 U
PCB-56	41464-43-1	µg/kg	0.22	0.111	0.137	0.0615	0.0867	0.355	0.111	0.0942	0.0491	0.0967
PCB-57	70424-67-8	µg/kg	0.00504 JN	0.00236	0.00306	< 0.00287 U	0.00259	< 0.0106 U	0.00275 J	0.00337	< 0.00280 U	< 0.00207 U
PCB-58	41464-49-7	µg/kg	0.00728 JN	0.00456	0.00496	< 0.00307 U	0.00432 JN	< 0.0111 U	0.00316	0.00456	< 0.00297 U	< 0.00217 U
PCB-59/62/75	PCB-59/62/75	µg/kg	0.102	0.0465	0.0548	0.0270	0.0414	0.0447	0.0501	0.0485	0.0218	0.0286
PCB-60	33025-41-1	µg/kg	0.219	0.0935	0.133	0.108	0.0896	0.384	0.171	0.114	0.0599	0.0856
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	1.89	0.769	1.11	0.914	0.718	6.51	0.816	1.09	0.467	0.852
PCB-63	74472-34-7	µg/kg	0.0706	0.0332	0.0429	0.0371	0.0328	0.151	0.0435	0.0483	0.0251	0.0282
PCB-64	52663-58-8	µg/kg	0.449	0.174	0.239	0.132	0.169	0.594	0.286	0.221	0.0918	0.165
PCB-66	32598-10-0	µg/kg	1.36 J	0.544 J	0.819	0.707 J	0.573	3.54	0.87	0.887	0.412	0.538
PCB-67	73575-53-8	µg/kg	0.0228	0.0134	0.0152	0.00614	0.0114	0.0147 JN	0.0112	0.0116	0.00479	0.00684
PCB-68	73575-52-7	µg/kg	0.0301	0.0201	0.0243	0.0129	0.0159	0.0151	0.0179	0.0201	0.0101	0.00931
PCB-72	41464-42-0	µg/kg	0.0357	0.0232	0.0249	0.0126	0.0166	0.0175	0.0178	0.0228	0.0100	0.00940
PCB-73	74338-23-1	µg/kg	0.0155	0.0105	0.0151	< 0.0000756 U	< 0.0000820 U	< 0.0000809 U	< 0.000419 U	< 0.0000779 U	0.00348	< 0.000244 U
PCB-77	32598-13-3	µg/kg	0.0500	0.0307	0.0389	0.0228	0.0315	0.202	0.0183	0.0408	0.0258	0.0361
PCB-78	70362-49-1	µg/kg	< 0.00482 U	< 0.000713 U	< 0.00267 U	< 0.00306 U	< 0.000511 U	< 0.0103 U	< 0.00242 U	< 0.00211 U	< 0.00306 U	< 0.00223 U
PCB-79	41464-48-6	µg/kg	0.0253 JN	0.0188 JN	0.0246	0.0138 JN	0.0241	0.251	0.0226	0.0240	0.00938	0.0223
PCB-80	33284-52-5	µg/kg	< 0.00450 U	< 0.000665 U	< 0.00246 U	< 0.00278 U	< 0.000434 U	< 0.00989 U	< 0.00225 U	< 0.00195 U	< 0.00275 U	< 0.00207 U
PCB-81	70362-50-4	µg/kg	< 0.00425 U	0.00149 JN	0.00271 JN	< 0.00237 U	0.00180 JN	0.0103 JN	< 0.00217 U	0.00221 JN	< 0.00297 U	0.00301 JN
PCB-82	52663-62-4	µg/kg	0.179	0.113	0.132	0.0624	0.0826	1.28	0.126	0.112	0.0455	0.187
PCB-83/99	PCB-83/99	µg/kg	3.75	2.3	2.4	2.29	1.65	28.3	2.03	2.8	1.1	2.46
PCB-84	52663-60-2	µg/kg	0.327	0.17	0.236	0.0908	0.142	1.93	0.176	0.192	0.0817	0.398
PCB-85/116/117	PCB-85/116/117	µg/kg	1.06	0.526	0.589	0.574	0.459	7.6	0.632	0.823	0.258	0.678
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	1.77 J	1.19 J	1.42	0.863 J	0.919 J	15.7 J	1.26 J	1.5 J	0.533	1.74
PCB-88/91	PCB-88/91	µg/kg	0.381	0.228	0.296	0.126	0.174	1.57	0.222	0.225	0.0938	0.275
PCB-89	73575-57-2	µg/kg	0.0108	0.00367	0.00634 JN	0.00276	0.00376	0.0241	0.00695	0.00366	< 0.00113 U	0.00924
PCB-90/101/113	PCB-90/101/113	µg/kg	4.1	2.85	2.94	1.82	1.86	28.3	2.42	2.87	1.13	3.21
PCB-92	52663-61-3	µg/kg	0.852	0.607	0.588	0.38	0.404	5.24	0.486	0.642	0.233	0.591
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	1.78	0.981	1.27	0.604	0.815	11	0.93	1.18	0.469	1.57
PCB-94	73575-55-0	µg/kg	0.00648	0.00456	0.00821	0.00113 JN	0.00316	< 0.0131 U	0.00282 JN	< 0.00260 U	0.00120 JN	0.00514
PCB-96	73575-54-9	µg/kg	0.0109	0.00315	0.00720	0.00220	0.00330	0.0107	0.00559	0.00420 JN	0.00183 JN	0.00464
PCB-103	60145-21-3	µg/kg	0.0511	0.0394	0.0534	0.0168	0.0263	0.0727	0.0286	0.0214	0.0120	0.0187
PCB-104	56558-16-8	µg/kg	0.000782	0.000607	0.00203 JN	0.000190 JN	0.000919 JN	0.000281 JN	< 0.000496 U	0.000421 JN	< 0.000323 U	< 0.000299 U
PCB-105	32598-14-4	µg/kg	1.36	0.698	0.993	1.1	0.738	18.4	0.876	1.09	0.509	0.826
PCB-106	70424-69-0	µg/kg	< 0.00618 U	< 0.00386 U	< 0.00738 U	< 0.00512 U	< 0.00260 U	< 0.0567 U	< 0.00532 U	< 0.00821 U	< 0.00387 U	< 0.00524 U
PCB-107/124	PCB-107/124	µg/kg	0.135	0.0878	0.0886	0.0990	0.0708	1.58	0.0693	0.133	0.0477	0.0794
PCB-109	74472-35-8	µg/kg	0.424	0.289	0.343	0.365	0.244	4.75	0.247	0.388	0.176	0.207
PCB-110/115	PCB-110/115	µg/kg	3.07	1.97	2.16	1.3	1.5	24.7	1.99	2.29	0.842	2.72
PCB-111	39635-32-0	µg/kg	0.00950	0.0107	0.00709	0.00479 JN	0.00578	< 0.00850 U	0.00425	0.00940 JN	0.00330	0.00181 JN
PCB-112	74472-36-9	µg/kg	< 0.00132 U	< 0.000943 U	< 0.00125 U	< 0.000396 U	< 0.00119 U	< 0.00810 U	< 0.00154 U	< 0.00179 U	< 0.000775 U	< 0.00110 U
PCB-114	74472-37-0	µg/kg	0.0952	0.0465	0.0830	0.0862	0.0557	1.36	0.0638	0.0957	0.0421	0.0617
PCB-118	31508-00-6	µg/kg	4	2.24	3.42	3.56	2.43	65.7	2.71	4.13	1.71	2.45
PCB-120	68194-12-7	µg/kg	0.0417	0.0442	0.0322	0.0224	0.0256	0.0504	0.0252	0.0291	0.0144	0.0140

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB111	SMB112	SMB113	SMB114	SMB115	SMB116	SMB117	SMB118	SMB119	SMB120
		Sample ID	PDI-TF-SMB111	PDI-TF-SMB112	PDI-TF-SMB113	PDI-TF-SMB114	PDI-TF-SMB115	PDI-TF-SMB116	PDI-TF-SMB117	PDI-TF-SMB118	PDI-TF-SMB119	PDI-TF-SMB120
		Sample Date	8/16/18	8/16/18	9/8/18	8/15/18	8/15/18	8/15/18	9/9/18	8/15/18	8/24/18	9/9/18
Chemical	CAS	Units										
PCB-121	56558-18-0	µg/kg	0.00660	0.00337	0.00583	0.00243	0.00283	< 0.00894 U	0.00370	0.00274 JN	0.00152 J	0.00196 J
PCB-122	76842-07-4	µg/kg	0.0260	0.0167	0.0221	0.0180 JN	0.0166	0.32	0.0169 JN	0.0195	0.00968	0.0189
PCB-123	65510-44-3	µg/kg	0.0729	0.0482	0.0664	0.0564 JN	0.0456 JN	1.01 JN	0.0559	0.0885 JN	0.0387 JN	0.0498
PCB-126	57465-28-8	µg/kg	0.0110 JN	0.00852 JN	0.0149 JN	< 0.00466 U	0.00557 JN	0.0601 JN	0.0109 JN	< 0.00577 U	0.00610 JN	0.00668 JN
PCB-127	39635-33-1	µg/kg	0.0131	0.00640	0.0125	0.0121	0.00809	0.205	0.00968	0.0130 JN	0.00564 JN	0.0117 JN
PCB-128/166	PCB-128/166	µg/kg	1.3	0.954	1.04	0.853	0.799	10.4	0.983	1.33	0.523	0.582
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	11	8.22	7.69	7.24	6.64	65.2	7.12	10.2	3.82	4.31
PCB-130	52663-66-8	µg/kg	0.461	0.419	0.389	0.333	0.284	3.83	0.324	0.425	0.199	0.238
PCB-131	61798-70-7	µg/kg	0.0318	0.0246	0.0299	0.0171	0.0190	0.308	0.0200	0.0294	0.0135	0.0220
PCB-132	38380-05-1	µg/kg	0.826	0.759	0.854	0.366	0.53	5.54	0.605	0.596	0.337	0.468
PCB-133	35694-04-3	µg/kg	0.214	0.166	0.163	0.134	0.122	1.08	0.128	0.175	0.0814	0.0863
PCB-134/143	PCB-134/143	µg/kg	0.159	0.134	0.139	0.0887	0.0961	1.29	0.104	0.132	0.0672	0.104
PCB-135/151/154	PCB-135/151/154	µg/kg	2.04	1.71	1.71	0.988	1.13	9.2	1.19	1.44	0.634	0.765
PCB-136	38411-22-2	µg/kg	0.329	0.237	0.306	0.137	0.182	1.86	0.164	0.19	0.107	0.154
PCB-137	35694-06-5	µg/kg	0.422	0.243	0.352	0.425	0.213	7.01	0.249	0.492	0.194	0.237
PCB-139/140	PCB-139/140	µg/kg	0.151	0.0773	0.0923	0.0866	0.0704	1.2	0.0902	0.124	0.0475	0.0680
PCB-141	52712-04-6	µg/kg	1.06	0.782	0.743	0.61	0.565	6.34	0.624	0.707	0.324	0.394
PCB-142	41411-61-4	µg/kg	< 0.00492 U	< 0.00888 U	< 0.00646 U	< 0.00328 U	< 0.00709 U	< 0.0156 U	< 0.00781 U	< 0.00549 U	< 0.00542 U	< 0.00435 U
PCB-144	68194-14-9	µg/kg	0.186	0.158	0.177	0.118	0.112	1.04	0.127	0.137	0.0619	0.0972
PCB-145	74472-40-5	µg/kg	0.000591	0.000394 J	0.000937 JN	0.000391 JN	0.000432 JN	0.00235	< 0.000516 U	0.000460 JN	< 0.000422 U	< 0.000388 U
PCB-146	51908-16-8	µg/kg	1.93	1.64	1.77	1.25	1.35	13.5	1.38	2.26	0.935	0.806
PCB-147/149	PCB-147/149	µg/kg	3.21	3.34	3.33	1.44	2.41	19.9	2.57	3.1	1.48	1.54
PCB-148	74472-41-6	µg/kg	0.0217	0.0162	0.0203	0.00894	0.0122	0.0248	0.0144 JN	0.0114	0.00684 JN	0.00675
PCB-150	68194-08-1	µg/kg	0.00994	0.00880	0.0132	0.00357	0.00529	0.0145	0.00552 JN	0.00475	0.00270 J	0.00326
PCB-152	68194-09-2	µg/kg	0.00394	0.00218	0.00272 J	0.00131	0.00164	0.0118	0.00226 J	0.00165	0.000731 JN	0.00240 J
PCB-153/168	PCB-153/168	µg/kg	11.9	8.81	8.85	7.66	6.78	59.1	6.88	9.93	4.57	4.85
PCB-155	33979-03-2	µg/kg	0.0197	0.00533	0.0146	0.00958	0.00820	0.00709	0.00915	0.00944	0.00490	0.00711
PCB-156/157	PCB-156/157	µg/kg	0.922	0.54	0.672	0.832	0.54	12.8	0.563	0.944	0.366	0.442
PCB-158	74472-42-7	µg/kg	0.809	0.507	0.539	0.585	0.42	5.98	0.459	0.622	0.256	0.327
PCB-159	39635-35-3	µg/kg	< 0.00321 U	< 0.00579 U	0.0455	< 0.00232 U	< 0.00482 U	< 0.0104 U	0.0335	0.0309	< 0.00393 U	< 0.00288 U
PCB-161	74472-43-8	µg/kg	< 0.00342 U	< 0.00618 U	< 0.00453 U	< 0.00224 U	< 0.00461 U	< 0.0106 U	< 0.00559 U	< 0.00392 U	< 0.00393 U	< 0.00311 U
PCB-162	39635-34-2	µg/kg	0.0316	0.0295	0.0264	0.0320	0.0215	0.398	0.0190 JN	0.0379	0.0106	0.0140
PCB-164	74472-45-0	µg/kg	0.326	0.259	0.249	0.208	0.241	3.02	0.24	0.333	0.133	0.14
PCB-165	74472-46-1	µg/kg	0.00873	< 0.00691 U	0.00871	0.00493	< 0.00535 U	0.0152	< 0.00631 U	0.00582 JN	< 0.00439 U	< 0.00351 U
PCB-167	52663-72-6	µg/kg	0.387	0.281	0.308	0.306	0.256	4.27	0.251	0.421	0.161	0.185
PCB-169	32774-16-6	µg/kg	< 0.0202 U	< 0.0134 U	< 0.0164 U	< 0.00528 U	< 0.00742 U	< 0.0280 U	< 0.00572 U	< 0.0119 U	< 0.00474 U	< 0.00540 U
PCB-170	35065-30-6	µg/kg	2.01	1.63	1.36	1.57	1.22	7.84	1.06	1.34	0.663	0.602
PCB-171/173	PCB-171/173	µg/kg	0.606	0.537	0.398	0.444	0.342	1.93	0.299	0.437	0.169	0.181
PCB-172	52663-74-8	µg/kg	0.412	0.416	0.297	0.306	0.266	1.51	0.222	0.372	0.158	0.138
PCB-174	38411-25-5	µg/kg	0.704	1.11	0.852	0.497	0.643	2.78	0.547	0.714	0.32	0.258
PCB-175	40186-70-7	µg/kg	0.0734	0.0718	0.0633	0.0554	0.0494	0.252	0.0427	0.0548	0.0263 JN	0.0296
PCB-176	52663-65-7	µg/kg	0.0865	0.114	0.114	0.0495	0.0748	0.238	0.0589	0.0630	0.0327	0.0311
PCB-177	52663-70-4	µg/kg	0.826	1.1	0.678	0.574	0.691	3	0.517	0.599	0.304	0.295
PCB-178	52663-67-9	µg/kg	0.632	0.649	0.472	0.391	0.433	1.63	0.347	0.551	0.223	0.214
PCB-179	52663-64-6	µg/kg	0.463	0.506	0.429	0.219	0.353	0.965	0.244	0.303	0.154	0.137
PCB-180/193	PCB-180/193	µg/kg	6.52	5.43	4.77	5.17	4.49	24.5	3.29	4.73	2.63	2.21
PCB-181	74472-47-2	µg/kg	0.0227	0.0175	0.0157	0.0190	0.0150 J	0.217	0.0121	0.0253	0.0102	0.0101
PCB-182	60145-23-5	µg/kg	0.0199	0.0194	0.0144	0.0123	< 0.000888 U	< 0.000438 U	< 0.000762 U	0.0148 JN	< 0.000482 U	0.00584 JN
PCB-183/185	PCB-183/185	µg/kg	1.56	1.53	1.19	1.25	1.04	5.27	0.873	1.21	0.545	0.561
PCB-184	74472-48-3	µg/kg	0.0223	0.00690	0.0181	0.0135	0.0115 J	0.0154	0.0118	0.0129 JN	0.0101	0.0126
PCB-186	74472-49-4	µg/kg	< 0.000262 U	< 0.000143 U	< 0.000331 U	< 0.0000756 U	< 0.000749 U	< 0.000377 U	< 0.000645 U	< 0.000335 U	< 0.000398 U	< 0.000360 U
PCB-187	52663-68-0	µg/kg	4.1	4.66	4.19	2.96	3.88	20.8	3.47	6.43	2.24	1.72
PCB-188	74487-85-7	µg/kg	0.00967	0.00921	0.0106	0.00597	0.00782 JN	0.0144	0.00546 JN	0.00637	0.00395	0.00272 JN
PCB-189	39635-31-9	µg/kg	0.0584	0.0469	0.0456	0.0474	0.0438	0.345	0.0338	0.0425	0.0258	0.0240
PCB-190	41411-64-7	µg/kg	0.508	0.427	0.327	0.408	0.28	2.03	0.22	0.465	0.156	0.145

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB111	SMB112	SMB113	SMB114	SMB115	SMB116	SMB117	SMB118	SMB119	SMB120
		Sample ID	PDI-TF-SMB111	PDI-TF-SMB112	PDI-TF-SMB113	PDI-TF-SMB114	PDI-TF-SMB115	PDI-TF-SMB116	PDI-TF-SMB117	PDI-TF-SMB118	PDI-TF-SMB119	PDI-TF-SMB120
		Sample Date	8/16/18	8/16/18	9/8/18	8/15/18	8/15/18	8/15/18	9/9/18	8/15/18	8/24/18	9/9/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.0871	0.0699	0.0656	0.0813	0.0561	0.396	0.0453	0.0792	0.0313	0.0278
PCB-192	74472-51-8	µg/kg	0.000587	< 0.000158 U	< 0.000386 U	< 0.0000824 U	< 0.000802 U	< 0.000393 U	< 0.000699 U	< 0.000389 U	< 0.000478 U	< 0.000390 U
PCB-194	35694-08-7	µg/kg	0.863	0.725	0.796	0.588	0.6	3.4	0.513	0.542 J	0.312	0.229
PCB-195	52663-78-2	µg/kg	0.431	0.354	0.279	0.34	0.263	1.24	0.199	0.333	0.142	0.109
PCB-196	42740-50-1	µg/kg	0.502	0.459	0.426	0.441	0.338	1.56 JN	0.263	0.422	0.169	0.15
PCB-197/200	PCB-197/200	µg/kg	0.0926	0.114 J	0.0934	0.0674	0.0818	0.238	0.0613	0.0813 JN	0.0383 J	0.0318
PCB-198/199	PCB-198/199	µg/kg	1.22	1.36	0.991	1	1.01	4.25	0.769	1.1	0.508	0.461
PCB-201	40186-71-8	µg/kg	0.112	0.111	0.112	0.0956	0.0932	0.352	0.0694 JN	0.0833	0.0474	0.0454
PCB-202	2136-99-4	µg/kg	0.426	0.382	0.295	0.245	0.294	0.749	0.201	0.297	0.151	0.14
PCB-203	52663-76-0	µg/kg	0.905	0.875	0.577	0.72	0.609	2.36	0.467	0.833	0.297	0.289
PCB-204	74472-52-9	µg/kg	0.00162	0.00145 JN	0.00112 J	0.00127 JN	0.00171 JN	0.00186	< 0.000557 U	0.00164 JN	0.000657 JN	0.000663 JN
PCB-205	74472-53-0	µg/kg	0.0479	0.0396	0.0328	0.0333	0.0339	0.143	0.0261	0.0334	0.0170	0.0128
PCB-206	40186-72-9	µg/kg	0.425	0.322	0.27	0.267	0.285	0.722	0.203	0.292	0.155	0.127
PCB-207	52663-79-3	µg/kg	0.0571	0.0498	0.0507	0.0392	0.0411	0.111	0.0365	0.0426	0.0238	0.0207
PCB-208	52663-77-1	µg/kg	0.163	0.143	0.122	0.0900	0.123	0.206	0.0916	0.123	0.0669	0.0591
PCB-209	2051-24-3	µg/kg	0.217	0.142	0.122	0.159	0.142	0.142	0.128	0.207	0.0823	0.102
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	97.3	72.7	72.9	59.6	57.3	563	58.8	80.8	34.4	46.1
Pesticides												
2,4-DDD	53-19-0	µg/kg	2.41	0.757	0.853	0.271	0.629	0.314	0.455	0.462	0.330	0.301
2,4-DDE	3424-82-6	µg/kg	0.560	0.403	0.293	0.156 J	0.270	0.118 J	0.188 J	0.216 J	0.163 J	0.126 J
2,4-DDT	789-02-6	µg/kg	0.890	0.276	0.382	0.130 J	0.201 JN	0.067 J	0.234	0.242 J	0.119 J	0.113 J
4,4'-DDD	72-54-8	µg/kg	13.0	7.09	5.69	2.77	4.80	2.79	3.89	5.32	3.02	2.56
4,4'-DDE	72-55-9	µg/kg	89.9	94.1	53.0	37.9	48.2	30.0	42.3	69.4	33.3	29.9
4,4'-DDT	50-29-3	µg/kg	5.85	1.35	2.45	1.96 J	1.39 J	0.911 J	2.64	4.01 J	1.36	1.59
DDx (a)	T_DDx (PDI)	µg/kg	113	104	62.7	43.2	55.5	34.2	49.7	79.7	38.3	34.6
alpha-Chlordane	5103-71-9	µg/kg	2.45	0.632	0.916	1.45	0.803	0.438	1.02	3.85	1.32	0.587
cis-Nonachlor	5103-73-1	µg/kg	2.57	1.05	1.22	1.26 J	1.19 J	0.821 J	1.75	5.87 J	2.24	1.00
Oxychlordane	27304-13-8	µg/kg	1.33	0.462 J	0.558	0.802	0.697	0.333 J	1.03	2.67	1.10	0.497
trans-Chlordane	5103-74-2	µg/kg	0.988	0.256 J	0.332 J	0.405 J	0.265 J	0.139 J	0.263 J	1.07	0.246 J	0.151 J
trans-Nonachlor	39765-80-5	µg/kg	7.28	2.61	3.54	3.83	3.46	2.14	5.58	18.6	6.92	2.99
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	14.6	5.01	6.57	7.75	6.42	3.87	9.64	32.1	11.8	5.23
Aldrin	309-00-2	µg/kg	0.145 J	0.006 JN	0.017 J	0.006 JN	< 0.0043 U	< 0.0043 U	< 0.0061 U	0.011 JN	0.006 J	0.006 JN
Dieldrin	60-57-1	µg/kg	3.94	0.711	0.965	2.67	0.757	0.582	0.649	2.36	0.763	0.683
Metals												
Arsenic	7440-38-2	mg/kg	0.14 J	0.08 J	0.10 J	0.11 J	0.12	0.12	0.09 J	0.11 J	0.11 J	0.10 J
Mercury	7439-97-6	mg/kg	0.349 J	0.101 J	0.155 J	0.134 J	0.0982 J	0.161 J	0.0981 J	0.224 J	0.149 J	0.129 J
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	3.39	0.759	1.20	0.790	0.846	0.650	0.840	1.13	0.651	0.694
Pentachlorophenol (c)	87-86-5	µg/kg	140 J	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00418 J	0.000892 JN	0.00101 J	0.000744 J	0.000996 JN	0.000618 J	0.000929 JN	0.000932 JN	0.00195 JN	0.000689 JN
PBDE-8/11	PDBE-8/11	µg/kg	0.00503 J	0.000790 J	0.00136 JN	0.000669 J	0.000805 J	0.000548 JN	0.000644 J	0.000967 J	0.00123 J	0.000798 J
PBDE-10	51930-04-2	µg/kg	< 0.000293 U	< 0.000246 U	< 0.000477 U	< 0.000179 U	< 0.000439 U	< 0.000149 U	< 0.000434 U	< 0.000281 U	< 0.000702 U	< 0.000535 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00391 JN	0.000914 JN	0.00225 JN	0.000668 J+	0.00114 JN	0.000726 JN	0.000784 JN	0.000991 JN	0.000607 JN	0.00118 JN
PBDE-15	2050-47-7	µg/kg	0.0369	0.0103	0.0128 J	0.00752 J	0.00914	0.00591 J	0.00922 J	0.0122	0.0102 J	0.00796 J
PBDE-17/25	PBDE-17/25	µg/kg	0.197	0.0545	0.0587 JN	0.0473	0.0543	0.0364	0.0570 JN	0.0583	0.0616	0.0394 JN
PBDE-28/33	PBDE-28/33	µg/kg	0.79	0.272	0.546	0.275	0.215	0.157	0.323	0.398	0.218	0.243
PBDE-30	155999-95-4	µg/kg	< 0.00366 U	< 0.00189 U	< 0.00299 U	< 0.00117 U	< 0.00181 U	< 0.000854 U	< 0.00381 U	< 0.00382 U	< 0.00288 U	< 0.00143 U
PBDE-32	189084-60-4	µg/kg	< 0.00282 U	< 0.00145 U	< 0.00242 U	< 0.000905 U	< 0.00141 U	< 0.000669 U	< 0.00308 U	< 0.00296 U	< 0.00238 U	< 0.00116 U
PBDE-35	147217-80-9	µg/kg	0.0151 JN	0.00391 JN	0.00829 JN	0.00719 JN	0.00588 JN	0.00232 J	0.00531 JN	0.0148 JN	0.0150 JN	0.00304 JN
PBDE-37	147217-81-0	µg/kg	0.0226	0.00629 J	0.0114 J	0.00604 J	0.00690 J	0.00469 J	0.00837 J	0.00876 J	0.00592 J	0.00497 J
PBDE-047	5436-43-1	µg/kg	28	8.29	19.8	14.1	11.8	9.47	14	17.8	9.83	12.2
PBDE-49	243982-82-3	µg/kg	1.24	0.528	0.834	0.436	0.464	0.311	0.582	0.524	0.292	0.5
PBDE-51	189084-57-9	µg/kg	0.0509	0.0238	0.0375	0.0112	0.0181	0.0126	0.0342	0.0158	0.0184	0.0176

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB111	SMB112	SMB113	SMB114	SMB115	SMB116	SMB117	SMB118	SMB119	SMB120
		Sample ID	PDI-TF-SMB111	PDI-TF-SMB112	PDI-TF-SMB113	PDI-TF-SMB114	PDI-TF-SMB115	PDI-TF-SMB116	PDI-TF-SMB117	PDI-TF-SMB118	PDI-TF-SMB119	PDI-TF-SMB120
		Sample Date	8/16/18	8/16/18	9/8/18	8/15/18	8/15/18	8/15/18	9/9/18	8/15/18	8/24/18	9/9/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.342	0.127	0.487	0.144	0.193	0.109	0.306	0.2	0.152	0.18
PBDE-71	189084-62-6	µg/kg	0.0504	0.0175	0.0322	0.0169	0.0195	0.0124	0.0326	0.0212	0.0191	0.0180
PBDE-75	189084-63-7	µg/kg	0.0253	0.0124	0.0329	0.0107	0.0123	0.00812	0.0222	0.0157	0.0130 J	0.0142 J
PBDE-77	93703-48-1	µg/kg	0.00600 JN	0.00152 J	0.00340 JN	0.00267 JN	0.00368 J	0.00174 JN	0.00931 J	0.00216 JN	0.00302 J	0.00265 JN
PBDE-79	PBDE-79	µg/kg	0.0726 JN	0.0262	0.0253 JN	0.0373 JN	0.0404 JN	0.0247 JN	0.0257 JN	0.0459 JN	0.00900 J+	0.0227 JN
PBDE-85	182346-21-0	µg/kg	0.00368 J	< 0.00173 U	< 0.00646 U	< 0.00179 U	< 0.00234 U	< 0.00162 U	< 0.00767 U	< 0.00421 U	< 0.00274 U	< 0.00276 U
PBDE-099	60348-60-9	µg/kg	7.72	2.54	9.66	3.57	6.14	3.43	6.24	7.07	4.07	4.97
PBDE-100	189084-64-8	µg/kg	5.2	2.07	5.17	2.81	3.06	2.06	3.87	4.08	2.43	3.06
PBDE-105	373594-78-6	µg/kg	< 0.00339 U	< 0.00231 U	< 0.00794 U	< 0.00236 U	< 0.00309 U	< 0.00214 U	< 0.00942 U	< 0.00555 U	< 0.00363 U	< 0.00339 U
PBDE-116	189084-65-9	µg/kg	< 0.00510 U	< 0.00348 U	< 0.0104 U	< 0.00358 U	< 0.00482 U	< 0.00334 U	< 0.0124 U	< 0.00841 U	< 0.00519 U	< 0.00446 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0927	0.0374	0.101	0.0580	0.0491	0.0363	0.269	0.0874	0.0459	0.0458
PBDE-126	366791-32-4	µg/kg	0.0184	0.00630 J	0.0163	0.00694 J	0.00784 J	0.00378 J	0.0322	0.0128	0.00355 J	0.00904 J
PBDE-128	182677-28-7	µg/kg	0.00544 JN	0.00182 J	0.00684 JN	0.00304 J	0.00454 JN	0.00319 JN	0.0165 JN	0.0118 JN	0.00431 J	0.00436 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00321 JN	0.000402 JN	0.00277 J	< 0.00153 U	0.00119 JN	0.000651 JN	0.00267 JN	0.00178 J	0.000404 JN	0.000745 J+
PBDE-140	243982-83-4	µg/kg	0.0139	0.00584 J	0.0292 J	0.00788 J	0.0115	0.00695 J	0.163	0.0179	0.00642 J	0.00898 J
PBDE-153	68631-49-2	µg/kg	1.45	0.401	1.8 J	0.834	0.968	0.639 J	6.39	1.41	0.662	0.739
PBDE-154	207122-15-4	µg/kg	1.11	0.46 J	1.44 J	0.652	0.662	0.417 J	2.79	1.05	0.502 J	0.566
PBDE-155	35854-94-5	µg/kg	0.155	0.0507 J	0.129 J	0.0479	0.0665	0.0342 J	0.24	0.105	0.0311 J	0.0478
PBDE-181	189084-67-1	µg/kg	0.000457 JN	< 0.000147 U	0.000446 JN	< 0.000151 U	0.000590 JN	0.000149 JN	< 0.00306 U	0.00213 JN	< 0.000145 U	0.000168 JN
PBDE-183	207122-16-5	µg/kg	0.0220	0.00393 JN	0.0405	0.00442 J	0.00761 J	0.00597 J	0.756	0.0287	0.00893 J	0.00671 JN
PBDE-190	189084-68-2	µg/kg	0.000307 JN	< 0.000147 U	0.000765 JN	0.000256 JN	0.000675 JN	< 0.000149 U	0.00858 JN	0.000372 JN	< 0.000184 U	0.000177 J
PBDE-203	337513-72-1	µg/kg	0.00266 JN	0.000964 JN	0.00288 JN	0.000668 JN	0.000769 JN	0.00113 JN	0.00383 JN	0.00575 JN	0.00118 JN	0.00154 JN
PBDE-206	63387-28-0	µg/kg	0.000372 JN	0.00220 JN	0.00750 J	< 0.000505 U	< 0.000380 U	0.00112 JN	0.00204 JN	0.000593 JN	< 0.000618 U	0.00167 JN
PBDE-207	437701-79-6	µg/kg	0.00227 JN	0.00233 JN	0.0102 JN	< 0.00200 U	0.00402 JN	< 0.000978 U	0.00310 JN	0.00578 JN	< 0.000658 U	0.00301 JN
PBDE-208	437701-78-5	µg/kg	0.00327 JN	0.00211 JN	0.00973 JN	< 0.00129 U	0.00404 JN	0.00317 J+	0.00255 J	< 0.000558 U	0.00399 JN	0.00114 JN
PBDE-209	1163-19-5	µg/kg	< 0.0102 U	0.0231 J+	0.142 J	0.00922 JN	0.0182 JN	0.0164 JN	0.0495 J+	0.0100 JN	0.0586 JN	0.0314 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	46.7	15	40.5	23.1	23.9	16.8	36.3	33	18.5	22.8

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Downtown	Downtown	Downtown	Downtown	Downtown	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB111	SMB112	SMB113	SMB114	SMB115	SMB116	SMB117	SMB118	SMB119	SMB120
		Sample ID	PDI-TF-SMB111	PDI-TF-SMB112	PDI-TF-SMB113	PDI-TF-SMB114	PDI-TF-SMB115	PDI-TF-SMB116	PDI-TF-SMB117	PDI-TF-SMB118	PDI-TF-SMB119	PDI-TF-SMB120
		Sample Date	8/16/18	8/16/18	9/8/18	8/15/18	8/15/18	8/15/18	9/9/18	8/15/18	8/24/18	9/9/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	8.23	2.79	4.20	3.86	3.64	3.37	2.59	4.56	3.34	3.19
Total Solids@104C	TSOLID	%	30.1	25.7	25.9	25.8	24.8	23.8	24.6	26.7	23.4	24.9

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB121	SMB122	SMB123	SMB124	SMB125	SMB126	SMB127	SMB128	SMB129	SMB130
		Sample ID	PDI-TF-SMB121	PDI-TF-SMB122	PDI-TF-SMB123	PDI-TF-SMB124	PDI-TF-SMB125	PDI-TF-SMB126	PDI-TF-SMB127	PDI-TF-SMB128	PDI-TF-SMB129	PDI-TF-SMB130
		Sample Date	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/24/18	8/24/18	9/12/18
Chemical	**CAS**	**Units**										
Dioxins and Furans												
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.0000717 J	0.0000845 JN	0.000444 J	0.000453 J	0.000137 J	< 0.0000731 U	0.0000912 JN	< 0.0000721 U	< 0.000116 U	0.000556 J
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000699 U	< 0.0000699 U	0.0000877 JN	0.0000924 JN	0.0000945 JN	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	0.0000774 JN
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000699 U	< 0.0000699 U	< 0.0000730 U	< 0.0000719 U	< 0.0000719 U	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	< 0.0000716 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	< 0.0000699 U	< 0.0000699 U	0.000137 JN	< 0.0000719 U	0.000110 JN	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	0.000143 JN
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.0000699 U	< 0.0000699 U	0.0000976 J	0.0000898 JN	< 0.0000719 U	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	0.000164 J
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000138 JN	0.0000961 JN	0.000544 J	0.000235 JN	0.000179 J	0.000149 JN	0.000137 J	0.0000869 J	0.000204 JN	0.00108 J
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0000699 U	< 0.0000699 U	0.0000858 J	< 0.0000719 U	0.0000806 J	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	0.000149 J
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000699 U	< 0.0000699 U	< 0.0000730 U	< 0.0000719 U	< 0.000200 U	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	0.000120 JN
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000699 U	< 0.0000699 U	< 0.0000730 U	< 0.0000719 U	0.0000763 JN	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	< 0.0000744 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000277 JN	0.000193 J	0.000310 J	0.000237 J	0.000227 JN	0.000383 JN	0.000295 J	0.000301 JN	0.000333 J	0.000618 J
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0000907 JN	< 0.0000699 U	0.000133 J	< 0.0000719 U	0.0000874 JN	0.0000847 JN	< 0.0000769 U	0.0000921 JN	0.000131 JN	0.000168 JN
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000699 U	< 0.0000699 U	< 0.0000730 U	< 0.0000719 U	< 0.0000719 U	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	< 0.0000716 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000196 JN	0.000141 J	0.000236 J	0.000180 JN	0.000169 JN	0.000234 J	0.0000957 JN	0.000146 JN	0.000242 JN	0.000552 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000312 JN	0.000180 J	0.000185 JN	0.000202 J	0.000186 J	0.000347	0.000180 JN	0.000219 JN	0.000314 JN	0.000449
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000624	0.000357 JN	0.000509	0.000315 JN	0.000255 J	0.000473	0.000303 JN	0.000397	0.000588	0.00104
OCDD	3268-87-9	µg/kg	< 0.0000699 U	0.000166 J+	0.000505 J	0.00247 J	0.000444 J	0.000116 JN	0.000241 JN	0.000157 JN	0.000294 JN	0.000288 JN
OCDF	39001-02-0	µg/kg	< 0.0000699 U	< 0.0000699 U	< 0.0000730 U	< 0.0000719 U	0.000125 JN	< 0.0000731 U	< 0.0000769 U	< 0.0000721 U	< 0.0000721 U	< 0.0000716 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.000731	0.000465	0.000716	0.000567	0.000549	0.000869	0.000553	0.000619	0.000806	0.00152
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.000514	0.000456	0.000606	0.000503	0.000352	0.000656	0.000399	0.000199	0.000742	0.00149
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.000375	0.000451	0.000513	0.000476	0.000239	0.000465	0.000309	0.0000484	0.000706	0.00148
Polychlorinated Biphenyls (PCBs)												
PCB-1	2051-60-7	µg/kg	0.00189	0.00155	0.00204	0.00295	0.00149	0.00193	0.00173	0.00302 JN	0.00324	0.00396
PCB-2	2051-61-8	µg/kg	0.000819 J+	0.000628 J+	0.00114	0.000884 J+	0.000719 JN	0.000816 JN	0.000800 J+	0.000739 J	0.00123 J	0.00233 J
PCB-3	2051-62-9	µg/kg	0.00123 J+	0.00107 J+	0.00116 J+	0.00155 J+	0.00101 J+	0.00158 J+	0.00142 J+	0.00102 JN	0.00200 JN	0.00229 J+
PCB-4	13029-08-8	µg/kg	0.0141	0.00922	0.0167	0.0151	0.00825	0.0121	0.0106	0.0176	0.0174	0.0339
PCB-5	16605-91-7	µg/kg	0.000299 J	< 0.000145 U	0.000287 JN	0.000191 JN	< 0.000153 U	< 0.000213 U	< 0.000216 U	< 0.00162 U	< 0.00159 U	< 0.00175 U
PCB-6	25569-80-6	µg/kg	0.00698	0.00329	0.0104	0.00403	0.00247	0.00419	0.00307	0.00390	0.00528 JN	0.0100 JN
PCB-7	33284-50-3	µg/kg	0.00110	0.000544 J	0.00116 JN	0.000725	0.000457 JN	0.000749	0.000548 J	< 0.00141 U	0.00152 JN	0.00200 JN
PCB-8	34883-43-7	µg/kg	0.0232	0.0108	0.0273	0.0141	0.00823	0.0153	0.0111	0.0126	0.0174	0.0367
PCB-9	34883-39-1	µg/kg	0.00383	0.000955	0.00237	0.00126	0.000590 JN	0.00119	0.000788	< 0.00136 U	< 0.00142 U	0.00274 JN
PCB-10	33146-45-1	µg/kg	0.000605	0.000398 J	0.000870 JN	0.000725	0.000363 JN	0.000484 J	0.000487 J	< 0.00139 U	< 0.00144 U	0.00184 JN
PCB-11	2050-67-1	µg/kg	0.0532	0.0523	0.147	0.0613	0.0518	0.0851	0.0890	0.0886	0.119	0.216
PCB-12/13	PCB-12/13	µg/kg	0.00105 JN	0.000698 JN	0.00166 JN	0.000766 JN	0.000680 JN	0.00124	0.000924 JN	< 0.00149 U	< 0.00149 U	0.00334 JN
PCB-14	34883-41-5	µg/kg	< 0.0000981 U	< 0.000136 U	< 0.000236 U	< 0.000121 U	< 0.000141 U	< 0.000190 U	< 0.000192 U	< 0.00145 U	< 0.00149 U	< 0.00159 U
PCB-15	2050-68-2	µg/kg	0.00620	0.00346	0.00640	0.00391	0.00242	0.0241	0.00354	0.00548	0.00562	0.0115
PCB-16	38444-78-9	µg/kg	0.0380	0.00807	0.0152	0.0122	0.00652	0.0102	0.00775	0.00862	0.0131 JN	0.0437
PCB-17	37680-66-3	µg/kg	0.0964	0.0206	0.0395	0.0212	0.0110	0.0259	0.0148	0.0147	0.0231	0.0981
PCB-18/30	PCB-18/30	µg/kg	0.213	0.0313	0.0579	0.0390	0.0216	0.0421	0.0258	0.0283	0.0400	0.153
PCB-19	38444-73-4	µg/kg	0.0176	0.00450	0.0108	0.00692	0.00296	0.00514	0.00426	0.00563 JN	0.00832	0.0571
PCB-20/28	PCB-20/28	µg/kg	1.47	0.135	0.257	0.146	0.0747	0.401	0.0978	0.0990	0.161	0.448
PCB-21/33	PCB-21/33	µg/kg	0.217	0.0185	0.0387	0.0213	0.0114	0.0468	0.0156	0.0146	0.0271	0.109
PCB-22	38444-85-8	µg/kg	0.198	0.0227	0.0489	0.0224	0.0122	0.0455	0.0171	0.0159	0.0304	0.102
PCB-23	55720-44-0	µg/kg	0.00123 J	< 0.000216 U	< 0.000341 U	< 0.000141 U	< 0.000133 U	< 0.000459 U	< 0.000193 U	< 0.000425 U	< 0.000469 U	< 0.00102 U
PCB-24	55702-45-9	µg/kg	0.00220 J	0.000465 JN	0.00102 JN	0.000507 JN	0.000370 JN	0.000507 JN	0.000427 JN	0.000354 JN	0.000701 JN	0.00189 JN
PCB-25	55712-37-3	µg/kg	0.0618	0.00958	0.0244	0.00903	0.00403	0.0152	0.00571	0.00546	0.00999	0.0344
PCB-26/29	PCB-26/29	µg/kg	0.223	0.0235	0.0536	0.0234	0.0102	0.0442	0.0138	0.0146	0.0232	0.0756
PCB-27	38444-76-7	µg/kg	0.0159	0.00568	0.0124	0.00420	0.00234	0.00428	0.00275	0.00331	0.00484	0.0175
PCB-31	16606-02-3	µg/kg	0.517	0.0694	0.161	0.0679	0.0333	0.151	0.0494	0.0438	0.0767	0.281
PCB-32	38444-77-8	µg/kg	0.0544	0.00932	0.0208	0.00872	0.00425	0.0141	0.00646	0.00643	0.0138	0.0498
PCB-34	37680-68-5	µg/kg	0.00465 JN	0.000824	0.00188 JN	0.000640 JN	0.000381 J	0.00137	0.000408 J	0.000480 JN	0.000674 JN	0.00351
PCB-35	37680-69-6	µg/kg	0.00220 JN	< 0.000199 U	< 0.000288 U	< 0.000126 U	< 0.000125 U	0.000426 J	< 0.000164 U	< 0.000441 U	0.000597 JN	< 0.00107 U
PCB-36	38444-87-0	µg/kg	< 0.000773 U	< 0.000186 U	< 0.000285 U	< 0.000125 U	< 0.000115 U	< 0.000384 U	< 0.000162 U	0.00463	< 0.000431 U	< 0.000991 U
PCB-37	38444-90-5	µg/kg	0.0687	0.0115	0.0156	0.0118	0.00551	0.0639	0.00677	0.0116	0.0152	0.0426
PCB-38	53555-66-1	µg/kg	< 0.000845 U	< 0.000204 U	< 0.000306 U	0.000279 J	< 0.000126 U	< 0.000413 U	< 0.000174 U	< 0.000426 U	0.000487 JN	< 0.000979 U

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB121	SMB122	SMB123	SMB124	SMB125	SMB126	SMB127	SMB128	SMB129	SMB130
		Sample ID	PDI-TF-SMB121	PDI-TF-SMB122	PDI-TF-SMB123	PDI-TF-SMB124	PDI-TF-SMB125	PDI-TF-SMB126	PDI-TF-SMB127	PDI-TF-SMB128	PDI-TF-SMB129	PDI-TF-SMB130
		Sample Date	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/24/18	8/24/18	9/12/18
Chemical	CAS	Units										
PCB-39	38444-88-1	µg/kg	0.00708 J	0.000942	0.00180	0.00118	0.000462 J	0.00212	0.000737 JN	0.00102 J	0.00159 J	0.00560
PCB-40/41/71	PCB-40/41/71	µg/kg	0.37	0.0505	0.0973	0.0750	0.0296	0.108	0.0352	0.0380	0.0763	0.337
PCB-42	36559-22-5	µg/kg	0.292	0.0472	0.0735	0.0602	0.0204	0.0987	0.0279	0.0276	0.0610	0.219
PCB-43	70362-46-8	µg/kg	0.0504	0.00590 JN	0.0120	0.00910	0.00419	0.0165	0.00468	0.00475	0.00960	0.0395
PCB-44/47/65	PCB-44/47/65	µg/kg	1.54	0.249	0.433	0.372	0.151	0.866	0.197	0.179	0.362	1.22
PCB-45/51	PCB-45/51	µg/kg	0.112	0.0153	0.0323	0.0240	0.00851	0.0236	0.0104	0.0119	0.0242	0.13
PCB-46	41464-47-5	µg/kg	0.0207	0.00311	0.00628	0.00445	0.00211	0.00390	0.00241	0.00297	0.00508 JN	0.0295
PCB-48	70362-47-9	µg/kg	0.191	0.0219	0.0392	0.0337	0.0128	0.0564	0.0171	0.0206	0.0358	0.139
PCB-49/69	PCB-49/69	µg/kg	1.12	0.187	0.331	0.28	0.105	0.709	0.138	0.128	0.261	0.947
PCB-50/53	PCB-50/53	µg/kg	0.0828	0.0177	0.0313	0.0208	0.00825	0.0237	0.0107	0.00981	0.0253 JN	0.129
PCB-52	35693-99-3	µg/kg	2.54	0.332	0.597	0.473	0.196	1.13	0.258	0.236	0.449	1.79
PCB-54	15968-05-5	µg/kg	0.00327 JN	0.000448 J	0.00153	0.00119	0.000295 JN	0.000637	0.000322 J	0.000588 J	0.00144 J	0.0132
PCB-55	74338-24-2	µg/kg	< 0.00664 U	< 0.000519 U	< 0.00137 U	< 0.00284 U	< 0.000502 U	< 0.00366 U	< 0.00107 U	< 0.00259 U	< 0.00200 U	< 0.00239 U
PCB-56	41464-43-1	µg/kg	0.141	0.0513	0.0941	0.0530	0.0213	0.164	0.0225	0.0239	0.0553	0.286
PCB-57	70424-67-8	µg/kg	0.00764	0.00144	0.00164 JN	< 0.00263 U	0.000684 JN	0.00538 JN	< 0.00104 U	< 0.00238 U	0.00220 J	0.00430
PCB-58	41464-49-7	µg/kg	< 0.00625 U	0.00161 JN	0.00223 JN	0.00269	0.000917	0.00849	< 0.00109 U	< 0.00247 U	< 0.00184 U	0.00612
PCB-59/62/75	PCB-59/62/75	µg/kg	0.112	0.0178	0.0331	0.0248	0.0110	0.0510	0.0150	0.0129	0.0252	0.0918
PCB-60	33025-41-1	µg/kg	0.174	0.0781	0.0890	0.0947	0.0434	0.297	0.0469	0.0522	0.0833	0.199
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	1.85	0.711	0.767	0.646	0.32	2.76	0.354	0.377	0.642	1.97
PCB-63	74472-34-7	µg/kg	0.0786	0.0336	0.0300	0.0327	0.0174	0.14	0.0175	0.0212	0.0330	0.0628
PCB-64	52663-58-8	µg/kg	0.57	0.0908	0.158	0.131	0.0468	0.235	0.0667	0.0613	0.119	0.447
PCB-66	32598-10-0	µg/kg	1.18	0.591	0.54 J	0.609	0.299 J	2.3 J	0.293 J	0.36	0.542	1.18
PCB-67	73575-53-8	µg/kg	0.0326	0.00571	0.00894	0.00588	0.00289	0.0205	0.00371	0.00345	0.00640	0.0258
PCB-68	73575-52-7	µg/kg	0.0245	0.0103	0.0133	0.0132	0.00662	0.0409	0.00677	0.00917	0.0141	0.0312
PCB-72	41464-42-0	µg/kg	0.0290	0.00933	0.0137	0.0119	0.00561	0.0554	0.00678	0.00727	0.0115	0.0388
PCB-73	74338-23-1	µg/kg	< 0.0000699 U	< 0.0000699 U	< 0.0000730 U	< 0.0000719 U	< 0.0000719 U	< 0.0000993 U	< 0.0000872 U	< 0.000186 U	< 0.000287 U	0.00908
PCB-77	32598-13-3	µg/kg	0.0510	0.0295	0.0260	0.0296	0.0128	0.0539	0.0121	0.0212	0.0290	0.0562
PCB-78	70362-49-1	µg/kg	< 0.00658 U	< 0.000522 U	< 0.00129 U	< 0.00282 U	< 0.000492 U	< 0.00346 U	< 0.00101 U	< 0.00260 U	< 0.00192 U	< 0.00239 U
PCB-79	41464-48-6	µg/kg	0.0692	0.0147	0.0116	0.0230	0.00553 JN	0.166	0.00601	0.00687	0.0113	0.0432
PCB-80	33284-52-5	µg/kg	< 0.00560 U	< 0.000484 U	< 0.00124 U	< 0.00240 U	< 0.000447 U	< 0.00332 U	< 0.000969 U	< 0.00236 U	< 0.00174 U	< 0.00216 U
PCB-81	70362-50-4	µg/kg	< 0.00591 U	0.00140 JN	0.00147 JN	< 0.00248 U	0.000631 JN	0.00347 JN	< 0.000852 U	< 0.00257 U	0.00208 JN	0.00350 JN
PCB-82	52663-62-4	µg/kg	0.253	0.0549	0.0717	0.0879	0.0232	0.279	0.0308	0.0297	0.0592	0.284
PCB-83/99	PCB-83/99	µg/kg	3.69	1.8	1.25	1.43	0.763	11.6	0.891	0.904	1.34	3.35
PCB-84	52663-60-2	µg/kg	0.5	0.0755	0.122	0.117	0.0384	0.179	0.0485	0.0474	0.106	0.546
PCB-85/116/117	PCB-85/116/117	µg/kg	1.11	0.434	0.334	0.434	0.207	3.1	0.239	0.261	0.387	0.874
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	2.59 J	0.69 J	0.654 J	0.863 J	0.287 J	5.58 J	0.344 J	0.373 J	0.646 J	2.39
PCB-88/91	PCB-88/91	µg/kg	0.49	0.104	0.131	0.151	0.0449	0.309	0.0578	0.0536	0.11	0.508
PCB-89	73575-57-2	µg/kg	0.00858	0.00217	0.00312	0.00307 JN	0.00113	0.00413 JN	0.00128	< 0.00109 U	0.00301 JN	0.0162
PCB-90/101/113	PCB-90/101/113	µg/kg	5.17	1.29	1.39	1.61	0.607	12.8	0.788	0.707	1.28	4.48
PCB-92	52663-61-3	µg/kg	0.968	0.246	0.274	0.3	0.122	1.92	0.157	0.136	0.265	0.915
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	2.51	0.471	0.6	0.65	0.246	2.37	0.306	0.271	0.595	2.47
PCB-94	73575-55-0	µg/kg	0.00686	0.00145 JN	0.00283	0.00261 J	0.000763 JN	< 0.00216 U	0.000717	< 0.00106 U	0.00196 JN	0.0131
PCB-96	73575-54-9	µg/kg	0.00906	0.00142	0.00273	0.00272 JN	0.00106	0.00362	0.00110 JN	0.00118 JN	0.00270 J	0.0140
PCB-103	60145-21-3	µg/kg	0.0389	0.0111	0.0148	0.0163	0.00594	0.0493	0.00582	0.00602	0.0116	0.0694
PCB-104	56558-16-8	µg/kg	0.000994 JN	0.000147 JN	0.000381 J	0.000490 JN	0.000124 JN	0.000231 J	< 0.000202 U	< 0.000231 U	< 0.000369 U	0.00307 JN
PCB-105	32598-14-4	µg/kg	1.63	1.03	0.487 J	0.676	0.36	7.02	0.397	0.525	0.667	1.49
PCB-106	70424-69-0	µg/kg	< 0.00514 U	< 0.00683 U	< 0.00494 U	< 0.00704 U	< 0.00196 U	< 0.0254 U	< 0.00264 U	< 0.00341 U	< 0.00581 U	< 0.00484 U
PCB-107/124	PCB-107/124	µg/kg	0.172	0.111	0.0555	0.0595 JN	0.0289	0.706	0.0319	0.0389	0.0554	0.152
PCB-109	74472-35-8	µg/kg	0.465	0.352	0.16	0.229	0.14	1.75	0.119	0.166	0.245	0.373
PCB-110/115	PCB-110/115	µg/kg	4.27	0.93	1.09	1.31	0.437	2.85	0.559	0.543	1.04	3.74
PCB-111	39635-32-0	µg/kg	0.00678 JN	0.00312	0.00352 JN	0.00318 JN	0.00191 JN	0.0109	0.00239	0.00194 JN	0.00389	0.00655
PCB-112	74472-36-9	µg/kg	< 0.00220 U	< 0.000194 U	< 0.000577 U	< 0.00117 U	< 0.000308 U	< 0.00134 U	< 0.000391 U	< 0.000764 U	< 0.00112 U	< 0.00255 U
PCB-114	74472-37-0	µg/kg	0.121	0.106	0.0367	0.0729	0.0332	0.559	0.0328	0.0559	0.0782	0.102
PCB-118	31508-00-6	µg/kg	5.52	3.77	1.58	2.77	1.26	19.9	1.29	2	2.43	4.15
PCB-120	68194-12-7	µg/kg	0.0316	0.0133	0.0147	0.0139	0.00859	0.0547	0.0103	0.00938	0.0180	0.0309

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB121	SMB122	SMB123	SMB124	SMB125	SMB126	SMB127	SMB128	SMB129	SMB130
		Sample ID	PDI-TF-SMB121	PDI-TF-SMB122	PDI-TF-SMB123	PDI-TF-SMB124	PDI-TF-SMB125	PDI-TF-SMB126	PDI-TF-SMB127	PDI-TF-SMB128	PDI-TF-SMB129	PDI-TF-SMB130
		Sample Date	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/24/18	8/24/18	9/12/18
Chemical	**CAS**	**Units**										
PCB-121	56558-18-0	µg/kg	0.00263	0.00164	0.00204	0.00283 JN	0.00116	0.00452	0.00155	0.00127 J	0.00273 JN	0.00521
PCB-122	76842-07-4	µg/kg	0.0364	0.0139	0.00901 JN	0.00910	0.00597	0.147	< 0.00294 U	0.00567 JN	0.00858 JN	0.0396
PCB-123	65510-44-3	µg/kg	0.102 JN	0.0728 JN	0.0312 JN	0.0587 JN	0.0230 JN	0.335 JN	0.0270 JN	0.0454	0.0578	0.0837 JN
PCB-126	57465-28-8	µg/kg	0.00866 JN	< 0.00693 U	0.00491 JN	0.00489 JN	0.00191 JN	< 0.0237 U	0.00338 JN	0.00568 JN	0.00642 JN	0.00695 JN
PCB-127	39635-33-1	µg/kg	0.0150	0.0118	< 0.00494 U	0.00798 JN	0.00524	0.0733	0.00486	0.00704	0.00912	0.0120
PCB-128/166	PCB-128/166	µg/kg	1.33	0.549	0.476	0.759	0.271	4.94	0.402	0.436	0.568	1.18
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	10.3	5.73	3.54	5.4	2.24	30	3.02	3.23	4.54	8.2
PCB-130	52663-66-8	µg/kg	0.51	0.326	0.18	0.227	0.0962	1.96	0.119	0.125	0.186	0.43
PCB-131	61798-70-7	µg/kg	0.0466	0.0146	0.0135	0.0205	0.00494	0.232	0.00765	0.00864	0.00878	0.0509
PCB-132	38380-05-1	µg/kg	1.15	0.302	0.34	0.495	0.112	1.19	0.195	0.16	0.289	1.28
PCB-133	35694-04-3	µg/kg	0.169	0.103	0.0713	0.0946	0.0452	0.47	0.0616	0.0608	0.0970	0.186
PCB-134/143	PCB-134/143	µg/kg	0.207	0.0631	0.0616	0.0881	0.0249	0.956	0.0338	0.0397	0.0640	0.236
PCB-135/151/154	PCB-135/151/154	µg/kg	1.69	0.622	0.639	0.828	0.313	3.2	0.439	0.355	0.616	1.98
PCB-136	38411-22-2	µg/kg	0.306	0.0954	0.107	0.129	0.0429	0.334	0.0618	0.0473	0.104	0.462
PCB-137	35694-06-5	µg/kg	0.471	0.416	0.17	0.236	0.139	2.56	0.153	0.187	0.279	0.399
PCB-139/140	PCB-139/140	µg/kg	0.141	0.0670	0.0440	0.0623	0.0256	0.491	0.0415	0.0405	0.0539	0.139
PCB-141	52712-04-6	µg/kg	1.06	0.326	0.347	0.427	0.148	3.29	0.234	0.215	0.32	0.88
PCB-142	41411-61-4	µg/kg	< 0.00643 U	< 0.00242 U	< 0.00475 U	< 0.00411 U	< 0.00197 U	< 0.00669 U	< 0.00121 U	< 0.00475 U	< 0.00622 U	< 0.0139 U
PCB-144	68194-14-9	µg/kg	0.202	0.0893	0.0658	0.0968	0.0322	0.718	0.0417	0.0460	0.0625	0.221
PCB-145	74472-40-5	µg/kg	0.000804	< 0.0000699 U	< 0.000226 U	0.000383 J	0.000129 JN	0.000728 JN	0.000285 JN	0.000393 JN	< 0.000448 U	0.00251 JN
PCB-146	51908-16-8	µg/kg	1.83	1.25	0.697	1.21	0.463	4.8	0.613	0.701	1.07	1.81
PCB-147/149	PCB-147/149	µg/kg	4.31	1.48	1.32	1.99	0.523	9.18	0.893	0.767	1.22	4.06
PCB-148	74472-41-6	µg/kg	0.0118	0.00589	0.00592	0.00847	0.00319	0.0168	0.00407	0.00288 JN	0.00587	0.0317
PCB-150	68194-08-1	µg/kg	0.00767	0.00276	0.00299	0.00459	0.00160	0.0110	0.00166	0.00129 J	0.00272 J	0.0162
PCB-152	68194-09-2	µg/kg	0.00256	0.000628	0.000942 JN	0.00125	0.000507 JN	0.00267	0.000625 JN	0.000438 JN	0.00121 J	0.00401
PCB-153/168	PCB-153/168	µg/kg	10.3	5.9	3.97	5.72	2.47	26.4	3.62	3.61	5	8.59
PCB-155	33979-03-2	µg/kg	0.00638	0.00781	0.00646	0.00973	0.00481	0.0150	0.00768	0.00763 JN	0.00958	0.0145
PCB-156/157	PCB-156/157	µg/kg	1.06	0.889	0.307	0.585	0.263	5.11	0.302	0.423	0.634	0.743
PCB-158	74472-42-7	µg/kg	0.806	0.369	0.252	0.388	0.163	3.01	0.228	0.239	0.319	0.639
PCB-159	39635-35-3	µg/kg	< 0.00437 U	< 0.00160 U	0.0148	0.0229	< 0.00140 U	0.0664	< 0.000805 U	< 0.00365 U	0.0148	< 0.00975 U
PCB-161	74472-43-8	µg/kg	< 0.00419 U	< 0.00173 U	< 0.00325 U	< 0.00268 U	< 0.00135 U	< 0.00457 U	< 0.000826 U	< 0.00340 U	< 0.00415 U	< 0.00914 U
PCB-162	39635-34-2	µg/kg	0.0336	0.0233	0.0122	0.0181	0.0125	0.147	0.0128	0.0164	0.0196	0.0203
PCB-164	74472-45-0	µg/kg	0.459	0.168	0.12	0.18	0.0644	1.49	0.0908	0.107	0.139	0.28
PCB-165	74472-46-1	µg/kg	< 0.00486 U	0.00267	< 0.00377 U	0.00333	0.00166	0.00971	0.00254	< 0.00381 U	< 0.00481 U	< 0.0110 U
PCB-167	52663-72-6	µg/kg	0.491	0.34	0.141	0.258	0.114	1.54	0.123	0.177	0.267	0.296
PCB-169	32774-16-6	µg/kg	< 0.00730 U	< 0.00752 U	< 0.00366 U	< 0.00552 U	< 0.00191 U	< 0.00977 U	< 0.00300 U	< 0.00384 U	< 0.00500 U	< 0.0113 U
PCB-170	35065-30-6	µg/kg	1.55	0.836	0.585	0.9	0.387	3.62	0.538	0.549	0.688	1.08
PCB-171/173	PCB-171/173	µg/kg	0.402	0.206	0.175	0.258	0.104	0.828	0.155	0.124	0.182	0.357
PCB-172	52663-74-8	µg/kg	0.307	0.179	0.134	0.205	0.0894	0.57	0.118	0.107	0.161	0.255
PCB-174	38411-25-5	µg/kg	0.838	0.387	0.342	0.511	0.146	1.48	0.234	0.184	0.271	0.64
PCB-175	40186-70-7	µg/kg	0.0584	0.0365	0.0247	0.0433	0.0166	0.114	0.0201	0.0200	0.0286	0.0534
PCB-176	52663-65-7	µg/kg	0.0875	0.0391	0.0385	0.0646	0.0166	0.133	0.0252	0.0199	0.0323 JN	0.0972
PCB-177	52663-70-4	µg/kg	0.812	0.482	0.351	0.421	0.187	1.33	0.256	0.175	0.261	0.574
PCB-178	52663-67-9	µg/kg	0.437	0.252	0.207	0.322	0.134	0.669	0.184	0.148	0.261	0.407
PCB-179	52663-64-6	µg/kg	0.338	0.15	0.164	0.213	0.0608	0.319	0.113	0.0564	0.155	0.391
PCB-180/193	PCB-180/193	µg/kg	4.87	3.28	2.05	3.18	1.64	8.78	1.99	2.11	2.93	3.48
PCB-181	74472-47-2	µg/kg	0.0209	0.0161	0.00747 JN	0.0124 JN	0.00668	0.0895	0.00772	0.00970	0.0139	0.0155
PCB-182	60145-23-5	µg/kg	< 0.000689 U	< 0.000655 U	< 0.000174 U	0.0107 JN	< 0.000129 U	0.0241	< 0.000156 U	0.00289	< 0.000803 U	< 0.000599 U
PCB-183/185	PCB-183/185	µg/kg	1.16	0.685	0.501	0.784	0.334	2.01	0.43	0.388	0.547	0.994
PCB-184	74472-48-3	µg/kg	0.00977 J	0.0113 J	0.00923	0.0151 JN	0.00575	0.0208	0.0111	0.00936	0.0114	0.0161
PCB-186	74472-49-4	µg/kg	< 0.000581 U	< 0.000553 U	< 0.000150 U	< 0.000301 U	< 0.000106 U	< 0.000258 U	< 0.000134 U	< 0.000310 U	< 0.000692 U	< 0.000490 U
PCB-187	52663-68-0	µg/kg	3.55	2.09	1.55	3.3	1.06	4.9	1.58	1.56	2.64	2.97
PCB-188	74487-85-7	µg/kg	0.00557 J	0.00426 JN	0.00277	0.00364	0.00205	0.00998	0.00239	0.00328	0.00501 JN	0.00717
PCB-189	39635-31-9	µg/kg	0.0596	0.0394	0.0194	0.0287	0.0152	0.144	0.0188	0.0261	0.0360	0.0399
PCB-190	41411-64-7	µg/kg	0.36	0.217	0.156	0.244	0.119	0.719	0.149	0.179	0.217	0.281

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB121	SMB122	SMB123	SMB124	SMB125	SMB126	SMB127	SMB128	SMB129	SMB130
		Sample ID	PDI-TF-SMB121	PDI-TF-SMB122	PDI-TF-SMB123	PDI-TF-SMB124	PDI-TF-SMB125	PDI-TF-SMB126	PDI-TF-SMB127	PDI-TF-SMB128	PDI-TF-SMB129	PDI-TF-SMB130
		Sample Date	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/24/18	8/24/18	9/12/18
Chemical	**CAS**	**Units**										
PCB-191	74472-50-7	µg/kg	0.0707	0.0443	0.0275	0.0482	0.0226	0.153	0.0269	0.0321	0.0399	0.0509
PCB-192	74472-51-8	µg/kg	< 0.000622 U	< 0.000592 U	< 0.000156 U	< 0.000349 U	< 0.000121 U	< 0.000269 U	< 0.000140 U	< 0.000379 U	< 0.000755 U	< 0.000580 U
PCB-194	35694-08-7	µg/kg	0.6 J	0.348 J	0.216 J	0.435	0.166 J	0.639 J	0.188	0.243 J	0.247 J	0.502
PCB-195	52663-78-2	µg/kg	0.287	0.17	0.132	0.182	0.0803	0.376	0.124	0.154	0.163	0.204
PCB-196	42740-50-1	µg/kg	0.371	0.223	0.164 JN	0.248	0.112	0.448	0.152 JN	0.181	0.24	0.245
PCB-197/200	PCB-197/200	µg/kg	0.0849	0.0456	0.0406	0.0592 JN	0.0183 J	0.0816	0.0329	0.0291	0.0450	0.0656
PCB-198/199	PCB-198/199	µg/kg	1.02	0.589	0.52	0.574	0.316	1.13	0.457	0.375	0.604	0.638
PCB-201	40186-71-8	µg/kg	0.0893	0.0596	0.0462	0.0565	0.0333	0.124	0.0434	0.0331	0.0599	0.0715
PCB-202	2136-99-4	µg/kg	0.257	0.159	0.137	0.196	0.0786	0.339	0.118	0.12	0.149	0.227
PCB-203	52663-76-0	µg/kg	0.671	0.367	0.327	0.445	0.187	0.737	0.311	0.305	0.377	0.468
PCB-204	74472-52-9	µg/kg	0.00100 JN	0.000803 JN	0.000928 JN	0.000672 JN	0.000510 JN	0.00178	0.000920	< 0.000325 U	0.000733 J	0.000925 JN
PCB-205	74472-53-0	µg/kg	0.0381	0.0202	0.0153	0.0209	0.00880	0.0361	0.0139	0.0137	0.0151	0.0243
PCB-206	40186-72-9	µg/kg	0.313	0.169	0.133	0.166	0.0693	0.272	0.117	0.109	0.132	0.192
PCB-207	52663-79-3	µg/kg	0.0375	0.0256	0.0199	0.0279	0.00880 J	0.0489	0.0185	0.0213	0.0203	0.0292
PCB-208	52663-77-1	µg/kg	0.107	0.0726	0.0566	0.0709	0.0308	0.108	0.0435	0.0479	0.0623	0.0833
PCB-209	2051-24-3	µg/kg	0.135	0.115	0.0981	0.111	0.0635	0.143	0.0885	0.0829	0.1	0.15
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	99.5	45.1	33.9	46.8	19.4	215	25.6	26.6	39.5	84.2
Pesticides												
2,4-DDD	53-19-0	µg/kg	0.828	0.314	0.563	0.311	0.135 J	0.365	0.159 J	0.128 J	0.304 J	1.84
2,4-DDE	3424-82-6	µg/kg	0.286	0.082 J	0.163 J	0.105 J	0.045 J	0.132 J	0.046 J	0.047 J	0.127 J	0.573
2,4-DDT	789-02-6	µg/kg	0.487 J	0.162 J	0.205 J	0.204 J	0.079 J	0.312 J	0.104 J	0.081 J+	0.228 J	0.817
4,4'-DDD	72-54-8	µg/kg	6.55	2.42	4.23	2.36	1.06	4.37	1.19	1.13 J	2.60 J	11.4
4,4'-DDE	72-55-9	µg/kg	66.9	30.1	31.7	31.1	13.9	51.7	17.2	18.1 J	26.1 J	52.5
4,4'-DDT	50-29-3	µg/kg	4.83 J	1.55 J	1.29 J	2.05 J	0.921 J	4.08 J	1.67 J	1.40 J	2.32 J	5.30
DDx (a)	T_DDx (PDI)	µg/kg	79.9	34.6	38.2	36.1	16.1	61	20.4	20.9	31.7	72.4
alpha-Chlordane	5103-71-9	µg/kg	1.38	0.412	0.749	0.481	0.282 J	1.19	0.512	0.396 J	0.540 J	1.93
cis-Nonachlor	5103-73-1	µg/kg	2.72 J	0.786 J	0.817 J	0.823 J	0.439 J	2.10 J	0.884 J	0.766 J	0.912 J	2.02
Oxychlordane	27304-13-8	µg/kg	1.66	0.397 J	0.582	0.451	0.218 J	0.835	0.496	0.279 J	0.475 J	1.25
trans-Chlordane	5103-74-2	µg/kg	0.344 J	0.111 J	0.264 J	0.119 J	0.075 J	0.262 J	0.102 J	0.090 J	0.143 J	0.730
trans-Nonachlor	39765-80-5	µg/kg	8.30	2.24	2.32	2.70	1.26	6.54	3.29	2.00 J	3.07 J	5.86
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	14.4	3.95	4.73	4.57	2.27	10.9	5.28	3.53	5.14	11.8
Aldrin	309-00-2	µg/kg	< 0.0044 U	< 0.0041 U	0.013 J	0.005 J	< 0.0042 U	< 0.0044 U	< 0.0047 U	< 0.0046 UJ	< 0.0046 UJ	0.019 J
Dieldrin	60-57-1	µg/kg	2.70	0.568	1.12	0.747	0.479	0.711	0.597	0.734 J	1.20 J	2.29
Metals												
Arsenic	7440-38-2	mg/kg	0.08 J	0.09 J	0.09 J	0.10 J	0.15	0.18	0.14	0.13 J	0.15	0.10 J
Mercury	7439-97-6	mg/kg	0.095 J	0.106 J	0.132 J	0.111 J	0.127 J	0.342 J	0.112 J	0.130 J	0.204 J	0.468
Semivolatile Organics												
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	< 20000 U	880 J	< 20000 U	640 J	580 J	< 20000 U	720 J	580 J	< 20000 U	< 20000 U
Hexachlorobenzene	118-74-1	µg/kg	0.897	0.866	1.65	1.14	0.699	1.12	0.787	1.01 J	1.32 J	4.32
Pentachlorophenol (c)	87-86-5	µg/kg	< 1000 U	< 1000 U	< 1000 U	< 990 U	< 1000 U	< 990 U	< 990 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)												
PBDE-7	171977-44-9	µg/kg	0.00106 J	0.000708 J	0.00177 J	0.000583 J	0.000388 JN	0.000408 J	0.000431 J	0.000856 J	0.000936 JN	0.00239 JN
PBDE-8/11	PDBE-8/11	µg/kg	0.000587 JN	0.000579 JN	0.00143 J	0.000385 JN	0.000348 J	0.000427 JN	0.000409 J	0.000615 JN	0.000829 J	0.00311 JN
PBDE-10	51930-04-2	µg/kg	< 0.000398 U	< 0.000232 U	< 0.000345 U	< 0.000269 U	< 0.000189 U	< 0.000199 U	< 0.000305 U	< 0.000305 U	< 0.000431 U	< 0.000427 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00143 JN	0.000632 JN	0.00110 JN	0.000576 JN	0.000394 JN	0.000646 JN	0.000459 JN	0.000578 JN	0.00104 JN	0.00207 J
PBDE-15	2050-47-7	µg/kg	0.0113	0.00753	0.0109	0.00694 J	0.00446 J	0.00742	0.00484 J	0.00737 J	0.0121 J	0.0304
PBDE-17/25	PBDE-17/25	µg/kg	0.0682	0.0526	0.0817	0.0405	0.0276	0.0488	0.0333	0.0334 JN	0.0377 JN	0.167
PBDE-28/33	PBDE-28/33	µg/kg	0.402	0.253	0.312	0.447	0.179	0.507	0.23	0.213	0.291	0.623
PBDE-30	155999-95-4	µg/kg	< 0.00191 U	< 0.00117 U	< 0.00200 U	< 0.00223 U	< 0.000959 U	< 0.00101 U	< 0.000974 U	< 0.00125 U	< 0.00255 U	< 0.00518 U
PBDE-32	189084-60-4	µg/kg	< 0.00150 U	< 0.000915 U	< 0.00155 U	< 0.00173 U	< 0.000743 U	< 0.000780 U	< 0.000755 U	< 0.000989 U	< 0.00200 U	< 0.00397 U
PBDE-35	147217-80-9	µg/kg	0.0120 JN	0.00315 JN	0.00510 JN	0.00486 JN	0.00198 J	0.0117 JN	0.00498 JN	0.00420 JN	0.00450 JN	0.0135 JN
PBDE-37	147217-81-0	µg/kg	0.00996	0.00582 J	0.00697 J	0.00551 J	0.00291 J	0.00572 J	0.00445 J	0.00451 JN	0.0115 JN	0.0220
PBDE-047	5436-43-1	µg/kg	19.8	14.9	10.8	14.7	7.12	24.3	10.4	12.3	14.9	23.4
PBDE-49	243982-82-3	µg/kg	0.747	0.52	0.392	0.414	0.174	0.384	0.278	0.281	0.494	0.979
PBDE-51	189084-57-9	µg/kg	0.0282	0.0199	0.0192	0.0180	0.00795	0.0154	0.00679 J	0.0104 J	0.0189	0.0575

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB121	SMB122	SMB123	SMB124	SMB125	SMB126	SMB127	SMB128	SMB129	SMB130
		Sample ID	PDI-TF-SMB121	PDI-TF-SMB122	PDI-TF-SMB123	PDI-TF-SMB124	PDI-TF-SMB125	PDI-TF-SMB126	PDI-TF-SMB127	PDI-TF-SMB128	PDI-TF-SMB129	PDI-TF-SMB130
		Sample Date	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/24/18	8/24/18	9/12/18
Chemical	CAS	Units										
PBDE-66	189084-61-5	µg/kg	0.255	0.194	0.132	0.203	0.107	0.144	0.168	0.199	0.484	0.376
PBDE-71	189084-62-6	µg/kg	0.0258	0.0208	0.0203	0.0152	0.00699 JN	0.0125	0.00977	0.0119 J	0.0340 JN	0.0397
PBDE-75	189084-63-7	µg/kg	0.0216 JN	0.0135	0.0112	0.0126	0.00733	0.0114 JN	0.00902	0.0102 J	0.0455	0.0287
PBDE-77	93703-48-1	µg/kg	0.00374 J	0.00303 JN	0.00148 J	0.00245 J	0.00202 JN	0.00281 JN	0.00292 J	< 0.000144 U	< 0.000144 U	< 0.000143 U
PBDE-79	PBDE-79	µg/kg	0.0585 JN	0.0423 JN	0.0395 JN	0.0355 JN	0.0248 JN	0.0493 JN	0.0408 JN	0.0272 JN	0.0383 JN	0.0201
PBDE-85	182346-21-0	µg/kg	< 0.00510 U	< 0.00227 U	< 0.00207 U	< 0.00279 U	< 0.00136 U	< 0.00167 U	< 0.00181 U	< 0.00258 U	0.0132 J	< 0.00374 U
PBDE-099	60348-60-9	µg/kg	8.28	5.42	3.27	5.83	2.93	3.62	4.59	4.79	18	7.97
PBDE-100	189084-64-8	µg/kg	5.13	3.58	2.24	3.5	1.45	4.56	2.41	2.29	5.59	4.71
PBDE-105	373594-78-6	µg/kg	< 0.00674 U	< 0.00300 U	< 0.00273 U	< 0.00368 U	< 0.00179 U	< 0.00219 U	< 0.00239 U	< 0.00331 U	< 0.0135 U	< 0.00442 U
PBDE-116	189084-65-9	µg/kg	< 0.0105 U	< 0.00468 U	< 0.00414 U	< 0.00558 U	< 0.00272 U	< 0.00333 U	< 0.00362 U	< 0.00434 U	< 0.0149 U	< 0.00598 U
PBDE-119/120	PBDE-119/120	µg/kg	0.141	0.0506	0.0428	0.0570	0.0359	0.0702	0.0478	0.0434	0.0816	0.0996
PBDE-126	366791-32-4	µg/kg	0.0248	0.00941	0.00616 J	0.0123	0.00240 J	0.00799	0.00547 J	0.00338 J	0.0245	0.0134 J
PBDE-128	182677-28-7	µg/kg	0.0202 JN	0.00374 JN	0.00415 JN	0.00405 JN	0.00245 JN	0.00340 JN	0.00525 JN	0.00380 JN	0.00507 JN	0.00610 JN
PBDE-138/166	PBDE-138/166	µg/kg	0.00176 J	0.000906 JN	0.00105 J	0.000860 J	0.000444 J	0.000291 JN	< 0.00150 U	0.00185 JN	0.0249	0.00179 J
PBDE-140	243982-83-4	µg/kg	0.0272	0.00950	0.00771	0.0102 J	0.00469 J	0.00672 JN	0.0107 J	0.0114 J	0.124	0.0144 J
PBDE-153	68631-49-2	µg/kg	1.86	0.88	0.56	0.918 J	0.624	1.2	0.839	0.845	4.96	1.16
PBDE-154	207122-15-4	µg/kg	1.65	0.783	0.508	0.764 J	0.343 J	0.987 J	0.617	0.542	3.22	0.994 J
PBDE-155	35854-94-5	µg/kg	0.198	0.0779	0.0504	0.0892 J	0.0159 J	0.0729 J	0.0385 J	0.0293	0.149	0.0863 J
PBDE-181	189084-67-1	µg/kg	0.00126 JN	0.000269 JN	0.000577 JN	0.000366 JN	0.000270 JN	0.000260 JN	0.000633 J	< 0.000873 U	< 0.000624 U	< 0.000143 U
PBDE-183	207122-16-5	µg/kg	0.0264	0.00845	0.00657 J	0.0104	0.00367 J	0.00349 J	0.00621 J	0.00739 JN	0.0788	0.0333
PBDE-190	189084-68-2	µg/kg	< 0.00187 U	0.000260 J	< 0.000146 U	0.000420 JN	0.000331 JN	< 0.000146 U	0.000174 JN	< 0.000216 U	0.00203 JN	0.000784 JN
PBDE-203	337513-72-1	µg/kg	0.00360 JN	0.00141 J	0.000746 JN	0.00213 JN	0.000501 JN	0.000528 JN	0.000650 JN	< 0.00341 U	< 0.00199 U	0.00213 JN
PBDE-206	63387-28-0	µg/kg	< 0.000250 U	0.00248 J+	0.00118 JN	0.00331 JN	0.00115 JN	0.000588 JN	0.000923 JN	< 0.00317 U	< 0.000705 U	0.00166 JN
PBDE-207	437701-79-6	µg/kg	< 0.00228 U	0.00252 JN	0.00259 JN	0.00733 J+	0.00381 JN	< 0.00135 U	< 0.00152 U	< 0.00325 U	0.00547 JN	< 0.00226 U
PBDE-208	437701-78-5	µg/kg	< 0.00139 U	0.00389 JN	0.00322 JN	0.00611 JN	0.00354 JN	< 0.00134 U	0.00203 JN	< 0.00447 U	< 0.000640 U	0.00202 JN
PBDE-209	1163-19-5	µg/kg	0.0143 JN	0.0214 JN	0.0196 JN	0.0995 JN	0.0328 J+	0.0106 JN	0.00984 J+	< 0.0477 U	< 0.0252 U	0.0295 J+
Total PBDE (a)	T_PBDE (PDI)	µg/kg	38.8	26.9	18.6	27.2	13.1	36	19.8	21.7	48.7	40.9

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment										
		Location	SMB121	SMB122	SMB123	SMB124	SMB125	SMB126	SMB127	SMB128	SMB129	SMB130
		Sample ID	PDI-TF-SMB121	PDI-TF-SMB122	PDI-TF-SMB123	PDI-TF-SMB124	PDI-TF-SMB125	PDI-TF-SMB126	PDI-TF-SMB127	PDI-TF-SMB128	PDI-TF-SMB129	PDI-TF-SMB130
		Sample Date	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/14/18	8/24/18	8/24/18	9/12/18
Chemical	**CAS**	**Units**										
Physical Parameters												
Lipids	LIPID	%	4.20	3.86	4.78	5.27	3.56	3.90	4.52	6.12	5.13	7.86
Total Solids@104C	TSOLID	%	26.2	26.5	25.4	27.7	24.5	25.9	25.6	27.1	25.7	30.2

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment					
		Location	SMB131	SMB132	SMB133	SMB134	SMB135
		Sample ID	PDI-TF-SMB131	PDI-TF-SMB132	PDI-TF-SMB133	PDI-TF-SMB134	PDI-TF-SMB135
		Sample Date	8/14/18	9/9/18	9/12/18	8/14/18	8/14/18
Chemical	**CAS**	**Units**					
Dioxins and Furans							
1,2,3,4,6,7,8-HpCDD	35822-46-9	µg/kg	0.000189 JN	0.000771 J	0.0000893 JN	0.000150 JN	0.000142 JN
1,2,3,4,6,7,8-HpCDF	67562-39-4	µg/kg	< 0.0000794 U	0.000153 JN	< 0.0000733 U	< 0.0000811 U	< 0.0000702 U
1,2,3,4,7,8,9-HpCDF	55673-89-7	µg/kg	< 0.0000794 U	< 0.0000698 U	< 0.0000733 U	< 0.0000811 U	< 0.0000702 U
1,2,3,4,7,8-HxCDD	39227-28-6	µg/kg	0.0000940 JN	0.000173 J	< 0.0000733 U	0.0000850 JN	< 0.0000702 U
1,2,3,4,7,8-HxCDF	70648-26-9	µg/kg	< 0.0000794 U	0.000134 J	< 0.0000733 U	0.000170 J	0.000106 JN
1,2,3,6,7,8-HxCDD	57653-85-7	µg/kg	0.000316 JN	0.000597 JN	0.000309 JN	0.000334 JN	0.000283 JN
1,2,3,6,7,8-HxCDF	57117-44-9	µg/kg	< 0.0000794 U	< 0.0000698 U	< 0.0000733 U	0.000106 JN	< 0.0000702 U
1,2,3,7,8,9-HxCDD	19408-74-3	µg/kg	< 0.0000794 U	< 0.000671 U	< 0.0000733 U	< 0.0000811 U	< 0.0000702 U
1,2,3,7,8,9-HxCDF	72918-21-9	µg/kg	< 0.0000794 U	< 0.0000698 U	< 0.0000733 U	< 0.0000811 U	< 0.0000702 U
1,2,3,7,8-PeCDD	40321-76-4	µg/kg	0.000371 J	0.000464 JN	0.000669 J	0.00114 J	0.000346 JN
1,2,3,7,8-PeCDF	57117-41-6	µg/kg	0.0000872 J	0.000180 J	0.000214 JN	0.000238 J	0.000173 J
2,3,4,6,7,8-HxCDF	60851-34-5	µg/kg	< 0.0000794 U	< 0.0000698 U	< 0.0000733 U	< 0.0000811 U	< 0.0000702 U
2,3,4,7,8-PeCDF	57117-31-4	µg/kg	0.000165 J	0.000253 J	0.000398 J	0.000651 JN	0.000323 J
2,3,7,8-TCDD	1746-01-6	µg/kg	0.000304 J	0.000220 J	0.000232 J	0.000305 J	0.000185 JN
2,3,7,8-TCDF	51207-31-9	µg/kg	0.000376	0.000746 J	0.000522	0.000410 JN	0.000636
OCDD	3268-87-9	µg/kg	0.000216 JN	0.000816 J	0.000140 JN	0.000469 J	0.000250 J+
OCDF	39001-02-0	µg/kg	< 0.0000794 U	< 0.0000698 U	< 0.0000733 U	< 0.0000811 U	< 0.0000702 U
TCDD-TEQ (a)	T_DF_TEQ (PDI)	µg/kg	0.000812	0.000973	0.00111	0.00176	0.000741
TCDD-TEQ (EMPC=half) (b)	T_DF_TEQ(E_0.5	µg/kg	0.000781	0.000647	0.00109	0.00161	0.000339
TCDD-TEQ (EMPC=0) (b)	T_DF_TEQ(E_0)	µg/kg	0.000765	0.000415	0.00107	0.00151	0.000166
Polychlorinated Biphenyls (PCBs)							
PCB-1	2051-60-7	µg/kg	0.00365	0.00293	0.00249 J	0.00220	0.00303
PCB-2	2051-61-8	µg/kg	0.00115	0.00133 J+	0.00102 J+	0.000983 JN	0.000933 J+
PCB-3	2051-62-9	µg/kg	0.00119 J+	0.00168 JN	0.00131 JN	0.00221 J+	0.00152 J+
PCB-4	13029-08-8	µg/kg	0.0205	0.0194	0.0124	0.0121	0.0159
PCB-5	16605-91-7	µg/kg	0.000295 J	< 0.00356 U	< 0.00271 U	< 0.000263 U	< 0.000173 U
PCB-6	25569-80-6	µg/kg	0.00568	0.00618	0.00380 JN	0.00361	0.00423
PCB-7	33284-50-3	µg/kg	0.000949	< 0.00320 U	< 0.00246 U	0.000703	0.000782
PCB-8	34883-43-7	µg/kg	0.0204	0.0226	0.0122	0.0134	0.0142
PCB-9	34883-39-1	µg/kg	0.00147	< 0.00314 U	< 0.00238 U	0.000858	0.000928
PCB-10	33146-45-1	µg/kg	0.000902	< 0.00327 U	< 0.00247 U	0.000526 J	0.000724
PCB-11	2050-67-1	µg/kg	0.0846	0.18	0.0887	0.0884	0.107
PCB-12/13	PCB-12/13	µg/kg	0.00110 JN	< 0.00343 U	< 0.00250 U	< 0.000241 U	0.00124 JN
PCB-14	34883-41-5	µg/kg	< 0.000124 U	< 0.00329 U	< 0.00246 U	< 0.000235 U	< 0.000162 U
PCB-15	2050-68-2	µg/kg	0.00505	0.00818	< 0.00300 U	0.00362	0.00543
PCB-16	38444-78-9	µg/kg	0.0141	0.0198	0.00766 JN	0.00831	0.0102
PCB-17	37680-66-3	µg/kg	0.0336	0.0428	0.0158	0.0151	0.0207
PCB-18/30	PCB-18/30	µg/kg	0.0536	0.0679	0.0311	0.0281	0.0398
PCB-19	38444-73-4	µg/kg	0.00820 JN	0.0123	0.00601 J+	0.00430	0.00608
PCB-20/28	PCB-20/28	µg/kg	0.192	0.252	0.126	0.13	0.186
PCB-21/33	PCB-21/33	µg/kg	0.0366	0.0536	0.0181	0.0164	0.0216
PCB-22	38444-85-8	µg/kg	0.0355	0.0460	0.0182	0.0182	0.0219
PCB-23	55720-44-0	µg/kg	< 0.000716 U	< 0.000937 U	< 0.000639 U	< 0.000191 U	< 0.000202 U
PCB-24	55702-45-9	µg/kg	0.000786 JN	0.000976 J	0.000444 JN	0.000413 JN	0.000614 JN
PCB-25	55712-37-3	µg/kg	0.0101	0.0144	0.00657	0.00718	0.00774
PCB-26/29	PCB-26/29	µg/kg	0.0258	0.0380	0.0166	0.0178	0.0229
PCB-27	38444-76-7	µg/kg	0.00601	0.00853	0.00355	0.00317	0.00427
PCB-31	16606-02-3	µg/kg	0.0957	0.133	0.0532	0.0551	0.0726
PCB-32	38444-77-8	µg/kg	0.0177	0.0196	0.00703	0.00756	0.0101
PCB-34	37680-68-5	µg/kg	0.000933 JN	0.00169 JN	< 0.000642 U	0.000645 JN	0.000807
PCB-35	37680-69-6	µg/kg	< 0.000687 U	< 0.000916 U	< 0.000673 U	< 0.000162 U	< 0.000187 U
PCB-36	38444-87-0	µg/kg	< 0.000629 U	< 0.000868 U	< 0.000622 U	< 0.000160 U	< 0.000175 U
PCB-37	38444-90-5	µg/kg	0.0117	0.0227	0.0140	0.00829	0.0108
PCB-38	53555-66-1	µg/kg	< 0.000658 U	< 0.000937 U	< 0.000615 U	0.000237 JN	0.000411 JN

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment					
		Location	SMB131	SMB132	SMB133	SMB134	SMB135
		Sample ID	PDI-TF-SMB131	PDI-TF-SMB132	PDI-TF-SMB133	PDI-TF-SMB134	PDI-TF-SMB135
		Sample Date	8/14/18	9/9/18	9/12/18	8/14/18	8/14/18
Chemical	CAS	Units					
PCB-39	38444-88-1	µg/kg	0.00121 JN	0.00205 J	0.00101 J	0.00106	0.00127
PCB-40/41/71	PCB-40/41/71	µg/kg	0.0960	0.128	0.0552	0.0545	0.0749
PCB-42	36559-22-5	µg/kg	0.0664	0.0747	0.0368	0.0383	0.0551
PCB-43	70362-46-8	µg/kg	0.0126	0.0180	0.00788 JN	0.00678	0.0103
PCB-44/47/65	PCB-44/47/65	µg/kg	0.393	0.544	0.261	0.31	0.64
PCB-45/51	PCB-45/51	µg/kg	0.0280	0.0344	0.0144	0.0195	0.0204
PCB-46	41464-47-5	µg/kg	0.00618	0.00799	0.00331	0.00346	0.00346
PCB-48	70362-47-9	µg/kg	0.0442	0.0581	0.0227	0.0235	0.0327
PCB-49/69	PCB-49/69	µg/kg	0.31	0.449	0.177	0.202	0.382
PCB-50/53	PCB-50/53	µg/kg	0.0257	0.0307	0.0175	0.0199	0.0204
PCB-52	35693-99-3	µg/kg	0.675	0.963	0.357	0.358	0.627
PCB-54	15968-05-5	µg/kg	0.000850	0.00144 J	< 0.000523 U	0.000596 JN	0.000547 J
PCB-55	74338-24-2	µg/kg	< 0.000421 U	< 0.000997 U	< 0.00301 U	< 0.00209 U	< 0.000500 U
PCB-56	41464-43-1	µg/kg	0.0647	0.0734	0.0345	0.0330	0.0427
PCB-57	70424-67-8	µg/kg	0.00156	0.00220 JN	< 0.00278 U	< 0.00204 U	0.00209
PCB-58	41464-49-7	µg/kg	0.00195	0.00268 J	< 0.00291 U	< 0.00214 U	0.00226
PCB-59/62/75	PCB-59/62/75	µg/kg	0.0298	0.0389	0.0177	0.0217	0.0388
PCB-60	33025-41-1	µg/kg	0.108	0.123	0.0678	0.0712	0.16
PCB-61/70/74/76	PCB-61/70/74/76	µg/kg	0.77	1	0.582	0.6	0.931
PCB-63	74472-34-7	µg/kg	0.0308	0.0378	0.0350	0.0411	0.0543
PCB-64	52663-58-8	µg/kg	0.172	0.202	0.0784	0.0827	0.148
PCB-66	32598-10-0	µg/kg	0.6	0.765	0.565	0.559 J	0.919
PCB-67	73575-53-8	µg/kg	0.00696	0.00891	0.00557 JN	0.00483	0.00547 JN
PCB-68	73575-52-7	µg/kg	0.0119	0.0132	0.0136	0.0146	0.0192
PCB-72	41464-42-0	µg/kg	0.0108	0.0162	0.00894 JN	0.0118	0.0220
PCB-73	74338-23-1	µg/kg	< 0.0000960 U	0.0138	0.00289 JN	< 0.0000819 U	< 0.0000702 U
PCB-77	32598-13-3	µg/kg	0.0283	0.0325	0.0310	0.0230	0.0241
PCB-78	70362-49-1	µg/kg	< 0.000417 U	< 0.00101 U	< 0.00301 U	< 0.00198 U	< 0.000503 U
PCB-79	41464-48-6	µg/kg	0.0122	0.0118	0.00840	0.00885	0.0118 JN
PCB-80	33284-52-5	µg/kg	0.000605 JN	< 0.000936 U	< 0.00272 U	< 0.00190 U	0.00104
PCB-81	70362-50-4	µg/kg	0.00156 JN	0.00110 JN	< 0.00287 U	< 0.00164 U	0.00139 JN
PCB-82	52663-62-4	µg/kg	0.0806	0.0479	0.0349	0.0306	0.0593
PCB-83/99	PCB-83/99	µg/kg	1.44	2.34	1.38	1.43	3.56
PCB-84	52663-60-2	µg/kg	0.113	0.105	0.0714	0.0661	0.109
PCB-85/116/117	PCB-85/116/117	µg/kg	0.478	0.651	0.348	0.408	0.945
PCB-86/87/97/108/119/125	PCB-86/87/97/_C	µg/kg	0.876 J	0.906	0.459	0.416 J	1.03 J
PCB-88/91	PCB-88/91	µg/kg	0.135	0.127	0.0734	0.0751	0.17
PCB-89	73575-57-2	µg/kg	0.00407	0.00405	< 0.00144 U	0.00156	0.00233 J
PCB-90/101/113	PCB-90/101/113	µg/kg	1.68	2.04	0.984	0.988	2.32
PCB-92	52663-61-3	µg/kg	0.33	0.448	0.2	0.195	0.583
PCB-93/95/98/100/102	PCB-93/95/98/_C	µg/kg	0.673	0.854	0.428	0.417	0.918
PCB-94	73575-55-0	µg/kg	0.00165	0.00181 JN	< 0.00147 U	0.00185 JN	0.00227 JN
PCB-96	73575-54-9	µg/kg	0.00252	0.00538	0.00167 J	0.00219	0.00317
PCB-103	60145-21-3	µg/kg	0.0106	0.0240	0.0103	0.0119	0.0295
PCB-104	56558-16-8	µg/kg	< 0.000208 U	0.000749 J	< 0.000444 U	0.000345 JN	0.000464 J
PCB-105	32598-14-4	µg/kg	0.77	1.17	0.884	0.649	1.41
PCB-106	70424-69-0	µg/kg	< 0.00246 U	< 0.00658 U	< 0.00333 U	< 0.00475 U	< 0.00745 U
PCB-107/124	PCB-107/124	µg/kg	0.0642	0.0787	0.0471	0.0428	0.0634
PCB-109	74472-35-8	µg/kg	0.194	0.316	0.358	0.401	0.378
PCB-110/115	PCB-110/115	µg/kg	1.46	1.39	0.674	0.596	1.55
PCB-111	39635-32-0	µg/kg	0.00324	0.00416	0.00337 JN	0.00535	0.0114
PCB-112	74472-36-9	µg/kg	< 0.000498 U	< 0.000822 U	< 0.000985 U	< 0.000275 U	< 0.00107 U
PCB-114	74472-37-0	µg/kg	0.0585	0.0959	0.128	0.143	0.125
PCB-118	31508-00-6	µg/kg	2.42	3.63	4.08	3.7	4.39
PCB-120	68194-12-7	µg/kg	0.0131	0.0186	0.0153	0.0203	0.0310

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment					
		Location	SMB131	SMB132	SMB133	SMB134	SMB135
		Sample ID	PDI-TF-SMB131	PDI-TF-SMB132	PDI-TF-SMB133	PDI-TF-SMB134	PDI-TF-SMB135
		Sample Date	8/14/18	9/9/18	9/12/18	8/14/18	8/14/18
Chemical	CAS	Units					
PCB-121	56558-18-0	µg/kg	0.00194	0.00318	0.00200 J	0.00213	0.00694
PCB-122	76842-07-4	µg/kg	0.00893	0.0112	0.00499 JN	< 0.00529 U	0.0137
PCB-123	65510-44-3	µg/kg	0.0459 JN	0.0562	0.0898 JN	0.0858 JN	0.0671 JN
PCB-126	57465-28-8	µg/kg	0.00480 JN	0.00929 JN	0.00461 JN	0.00580 JN	< 0.00631 U
PCB-127	39635-33-1	µg/kg	0.00697	0.0144	0.0137	0.0173	0.0132 JN
PCB-128/166	PCB-128/166	µg/kg	0.597	0.929	0.595	0.523	1.61
PCB-129/138/160/163	PCB-129/138/_C	µg/kg	4.66	6.57	5.14	4.97	11.6
PCB-130	52663-66-8	µg/kg	0.175	0.216	0.216	0.193	0.313
PCB-131	61798-70-7	µg/kg	0.0143	0.0126	0.00809 JN	0.00944	0.0207
PCB-132	38380-05-1	µg/kg	0.361	0.232	0.22	0.192	0.613
PCB-133	35694-04-3	µg/kg	0.0765	0.114	0.107	0.128	0.21
PCB-134/143	PCB-134/143	µg/kg	0.0656	0.0625	0.0473	0.0415	0.109
PCB-135/151/154	PCB-135/151/154	µg/kg	0.604	0.878	0.578	0.531	1.85
PCB-136	38411-22-2	µg/kg	0.0941	0.137	0.0864	0.0844	0.237
PCB-137	35694-06-5	µg/kg	0.21	0.391	0.532	0.635	0.505
PCB-139/140	PCB-139/140	µg/kg	0.0609	0.0914	0.0456	0.0543	0.159
PCB-141	52712-04-6	µg/kg	0.413	0.529	0.272	0.242	0.819
PCB-142	41411-61-4	µg/kg	< 0.00216 U	< 0.00329 U	< 0.00496 U	< 0.00220 U	< 0.00706 U
PCB-144	68194-14-9	µg/kg	0.0674	0.0817	0.0667	0.0523	0.167
PCB-145	74472-40-5	µg/kg	< 0.000255 U	< 0.000749 U	< 0.000371 U	< 0.000143 U	< 0.000111 U
PCB-146	51908-16-8	µg/kg	0.81	1.27	1.63	1.64	2.27
PCB-147/149	PCB-147/149	µg/kg	1.21	1.04	1.02	0.852	2.95
PCB-148	74472-41-6	µg/kg	0.00460	0.00811	0.00615 JN	0.00530	0.0206
PCB-150	68194-08-1	µg/kg	0.00215	0.00367	0.00315	0.00251 JN	0.00847
PCB-152	68194-09-2	µg/kg	0.00110 JN	0.00226 J	0.000737 JN	0.000957 JN	0.00264 JN
PCB-153/168	PCB-153/168	µg/kg	4.62	7.54	6.26	7.13	13.1
PCB-155	33979-03-2	µg/kg	0.00858	0.0107	0.00866	0.00869	0.0184
PCB-156/157	PCB-156/157	µg/kg	0.461	0.769	0.892	1.05	1.08
PCB-158	74472-42-7	µg/kg	0.345	0.527	0.305	0.287	0.869
PCB-159	39635-35-3	µg/kg	0.0132	0.0164	< 0.00347 U	0.0109	0.0389
PCB-161	74472-43-8	µg/kg	< 0.00141 U	< 0.00230 U	< 0.00326 U	< 0.00151 U	< 0.00504 U
PCB-162	39635-34-2	µg/kg	0.0190	0.0291	0.0190	0.0371	0.0338
PCB-164	74472-45-0	µg/kg	0.146	0.188	0.106	0.0954	0.252
PCB-165	74472-46-1	µg/kg	0.00255	0.00397 JN	< 0.00393 U	0.00531	0.00830
PCB-167	52663-72-6	µg/kg	0.194	0.271	0.379	0.439	0.319
PCB-169	32774-16-6	µg/kg	< 0.00508 U	< 0.00890 U	< 0.00561 U	< 0.00399 U	< 0.0117 U
PCB-170	35065-30-6	µg/kg	0.682	1.11	0.793	0.719	1.88
PCB-171/173	PCB-171/173	µg/kg	0.195	0.266	0.182	0.177	0.672
PCB-172	52663-74-8	µg/kg	0.154	0.199	0.184	0.155	0.398
PCB-174	38411-25-5	µg/kg	0.283	0.261	0.296	0.235	0.936
PCB-175	40186-70-7	µg/kg	0.0266	0.0307	0.0376	0.0338	0.0831
PCB-176	52663-65-7	µg/kg	0.0291	0.0258	0.0311	0.0255	0.103
PCB-177	52663-70-4	µg/kg	0.227	0.271	0.386	0.389	0.672
PCB-178	52663-67-9	µg/kg	0.22	0.302	0.274	0.272	0.646
PCB-179	52663-64-6	µg/kg	0.136	0.161	0.119	0.109	0.407
PCB-180/193	PCB-180/193	µg/kg	2.39	3.82	3.92	4.02	6.35
PCB-181	74472-47-2	µg/kg	0.00833	0.0149	0.0150	0.0228	0.0211
PCB-182	60145-23-5	µg/kg	0.00772 JN	< 0.000735 U	< 0.000472 U	< 0.000226 U	0.0196 JN
PCB-183/185	PCB-183/185	µg/kg	0.544	0.755	0.665	0.613	1.78
PCB-184	74472-48-3	µg/kg	0.0122	0.0124	0.0103	0.0115	0.0215 JN
PCB-186	74472-49-4	µg/kg	< 0.000358 U	< 0.000611 U	< 0.000386 U	< 0.000195 U	< 0.000223 U
PCB-187	52663-68-0	µg/kg	1.97	2.48	3.47	2.69	5.56
PCB-188	74487-85-7	µg/kg	0.00351 JN	0.00411 JN	0.00452	0.00499	0.00918
PCB-189	39635-31-9	µg/kg	0.0221	0.0417	0.0429	0.0400	0.0514
PCB-190	41411-64-7	µg/kg	0.183	0.285	0.221	0.22	0.546

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach Segment	Upriver	Upriver	Upriver	Upriver	Upriver
		Location	SMB131	SMB132	SMB133	SMB134	SMB135
		Sample ID	PDI-TF-SMB131	PDI-TF-SMB132	PDI-TF-SMB133	PDI-TF-SMB134	PDI-TF-SMB135
		Sample Date	8/14/18	9/9/18	9/12/18	8/14/18	8/14/18
Chemical	**CAS**	**Units**					
PCB-191	74472-50-7	µg/kg	0.0345 JN	0.0493	0.0539	0.0486	0.0999
PCB-192	74472-51-8	µg/kg	< 0.000415 U	< 0.000712 U	< 0.000457 U	< 0.000203 U	< 0.000259 U
PCB-194	35694-08-7	µg/kg	0.314 J	0.433 J	0.53	0.312 J	0.777 J
PCB-195	52663-78-2	µg/kg	0.138	0.206	0.179	0.164	0.396
PCB-196	42740-50-1	µg/kg	0.189	0.244	0.282	0.225	0.543
PCB-197/200	PCB-197/200	µg/kg	0.0328	0.0399	0.0445	0.0379	0.11
PCB-198/199	PCB-198/199	µg/kg	0.413	0.506	0.735	0.578	1.03
PCB-201	40186-71-8	µg/kg	0.0360	0.0509	0.0829	0.0793	0.109
PCB-202	2136-99-4	µg/kg	0.139	0.201	0.174	0.165	0.325
PCB-203	52663-76-0	µg/kg	0.348	0.429	0.315	0.309	0.81
PCB-204	74472-52-9	µg/kg	0.00123 JN	0.000630 J	0.000898 JN	0.000956	0.00116 JN
PCB-205	74472-53-0	µg/kg	0.0143	0.0222	0.0174	0.0140	0.0371
PCB-206	40186-72-9	µg/kg	0.133	0.197	0.128	0.113	0.266
PCB-207	52663-79-3	µg/kg	0.0217	0.0337	0.0294	0.0294	0.0464
PCB-208	52663-77-1	µg/kg	0.0508	0.0726	0.0664	0.0560	0.0917
PCB-209	2051-24-3	µg/kg	0.0812	0.124	0.0928	0.0928	0.13
Total PCBs (a)	T_PCBCg (PDI)	µg/kg	39.4	54.6	45.1	43.9	86.8
Pesticides							
2,4-DDD	53-19-0	µg/kg	0.590	0.503	0.336	0.193 J	0.249
2,4-DDE	3424-82-6	µg/kg	0.145 J	0.158 J	0.080 J	0.088 J	0.180 J
2,4-DDT	789-02-6	µg/kg	0.389 J	0.359	0.195 J	0.147 J	0.232 J
4,4'-DDD	72-54-8	µg/kg	3.31	3.19	2.15	1.65	2.89
4,4'-DDE	72-55-9	µg/kg	25.4	24.1	27.8	25.0	46.7
4,4'-DDT	50-29-3	µg/kg	2.66 J	3.02	1.74	1.64 J	3.17 J
DDx (a)	T_DDx (PDI)	µg/kg	32.5	31.3	32.3	28.7	53.4
alpha-Chlordane	5103-71-9	µg/kg	1.20	1.28	0.369 J	0.411 J	0.677
cis-Nonachlor	5103-73-1	µg/kg	2.04 J	1.22	0.691	0.787 J	1.21 J
Oxychlordane	27304-13-8	µg/kg	1.02	0.617	0.259 J	0.298 J	0.629
trans-Chlordane	5103-74-2	µg/kg	0.327 J	0.391 J	0.089 J	0.084 J	0.136 J
trans-Nonachlor	39765-80-5	µg/kg	6.16	3.68	1.99	2.04	3.44
Total Chlordanes (a)	T_Clrdn (PDI)	µg/kg	10.7	7.19	3.4	3.62	6.09
Aldrin	309-00-2	µg/kg	< 0.0049 U	0.019 J	< 0.0046 U	< 0.0049 U	< 0.0045 U
Dieldrin	60-57-1	µg/kg	1.43	1.45	0.660	0.552	0.783
Metals							
Arsenic	7440-38-2	mg/kg	0.08 J	0.16	0.18	0.18	0.29
Mercury	7439-97-6	mg/kg	0.113 J	0.139 J	0.128 J	0.145 J	0.137 J
Semivolatile Organics							
Bis(2-ethylhexyl)phthalate (c)	117-81-7	µg/kg	1100 J	< 20000 U	< 20000 U	930 J	820 J
Hexachlorobenzene	118-74-1	µg/kg	1.60	2.15	0.829	1.06	1.39
Pentachlorophenol (c)	87-86-5	µg/kg	< 990 U	< 1000 U	< 1000 U	< 1000 U	< 1000 U
Polybrominated Diphenyl Ethers (PBDEs)							
PBDE-7	171977-44-9	µg/kg	0.00672 J	0.00129 J	0.00112 JN	0.000527 JN	0.000910 JN
PBDE-8/11	PDBE-8/11	µg/kg	0.00157 J	0.00115 J	0.000635 JN	0.000460 JN	0.000653 JN
PBDE-10	51930-04-2	µg/kg	< 0.000237 U	< 0.000872 U	< 0.000572 U	< 0.000266 U	< 0.000324 U
PBDE-12/13	PBDE-12/13	µg/kg	0.00119 JN	0.00122 JN	< 0.000387 U	0.000671 JN	0.000661 JN
PBDE-15	2050-47-7	µg/kg	0.00972	0.0144	0.00565 J	0.00502 J	0.00900
PBDE-17/25	PBDE-17/25	µg/kg	0.0739	0.0727 JN	0.0462	0.0410	0.0541
PBDE-28/33	PBDE-28/33	µg/kg	0.41	0.367	0.318	0.259	0.518
PBDE-30	155999-95-4	µg/kg	< 0.00168 U	< 0.00202 U	< 0.00247 U	< 0.000960 U	< 0.00139 U
PBDE-32	189084-60-4	µg/kg	< 0.00130 U	< 0.00160 U	< 0.00190 U	< 0.000744 U	< 0.00109 U
PBDE-35	147217-80-9	µg/kg	0.00919 JN	0.00918 JN	0.00525 JN	0.00393 JN	0.00686 JN
PBDE-37	147217-81-0	µg/kg	0.00663 J	0.0108 J	0.00665 J	0.00426 JN	0.00656 J
PBDE-047	5436-43-1	µg/kg	15.7	18.6	16	10.8	23.8
PBDE-49	243982-82-3	µg/kg	0.418	0.316	0.535	0.274	0.582
PBDE-51	189084-57-9	µg/kg	0.0199	0.0165	0.0267	0.0120	0.0215

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment					
		Location	SMB131	SMB132	SMB133	SMB134	SMB135
		Sample ID	PDI-TF-SMB131	PDI-TF-SMB132	PDI-TF-SMB133	PDI-TF-SMB134	PDI-TF-SMB135
		Sample Date	8/14/18	9/9/18	9/12/18	8/14/18	8/14/18
Chemical	CAS	Units					
PBDE-66	189084-61-5	µg/kg	0.216	0.154	0.566	0.153	0.306
PBDE-71	189084-62-6	µg/kg	0.0126 JN	0.0185	0.0297	0.00874	0.0217 JN
PBDE-75	189084-63-7	µg/kg	0.0152	0.0153	0.0205	0.0112	0.0161
PBDE-77	93703-48-1	µg/kg	0.00383 JN	0.00291 JN	< 0.000147 U	0.00162 J	0.00458 J
PBDE-79	PBDE-79	µg/kg	0.0429 JN	0.0276 JN	0.0307 JN	0.0396 JN	0.0443 JN
PBDE-85	182346-21-0	µg/kg	< 0.00217 U	< 0.00332 U	< 0.00426 U	< 0.00246 U	< 0.00188 U
PBDE-099	60348-60-9	µg/kg	5.47	2.97	7.39	4.14	3.82
PBDE-100	189084-64-8	µg/kg	2.71	2.39	3.74	2.11	4.01
PBDE-105	373594-78-6	µg/kg	< 0.00285 U	< 0.00401 U	< 0.00504 U	< 0.00324 U	< 0.00248 U
PBDE-116	189084-65-9	µg/kg	< 0.00432 U	< 0.00539 U	< 0.00683 U	< 0.00491 U	< 0.00387 U
PBDE-119/120	PBDE-119/120	µg/kg	0.0622	0.0581	0.105	0.0625	0.0839
PBDE-126	366791-32-4	µg/kg	0.00926 JN	0.00392 J	0.00902 J	0.00465 JN	0.00925
PBDE-128	182677-28-7	µg/kg	< 0.0631 U	0.00375 JN	0.00483 JN	0.00446 JN	0.00489 JN
PBDE-138/166	PBDE-138/166	µg/kg	< 0.0121 U	0.00108 JN	0.000679 JN	0.00130 JN	0.000531 J
PBDE-140	243982-83-4	µg/kg	0.0130 J	0.00670 J	0.0182 J	0.0128	0.00672 J
PBDE-153	68631-49-2	µg/kg	0.991	0.916	1.31 J	1.02	1.19
PBDE-154	207122-15-4	µg/kg	0.679	0.457	1.01 J	0.674	0.812
PBDE-155	35854-94-5	µg/kg	0.0846	0.0294	0.0709 J	0.0325	0.0768
PBDE-181	189084-67-1	µg/kg	0.000363 JN	0.000742 J	0.000617 JN	0.000421 J	0.000488 JN
PBDE-183	207122-16-5	µg/kg	0.0129	0.00673 JN	0.00942 JN	0.00746 J	0.00588 JN
PBDE-190	189084-68-2	µg/kg	< 0.000526 U	0.000141 JN	< 0.000235 U	0.000322 JN	< 0.000140 U
PBDE-203	337513-72-1	µg/kg	0.00199 JN	0.000891 JN	0.00121 JN	0.00177 J	0.00119 JN
PBDE-206	63387-28-0	µg/kg	0.000700 JN	< 0.000864 U	0.00191 JN	0.00112 JN	0.00153 JN
PBDE-207	437701-79-6	µg/kg	< 0.00114 U	0.00208 JN	0.00407 JN	0.00253 JN	< 0.00218 U
PBDE-208	437701-78-5	µg/kg	< 0.00104 U	0.000926 JN	0.00491 J+	0.00232 JN	< 0.000649 U
PBDE-209	1163-19-5	µg/kg	0.00986 JN	0.0190 J+	0.0742 J+	0.0146 J+	0.0210 JN
Total PBDE (a)	T_PBDE (PDI)	µg/kg	27	26.5	31.4	19.7	35.4

Table A.5a-1. Chemical Results for 2018 PDI Smallmouth Bass Whole Body Samples

		Reach	Upriver	Upriver	Upriver	Upriver	Upriver
		Segment					
		Location	SMB131	SMB132	SMB133	SMB134	SMB135
		Sample ID	PDI-TF-SMB131	PDI-TF-SMB132	PDI-TF-SMB133	PDI-TF-SMB134	PDI-TF-SMB135
		Sample Date	8/14/18	9/9/18	9/12/18	8/14/18	8/14/18
Chemical	**CAS**	**Units**					
Physical Parameters							
Lipids	LIPID	%	7.01	6.38	4.57	4.56	5.18
Total Solids@104C	TSOLID	%	28.4	26.9	26.6	25.9	26.4

Notes:

Qualifiers:

J = The chemical was positively identified; however, the associated numerical value is an estimated concentration.

JN = The analyte was tentatively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U = Not detected at detection limit shown.

UJ = Not detected; sample detection limit is estimated.

R = Rejected result.

a. Totals and TEQs were calculated using EPA Region 10's 12/12/2017 data summation rules for the PDI, with clarifications in AECOM's 8/31/2018 memorandum. See Appendix C.3.

b. Alternate TCDD-TEQ calculated based on data summing rules provided in Appendix E.

c. Quantitation limits are elevated due to matrix interference.

The MDLs reported by the laboratory for BEHP and PCP are 120 µg/kg and 76 µg/kg.

Results reported as detected between the quantitation limit and MDL are shown are with a 'J' qualifier.

There were no reported detections for PCP between the MDL of 76 µg/kg and the quantitation limit of 1000 µg/kg.

Acronyms:

µg/kg = microgram per kilogram
BEHP = bis(2-ethylhexyl)phthalate
CAS_RN = Chemical Abstracts Service Registry Number
DDx = dichlorodiphenyltrichloroethane and its derivatives
EMPC = estimated maximum possible concentration
EPA = U.S. Environmental Protection Agency
HpCDD = heptachlorodibenzo-p-dioxin
HpCDF = heptachlorodibenzofuran
HxCDD = hexachlorodibenzo-p-dioxin
HxCDF = hexachlorodibenzofuran
MDL = method detection limit
mg/kg = milligram per kilogram
OCDD = octachlorodibenzodioxin
OCDF = octachlorodibenzofuran
PBDE = polybrominated diphenyl ethers
PCB = polychlorinated biphenyl
PCP = pentachlorophenol
PDI = Pre-Remedial Design Investigation
PeCDD = pentachlorodibenzo-p-dioxin
PeCDF = pentachlorodibenzofuran
QL = quantitation limit
TCDD = tetrachlorodibenzo-p-dioxin
TCDF = tetrachlorodibenzofuran
TEQ = toxicity equivalence

Table A.6a-1. Chemical Results for PDI Porewater Samples

	Location		B441	B454	B455	B466	B468	B472	B476	B483	B483	S266
	Sample ID		PDI-WP-B441	PDI-WP-B454	PDI-WP-B455	PDI-WP-B466	PDI-WP-B468	PDI-WP-B472	PDI-WP-B476	PDI-WP-B483	PDI-WP-B483-D	PDI-WP-S266
	Date		9/23/2018	9/23/2018	9/23/2018	9/23/2018	9/22/2018	9/22/2018	9/22/2018	9/24/2018	9/24/2018	9/24/2018
	Sample Type Code		N	N	N	N	N	N	N	N	FD	N
Chemical	**CAS_RN**	**Units**										
Metals (uncorrected)												
Arsenic	7440-38-2	mg/L	0.0097	0.0079	0.012	0.011	0.0085	0.0049 J	0.0070	0.0061	0.0058	0.0098
Manganese	7439-96-5	mg/L	1.5	2.4	4.5	5.0	1.6	0.94	0.76	1.4	1.4	5.1
Metals (equlibrium corrected)												
Arsenic	7440-38-2	mg/L	0.0383	0.0356	0.0321	0.0376	0.0327	0.0140	0.0228	0.0218	0.0208	0.0494
Manganese	7439-96-5	mg/L	7.3	13.4	14.6	21.0	7.6	3.3	3.0	6.2	6.2	31.9
Other												
Bromide	24959-67-9	mg/L	51	56	34	45	50	37	43	47	47	60

Acronyms:

CAS_RN = Chemical Abstracts Service Registry Number

FD = field duplicate sample

ID = identifier

mg/L = milligram per liter

N = normal sample

PDI = Pre-Remedial Design Investigation

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