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# Data Validation Report

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| Project: | Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling<br>Portland Harbor Superfund Site<br>Surface Sediment – Stratified Random |
| Laboratory: | ALS Environmental, Kelso, WA |
| Laboratory Group: | K1806077 |
| Analyses/Method: | Chlorinated Pesticides and Total Solids |
| Validation Level: | Stage 2A |
| AECOM Project Number: | 60566335 Task #2.12 |
| Prepared by: | Lucy Panteleeff/AECOM |
| Completed on: | September 14, 2018 |
| Reviewed by: | Jennifer Garner/AECOM |
| File Name: | K1806077 DVR |

## SUMMARY

The data quality review of 1 surface sediment sample collected on June 25, 2018, has been completed. The sample was analyzed for chlorinated pesticides by EPA Method 1699-modified (GC/MS/MS) and total solids by EPA Method 160.3-modified at ALS Environmental (ALS) located in Kelso, Washington. The analyses were performed in general accordance with the methods specified in EPA's *Method 1699: Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS*, December 2007 (modified by ALS SOP SVM-PESTMS2) and *Methods for Chemical Analysis of Water and Wastes*, March 1983. The laboratory provided level 2 and level 4 data packages containing sample results and associated quality assurance (QA) and quality control (QC) data, preparation logs, and raw instrument outputs (where applicable). The following sample is associated with laboratory group K1806077:

| Sample ID | Laboratory ID |
|---|---|
| PDI-SG-B264-BL1 | K1806077-001 |

Data validation is based on method performance criteria and QC criteria documented in the *Quality Assurance Project Plan (QAPP),* dated March 23, 2018, as amended. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA documents *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017, and *USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review,* January 2017. Data qualifiers assigned to results reported in this sample set are included in Table 1.

## SAMPLE RECEIPT

Upon receipt by ALS, the sample jar information was compared to the chain-of-custody (COC) and the cooler temperature was recorded. No discrepancies related to sample identification were noted by ALS. The cooler was received at a temperature below the EPA-recommended limits of greater than 0°C and less than or equal to 6°C at -0.1°C. The laboratory did not indicate that the sample was frozen and the sample container was intact; therefore, data were not qualified based on the low cooler temperature.

**Data Validation Report**
**Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling**
**Surface Sediment – Stratified Random**
**ALS Lab Group: K1806077**

## ORGANIC ANALYSES

The sample was analyzed for chlorinated pesticides by EPA Method 1699-modified.

1. Holding Time – Acceptable except as noted below:

   PDI-SG-B264-BL1 was extracted 24 days past the method-recommended holding time of 14 days after sample collection. Per ALS-Kelso protocol, the sample was frozen in archive until extraction and the sample was thawed for less than 14 days; therefore, the sample was not extracted outside the holding time.

2. Initial and Continuing Calibration Verifications – Acceptable

3. Blanks – Acceptable except as noted below:

   One rinsate blank was collected on June 30, 2018, was logged into laboratory group K1806207 (ID K1806207-026), and is applicable to the sample reported in this laboratory group. One or more analytes may have been detected in the rinsate blank and one or more of these analytes may have been qualified as not detected based on the associated method blank results. Refer to the associated data validation memorandum for further information. Sediment data were not qualified based on rinsate blank detections.

4. Surrogates – Acceptable

5. Internal Standards – Acceptable

6. Laboratory Control Sample (LCS) – Acceptable except as noted below:

   The percent recoveries for cis-nonachlor (172%) and trans-nonachlor (144%) in the LCS extracted on August 2, 2018, were outside the control limits of 69-134% and 76-124%, respectively. cis-Nonachlor and trans-nonachlor were not detected in the associated sample; therefore data were not qualified based on these LCS results.

7. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

   An MS/MSD was performed using PDI-SG-B031-BL1 (laboratory group K1805746, discussed under separate cover). Data in this laboratory group were not qualified based on these MS/MSD results. Qualification, if any, is discussed in the associated data validation report.

8. Reporting Limits – Acceptable except as noted below:

   The reporting limits for one or more pesticides reported as not detected in PDI-SG-264-BL1 were elevated due to moisture content. The reporting limit and MDL for dieldrin exceeded the cleanup level in PDI-SG-264-BL1.

## CONVENTIONAL ANALYSIS

The sample was analyzed for total solids by EPA Method 160.3-modified.

1. Holding Times – Acceptable

2. Laboratory Duplicate – Acceptable

   Laboratory duplicates were performed using PDI-SG-S072 (laboratory group K1806088, discussed under separate cover) and two samples from projects unrelated to the Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling project. Results were comparable.

3. Reporting Limits – Acceptable

## OVERALL ASSESSMENT OF DATA

The data reported in this laboratory group is considered usable for meeting project objectives. The completeness for laboratory group K1806077 is 100%.

**Table 1**
**QA/QC Data Summary Review**
**Portland Harbor**
**Surface Sediment - Stratified Random**
**ALS - Kelso Laboratory Group: K1806077**

| Sample ID | Laboratory ID | Method | Analyte | Laboratory Result | Units | Final Result | Reason Code |
|---|---|---|---|---|---|---|---|
| No data qualifiers were assigned to results reported in K1806077 based on this data validation. | | | | | | | |