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Data Validation Report

Project:	Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland Harbor Superfund Site Surface Sediment – Stratified Random
Laboratory:	ALS Environmental, Kelso, WA
Laboratory Group:	K1805971-OXY
Analysis/Method:	Oxychlordane
Validation Level:	Stage 2A
AECOM Project Number:	60566335 Task #2.12
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Completed on:	March 11, 2019
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File Name:	K1805971-OXY DVR

SUMMARY

The data quality review of 6 surface sediment samples collected between June 22 and June 24, 2018, has been completed. Samples were analyzed for oxychlordane by EPA Method 1699-modified (GC/MS/MS) at ALS Environmental (ALS) located in Kelso, Washington. The analysis was performed in general accordance with the method specified in EPA's *Test Methods for Evaluating Solid Waste (SW-846)*, *Method 1699: Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS*, December 2007, (modified by ALS SOP SVM-PESTMS2). 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). Results for other chlorinated pesticides were provided previously and reviewed separately. The following samples are associated with laboratory group K1805971-OXY:

Sample ID	Laboratory ID
PDI-SG-B274-BL1	K1805971-001
PDI-SG-B285-BL1	K1805971-002
PDI-SG-B272-BL1	K1805971-003
PDI-SG-B281-BL1	K1805971-004
PDI-SG-B278-BL1	K1805971-005
PDI-SG-B259-BL1	K1805971-006

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 document *USEPA National Functional Guidelines for Organic 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 -0.4°C. No data were qualified based on the low cooler temperature.

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ALS Lab Group: K1805971-OXY

ORGANIC ANALYSIS

Samples were analyzed for oxychlordane by EPA Method 1699-modified.

1. Holding Times – Acceptable

   Samples in this laboratory group were extracted 23 to 25 days past the method-recommended holding time of 14 days after sample collection for unfrozen samples. Upon receipt by ALS-Kelso the samples were frozen until extraction and thawed for less than 14 days; therefore, the samples were not extracted outside the holding time of 1 year for frozen samples.

2. Initial and Continuing Calibration Verifications – Acceptable except as noted below:

   The percent difference for oxychlordane (33.5%) exceeded the control limit of ±25% in the continuing calibration verification (CCV) analyzed on July 3, 2018. The CCV was associated with batch QC not associated with these samples; therefore, data were not qualified based on this CCV result. All CCVs associated with the samples reported in this laboratory group were acceptable.

3. Blanks – Acceptable

   One or more rinsate blanks may be associated with these samples and reported under separate cover. Target compounds may have been detected in the rinsate blanks associated with these samples. Sediment data were not qualified based on rinsate blank detections.

4. Surrogates – Acceptable except as noted below:

   Due to a laboratory information management system error, surrogate recoveries for samples associated with QC not associated with this laboratory group were reported with this data set. The surrogate oxychlordane-13C10 was reported as not recovered from these samples. No data reported in this laboratory group were qualified based on sample surrogate recoveries reported in other laboratory groups.

5. Internal Standards – Acceptable

6. Laboratory Control Sample (LCS) – Acceptable

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

   An MS/MSD was performed using PDI-SG-B278-BL1. Results were acceptable.

8. Reporting Limits – Acceptable except as noted below:

   The reporting limits for oxychlordane reported as not detected in the sediment samples were elevated due to moisture content and/or dilutions due to matrix interference. The reporting limits do not exceed the chlordanes cleanup level indicated in the QAPP.

OVERALL ASSESSMENT OF DATA

The data reported in this laboratory group is considered usable for meeting project objectives. The completeness for laboratory group K1805971-OXY is 100%.

Table 1
QA/QC Data Summary Review
Portland Harbor
Surface Sediment - Stratified Random
ALS Kelso Laboratory Group: K1805971-OXY

Sample ID	Laboratory ID	Method	Analyte	Laboratory Result	Units	Final Result	Reason Code
No data qualifiers were assigned to oxychlordane results reported in K1805971-OXY based on this data validation.							