Data Validation Report

Project:	Portland Harbor
Laboratory:	Alpha Analytical Laboratory
Environmental Test Record (ETR):	L1527905
Analyses/Method:	Grain Size

Summary

Thirteen sediment samples were collected in Portland Harbor, Oregon on October 21, 2015 and October 22, 2015. Samples were analyzed for grain size by ASTM Method D422-63 by Alpha Analytical Laboratory located in Mansfield, Massachusetts. The laboratory provided Level 4 data packages containing samples results and associated quality assurance (QA) and quality control (QC) data, preparation logs, and raw instrument output. The following sediment samples are associated with the laboratory ETR L1527905.

Sample ID	Lab ID	Matrix
PH15-33-A	L1527905-01	Sediment
PH15-33-D	L1527905-02	Sediment
PH15-36-A	L1527905-03	Sediment
PH15-36-D	L1527905-04	Sediment
PH15-41-A	L1527905-05	Sediment
PH15-41-C	L1527905-06	Sediment
PH15-41-D	L1527905-07	Sediment
PH15-43-D	L1527905-08	Sediment
PH15-44-A	L1527905-09	Sediment
PH15-44-D	L1527905-10	Sediment
PH15-44-A-FD	L1527905-11	Sediment
PH15-45-A	L1527905-12	Sediment
PH15-45-D	L1527905-13	Sediment

The data have been independently validated using *USEPA Contact Laboratory Program National Functional Guidelines for Organic Superfund Methods Data Review* EPA-540-R-2017-002, dated January 2017. Validation includes reconstruction of the analytical data to verify that data are traceable and sufficiently complete in order for a qualified individual other than the originator to perform reconstruction of the data. The validation included the following checks:

- Sample Receipt/Transcription error check
- Sample preservation
- Field duplicate results
- Laboratory duplicate results
- Overall assessment of the data

Data validation is based on the QC criteria documented in *Portland Harbor Supplemental Sediment Study, Portland Oregon Quality Assurance Project Plan (QAPP),*[1] dated October 14, 2015, and the *Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Quality Assurance Project Plan (QAPP)*,[2] dated March 23, 2018. There were no data qualifiers assigned to results reported in this sample set.

Sample Receipt

Chain of custody documentation were reviewed for completeness of information relevant to the samples and requested analysis. Sample IDs and sample collection dates from the chain of custody records were matched to the reported data.

All coolers were received within 4 ± 2°C.

CONVENTIONAL ANALYSES

Field Duplicate– Acceptable.

Laboratory Duplicate– Acceptable.

OVERALL ASSESSMENT OF DATA

The data reported in this laboratory ETR is considered usable for meeting the project objectives.

The completeness is calculated by the number of usable data points divided by the total number of data points generated, multiplied by 100. The completeness for the laboratory ETR is 100%.

Validation performed by and Date:

George Desreuisseau, Mike Mitchel and Kerylynn Krahforst, December 2018.

Staff Scientists - NewFields

[1] NewFields. (2015). Portland Harbor Supplemental Sediment Study, Portland Oregon Quality Assurance Project Plan (QAPP). October 14, 2015.

[2] AECOM and Geosyntec. 2018. Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland Harbor Superfund Site, Quality Assurance Project Plan. March 23, 2018,