PACIFIC AIR FORCES
REGIONAL SUPPORT CENTER

JOINT BASE ELMENDORF-RICHARDSON, ALASKA

PCB-CONTAMINATED SOIL REMOVAL ACTION

2014 INTERIM DATA REPORT SUMMARY

PORT HEIDEN, ALASKA

FINAL
MAY 2015

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ACRONYMS AND ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
bags	LiftPacs, Super Sacks, or an equivalent containment device
CA	Cooperative Agreement
cy	cubic yard
ELM	ELM Solutions Corporation
Jacobs	Jacobs Engineering Group Inc.
KEMRON	KEMRON Environmental Services, Inc.
PCB	polychlorinated biphenyl
RRS	Radio Relay Station
TSCA	Toxic Substances Control Act
USAF	U.S. Air Force

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1.0 PROJECT OVERVIEW

This 2014 Interim Data Report Summary describes the current status of the non-time-critical removal action of polychlorinated biphenyl (PCB)-contaminated soil at the former U.S. Air Force (USAF) Radio Relay Station (RRS) at Port Heiden, Alaska.

This work was conducted in accordance with the 2013 *PCB-Contaminated Soil Excavation and Removal Action Work Plan* (USAF 2013) prepared by KEMRON Environmental Services, Inc. (KEMRON), with support from Jacobs Engineering Group Inc. (Jacobs) and ELM Solutions Corporation (ELM). This work was conducted for the Air Force Civil Engineer Center under the U.S. Army Corps of Engineers, Alaska District Worldwide Environmental Remediation Services Contract No. W912DY-10-D-0027, Task Order ZJ01. Work was performed in accordance with the requirements of the Alaska Administrative Code, Title 18, Section 75.360 (Alaska Department of Environmental Conservation [ADEC] 2014) and the Comprehensive Environmental Response, Compensation, and Liability Act.

During 2014, PCB-contaminated soil was loaded into LiftPacs, Super Sacks, or equivalent containment devices (referred to throughout this document as "bags") from pre-existing soil stockpiles, or excavated from locations containing PCBs above 1 part per million (ppm). During the 2014 field season, 1,634 bags with an estimated weight of 12,975 tons of PCB-contaminated soil was generated from pre-existing stockpiles and newly excavated grid cells. A total of 1,364 bags with a certified weight of 10,800.79 tons of PCB-contaminated soil was successfully transported via truck, barge, and rail to the final disposal facility in Arlington, Oregon. An additional 277 bags with an estimated weight of 2,187.9 tons were containerized and staged onsite in 2014 for planned transport and disposal during the 2015 field season. In addition, 194 bags with an estimated weight of 1,535.4 tons of PCB-contaminated soil (with PCB concentrations below 50 mg/kg) remains onsite from 2013 field efforts, resulting in a total of 3,723.3 tons remaining onsite, scheduled for transport and disposal in 2015.

The following appendices have been provided to supplement the information presented in this report:

- Appendix A presents site photographs of project activities.
- Appendix B presents site figures. The figures show grids that have been delineated, characterized, remediated, and targeted for future sampling. Although they present the locations of remaining contamination, they are not necessarily easy to interpret some of the grids have been excavated to an intermediate depth
- Appendix C presents waste documentation, including certificates of disposal, bag totals, and certified weight totals for all PCB-contaminated soil disposed of in 2014.
- Appendix D presents the Data Quality Assessment, including an evaluation of laboratory data from samples collected during 2014 and associated ADEC data quality checklists.
- Appendix E presents an estimate of the remaining quantities of PCB-contaminated soil. The figure denotes locations and estimated quantities of PCB-contaminated soil at various sites in Port Heiden.
- Appendix F presents the presentation materials and meeting minutes for the 2014 PCB Removal Status Meeting held on 8 April 2015.
- Appendix G presents the responses to comments and ADEC approval letter for the draft 2014 Interim Data Report.

2.0 2014 FIELDWORK OVERVIEW

Over the period of 26 May to 5 October 2014, PCB-contaminated soil was excavated from pre-existing stockpiles and directly from targeted grid cells, generating a total of 1,634 bags of PCB-contaminated material. The contaminated soil was characterized under the Toxic Substances Control Act (TSCA) (Title 15 of the U.S. Code [USC], Section 2605) as either TSCA (PCB concentrations equal to or greater than 50 mg/kg) or non-TSCA (PCB concentrations less than 50 mg/kg). Bags containing soil with PCB concentrations exceeding 50 mg/kg were denoted with a "T" and staged separately from non-TSCA bags.

During the 2014 field season, PCB-contaminated soil was managed as follows:

- A total of 268 bags of TSCA soil were transferred to barges contracted by ELM, and transported to Chemical Waste Management in Arlington, Oregon for disposal.
- A total of 1,096 bags containing non-TSCA soil were transferred to barges contracted by ELM and transported to Columbia Ridge Landfill in Arlington, Oregon.
- A total of 273 bags of non-TSCA soil were staged onsite for disposal during the 2015 field season.
- A total of five bags of uncontaminated waste (bags used to build the barge ramp in 2013) were transferred to barges contracted by ELM and transported to Columbia Ridge Landfill in Arlington, Oregon. These bags were not included in the total for non-TSCA represented in Table 2-1, and were disposed of at the expense of ELM.

2.1 STOCKPILE LOADOUT

In 2014, bags were filled from pre-existing soil stockpiles constructed by Jacobs (Stockpiles J 1.1, J 1.3, and J 1.5) and the Native Village of Port Heiden Cooperative Agreement (CA) (Stockpiles 1A and CA 4). All pre-existing stockpiles contained non-TSCA soil. The soil was loaded into 8.9-cubic-yard (cy) bags utilizing partially buried bag frames positioned adjacent to the stockpiles. The bags were mounted on the frames manually, filled by an excavator, unhooked from the frames and sealed manually, and placed in a nearby staging area. Bags from the staging areas were transported later in the season by semi-truck and trailer to the barge landing area and transferred to ELM for disposal. Photographs are presented in Appendix A.

2.2 EXCAVATION

During 2014 field activities, Jacobs filled bags directly from excavations at targeted grids utilizing bag frames positioned adjacent to the active excavation. Bags were manually mounted on the frames at a central location before being transported to the active excavation site. The bags were then filled by an excavator, transported back to a central location using a loader, unhooked from the frames, sealed manually, and moved to a staging area using a loader and transport rack. Bags from the staging areas were transported later in the season by semi-truck and trailer to the barge landing area and transferred to ELM for disposal. Photographs are presented in Appendix A. Figures located in Appendix B denote grids indicating contamination levels that will be used to guide future excavation activities.

2.3 QUANTITIES

The weight of each bag was measured onsite using scales integrated into the loaders. The integrated scales are not certified; therefore, the calculated weights are considered estimates. Certified scales at the disposal facilities were used to provide the actual weight. The variance on the site scales and the certified scales for the non-TSCA material was 489.9 tons, or 5.95 percent greater at the certified scales. The variance on the site scales and the certified scales for the TSCA material was lighter by 148.49 tons, or 6.66 percent less at the certified scales. The overall variance between the calculated and certified weights in 2014 was 3.26 percent, which resulted in a greater amount of total weight disposed of than was estimated onsite. Table 2-1 presents the PCB-contaminated soil loading, transport, and disposal totals for 2014.

Table 2-1
2014 PCB-Contaminated Soil Loading, Transport, and Disposal Totals

Year	Contents	Total Bags Generated	Total Estimated Weight Generated (tons)	Total Bags Transferred	Total Estimated Weight Transferred (tons)	Total Weight Disposed (tons)
2013	PCB Soil, Non-TSCA	1,542	12,089	1,347	10,557	10,422.73
	PCB Soil, TSCA Hazardous	82	334	82	334	348.15
2014	PCB Soil, Non-TSCA	1,366	10,403.8	1,096	8,228.8	8,718.68
	PCB Soil, TSCA Hazardous	268	2,230.6	268	2,230.6	2,082.11
Total	All	3,258	25,057.4	2,793	21,350.4	21,571.67

Soil from three storage areas (J 1, CA 1, and CA 4) were containerized during the 2014 field season. Storage Area J 1 is located near the airport, across Airport Road from the Red Building and was constructed by Jacobs under Task Order 46 (USAF 2012b). "CA" Storage Areas are located near the former RRS site at the north end of Airport Road and were constructed by the Native Village of Port Heiden CA. The soil in the remaining stockpiles at J 1, CA 1, and CA 4 was removed in 2014, as summarized below:

- Stockpiles J 1.1, J 1.3, and J 1.5 were emptied of all contaminated material, including the bottom liner, and were decommissioned by Jacobs under a separate contract. Details of the stockpile decommissioning will be presented in an after-action report summarizing 2013 to 2015 activities.
- Stockpiles CA 1 and CA 4 were emptied of all contaminated material, including the bottom liner. The original contractor (Native Village of Port Heiden) decommissioned Stockpile CA 1. Stockpile CA 4 was constructed on grids that have not been adequately characterized. Final decommissioning samples were not collected, as additional remedial activities are required in this area.

All stockpiled soil was successfully containerized during the 2014 field effort and no additional PCB-contaminated soil stockpiles remain at the site.

2.4 PCB-CONTAMINATED SOIL TRANSPORTATION AND DISPOSAL

Two barges were utilized in 2014 to transport PCB-contaminated waste from Port Heiden, Alaska to the approved disposal facilities in Oregon. The first barge, Klinkwan, arrived at Port Heiden 3 September 2014. The barge was loaded with bags containing both TSCA soil and non-TSCA soil utilizing a lighterage barge. A total of 383 bags containing non-TSCA soil with a certified weight of 3,008.07 tons were lightered to the Klinkwan. Loading of the Klinkwan was completed on 7 September 2014, and the barge began its voyage to the Alaska Street Transfer Station in Seattle, Washington.

The second barge, Seabeck, arrived at Port Heiden 8 September 2014. The barge was loaded with bags containing both TSCA soil and non-TSCA soil utilizing a lighterage barge. A total of 713 bags containing non-TSCA soil with a certified weight of 5,710.61 tons were lightered to the Seabeck. Five bags (12.29 tons) containing uncontaminated waste (bags used for the construction of the barge ramp in 2013) were also loaded onto the Seabeck. Weights for the five bags are included in the waste tracking documents in Appendix C, but cannot be differentiated with the provided documentation. The weights for these bags were omitted from waste generated calculations, waste disposal calculations, and quantities presented in Table 2-1. The five bags were disposed of at the expense of ELM. Loading of the Seabeck was completed on 11 September 2014, and the barge began its voyage to the Alaska Street Transfer Station in Seattle, Washington. All non-TSCA soil was transferred to rail cars in Seattle and transported to the final disposal facility at Columbia Ridge Landfill in Arlington, Oregon.

A total of 268 bags of TSCA-regulated waste with a certified weight of 2,082.11 tons were transported by the Klinkwan and Seabeck to the Alaska Street Transfer Station in Seattle, Washington. The bags were then loaded into RoadLink USA National, LLC intermodal containers and transported on Union Pacific Railroad intermodal rail cars to the final disposal facility at Chemical Waste Landfill in Arlington, Oregon. The TSCA waste was then transferred from the rail cars and into the landfill. Signed certificates of disposal dating

between 31 October and 19 November 2014 were issued for the TSCA-generated waste (Appendix C).

2.5 ANALYTICAL SAMPLING

During the 2014 field season, a total of 488 primary samples, 52 duplicate samples, and 26 matrix spike and matrix spike duplicate samples were collected from the former RRS site at Port Heiden. Primary samples were collected in accordance with the 2013 Work Plan (USAF 2013) and 2014 Work Plan Addendum (USAF 2014) as follows:

- Single-point depth delineation in areas of known contamination
- Grid characterization using nine-point composite sampling
- Sidewall samples from excavation walls 18 inches deep and greater
- Stockpile decommissioning samples

Pre-construction samples were collected from the barge landing in 2013 prior to using the area as a temporary staging location for filled bags awaiting transport. PCBs were not detected in any of the 2013 analytical samples collected from the barge landing area. Post-construction samples have not yet been collected at this location, as it will continue to be used to stage bags during the 2015 field season. In addition, characterization and pre-construction samples were collected from the area adjacent to Stockpile CA 1 in 2013. Analytical results indicated no PCB-contamination was present within the planned work area.

All analytical laboratory support was provided by ALS Environmental Services in Kelso, Washington. Analytical data, including the sample summary, analytical results tables, and ADEC laboratory data review checklists, can be found in Appendix D. The data quality was found to be acceptable for the purposes of this project.

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3.0 CONCLUSION AND FUTURE ACTIVITIES

During the 2014 field season, 1,634 bags totaling an estimated 12,634.4 tons (10,403.8 tons non-TSCA and 2,230.6 tons TSCA) of PCB-contaminated soil was generated from pre-existing stockpiles and newly excavated grid cells. A total certified weight of 10,800.79 tons, consisting of 8,718.68 tons of non-TSCA and 2,082.11 tons of TSCA-regulated waste was transported to facilities in Arlington, Oregon for disposal.

An additional 273 bags of non-TSCA soil with an estimated weight of 2,187.9 tons generated in 2014, and 194 bags of non-TSCA soil with an estimated weight of 1,535.4 tons generated in 2013 remain staged onsite at Storage Area J 1 and the former RRS site for transport and disposal during the 2015 field season. All pre-existing stockpiles were removed during the 2014 field season.

Based on 2014 sample results and historical data sets, the quantities of PCB-contaminated soil remaining at Port Heiden investigation sites was estimated (Appendix E). These quantities are subject to change based on the 2015 planned characterization and depth delineation sampling at the former RRS, Storage Area 1, and along Access Road. Contaminated grids targeted for future excavation activities and proposed characterization sample locations are presented on figures in Appendix B. All future excavation work will consist of the immediate containerization of PCB-contaminated soil following removal from the ground. An estimated 10,000 tons of contaminated soil is scheduled for transportation and disposal during 2015 field activities. It is anticipated that additional quantities of contaminated soil will be generated during the upcoming field season. Any additional bags that are unable to be disposed of will be staged for disposal during the 2016 field season.

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4.0 REFERENCES

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USAF (U.S. Air Force). 2014 (May). *PCB-Contaminated Soil Delineation Sampling and Analysis Plan, Work Plan Addendum*. Final. Prepared by Jacobs Engineering Group Inc.

USAF. 2013 (August). *PCB-Contaminated Soil Excavation and Removal Action: 2013 Work Plan.* Prepared by KEMRON Environmental Services Inc.

USAF. 2012b (May). *Site Road PCB-Contaminated Soil Removal Action: 2012 Work Plan.* Final. Prepared by Jacobs Engineering Group Inc.

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APPENDIX A

Photograph Log

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Excavating non-TSCA soil in Soil Removal Area 2. View facing southwest.



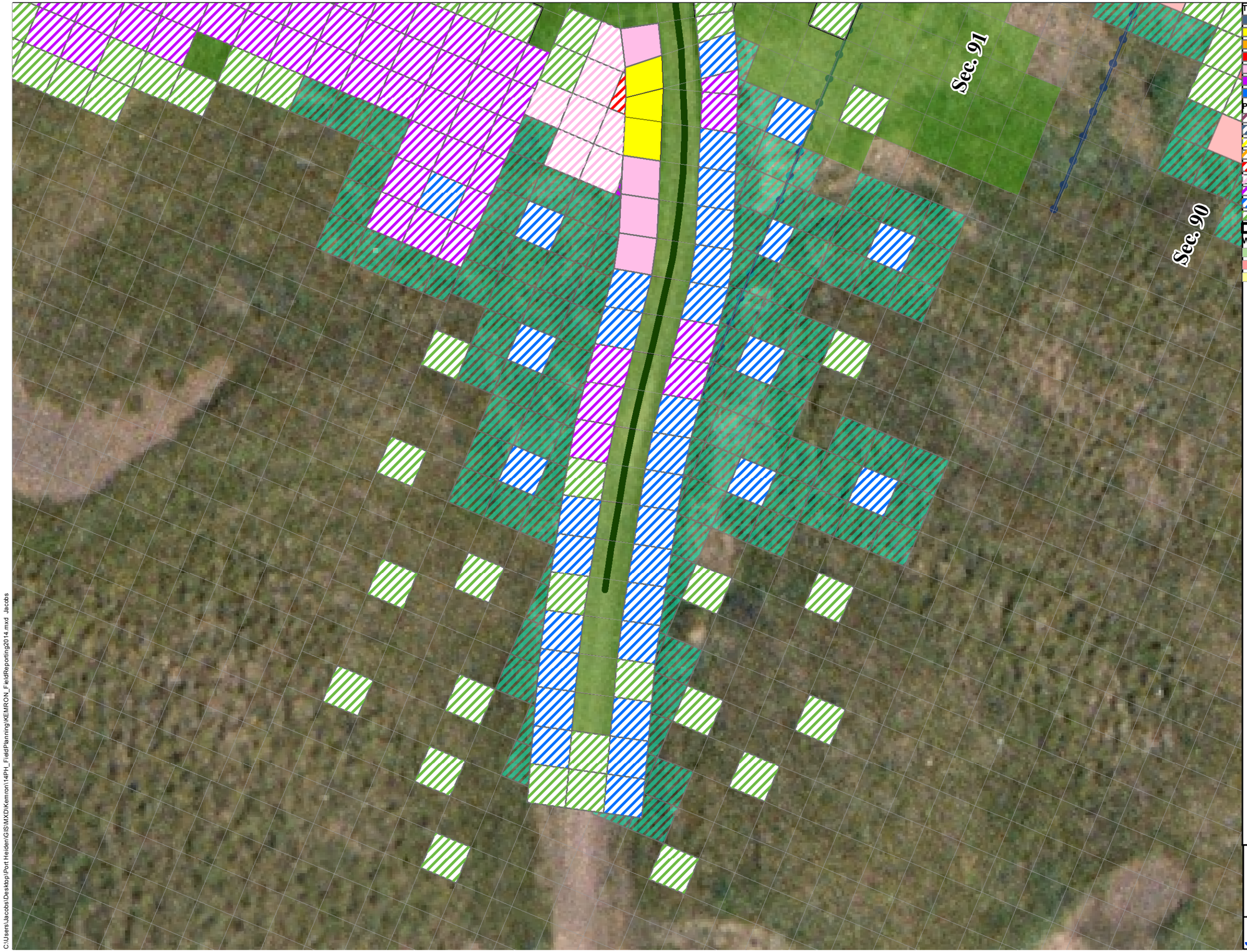
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Photo No. 47 – 02 October 2014
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- TSCA to 36 inches
- TSCA to 30 inches
- TSCA to 24 inches
- TSCA to 18 inches
- TSCA to 12 inches
- TSCA to 6 inches

PCB 1-50ppm Excavation Depth
- 1-50 mg/kg at 48 inches
- 1-50 mg/kg at 42 inches
- 1-50 mg/kg at 36 inches
- 1-50 mg/kg at 30 inches
- 1-50 mg/kg at 24 inches
- 1-50 mg/kg at 18 inches
- 1-50 mg/kg at 12 inches
- 1-50 mg/kg at 6 inches
- 2014 Results Below Cleanup
- 2014 Depth Delin Sample Location

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg
- Depth Delineation Sample

Project North

True North
N

2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

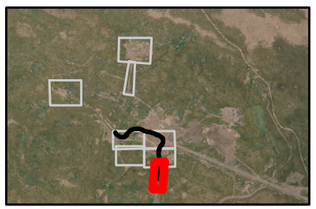
2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall

2013 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011 & 2012 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011-2013 Site Road Wall Results
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 to <50 mg/kg
- RRS Roads
- Stepouts Requiring Characterization



All Locations Are Approximate

0 10 20 30 40

Feet

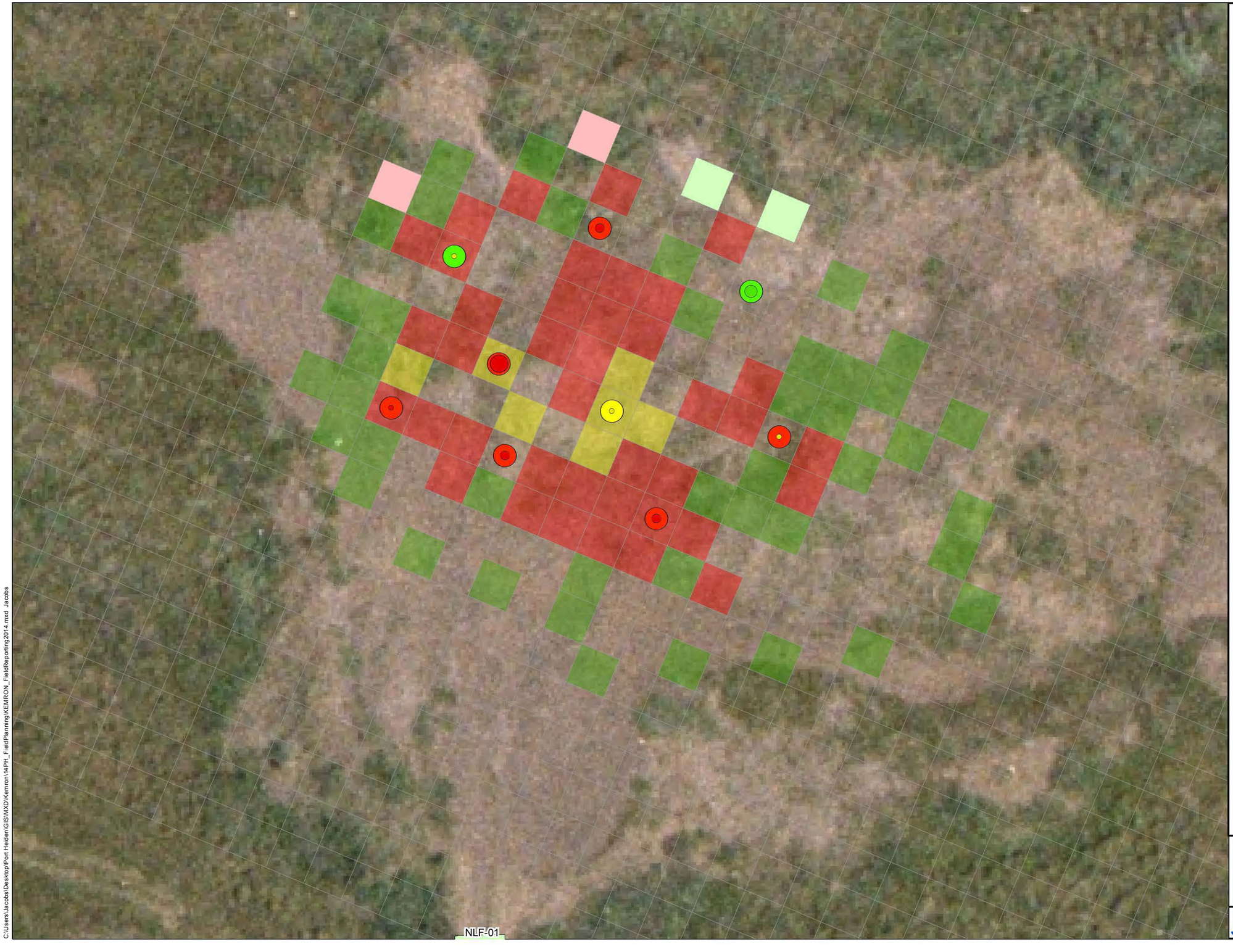
WGS 1984 UTM Zone 4N Transverse Mercator

Access Road

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 21 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 1

C:\Users\Jacobs\Desktop\Port Heiden\GIS\MXD\Kemron\14PH_FieldPlanning\KEMRON_FieldReporting2014.mxd Jacobs



Delineation - Results 36
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 - 50 mg/kg
- TSCA, > 50 mg/kg

Delineation - Results 30
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 - 50 mg/kg
- TSCA, > 50 mg/kg

Delineation - Results 24
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 - 50 mg/kg
- TSCA, > 50 mg/kg

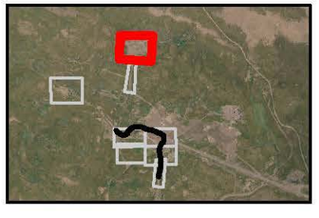
Delineation - Results 18
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 - 50 mg/kg
- TSCA, > 50 mg/kg

Delineation - Results 12
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 - 50 mg/kg
- TSCA, > 50 mg/kg
- Grid_Delineation - Results 6

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg
- RRS Roads

True North

N



All Locations Are Approximate

0 10 20 30 40

Feet

WGS 1984 UTM Zone 4N Transverse Mercator

North Landfill

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO.: 2

C:\Users\Jacobs\Desktop\Port Heiden\GIS\MXD\Kemron\14PH_FieldPlanning\KEMRON_FieldReporting2014.mxd Jacobs



TSCA Excavation Depth
- TSCA to 42 inches
- TSCA to 36 inches
- TSCA to 30 inches
- TSCA to 24 inches
- TSCA to 18 inches
- TSCA to 12 inches
- TSCA to 6 inches

PCB 1-50ppm Excavation Depth
- 1-50 mg/kg at 48 inches
- 1-50 mg/kg at 42 inches
- 1-50 mg/kg at 36 inches
- 1-50 mg/kg at 30 inches
- 1-50 mg/kg at 24 inches
- 1-50 mg/kg at 18 inches
- 1-50 mg/kg at 12 inches
- 1-50 mg/kg at 6 inches
- 2014 Results Below Cleanup

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg

Project North

True North
N

2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

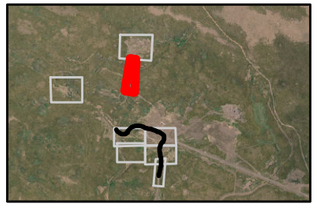
2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall

2013 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011 & 2012 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011-2013 Site Road Wall Results
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 to <50 mg/kg
- RRS Roads
- Stepouts Requiring Characterization



All Locations Are Approximate

0 10 20 30 40

Feet

WGS 1984 UTM Zone 4N Transverse Mercator

North Landfill Road

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 3

C:\Users\Jacobs\Desktop\Port Heiden\GIS\MXD\Kemron\14PH_FieldPlanning\KEMRON_FieldReporting2014.mxd Jacobs



TSCA Excavation Depth
- TSCA to 42 inches
- TSCA to 36 inches
- TSCA to 30 inches
- TSCA to 24 inches
- TSCA to 18 inches
- TSCA to 12 inches
- TSCA to 6 inches

PCB 1-50ppm Excavation Depth
- 1-50 mg/kg at 48 inches
- 1-50 mg/kg at 42 inches
- 1-50 mg/kg at 36 inches
- 1-50 mg/kg at 30 inches
- 1-50 mg/kg at 24 inches
- 1-50 mg/kg at 18 inches
- 1-50 mg/kg at 12 inches
- 1-50 mg/kg at 6 inches
- 2014 Results Below Cleanup

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg

Project North

True North
N

2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall

2013 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011 & 2012 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011-2013 Site Road Wall Results
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 to <50 mg/kg
- RRS Roads
- Stepouts Requiring Characterization



All Locations Are Approximate

0 10 20 30 40

Feet

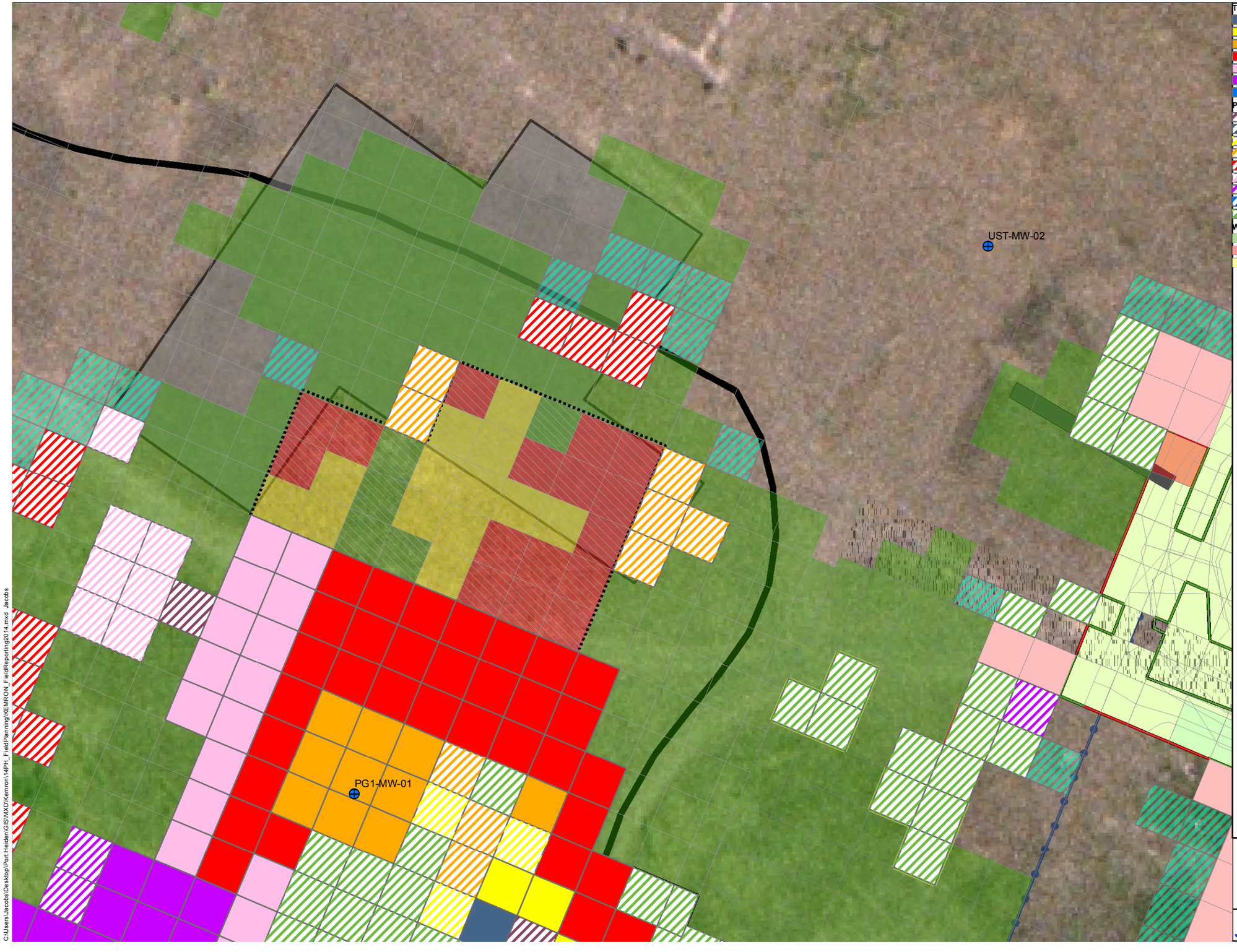
WGS 1984 UTM Zone 4N Transverse Mercator

Septic Lagoon

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 4

C:\Users\Jacobs\Desktop\Port Heiden\GIS\MXD\Kemron114PH_FieldPlanning\KEMRON_FieldReporting2014.mxd Jacobs



TSCA Excavation Depth
- TSCA to 42 inches
- TSCA to 36 inches
- TSCA to 30 inches
- TSCA to 24 inches
- TSCA to 18 inches
- TSCA to 12 inches
- TSCA to 6 inches

PCB 1-50ppm Excavation Depth
- 1-50 mg/kg at 48 inches
- 1-50 mg/kg at 42 inches
- 1-50 mg/kg at 36 inches
- 1-50 mg/kg at 30 inches
- 1-50 mg/kg at 24 inches
- 1-50 mg/kg at 18 inches
- 1-50 mg/kg at 12 inches
- 1-50 mg/kg at 6 inches
- 2014 Results Below Cleanup

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg

Project North

True North
N

2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

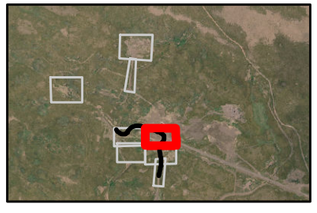
2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall

2013 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011 & 2012 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011-2013 Site Road Wall Results
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 to <50 mg/kg
- RRS Roads
- Stepouts Requiring Characterization



All Locations Are Approximate

0 10 20 30 40

Feet

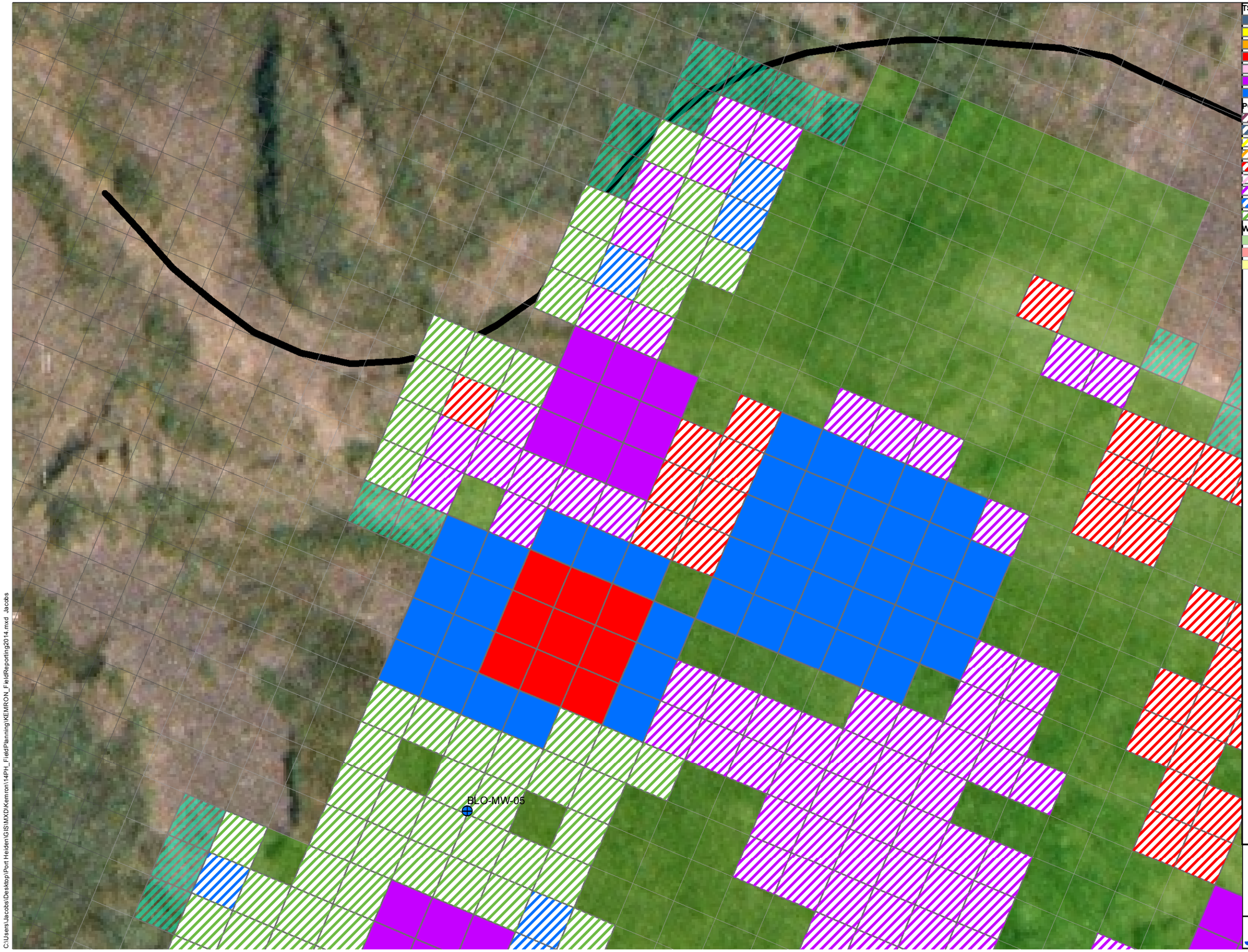
WGS 1984 UTM Zone 4N Transverse Mercator

Soil Removal Area 2 Northeast

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 5

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TSCA Excavation Depth
- TSCA to 42 inches
- TSCA to 36 inches
- TSCA to 30 inches
- TSCA to 24 inches
- TSCA to 18 inches
- TSCA to 12 inches
- TSCA to 6 inches

PCB 1-50ppm Excavation Depth
- 1-50 mg/kg at 48 inches
- 1-50 mg/kg at 42 inches
- 1-50 mg/kg at 36 inches
- 1-50 mg/kg at 30 inches
- 1-50 mg/kg at 24 inches
- 1-50 mg/kg at 18 inches
- 1-50 mg/kg at 12 inches
- 1-50 mg/kg at 6 inches
- 2014 Results Below Cleanup

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg

Project North

True North

2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

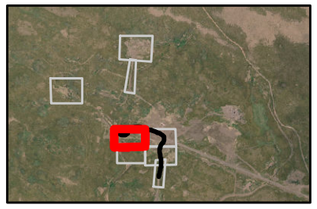
2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall

2013 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011 & 2012 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011-2013 Site Road Wall Results
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 to <50 mg/kg
- RRS Roads
- Stepouts Requiring Characterization



All Locations Are Approximate

0 10 20 30 40

Feet

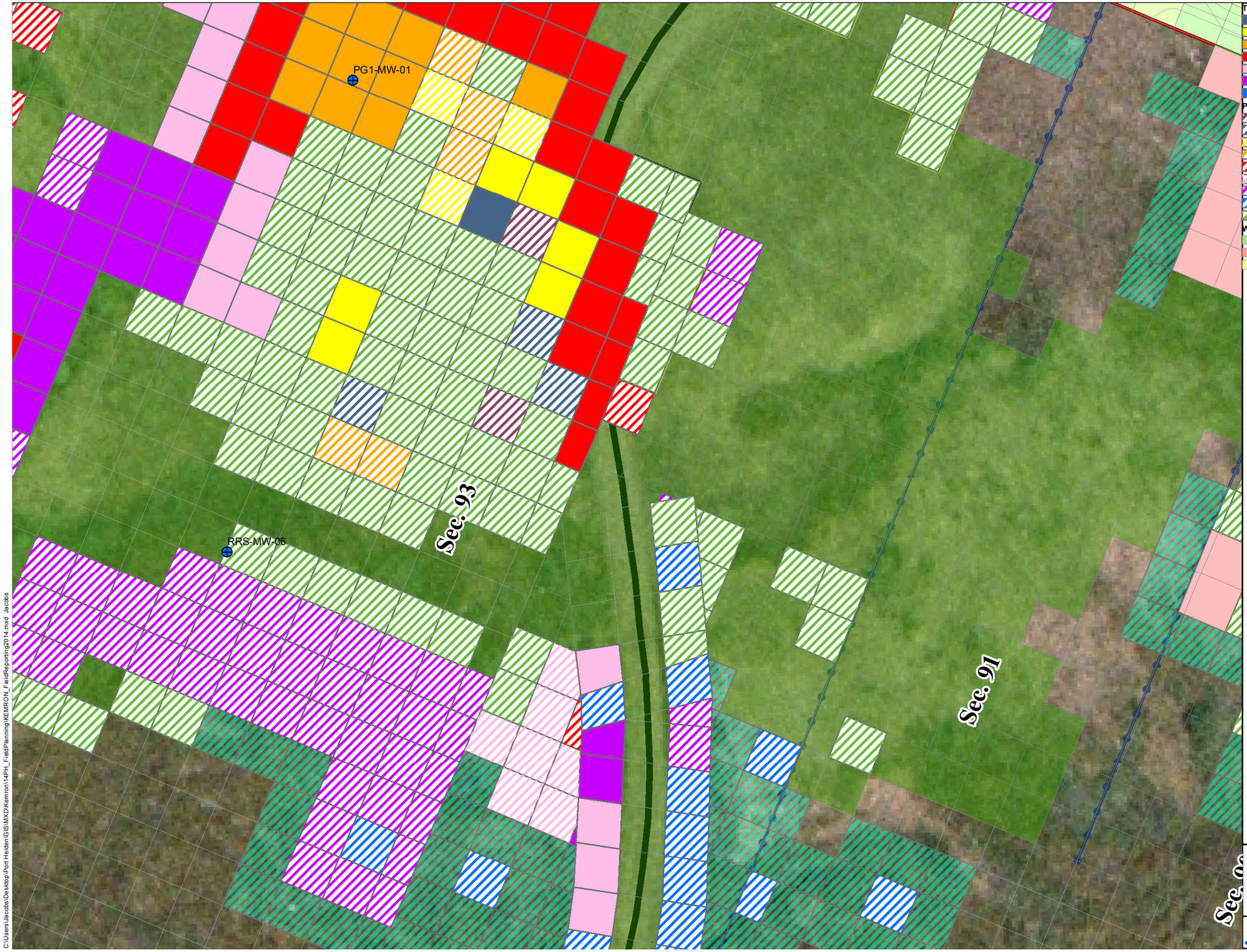
WGS 1984 UTM Zone 4N Transverse Mercator

Soil Removal Area 2 Northwest

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 6

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TSCA Excavation Depth
- TSCA to 42 inches
- TSCA to 36 inches
- TSCA to 30 inches
- TSCA to 24 inches
- TSCA to 18 inches
- TSCA to 12 inches
- TSCA to 6 inches

PCB 1-50ppm Excavation Depth
- 1-50 mg/kg at 48 inches
- 1-50 mg/kg at 42 inches
- 1-50 mg/kg at 36 inches
- 1-50 mg/kg at 30 inches
- 1-50 mg/kg at 24 inches
- 1-50 mg/kg at 18 inches
- 1-50 mg/kg at 12 inches
- 1-50 mg/kg at 6 inches
- 2014 Results Below Cleanup

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg

Project North

True North

2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall

2013 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011 & 2012 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011-2013 Site Road Wall Results
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 to <50 mg/kg
- RRS Roads
- Stepouts Requiring Characterization



All Locations Are Approximate

0 10 20 30 40

Feet

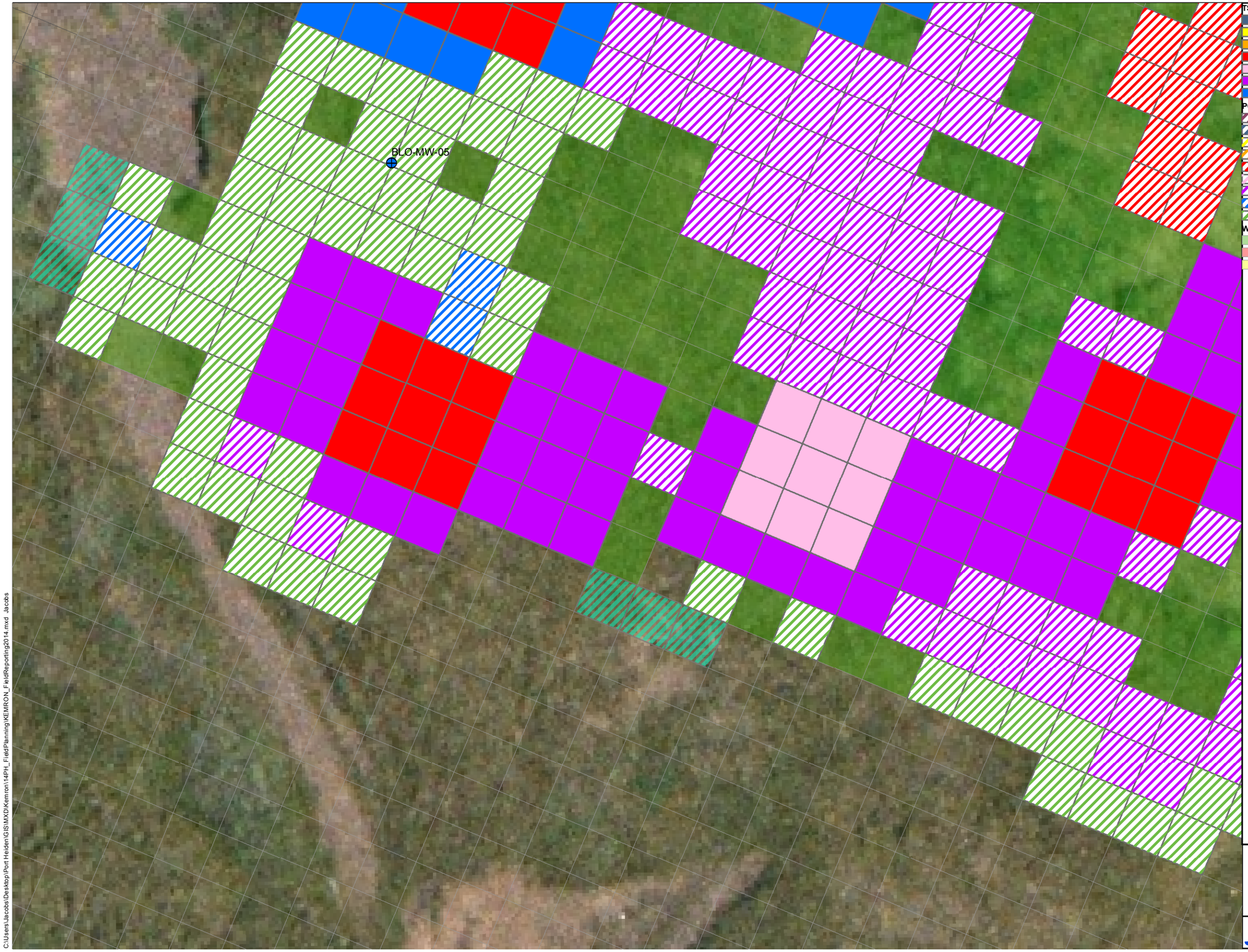
WGS 1984 UTM Zone 4N Transverse Mercator

Soil Removal Area 2 Southeast

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 7

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TSCA Excavation Depth
- TSCA to 42 inches
- TSCA to 36 inches
- TSCA to 30 inches
- TSCA to 24 inches
- TSCA to 18 inches
- TSCA to 12 inches
- TSCA to 6 inches

PCB 1-50ppm Excavation Depth
- 1-50 mg/kg at 48 inches
- 1-50 mg/kg at 42 inches
- 1-50 mg/kg at 36 inches
- 1-50 mg/kg at 30 inches
- 1-50 mg/kg at 24 inches
- 1-50 mg/kg at 18 inches
- 1-50 mg/kg at 12 inches
- 1-50 mg/kg at 6 inches
- 2014 Results Below Cleanup

WERS Legacy Data
- Below Cleanup, < 1 mg/kg
- Above Cleanup, 1 to 50 mg/kg
- TSCA, > 50 mg/kg

Project North

True North

2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

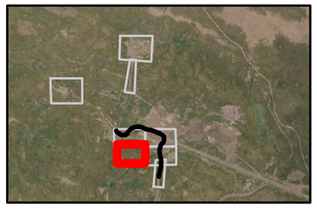
2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall

2013 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011 & 2012 Site Road Grid-Results
- Below Cleanup, 1 mg/kg
- PCBs, 1 to <50 mg/kg
- PCBs, >50 mg/kg

2011-2013 Site Road Wall Results
- Below Cleanup, <1 mg/kg
- Above Cleanup, 1 to <50 mg/kg
- RRS Roads
- Stepouts Requiring Characterization



All Locations Are Approximate

0 10 20 30 40

Feet

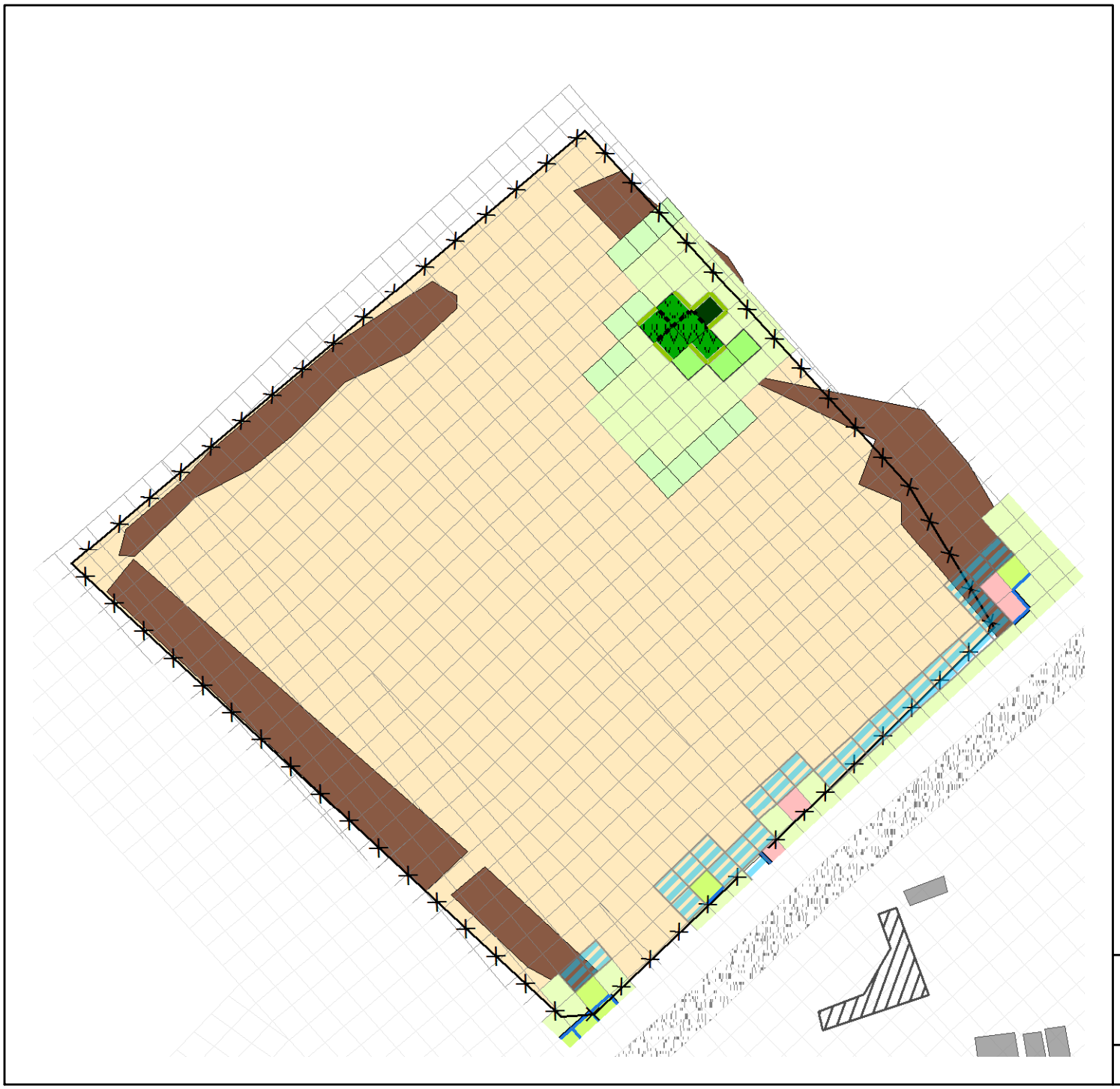
WGS 1984 UTM Zone 4N Transverse Mercator

Soil Removal Area 2 Southwest

Radio Relay Station Remediation
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 8

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2014 Grid-Results 42
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 36
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 30
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 24
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 18
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2014 Grid-Results 12
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

Grid-Results 8
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg

2014 Grid-Results 6
- Below Cleanup, <1 mg/kg
- TSCA, 1 to 50 mg/kg
- TSCA, >50 mg/kg
- Sampled Grid
- Excavated Grid

- Grid To Be Characterized
- Decon Pad
- Existing Structure
- Removed Structure
- Site Road
- RRSAccess Roads
- RRS AntennaPads
- Sampling Grid

2014 Transect Results
- Wall Below Cleanup (0-0.99)
- Wall Above Cleanup (>1)
- Sampled Wall
- Excavated Wall Location
- Stockpile
- Overburden Pile
- Storage Area

2013 Site Road Data
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg

2012 Transect SR Result
- Below Cleanup, <1 mg/kg
- PCBs, 1 to <50 mg/kg

2011 & 2012 Data
- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA, >50 mg/kg



All Locations Are Approximate

0 25 50 75 100

Feet

N

WGS 1984 UTM Zone 4N Transverse Mercator

Storage Area 1
2014 Site Road Sampling
Port Heiden, Alaska

JACOBS	DATE: 22 JAN 2015	PROJECT MANAGER: K. McGovern	FIG NO: 9

C:\Users\Jacobs\Desktop\Port Heiden\GIS\MXD\TO46\14PH_FieldPlanningTO46_FieldPlanning2014.mxd Jacobs

APPENDIX C

Waste Documentation

(Electronic files provided separately)

APPENDIX D

Data Quality Assessment

PACIFIC AIR FORCES
REGIONAL SUPPORT CENTER

JOINT BASE ELMENDORF-RICHARDSON, ALASKA

PCB-CONTAMINATED SOIL REMOVAL ACTION

2014 INTERIM DATA REPORT SUMMARY

PORT HEIDEN, ALASKA

APPENDIX D DATA QUALITY ASSESSMENT

FINAL
MAY 2015

TABLE OF CONTENTS

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ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
ADEC	Alaska Department of Environmental Conservation
CoC	chain-of-custody
DL	detection limit
DoD	Department of Defense
DQA	Data Quality Assessment
EPA	Environmental Protection Agency
FD	field duplicate
Jacobs	Jacobs Engineering Group Inc.
LCL	lower control limit
LCS	laboratory control sample
LOD	limit of detection
LOQ	limit of quantitation
MS	matrix spike
MSD	matrix spike duplicate
PCB	polychlorinated biphenyl
QC	quality control
RPD	relative percent difference
RRS	Radio Relay Station
USAF	U.S. Air Force

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1.0 INTRODUCTION

This Data Quality Assessment (DQA) provides an assessment of the overall quality and usability of data from the 2014 non-time-critical removal action of polychlorinated biphenyl (PCB)-contaminated soil at the former U.S. Air Force (USAF) Radio Relay Station (RRS) at Port Heiden, Alaska.

The sample results presented in this DQA were reported by ALS Environmental of Kelso, Washington for the analyses summarized in Table D-1.

Table D-1
Field Quality Control Sample Quantities

Method	Analyte(s)	Primary Samples	Field Duplicate Samples	MS/MSD Samples[1]
Excavation Samples				
SW8082	PCB	488	52	38
Wipe Samples				
SW8082	PCB	1	-	-

Notes:
[1] MS/MSD count includes MS/MSD samples requested on the CoCs and MS/MSD samples analyzed by the lab, but not specified on the CoC.
For definitions, refer to the Acronyms and Abbreviations section.

The attachments to this DQA contain the sample summary and analytical data tables (Attachment D-1), tables of sample results that did not meet the project data quality objectives (Attachment D-2), Alaska Department of Environmental Conservation (ADEC) laboratory data review checklists (Attachment D-3), and laboratory deliverables (Attachment D-4, available separately on CD).

1.1 QUALITY CONTROL CRITERIA

Jacobs Engineering Group Inc. (Jacobs) performed this DQA and completed ADEC laboratory data review checklists for records associated with the analytical data, as per the *2013 PCB-Contaminated Soil Excavation and Removal Action Study Work Plan* (USAF 2013). Data quality was evaluated against the following requirements: the U.S. Department of Defense (DoD) *Quality Systems Manual for Environmental Laboratories*,

version 4.2 (DoD 2010); U.S. Environmental Protection Agency (EPA) analytical methods (EPA 2008); and laboratory limits.

The Jacobs Project Chemist performed a completeness check of the electronic data to verify that data packages and electronic files included all of the requested information. All analytical data were reviewed, including the chain-of-custody (CoC) and sample receipt records, laboratory case narratives, and laboratory data. Analytical data were reviewed for methodology; sample holding times; laboratory blanks; limit of quantitation (LOQ); limit of detection (LOD); detection limits (DL); surrogate recoveries; laboratory control sample (LCS) and LCS duplicate recoveries; matrix spike (MS) and MS duplicate (MSD) recoveries; and precision. Sample results outside of quality control (QC) parameters are listed in Section 2.0 or in the associated ADEC laboratory data review checklist.

Analytical data quality objectives were considered met when the quality of the sample data met precision, accuracy, representativeness, completeness, comparability, and sensitivity requirements. The overall quality of the data was acceptable as qualified. Flagged data are considered usable, but estimated.

The following data qualifiers are applicable to the 2014 PCB-Contaminated Soil Removal Action analytical data:

J The analyte was positively identified; however, the associated result was less than the LOQ but greater than or equal to the DL.

E The result is nondetect and the LOD exceeds the cleanup level.

JD The result was qualified because the relative percent difference (RPD) between the primary sample and the field duplicate (FD) sample exceeded 50 percent for soil and/or the RPD between the MS and MSD exceeded the QC criteria. The qualifier was applied to the sample and FD, or the parent sample for MS/MSD.

JM- The result was estimated because the analyte failed recovery criteria in the MS or MSD sample, or both; results were biased low because the recovery was less than the lower control limit (LCL).

JPR The result was estimated because the confirmation analysis RPD was greater than 40 percent.

JS- The result was estimated because one or more surrogate recovery failed criteria; results were biased low because recoveries were less than the LCL.

JTE The result was estimated because the sample temperature exceeded 6 degrees Celsius (°C) upon receipt at the laboratory.

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2.0 DATA QUALITY SUMMARY

In general, the overall quality of project data was acceptable. The following anomalies were associated with analytical data and required qualification of sample results:

2.1 SAMPLE TEMPERATURE

Twenty sample coolers were shipped to the laboratory during the 2014 field activities at the former Port Heiden RRS. One cooler ("Reek") was received by the laboratory with sample temperatures outside of the criteria (temperature blank: 10.9 °C, cooler temperature: 3.0 °C). The sample results were qualified JTE to indicate an estimated result with a potential low bias and are presented in Table D-2-1 (Attachment D-2). PCBs are not volatile, and no loss of analyte is expected due to the marginal temperature exceedance.

2.2 MATRIX SPIKES

MS and MSD samples were collected to evaluate the accuracy and precision of the matrix and/or laboratory procedures. The frequency criterion for MS/MSD of one per 20 primary samples was met for Method SW8082. Table D-1 provides a summary of the MS/MSD quantities by analytical method.

Several MS/MSD recoveries and RPD for Aroclor 1260 were outside of the QC criteria. When necessary, parent sample results were flagged JM- and/or JD to indicate an estimated result with a possible low bias. The impact is minimal since the qualified parent sample result was either detected significantly less than the ADEC cleanup level or greater than the ADEC cleanup level.

Table D-2-2 (Attachment D-2) provides a summary of the MS and/or MSD recovery outliers and the affected parent sample results; Table D-2-3 (Attachment D-2) provides a summary of the MS/MSD RPD outliers and the affected parent sample results.

2.3 SURROGATE SPIKE RECOVERIES

Numerous samples had dilution factors greater than 5, preventing accurate quantitation of the Method SW8082 surrogate decachlorobiphenyl. Sample results with surrogate recoveries outside of control limits and a dilution factor of 5 or greater were not qualified.

The decachlorobiphenyl surrogate recovery was less than the LCL (60 percent) for samples, 14PH-RRS-H41V40-C-6 (43 percent), 14PH-RRS-H48V32-B-18 (43 percent), and 14PH-RRS-H49V34-C-18 (48 percent). The sample results were qualified JS- to indicate an estimated result with a possible low bias. The impact is minimal since all qualified results were either nondetect or detected significantly less than the ADEC cleanup level.

Table D-2-4 (Attachment D-2) provides a summary of the surrogate recovery outliers and the affected sample results.

2.4 FIELD DUPLICATES

A total of 52 FD were submitted with the PCB excavation samples. The goal of 10 percent FDs was met for the 2014 removal action.

FD precision was evaluated against the recommended RPD limit of 50 percent for soil (ADEC 2009), as stated in the ADEC laboratory data review checklists (Attachment D-3). RPD values for sample pair results where one was nondetect and the other was detected were calculated using the LOD value for the nondetect result. Sample/FD results with RPDs greater than 50 percent were qualified JD and were considered estimated. The greater concentration will be used for reporting and decision making purposes. Table D-2-5 (Attachment D-2) provides a summary of the sample and FD results qualified JD due to RPDs greater than 50 percent.

2.5 CONFIRMATION ANALYSIS

PCB results are confirmed on dual columns as per Method SW8082. If the RPD between the results on the primary and confirmation columns is greater than 40 percent, the reported result

is qualified as estimated (JPR). Eleven samples results had RPDs that were greater than 40 percent for Aroclor 1260. The impact is minimal since all results were significantly less than the ADEC cleanup level. Table D-2-6 (Attachment D-2) summarizes results with high RPD values.

2.6 DETECTION LIMIT ASSESSMENT

In all cases, laboratory LODs were greater than the ADEC cleanup levels due to sample dilution (factor of 20 or greater) because of elevated concentrations of Aroclor 1260. PCB Aroclors 1016, 1221, 1232, 1242, 1248, and 1254 with LODs greater than the ADEC cleanup level were flagged E; these are shown in italics in Attachment D-1 and in Table D-2-7 (Attachment D-2). The data quality was minimally affected since the concentration of Aroclor 1260 was much greater than the ADEC cleanup level.

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3.0 CONCLUSION

In general, the overall quality of project data was acceptable. The completeness goal of 95 percent was met for all parameters. All of the reported data were considered usable for the purpose of the soil removal action; limitations are discussed in this DQA and ADEC laboratory data review checklists (Attachment D-3). The qualifications applied during data validation did not adversely affect data usability.

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4.0 REFERENCES

ADEC (Alaska Department of Environmental Conservation). 2012 (April). *Oil and Other Hazardous Substances Pollution Control*. 18 AAC 75.

ADEC. 2009 (March).*Environmental Laboratory Data and Quality Assurance Requirements; Technical Memorandum.* Division of Spill Prevention and Response. Contaminated Sites Program.

DoD (U.S. Department of Defense) 2010 (October). *Quality Systems Manual for Environmental Laboratories*. DoD Environmental Quality Workgroup, Department of the Navy, Lead Service. Version 4.2

EPA (U.S. Environmental Protection Agency). 2008 (January). *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*. Status Tables for SW-846, Third Edition, Final Updates IVA and IVB.

USAF (U.S. Air Force). 2013 (August). *PCB-Contaminated Soil Excavation and Removal Action: 2013 Work Plan.* Prepared by KEMRON Environmental Services Inc.

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ATTACHMENT D-1

Sample Summary and Analytical Data Tables

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-RRS-H45V08-D-12	H45V08	28-May-2014	0817	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	6.00	12.00
14PH-RRS-H40V09-D-18	H40V09	28-May-2014	0817	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H40V09-D-24	H40V09	28-May-2014	0820	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	18.00	24.00
14PH-RRS-H45V08-D-18	H45V08	28-May-2014	0827	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H45V08-D-18-9	H45V08	28-May-2014	0827	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H41V11-D-18	H41V11	28-May-2014	0830	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H41V11-D-18-9	H41V11	28-May-2014	0830	DM/JC	1	Clear	4 oz	4C	SO	SW8082	dup	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H43V14-D-18	H43V14	28-May-2014	0845	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H42V13-D-18	H42V13	28-May-2014	0900	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H40V13-D-18	H40V13	28-May-2014	0910	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H40V13-D-24	H40V13	28-May-2014	0912	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	18.00	24.00
14PH-RRS-H42V13-D-24	H42V13	28-May-2014	0915	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	18.00	24.00
14PH-RRS-H45V14-D-12	H45V14	28-May-2014	0916	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	6.00	12.00
14PH-RRS-H45V14-D-18	H45V14	28-May-2014	0917	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H45V16-D-18	H45V16	28-May-2014	0923	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H45V16-D-18-9	H45V16	28-May-2014	0923	DM/JC	1	Clear	4 oz	4C	SO	SW8082	dup	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	12.00	18.00
14PH-RRS-H47V18-D-18	H47V18	28-May-2014	0935	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405355	12.00	18.00
14PH-RRS-H40V15-D-18	H40V15	28-May-2014	0936	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405355	12.00	18.00
14PH-RRS-H40V15-D-24	H40V15	28-May-2014	0940	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405355	18.00	24.00
14PH-RRS-H47V18-D-24	H47V18	28-May-2014	0943	DM/JC	2	Clear	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405355	18.00	24.00
14PH-RRS-H46V07-D-18	H46V07	27-May-2014	1512	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H46V07-D-18-9	H46V07	27-May-2014	1512	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H46V07-D-24	H46V07	27-May-2014	1530	DM/JC	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H46V09-D-18	H46V09	27-May-2014	1532	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H46V09-D-24	H46V09	27-May-2014	1535	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H46V10-D-18	H46V10	27-May-2014	1545	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H46V10-D-24	H46V10	27-May-2014	1547	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H45V11-D-18	H45V11	27-May-2014	1555	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H46V12-D-18	H46V12	27-May-2014	1600	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H45V11-D-24	H45V11	27-May-2014	1603	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H46V12-D-24	H46V12	27-May-2014	1607	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H46V12-D-24-9	H46V12	27-May-2014	1607	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H44V12-D-18	H44V12	27-May-2014	1620	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H43V10-D-18	H43V10	27-May-2014	1625	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H43V10-D-24	H43V10	27-May-2014	1630	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H44V12-D-24	H44V12	27-May-2014	1630	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H42V09-D-18	H42V09	28-May-2014	0755	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H43V08-D-18	H43V08	28-May-2014	0757	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H43V08-D-18-9	H43V08	28-May-2014	0757	DM/JC	1	Clear	4 oz	4C	SO	SW8082	dup	3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	12.00	18.00
14PH-RRS-H43V08-D-24	H43V08	28-May-2014	0805	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405343	18.00	24.00
14PH-RRS-H42V09-D-24	H42V09	28-May-2014	0805	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH001	The Great Stallion	30-May-14	ALS	K1405354	18.00	24.00
14PH-RRS-H50V19-D-18	H50V19	28-May-2014	1010	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	12.00	18.00
14PH-RRS-H50V19-D-24	H50V19	28-May-2014	1011	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	18.00	24.00
14PH-RRS-H52V22-D-12	H52V22	28-May-2014	1045	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	6.00	12.00
14PH-RRS-H53V25-D-18	H53V25	28-May-2014	1050	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	12.00	18.00
14PH-RRS-H53V25-D-24	H53V25	28-May-2014	1052	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	18.00	24.00
14PH-RRS-H41V27-D-12	H41V27	28-May-2014	1055	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	6.00	12.00
14PH-RRS-H54V20-D-12	H54V20	28-May-2014	1057	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	6.00	12.00
14PH-RRS-H54V29-D-12	H54V29	28-May-2014	1100	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	6.00	12.00
14PH-RRS-H41V21-D-12	H41V21	28-May-2014	1102	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	6.00	12.00
14PH-RRS-H54V29-D-18	H54V29	28-May-2014	1104	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405355	12.00	18.00
14PH-RRS-H49V26-D-12	H49V26	28-May-2014	1105	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H49V26-D-12-9	H49V26	28-May-2014	1105	DM/JC	1	Clear	4 oz	4C	SO	SW8082	dup	3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H41V21-D-18	H41V21	28-May-2014	1107	DM/JC	2	Clear	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH002	Needle	30-May-14	ALS	K1405356	12.00	18.00
14PH-RRS-H47V28-D-12	H47V28	28-May-2014	1108	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H38V19-D-12	H38V19	28-May-2014	1114	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H43V29-D-18	H43V29	28-May-2014	1115	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	12.00	18.00
14PH-RRS-H38V19-D-18	H38V19	28-May-2014	1118	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	12.00	18.00
14PH-RRS-H44V26-D-12	H44V26	28-May-2014	1125	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H42V30-D-18	H42V30	28-May-2014	1126	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	12.00	18.00
14PH-RRS-H43V31-D-12	H43V31	28-May-2014	1131	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H40V32-D-12	H40V32	28-May-2014	1137	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-RRS-H53V14-D-12	H53V14	28-May-2014	1145	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H41V36-D-18	H41V36	28-May-2014	1150	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	12.00	18.00
14PH-RRS-H52V09-D-12	H52V09	28-May-2014	1155	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405356	6.00	12.00
14PH-RRS-H52V09-D-18	H52V09	28-May-2014	1157	DM/JC	2	Clear	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH002	Needle	30-May-14	ALS	K1405357	12.00	18.00
14PH-RRS-H35V28-D-12	H35V28	28-May-2014	1158	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H51V06-D-12	H51V06	28-May-2014	1206	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H48V08-D-12	H48V08	28-May-2014	1215	DM/JC	1	Clear	4 oz	4C	SO	SW8082		3 day		14PH002	Needle	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H48V08-D-12-9	H48V08	28-May-2014	1215	DM/JC	1	Clear	4 oz	4C	SO	SW8082	dup	3 day		14PH002	Needle	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H37V36-D-12	H37V36	29-May-2014	1120	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H42V39-D-12	H42V39	29-May-2014	1128	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H42V39-D-12-9	H42V39	29-May-2014	1128	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H42V39-D-18	H42V39	29-May-2014	1130	DM/JC	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	12.00	18.00
14PH-RRS-H44V37-D-12	H44V37	29-May-2014	1140	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H46V35-D-18	H46V35	29-May-2014	1148	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	12.00	18.00
14PH-RRS-H46V35-D-24	H46V35	29-May-2014	1152	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	18.00	24.00
14PH-RRS-H46V35-D-24-9	H46V35	29-May-2014	1152	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	18.00	24.00
14PH-RRS-H47V33-D-12	H47V33	29-May-2014	1155	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405357	6.00	12.00
14PH-RRS-H47V37-D-12	H47V37	29-May-2014	1200	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	6.00	12.00
14PH-RRS-H50V35-D-12	H50V35	29-May-2014	1205	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	6.00	12.00
14PH-RRS-H50V35-D-18	H50V35	29-May-2014	1207	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	12.00	18.00
14PH-RRS-H53V35-D-12	H53V35	29-May-2014	1212	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	6.00	12.00
14PH-RRS-H53V35-D-18	H53V35	29-May-2014	1215	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	12.00	18.00
14PH-RRS-H54V38-D-12	H54V38	29-May-2014	1217	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	6.00	12.00
14PH-RRS-H54V38-D-18	H54V38	29-May-2014	1219	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	12.00	18.00
14PH-RRS-H55V33-D-18	H55V33	29-May-2014	1225	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	12.00	18.00
14PH-RRS-H55V33-D-24	H55V33	29-May-2014	1227	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH003	Pleasure House	30-May-14	ALS	K1405435	18.00	24.00
14PH-TU92-L10-G-D-12	TU92-L10-G	31-May-2014	0900	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L10-G-D-18	TU92-L10-G	31-May-2014	0905	DM/JC	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH004	Raven	31-May-14	ALS	K1405447	12.00	18.00
14PH-TU92-L15-E-D-12	TU92-L15-E	31-May-2014	0910	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L15-E-D-12-9	TU92-L15-E	31-May-2014	0910	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L15-E-D-18	TU92-L15-E	31-May-2014	0915	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	12.00	18.00
14PH-TU92-L15-D-D-12	TU92-L15-D	31-May-2014	0917	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L15-D-D-18	TU92-L15-D	31-May-2014	0919	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	12.00	18.00
14PH-TU92-L16-D-D-12	TU92-L16-D	31-May-2014	0922	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L16-D-D-18	TU92-L16-D	31-May-2014	0925	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	12.00	18.00
14PH-TU92-L17-D-D-12	TU92-L17-D	31-May-2014	0930	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L17-D-D-18	TU92-L17-D	31-May-2014	0932	DM/JC	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH004	Raven	31-May-14	ALS	K1405447	12.00	18.00
14PH-TU92-L16-A-D-12	TU92-L16-A	31-May-2014	0935	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L16-A-D-18	TU92-L16-A	31-May-2014	0938	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	12.00	18.00
14PH-TU92-L15-A-D-12	TU92-L15-A	31-May-2014	0940	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405447	6.00	12.00
14PH-TU92-L15-A-D-18	TU92-L15-A	31-May-2014	0944	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405448	12.00	18.00
14PH-TU92-L15-A-D-18-9	TU92-L15-A	31-May-2014	0944	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH004	Raven	31-May-14	ALS	K1405448	12.00	18.00
14PH-TU92-L15-B-D-12	TU92-L15-B	31-May-2014	0946	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405448	6.00	12.00
14PH-TU92-L15-B-D-18	TU92-L15-B	31-May-2014	0948	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	31-May-14	ALS	K1405448	12.00	18.00
14PH-RRS-H38V08-D-12	H38V08	30-May-2014	1245	DM/JC	1	Amber	9 oz	4C	SO	SW8082		3 day		14PH004	Raven	30-May-14	ALS	K1405447	6.00	12.00
14PH-RRS-H41V06-D-18	H41V06	30-May-2014	1300	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	30-May-14	ALS	K1405447	12.00	18.00
14PH-RRS-H41V06-D-24	H41V06	30-May-2014	1305	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	30-May-14	ALS	K1405447	18.00	24.00
14PH-RRS-H41V06-D-24-9	H41V06	30-May-2014	1305	DM/JC	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH004	Raven	30-May-14	ALS	K1405447	18.00	24.00
14PH-RRS-H37V11-D-18	H37V11	30-May-2014	1320	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	30-May-14	ALS	K1405447	12.00	18.00
14PH-RRS-H37V11-D-24	H37V11	30-May-2014	1323	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day	Hold	14PH004	Raven	30-May-14	ALS		18.00	24.00
14PH-RRS-H38V15-D-18	H38V15	30-May-2014	1335	DM/JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH004	Raven	30-May-14	ALS	K1405447	12.00	18.00
14PH-RRS-H38V15-D-24	H38V15	30-May-2014	1340	DM/JC	2	Amber	4 oz	4C	SO	SW8082		3 day	Hold	14PH004	Raven	30-May-14	ALS		18.00	24.00
14PH-RRS-H46V07-D-30	H46V07	06-Jun-2014	1150	MP/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH005	Spear Handler	13-Jun-14	ALS	K1406026	24.00	30.00
14PH-RRS-H46V35-D-30	H46V35	06-Jun-2014	1210	MP/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH005	Spear Handler	13-Jun-14	ALS	K1406026	24.00	30.00
14PH-RRS-H42V09-D-30	H42V09	06-Jun-2014	1505	MP/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH005	Spear Handler	13-Jun-14	ALS	K1406026	24.00	30.00
14PH-RRS-H37V11-D-30	H37V11	11-Jun-2014	1500	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH005	Spear Handler	13-Jun-14	ALS	K1406026	24.00	30.00
14PH-RRS-H39V15-D-30	H39V15	11-Jun-2014	1530	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH005	Spear Handler	13-Jun-14	ALS	K1406026	24.00	30.00
14PH-RRS-H55V33-D-30	H55V33	11-Jun-2014	1550	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH005	Spear Handler	13-Jun-14	ALS	K1406026	24.00	30.00
14PH-RRS-H54V38-D-24	H54V38	11-Jun-2014	1602	MP/HJ	2	Amber	4 oz	4C	SO	SW8082		3 day		14PH005	Spear Handler	13-Jun-14	ALS	K1406026	18.00	24.00
14PH-SL01-C-12	SL01	17-Jun-2014	1044	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	6.00	12.00
14PH-TU92-L15-B-C-12	TU92-L15-B	19-Jun-2014	1735	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	6.00	12.00
14PH-TU92-L16-A-C-6	TU92-L16-A	19-Jun-2014	1737	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-TU92-L15-A-C-6	TU92-L15-A	19-Jun-2014	1734	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-TU92-L15-D-C-6	TU92-L15-D	19-Jun-2014	1731	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-AR05-R1-D-C-6	AR05-R1-D	19-Jun-2014	1728	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-TU92-L17-D-C-6	TU92-L17-D	19-Jun-2014	1727	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-AR05-R1-E-C-6	AR05-R1-E	19-Jun-2014	1730	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-AR05-R1-C-C-6	AR05-R1-C	19-Jun-2014	1726	MP/HJ	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-TU92-L15-ES2-C-6	TU92-L15-E	19-Jun-2014	1733	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-TU92-L15-ES1-C-6	TU92-L15-E	19-Jun-2014	1741	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-TU92-L16-D-C-6	TU92-L16-D	19-Jun-2014	1729	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH006	Gilly	21-Jun-14	ALS	K1406332	0.00	6.00
14PH-RRS-H40V06-C-24	H40V06	24-Jun-2014	1330	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-RRS-H40V05-C-24	H40V05	24-Jun-2014	1335	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-RRS-H41V05-C-24	H41V05	24-Jun-2014	1340	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-RRS-H42V05-C-24	H42V05	24-Jun-2014	1345	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-TU92-L10-G-C-24	TU92-L10-G	24-Jun-2014	1350	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-TU92-L11-G-C-24	TU92-L11-G	24-Jun-2014	1355	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-TU92-L11-G-C-24-9	TU92-L11-G	24-Jun-2014	1355	JC	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-TU92-L12-G-C-24	TU92-L12-G	24-Jun-2014	1400	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	18.00	24.00
14PH-RRS-H48V05-C-12	H48V05	24-Jun-2014	1410	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	6.00	12.00
14PH-RRS-H48V06-C-12	H48V06	24-Jun-2014	1415	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	6.00	12.00
14PH-RRS-H48V07-C-12	H48V07	24-Jun-2014	1420	JC	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	6.00	12.00
14PH-RRS-H48V08-C-12	H48V08	24-Jun-2014	1425	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	6.00	12.00
14PH-RRS-H49V08-C-6	H49V08	24-Jun-2014	1430	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H49V09-C-6	H49V09	24-Jun-2014	1600	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H49V10-C-6	H49V10	24-Jun-2014	1605	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H49V11-C-6	H49V11	24-Jun-2014	1610	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H49V12-C-6	H49V12	24-Jun-2014	1615	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H48V12-C-6	H48V12	24-Jun-2014	1620	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H48V13-C-6	H48V13	24-Jun-2014	1625	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H47V13-C-6	H47V13	24-Jun-2014	1630	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406585	0.00	6.00
14PH-RRS-H47V14-C-6	H47V14	24-Jun-2014	1635	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	0.00	6.00
14PH-RRS-H47V14-C-6-9	H47V14	24-Jun-2014	1635	JC	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	0.00	6.00
14PH-RRS-H47V15-C-6	H47V15	24-Jun-2014	1640	JC	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	0.00	6.00
14PH-RRS-H48V09-C-24	H48V09	24-Jun-2014	1650	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	18.00	24.00
14PH-RRS-H48V10-C-24	H48V10	24-Jun-2014	1655	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	18.00	24.00
14PH-RRS-H48V11-C-24	H48V11	24-Jun-2014	1700	JC	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	18.00	24.00
14PH-RRS-H48V11-C-24-9	H48V11	24-Jun-2014	1700	JC	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	18.00	24.00
14PH-RRS-H51V08-C-12	H51V08	25-Jun-2014	1415	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-RRS-H51V09-C-12	H51V09	25-Jun-2014	1416	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-RRS-H51V10-C-12	H51V10	25-Jun-2014	1417	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-RRS-H51V07-C-12	H51V07	25-Jun-2014	1418	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-RRS-H51V06-C-12	H51V06	25-Jun-2014	1420	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-RRS-H51V11-C-12	H51V11	25-Jun-2014	1422	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L19-G-C-12	TU92-L19-G	25-Jun-2014	1425	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L20-G-C-12	TU92-L20-G	25-Jun-2014	1428	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L21-G-C-12	TU92-L21-G	25-Jun-2014	1430	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L21-G-C-12-9	TU92-L21-G	25-Jun-2014	1430	JC/EH	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L19-F-C-12	TU92-L19-F	25-Jun-2014	1432	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L20-E-C-12	TU92-L20-E	25-Jun-2014	1437	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L20-F-C-12	TU92-L20-F	25-Jun-2014	1440	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406586	6.00	12.00
14PH-TU92-L21-E-C-12	TU92-L21-E	25-Jun-2014	1441	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406587	6.00	12.00
14PH-TU92-L21-E-C-12-9	TU92-L21-E	25-Jun-2014	1441	JC/EH	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH007	Unic	26-Jun-14	ALS	K1406587	6.00	12.00
14PH-TU92-L21-F-C-12	TU92-L21-F	25-Jun-2014	1444	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406587	6.00	12.00
14PH-TU92-L22-E-C-12	TU92-L22-E	25-Jun-2014	1443	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH007	Unic	26-Jun-14	ALS	K1406587	6.00	12.00
14PH-TU92-L22-F-C-12	TU92-L22-F	25-Jun-2014	1445	JC/EH	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH007	Unic	26-Jun-14	ALS	K1406587	6.00	12.00
14PH-AR04-L1-D-C-12	AR04-L1-D	25-Jun-2014	1447	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	6.00	12.00
14PH-AR04-L1-E-C-12	AR04-L1-E	25-Jun-2014	1450	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	6.00	12.00
14PH-AR05-L1-A-C-6	AR05-L1-A	25-Jun-2014	1452	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	0.00	6.00
14PH-RRS-H42V09-C-36	H42V09	26-Jun-2014	1212	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H42V08-C-36	H42V08	26-Jun-2014	1214	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H43V09-C-36	H43V09	26-Jun-2014	1218	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H43V08-C-36	H43V08	26-Jun-2014	1220	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H44V09-C-36	H44V09	26-Jun-2014	1226	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-RRS-H44V08-C-36	H44V08	26-Jun-2014	1228	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H44V07-C-36	H44V07	26-Jun-2014	1230	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H45V10-C-36	H45V10	26-Jun-2014	1234	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H45V09-C-36	H45V09	26-Jun-2014	1236	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H45V08-C-36	H45V08	26-Jun-2014	1241	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H45V07-C-36	H45V07	26-Jun-2014	1243	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H46V10-C-36	H46V10	26-Jun-2014	1245	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H46V10-C-36-9	H46V10	26-Jun-2014	1245	JC/EH	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H46V09-C-36	H46V09	26-Jun-2014	1248	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-RRS-H46V08-C-36	H46V08	26-Jun-2014	1250	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH008	Red Wedding	26-Jun	ALS	K1406584	30.00	36.00
14PH-TU92-L3-G-C-18	TU92-L3-G	30-Jun-2014	1010	JC/DM	1	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH009	TBs	1-Jul	ALS	K1406770	18.00	24.00
14PH-TU92-L3-F-C-18	TU92-L3-F	30-Jun-2014	1012	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	18.00	24.00
14PH-TU92-L2-F-C-30	TU92-L2-F	30-Jun-2014	1015	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	30.00	36.00
14PH-TU92-L2-F-F-30	TU92-L2-F-F	30-Jun-2014	1030	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	30.00	36.00
14PH-TU92-L5-C-C-18	TU92-L5-C	30-Jun-2014	1035	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	18.00	24.00
14PH-TU92-L2-F-R-30	TU92-L2-F-R	30-Jun-2014	1036	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	30.00	36.00
14PH-TU92-L2-F-B-30	TU92-L2-F-B	30-Jun-2014	1037	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	30.00	36.00
14PH-TU92-L4-C-C-18	TU92-L4-C	30-Jun-2014	1038	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406772	18.00	24.00
14PH-TU92-L3-D-C-12	TU92-L3-D	30-Jun-2014	1040	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406772	12.00	18.00
14PH-TU92-L2-C-C-18	TU92-L2-C	30-Jun-2014	1042	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406772	18.00	24.00
14PH-TU92-L4-D-C-18	TU92-L4-D	30-Jun-2014	1039	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406772	18.00	24.00
14PH-TU92-L4-D-C-18-9	TU92-L4-D	30-Jun-2014	1039	JC/DM	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH009	TBs	1-Jul	ALS	K1406772	18.00	24.00
14PH-TU92-L3-G-R-18	TU92-L3-G-R	30-Jun-2014	1045	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406772	0.00	18.00
14PH-RRS-H41V08-C-24	H41V08	27-Jun-2014	1220	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H41V09-C-24	H41V09	27-Jun-2014	1222	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H41V10-C-24	H41V10	27-Jun-2014	1224	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H40V09-C-24	H40V09	27-Jun-2014	1230	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H40V10-C-24	H40V10	27-Jun-2014	1232	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H40V10-C-24-9	H40V10	27-Jun-2014	1232	JC/EH	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H39V10-C-24	H39V10	27-Jun-2014	1244	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H39V09-C-24	H39V09	27-Jun-2014	1242	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H42V10-C-24	H42V10	27-Jun-2014	1250	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H43V10-C-24	H43V10	27-Jun-2014	1252	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H44V10-C-24	H44V10	27-Jun-2014	1254	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H42V13-C-24	H42V13	27-Jun-2014	1300	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H42V13-C-24-9	H42V13	27-Jun-2014	1300	JC/EH	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H43V13-C-24	H43V13	27-Jun-2014	1303	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H44V13-C-24	H44V13	27-Jun-2014	1304	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H43V12-C-24	H43V12	27-Jun-2014	1305	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H44V12-C-24	H44V12	27-Jun-2014	1306	JC/EH	1	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H44V11-C-24	H44V11	27-Jun-2014	1308	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H44V11-C-24-9	H44V11	27-Jun-2014	1308	JC/EH	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H43V11-C-24	H43V11	27-Jun-2014	1309	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406769	24.00	30.00
14PH-RRS-H45V13-C-24	H45V13	27-Jun-2014	1312	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	24.00	30.00
14PH-RRS-H45V12-C-24	H45V12	27-Jun-2014	1313	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	24.00	30.00
14PH-RRS-H47V11-C-24	H47V11	27-Jun-2014	1314	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	24.00	30.00
14PH-RRS-H46V12-C-18	H46V12	27-Jun-2014	1315	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	24.00	30.00
14PH-RRS-H46V11-C-24	H46V11	27-Jun-2014	1316	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	24.00	30.00
14PH-RRS-H47V12-C-18	H47V12	27-Jun-2014	1317	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	24.00	30.00
14PH-RRS-H45V11-C-24	H45V11	27-Jun-2014	1318	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	24.00	30.00
14PH-ST01-1	ST01	30-Jun-2014	0858	DM/GR	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	0.00	6.00
14PH-ST02-1	ST02	30-Jun-2014	0900	DM/GR	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	0.00	6.00
14PH-ST03-1	ST03	30-Jun-2014	0902	DM/GR	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	0.00	6.00
14PH-ST04-1	ST04	30-Jun-2014	0904	DM/GR	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	0.00	6.00
14PH-ST05-1	ST05	30-Jun-2014	0906	DM/GR	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH009	TBs	1-Jul	ALS	K1406770	0.00	6.00
14PH-ST05-1-9	ST05	30-Jun-2014	0906	DM/GR	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH009	TBs	1-Jul	ALS	K1406770	0.00	6.00
14PH-TU92-L3-G-L-18	TU92-L3-G-L	30-Jun-2014	1047	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L3-G-F-18	TU92-L3-G-F	30-Jun-2014	1048	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L2-C-F-18	TU92-L2-C-F	30-Jun-2014	1100	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L2-C-F-18-9	TU92-L2-C-F	30-Jun-2014	1100	JC/DM	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	-9.00
14PH-TU92-L2-C-L-18	TU92-L2-C-L	30-Jun-2014	1101	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L2-C-R-18	TU92-L2-C-R	30-Jun-2014	1102	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-TU92-L4-C-R-18	TU92-L4-C-R	30-Jun-2014	1104	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L4-C-B-18	TU92-L4-C-B	30-Jun-2014	1105	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L4-D-L-18	TU92-L4-D-L	30-Jun-2014	1106	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L5-C-L-18	TU92-L5-C-L	30-Jun-2014	1107	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L4-D-F-18	TU92-L4-D-F	30-Jun-2014	1108	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L5-C-B-18	TU92-L5-C-B	30-Jun-2014	1110	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-TU92-L5-C-F-18	TU92-L5-C-F	30-Jun-2014	1111	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	0.00	18.00
14PH-RRS-H47V10-C-36	H47V10	30-Jun-2014	1404	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	36.00	42.00
14PH-RRS-H47V09-C-36	H47V09	30-Jun-2014	1405	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	36.00	42.00
14PH-RRS-H47V08-C-36	H47V08	30-Jun-2014	1406	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	36.00	42.00
14PH-RRS-H46V07-C-36	H46V07	30-Jun-2014	1408	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	36.00	42.00
14PH-RRS-H46V07-C-36-9	H46V07	30-Jun-2014	1408	JC/DM	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH010	Reek	1-Jul	ALS	K1406765	36.00	42.00
14PH-RRS-H47V07-C-36	H47V07	30-Jun-2014	1410	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	36.00	42.00
14PH-RRS-H47V06-C-36	H47V06	30-Jun-2014	1413	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406765	36.00	42.00
14PH-RRS-H47V05-C-12	H47V05	30-Jun-2014	1415	JC/DM	1	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH010	Reek	1-Jul	ALS	K1406771	12.00	18.00
14PH-RRS-H46V06-C-36	H46V06	30-Jun-2014	1418	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	36.00	42.00
14PH-RRS-H46V06-C-36-9	H46V06	30-Jun-2014	1418	JC/DM	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH010	Reek	1-Jul	ALS	K1406771	36.00	42.00
14PH-RRS-H45V06-C-36	H45V06	30-Jun-2014	1420	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	36.00	42.00
14PH-RRS-H41V11-C-24	H41V11	30-Jun-2014	1506	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	24.00	30.00
14PH-RRS-H39V11-C-24	H39V11	30-Jun-2014	1508	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	24.00	30.00
14PH-RRS-H42V12-C-24	H42V12	30-Jun-2014	1510	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	24.00	30.00
14PH-RRS-H40V11-C-24	H40V11	30-Jun-2014	1511	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	24.00	30.00
14PH-RRS-H42V11-C-24	H42V11	30-Jun-2014	1512	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	24.00	30.00
14PH-RRS-H36V36-C-6	H36V36	30-Jun-2014	1533	JC/DM	1	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day		14PH010	Reek	1-Jul	ALS	K1406771	6.00	12.00
14PH-RRS-H38V36-C-6	H38V36	30-Jun-2014	1535	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	6.00	12.00
14PH-RRS-H37V35-C-6	H37V35	30-Jun-2014	1538	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	6.00	12.00
14PH-RRS-H37V36-C-6	H37V36	30-Jun-2014	1540	JC/DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	6.00	12.00
14PH-TU92-L10-G-R-24	TU92-L10-G-R	30-Jun-2014	1644	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	0.00	24.00
14PH-TU92-L10-G-B-24	TU92-L10-G-B	30-Jun-2014	1647	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	0.00	24.00
14PH-TU92-L11-G-B-24	TU92-L11-G-B	30-Jun-2014	1649	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	0.00	24.00
14PH-TU92-L12-G-B-24	TU92-L12-G-B	30-Jun-2014	1653	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	0.00	24.00
14PH-TU92-L12-G-L-24	TU92-L12-G-L	30-Jun-2014	1655	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	0.00	24.00
14PH-RRS-H40V06-R-24	H40V06-R	30-Jun-2014	1633	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	0.00	24.00
14PH-RRS-H40V05-B-24	H40V05-B	30-Jun-2014	1638	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406771	0.00	24.00
14PH-RRS-H40V05-R-24	H40V05-R	30-Jun-2014	1636	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	0.00	24.00
14PH-RRS-H41V05-B-24	H41V05-B	30-Jun-2014	1642	JC/EH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	0.00	24.00
14PH-TU92-L3-F-B-18	TU92-L3-F-B	30-Jun-2014	1046	DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	0.00	18.00
14PH-TU92-L3-F-L-18	TU92-L3-F-L	30-Jun-2014	1045	DM	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	0.00	18.00
14PH-RRS-H37V11-D-36	H37V11	11-Jun-2014	1515	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	30.00	36.00
14PH-RRS-H39V15-D-36	H39V15	11-Jun-2014	1545	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	30.00	36.00
14PH-RRS-H55V33-D-36	H55V33	11-Jun-2014	1555	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	30.00	36.00
14PH-RRS-H54V38-D-30	H54V38	11-Jun-2014	1604	MP/HJ	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH010	Reek	1-Jul	ALS	K1406772	24.00	30.00
14PH-TU10-L18-E-B-24	TU10-L18-E-B	08-Sep-2014	1617	PB	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	0.00	24.00
14PH-TU10-L18-E-R-24	TU10-L18-E-R	08-Sep-2014	1617	PB	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	0.00	24.00
14PH-TU10-L18-E-C-18	TU10-L18-E	08-Sep-2014	1617	PB	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	0.00	24.00
14PH-TU10-L17-E-C-8	TU10-L17-E	17-Sep-2014	1048	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	8.00	12.00
14PH-TU10-L17-E-C-8-9	TU10-L17-E	17-Sep-2014	1048	GR/MH	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	8.00	12.00
14PH-TU10-L17-F-C-8	TU10-L17-F	17-Sep-2014	1052	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	8.00	12.00
14PH-TU10-L18-D-C-8	TU10-L18-D	17-Sep-2014	1055	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	8.00	12.00
14PH-TU10-L20-E-C-12	TU10-L20-E	17-Sep-2014	1056	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	12.00	18.00
14PH-TU10-L19-E-C-12	TU10-L19-E	17-Sep-2014	1058	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	12.00	18.00
14PH-TU10-L19-D-C-8	TU10-L19-D	17-Sep-2014	1059	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	8.00	12.00
14PH-TU10-L18-E-C-24	TU10-L18-E	17-Sep-2014	1101	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	24.00	30.00
14PH-TU10-L20-D-C-8	TU10-L20-D	17-Sep-2014	1102	GR/MH	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH011	Fluffy	19-Sep	ALS	K1410188	8.00	12.00
14PH-TU10-L23-G-C-6	TU10-L23-G	17-Sep-2014	1110	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L23-G-C-6-9	TU10-L23-G	17-Sep-2014	1110	GR/MH	1	Amber	4 oz	4C	SO	SW8082	Dup	14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L23-H-C-6	TU10-L23-H	17-Sep-2014	1114	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L23-F-C-6	TU10-L23-F	17-Sep-2014	1115	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L21-D-C-6	TU10-L21-D	17-Sep-2014	1116	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L23-E-C-6	TU10-L23-E	17-Sep-2014	1120	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L20-B-C-6	TU10-L20-B	17-Sep-2014	1124	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L21-C-C-6	TU10-L21-C	17-Sep-2014	1125	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-TU10-L20-A-C-6	TU10-L20-A	17-Sep-2014	1129	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L20-A-C-6-9	TU10-L20-A	17-Sep-2014	1129	GR/MH	1	Amber	4 oz	4C	SO	SW8082	Dup	14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L15-D-C-6	TU10-L15-D	17-Sep-2014	1132	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L15-C-C-6	TU10-L15-C	17-Sep-2014	1135	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L15-B-C-6	TU10-L15-B	17-Sep-2014	1136	GR/MH	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU10-L15-A-C-6	TU10-L15-A	17-Sep-2014	1140	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU09-L15-G-C-6	TU09-L15-G	17-Sep-2014	1415	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-TU09-L16-G-C-6	TU09-L16-G	17-Sep-2014	1418	GR/MH	1	Amber	4 oz	4C	SO	SW8082		14 day		14PH011	Fluffy	19-Sep	ALS	K1410190	6.00	12.00
14PH-RRS-H55V37-C-24	H55V37	20-Sep-2014	1440	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H54V37-C-24	H54V37	20-Sep-2014	1444	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H55V38-C-24	H55V38	20-Sep-2014	1449	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H54V38-C-24	H54V38	20-Sep-2014	1450	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H55V39-C-24	H55V39	20-Sep-2014	1442	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H54V39-C-24	H54V39	20-Sep-2014	1453	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H55V39-L-24	H55V39-L	20-Sep-2014	1454	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H55V39-F-24	H55V39-F	20-Sep-2014	1455	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H55V38-L-24	H55V38-L	20-Sep-2014	1456	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H54V39-F-24	H54V39-F	20-Sep-2014	1457	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H54V39-R-24	H54V39-R	20-Sep-2014	1458	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H54V38-R-24	H54V38-R	20-Sep-2014	1459	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	24.00	30.00
14PH-RRS-H56V40-C-6	H56V40	20-Sep-2014	1510	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H55V40-C-6	H55V40	20-Sep-2014	1512	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H55V40-C-6-9	H55V40	20-Sep-2014	1512	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H54V40-C-6	H54V40	20-Sep-2014	1515	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H53V40-C-6	H53V40	20-Sep-2014	1518	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H56V37-C-6	H56V37	20-Sep-2014	1527	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H57V37-C-6	H57V37	20-Sep-2014	1530	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H57V37-C-6-9	H57V37	20-Sep-2014	1530	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082	dup	3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H58V37-C-6	H58V37	20-Sep-2014	1533	GR/MH/LD	1	Amber	4 oz	4C	SO	SW8082		3 day		14PH012	Roadkill	21-Sep	ALS	K1410316	0.00	6.00
14PH-RRS-H50V38-C-6	H50V38	22-Sep-2014	1359	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-H51V38-C-6	H51V38	22-Sep-2014	1402	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-H57V35-C-6	H57V35	22-Sep-2014	1404	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-H52V38-C-6	H52V38	22-Sep-2014	1405	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-H59V34-C-6	H59V34	22-Sep-2014	1537	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H59V33-C-6	H59V33	22-Sep-2014	1557	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H58V33-C-6	H58V33	22-Sep-2014	1559	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H58V35-C-6	H58V35	22-Sep-2014	1600	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H58V36-C-6	H58V36	22-Sep-2014	1602	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082	MS/MSD	3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H59V35-C-6	H59V35	22-Sep-2014	1536	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H59V35-C-6-9	H59V35	22-Sep-2014	1536	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V27-C-6	H56V27	23-Sep-2014	1502	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V26-C-6	H56V26	23-Sep-2014	1504	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V24-C-6	H56V24	23-Sep-2014	1510	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V21-C-6	H56V21	23-Sep-2014	1512	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V20-C-6	H56V20	23-Sep-2014	1522	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V20-C-6-9	H56V20	23-Sep-2014	1522	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082	Dup	3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V19-C-6	H56V19	23-Sep-2014	1535	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V18-C-6	H56V18	23-Sep-2014	1537	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V15-C-6	H56V15	23-Sep-2014	1609	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V14-C-6	H56V14	23-Sep-2014	1611	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H56V13-C-6	H56V13	23-Sep-2014	1614	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		3 day	2 COCs in one cooler "Jane Deere"	14PH013	Jane Deere	26-Sep	ALS	K1410549	0.00	6.00
14PH-RRS-H57V15-C-6	H57V15	24-Sep-2014	1215	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H57V16-C-6	H57V16	24-Sep-2014	1212	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H57V17-C-6	H57V17	24-Sep-2014	1209	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H57V18-C-6	H57V18	24-Sep-2014	1207	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H54V08-C-6	H54V08	24-Sep-2014	1401	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H54V08-C-6-9	H54V08	24-Sep-2014	1401	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H54V07-C-6	H54V07	24-Sep-2014	1404	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H55V11-C-6	H55V11	24-Sep-2014	1434	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H55V12-C-6	H55V12	24-Sep-2014	1437	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H54V10-C-6	H54V10	24-Sep-2014	1451	LD/MH/DM	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H54V09-C-6	H54V09	24-Sep-2014	1455	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-RRS-H54V11-C-6	H54V11	24-Sep-2014	1448	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H54V06-C-6	H54V06	24-Sep-2014	1509	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H55V07-C-6	H55V07	24-Sep-2014	1518	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H56V07-C-6	H56V07	24-Sep-2014	1524	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H56V07-C-6-9	H56V07	24-Sep-2014	1524	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H57V07-C-6	H57V07	24-Sep-2014	1526	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H57V06-C-6	H57V06	24-Sep-2014	1533	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H57V05-C-6	H57V05	24-Sep-2014	1535	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H56V05-C-6	H56V05	24-Sep-2014	1545	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410547	0.00	6.00
14PH-RRS-H55V05-C-6	H55V05	24-Sep-2014	1547	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-H54V05-C-6	H54V05	24-Sep-2014	1549	LD/MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-H55V06-C-6	H55V06	24-Sep-2014	1550	LD/MH/DM	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L22-G-C-6	TU92-L22-G	24-Sep-2014	1607	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L24-G-C-6	TU92-L24-G	24-Sep-2014	1625	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L23-G-C-6	TU92-L23-G	24-Sep-2014	1612	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L25-G-C-6	TU92-L25-G	24-Sep-2014	1623	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L24-D-C-6	TU92-L24-D	24-Sep-2014	1626	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L23-D-C-6	TU92-L23-D	24-Sep-2014	1629	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L25-F-C-6	TU92-L25-F	24-Sep-2014	1630	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L25-F-C-6-9	TU92-L25-F	24-Sep-2014	1630	MH/LD	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L25-E-C-6	TU92-L25-E	24-Sep-2014	1632	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L23-E-C-6	TU92-L23-E	24-Sep-2014	1633	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L24-E-C-6	TU92-L24-E	24-Sep-2014	1636	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L24-E-C-6-9	TU92-L24-E	24-Sep-2014	1636	MH/LD	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-RRS-TU92-L23-F-C-6	TU92-L23-F	24-Sep-2014	1636	MH/LD	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH014	Nobama	26-Sep	ALS	K1410548	0.00	6.00
14PH-NFL-H13V25-D-12	H13V25	25-Sep-2014	1502	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H13V25-D-18	H13V25	25-Sep-2014	1505	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	12.00	18.00
14PH-NFL-H15V24-D-12	H15V24	25-Sep-2014	1502	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H15V24-D-30	H15V24	25-Sep-2014	1504	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	24.00	30.00
14PH-NFL-H15V27-D-12	H15V27	25-Sep-2014	1515	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H15V27-D-36	H15V27	25-Sep-2014	1533	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	30.00	36.00
14PH-NFL-H15V20-D-12	H15V20	25-Sep-2014	1511	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H15V20-D-30	H15V20	25-Sep-2014	1522	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	24.00	30.00
14PH-NFL-H13V22-D-12	H13V22	25-Sep-2014	1529	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H13V22-D-12-9	H13V22	25-Sep-2014	1529	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082	dup	14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H13V22-D-36	H13V22	25-Sep-2014	1545	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	30.00	36.00
14PH-NFL-H13V22-D-36-9	H13V22	25-Sep-2014	1545	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082	dup	14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	30.00	36.00
14PH-NFL-H11V27-D-12	H11V27	25-Sep-2014	1535	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H11V27-D-36	H11V27	25-Sep-2014	1558	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	30.00	36.00
14PH-NFL-H11V23-D-12	H11V23	25-Sep-2014	1542	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H11V23-D-32	H11V23	25-Sep-2014	1557	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	26.00	32.00
14PH-NFL-H12V18-D-12	H12V18	25-Sep-2014	1550	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H12V18-D-36	H12V18	25-Sep-2014	1600	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	30.00	36.00
14PH-NFL-H09V20-D-12	H09V20	25-Sep-2014	1603	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H09V20-D-24	H09V20	25-Sep-2014	1619	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	18.00	24.00
14PH-NFL-H09V24-D-12	H09V24	25-Sep-2014	1605	MH/LD/DM	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	6.00	12.00
14PH-NFL-H09V24-D-30	H09V24	25-Sep-2014	1607	MH/LD/DM	1	Amber	4 oz	4C	SO	SW8082		14 day	2 COCs in one cooler "Jane Deere"	14PH015	Jane Deere	26-Sep	ALS	K1410550	24.00	30.00
14PH-RRS-H53V37-C-18	H53V37	27-Sep-2014	1100	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	18.00	24.00
14PH-RRS-H53V37-F-18	H53V37-F	27-Sep-2014	1105	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	0.00	24.00
14PH-RRS-H52V32-C-18	H52V32	27-Sep-2014	1110	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	18.00	24.00
14PH-RRS-H52V33-C-18	H52V33	27-Sep-2014	1115	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	18.00	24.00
14PH-RRS-H53V32-C-18	H53V32	27-Sep-2014	1116	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	18.00	24.00
14PH-RRS-H53V32-C-18-9	H53V32	27-Sep-2014	1116	MH/DM	1	Amber	4 oz	4C	SO	SW8082	dup	30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	18.00	24.00
14PH-RRS-H53V33-C-18	H53V33	27-Sep-2014	1118	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	18.00	24.00
14PH-RRS-H52V32-B-18	H52V32-B	27-Sep-2014	1120	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	0.00	24.00
14PH-RRS-H52V32-R-18	H52V32-R	27-Sep-2014	1122	MH/DM	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410575	0.00	24.00
14PH-RRS-H44V40-C-6	H44V40	27-Sep-2014	0958	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H44V39-C-6	H44V39	27-Sep-2014	1003	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H43V40-C-6	H43V40	27-Sep-2014	1005	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H43V40-C-6-9	H43V40	27-Sep-2014	1005	MH/DM	1	Amber	4 oz	4C	SO	SW8082	dup	30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H42V40-C-6	H42V40	27-Sep-2014	1007	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H41V40-C-6	H41V40	27-Sep-2014	1015	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-1
2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-RRS-H41V39-C-6	H41V39	27-Sep-2014	1016	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H41V38-C-6	H41V38	27-Sep-2014	1018	MH/DM	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H39V36-C-6	H39V36	27-Sep-2014	1020	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H39V38-C-6	H39V38	27-Sep-2014	1020	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H39V37-C-6	H39V37	27-Sep-2014	1023	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H37V38-C-6	H37V38	27-Sep-2014	1024	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H38V38-C-6	H38V38	27-Sep-2014	1025	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H35V37-C-6	H35V37	27-Sep-2014	1035	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H35V36-C-6	H35V36	27-Sep-2014	1037	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H36V37-C-6	H36V37	27-Sep-2014	1040	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H37V37-C-6	H37V37	27-Sep-2014	1047	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H37V37-C-6-9	H37V37	27-Sep-2014	1047	MH/DM	1	Amber	4 oz	4C	SO	SW8082	dup	30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H34V36-C-6	H34V36	27-Sep-2014	1052	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-RRS-H34V35-C-6	H34V35	27-Sep-2014	1055	MH/DM	1	Amber	4 oz	4C	SO	SW8082		30 day	2 COCs in one cooler "Outty 5000"	14PH016	Outty 5000	28-Sep	ALS	K1410574	0.00	6.00
14PH-TU10-L20-E-C-24	TU10-L20-E	27-Sep-2014	1502	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	24.00	30.00
14PH-TU10-L20-E-C-36	TU10-L20-E	27-Sep-2014	1510	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	36.00	42.00
14PH-TU10-L20-D-C-24	TU10-L20-D	27-Sep-2014	1522	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	24.00	30.00
14PH-TU10-L20-D-C-36	TU10-L20-D	27-Sep-2014	1530	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	36.00	42.00
14PH-TU10-L19-E-C-24	TU10-L19-E	27-Sep-2014	1540	MH/DM	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	24.00	30.00
14PH-TU10-L19-E-C-36	TU10-L19-E	27-Sep-2014	1548	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	36.00	42.00
14PH-TU10-L19-D-C-24	TU10-L19-D	27-Sep-2014	1558	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	24.00	30.00
14PH-TU10-L19-D-C-36	TU10-L19-D	27-Sep-2014	1604	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	36.00	42.00
14PH-TU10-L18-E-C-36	TU10-L18-E	27-Sep-2014	1615	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	36.00	42.00
14PH-TU10-L18-E-C-48	TU10-L18-E	27-Sep-2014	1622	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	48.00	52.00
14PH-TU10-L18-E-C-48-9	TU10-L18-E	27-Sep-2014	1622	MH/DM	1	Amber	4 oz	4C	SO	SW8082	dup	1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	48.00	52.00
14PH-TU10-L20-E-R-24	TU10-L20-E-R	27-Sep-2014	1720	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU10-L20-D-L-24	TU10-L20-D-L	27-Sep-2014	1719	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU10-L20-E-F-24	TU10-L20-E-F	27-Sep-2014	1721	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU10-L20-D-F-24	TU10-L20-D-F	27-Sep-2014	1722	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU10-L19-E-R-24	TU10-L19-E-R	27-Sep-2014	1725	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU10-L19-D-L-24	TU10-L19-D-L	27-Sep-2014	1726	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU10-L19-D-B-24	TU10-L19-D-B	27-Sep-2014	1727	MH/DM	1	Amber	4 oz	4C	SO	SW8082		1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU10-L19-D-B-24-9	TU10-L19-D-B	27-Sep-2014	1727	MH/DM	1	Amber	4 oz	4C	SO	SW8082	dup	1 DAY	2 COCs in one cooler "Outty 5000"	14PH017	Outty 5000	28-Sep	ALS	K1410571	0.00	24.00
14PH-TU92-L2-B-C-24	TU92-L2-B	02-Oct-2014	1128	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L1-B-C-24	TU92-L1-B	02-Oct-2014	1133	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L1-B-B-24	TU92-L1-B-B	02-Oct-2014	1135	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L3-C-C-24	TU92-L3-C	02-Oct-2014	1137	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L2-B-B-24	TU92-L2-B-B	02-Oct-2014	1138	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L3-C-B-24	TU92-L3-C-B	02-Oct-2014	1140	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L2-B-L-24	TU92-L2-B-L	02-Oct-2014	1142	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-AR05-R1-D-C-6	AR05-R1-D	02-Oct-2014	1200	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	6.00	12.00
14PH-TU92-L12-G-C-30	TU92-L12-G	02-Oct-2014	1215	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	30.00	36.00
14PH-TU92-L12-G-C-30-9	TU92-L12-G	02-Oct-2014	1215	MH/JC	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH018	SoLong	3-Oct	ALS	K1410940	30.00	36.00
14PH-TU92-L9-G-C-24	TU92-L9-G	02-Oct-2014	1217	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L9-F-C-24	TU92-L9-F	02-Oct-2014	1219	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L11-F-C-24	TU92-L11-F	02-Oct-2014	1220	MH/JC	2	Amber	4 oz	4C	SO	SW8082	ms/msd	30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L9-G-R-24	TU92-L9-G-R	02-Oct-2014	1221	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L9-F-B-24	TU92-L9-F-B	02-Oct-2014	1222	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L9-F-R-24	TU92-L9-F-R	02-Oct-2014	1224	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L11-F-B-24	TU92-L11-F-B	02-Oct-2014	1226	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L11-F-L-24	TU92-L11-F-L	02-Oct-2014	1228	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-TU92-L10-F-C-24	TU92-L10-F	02-Oct-2014	1230	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	24.00	30.00
14PH-RRS-H49V38-C-18	H49V38	02-Oct-2014	1518	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410940	18.00	24.00
14PH-RRS-H49V37-C-18	H49V37	02-Oct-2014	1520	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H49V36-C-18	H49V36	02-Oct-2014	1524	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H49V35-C-18	H49V35	02-Oct-2014	1526	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H49V34-C-18	H49V34	02-Oct-2014	1530	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H48V32-C-18	H48V32	02-Oct-2014	1532	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H48V33-C-18	H48V33	02-Oct-2014	1534	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H54V40-F-24	H54V40-F	02-Oct-2014	1536	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	24.00	30.00
14PH-RRS-H48V34-C-18	H48V34	02-Oct-2014	1537	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H48V34-C-18-9	H48V34	02-Oct-2014	1537	MH/JC	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
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2014 Port Heiden Sample Summary

COC Sample ID	Location ID	Collection Date	Collection Time	Sampler	Qty	Container Type	Container Volume	Preservative	Matrix	Analytical Method Requested	QC Type	TAT	Notes	COC Number	Cooler Name	Cooler Date	Lab	SDG	Start Sample Depth (Inches)	End Sample Depth (Inches)
14PH-RRS-H54V40-L-24	H54V40-L	02-Oct-2014	1538	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	24.00	30.00
14PH-RRS-H49V33-C-18	H49V33	02-Oct-2014	1540	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H54V40-R-24	H54V40-R	02-Oct-2014	1541	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	24.00	30.00
14PH-RRS-H54V40-C-24	H54V40	02-Oct-2014	1542	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	24.00	30.00
14PH-RRS-H50V33-C-18	H50V33	02-Oct-2014	1543	MH/JC	2	Amber	4 oz	4C	SO	SW8082	ms/msd	30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H50V35-C-18	H50V35	02-Oct-2014	1545	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H53V38-C-24	H53V38	02-Oct-2014	1546	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	24.00	30.00
14PH-RRS-H53V38-F-24	H53V38-F	02-Oct-2014	1547	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	24.00	30.00
14PH-RRS-H50V36-C-18	H50V36	02-Oct-2014	1548	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H53V38-R-24	H53V38-R	02-Oct-2014	1550	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	24.00	30.00
14PH-RRS-H51V33-C-18	H51V33	02-Oct-2014	1552	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410942	18.00	24.00
14PH-RRS-H51V33-C-18-9	H51V33	02-Oct-2014	1552	MH/JC	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH018	SoLong	3-Oct	ALS	K1410943	18.00	24.00
14PH-RRS-H52V37-C-18	H52V37	02-Oct-2014	1555	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410943	18.00	24.00
14PH-RRS-H51V37-C-18	H51V37	02-Oct-2014	1557	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410943	18.00	24.00
14PH-RRS-H51V34-C-18	H51V34	02-Oct-2014	1559	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410943	18.00	24.00
14PH-RRS-H52V37-F-18	H52V37-F	02-Oct-2014	1600	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410943	18.00	24.00
14PH-RRS-H50V33-F-18	H50V33-F	02-Oct-2014	1601	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH018	SoLong	3-Oct	ALS	K1410943	18.00	24.00
14PH-RRS-H51V37-F-18	H51V37-F	02-Oct-2014	1602	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H51V37-R-18	H51V37-R	02-Oct-2014	1603	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H49V34-L-18	H49V34-L	02-Oct-2014	1604	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H50V35-B-18	H50V35-B	02-Oct-2014	1606	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H51V34-R-18	H51V34-R	02-Oct-2014	1608	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H51V34-R-18-9	H51V34-R	02-Oct-2014	1608	MH/JC	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H52V34-C-18	H52V34	02-Oct-2014	1609	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H48V32-L-18	H48V32-L	02-Oct-2014	1610	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H48V32-B-18	H48V32-B	02-Oct-2014	1611	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H49V33-B-18	H49V33-B	02-Oct-2014	1613	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H50V33-B-18	H50V33-B	02-Oct-2014	1615	MH/JC	2	Amber	4 oz	4C	SO	SW8082	MS/MSD	30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H51V33-B-18	H51V33-B	02-Oct-2014	1617	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H52V35-C-18	H52V35	02-Oct-2014	1620	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H52V35-C-18-9	H52V35	02-Oct-2014	1620	MH/JC	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H51V35-C-18	H51V35	02-Oct-2014	1622	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H52V36-C-18	H52V36	02-Oct-2014	1627	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H49V38-F-18	H49V38-F	02-Oct-2014	1629	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H51V36-C-18	H51V36	02-Oct-2014	1630	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H51V36-C-18-9	H51V36	02-Oct-2014	1630	MH/JC	1	Amber	4 oz	4C	SO	SW8082	dup	30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H49V38-L-18	H49V38-L	02-Oct-2014	1631	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410952	18.00	24.00
14PH-RRS-H49V37-L-18	H49V37-L	02-Oct-2014	1633	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410953	18.00	24.00
14PH-RRS-H50V36-F-18	H50V36-F	02-Oct-2014	1635	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410953	18.00	24.00
14PH-TU10-L19-F-C-24	TU10-L19-F	04-Oct-2014	1100	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410953	24.00	30.00
14PH-TU10-L19-F-L-24	TU10-L19-F-L	04-Oct-2014	1102	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410953	24.00	30.00
14PH-TU10-L19-F-F-24	TU10-L19-F-F	04-Oct-2014	1104	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410953	24.00	30.00
14PH-TU10-L19-F-R-24	TU10-L19-F-R	04-Oct-2014	1106	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410953	24.00	30.00
14PH-TU10-L19-F-R-24-9	TU10-L19-F-R	04-Oct-2014	1106	MH/JC	1	Amber	4 oz	4C	SO	SW8082		30 day		14PH019	ThanksForAllTheFish	3-Oct	ALS	K1410953	24.00	30.00
14PH-WP-EX320-01	EX320	05-Oct-2014	1120	PB	1	Amber	4 oz	4C, Acetone	WIPE	SW8082		3 day		14PH020	Grand Finale	7-Oct	ALS	K1411012		
14PH-TB01	TB01	05-Oct-2014	0800	PB	1	Amber	4 oz	4C, Acetone	WIPE	SW8082	TB	3 day		14PH020	Grand Finale	7-Oct	ALS	K1411012		

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	AR04-L1-D	AR04-L1-E	AR05-L1-A	AR05-R1-C	AR05-R1-D	AR05-R1-D
				Sample ID	14PH-AR04-L1-D-C-12	14PH-AR04-L1-E-C-12	14PH-AR05-L1-A-C-6	14PH-AR05-R1-C-C-6	14PH-AR05-R1-D-C-6	14PH-AR05-R1-D-C-6
				Lab Sample ID	K140658401	K140658402	K140658403	K140633209	K140633206	K141094008
				SDG	K1406584	K1406584	K1406584	K1406332	K1406332	K1410940
				Collection Date	6/25/2014	6/25/2014	6/25/2014	6/19/2014	6/19/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		78.8	90.1	90.9	91.8	92.1	83.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.97]	ND [0.84]	ND [0.83]	ND [0.042]	ND [0.041]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.97]	ND [0.84]	ND [0.83]	ND [0.042]	ND [0.041]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.97]	ND [0.84]	ND [0.83]	ND [0.042]	ND [0.041]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.97]	ND [0.84]	ND [0.83]	ND [0.042]	ND [0.041]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.97]	ND [0.84]	ND [0.83]	ND [0.042]	ND [0.041]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.97]	ND [0.84]	ND [0.83]	ND [0.042]	ND [0.041]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**74 [0.97]**	**81 [0.84]**	**60 [0.83]**	0.04 [0.042] J	**2.2 [0.041]**	0.84 [0.046]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	AR05-R1-E	H34V35	H34V36	H35V28	H35V36	H35V37
				Sample ID	14PH-AR05-R1-E-C-6	14PH-RRS-H34V35-C-6	14PH-RRS-H34V36-C-6	14PH-RRS-H35V28-D-12	14PH-RRS-H35V36-C-6	14PH-RRS-H35V37-C-6
				Lab Sample ID	K140633208	K141057420	K141057419	K140535702	K141057415	K141057414
				SDG	K1406332	K1410574	K1410574	K1405357	K1410574	K1410574
				Collection Date	6/19/2014	9/27/2014	9/27/2014	5/28/2014	9/27/2014	9/27/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		93.9	72.5	69.9	89	64.6	79.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.041]	ND [0.052]	ND [0.054]	ND [0.043]	ND [0.3]	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.041]	ND [0.052]	ND [0.054]	ND [0.043]	ND [0.3]	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.041]	ND [0.052]	ND [0.054]	ND [0.043]	ND [0.3]	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.041]	ND [0.052]	ND [0.054]	ND [0.043]	ND [0.3]	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.041]	ND [0.052]	ND [0.054]	ND [0.043]	ND [0.3]	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.041]	ND [0.052]	ND [0.054]	ND [0.043]	ND [0.3]	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.28 [0.041]	**3.8 [0.052]**	**1.6 [0.054]**	0.59 [0.043]	**5.9 [0.3]**	0.38 [0.048]

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

			Loc ID	H36V36	H36V37	H37V11	H37V11	H37V11	H37V11
			Sample ID	14PH-RRS-H36V36-C-6	14PH-RRS-H36V37-C-6	14PH-RRS-H37V11-D-18	14PH-RRS-H37V11-D-24	14PH-RRS-H37V11-D-30	14PH-RRS-H37V11-D-36
			Lab Sample ID	K140677110	K141057416	K140544705	K140544802	K140602604	K140677203
			SDG	K1406771	K1410574	K1405447	K1405448	K1406026	K1406772
			Collection Date	6/30/2014	9/27/2014	5/30/2014	5/30/2014	6/11/2014	6/11/2014
			Matrix	SO	SO	SO	SO	SO	SO
			Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
			QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-	73.7	71.2	84.4	83.2	86.1	81.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1	ND [0.051] JTE	ND [0.054]	ND [0.45]	ND [0.46]	*ND [4.4] E*	ND [0.23] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1	ND [0.051] JTE	ND [0.054]	ND [0.45]	ND [0.46]	*ND [4.4] E*	ND [0.23] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1	ND [0.051] JTE	ND [0.054]	ND [0.45]	ND [0.46]	*ND [4.4] E*	ND [0.23] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1	ND [0.051] JTE	ND [0.054]	ND [0.45]	ND [0.46]	*ND [4.4] E*	ND [0.23] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1	ND [0.051] JTE	ND [0.054]	ND [0.45]	ND [0.46]	*ND [4.4] E*	ND [0.23] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1	ND [0.051] JTE	ND [0.054]	ND [0.45]	ND [0.46]	*ND [4.4] E*	ND [0.23] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1	0.13 [0.051] JTE	**1.5 [0.054]**	**40 [0.45]**	**15 [0.46]**	**240 [4.4]**	**7 [0.23] JTE**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H37V35	H37V36	H37V36	H37V37	H37V37	H37V38
				Sample ID	14PH-RRS-H37V35-C-6	14PH-RRS-H37V36-C-6	14PH-RRS-H37V36-D-12	14PH-RRS-H37V37-C-6	14PH-RRS-H37V37-C-6-9	14PH-RRS-H37V38-C-6
				Lab Sample ID	K140677112	K140677113	K140535709	K141057417	K141057418	K141057412
				SDG	K1406771	K1406771	K1405357	K1410574	K1410574	K1410574
				Collection Date	6/30/2014	6/30/2014	5/29/2014	9/27/2014	9/27/2014	9/27/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Duplicate	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		93.3	77.1	75.6	79.1	77.6	83.8
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.041] JTE	ND [0.049] JTE	ND [0.051]	ND [0.048]	ND [0.049]	ND [0.045]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.041] JTE	ND [0.049] JTE	ND [0.051]	ND [0.048]	ND [0.049]	ND [0.045]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.041] JTE	ND [0.049] JTE	ND [0.051]	ND [0.048]	ND [0.049]	ND [0.045]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.041] JTE	ND [0.049] JTE	ND [0.051]	ND [0.048]	ND [0.049]	ND [0.045]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.041] JTE	ND [0.049] JTE	ND [0.051]	ND [0.048]	ND [0.049]	ND [0.045]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.041] JTE	ND [0.049] JTE	ND [0.051]	ND [0.048]	ND [0.049]	ND [0.045]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.041] JTE	0.08 [0.049] JTE	0.15 [0.051]	0.94 [0.048]	**1.2 [0.049]**	0.13 [0.045]

Notes:

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H38V08	H38V15	H38V15	H38V19	H38V19
				Sample ID	14PH-RRS-H38V08-D-12	14PH-RRS-H38V15-D-18	14PH-RRS-H38V15-D-24	14PH-RRS-H38V19-D-12	14PH-RRS-H38V19-D-18
				Lab Sample ID	K140544701	K140544706	K140544803	K140535604	K140535607
				SDG	K1405447	K1405447	K1405448	K1405356	K1405356
				Collection Date	5/30/2014	5/30/2014	5/30/2014	5/28/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		90	79	76.6	90.5	90.4
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.042]	ND [0.048]	ND [0.049]	ND [0.042]	ND [0.042]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.042]	ND [0.048]	ND [0.049]	ND [0.042]	ND [0.042]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.042]	ND [0.048]	ND [0.049]	ND [0.042]	ND [0.042]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.042]	ND [0.048]	ND [0.049]	ND [0.042]	ND [0.042]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.042]	ND [0.048]	ND [0.049]	ND [0.042]	ND [0.042]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.042]	ND [0.048]	ND [0.049]	ND [0.042]	ND [0.042]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.73 [0.042]	**1.6 [0.048]**	**3.5 [0.049]**	0.15 [0.042]	0.077 [0.042]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H38V36	H38V38	H39V09	H39V10	H39V11	H39V15
				Sample ID	14PH-RRS-H38V36-C-6	14PH-RRS-H38V38-C-6	14PH-RRS-H39V09-C-24	14PH-RRS-H39V10-C-24	14PH-RRS-H39V11-C-24	14PH-RRS-H39V15-D-36
				Lab Sample ID	K140677111	K141057413	K140676908	K140676907	K140677106	K140677204
				SDG	K1406771	K1410574	K1406769	K1406769	K1406771	K1406772
				Collection Date	6/30/2014	9/27/2014	6/27/2014	6/27/2014	6/30/2014	6/11/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		85.9	83.1	91.1	90.9	81.1	78.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.045] JTE	ND [0.046]	*ND [4.2] E*	ND [0.042]	ND [0.047] JTE	ND [0.48] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.045] JTE	ND [0.046]	*ND [4.2] E*	ND [0.042]	ND [0.047] JTE	ND [0.48] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.045] JTE	ND [0.046]	*ND [4.2] E*	ND [0.042]	ND [0.047] JTE	ND [0.48] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.045] JTE	ND [0.046]	*ND [4.2] E*	ND [0.042]	ND [0.047] JTE	ND [0.48] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.045] JTE	ND [0.046]	*ND [4.2] E*	ND [0.042]	ND [0.047] JTE	ND [0.48] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.045] JTE	ND [0.046]	*ND [4.2] E*	ND [0.042]	ND [0.047] JTE	ND [0.48] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.28 [0.045] JTE	0.14 [0.046]	**56 [4.2]**	0.87 [0.042]	**3.2 [0.047] JTE**	**14 [0.48] JTE**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H39V36	H39V37	H39V38	H39V38	H40V05
				Sample ID	14PH-RRS-H39V36-C-6	14PH-RRS-H39V37-C-6	14PH-RRS-H39V15-D-30	14PH-RRS-H39V38-C-6	14PH-RRS-H40V05-C-24
				Lab Sample ID	K141057409	K141057411	K140602607	K141057410	K140658502
				SDG	K1410574	K1410574	K1406026	K1410574	K1406585
				Collection Date	9/27/2014	9/27/2014	6/11/2014	9/27/2014	6/24/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		84.8	85.6	83	82	87.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.045]	ND [0.044]	ND [0.046]	ND [0.046]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.045]	ND [0.044]	ND [0.046]	ND [0.046]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.045]	ND [0.044]	ND [0.046]	ND [0.046]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.045]	ND [0.044]	ND [0.046]	ND [0.046]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.045]	ND [0.044]	ND [0.046]	ND [0.046]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.045]	ND [0.044]	ND [0.046]	ND [0.046]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**1.2 [0.045]**	**3 [0.044]**	**4.9 [0.046]**	0.13 [0.046]	0.81 [0.044] JD

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H40V05	H40V05	H40V06	H40V06	H40V09
				Sample ID	14PH-RRS-H40V05-R-C-24	14PH-RSS-H40V05-B-C-24	14PH-RRS-H40V06-C-24	14PH-RSS-H40V06-R-C-24	14PH-RRS-H40V09-C-24
				Lab Sample ID	K140677201	K140677120	K140658501	K140677119	K140676904
				SDG	K1406772	K1406771	K1406585	K1406771	K1406769
				Collection Date	6/30/2014	6/30/2014	6/24/2014	6/30/2014	6/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		95.2	96.6	88.4	97	90.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.04] JTE	ND [0.04] JTE	ND [0.043]	ND [0.039] JTE	ND [0.42]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.04] JTE	ND [0.04] JTE	ND [0.043]	ND [0.039] JTE	ND [0.42]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.04] JTE	ND [0.04] JTE	ND [0.043]	ND [0.039] JTE	ND [0.42]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.04] JTE	ND [0.04] JTE	ND [0.043]	ND [0.039] JTE	ND [0.42]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.04] JTE	ND [0.04] JTE	ND [0.043]	ND [0.039] JTE	ND [0.42]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.04] JTE	ND [0.04] JTE	ND [0.043]	ND [0.039] JTE	ND [0.42]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.14 [0.04] JTE	0.85 [0.04] JTE	0.31 [0.043]	0.066 [0.039] JTE	**25 [0.42]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

			Loc ID	H40V09	H40V09	H40V10	H40V10	H40V11
			Sample ID	14PH-RRS-H40V09-D-18	14PH-RRS-H40V09-D-24	14PH-RRS-H40V10-C-24	14PH-RRS-H40V10-C-24-9	14PH-RRS-H40V11-C-24
			Lab Sample ID	K140535403	K140535404	K140676905	K140676906	K140677108
			SDG	K1405354	K1405354	K1406769	K1406769	K1406771
			Collection Date	5/28/2014	5/28/2014	6/27/2014	6/27/2014	6/30/2014
			Matrix	SO	SO	SO	SO	SO
			Laboratory	ALS	ALS	ALS	ALS	ALS
			QA/QC	Primary	Primary	Primary	Duplicate	Primary
Method	Analyte	Units	Action Level[1]					
E160.3M	Total Solids	PERCENT	-	92.2	92.8	92.2	91.1	82.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1	ND [0.41]	ND [0.041]	ND [0.41]	ND [0.41]	ND [0.24] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1	ND [0.41]	ND [0.041]	ND [0.41]	ND [0.41]	ND [0.24] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1	ND [0.41]	ND [0.041]	ND [0.41]	ND [0.41]	ND [0.24] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1	ND [0.41]	ND [0.041]	ND [0.41]	ND [0.41]	ND [0.24] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1	ND [0.41]	ND [0.041]	ND [0.41]	ND [0.41]	ND [0.24] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1	ND [0.41]	ND [0.041]	ND [0.41]	ND [0.41]	ND [0.24] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1	**5.4 [0.41]**	0.47 [0.041]	**9.1 [0.41]**	**12 [0.41]**	**17 [0.24] JTE**

Notes:

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

			Loc ID	H40V13	H40V13	H40V15	H40V15	H40V32
			Sample ID	14PH-RRS-H40V13-D-18	14PH-RRS-H40V13-D-24	14PH-RRS-H40V15-D-18	14PH-RRS-H40V15-D-24	14PH-RRS-H40V32-D-12
			Lab Sample ID	K140535413	K140535414	K140535502	K140535503	K140535614
			SDG	K1405354	K1405354	K1405355	K1405355	K1405356
			Collection Date	5/28/2014	5/28/2014	5/28/2014	5/28/2014	5/28/2014
			Matrix	SO	SO	SO	SO	SO
			Laboratory	ALS	ALS	ALS	ALS	ALS
			QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]					
E160.3M	Total Solids	PERCENT	-	92.1	91.4	78.4	81.1	87.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1	*ND [4.1] E*	*ND [4.2] E*	ND [0.49]	ND [0.047]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1	*ND [4.1] E*	*ND [4.2] E*	ND [0.49]	ND [0.047]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1	*ND [4.1] E*	*ND [4.2] E*	ND [0.49]	ND [0.047]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1	*ND [4.1] E*	*ND [4.2] E*	ND [0.49]	ND [0.047]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1	*ND [4.1] E*	*ND [4.2] E*	ND [0.49]	ND [0.047]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1	*ND [4.1] E*	*ND [4.2] E*	ND [0.49]	ND [0.047]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1	**93 [4.1]**	**210 [4.2]**	**9.1 [0.49]**	**2.4 [0.047]**	0.1 [0.044]

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H41V05	H41V05	H41V06	H41V06	H41V06
				Sample ID	14PH-RRS-H41V05-B-C-24	14PH-RRS-H41V05-C-24	14PH-RRS-H41V06-D-18	14PH-RRS-H41V06-D-24	14PH-RRS-H41V06-D-24-9
				Lab Sample ID	K140677202	K140658503	K140544702	K140544703	K140544704
				SDG	K1406772	K1406585	K1405447	K1405447	K1405447
				Collection Date	6/30/2014	6/24/2014	5/30/2014	5/30/2014	5/30/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Duplicate
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		96.6	80.9	84.8	85.2	85.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.039] JTE	ND [0.047]	ND [0.045]	ND [0.045]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.039] JTE	ND [0.047]	ND [0.045]	ND [0.045]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.039] JTE	ND [0.047]	ND [0.045]	ND [0.045]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.039] JTE	ND [0.047]	ND [0.045]	ND [0.045]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.039] JTE	ND [0.047]	ND [0.045]	ND [0.045]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.039] JTE	ND [0.047]	ND [0.045]	ND [0.045]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.14 [0.039] JTE	0.17 [0.047]	0.22 [0.045]	0.55 [0.045]	0.91 [0.044]

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H41V08	H41V09	H41V10	H41V11	H41V11
				Sample ID	14PH-RRS-H41V08-C-24	14PH-RRS-H41V09-C-24	14PH-RRS-H41V10-C-24	14PH-RRS-H41V11-C-24	14PH-RRS-H41V11-D-18
				Lab Sample ID	K140676901	K140676902	K140676903	K140677105	K140535407
				SDG	K1406769	K1406769	K1406769	K1406771	K1405354
				Collection Date	6/27/2014	6/27/2014	6/27/2014	6/30/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		89.7	88.3	91.9	80.9	92.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		*ND [4.2] E*	*ND [4.3] E*	ND [0.41]	ND [0.047] JTE	ND [0.041]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		*ND [4.2] E*	*ND [4.3] E*	ND [0.41]	ND [0.047] JTE	ND [0.041]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		*ND [4.2] E*	*ND [4.3] E*	ND [0.41]	ND [0.047] JTE	ND [0.041]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		*ND [4.2] E*	*ND [4.3] E*	ND [0.41]	ND [0.047] JTE	ND [0.041]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		*ND [4.2] E*	*ND [4.3] E*	ND [0.41]	ND [0.047] JTE	ND [0.041]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		*ND [4.2] E*	*ND [4.3] E*	ND [0.41]	ND [0.047] JTE	ND [0.041]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**190 [4.2]**	**120 [4.3]**	**11 [0.41]**	0.027 [0.047] J, JTE	0.31 [0.041]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H41V11	H41V21	H41V21	H41V27	H41V36
				Sample ID	14PH-RRS-H41V11-D-18-9	14PH-RRS-H41V21-D-12	14PH-RRS-H41V21-D-18	14PH-RRS-H41V27-D-12	14PH-RRS-H41V36-D-18
				Lab Sample ID	K140535408	K140535516	K140535601	K140535511	K140535618
				SDG	K1405354	K1405355	K1405356	K1405355	K1405356
				Collection Date	5/28/2014	5/28/2014	5/28/2014	5/28/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		92.9	89.9	90.8	91.2	73.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.04]	ND [0.042]	ND [0.042]	ND [0.042]	ND [0.052]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.04]	ND [0.042]	ND [0.042]	ND [0.042]	ND [0.052]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.04]	ND [0.042]	ND [0.042]	ND [0.042]	ND [0.052]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.04]	ND [0.042]	ND [0.042]	ND [0.042]	ND [0.052]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.04]	ND [0.042]	ND [0.042]	ND [0.042]	ND [0.052]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.04]	ND [0.042]	ND [0.042]	ND [0.042]	ND [0.052]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.29 [0.04]	0.076 [0.042]	0.051 [0.042]	0.018 [0.042] J	0.26 [0.052]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H41V38	H41V39	H41V40	H42V05	H42V08	H42V09
				Sample ID	14PH-RRS-H41V38-C-6	14PH-RRS-H41V39-C-6	14PH-RRS-H41V40-C-6	14PH-RRS-H42V05-C-24	14-PH-RRS-H42V08-C-36	14-PH-RRS-H42V09-C-36
				Lab Sample ID	K141057408	K141057407	K141057406	K140658504	K140658405	K140658404
				SDG	K1410574	K1410574	K1410574	K1406585	K1406584	K1406584
				Collection Date	9/27/2014	9/27/2014	9/27/2014	6/24/2014	6/26/2014	6/26/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		88.6	84.1	84.9	75.1	76.7	73
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.043]	ND [0.045]	ND [0.045] JS-	ND [0.051]	ND [0.49]	*ND [1.1] E*
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.043]	ND [0.045]	ND [0.045] JS-	ND [0.051]	ND [0.49]	*ND [1.1] E*
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.043]	ND [0.045]	ND [0.045] JS-	ND [0.051]	ND [0.49]	*ND [1.1] E*
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.043]	ND [0.045]	ND [0.045] JS-	ND [0.051]	ND [0.49]	*ND [1.1] E*
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.043]	ND [0.045]	ND [0.045] JS-	ND [0.051]	ND [0.49]	*ND [1.1] E*
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.043]	ND [0.045]	ND [0.045] JS-	ND [0.051]	ND [0.49]	*ND [1.1] E*
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.26 [0.043]	0.099 [0.045]	0.034 [0.045] J, JS-	0.17 [0.051]	**40 [0.49]**	**65 [1.1]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H42V09	H42V09	H42V09	H42V10	H42V11
				Sample ID	14PH-RRS-H42V09-D-18	14PH-RRS-H42V09-D-24	14PH-RRS-H42V09-D-30	14PH-RRS-H42V10-C-24	14PH-RRS-H42V11-C-24
				Lab Sample ID	K140534317	K140535401	K140602603	K140676909	K140677109
				SDG	K1405343	K1405354	K1406026	K1406769	K1406771
				Collection Date	5/28/2014	5/28/2014	6/6/2014	6/27/2014	6/30/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		90.8	90.5	88.3	92	86.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.42]	ND [0.42]	*ND [4.3] E*	ND [0.42]	ND [0.044] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.42]	ND [0.42]	*ND [4.3] E*	ND [0.42]	ND [0.044] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.42]	ND [0.42]	*ND [4.3] E*	ND [0.42]	ND [0.044] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.42]	ND [0.42]	*ND [4.3] E*	ND [0.42]	ND [0.044] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.42]	ND [0.42]	*ND [4.3] E*	ND [0.42]	ND [0.044] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.42]	ND [0.42]	*ND [4.3] E*	ND [0.42]	ND [0.044] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**14 [0.42]**	**14 [0.42] JD**	**170 [4.3]**	**25 [0.42]**	ND [0.044] JTE

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H42V12	H42V13	H42V13	H42V13	H42V13
				Sample ID	14PH-RRS-H42V12-C-24	14PH-RRS-H42V13-C-24	14PH-RRS-H42V13-C-24-9	14PH-RRS-H42V13-D-18	14PH-RRS-H42V13-D-24
				Lab Sample ID	K140677107	K140676912	K140676913	K140535412	K140535415
				SDG	K1406771	K1406769	K1406769	K1405354	K1405354
				Collection Date	6/30/2014	6/27/2014	6/27/2014	5/28/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		70.5	73.2	73.4	87.9	82.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.054] JTE	ND [0.052]	ND [0.052]	ND [0.043]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.054] JTE	ND [0.052]	ND [0.052]	ND [0.043]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.054] JTE	ND [0.052]	ND [0.052]	ND [0.043]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.054] JTE	ND [0.052]	ND [0.052]	ND [0.043]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.054] JTE	ND [0.052]	ND [0.052]	ND [0.043]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.054] JTE	ND [0.052]	ND [0.052]	ND [0.043]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.054] JTE	0.076 [0.052] JD	0.4 [0.052] JD	**1.7 [0.043]**	0.4 [0.046]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H42V30	H42V39	H42V39	H42V39	H42V40
				Sample ID	14PH-RRS-H42V30-D-18	14PH-RRS-H42V39-D-12	14PH-RRS-H42V39-D-12-9	14PH-RRS-H42V39-D-18	14PH-RRS-H42V40-C-6
				Lab Sample ID	K140535609	K140535711	K140535712	K140535713	K141057405
				SDG	K1405356	K1405357	K1405357	K1405357	K1410574
				Collection Date	5/28/2014	5/29/2014	5/29/2014	5/29/2014	9/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		89.4	81.3	81.3	83.7	82.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.047]	ND [0.045]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.047]	ND [0.045]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.047]	ND [0.045]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.047]	ND [0.045]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.047]	ND [0.045]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.047]	ND [0.045]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.41 [0.043]	**1.4 [0.047]**	**1.1 [0.047]**	**3.4 [0.045]**	0.048 [0.046]

Notes:

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H43V08	H43V08	H43V08	H43V08	H43V09
				Sample ID	14-PH-RRS-H43V08-C-36	14PH-RRS-H43V08-D-18	14PH-RRS-H43V08-D-18-9	14PH-RRS-H43V08-D-24	14-PH-RRS-H43V09-C-36
				Lab Sample ID	K140658407	K140534318	K140534319	K140534320	K140658406
				SDG	K1406584	K1405343	K1405343	K1405343	K1406584
				Collection Date	6/26/2014	5/28/2014	5/28/2014	5/28/2014	6/26/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		75.8	91.3	91.1	81.7	74.4
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.05]	*ND [4.2] E*	*ND [4.2] E*	ND [0.47]	ND [0.051]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.05]	*ND [4.2] E*	*ND [4.2] E*	ND [0.47]	ND [0.051]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.05]	*ND [4.2] E*	*ND [4.2] E*	ND [0.47]	ND [0.051]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.05]	*ND [4.2] E*	*ND [4.2] E*	ND [0.47]	ND [0.051]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.05]	*ND [4.2] E*	*ND [4.2] E*	ND [0.47]	ND [0.051]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.05]	*ND [4.2] E*	*ND [4.2] E*	ND [0.47]	ND [0.051]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.9 [0.05]	**170 [4.2]**	**210 [4.2]**	**9.2 [0.47]**	0.14 [0.051]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H43V10	H43V10	H43V10	H43V11	H43V12
				Sample ID	14PH-RRS-H43V10-C-24	14PH-RRS-H43V10-D-18	14PH-RRS-H43V10-D-24	14PH-RRS-H43V11-C-24	14PH-RRS-H43V12-C-24
				Lab Sample ID	K140676910	K140534314	K140534315	K140676920	K140676916
				SDG	K1406769	K1405343	K1405343	K1406769	K1406769
				Collection Date	6/27/2014	5/27/2014	5/27/2014	6/27/2014	6/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		90.8	89.2	89.3	87.6	74.7
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.042]	ND [0.43]	ND [0.43]	ND [0.044]	ND [0.051]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.042]	ND [0.43]	ND [0.43]	ND [0.044]	ND [0.051]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.042]	ND [0.43]	ND [0.43]	ND [0.044]	ND [0.051]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.042]	ND [0.43]	ND [0.43]	ND [0.044]	ND [0.051]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.042]	ND [0.43]	ND [0.43]	ND [0.044]	ND [0.051]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.042]	ND [0.43]	ND [0.43]	ND [0.044]	ND [0.051]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.58 [0.042]	**7.9 [0.43]**	**9 [0.43]**	0.4 [0.044]	ND [0.051]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H43V13	H43V14	H43V29	H43V31	H43V40
				Sample ID	14PH-RRS-H43V13-C-24	14PH-RRS-H43V14-D-18	14PH-RRS-H43V29-D-18	14PH-RRS-H43V31-D-12	14PH-RRS-H43V40-C-6
				Lab Sample ID	K140676914	K140535410	K140535605	K140535612	K141057403
				SDG	K1406769	K1405354	K1405356	K1405356	K1410574
				Collection Date	6/27/2014	5/28/2014	5/28/2014	5/28/2014	9/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		70.7	89.5	89.3	91.2	80.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.053]	ND [0.043]	ND [0.043]	ND [0.042]	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.053]	ND [0.043]	ND [0.043]	ND [0.042]	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.053]	ND [0.043]	ND [0.043]	ND [0.042]	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.053]	ND [0.043]	ND [0.043]	ND [0.042]	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.053]	ND [0.043]	ND [0.043]	ND [0.042]	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.053]	ND [0.043]	ND [0.043]	ND [0.042]	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.058 [0.053]	0.45 [0.043]	0.058 [0.043]	0.26 [0.042]	0.41 [0.048]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H43V40	H44V07	H44V08	H44V09	H44V10
				Sample ID	14PH-RRS-H43V40-C-6-9	14-PH-RRS-H44V07-C-36	14-PH-RRS-H44V08-C-36	14-PH-RRS-H44V09-C-36	14PH-RRS-H44V10-C-24
				Lab Sample ID	K141057404	K140658410	K140658409	K140658408	K140676911
				SDG	K1410574	K1406584	K1406584	K1406584	K1406769
				Collection Date	9/27/2014	6/26/2014	6/26/2014	6/26/2014	6/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		79.9	76.9	75.9	75.3	91.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.048]	ND [0.05]	ND [0.049]	ND [0.051]	ND [0.042]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.048]	ND [0.05]	ND [0.049]	ND [0.051]	ND [0.042]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.048]	ND [0.05]	ND [0.049]	ND [0.051]	ND [0.042]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.048]	ND [0.05]	ND [0.049]	ND [0.051]	ND [0.042]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.048]	ND [0.05]	ND [0.049]	ND [0.051]	ND [0.042]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.048]	ND [0.05]	ND [0.049]	ND [0.051]	ND [0.042]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.44 [0.048]	**1.7 [0.05]**	0.045 [0.049] J	0.19 [0.051]	0.78 [0.042]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H44V11	H44V11	H44V12	H44V12	H44V12
				Sample ID	14PH-RRS-H44V11-C-24	14PH-RRS-H44V11-C-24-9	14PH-RRS-H44V12-C-24	14PH-RRS-H44V12-D-18	14PH-RRS-H44V12-D-24
				Lab Sample ID	K140676918	K140676919	K140676917	K140534313	K140534316
				SDG	K1406769	K1406769	K1406769	K1405343	K1405343
				Collection Date	6/27/2014	6/27/2014	6/27/2014	5/27/2014	5/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		88.3	88.8	70.9	91.1	91.7
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.043]	ND [0.043]	ND [0.053]	ND [0.042]	ND [0.042]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.043]	ND [0.043]	ND [0.053]	ND [0.042]	ND [0.042]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.043]	ND [0.043]	ND [0.053]	ND [0.042]	ND [0.042]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.043]	ND [0.043]	ND [0.053]	ND [0.042]	ND [0.042]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.043]	ND [0.043]	ND [0.053]	ND [0.042]	ND [0.042]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.043]	ND [0.043]	ND [0.053]	ND [0.042]	ND [0.042]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**1.2 [0.043]**	0.77 [0.043]	ND [0.053]	**2.6 [0.042]**	**1.6 [0.042]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H44V13	H44V26	H44V37	H44V39	H44V40	H45V06
				Sample ID	14PH-RRS-H44V13-C-24	14PH-RRS-H44V26-D-12	14PH-RRS-H44V37-D-12	14PH-RRS-H44V39-C-6	14PH-RRS-H44V40-C-6	14PH-RRS-H45V06-C-36
				Lab Sample ID	K140676915	K140535608	K140535714	K141057402	K141057401	K140677104
				SDG	K1406769	K1405356	K1405357	K1410574	K1410574	K1406771
				Collection Date	6/27/2014	5/28/2014	5/29/2014	9/27/2014	9/27/2014	6/30/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		69.3	62.8	73.8	80.9	76.8	76.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.055]	ND [0.061]	ND [0.051]	ND [0.047]	ND [0.05]	ND [0.25] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.055]	ND [0.061]	ND [0.051]	ND [0.047]	ND [0.05]	ND [0.25] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.055]	ND [0.061]	ND [0.051]	ND [0.047]	ND [0.05]	ND [0.25] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.055]	ND [0.061]	ND [0.051]	ND [0.047]	ND [0.05]	ND [0.25] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.055]	ND [0.061]	ND [0.051]	ND [0.047]	ND [0.05]	ND [0.25] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.055]	ND [0.061]	ND [0.051]	ND [0.047]	ND [0.05]	ND [0.25] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.025 [0.055] J	ND [0.061]	0.15 [0.051]	**1.3 [0.047]**	0.17 [0.05]	**13 [0.25] JTE**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H45V07	H45V08	H45V08	H45V08	H45V08
				Sample ID	14-PH-RRS-H45V07-C-36	14-PH-RRS-H45V08-C-36	14PH-RRS-H45V08-D-12	14PH-RRS-H45V08-D-18	14PH-RRS-H45V08-D-18-9
				Lab Sample ID	K140658414	K140658413	K140535402	K140535405	K140535406
				SDG	K1406584	K1406584	K1405354	K1405354	K1405354
				Collection Date	6/26/2014	6/26/2014	5/28/2014	5/28/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Duplicate
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		86.4	78.8	90	90.5	89.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.044]	ND [0.048]	ND [0.42]	ND [0.42]	ND [0.42]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.044]	ND [0.048]	ND [0.42]	ND [0.42]	ND [0.42]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.044]	ND [0.048]	ND [0.42]	ND [0.42]	ND [0.42]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.044]	ND [0.048]	ND [0.42]	ND [0.42]	ND [0.42]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.044]	ND [0.048]	ND [0.42]	ND [0.42]	ND [0.42]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.044]	ND [0.048]	ND [0.42]	ND [0.42]	ND [0.42]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.066 [0.044]	0.027 [0.048] J	**28 [0.42]**	**12 [0.42] JD**	**6.3 [0.42] JD**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H45V09	H45V10	H45V11	H45V11	H45V11
				Sample ID	14-PH-RRS-H45V09-C-36	14-PH-RRS-H45V10-C-36	14PH-RRS-H45V11-C-24	14PH-RRS-H45V11-D-18	14PH-RRS-H45V11-D-24
				Lab Sample ID	K140658412	K140658411	K140677007	K140534308	K140534310
				SDG	K1406584	K1406584	K1406770	K1405343	K1405343
				Collection Date	6/26/2014	6/26/2014	6/27/2014	5/27/2014	5/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		79.8	83	79.7	89	76.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.048]	ND [0.045]	*ND [4.8] E*	ND [0.43]	ND [0.049]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.048]	ND [0.045]	*ND [4.8] E*	ND [0.43]	ND [0.049]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.048]	ND [0.045]	*ND [4.8] E*	ND [0.43]	ND [0.049]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.048]	ND [0.045]	*ND [4.8] E*	ND [0.43]	ND [0.049]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.048]	ND [0.045]	*ND [4.8] E*	ND [0.43]	ND [0.049]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.048]	ND [0.045]	*ND [4.8] E*	ND [0.43]	ND [0.049]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.012 [0.048] J	0.62 [0.045]	**130 [4.8]**	**33 [0.43]**	**3.2 [0.049]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H45V12	H45V13	H45V14	H45V14	H45V16
				Sample ID	14PH-RRS-H45V12-C-24	14PH-RRS-H45V13-C-24	14PH-RRS-H45V14-D-12	14PH-RRS-H45V14-D-18	14PH-RRS-H45V16-D-18
				Lab Sample ID	K140677002	K140677001	K140535416	K140535417	K140535418
				SDG	K1406770	K1406770	K1405354	K1405354	K1405354
				Collection Date	6/27/2014	6/27/2014	5/28/2014	5/28/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		70.1	68	77.6	68.2	78.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.054]	ND [0.055]	ND [0.049]	ND [0.055]	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.054]	ND [0.055]	ND [0.049]	ND [0.055]	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.054]	ND [0.055]	ND [0.049]	ND [0.055]	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.054]	ND [0.055]	ND [0.049]	ND [0.055]	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.054]	ND [0.055]	ND [0.049]	ND [0.055]	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.054]	ND [0.055]	ND [0.049]	ND [0.055]	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.93 [0.054]	0.069 [0.055]	**1.3 [0.049]**	0.057 [0.055]	0.097 [0.048]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H45V16	H46V06	H46V06	H46V07	H46V07
				Sample ID	14PH-RRS-H45V16-D-18-9	14PH-RRS-H46V06-C-36	14PH-RRS-H46V06-C-36-9	14PH-RRS-H46V07-C-36	14PH-RRS-H46V07-C-36-9
				Lab Sample ID	K140535419	K140677102	K140677103	K140676517	K140676518
				SDG	K1405354	K1406771	K1406771	K1406765	K1406765
				Collection Date	5/28/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Duplicate	Primary	Duplicate
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		78.3	69.1	69.5	77.2	77.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.049]	ND [0.055] JTE	ND [0.054] JTE	ND [0.49] JTE	ND [0.49] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.049]	ND [0.055] JTE	ND [0.054] JTE	ND [0.49] JTE	ND [0.49] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.049]	ND [0.055] JTE	ND [0.054] JTE	ND [0.49] JTE	ND [0.49] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.049]	ND [0.055] JTE	ND [0.054] JTE	ND [0.49] JTE	ND [0.49] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.049]	ND [0.055] JTE	ND [0.054] JTE	ND [0.49] JTE	ND [0.49] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.049]	ND [0.055] JTE	ND [0.054] JTE	ND [0.49] JTE	ND [0.49] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.12 [0.049]	0.076 [0.055] JTE	0.061 [0.054] JTE	**44 [0.49] JTE**	**31 [0.49] JTE**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H46V07	H46V07	H46V07	H46V07	H46V08
				Sample ID	14PH-RRS-H46V07-D-18	14PH-RRS-H46V07-D-18-9	14PH-RRS-H46V07-D-24	14PH-RRS-H46V07-D-30	14-PH-RRS-H46V08-C-36
				Lab Sample ID	K140534301	K140534302	K140534303	K140602601	K140658418
				SDG	K1405343	K1405343	K1405343	K1406026	K1406584
				Collection Date	5/27/2014	5/27/2014	5/27/2014	6/6/2014	6/26/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		86.3	87.3	84.4	79.5	83.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		*ND [4.4] E*	*ND [4.3] E*	*ND [4.5] E*	*ND [4.8] E*	ND [0.045]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		*ND [4.4] E*	*ND [4.3] E*	*ND [4.5] E*	*ND [4.8] E*	ND [0.045]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		*ND [4.4] E*	*ND [4.3] E*	*ND [4.5] E*	*ND [4.8] E*	ND [0.045]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		*ND [4.4] E*	*ND [4.3] E*	*ND [4.5] E*	*ND [4.8] E*	ND [0.045]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		*ND [4.4] E*	*ND [4.3] E*	*ND [4.5] E*	*ND [4.8] E*	ND [0.045]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		*ND [4.4] E*	*ND [4.3] E*	*ND [4.5] E*	*ND [4.8] E*	ND [0.045]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**260 [4.4]**	**230 [4.3]**	**310 [4.5]**	**310 [4.8]**	0.12 [0.045]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H46V09	H46V09	H46V09	H46V10	H46V10
				Sample ID	14-PH-RRS-H46V09-C-36	14PH-RRS-H46V09-D-18	14PH-RRS-H46V09-D-24	14-PH-RRS-H46V10-C-36	14-PH-RRS-H46V10-C-36-9
				Lab Sample ID	K140658417	K140534304	K140534305	K140658415	K140658416
				SDG	K1406584	K1405343	K1405343	K1406584	K1406584
				Collection Date	6/26/2014	5/27/2014	5/27/2014	6/26/2014	6/26/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Duplicate
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		77.8	74	73.4	80.3	77
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.049]	ND [0.52]	ND [0.52]	ND [0.047]	ND [0.049]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.049]	ND [0.52]	ND [0.52]	ND [0.047]	ND [0.049]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.049]	ND [0.52]	ND [0.52]	ND [0.047]	ND [0.049]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.049]	ND [0.52]	ND [0.52]	ND [0.047]	ND [0.049]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.049]	ND [0.52]	ND [0.52]	ND [0.047]	ND [0.049]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.049]	ND [0.52]	ND [0.52]	ND [0.047]	ND [0.049]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.097 [0.049]	**51 [0.52]**	**22 [0.52]**	0.12 [0.047] JD	0.26 [0.049] JD

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H46V10	H46V10	H46V11	H46V12	H46V12
				Sample ID	14PH-RRS-H46V10-D-18	14PH-RRS-H46V10-D-24	14PH-RRS-H46V11-C-24	14PH-RRS-H46V12-C-18	14PH-RRS-H46V12-D-18
				Lab Sample ID	K140534306	K140534307	K140677005	K140677004	K140534309
				SDG	K1405343	K1405343	K1406770	K1406770	K1405343
				Collection Date	5/27/2014	5/27/2014	6/27/2014	6/27/2014	5/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		78.9	74.6	75.7	87.7	90.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.048]	ND [0.51]	*ND [5] E*	ND [0.043]	ND [0.042]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.048]	ND [0.51]	*ND [5] E*	ND [0.043]	ND [0.042]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.048]	ND [0.51]	*ND [5] E*	ND [0.043]	ND [0.042]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.048]	ND [0.51]	*ND [5] E*	ND [0.043]	ND [0.042]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.048]	ND [0.51]	*ND [5] E*	ND [0.043]	ND [0.042]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.048]	ND [0.51]	*ND [5] E*	ND [0.043]	ND [0.042]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**4.3 [0.048]**	**7.9 [0.51]**	**150 [5]**	0.16 [0.043]	0.74 [0.042]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H46V12	H46V12	H46V35	H46V35	H46V35
				Sample ID	14PH-RRS-H46V12-D-24	14PH-RRS-H46V12-D-24-9	14PH-RRS-H46V35-D-18	14PH-RRS-H46V35-D-24	14PH-RRS-H46V35-D-24-9
				Lab Sample ID	K140534311	K140534312	K140535716	K140535717	K140535718
				SDG	K1405343	K1405343	K1405357	K1405357	K1405357
				Collection Date	5/27/2014	5/27/2014	5/29/2014	5/29/2014	5/29/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Duplicate
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		90.7	90.9	81.4	76	68.7
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.042]	ND [0.042]	ND [0.047]	ND [0.05]	ND [0.056]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.042]	ND [0.042]	ND [0.047]	ND [0.05]	ND [0.056]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.042]	ND [0.042]	ND [0.047]	ND [0.05]	ND [0.056]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.042]	ND [0.042]	ND [0.047]	ND [0.05]	ND [0.056]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.042]	ND [0.042]	ND [0.047]	ND [0.05]	ND [0.056]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.042]	ND [0.042]	ND [0.047]	ND [0.05]	ND [0.056]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.08 [0.042]	0.062 [0.042]	0.51 [0.047]	**1.4 [0.05]**	**1.3 [0.056]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H46V35	H47V05	H47V06	H47V07	H47V08
				Sample ID	14PH-RRS-H46V35-D-30	14PH-RRS-H47V05-C-12	14PH-RRS-H47V06-C-36	14PH-RRS-H47V07-C-36	14PH-RRS-H47V08-C-36
				Lab Sample ID	K140602602	K140677101	K140676520	K140676519	K140676516
				SDG	K1406026	K1406771	K1406765	K1406765	K1406765
				Collection Date	6/6/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		77.3	93.9	88.2	86.8	83.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.05]	ND [0.041] JTE	ND [0.043] JTE	ND [0.044] JTE	ND [0.046] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.05]	ND [0.041] JTE	ND [0.043] JTE	ND [0.044] JTE	ND [0.046] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.05]	ND [0.041] JTE	ND [0.043] JTE	ND [0.044] JTE	ND [0.046] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.05]	ND [0.041] JTE	ND [0.043] JTE	ND [0.044] JTE	ND [0.046] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.05]	ND [0.041] JTE	ND [0.043] JTE	ND [0.044] JTE	ND [0.046] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.05]	ND [0.041] JTE	ND [0.043] JTE	ND [0.044] JTE	ND [0.046] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.14 [0.05]	0.12 [0.041] JTE	0.29 [0.043] JTE	ND [0.044] JTE	0.02 [0.046] J, JTE

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H47V09	H47V10	H47V11	H47V12	H47V13	H47V14
				Sample ID	14PH-RRS-H47V09-C-36	14PH-RRS-H47V10-C-36	14PH-RRS-H47V11-C-24	14PH-RRS-H47V12-C-18	14PH-RRS-H47V13-C-6	14PH-RRS-H47V14-C-6
				Lab Sample ID	K140676515	K140676514	K140677003	K140677006	K140658520	K140658601
				SDG	K1406765	K1406765	K1406770	K1406770	K1406585	K1406586
				Collection Date	6/30/2014	6/30/2014	6/27/2014	6/27/2014	6/24/2014	6/24/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		83	87.5	79	92.1	95.7	94.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.046] JTE	ND [0.044] JTE	ND [0.048]	ND [0.041]	ND [0.04]	ND [0.04]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.046] JTE	ND [0.044] JTE	ND [0.048]	ND [0.041]	ND [0.04]	ND [0.04]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.046] JTE	ND [0.044] JTE	ND [0.048]	ND [0.041]	ND [0.04]	ND [0.04]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.046] JTE	ND [0.044] JTE	ND [0.048]	ND [0.041]	ND [0.04]	ND [0.04]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.046] JTE	ND [0.044] JTE	ND [0.048]	ND [0.041]	ND [0.04]	ND [0.04]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.046] JTE	ND [0.044] JTE	ND [0.048]	ND [0.041]	ND [0.04]	ND [0.04]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.88 [0.046] JTE	**2 [0.044] JTE**	0.81 [0.048]	0.04 [0.041] J	ND [0.04]	0.03 [0.04] J, JD

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H47V14	H47V15	H47V18	H47V18	H47V28
				Sample ID	14PH-RRS-H47V14-C-6-9	14PH-RRS-H47V15-C-6	14PH-RRS-H47V18-D-18	14PH-RRS-H47V18-D-24	14PH-RRS-H47V28-D-12
				Lab Sample ID	K140658602	K140658603	K140535501	K140535504	K140535602
				SDG	K1406586	K1406586	K1405355	K1405355	K1405356
				Collection Date	6/24/2014	6/24/2014	5/28/2014	5/28/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		94.2	96	94.5	70.4	68.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.041]	ND [0.04]	ND [0.04]	ND [0.054]	ND [0.055]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.041]	ND [0.04]	ND [0.04]	ND [0.054]	ND [0.055]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.041]	ND [0.04]	ND [0.04]	ND [0.054]	ND [0.055]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.041]	ND [0.04]	ND [0.04]	ND [0.054]	ND [0.055]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.041]	ND [0.04]	ND [0.04]	ND [0.054]	ND [0.055]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.041]	ND [0.04]	ND [0.04]	ND [0.054]	ND [0.055]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.073 [0.041] JD	0.022 [0.04] J	0.04 [0.04]	0.054 [0.054]	0.31 [0.055]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H47V33	H47V37	H48V05	H48V06	H48V07
				Sample ID	14PH-RRS-H47V33-D-12	14PH-RRS-H47V37-D-12	14PH-RRS-H48V05-C-12	14PH-RRS-H48V06-C-12	14PH-RRS-H48V07-C-12
				Lab Sample ID	K140535719	K140543501	K140658509	K140658510	K140658511
				SDG	K1405357	K1405435	K1406585	K1406585	K1406585
				Collection Date	5/29/2014	5/29/2014	6/24/2014	6/24/2014	6/24/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		69.5	85.7	92.5	89.3	89.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.041]	ND [0.043]	ND [0.042]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.041]	ND [0.043]	ND [0.042]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.041]	ND [0.043]	ND [0.042]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.041]	ND [0.043]	ND [0.042]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.041]	ND [0.043]	ND [0.042]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.041]	ND [0.043]	ND [0.042]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.63 [0.055]	0.016 [0.045] J	0.077 [0.041]	ND [0.043]	ND [0.042]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H48V08	H48V08	H48V08	H48V09	H48V10
				Sample ID	14PH-RRS-H48V08-C-12	14PH-RRS-H48V08-D-12	14PH-RRS-H48V08-D-12-9	14PH-RRS-H48V09-C-24	14PH-RRS-H48V10-C-24
				Lab Sample ID	K140658512	K140535706	K140535707	K140658604	K140658605
				SDG	K1406585	K1405357	K1405357	K1406586	K1406586
				Collection Date	6/24/2014	5/28/2014	5/28/2014	6/24/2014	6/24/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		86	84.3	85.4	83.3	81.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.044]	ND [0.045]	ND [0.044]	ND [0.046]	ND [0.047]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.044]	ND [0.045]	ND [0.044]	ND [0.046]	ND [0.047]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.044]	ND [0.045]	ND [0.044]	ND [0.046]	ND [0.047]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.044]	ND [0.045]	ND [0.044]	ND [0.046]	ND [0.047]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.044]	ND [0.045]	ND [0.044]	ND [0.046]	ND [0.047]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.044]	ND [0.045]	ND [0.044]	ND [0.046]	ND [0.047]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.33 [0.044]	ND [0.045]	ND [0.044]	**1.2 [0.046]**	**3.8 [0.047]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H48V11	H48V11	H48V12	H48V13	H48V32
				Sample ID	14PH-RRS-H48V11-C-24	14PH-RRS-H48V11-C-24-9	14PH-RRS-H48V12-C-6	14PH-RRS-H48V13-C-6	14PH-RRS-H48V32-C-18
				Lab Sample ID	K140658606	K140658607	K140658518	K140658519	K141094205
				SDG	K1406586	K1406586	K1406585	K1406585	K1410942
				Collection Date	6/24/2014	6/24/2014	6/24/2014	6/24/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		78.8	79.9	94.5	94.6	83.1
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.049]	ND [0.048]	ND [0.041]	ND [0.041]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.049]	ND [0.048]	ND [0.041]	ND [0.041]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.049]	ND [0.048]	ND [0.041]	ND [0.041]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.049]	ND [0.048]	ND [0.041]	ND [0.041]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.049]	ND [0.048]	ND [0.041]	ND [0.041]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.049]	ND [0.048]	ND [0.041]	ND [0.041]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.033 [0.049] J	0.022 [0.048] J	ND [0.041]	0.019 [0.041] J	ND [0.046]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H48V32-B	H48V32-L	H48V33	H48V34	H48V34
				Sample ID	14PH-RRS-H48V32-B-18	14PH-RRS-H48V32-L-18	14PH-RRS-H48V33-C-18	14PH-RRS-H48V34-C-18	14PH-RRS-H48V34-C-18-9
				Lab Sample ID	K141095209	K141095208	K141094206	K141094208	K141094209
				SDG	K1410952	K1410952	K1410942	K1410942	K1410942
				Collection Date	10/2/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Duplicate
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		70	69	76.3	78.9	78.4
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.054] JS-	ND [0.055]	ND [0.05]	ND [0.048]	ND [0.049]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.054] JS-	ND [0.055]	ND [0.05]	ND [0.048]	ND [0.049]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.054] JS-	ND [0.055]	ND [0.05]	ND [0.048]	ND [0.049]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.054] JS-	ND [0.055]	ND [0.05]	ND [0.048]	ND [0.049]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.054] JS-	ND [0.055]	ND [0.05]	ND [0.048]	ND [0.049]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.054] JS-	ND [0.055]	ND [0.05]	ND [0.048]	ND [0.049]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.054] JS-	ND [0.055]	0.44 [0.05]	0.36 [0.048]	0.36 [0.049]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H49V08	H49V09	H49V10	H49V11	H49V12	H49V26
				Sample ID	14PH-RRS-H49V08-C-6	14PH-RRS-H49V09-C-6	14PH-RRS-H49V10-C-6	14PH-RRS-H49V11-C-6	14PH-RRS-H49V12-C-6	14PH-RRS-H49V26-D-12
				Lab Sample ID	K140658513	K140658514	K140658515	K140658516	K140658517	K140535518
				SDG	K1406585	K1406585	K1406585	K1406585	K1406585	K1405355
				Collection Date	6/24/2014	6/24/2014	6/24/2014	6/24/2014	6/24/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		94.4	95.1	95.2	95.1	92.9	72
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.04]	ND [0.04]	ND [0.041]	ND [0.053]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.04]	ND [0.04]	ND [0.041]	ND [0.053]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.04]	ND [0.04]	ND [0.041]	ND [0.053]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.04]	ND [0.04]	ND [0.041]	ND [0.053]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.04]	ND [0.04]	ND [0.041]	ND [0.053]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.04]	ND [0.04]	ND [0.041]	ND [0.053]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.04]	0.014 [0.04] J	0.016 [0.04] J	0.016 [0.04] J	0.17 [0.041]	0.26 [0.053] JD

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H49V26	H49V33	H49V33-B	H49V34	H49V34-L
				Sample ID	14PH-RRS-H49V26-D-12X	14PH-RRS-H49V33-C-18	14PH-RRS-H49V33-B-18	14PH-RRS-H49V34-C-18	14PH-RRS-H49V34-L-18
				Lab Sample ID	K140535519	K141094211	K141095210	K141094204	K141095203
				SDG	K1405355	K1410942	K1410952	K1410942	K1410952
				Collection Date	5/28/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		71.6	81.5	68.2	80.9	80.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.053]	ND [0.047]	ND [0.056]	ND [0.047] JS-	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.053]	ND [0.047]	ND [0.056]	ND [0.047] JS-	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.053]	ND [0.047]	ND [0.056]	ND [0.047] JS-	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.053]	ND [0.047]	ND [0.056]	ND [0.047] JS-	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.053]	ND [0.047]	ND [0.056]	ND [0.047] JS-	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.053]	ND [0.047]	ND [0.056]	ND [0.047] JS-	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.56 [0.053] JD	0.32 [0.047]	0.067 [0.056]	0.22 [0.047] JS-	0.084 [0.048]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

			Loc ID	H49V35	H49V36	H49V37	H49V37-L	H49V38
			Sample ID	14PH-RRS-H49V35-C-18	14PH-RRS-H49V36-C-18	14PH-RRS-H49V37-C-18	14PH-RRS-H49V37-L-18	14PH-RRS-H49V38-C-18
			Lab Sample ID	K141094203	K141094202	K141094201	K141095301	K141094020
			SDG	K1410942	K1410942	K1410942	K1410953	K1410940
			Collection Date	10/2/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014
			Matrix	SO	SO	SO	SO	SO
			Laboratory	ALS	ALS	ALS	ALS	ALS
			QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]					
E160.3M	Total Solids	PERCENT	-	81.6	83.5	81.6	73.6	87.8
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1	ND [0.046]	ND [0.045]	ND [0.046]	ND [0.051]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1	ND [0.046]	ND [0.045]	ND [0.046]	ND [0.051]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1	ND [0.046]	ND [0.045]	ND [0.046]	ND [0.051]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1	ND [0.046]	ND [0.045]	ND [0.046]	ND [0.051]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1	ND [0.046]	ND [0.045]	ND [0.046]	ND [0.051]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1	ND [0.046]	ND [0.045]	ND [0.046]	ND [0.051]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1	0.33 [0.046]	ND [0.045]	ND [0.046]	ND [0.051]	ND [0.044]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H49V38-F	H49V38-L	H50V19	H50V19	H50V33
				Sample ID	14PH-RRS-H49V38-F-18	14PH-RRS-H49V38-L-18	14PH-RRS-H50V19-D-18	14PH-RRS-H50V19-D-24	14PH-RRS-H50V33-C-18
				Lab Sample ID	K141095217	K141095220	K140535505	K140535506	K141094214
				SDG	K1410952	K1410952	K1405355	K1405355	K1410942
				Collection Date	10/2/2014	10/2/2014	5/28/2014	5/28/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		70.2	76.7	67.3	77	81.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.054]	ND [0.05]	ND [0.57]	ND [0.49]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.054]	ND [0.05]	ND [0.57]	ND [0.49]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.054]	ND [0.05]	ND [0.57]	ND [0.49]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.054]	ND [0.05]	ND [0.57]	ND [0.49]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.054]	ND [0.05]	ND [0.57]	ND [0.49]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.054]	ND [0.05]	ND [0.57]	ND [0.49]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.054]	ND [0.05]	**17 [0.57]**	**9.9 [0.49]**	0.78 [0.046]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H50V33-B	H50V33-F	H50V35	H50V35	H50V35
				Sample ID	14PH-RRS-H50V33-B-18	14PH-RRS-H50V33-F-18	14PH-RRS-H50V35-C-18	14PH-RRS-H50V35-D-12	14PH-RRS-H50V35-D-18
				Lab Sample ID	K141095211	K141094306	K141094215	K140543503	K140543504
				SDG	K1410952	K1410943	K1410942	K1405435	K1405435
				Collection Date	10/2/2014	10/2/2014	10/2/2014	5/29/2014	5/29/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		76.6	85.4	84.4	61.3	69.4
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.049]	ND [0.045]	ND [0.045]	ND [0.062]	ND [0.054]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.049]	ND [0.045]	ND [0.045]	ND [0.062]	ND [0.054]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.049]	ND [0.045]	ND [0.045]	ND [0.062]	ND [0.054]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.049]	ND [0.045]	ND [0.045]	ND [0.062]	ND [0.054]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.049]	ND [0.045]	ND [0.045]	ND [0.062]	ND [0.054]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.049]	ND [0.045]	ND [0.045]	ND [0.062]	ND [0.054]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.89 [0.049]	0.097 [0.045]	0.18 [0.045]	**1.4 [0.062]**	0.49 [0.054]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H50V35-B	H50V36	H50V36-F	H50V38-C	H51V06
				Sample ID	14PH-RRS-H50V35-B-18	14PH-RRS-H50V36-C-18	14PH-RRS-H50V36-F-18	14PH-RRS-H50V38-C-6	14PH-RRS-H51V06-C-12
				Lab Sample ID	K141095204	K141094218	K141095302	K141054817	K140658612
				SDG	K1410952	K1410942	K1410953	K1410548	K1406586
				Collection Date	10/2/2014	10/2/2014	10/2/2014	9/22/2014	6/25/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		80.4	85.8	79	62.8	87.7
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.048]	ND [0.061]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.048]	ND [0.061]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.048]	ND [0.061]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.048]	ND [0.061]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.048]	ND [0.061]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.048]	ND [0.061]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.16 [0.047]	ND [0.045]	ND [0.048]	0.1 [0.061]	0.027 [0.044] J

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H51V06	H51V07	H51V08	H51V09	H51V10
				Sample ID	14PH-RRS-H51V06-D-12	14PH-RRS-H51V07-C-12	14PH-RRS-H51V08-C-12	14PH-RRS-H51V09-C-12	14PH-RRS-H51V10-C-12
				Lab Sample ID	K140535704	K140658611	K140658608	K140658609	K140658610
				SDG	K1405357	K1406586	K1406586	K1406586	K1406586
				Collection Date	5/28/2014	6/25/2014	6/25/2014	6/25/2014	6/25/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		70.6	83	77.4	77	83.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.054]	ND [0.046]	ND [0.05]	ND [0.049]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.054]	ND [0.046]	ND [0.05]	ND [0.049]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.054]	ND [0.046]	ND [0.05]	ND [0.049]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.054]	ND [0.046]	ND [0.05]	ND [0.049]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.054]	ND [0.046]	ND [0.05]	ND [0.049]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.054]	ND [0.046]	ND [0.05]	ND [0.049]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.15 [0.054]	0.062 [0.046]	0.33 [0.05]	0.029 [0.049] J	0.021 [0.046] J

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

			Loc ID	H51V11	H51V33	H51V33	H51V33-B	H51V34
			Sample ID	14PH-RRS-H51V11-C-12	14PH-RRS-H51V33-C-18	14PH-RRS-H51V33-C-18-9	14PH-RRS-H51V33-B-18	14PH-RRS-H51V34-C-18
			Lab Sample ID	K140658613	K141094220	K141094301	K141095212	K141094304
			SDG	K1406586	K1410942	K1410943	K1410952	K1410943
			Collection Date	6/25/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014
			Matrix	SO	SO	SO	SO	SO
			Laboratory	ALS	ALS	ALS	ALS	ALS
			QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]					
E160.3M	Total Solids	PERCENT	-	82.6	81.6	81.3	74	84.5
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1	ND [0.046]	ND [0.047]	ND [0.047]	ND [0.051]	ND [0.045]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1	ND [0.046]	ND [0.047]	ND [0.047]	ND [0.051]	ND [0.045]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1	ND [0.046]	ND [0.047]	ND [0.047]	ND [0.051]	ND [0.045]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1	ND [0.046]	ND [0.047]	ND [0.047]	ND [0.051]	ND [0.045]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1	ND [0.046]	ND [0.047]	ND [0.047]	ND [0.051]	ND [0.045]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1	ND [0.046]	ND [0.047]	ND [0.047]	ND [0.051]	ND [0.045]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1	ND [0.046]	0.31 [0.047]	0.36 [0.047]	0.52 [0.051]	0.081 [0.045]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H51V34-R	H51V34-R	H51V35	H51V36	H51V36
				Sample ID	14PH-RRS-H51V34-R-18	14PH-RRS-H51V34-R-18-9	14PH-RRS-H51V35-C-18	14PH-RRS-H51V36-C-18	14PH-RRS-H51V36-C-18-9
				Lab Sample ID	K141095205	K141095206	K141095215	K141095218	K141095219
				SDG	K1410952	K1410952	K1410952	K1410952	K1410952
				Collection Date	10/2/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Duplicate
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		70.7	71.2	85.7	87.4	87.1
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.054]	ND [0.053]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.054]	ND [0.053]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.054]	ND [0.053]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.054]	ND [0.053]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.054]	ND [0.053]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.054]	ND [0.053]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.48 [0.054]	0.49 [0.053]	0.018 [0.044] J	0.015 [0.043] J	0.016 [0.044] J

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H51V37	H51V37-F	H51V37-R	H51V38-C	H52V09
				Sample ID	14PH-RRS-H51V37-C-18	14PH-RRS-H51V37-F-18	14PH-RRS-H51V37-R-18	14PH-RRS-H51V38-C-6	14PH-RRS-H52V09-D-12
				Lab Sample ID	K141094303	K141095201	K141095202	K141054818	K140535620
				SDG	K1410943	K1410952	K1410952	K1410548	K1405356
				Collection Date	10/2/2014	10/2/2014	10/2/2014	9/22/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		84.7	80.3	78.2	65.6	68.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.048]	ND [0.058]	ND [0.056]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.048]	ND [0.058]	ND [0.056]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.048]	ND [0.058]	ND [0.056]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.048]	ND [0.058]	ND [0.056]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.048]	ND [0.058]	ND [0.056]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.048]	ND [0.058]	ND [0.056]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.048]	0.18 [0.058]	0.11 [0.056]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H52V09	H52V22	H52V32	H52V32B	H52V32-R
				Sample ID	14PH-RRS-H52V09-D-18	14PH-RRS-H52V22-D-12	14PH-RRS-H52V32-C-18	14PH-RRS-H52V32-B-18	14PH-RRS-H52V32-R-18
				Lab Sample ID	K140535701	K140535507	K141057503	K141057508	K141057509
				SDG	K1405357	K1405355	K1410575	K1410575	K1410575
				Collection Date	5/28/2014	5/28/2014	9/27/2014	9/27/2014	9/27/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		72.1	87.9	85	72.9	87.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.052]	ND [0.044]	ND [0.044]	ND [0.052]	ND [0.043]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.052]	ND [0.044]	ND [0.044]	ND [0.052]	ND [0.043]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.052]	ND [0.044]	ND [0.044]	ND [0.052]	ND [0.043]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.052]	ND [0.044]	ND [0.044]	ND [0.052]	ND [0.043]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.052]	ND [0.044]	ND [0.044]	ND [0.052]	ND [0.043]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.052]	ND [0.044]	ND [0.044]	ND [0.052]	ND [0.043]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.055 [0.052]	0.64 [0.044]	0.021 [0.044] J	0.06 [0.052]	0.36 [0.043]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H52V33	H52V34	H52V35	H52V35	H52V36
				Sample ID	14PH-RRS-H52V33-C-18	14PH-RRS-H52V34-C-18	14PH-RRS-H52V35-C-18	14PH-RRS-H52V35-C-18-9	14PH-RRS-H52V36-C-18
				Lab Sample ID	K141057504	K141095207	K141095213	K141095214	K141095216
				SDG	K1410575	K1410952	K1410952	K1410952	K1410952
				Collection Date	9/27/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Duplicate	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		81.9	83.7	86.8	86.2	86.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.047]	ND [0.046]	ND [0.044]	ND [0.044]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.047]	ND [0.046]	ND [0.044]	ND [0.044]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.047]	ND [0.046]	ND [0.044]	ND [0.044]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.047]	ND [0.046]	ND [0.044]	ND [0.044]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.047]	ND [0.046]	ND [0.044]	ND [0.044]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.047]	ND [0.046]	ND [0.044]	ND [0.044]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**1.8 [0.047]**	0.35 [0.046]	0.13 [0.044]	0.14 [0.044]	0.14 [0.044]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H52V37	H52V37-F	H52V38-C	H53V14	H53V25
				Sample ID	14PH-RRS-H52V37-C-18	14PH-RRS-H52V37-F-18	14PH-RRS-H52V38-C-6	14PH-RRS-H53V14-D-12	14PH-RRS-H53V25-D-18
				Lab Sample ID	K141094302	K141094305	K141054820	K140535616	K140535509
				SDG	K1410943	K1410943	K1410548	K1405356	K1405355
				Collection Date	10/2/2014	10/2/2014	9/22/2014	5/28/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		85.6	80.6	69.4	84.4	79.1
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.054]	ND [0.045]	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.054]	ND [0.045]	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.054]	ND [0.045]	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.054]	ND [0.045]	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.054]	ND [0.045]	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.045]	ND [0.047]	ND [0.054]	ND [0.045]	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.045]	ND [0.047]	0.36 [0.054]	ND [0.045]	**1.1 [0.048]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H53V25	H53V32	H53V32	H53V33	H53V35
				Sample ID	14PH-RRS-H53V25-D-24	14PH-RRS-H53V32-C-18	14PH-RRS-H53V32-C-18-9	14PH-RRS-H53V33-C-18	14PH-RRS-H53V35-D-12
				Lab Sample ID	K140535510	K141057505	K141057506	K141057507	K140543505
				SDG	K1405355	K1410575	K1410575	K1410575	K1405435
				Collection Date	5/28/2014	9/27/2014	9/27/2014	9/27/2014	5/29/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		68.3	84.5	85.6	83.2	65.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.045]	ND [0.045]	ND [0.058]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.045]	ND [0.045]	ND [0.058]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.045]	ND [0.045]	ND [0.058]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.045]	ND [0.045]	ND [0.058]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.045]	ND [0.045]	ND [0.058]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.055]	ND [0.045]	ND [0.045]	ND [0.045]	ND [0.058]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**2.8 [0.055]**	0.57 [0.045]	0.76 [0.045]	**1.1 [0.045]**	**4.3 [0.058]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H53V35	H53V37	H53V37-F	H53V38	H53V38-F
				Sample ID	14PH-RRS-H53V35-D-18	14PH-RRS-H53V37-C-18	14PH-RRS-H53V37-F-18	14PH-RRS-H53V38-C-24	14PH-RRS-H53V38-F-24
				Lab Sample ID	K140543506	K141057501	K141057502	K141094216	K141094217
				SDG	K1405435	K1410575	K1410575	K1410942	K1410942
				Collection Date	5/29/2014	9/27/2014	9/27/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		83.3	83	82.9	86.2	77.8
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.046]	ND [0.046]	ND [0.046]	ND [0.044]	ND [0.049]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.046]	ND [0.046]	ND [0.046]	ND [0.044]	ND [0.049]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.046]	ND [0.046]	ND [0.046]	ND [0.044]	ND [0.049]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.046]	ND [0.046]	ND [0.046]	ND [0.044]	ND [0.049]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.046]	ND [0.046]	ND [0.046]	ND [0.044]	ND [0.049]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.046]	ND [0.046]	ND [0.046]	ND [0.044]	ND [0.049]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.32 [0.046]	0.017 [0.046] J	0.033 [0.046] J	ND [0.044]	ND [0.049]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H53V38-R	H53V40-C	H54V05-C	H54V06-C	H54V07-C	H54V08-C
				Sample ID	14PH-RRS-H53V38-R-24	14PH-RRS-H53V40-C-6	14PH-RRS-H54V05-C-6	14PH-RRS-H54V06-C-6	14PH-RRS-H54V07-C-6	14PH-RRS-H54V08-C-6
				Lab Sample ID	K141094219	K141031617	K141054802	K141054713	K141054707	K141054705
				SDG	K1410942	K1410316	K1410548	K1410547	K1410547	K1410547
				Collection Date	10/2/2014	9/20/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		80.8	88.7	63.6	60.6	66.2	67.1
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.047]	ND [0.042]	ND [0.6]	ND [0.31]	ND [0.29]	ND [0.057]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.047]	ND [0.042]	ND [0.6]	ND [0.31]	ND [0.29]	ND [0.057]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.047]	ND [0.042]	ND [0.6]	ND [0.31]	ND [0.29]	ND [0.057]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.047]	ND [0.042]	ND [0.6]	ND [0.31]	ND [0.29]	ND [0.057]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.047]	ND [0.042]	ND [0.6]	ND [0.31]	ND [0.29]	ND [0.057]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.047]	ND [0.042]	ND [0.6]	ND [0.31]	ND [0.29]	ND [0.057]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.047]	0.052 [0.042]	**16 [0.6]**	**8 [0.31]**	**5.3 [0.29]**	**1.7 [0.057]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H54V08-C	H54V09-C	H54V10-C	H54V11-C	H54V15	H54V20
				Sample ID	14PH-RRS-H54V08-C-6-9	14PH-RRS-H54V09-C-6	14PH-RRS-H54V10-C-6	14PH-RRS-H54V11-C-6	14PH-RRS-H54V38-D-24	14PH-RRS-H54V20-D-12
				Lab Sample ID	K141054706	K141054711	K141054710	K141054712	K140602606	K140535512
				SDG	K1410547	K1410547	K1410547	K1410547	K1406026	K1405355
				Collection Date	9/24/2014	9/24/2014	9/24/2014	9/24/2014	6/11/2014	5/28/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		68.3	65.1	71.4	78	86.6	80.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.056]	ND [0.059]	ND [0.053]	ND [0.049]	ND [0.044]	ND [0.047]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.056]	ND [0.059]	ND [0.053]	ND [0.049]	ND [0.044]	ND [0.047]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.056]	ND [0.059]	ND [0.053]	ND [0.049]	ND [0.044]	ND [0.047]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.056]	ND [0.059]	ND [0.053]	ND [0.049]	ND [0.044]	ND [0.047]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.056]	ND [0.059]	ND [0.053]	ND [0.049]	ND [0.044]	ND [0.047]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.056]	ND [0.059]	ND [0.053]	ND [0.049]	ND [0.044]	ND [0.047]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**1.8 [0.056]**	**4.2 [0.059]**	**1.7 [0.053] JD**	**1.2 [0.049]**	**1.9 [0.044]**	0.11 [0.047]

Notes:

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H54V29	H54V29	H54V37-C	H54V38	H54V38
				Sample ID	14PH-RRS-H54V29-D-12	14PH-RRS-H54V29-D-18	14PH-RRS-H54V37-C-24	14PH-RRS-H54V38-D-12	14PH-RRS-H54V38-D-18
				Lab Sample ID	K140535515	K140535517	K141031602	K140543507	K140543508
				SDG	K1405355	K1405355	K1410316	K1405435	K1405435
				Collection Date	5/28/2014	5/28/2014	9/20/2014	5/29/2014	5/29/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		64.7	79.7	83.8	88.6	87.8
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		*ND [5.8] E*	ND [0.47]	ND [0.045]	ND [0.43]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		*ND [5.8] E*	ND [0.47]	ND [0.045]	ND [0.43]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		*ND [5.8] E*	ND [0.47]	ND [0.045]	ND [0.43]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		*ND [5.8] E*	ND [0.47]	ND [0.045]	ND [0.43]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		*ND [5.8] E*	ND [0.47]	ND [0.045]	ND [0.43]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		*ND [5.8] E*	ND [0.47]	ND [0.045]	ND [0.43]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**76 [5.8]**	**5.7 [0.47]**	0.46 [0.045]	**6.9 [0.43]**	**4 [0.044]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H54V38	H54V38-C	H54V38-R	H54V39-C	H54V39-F
				Sample ID	14PH-RRS-H54V38-D-30	14PH-RRS-H54V38-C-24	14PH-RRS-H54V38-R-24	14PH-RRS-H54V39-C-24	14PH-RRS-H54V39-F-24
				Lab Sample ID	K140677206	K141031604	K141031612	K141031606	K141031610
				SDG	K1406772	K1410316	K1410316	K1410316	K1410316
				Collection Date	6/11/2014	9/20/2014	9/20/2014	9/20/2014	9/20/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		84	80.1	86.9	88.8	86.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.046] JTE	ND [0.048]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.046] JTE	ND [0.048]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.046] JTE	ND [0.048]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.046] JTE	ND [0.048]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.046] JTE	ND [0.048]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.046] JTE	ND [0.048]	ND [0.044]	ND [0.043]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**3.7 [0.046] JTE**	0.021 [0.048] J	**1.2 [0.044]**	0.48 [0.043]	**2.2 [0.044]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H54V39-R	H54V40	H54V40-C	H54V40-F	H54V40-L
				Sample ID	14PH-RRS-H54V39-R-24	14PH-RRS-H54V40-C-24	14PH-RRS-H54V40-C-6	14PH-RRS-H54V40-F-24	14PH-RRS-H54V40-L-24
				Lab Sample ID	K141031611	K141094213	K141031616	K141094207	K141094210
				SDG	K1410316	K1410942	K1410316	K1410942	K1410942
				Collection Date	9/20/2014	10/2/2014	9/20/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		82.3	84.6	86.6	85.9	86.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.043]	ND [0.044]	ND [0.22]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.043]	ND [0.044]	ND [0.22]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.043]	ND [0.044]	ND [0.22]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.043]	ND [0.044]	ND [0.22]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.043]	ND [0.044]	ND [0.22]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.043]	ND [0.044]	ND [0.22]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.026 [0.047] J	**1.2 [0.045]**	0.17 [0.043]	**3.6 [0.044]**	**5.1 [0.22]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H54V40-R	H55V05-C	H55V06-C	H55V07-C	H55V11-C	H55V12-C
				Sample ID	14PH-RRS-H54V40-R-24	14PH-RRS-H55V05-C-6	14PH-RRS-H55V06-C-6	14PH-RRS-H55V07-C-6	14PH-RRS-H55V11-C-6	14PH-RRS-H55V12-C-6
				Lab Sample ID	K141094212	K141054801	K141054803	K141054714	K141054708	K141054709
				SDG	K1410942	K1410548	K1410548	K1410547	K1410547	K1410547
				Collection Date	10/2/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		87.4	65.1	67.2	67.2	79.9	79.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.043]	ND [0.058]	ND [0.057]	ND [0.057]	ND [0.048]	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.043]	ND [0.058]	ND [0.057]	ND [0.057]	ND [0.048]	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.043]	ND [0.058]	ND [0.057]	ND [0.057]	ND [0.048]	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.043]	ND [0.058]	ND [0.057]	ND [0.057]	ND [0.048]	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.043]	ND [0.058]	ND [0.057]	ND [0.057]	ND [0.048]	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.043]	ND [0.058]	ND [0.057]	ND [0.057]	ND [0.048]	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.043]	**4.9 [0.058]**	**4.4 [0.057]**	**3.5 [0.057]**	0.73 [0.048]	0.35 [0.048]

Notes:

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H55V33	H55V33	H55V33	H55V33	H55V37-C
				Sample ID	14PH-RRS-H55V33-D-18	14PH-RRS-H55V33-D-24	14PH-RRS-H55V33-D-30	14PH-RRS-H55V33-D-36	14PH-RRS-H55V37-C-24
				Lab Sample ID	K140543509	K140543510	K140602605	K140677205	K141031601
				SDG	K1405435	K1405435	K1406026	K1406772	K1410316
				Collection Date	5/29/2014	5/29/2014	6/11/2014	6/11/2014	9/20/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		76.3	83.3	83.2	85.5	84.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.05]	ND [0.046]	ND [0.46]	ND [0.044] JTE	ND [0.045]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.05]	ND [0.046]	ND [0.46]	ND [0.044] JTE	ND [0.045]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.05]	ND [0.046]	ND [0.46]	ND [0.044] JTE	ND [0.045]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.05]	ND [0.046]	ND [0.46]	ND [0.044] JTE	ND [0.045]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.05]	ND [0.046]	ND [0.46]	ND [0.044] JTE	ND [0.045]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.05]	ND [0.046]	ND [0.46]	ND [0.044] JTE	ND [0.045]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**3.3 [0.05]**	**2.8 [0.046]**	**9.5 [0.46]**	**1.1 [0.044] JTE**	0.63 [0.045]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H55V38-C	H55V38-L	H55V39-C	H55V39-F	H55V39-L	H55V40-C
				Sample ID	14PH-RRS-H55V38-C-24	14PH-RRS-H55V38-L-24	14PH-RRS-H55V39-C-24	14PH-RRS-H55V39-F-24	14PH-RRS-H55V39-L-24	14PH-RRS-H55V40-C-6
				Lab Sample ID	K141031603	K141031609	K141031605	K141031608	K141031607	K141031614
				SDG	K1410316	K1410316	K1410316	K1410316	K1410316	K1410316
				Collection Date	9/20/2014	9/20/2014	9/20/2014	9/20/2014	9/20/2014	9/20/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		87.2	80.5	86.4	85.9	87.3	82.4
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.044]	ND [0.044]	ND [0.044]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.044]	ND [0.044]	ND [0.044]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.044]	ND [0.044]	ND [0.044]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.044]	ND [0.044]	ND [0.044]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.044]	ND [0.044]	ND [0.044]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.043]	ND [0.047]	ND [0.044]	ND [0.044]	ND [0.044]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.29 [0.043]	0.012 [0.047] J	0.24 [0.044]	0.57 [0.044]	ND [0.044]	0.22 [0.046]

Notes:

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H55V40-C	H56V05-C	H56V07-C	H56V07-C	H56V13-C	H56V14-C
				Sample ID	14PH-RRS-H55V40-C-6-9	14PH-RRS-H56V05-C-6	14PH-RRS-H56V07-C-6	14PH-RRS-H56V07-C-6-9	14PH-RRS-H56V13-C-6	14PH-RRS-H56V14-C-6
				Lab Sample ID	K141031615	K141054720	K141054715	K141054716	K141054918	K141054917
				SDG	K1410316	K1410547	K1410547	K1410547	K1410549	K1410549
				Collection Date	9/20/2014	9/24/2014	9/24/2014	9/24/2014	9/23/2014	9/23/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		81.6	66.8	66.9	68.7	67.5	62.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.046]	ND [0.29]	ND [0.057]	ND [0.056]	ND [0.056]	ND [0.061]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.046]	ND [0.29]	ND [0.057]	ND [0.056]	ND [0.056]	ND [0.061]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.046]	ND [0.29]	ND [0.057]	ND [0.056]	ND [0.056]	ND [0.061]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.046]	ND [0.29]	ND [0.057]	ND [0.056]	ND [0.056]	ND [0.061]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.046]	ND [0.29]	ND [0.057]	ND [0.056]	ND [0.056]	ND [0.061]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.046]	ND [0.29]	ND [0.057]	ND [0.056]	ND [0.056]	ND [0.061]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.31 [0.046]	**8.8 [0.29]**	**2.7 [0.057]**	**2.5 [0.056]**	0.41 [0.056]	0.44 [0.061]

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H56V15-C	H56V18-C	H56V19-C	H56V20-C	H56V20-C	H56V21-C
				Sample ID	14PH-RRS-H56V15-C-6	14PH-RRS-H56V18-C-6	14PH-RRS-H56V19-C-6	14PH-RRS-H56V20-C-6	14PH-RRS-H56V20-C-6-9	14PH-RRS-H56V21-C-6
				Lab Sample ID	K141054916	K141054915	K141054914	K141054912	K141054913	K141054911
				SDG	K1410549	K1410549	K1410549	K1410549	K1410549	K1410549
				Collection Date	9/23/2014	9/23/2014	9/23/2014	9/23/2014	9/23/2014	9/23/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Duplicate	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		66.7	64.6	66.5	61.2	64.5	61.8
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.057]	ND [0.059]	ND [0.057]	ND [0.062]	ND [0.059]	ND [0.062]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.057]	ND [0.059]	ND [0.057]	ND [0.062]	ND [0.059]	ND [0.062]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.057]	ND [0.059]	ND [0.057]	ND [0.062]	ND [0.059]	ND [0.062]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.057]	ND [0.059]	ND [0.057]	ND [0.062]	ND [0.059]	ND [0.062]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.057]	ND [0.059]	ND [0.057]	ND [0.062]	ND [0.059]	ND [0.062]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.057]	ND [0.059]	ND [0.057]	ND [0.062]	ND [0.059]	ND [0.062]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.098 [0.057]	0.13 [0.059]	0.44 [0.057]	0.44 [0.062] JD	0.25 [0.059] JD	0.27 [0.062]

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

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SDG = sample delivery group

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H56V24-C	H56V27-C	H56V37-C	H56V40-C	H57V05-C	H57V06-C
				Sample ID	14PH-RRS-H56V24-C-6	14PH-RRS-H56V27-C-6	14PH-RRS-H56V37-C-6	14PH-RRS-H56V40-C-6	14PH-RRS-H57V05-C-6	14PH-RRS-H57V06-C-6
				Lab Sample ID	K141054910	K141054908	K141031618	K141031613	K141054719	K141054718
				SDG	K1410549	K1410549	K1410316	K1410316	K1410547	K1410547
				Collection Date	9/23/2014	9/23/2014	9/20/2014	9/20/2014	9/24/2014	9/24/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		66.6	67.4	67.2	79.8	63.7	64.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.057]	ND [0.056]	ND [0.057]	ND [0.047]	ND [0.3]	ND [0.06]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.057]	ND [0.056]	ND [0.057]	ND [0.047]	ND [0.3]	ND [0.06]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.057]	ND [0.056]	ND [0.057]	ND [0.047]	ND [0.3]	ND [0.06]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.057]	ND [0.056]	ND [0.057]	ND [0.047]	ND [0.3]	ND [0.06]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.057]	ND [0.056]	ND [0.057]	ND [0.047]	ND [0.3]	ND [0.06]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.057]	ND [0.056]	ND [0.057]	ND [0.047]	ND [0.3]	ND [0.06]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.43 [0.057]	**1.3 [0.056]**	0.2 [0.057]	0.14 [0.047]	**6.8 [0.3]**	**3.8 [0.06]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H57V07-C	H57V15-C	H57V16-C	H57V17-C	H57V18-C	H57V35-C
				Sample ID	14PH-RRS-H57V07-C-6	14PH-RRS-H57V15-C-6	14PH-RRS-H57V16-C-6	14PH-RRS-H57V17-C-6	14PH-RRS-H57V18-C-6	14PH-RRS-H57V35-C-6
				Lab Sample ID	K141054717	K141054701	K141054702	K141054703	K141054704	K141054819
				SDG	K1410547	K1410547	K1410547	K1410547	K1410547	K1410548
				Collection Date	9/24/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014	9/22/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		67.5	67.7	61.5	67.4	66.7	67.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.057]	ND [0.057]	ND [0.062]	ND [0.056]	ND [0.057]	ND [0.057]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.057]	ND [0.057]	ND [0.062]	ND [0.056]	ND [0.057]	ND [0.057]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.057]	ND [0.057]	ND [0.062]	ND [0.056]	ND [0.057]	ND [0.057]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.057]	ND [0.057]	ND [0.062]	ND [0.056]	ND [0.057]	ND [0.057]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.057]	ND [0.057]	ND [0.062]	ND [0.056]	ND [0.057]	ND [0.057]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.057]	ND [0.057]	ND [0.062]	ND [0.056]	ND [0.057]	ND [0.057]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**4.4 [0.057]**	0.17 [0.057]	0.21 [0.062]	0.28 [0.056]	0.31 [0.057]	0.11 [0.057]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H57V37-C	H57V37-C	H58V33-C	H58V36-C	H58V36-C	H58V37-C
				Sample ID	14PH-RRS-H57V37-C-6	14PH-RRS-H57V37-C-6-9	14PH-RRS-H58V33-C-6	14PH-RRS-H58V35-C-6	14PH-RRS-H58V36-C-6	14PH-RRS-H58V37-C-6
				Lab Sample ID	K141031619	K141031620	K141054905	K141054906	K141054907	K141031621
				SDG	K1410316	K1410316	K1410549	K1410549	K1410549	K1410316
				Collection Date	9/20/2014	9/20/2014	9/22/2014	9/22/2014	9/22/2014	9/20/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		79	79.5	62.5	62.3	77	85.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.061]	ND [0.061]	ND [0.05]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.061]	ND [0.061]	ND [0.05]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.061]	ND [0.061]	ND [0.05]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.061]	ND [0.061]	ND [0.05]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.061]	ND [0.061]	ND [0.05]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.061]	ND [0.061]	ND [0.05]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.17 [0.048]	0.11 [0.048]	0.15 [0.061]	0.32 [0.061]	0.21 [0.05] JM-	0.025 [0.044] J

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	H59V33-C	H59V34-C	H59V35-C	H59V35-C	K56V26-C	SL01
				Sample ID	14PH-RRS-H59V33-C-6	14PH-RRS-H59V34-C-6	14PH-RRS-H59V35-C-6	14PH-RRS-H59V35-C-6-9	14PH-RRS-H56V26-C-6	14PH-SL01-C-12
				Lab Sample ID	K141054904	K141054903	K141054901	K141054902	K141054909	K140633201
				SDG	K1410549	K1410549	K1410549	K1410549	K1410549	K1406332
				Collection Date	9/22/2014	9/22/2014	9/22/2014	9/22/2014	9/23/2014	6/17/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		66.9	70.2	77.3	79.2	65.4	79
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.057]	ND [0.054]	ND [0.049]	ND [0.048]	ND [0.058]	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.057]	ND [0.054]	ND [0.049]	ND [0.048]	ND [0.058]	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.057]	ND [0.054]	ND [0.049]	ND [0.048]	ND [0.058]	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.057]	ND [0.054]	ND [0.049]	ND [0.048]	ND [0.058]	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.057]	ND [0.054]	ND [0.049]	ND [0.048]	ND [0.058]	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.057]	ND [0.054]	ND [0.049]	ND [0.048]	ND [0.058]	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.2 [0.057]	0.15 [0.054]	0.082 [0.049]	0.11 [0.048]	0.36 [0.058]	0.53 [0.048]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	ST01	ST02	ST03	ST04	ST05	ST05	TU92-L10-F	TU92-L10-G
				Sample ID	14PH-ST01-1	14PH-ST02-1	14PH-ST03-1	14PH-ST04-1	14PH-ST05-1	14PH-ST05-1-9	14PH-TU92-L10-F-C-24	14PH-TU92-L10-G-B-24
				Lab Sample ID	K140677008	K140677009	K140677010	K140677011	K140677012	K140677013	K141094019	K140677115
				SDG	K1406770	K1406770	K1406770	K1406770	K1406770	K1406770	K1410940	K1406771
				Collection Date	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	10/2/2014	6/30/2014
				Matrix	SO	SO	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]									
E160.3M	Total Solids	PERCENT	-	94.8	93.5	95.1	94.2	93.4	93	86.1	88.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1	ND [0.04]	ND [0.041]	ND [0.2]	ND [0.04]	ND [0.041]	ND [0.041]	ND [0.044]	ND [0.084] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1	ND [0.04]	ND [0.041]	ND [0.2]	ND [0.04]	ND [0.041]	ND [0.041]	ND [0.044]	ND [0.084] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1	ND [0.04]	ND [0.041]	ND [0.2]	ND [0.04]	ND [0.041]	ND [0.041]	ND [0.044]	ND [0.084] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1	ND [0.04]	ND [0.041]	ND [0.2]	ND [0.04]	0.013 [0.041] J, JD	ND [0.041] JD	ND [0.044]	ND [0.084] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1	ND [0.04]	ND [0.041]	ND [0.2]	ND [0.04]	ND [0.041]	ND [0.041]	ND [0.044]	ND [0.084] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1	ND [0.04]	ND [0.041]	ND [0.2]	ND [0.04]	ND [0.041]	ND [0.041]	ND [0.044]	ND [0.084] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1	0.98 [0.04]	0.5 [0.041]	**5.1 [0.2]**	0.42 [0.04]	0.27 [0.041] JD	**1.7 [0.041] JD**	**3.1 [0.044]**	**5.6 [0.084] JTE**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L10-G	TU92-L10-G	TU92-L10-G	TU92-L10-G	TU92-L11-F	TU92-L11-F
				Sample ID	14PH-TU92-L10-G-C-24	14PH-TU92-L10-G-D-12	14PH-TU92-L10-G-D-18	14PH-TU92-L10-G-R-24	14PH-TU92-L11-F-B-24	14PH-TU92-L11-F-C-24
				Lab Sample ID	K140658505	K140544707	K140544708	K140677114	K141094017	K141094013
				SDG	K1406585	K1405447	K1405447	K1406771	K1410940	K1410940
				Collection Date	6/24/2014	5/31/2014	5/31/2014	6/30/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		81.1	86.2	82.5	91.4	86.4	83.1
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.046]	ND [0.082] JTE	ND [0.044]	ND [0.046]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.046]	ND [0.082] JTE	ND [0.044]	ND [0.046]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.046]	ND [0.082] JTE	ND [0.044]	ND [0.046]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.046]	ND [0.082] JTE	ND [0.044]	ND [0.046]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.046]	ND [0.082] JTE	ND [0.044]	ND [0.046]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.047]	ND [0.045]	ND [0.046]	ND [0.082] JTE	ND [0.044]	ND [0.046]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.11 [0.047]	ND [0.045]	0.023 [0.046] J	**4.8 [0.082] JTE**	0.028 [0.044] J	0.041 [0.046] J

Notes:

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L11-F	TU92-L11-G	TU92-L11-G	TU92-L11-G	TU92-L12-G	TU92-L12-G
				Sample ID	14PH-TU92-L11-F-L-24	14PH-TU92-L11-G-B-24	14PH-TU92-L11-G-C-24	14PH-TU92-L11-G-C-24-9	14PH-TU92-L12-G-B-24	14PH-TU92-L12-G-C-24
				Lab Sample ID	K141094018	K140677116	K140658506	K140658507	K140677117	K140658508
				SDG	K1410940	K1406771	K1406585	K1406585	K1406771	K1406585
				Collection Date	10/2/2014	6/30/2014	6/24/2014	6/24/2014	6/30/2014	6/24/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		75.1	94.9	87	86	96.7	89.4
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.05]	ND [0.04] JTE	ND [0.044]	ND [0.045]	ND [0.039] JTE	ND [0.043]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.05]	ND [0.04] JTE	ND [0.044]	ND [0.045]	ND [0.039] JTE	ND [0.043]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.05]	ND [0.04] JTE	ND [0.044]	ND [0.045]	ND [0.039] JTE	ND [0.043]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.05]	ND [0.04] JTE	ND [0.044]	ND [0.045]	ND [0.039] JTE	ND [0.043]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.05]	ND [0.04] JTE	ND [0.044]	ND [0.045]	ND [0.039] JTE	ND [0.043]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.05]	ND [0.04] JTE	ND [0.044]	ND [0.045]	ND [0.039] JTE	ND [0.043]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**4 [0.05]**	**1.6 [0.04] JTE**	0.48 [0.044] JD	0.18 [0.045] JD	0.31 [0.039] JTE	**3.1 [0.043]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L12-G	TU92-L12-G	TU92-L12-G	TU92-L15-A	TU92-L15-A	TU92-L15-A
				Sample ID	14PH-TU92-L12-G-C-30	14PH-TU92-L12-G-C-30-9	14PH-TU92-L12-G-L-24	14PH-TU92-L15-A-C-6	14PH-TU92-L15-A-D-12	14PH-TU92-L15-A-D-18
				Lab Sample ID	K141094009	K141094010	K140677118	K140633204	K140544720	K140544804
				SDG	K1410940	K1410940	K1406771	K1406332	K1405447	K1405448
				Collection Date	10/2/2014	10/2/2014	6/30/2014	6/19/2014	5/31/2014	5/31/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		81.1	81.1	97.1	81.1	77.4	67.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.047]	ND [0.047]	ND [0.078] JTE	ND [0.046]	ND [0.049]	ND [0.056]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.047]	ND [0.047]	ND [0.078] JTE	ND [0.046]	ND [0.049]	ND [0.056]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.047]	ND [0.047]	ND [0.078] JTE	ND [0.046]	ND [0.049]	ND [0.056]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.047]	ND [0.047]	ND [0.078] JTE	ND [0.046]	ND [0.049]	ND [0.056]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.047]	ND [0.047]	ND [0.078] JTE	ND [0.046]	ND [0.049]	ND [0.056]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.047]	ND [0.047]	ND [0.078] JTE	ND [0.046]	ND [0.049]	ND [0.056]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.19 [0.047]	0.23 [0.047]	**5.2 [0.078] JTE**	0.045 [0.046] J	0.042 [0.049] J	ND [0.056]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L15-A	TU92-L15-B	TU92-L15-B	TU92-L15-B	TU92-L15-D	TU92-L15-D
				Sample ID	14PH-TU92-L15-A-D-18-9	14PH-TU92-L15-B-C-12	14PH-TU92-L15-B-D-12	14PH-TU92-L15-B-D-18	14PH-TU92-L15-D-C-6	14PH-TU92-L15-D-D-12
				Lab Sample ID	K140544805	K140633202	K140544806	K140544807	K140633205	K140544712
				SDG	K1405448	K1406332	K1405448	K1405448	K1406332	K1405447
				Collection Date	5/31/2014	6/19/2014	5/31/2014	5/31/2014	6/19/2014	5/31/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Duplicate	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		68.9	81.6	85.6	83.1	91.1	88.7
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.055]	ND [0.047]	ND [0.044]	ND [0.046]	ND [0.042]	ND [0.043]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.055]	ND [0.047]	ND [0.044]	ND [0.046]	ND [0.042]	ND [0.043]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.055]	ND [0.047]	ND [0.044]	ND [0.046]	ND [0.042]	ND [0.043]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.055]	ND [0.047]	ND [0.044]	ND [0.046]	ND [0.042]	ND [0.043]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.055]	ND [0.047]	ND [0.044]	ND [0.046]	ND [0.042]	ND [0.043]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.055]	ND [0.047]	ND [0.044]	ND [0.046]	ND [0.042]	ND [0.043]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.055]	0.14 [0.047]	**1.5 [0.044]**	0.26 [0.046]	0.16 [0.042]	ND [0.043]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L15-D	TU92-L15-E	TU92-L15-E	TU92-L15-E	TU92-L15-E	TU92-L15-E
				Sample ID	14PH-TU92-L15-D-D-18	14PH-TU92-L15-E-D-12	14PH-TU92-L15-E-D-12-9	14PH-TU92-L15-E-D-18	14PH-TU92-L15-ES1-C-6	14PH-TU92-L15-ES2-C-6
				Lab Sample ID	K140544713	K140544709	K140544710	K140544711	K140633211	K140633210
				SDG	K1405447	K1405447	K1405447	K1405447	K1406332	K1406332
				Collection Date	5/31/2014	5/31/2014	5/31/2014	5/31/2014	6/19/2014	6/19/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		87	92.6	91.2	87.6	87.9	93.1
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.044]	ND [0.041]	ND [0.042]	ND [0.043]	ND [0.22]	ND [0.04]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.044]	ND [0.041]	ND [0.042]	ND [0.043]	ND [0.22]	ND [0.04]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.044]	ND [0.041]	ND [0.042]	ND [0.043]	ND [0.22]	ND [0.04]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.044]	ND [0.041]	ND [0.042]	ND [0.043]	ND [0.22]	ND [0.04]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.044]	ND [0.041]	ND [0.042]	ND [0.043]	ND [0.22]	ND [0.04]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.044]	ND [0.041]	ND [0.042]	ND [0.043]	ND [0.22]	ND [0.04]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		ND [0.044]	0.078 [0.041]	0.095 [0.042]	0.025 [0.043] J	**8.7 [0.22]**	0.019 [0.04] J

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L16-A	TU92-L16-A	TU92-L16-A	TU92-L16-D	TU92-L16-D	TU92-L16-D
				Sample ID	14PH-TU92-L16-A-C-6	14PH-TU92-L16-A-D-12	14PH-TU92-L16-A-D-18	14PH-TU92-L16-D-C-6	14PH-TU92-L16-D-D-12	14PH-TU92-L16-D-D-18
				Lab Sample ID	K140633203	K140544718	K140544719	K140633212	K140544714	K140544715
				SDG	K1406332	K1405447	K1405447	K1406332	K1405447	K1405447
				Collection Date	6/19/2014	5/31/2014	5/31/2014	6/19/2014	5/31/2014	5/31/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		79.4	79.6	72.8	92.1	92.5	91
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.052]	ND [0.041]	ND [0.041]	ND [0.042]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.052]	ND [0.041]	ND [0.041]	ND [0.042]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.052]	ND [0.041]	ND [0.041]	ND [0.042]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.052]	ND [0.041]	ND [0.041]	ND [0.042]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.052]	ND [0.041]	ND [0.041]	ND [0.042]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.048]	ND [0.048]	ND [0.052]	ND [0.041]	ND [0.041]	ND [0.042]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.042 [0.048] J	0.043 [0.048] J	0.026 [0.052] J	0.11 [0.041]	ND [0.041]	0.046 [0.042]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

			Loc ID	TU92-L17-D	TU92-L17-D	TU92-L17-D	TU92-L19-F	TU92-L19-G	TU92-L1-B-
			Sample ID	14PH-TU92-L17-D-C-6	14PH-TU92-L17-D-D-12	14PH-TU92-L17-D-D-18	14PH-TU92-L19-F-C-12	14PH-TU92-L19-G-C-12	14PH-TU92-L1-B-B-24
			Lab Sample ID	K140633207	K140544716	K140544717	K140658618	K140658614	K141094003
			SDG	K1406332	K1405447	K1405447	K1406586	K1406586	K1410940
			Collection Date	6/19/2014	5/31/2014	5/31/2014	6/25/2014	6/25/2014	10/2/2014
			Matrix	SO	SO	SO	SO	SO	SO
			Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
			QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-	93	93.1	93	93.6	91.2	94.1
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1	ND [0.041]	ND [0.041]	ND [0.041]	ND [0.21]	ND [0.042]	ND [0.041]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1	ND [0.041]	ND [0.041]	ND [0.041]	ND [0.21]	ND [0.042]	ND [0.041]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1	ND [0.041]	ND [0.041]	ND [0.041]	ND [0.21]	ND [0.042]	ND [0.041]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1	ND [0.041]	ND [0.041]	ND [0.041]	ND [0.21]	ND [0.042]	ND [0.041]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1	ND [0.041]	ND [0.041]	ND [0.041]	ND [0.21]	ND [0.042]	ND [0.041]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1	ND [0.041]	ND [0.041]	ND [0.041]	ND [0.21]	ND [0.042]	ND [0.041]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1	0.026 [0.041] J	ND [0.041]	0.024 [0.041] J	**5.7 [0.21]**	0.47 [0.042]	0.21 [0.041]

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L1-B	TU92-L20-E	TU92-L20-F	TU92-L20-G	TU92-L21-E	TU92-L21-E
				Sample ID	14PH-TU92-L1-B-C-24	14PH-TU92-L20-E-C-12	14PH-TU92-L20-F-C-12	14PH-TU92-L20-G-C-12	14PH-TU92-L21-E-C-12	14PH-TU92-L21-E-C-12-9
				Lab Sample ID	K141094002	K140658619	K140658620	K140658615	K140658701	K140658702
				SDG	K1410940	K1406586	K1406586	K1406586	K1406587	K1406587
				Collection Date	10/2/2014	6/25/2014	6/25/2014	6/25/2014	6/25/2014	6/25/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Duplicate
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		95.8	76.9	81	76.7	72.4	73.8
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.04]	ND [0.49]	ND [0.047]	ND [0.05]	ND [0.053]	ND [0.052]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.04]	ND [0.49]	ND [0.047]	ND [0.05]	ND [0.053]	ND [0.052]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.04]	ND [0.49]	ND [0.047]	ND [0.05]	ND [0.053]	ND [0.052]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.04]	ND [0.49]	ND [0.047]	ND [0.05]	ND [0.053]	ND [0.052]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.04]	ND [0.49]	ND [0.047]	ND [0.05]	ND [0.053]	ND [0.052]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.04]	ND [0.49]	ND [0.047]	ND [0.05]	ND [0.053]	ND [0.052]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**2.1 [0.04]**	**47 [0.49]**	**4.1 [0.047]**	0.27 [0.05]	**3.4 [0.053]**	**4.1 [0.052]**

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L21-F	TU92-L21-G	TU92-L21-G	TU92-L22-E	TU92-L22-F
				Sample ID	14PH-TU92-L21-F-C-12	14PH-TU92-L21-G-C-12	14PH-TU92-L21-G-C-12-9	14PH-TU92-L22-E-C-12	14PH-TU92-L22-F-C-12
				Lab Sample ID	K140658704	K140658616	K140658617	K140658703	K140658705
				SDG	K1406587	K1406586	K1406586	K1406587	K1406587
				Collection Date	6/25/2014	6/25/2014	6/25/2014	6/25/2014	6/25/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		77.7	78.4	77.3	71.5	80.2
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.049]	ND [0.25]	ND [0.25]	ND [0.054]	ND [0.048]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.049]	ND [0.25]	ND [0.25]	ND [0.054]	ND [0.048]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.049]	ND [0.25]	ND [0.25]	ND [0.054]	ND [0.048]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.049]	ND [0.25]	ND [0.25]	ND [0.054]	ND [0.048]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.049]	ND [0.25]	ND [0.25]	ND [0.054]	ND [0.048]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.049]	ND [0.25]	ND [0.25]	ND [0.054]	ND [0.048]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**3.5 [0.049]**	**5.5 [0.25]**	**6.3 [0.25]**	**2.6 [0.054]**	**1 [0.048] JM-**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L22-G	TU92-L23-D	TU92-L23-E	TU92-L23-F	TU92-L23-G
				Sample ID	14PH-RRS-TU92-L22-G-C-6	14PH-RRS-TU92-L23-D-C-6	14PH-RRS-TU92-L23-E-C-6	14PH-RRS-TU92-L23-F-C-6	14PH-RRS-TU92-L23-G-C-6
				Lab Sample ID	K141054804	K141054809	K141054813	K141054816	K141054806
				SDG	K1410548	K1410548	K1410548	K1410548	K1410548
				Collection Date	9/24/2014	9/24/2014	9/24/2014	9/24/2014	9/24/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		67.6	69.4	66.8	65.8	64.8
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.55]	ND [0.55]	ND [0.57]	ND [0.058]	ND [0.58]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.55]	ND [0.55]	ND [0.57]	ND [0.058]	ND [0.58]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.55]	ND [0.55]	ND [0.57]	ND [0.058]	ND [0.58]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.55]	ND [0.55]	ND [0.57]	ND [0.058]	ND [0.58]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.55]	ND [0.55]	ND [0.57]	ND [0.058]	ND [0.58]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.55]	ND [0.55]	ND [0.57]	ND [0.058]	ND [0.58]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**17 [0.55]**	**42 [0.55]**	**20 [0.57]**	**3.4 [0.058]**	**30 [0.58]**

Notes:

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JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L24-D	TU92-L24-E	TU92-L24-E	TU92-L24-G	TU92-L25-E
				Sample ID	14PH-RRS-TU92-L24-D-C-6	14PH-RRS-TU92-L24-E-C-6	14PH-RRS-TU92-L24-E-C-6-9	14PH-RRS-TU92-L24-G-C-6	14PH-RRS-TU92-L25-E-C-6
				Lab Sample ID	K141054808	K141054814	K141054815	K141054805	K141054812
				SDG	K1410548	K1410548	K1410548	K1410548	K1410548
				Collection Date	9/24/2014	9/24/2014	9/24/20	9/24/2014	9/24/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Duplicate	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		71.5	70.1	72.6	70.9	68
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.27]	ND [0.054]	ND [0.052]	ND [0.27]	ND [0.28]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.27]	ND [0.054]	ND [0.052]	ND [0.27]	ND [0.28]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.27]	ND [0.054]	ND [0.052]	ND [0.27]	ND [0.28]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.27]	ND [0.054]	ND [0.052]	ND [0.27]	ND [0.28]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.27]	ND [0.054]	ND [0.052]	ND [0.27]	ND [0.28]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.27]	ND [0.054]	ND [0.052]	ND [0.27]	ND [0.28]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**6.9 [0.27]**	**3.4 [0.054]**	**3.5 [0.052]**	**6.9 [0.27]**	**5.7 [0.28]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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Bold = The result exceeds the cleanup level.

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J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L25-F	TU92-L25-F	TU92-L25-G	TU92-L2-B-	TU92-L2-B
				Sample ID	14PH-RRS-TU92-L25-F-C-6	14PH-RRS-TU92-L25-F-C-6-9	14PH-RRS-TU92-L25-G-C-6	14PH-TU92-L2-B-B-24	14PH-TU92-L2-B-C-24
				Lab Sample ID	K141054810	K141054811	K141054807	K141094005	K141094001
				SDG	K1410548	K1410548	K1410548	K1410940	K1410940
				Collection Date	9/24/2014	9/24/20	9/24/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Duplicate	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]						
E160.3M	Total Solids	PERCENT	-		68.8	67.7	68.1	94.6	95.6
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.055]	ND [0.055]	ND [0.28]	ND [0.041]	ND [0.04]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.055]	ND [0.055]	ND [0.28]	ND [0.041]	ND [0.04]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.055]	ND [0.055]	ND [0.28]	ND [0.041]	ND [0.04]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.055]	ND [0.055]	ND [0.28]	ND [0.041]	ND [0.04]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.055]	ND [0.055]	ND [0.28]	ND [0.041]	ND [0.04]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.055]	ND [0.055]	ND [0.28]	ND [0.041]	ND [0.04]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**3.6 [0.055]**	**3.5 [0.055]**	**5.2 [0.28]**	0.68 [0.041]	0.66 [0.04]

Notes:

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L2-B-14PH-TU92-L2-B-L-24	TU92-L2-C-14PH-TU92-L2-C-C-18	TU92-L2-C-14PH-TU92-L2-C-F-18	TU92-L2-C-14PH-TU92-L2-C-F-18-9	TU92-L2-C-14PH-TU92-L2-C-L-18	TU92-L2-C-14PH-TU92-L2-C-R-18
				Sample ID	K141094007	K140677211	K140676503	K140676504	K140676505	K140676506
				Lab Sample ID	K1410940	K1406772	K1406765	K1406765	K1406765	K1406765
				SDG	10/2/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014
				Collection Date	SO	SO	SO	SO	SO	SO
				Matrix	ALS	ALS	ALS	ALS	ALS	ALS
				Laboratory	Primary	Primary	Primary	Duplicate	Primary	Primary
				QA/QC						
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		95.1	94.1	94.8	94.7	95.7	95.3
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.2]	ND [0.04]	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.2]	ND [0.04]	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.2]	ND [0.04]	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.2]	ND [0.04]	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.2]	ND [0.04]	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.2]	ND [0.04]	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE	ND [0.04] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		**4.9 [0.2]**	0.9 [0.04]	**1.1 [0.04] JTE**	0.77 [0.04] JTE	**3.4 [0.04] JTE**	0.13 [0.04] JTE

Notes:

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JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L2-F-14PH-TU92-L2-F-B-30	TU92-L2-F-14PH-TU92-L2-F-C-30	TU92-L2-F-14PH-TU92-L2-F-F-30	TU92-L2-F-14PH-TU92-L2-F-R-30	TU92-L3-C-14PH-TU92-L3-C-B-24	TU92-L3-C 14PH-TU92-L3-C-C-24
				Sample ID	K140677020	K140677016	K140677017	K140677019	K141094006	K141094004
				Lab Sample ID	K1406770	K1406770	K1406770	K1406770	K1410940	K1410940
				SDG	6/30/2014	6/30/2014	6/30/2014	6/30/2014	10/2/2014	10/2/2014
				Collection Date	SO	SO	SO	SO	SO	SO
				Matrix	ALS	ALS	ALS	ALS	ALS	ALS
				Laboratory	Primary	Primary	Primary	Primary	Primary	Primary
				QA/QC						
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		94.9	93.9	94.7	96.1	93.9	95.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.041]	ND [0.039]	ND [0.041]	ND [0.04]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.041]	ND [0.039]	ND [0.041]	ND [0.04]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.041]	ND [0.039]	ND [0.041]	ND [0.04]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.041]	ND [0.039]	ND [0.041]	ND [0.04]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.041]	ND [0.039]	ND [0.041]	ND [0.04]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.04]	ND [0.04]	ND [0.041]	ND [0.039]	ND [0.041]	ND [0.04]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.025 [0.04] J	0.073 [0.04]	0.12 [0.041]	0.62 [0.039]	**3.1 [0.041]**	0.61 [0.04]

Notes:

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

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QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L3-D-	TU92-L3-F-	TU92-L3-F-	TU92-L3-F-	TU92-L3-G-	TU92-L3-G-
				Sample ID	14PH-TU92-L3-D-C-12	14PH-TU92-L3-F-B-18	14PH-TU92-L3-F-C-18	14PH-TU92-L3-F-L-18	14PH-TU92-L3-G-C-18	14PH-TU92-L3-G-F-18
				Lab Sample ID	K140677210	K140677207	K140677015	K140677208	K140677014	K140676502
				SDG	K1406772	K1406772	K1406770	K1406772	K1406770	K1406765
				Collection Date	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		95.3	94.9	93	92.1	93	94.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.04]	ND [0.04] JTE	ND [0.041]	ND [0.041] JTE	ND [0.041]	ND [0.04] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.04]	ND [0.04] JTE	ND [0.041]	ND [0.041] JTE	ND [0.041]	ND [0.04] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.04]	ND [0.04] JTE	ND [0.041]	ND [0.041] JTE	ND [0.041]	ND [0.04] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.04]	ND [0.04] JTE	ND [0.041]	ND [0.041] JTE	ND [0.041]	ND [0.04] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.04]	ND [0.04] JTE	ND [0.041]	ND [0.041] JTE	ND [0.041]	ND [0.04] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.04]	ND [0.04] JTE	ND [0.041]	ND [0.041] JTE	ND [0.041]	ND [0.04] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.49 [0.04]	0.07 [0.04] JTE	0.23 [0.041]	0.33 [0.041] JTE	0.2 [0.041]	0.79 [0.04] JTE

Notes:

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L3-G-14PH-TU92-L3-G-L-18	TU92-L3-G-14PH-TU92-L3-G-R-18	TU92-L4-C-14PH-TU92-L4-C-B-18	TU92-L4-C-14PH-TU92-L4-C-C-18	TU92-L4-C-14PH-TU92-L4-C-R-18	TU92-L4-D-14PH-TU92-L4-D-C-18
				Sample ID	K140676501	K140677214	K140676508	K140677209	K140676507	K140677212
				Lab Sample ID	K1406765	K1406772	K1406765	K1406772	K1406765	K1406772
				SDG	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014
				Collection Date	SO	SO	SO	SO	SO	SO
				Matrix	ALS	ALS	ALS	ALS	ALS	ALS
				Laboratory	Primary	Primary	Primary	Primary	Primary	Primary
				QA/QC						
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		92	94.8	93.3	91.2	93.3	91
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.042] JTE	ND [0.04]	ND [0.041] JTE	ND [0.041]	ND [0.041] JTE	ND [0.042]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.042] JTE	ND [0.04]	ND [0.041] JTE	ND [0.041]	ND [0.041] JTE	ND [0.042]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.042] JTE	ND [0.04]	ND [0.041] JTE	ND [0.041]	ND [0.041] JTE	ND [0.042]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.042] JTE	ND [0.04]	ND [0.041] JTE	ND [0.041]	ND [0.041] JTE	ND [0.042]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.042] JTE	ND [0.04]	ND [0.041] JTE	ND [0.041]	ND [0.041] JTE	ND [0.042]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.042] JTE	ND [0.04]	ND [0.041] JTE	ND [0.041]	ND [0.041] JTE	ND [0.042]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.49 [0.042] JTE	0.11 [0.04]	0.81 [0.041] JTE	0.21 [0.041]	**2.3 [0.041] JTE**	0.075 [0.042] JD

Notes:

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JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L4-D-14PH-TU92-L4-D-C-18-9	TU92-L4-D-14PH-TU92-L4-D-F-18	TU92-L4-D-14PH-TU92-L4-D-L-18	TU92-L5-C-14PH-TU92-L5-C-B-18	TU92-L5-C-14PH-TU92-L5-C-C-18	TU92-L5-C-14PH-TU92-L5-C-F-18
				Sample ID	K140677213	K140676511	K140676509	K140676512	K140677018	K140676513
				Lab Sample ID	K1406772	K1406765	K1406765	K1406765	K1406770	K1406765
				SDG	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014	6/30/2014
				Collection Date	SO	SO	SO	SO	SO	SO
				Matrix	ALS	ALS	ALS	ALS	ALS	ALS
				Laboratory	Primary	Primary	Primary	Primary	Primary	Primary
				QA/QC						
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		93.9	89.5	92.1	88.1	85	93.4
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.041]	ND [0.042] JTE	ND [0.041] JTE	ND [0.043] JTE	ND [0.044]	ND [0.041] JTE
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.041]	ND [0.042] JTE	ND [0.041] JTE	ND [0.043] JTE	ND [0.044]	ND [0.041] JTE
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.041]	ND [0.042] JTE	ND [0.041] JTE	ND [0.043] JTE	ND [0.044]	ND [0.041] JTE
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		ND [0.041]	ND [0.042] JTE	ND [0.041] JTE	ND [0.043] JTE	ND [0.044]	ND [0.041] JTE
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.041]	ND [0.042] JTE	ND [0.041] JTE	ND [0.043] JTE	ND [0.044]	ND [0.041] JTE
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.041]	ND [0.042] JTE	ND [0.041] JTE	ND [0.043] JTE	ND [0.044]	ND [0.041] JTE
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.34 [0.041] JD	ND [0.042] JTE	0.042 [0.041] JTE	0.16 [0.043] JTE	0.6 [0.044]	0.54 [0.041] JTE

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

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JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

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Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2a
2014 PCB Soil Results

				Loc ID	TU92-L5-C-	TU92-L9-F-	TU92-L9-F	TU92-L9-F-	TU92-L9-G	TU92-L9-G-
				Sample ID	14PH-TU92-L5-C-L-18	14PH-TU92-L9-F-B-24	14PH-TU92-L9-F-C-24	14PH-TU92-L9-F-R-24	14PH-TU92-L9-G-C-24	14PH-TU92-L9-G-R-24
				Lab Sample ID	K140676510	K141094015	K141094012	K141094016	K141094011	K141094014
				SDG	K1406765	K1410940	K1410940	K1410940	K1410940	K1410940
				Collection Date	6/30/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014	10/2/2014
				Matrix	SO	SO	SO	SO	SO	SO
				Laboratory	ALS	ALS	ALS	ALS	ALS	ALS
				QA/QC	Primary	Primary	Primary	Primary	Primary	Primary
Method	Analyte	Units	Action Level[1]							
E160.3M	Total Solids	PERCENT	-		93.2	86.9	85	86.3	83.7	85.9
SW8082A	PCB-1016 (Aroclor 1016)	mg/kg	1		ND [0.041] JTE	ND [0.44]	ND [0.045]	ND [0.044]	ND [0.045]	ND [0.044]
SW8082A	PCB-1221 (Aroclor 1221)	mg/kg	1		ND [0.041] JTE	ND [0.44]	ND [0.045]	ND [0.044]	ND [0.045]	ND [0.044]
SW8082A	PCB-1232 (Aroclor 1232)	mg/kg	1		ND [0.041] JTE	ND [0.44]	ND [0.045]	ND [0.044]	ND [0.045]	ND [0.044]
SW8082A	PCB-1242 (Aroclor 1242)	mg/kg	1		0.011 [0.041] J, JTE	ND [0.44]	ND [0.045]	ND [0.044]	ND [0.045]	ND [0.044]
SW8082A	PCB-1248 (Aroclor 1248)	mg/kg	1		ND [0.041] JTE	ND [0.44]	ND [0.045]	ND [0.044]	ND [0.045]	ND [0.044]
SW8082A	PCB-1254 (Aroclor 1254)	mg/kg	1		ND [0.041] JTE	ND [0.44]	ND [0.045]	ND [0.044]	ND [0.045]	ND [0.044]
SW8082A	PCB-1260 (Aroclor 1260)	mg/kg	1		0.035 [0.041] J, JTE	**13 [0.44]**	**1.4 [0.045]**	**2.1 [0.044]**	0.013 [0.045] J	**2.5 [0.044]**

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

E and *Itallics* = The result was nondetect and the limit of detection exeeded the project action limit.

J = The analyte was positively identified, but the associated result was less than the LOQ but greater than or equal to the DL.

JD = The result was estimated because the relative percent difference of the sample and field duplicate result was greater than the QC.

JM- = The result was estimated because the analyte failed recovery criterion in the MS and/or the MSD (low).

JS- = The result was estimated because surrogate decachlorobiphenyl failed recovery criterion (low).

JTE = The result was estimated because the cooler temperature exceeded 6 degrees Celsius.

mg/kg=milligram per kilogram

ND = nondetect

SDG = sample delivery group

SO = soil

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-1-2b
2014 PCB Wipe Results

			Loc ID	EX320	TB01
			Sample ID	14PH-WP-EX320-01	14PH-TB01
			Lab Sample ID	K141101201	K141101202
			SDG	K1411012	K1411012
			Collection Date	10/5/2014	10/5/2014
			Matrix	SW	SW
			Laboratory	ALS	ALS
			QA/QC	Primary	Equipment Blank
Method	Analyte	Units	Action Level[1]		
SW8082A	PCB-1016 (Aroclor 1016)	µg/wipe	-	ND [0.5]	ND [0.5]
SW8082A	PCB-1221 (Aroclor 1221)	µg/wipe	-	ND [1]	ND [1]
SW8082A	PCB-1232 (Aroclor 1232)	µg/wipe	-	ND [0.5]	ND [0.5]
SW8082A	PCB-1242 (Aroclor 1242)	µg/wipe	-	ND [0.5]	ND [0.5]
SW8082A	PCB-1248 (Aroclor 1248)	µg/wipe	-	ND [0.5]	ND [0.5]
SW8082A	PCB-1254 (Aroclor 1254)	µg/wipe	-	ND [0.5]	ND [0.5]
SW8082A	PCB-1260 (Aroclor 1260)	µg/wipe	-	ND [0.5]	ND [0.5]

Notes:

[1] 18 AAC 75 Method Two, Direct Contact Cleanup Level (ADEC 2012).

[ ] = limit of detection

Bold = The result exceeds the cleanup level.

µg/wipe=microgram per wipe

ND = nondetect

SDG = sample delivery group

SW = wipe

ALS = ALS Environmental, Kelso, WA

QA/QC=quality assurance/quality control

ATTACHMENT D-2

Qualified Sample Results

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-1
Results Qualified JTE Due to Sample Temperature Greater than 6 Degrees Celsius

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Units	COC Number	Cooler ID	Temperature, °C (Temp Blank/Cooler)	Qualifier
K1406765	14PH-TU92-L3-G-L-18	K140676501	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-L-18	K140676501	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.042	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-L-18	K140676501	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-L-18	K140676501	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-L-18	K140676501	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-L-18	K140676501	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-L-18	K140676501	SW8082A	PCB-1260 (Aroclor 1260)	0.49	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-F-18	K140676502	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-F-18	K140676502	SW8082A	PCB-1260 (Aroclor 1260)	0.79	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-F-18	K140676502	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-F-18	K140676502	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-F-18	K140676502	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-F-18	K140676502	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L3-G-F-18	K140676502	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18	K140676503	SW8082A	PCB-1260 (Aroclor 1260)	1.1	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18	K140676503	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.053	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18	K140676503	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18	K140676503	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18	K140676503	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18	K140676503	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18	K140676503	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18-9	K140676504	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18-9	K140676504	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18-9	K140676504	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.053	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18-9	K140676504	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18-9	K140676504	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18-9	K140676504	SW8082A	PCB-1260 (Aroclor 1260)	0.77	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-F-18-9	K140676504	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-L-18	K140676505	SW8082A	PCB-1260 (Aroclor 1260)	3.4	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-L-18	K140676505	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-L-18	K140676505	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-L-18	K140676505	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-L-18	K140676505	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-L-18	K140676505	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-L-18	K140676505	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-R-18	K140676506	SW8082A	PCB-1260 (Aroclor 1260)	0.13	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-R-18	K140676506	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-R-18	K140676506	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-R-18	K140676506	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-R-18	K140676506	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-R-18	K140676506	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L2-C-R-18	K140676506	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-R-18	K140676507	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-R-18	K140676507	SW8082A	PCB-1260 (Aroclor 1260)	2.3	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-R-18	K140676507	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-R-18	K140676507	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-R-18	K140676507	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-R-18	K140676507	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-R-18	K140676507	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-B-18	K140676508	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-1
Results Qualified JTE Due to Sample Temperature Greater than 6 Degrees Celsius

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Units	COC Number	Cooler ID	Temperature, °C (Temp Blank/Cooler)	Qualifier
K1406765	14PH-TU92-L4-C-B-18	K140676508	SW8082A	PCB-1260 (Aroclor 1260)	0.81	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-B-18	K140676508	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-B-18	K140676508	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-B-18	K140676508	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-B-18	K140676508	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-C-B-18	K140676508	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-L-18	K140676509	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-L-18	K140676509	SW8082A	PCB-1260 (Aroclor 1260)	0.042	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-L-18	K140676509	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-L-18	K140676509	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-L-18	K140676509	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-L-18	K140676509	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-L-18	K140676509	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-L-18	K140676510	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-L-18	K140676510	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-L-18	K140676510	SW8082A	PCB-1260 (Aroclor 1260)	0.035	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	J, JTE
K1406765	14PH-TU92-L5-C-L-18	K140676510	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-L-18	K140676510	SW8082A	PCB-1242 (Aroclor 1242)	0.011	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	J, JTE
K1406765	14PH-TU92-L5-C-L-18	K140676510	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-L-18	K140676510	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-F-18	K140676511	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-F-18	K140676511	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-F-18	K140676511	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-F-18	K140676511	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-F-18	K140676511	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.042	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-F-18	K140676511	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L4-D-F-18	K140676511	SW8082A	PCB-1260 (Aroclor 1260)	ND	0.042	0.042	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-B-18	K140676512	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-B-18	K140676512	SW8082A	PCB-1260 (Aroclor 1260)	0.16	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-B-18	K140676512	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-B-18	K140676512	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-B-18	K140676512	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.043	0.057	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-B-18	K140676512	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-B-18	K140676512	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-F-18	K140676513	SW8082A	PCB-1260 (Aroclor 1260)	0.54	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-F-18	K140676513	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-F-18	K140676513	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-F-18	K140676513	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-F-18	K140676513	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-F-18	K140676513	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-TU92-L5-C-F-18	K140676513	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V10-C-36	K140676514	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V10-C-36	K140676514	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.044	0.058	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V10-C-36	K140676514	SW8082A	PCB-1260 (Aroclor 1260)	2	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V10-C-36	K140676514	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V10-C-36	K140676514	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V10-C-36	K140676514	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V10-C-36	K140676514	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V09-C-36	K140676515	SW8082A	PCB-1260 (Aroclor 1260)	0.88	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V09-C-36	K140676515	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-1
Results Qualified JTE Due to Sample Temperature Greater than 6 Degrees Celsius

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Units	COC Number	Cooler ID	Temperature, °C (Temp Blank/Cooler)	Qualifier
K1406765	14PH-RRS-H47V09-C-36	K140676515	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V09-C-36	K140676515	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V09-C-36	K140676515	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V09-C-36	K140676515	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.046	0.06	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V09-C-36	K140676515	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V08-C-36	K140676516	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V08-C-36	K140676516	SW8082A	PCB-1260 (Aroclor 1260)	0.02	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	J, JTE
K1406765	14PH-RRS-H47V08-C-36	K140676516	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V08-C-36	K140676516	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V08-C-36	K140676516	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.046	0.06	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V08-C-36	K140676516	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V08-C-36	K140676516	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36	K140676517	SW8082A	PCB-1260 (Aroclor 1260)	44	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36	K140676517	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36	K140676517	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36	K140676517	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36	K140676517	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36	K140676517	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.49	0.65	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36	K140676517	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36-9	K140676518	SW8082A	PCB-1260 (Aroclor 1260)	31	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36-9	K140676518	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.49	0.65	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36-9	K140676518	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36-9	K140676518	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36-9	K140676518	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36-9	K140676518	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H46V07-C-36-9	K140676518	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.49	0.49	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V07-C-36	K140676519	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V07-C-36	K140676519	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.044	0.057	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V07-C-36	K140676519	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V07-C-36	K140676519	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V07-C-36	K140676519	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V07-C-36	K140676519	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V07-C-36	K140676519	SW8082A	PCB-1260 (Aroclor 1260)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V06-C-36	K140676520	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V06-C-36	K140676520	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V06-C-36	K140676520	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.043	0.057	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V06-C-36	K140676520	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V06-C-36	K140676520	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V06-C-36	K140676520	SW8082A	PCB-1260 (Aroclor 1260)	0.29	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406765	14PH-RRS-H47V06-C-36	K140676520	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.043	0.043	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H47V05-C-12	K140677101	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H47V05-C-12	K140677101	SW8082A	PCB-1260 (Aroclor 1260)	0.12	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H47V05-C-12	K140677101	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H47V05-C-12	K140677101	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H47V05-C-12	K140677101	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H47V05-C-12	K140677101	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H47V05-C-12	K140677101	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36	K140677102	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.055	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36	K140677102	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.055	0.072	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36	K140677102	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.055	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-1
Results Qualified JTE Due to Sample Temperature Greater than 6 Degrees Celsius

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Units	COC Number	Cooler ID	Temperature, °C (Temp Blank/Cooler)	Qualifier
K1406771	14PH-RRS-H46V06-C-36	K140677102	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.055	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36	K140677102	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.055	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36	K140677102	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.055	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36	K140677102	SW8082A	PCB-1260 (Aroclor 1260)	0.076	0.055	0.055	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36-9	K140677103	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.054	0.072	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36-9	K140677103	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36-9	K140677103	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36-9	K140677103	SW8082A	PCB-1260 (Aroclor 1260)	0.061	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36-9	K140677103	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36-9	K140677103	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H46V06-C-36-9	K140677103	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H45V06-C-36	K140677104	SW8082A	PCB-1260 (Aroclor 1260)	13	0.25	0.25	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H45V06-C-36	K140677104	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.25	0.25	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H45V06-C-36	K140677104	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.25	0.25	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H45V06-C-36	K140677104	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.25	0.25	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H45V06-C-36	K140677104	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.25	0.25	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H45V06-C-36	K140677104	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.25	0.33	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H45V06-C-36	K140677104	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.25	0.25	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H41V11-C-24	K140677105	SW8082A	PCB-1260 (Aroclor 1260)	0.027	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	J, JTE
K1406771	14PH-RRS-H41V11-C-24	K140677105	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H41V11-C-24	K140677105	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H41V11-C-24	K140677105	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H41V11-C-24	K140677105	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.047	0.061	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H41V11-C-24	K140677105	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H41V11-C-24	K140677105	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H39V11-C-24	K140677106	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H39V11-C-24	K140677106	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.047	0.061	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H39V11-C-24	K140677106	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H39V11-C-24	K140677106	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H39V11-C-24	K140677106	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H39V11-C-24	K140677106	SW8082A	PCB-1260 (Aroclor 1260)	3.2	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H39V11-C-24	K140677106	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.047	0.047	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V12-C-24	K140677107	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V12-C-24	K140677107	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V12-C-24	K140677107	SW8082A	PCB-1260 (Aroclor 1260)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V12-C-24	K140677107	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V12-C-24	K140677107	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.054	0.071	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V12-C-24	K140677107	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V12-C-24	K140677107	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.054	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H40V11-C-24	K140677108	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.24	0.24	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H40V11-C-24	K140677108	SW8082A	PCB-1260 (Aroclor 1260)	17	0.24	0.24	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H40V11-C-24	K140677108	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.24	0.24	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H40V11-C-24	K140677108	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.24	0.24	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H40V11-C-24	K140677108	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.24	0.24	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H40V11-C-24	K140677108	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.24	0.31	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H40V11-C-24	K140677108	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.24	0.24	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V11-C-24	K140677109	SW8082A	PCB-1260 (Aroclor 1260)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V11-C-24	K140677109	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.044	0.058	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V11-C-24	K140677109	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V11-C-24	K140677109	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-1
Results Qualified JTE Due to Sample Temperature Greater than 6 Degrees Celsius

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Units	COC Number	Cooler ID	Temperature, °C (Temp Blank/Cooler)	Qualifier
K1406771	14PH-RRS-H42V11-C-24	K140677109	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V11-C-24	K140677109	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H42V11-C-24	K140677109	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H36V36-C-6	K140677110	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.051	0.067	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H36V36-C-6	K140677110	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.051	0.051	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H36V36-C-6	K140677110	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.051	0.051	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H36V36-C-6	K140677110	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.051	0.051	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H36V36-C-6	K140677110	SW8082A	PCB-1260 (Aroclor 1260)	0.13	0.051	0.051	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H36V36-C-6	K140677110	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.051	0.051	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H36V36-C-6	K140677110	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.051	0.051	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H38V36-C-6	K140677111	SW8082A	PCB-1260 (Aroclor 1260)	0.28	0.045	0.045	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H38V36-C-6	K140677111	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.045	0.045	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H38V36-C-6	K140677111	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.045	0.045	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H38V36-C-6	K140677111	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.045	0.045	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H38V36-C-6	K140677111	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.045	0.045	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H38V36-C-6	K140677111	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.045	0.058	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H38V36-C-6	K140677111	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.045	0.045	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V35-C-6	K140677112	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V35-C-6	K140677112	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V35-C-6	K140677112	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V35-C-6	K140677112	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V35-C-6	K140677112	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V35-C-6	K140677112	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V35-C-6	K140677112	SW8082A	PCB-1260 (Aroclor 1260)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V36-C-6	K140677113	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.049	0.049	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V36-C-6	K140677113	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.049	0.049	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V36-C-6	K140677113	SW8082A	PCB-1260 (Aroclor 1260)	0.08	0.049	0.049	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V36-C-6	K140677113	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.049	0.065	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V36-C-6	K140677113	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.049	0.049	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V36-C-6	K140677113	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.049	0.049	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RRS-H37V36-C-6	K140677113	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.049	0.049	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-R-24	K140677114	SW8082A	PCB-1260 (Aroclor 1260)	4.8	0.082	0.082	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-R-24	K140677114	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.082	0.082	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-R-24	K140677114	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.082	0.082	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-R-24	K140677114	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.082	0.11	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-R-24	K140677114	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.082	0.082	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-R-24	K140677114	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.082	0.082	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-R-24	K140677114	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.082	0.082	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-B-24	K140677115	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.084	0.12	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-B-24	K140677115	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.084	0.084	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-B-24	K140677115	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.084	0.084	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-B-24	K140677115	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.084	0.084	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-B-24	K140677115	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.084	0.084	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-B-24	K140677115	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.084	0.084	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L10-G-B-24	K140677115	SW8082A	PCB-1260 (Aroclor 1260)	5.6	0.084	0.084	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L11-G-B-24	K140677116	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L11-G-B-24	K140677116	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L11-G-B-24	K140677116	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L11-G-B-24	K140677116	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L11-G-B-24	K140677116	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-1
Results Qualified JTE Due to Sample Temperature Greater than 6 Degrees Celsius

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Units	COC Number	Cooler ID	Temperature, °C (Temp Blank/Cooler)	Qualifier
K1406771	14PH-TU92-L11-G-B-24	K140677116	SW8082A	PCB-1260 (Aroclor 1260)	1.6	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L11-G-B-24	K140677116	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-B-24	K140677117	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-B-24	K140677117	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-B-24	K140677117	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-B-24	K140677117	SW8082A	PCB-1260 (Aroclor 1260)	0.31	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-B-24	K140677117	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-B-24	K140677117	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.039	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-B-24	K140677117	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-L-24	K140677118	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.078	0.078	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-L-24	K140677118	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.078	0.11	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-L-24	K140677118	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.078	0.078	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-L-24	K140677118	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.078	0.078	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-L-24	K140677118	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.078	0.078	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-L-24	K140677118	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.078	0.078	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-TU92-L12-G-L-24	K140677118	SW8082A	PCB-1260 (Aroclor 1260)	5.2	0.078	0.078	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V06-R-C-24	K140677119	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V06-R-C-24	K140677119	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V06-R-C-24	K140677119	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V06-R-C-24	K140677119	SW8082A	PCB-1260 (Aroclor 1260)	0.066	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V06-R-C-24	K140677119	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V06-R-C-24	K140677119	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V06-R-C-24	K140677119	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.039	0.051	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V05-B-C-24	K140677120	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V05-B-C-24	K140677120	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V05-B-C-24	K140677120	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V05-B-C-24	K140677120	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V05-B-C-24	K140677120	SW8082A	PCB-1260 (Aroclor 1260)	0.85	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V05-B-C-24	K140677120	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406771	14PH-RSS-H40V05-B-C-24	K140677120	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H40V05-R-C-24	K140677201	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H40V05-R-C-24	K140677201	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H40V05-R-C-24	K140677201	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H40V05-R-C-24	K140677201	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H40V05-R-C-24	K140677201	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H40V05-R-C-24	K140677201	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H40V05-R-C-24	K140677201	SW8082A	PCB-1260 (Aroclor 1260)	0.14	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H41V05-B-C-24	K140677202	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H41V05-B-C-24	K140677202	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.039	0.052	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H41V05-B-C-24	K140677202	SW8082A	PCB-1260 (Aroclor 1260)	0.14	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H41V05-B-C-24	K140677202	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H41V05-B-C-24	K140677202	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H41V05-B-C-24	K140677202	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H41V05-B-C-24	K140677202	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.039	0.039	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H37V11-D-36	K140677203	SW8082A	PCB-1260 (Aroclor 1260)	7	0.23	0.23	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H37V11-D-36	K140677203	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.23	0.23	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H37V11-D-36	K140677203	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.23	0.23	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H37V11-D-36	K140677203	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.23	0.23	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H37V11-D-36	K140677203	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.23	0.23	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H37V11-D-36	K140677203	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.23	0.31	mg/kg	14PH010	Reek	10.9/3.0	JTE

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-1
Results Qualified JTE Due to Sample Temperature Greater than 6 Degrees Celsius

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Units	COC Number	Cooler ID	Temperature, °C (Temp Blank/Cooler)	Qualifier
K1406772	14PH-RRS-H37V11-D-36	K140677203	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.23	0.23	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H39V15-D-36	K140677204	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.48	0.48	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H39V15-D-36	K140677204	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.48	0.63	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H39V15-D-36	K140677204	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.48	0.48	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H39V15-D-36	K140677204	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.48	0.48	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H39V15-D-36	K140677204	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.48	0.48	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H39V15-D-36	K140677204	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.48	0.48	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H39V15-D-36	K140677204	SW8082A	PCB-1260 (Aroclor 1260)	14	0.48	0.48	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H55V33-D-36	K140677205	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H55V33-D-36	K140677205	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.044	0.058	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H55V33-D-36	K140677205	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H55V33-D-36	K140677205	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H55V33-D-36	K140677205	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H55V33-D-36	K140677205	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H55V33-D-36	K140677205	SW8082A	PCB-1260 (Aroclor 1260)	1.1	0.044	0.044	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H54V38-D-30	K140677206	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H54V38-D-30	K140677206	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H54V38-D-30	K140677206	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H54V38-D-30	K140677206	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H54V38-D-30	K140677206	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H54V38-D-30	K140677206	SW8082A	PCB-1260 (Aroclor 1260)	3.7	0.046	0.046	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-RRS-H54V38-D-30	K140677206	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.046	0.06	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-B-18	K140677207	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-B-18	K140677207	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-B-18	K140677207	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-B-18	K140677207	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-B-18	K140677207	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-B-18	K140677207	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.04	0.053	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-B-18	K140677207	SW8082A	PCB-1260 (Aroclor 1260)	0.07	0.04	0.04	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-L-18	K140677208	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-L-18	K140677208	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-L-18	K140677208	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.041	0.054	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-L-18	K140677208	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-L-18	K140677208	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-L-18	K140677208	SW8082A	PCB-1260 (Aroclor 1260)	0.33	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE
K1406772	14PH-TU92-L3-F-L-18	K140677208	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.041	0.041	mg/kg	14PH010	Reek	10.9/3.0	JTE

Notes:

COC=chain of custody
LOD = limit of detection
LOQ = limit of quantitation
mg/kg = milligrams per kilogram
ND = nondetect
SDG = sample delivery group
See the Data Quality Assessment for data qualifier definitions.

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-2
Results Qualified JM- Due to Matrix Spike Outliers

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Recovery (%)	LCL (%)	UCL (%)	Lab Lot Number	Parent Sample ID	Spike Amount	Expected Result	Units	Qualifier
K1406587	14PH-TU92-L22-F-C-12	K140658705	SW8082A	PCB-1260 (Aroclor 1260)	1	0.048	0.048	-	-	-	KWG1407274	-	-	-	mg/kg	JM-
K1406587	MS	KWG14072741	SW8082A	PCB-1260 (Aroclor 1260)	1.49	0.048	0.048	40	60	130	KWG1407274	K140658705	1.24	2.24	mg/kg	-
K1406587	MSD	KWG14072742	SW8082A	PCB-1260 (Aroclor 1260)	1.47	0.048	0.048	38	60	130	KWG1407274	K140658705	1.24	2.24	mg/kg	-
K1410188	14PH-TU10-L17-E-C-8	K141018801	SW8082A	PCB-1260 (Aroclor 1260)	0.22	0.05	0.05	-	-	-	KWG1412973	-	-	-	mg/kg	JM-
K1410188	MS	KWG14129731	SW8082A	PCB-1260 (Aroclor 1260)	0.931	0.049	0.049	56	60	130	KWG1412973	K141018801	1.28	1.5	mg/kg	-
K1410188	MSD	KWG14129732	SW8082A	PCB-1260 (Aroclor 1260)	0.963	0.05	0.05	57	60	130	KWG1412973	K141018801	1.3	1.52	mg/kg	-
K1410549	14PH-RRS-H58V36-C-6	K141054907	SW8082A	PCB-1260 (Aroclor 1260)	0.21	0.05	0.05	-	-	-	KWG1414309	-	-	-	mg/kg	JM-
K1410549	MS	KWG14143091	SW8082A	PCB-1260 (Aroclor 1260)	1.22	0.049	0.049	78	60	130	KWG1414309	K141054907	1.29	1.5	mg/kg	-
K1410549	MSD	KWG14143092	SW8082A	PCB-1260 (Aroclor 1260)	0.975	0.05	0.05	59	60	130	KWG1414309	K141054907	1.3	1.51	mg/kg	-

Notes:

LCL = lower control limit
LOD = limit of detection
LOQ = limit of quantitation
mg/kg = milligrams per kilogram
MS/MSD = matrix spike/matrix spike duplicate
ND = nondetect
SDG = sample delivery group
UCL = upper control limit
See the Data Quality Assessment for data qualifier definitions.

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-3
Results Qualified JD Due to MS/MSD RPD Exceedance

SDG	Sample ID	Lab Sample ID	Method	Analyte	Parent Sample Result	MS Result	MSD Result	RPD (%)	Lab Lot Number	Units	Qualifier
K1405354	14PH-RRS-H42V09-D-24	K140535401	SW8082A	PCB-1260 (Aroclor 1260)	14	12.9	21.5	50	KWG1404974	mg/kg	JD
K1410547	14PH-RRS-H54V10-C-6	K141054710	SW8082A	PCB-1260 (Aroclor 1260)	1.7	2.01	2.78	32	KWG1413781	mg/kg	JD

Notes:

mg/kg = milligrams per kilogram

MS/MSD = matrix spike/matrix spike duplicate

RPD = relative percent difference

SDG = sample delivery group

See the Data Quality Assessment for data qualifier definitions.

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-4
Results Qualified JS- Due to Surrogate Recovery Outliers

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	LOD	LOQ	Recovery (%)	LCL (%)	UCL (%)	Units	Dilution Factor	Lab Lot Number	Qualifier
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	Decachlorobiphenyl	43	-	-	43	60	125	PERCENT	1	KWG1413987	-
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.045	0.045	-	-	-	mg/kg	1	KWG1413987	JS-
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.045	0.059	-	-	-	mg/kg	1	KWG1413987	JS-
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.045	0.045	-	-	-	mg/kg	1	KWG1413987	JS-
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.045	0.045	-	-	-	mg/kg	1	KWG1413987	JS-
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.045	0.045	-	-	-	mg/kg	1	KWG1413987	JS-
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.045	0.045	-	-	-	mg/kg	1	KWG1413987	JS-
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1260 (Aroclor 1260)	0.034	0.045	0.045	-	-	-	mg/kg	1	KWG1413987	J, JS-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	Decachlorobiphenyl	43	-	-	43	60	125	PERCENT	1	KWG1414296	-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.054	0.054	-	-	-	mg/kg	1	KWG1414296	JS-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.054	0.071	-	-	-	mg/kg	1	KWG1414296	JS-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.054	0.054	-	-	-	mg/kg	1	KWG1414296	JS-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.054	0.054	-	-	-	mg/kg	1	KWG1414296	JS-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.054	0.054	-	-	-	mg/kg	1	KWG1414296	JS-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.054	0.054	-	-	-	mg/kg	1	KWG1414296	JS-
K1410952	14PH-RRS-H48V32-B-18	K141095209	SW8082A	PCB-1260 (Aroclor 1260)	ND	0.054	0.054	-	-	-	mg/kg	1	KWG1414296	JS-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	Decachlorobiphenyl	48	-	-	48	60	125	PERCENT	1	KWG1414308	-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	PCB-1016 (Aroclor 1016)	ND	0.047	0.047	-	-	-	mg/kg	1	KWG1414308	JS-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	PCB-1221 (Aroclor 1221)	ND	0.047	0.061	-	-	-	mg/kg	1	KWG1414308	JS-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	PCB-1232 (Aroclor 1232)	ND	0.047	0.047	-	-	-	mg/kg	1	KWG1414308	JS-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	PCB-1242 (Aroclor 1242)	ND	0.047	0.047	-	-	-	mg/kg	1	KWG1414308	JS-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	PCB-1248 (Aroclor 1248)	ND	0.047	0.047	-	-	-	mg/kg	1	KWG1414308	JS-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	PCB-1254 (Aroclor 1254)	ND	0.047	0.047	-	-	-	mg/kg	1	KWG1414308	JS-
K1410942	14PH-RRS-H49V34-C-18	K141094204	SW8082A	PCB-1260 (Aroclor 1260)	0.22	0.047	0.047	-	-	-	mg/kg	1	KWG1414308	JS-

Notes:

LCL = lower control limit

LOD = limit of detection

LOQ = limit of quantitation

mg/kg = milligrams per kilogram

ND = nondetect

SDG = sample delivery group

UCL = upper control limit

See the Data Quality Assessment for data qualifier definitions.

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-5
Results Qualified JD Due to Field Duplicate Precision

Sample ID	Lab Sample ID	Duplicate Sample ID	Duplicate Lab Sample ID	Method	Analyte	Result	Duplicate Result	Units	RPD (%)
14PH-RRS-H45V08-D-18	K140535405	14PH-RRS-H45V08-D-18-9	K140535406	SW8082A	PCB-1260 (Aroclor 1260)	12	6.3	mg/kg	62
14-PH-RRS-H46V10-C-36	K140658415	14-PH-RRS-H46V10-C-36-9	K140658416	SW8082A	PCB-1260 (Aroclor 1260)	0.12	0.26	mg/kg	74
14PH-TU92-L11-G-C-24	K140658506	14PH-TU92-L11-G-C-24-9	K140658507	SW8082A	PCB-1260 (Aroclor 1260)	0.48	0.18	mg/kg	91
14PH-RRS-H47V14-C-6	K140658601	14PH-RRS-H47V14-C-6-9	K140658602	SW8082A	PCB-1260 (Aroclor 1260)	0.03	0.073	mg/kg	83
14PH-RRS-H42V13-C-24	K140676912	14PH-RRS-H42V13-C-24-9	K140676913	SW8082A	PCB-1260 (Aroclor 1260)	0.076	0.4	mg/kg	136
14PH-ST05-1	K140677012	14PH-ST05-1-9	K140677013	SW8082A	PCB-1242 (Aroclor 1242)	0.013	*0.041*	mg/kg	104
14PH-ST05-1	K140677012	14PH-ST05-1-9	K140677013	SW8082A	PCB-1260 (Aroclor 1260)	0.27	1.7	mg/kg	145
14PH-TU92-L4-D-C-18	K140677212	14PH-TU92-L4-D-C-18-9	K140677213	SW8082A	PCB-1260 (Aroclor 1260)	0.075	0.34	mg/kg	128
14PH-TU10-L17-E-C-8	K141018801	14PH-TU10-L17-E-C-8-9	K141018802	SW8082A	PCB-1260 (Aroclor 1260)	0.22	0.57	mg/kg	89
14PH-TU10-L23-G-C-6	K141019001	14PH-TU10-L23-G-C-6-9	K141019002	SW8082A	PCB-1260 (Aroclor 1260)	0.45	0.83	mg/kg	59
14PH-RRS-H56V20-C-6	K141054912	14PH-RRS-H56V20-C-6-9	K141054913	SW8082A	PCB-1260 (Aroclor 1260)	0.44	0.25	mg/kg	55
14PH-TU10-L19-D-B-24	K141057118	14PH-TU10-L19-D-B-24-9	K141057119	SW8082A	PCB-1260 (Aroclor 1260)	0.13	0.039	mg/kg	108

Notes:

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

RPD = relative percent difference

Italics - The LOD was used in place of the ND sample result in the RPD calculation.

See the Data Quality Assessment for data qualifier definitions.

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-6
Results Qualified JPR Due to Confirmation Analysis Relative Percent Diffence Greater Than 40%

SDG	Sample ID	Lab Sample ID	Method	Analyte	Result	Confirmation Result	Units	RPD (%)	Lab Lot Number	Qualifier
K1410190	14PH-TU10-L15-B-C-6	K141019013	SW8082A	PCB-1260 (Aroclor 1260)	0.079	0.12	mg/kg	41.2	KWG1413254	JPR
K1410316	14PH-RRS-H54V39-R-24	K141031611	SW8082A	PCB-1260 (Aroclor 1260)	0.026	0.041	mg/kg	44.8	KWG1413110	J, JPR
K1410547	14PH-RRS-H57V16-C-6	K141054702	SW8082A	PCB-1260 (Aroclor 1260)	0.21	0.32	mg/kg	41.5	KWG1413781	JPR
K1410574	14PH-RRS-H42V40-C-6	K141057405	SW8082A	PCB-1260 (Aroclor 1260)	0.048	0.074	mg/kg	42.6	KWG1413987	JPR
K1410574	14PH-RRS-H41V40-C-6	K141057406	SW8082A	PCB-1260 (Aroclor 1260)	0.034	0.058	mg/kg	52.2	KWG1413987	J, JS-, JPR
K1410574	14PH-RRS-H37V38-C-6	K141057412	SW8082A	PCB-1260 (Aroclor 1260)	0.13	0.2	mg/kg	42.4	KWG1413987	JPR
K1410940	14PH-TU92-L9-G-C-24	K141094011	SW8082A	PCB-1260 (Aroclor 1260)	0.013	0.024	mg/kg	59.5	KWG1414244	J, JPR
K1410940	14PH-TU92-L11-F-C-24	K141094013	SW8082A	PCB-1260 (Aroclor 1260)	0.041	0.065	mg/kg	45.3	KWG1414244	J, JPR
K1410940	14PH-TU92-L11-F-B-24	K141094017	SW8082A	PCB-1260 (Aroclor 1260)	0.028	0.043	mg/kg	42.3	KWG1414244	J, JPR
K1410943	14PH-RRS-H50V33-F-18	K141094306	SW8082A	PCB-1260 (Aroclor 1260)	0.097	0.15	mg/kg	42.9	KWG1414293	JPR
K1410952	14PH-RRS-H49V34-L-18	K141095203	SW8082A	PCB-1260 (Aroclor 1260)	0.084	0.13	mg/kg	43.0	KWG1414296	JPR

Notes:

mg/kg = milligrams per kilogram

RPD = relative percent difference

SDG = sample delivery group

See the Data Quality Assessment for data qualifier definitions.

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-7
Results Qualified E Due to Limits of Detection Greater Than the Project Action Limit

SDG	Sample ID	Lab Sample ID	Method	Analyte	Action Level	Result	LOD	LOQ	Units	Dilution Factor	Qualifier
K1405343	14PH-RRS-H46V07-D-18	K140534301	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.4	4.4	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18	K140534301	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.4	5.8	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18	K140534301	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.4	4.4	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18	K140534301	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.4	4.4	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18	K140534301	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.4	4.4	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18	K140534301	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.4	4.4	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18-9	K140534302	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.3	4.3	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18-9	K140534302	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.3	5.7	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18-9	K140534302	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.3	4.3	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18-9	K140534302	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.3	4.3	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18-9	K140534302	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.3	4.3	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-18-9	K140534302	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.3	4.3	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-24	K140534303	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.5	4.5	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-24	K140534303	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.5	5.9	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-24	K140534303	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.5	4.5	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-24	K140534303	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.5	4.5	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-24	K140534303	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.5	4.5	mg/kg	100	E
K1405343	14PH-RRS-H46V07-D-24	K140534303	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.5	4.5	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18	K140534318	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18	K140534318	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.2	5.5	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18	K140534318	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18	K140534318	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18	K140534318	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18	K140534318	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18-9	K140534319	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18-9	K140534319	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.2	5.5	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18-9	K140534319	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18-9	K140534319	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18-9	K140534319	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.2	4.2	mg/kg	100	E
K1405343	14PH-RRS-H43V08-D-18-9	K140534319	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.2	4.2	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-18	K140535413	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.1	4.1	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-18	K140535413	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.1	5.4	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-18	K140535413	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.1	4.1	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-18	K140535413	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.1	4.1	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-18	K140535413	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.1	4.1	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-18	K140535413	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.1	4.1	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-24	K140535414	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.2	4.2	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-24	K140535414	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.2	5.5	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-24	K140535414	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.2	4.2	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-24	K140535414	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.2	4.2	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-24	K140535414	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.2	4.2	mg/kg	100	E
K1405354	14PH-RRS-H40V13-D-24	K140535414	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.2	4.2	mg/kg	100	E
K1405355	14PH-RRS-H54V29-D-12	K140535515	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	5.8	5.8	mg/kg	100	E
K1405355	14PH-RRS-H54V29-D-12	K140535515	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	5.8	7.6	mg/kg	100	E
K1405355	14PH-RRS-H54V29-D-12	K140535515	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	5.8	5.8	mg/kg	100	E
K1405355	14PH-RRS-H54V29-D-12	K140535515	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	5.8	5.8	mg/kg	100	E
K1405355	14PH-RRS-H54V29-D-12	K140535515	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	5.8	5.8	mg/kg	100	E
K1405355	14PH-RRS-H54V29-D-12	K140535515	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	5.8	5.8	mg/kg	100	E
K1406026	14PH-RRS-H46V07-D-30	K140602601	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.8	4.8	mg/kg	100	E
K1406026	14PH-RRS-H46V07-D-30	K140602601	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.8	6.3	mg/kg	100	E
K1406026	14PH-RRS-H46V07-D-30	K140602601	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.8	4.8	mg/kg	100	E
K1406026	14PH-RRS-H46V07-D-30	K140602601	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.8	4.8	mg/kg	100	E
K1406026	14PH-RRS-H46V07-D-30	K140602601	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.8	4.8	mg/kg	100	E

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-7
Results Qualified E Due to Limits of Detection Greater Than the Project Action Limit

SDG	Sample ID	Lab Sample ID	Method	Analyte	Action Level	Result	LOD	LOQ	Units	Dilution Factor	Qualifier
K1406026	14PH-RRS-H46V07-D-30	K140602601	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.8	4.8	mg/kg	100	E
K1406026	14PH-RRS-H42V09-D-30	K140602603	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.3	4.3	mg/kg	100	E
K1406026	14PH-RRS-H42V09-D-30	K140602603	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.3	5.7	mg/kg	100	E
K1406026	14PH-RRS-H42V09-D-30	K140602603	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.3	4.3	mg/kg	100	E
K1406026	14PH-RRS-H42V09-D-30	K140602603	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.3	4.3	mg/kg	100	E
K1406026	14PH-RRS-H42V09-D-30	K140602603	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.3	4.3	mg/kg	100	E
K1406026	14PH-RRS-H42V09-D-30	K140602603	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.3	4.3	mg/kg	100	E
K1406026	14PH-RRS-H37V11-D-30	K140602604	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.4	4.4	mg/kg	100	E
K1406026	14PH-RRS-H37V11-D-30	K140602604	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.4	5.8	mg/kg	100	E
K1406026	14PH-RRS-H37V11-D-30	K140602604	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.4	4.4	mg/kg	100	E
K1406026	14PH-RRS-H37V11-D-30	K140602604	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.4	4.4	mg/kg	100	E
K1406026	14PH-RRS-H37V11-D-30	K140602604	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.4	4.4	mg/kg	100	E
K1406026	14PH-RRS-H37V11-D-30	K140602604	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.4	4.4	mg/kg	100	E
K1406584	14-PH-RRS-H42V09-C-36	K140658404	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	1.1	1.1	mg/kg	20	E
K1406584	14-PH-RRS-H42V09-C-36	K140658404	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	1.1	1.4	mg/kg	20	E
K1406584	14-PH-RRS-H42V09-C-36	K140658404	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	1.1	1.1	mg/kg	20	E
K1406584	14-PH-RRS-H42V09-C-36	K140658404	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	1.1	1.1	mg/kg	20	E
K1406584	14-PH-RRS-H42V09-C-36	K140658404	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	1.1	1.1	mg/kg	20	E
K1406584	14-PH-RRS-H42V09-C-36	K140658404	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	1.1	1.1	mg/kg	20	E
K1406769	14PH-RRS-H41V08-C-24	K140676901	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H41V08-C-24	K140676901	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.2	5.6	mg/kg	100	E
K1406769	14PH-RRS-H41V08-C-24	K140676901	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H41V08-C-24	K140676901	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H41V08-C-24	K140676901	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H41V08-C-24	K140676901	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H41V09-C-24	K140676902	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.3	4.3	mg/kg	100	E
K1406769	14PH-RRS-H41V09-C-24	K140676902	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.3	5.7	mg/kg	100	E
K1406769	14PH-RRS-H41V09-C-24	K140676902	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.3	4.3	mg/kg	100	E
K1406769	14PH-RRS-H41V09-C-24	K140676902	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.3	4.3	mg/kg	100	E
K1406769	14PH-RRS-H41V09-C-24	K140676902	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.3	4.3	mg/kg	100	E
K1406769	14PH-RRS-H41V09-C-24	K140676902	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.3	4.3	mg/kg	100	E
K1406769	14PH-RRS-H39V09-C-24	K140676908	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H39V09-C-24	K140676908	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.2	5.5	mg/kg	100	E
K1406769	14PH-RRS-H39V09-C-24	K140676908	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H39V09-C-24	K140676908	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H39V09-C-24	K140676908	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.2	4.2	mg/kg	100	E
K1406769	14PH-RRS-H39V09-C-24	K140676908	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.2	4.2	mg/kg	100	E
K1406770	14PH-RRS-H46V11-C-24	K140677005	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	5	5	mg/kg	100	E
K1406770	14PH-RRS-H46V11-C-24	K140677005	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	5	6.6	mg/kg	100	E
K1406770	14PH-RRS-H46V11-C-24	K140677005	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	5	5	mg/kg	100	E
K1406770	14PH-RRS-H46V11-C-24	K140677005	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	5	5	mg/kg	100	E
K1406770	14PH-RRS-H46V11-C-24	K140677005	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	5	5	mg/kg	100	E
K1406770	14PH-RRS-H46V11-C-24	K140677005	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	5	5	mg/kg	100	E
K1406770	14PH-RRS-H45V11-C-24	K140677007	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.8	4.8	mg/kg	100	E
K1406770	14PH-RRS-H45V11-C-24	K140677007	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.8	6.3	mg/kg	100	E
K1406770	14PH-RRS-H45V11-C-24	K140677007	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.8	4.8	mg/kg	100	E
K1406770	14PH-RRS-H45V11-C-24	K140677007	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.8	4.8	mg/kg	100	E
K1406770	14PH-RRS-H45V11-C-24	K140677007	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.8	4.8	mg/kg	100	E
K1406770	14PH-RRS-H45V11-C-24	K140677007	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.8	4.8	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12	K141055009	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12	K141055009	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.1	5.4	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12	K141055009	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12	K141055009	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.1	4.1	mg/kg	100	E

Former Port Heiden RRS – Site Road PCB-Contaminated Soil Removal
Table D-2-7
Results Qualified E Due to Limits of Detection Greater Than the Project Action Limit

SDG	Sample ID	Lab Sample ID	Method	Analyte	Action Level	Result	LOD	LOQ	Units	Dilution Factor	Qualifier
K1410550	14PH-NFL-H13V22-D-12	K141055009	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12	K141055009	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12-9	K141055010	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12-9	K141055010	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.2	5.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12-9	K141055010	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12-9	K141055010	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12-9	K141055010	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-12-9	K141055010	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36	K141055011	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36	K141055011	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.5	5.9	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36	K141055011	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36	K141055011	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36	K141055011	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36	K141055011	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36-9	K141055012	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36-9	K141055012	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.5	5.9	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36-9	K141055012	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36-9	K141055012	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36-9	K141055012	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H13V22-D-36-9	K141055012	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.5	4.5	mg/kg	100	E
K1410550	14PH-NFL-H11V27-D-36	K141055014	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.3	4.3	mg/kg	100	E
K1410550	14PH-NFL-H11V27-D-36	K141055014	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.3	5.6	mg/kg	100	E
K1410550	14PH-NFL-H11V27-D-36	K141055014	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.3	4.3	mg/kg	100	E
K1410550	14PH-NFL-H11V27-D-36	K141055014	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.3	4.3	mg/kg	100	E
K1410550	14PH-NFL-H11V27-D-36	K141055014	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.3	4.3	mg/kg	100	E
K1410550	14PH-NFL-H11V27-D-36	K141055014	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.3	4.3	mg/kg	100	E
K1410550	14PH-NFL-H11V23-D-12	K141055015	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	8.6	8.6	mg/kg	200	E
K1410550	14PH-NFL-H11V23-D-12	K141055015	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	8.6	12	mg/kg	200	E
K1410550	14PH-NFL-H11V23-D-12	K141055015	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	8.6	8.6	mg/kg	200	E
K1410550	14PH-NFL-H11V23-D-12	K141055015	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	8.6	8.6	mg/kg	200	E
K1410550	14PH-NFL-H11V23-D-12	K141055015	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	8.6	8.6	mg/kg	200	E
K1410550	14PH-NFL-H11V23-D-12	K141055015	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	8.6	8.6	mg/kg	200	E
K1410550	14PH-NFL-H11V23-D-32	K141055016	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H11V23-D-32	K141055016	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.2	5.5	mg/kg	100	E
K1410550	14PH-NFL-H11V23-D-32	K141055016	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H11V23-D-32	K141055016	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H11V23-D-32	K141055016	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H11V23-D-32	K141055016	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.2	4.2	mg/kg	100	E
K1410550	14PH-NFL-H12V18-D-36	K141055018	SW8082A	PCB-1016 (Aroclor 1016)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H12V18-D-36	K141055018	SW8082A	PCB-1221 (Aroclor 1221)	1	ND	4.1	5.4	mg/kg	100	E
K1410550	14PH-NFL-H12V18-D-36	K141055018	SW8082A	PCB-1232 (Aroclor 1232)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H12V18-D-36	K141055018	SW8082A	PCB-1242 (Aroclor 1242)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H12V18-D-36	K141055018	SW8082A	PCB-1248 (Aroclor 1248)	1	ND	4.1	4.1	mg/kg	100	E
K1410550	14PH-NFL-H12V18-D-36	K141055018	SW8082A	PCB-1254 (Aroclor 1254)	1	ND	4.1	4.1	mg/kg	100	E

Notes:
LOD = limit of detection
LOQ = limit of quantitation
mg/kg = milligrams per kilogram
ND = nondetect
SDG = sample delivery group
See the Data Quality Assessment for data qualifier definitions.

ATTACHMENT D-3

ADEC Laboratory Data Review Checklists

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-16-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405343
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler The Great Stallion: 0.7°/5.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Samples were placed in boxes with dividers instead of being individually bagged.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for one or more samples due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H46V07-D-24 MS/MSD recovery for Aroclor 1260 in batch KWG1404968 was outside of QC criteria (biased low).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-RRS-H46V07-D-24

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for MS/MSD recovery was not required for sample 14PH-RRS-H46V07-D-24. The parent sample concentration was greater than the spike amount.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased high) for the following samples: 14PH-RRS-H46V07-D-18, 14PH-RRS-H46V07-D-18X, 14PH-RRS-H46V07-D-24, and 14PH-RRS-H43V08-D-18X.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for these samples was not applied because the samples were diluted by a factor of 5 or greater.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Three field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H46V07-D-18/ 14PH-RRS-H46V07-D-18-9, 14PH-RRS-H46V12-D-24 / 14PH-RRS-H46V12-D-24-9 and 14PH-RRS-H43V08-D-18/14PH-RRS-H43V08-D-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-16-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405354
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler The Great Stallion: 0.7°/5.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Samples were placed in boxes with dividers instead of being individually bagged.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist. Additional items identified by the lab:

CCV recoveries for surrogate decachlorobiphenyl on the confirmation column were outside of QC criteria. The results were reported from the primary column with acceptable CCVs.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for 14PH-RRS-H40V13-D-18 and 14PH-RRS-H40V13-D-24 due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H42V09-D-24 MS/MSD recovery for Aroclor 1260 in batch KWG1404968 was outside of QC criteria.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H42V09-D-24 MS/MSD RPD for Aroclor 1260 in batch KWG1404968 was outside of QC criteria at 50%.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-RRS-H42V09-D-24

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for MS/MSD recovery was not required for sample 14PH-RRS-H46V07-D-24. The parent sample concentration was greater than the spike amount. A data flag "JD" was applied to sample 14PH-RRS-H42V09-D-24 for RPD criteria.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased high) for the following samples: 14PH-RRS-H40V13-D-18 and 14PH-RRS-H40V13-D-24.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for these samples was not applied because the samples were diluted by a factor of 5 or greater.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

NA

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Three field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID:
14PH-RRS-H45V08-D-18/ 14PH-RRS-H45V08-D-18-9,
14PH-RRS-H41V11-D-18- 14PH-RRS-H41V11-D-18-9,
14PH-RRS-H45V16-D-18/ 14PH-RRS-H45V16-D-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-RRS-H45V08-D-18/14PH-RRS-H45V08-D-18-9 were greater than 50% for Aroclor 1260 at 62%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-RRS-H45V08-D-18/14PH-RRS-H45V08-D-18-9 were qualified JD due to field duplicate precision exceedance. The results for the sample/duplicate were both reported above the Cleanup Level for Aroclor 1260 (1 mg/Kg), and the higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-16-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405355
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler The Great Stallion: 0.7°/5.7° C
Cooler Needle: 4.4°/2.8° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Samples were placed in boxes with dividers instead of being individually bagged.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist. Additional items identified by the lab:

CCV recoveries for surrogate decachlorobiphenyl on the confirmation column were outside of QC criteria. The results were reported from the primary column with acceptable CCVs.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for 14PH-RRS-H54V29-D-12 due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

NA

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was submitted in this SDG. Additional field duplicates, with the associated COCs, are included in K1405343 and K1405354 and K1405356 and K1405357. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H49V26-D-12/ 14PH-RRS-H49V26-D-12X.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-RRS-H49V26-D-12/14PH-RRS-H49V26-D-12X were greater than 50% for Aroclor 1260 at 73%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-RRS-H49V26-D-12/14PH-RRS-H49V26-D-12X were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-16-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405356
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Needle: 4.4°/2.8° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Samples were placed in boxes with dividers instead of being individually bagged.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist. Additional items identified by the lab:

CCV recoveries for surrogate decachlorobiphenyl on the confirmation column were outside of QC criteria. The results were reported from the primary column with acceptable CCVs.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

NA

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

No field duplicates were included in this laboratory report. Additional field duplicates, with an associated COC, are included in K1405355 and K1405357. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405357
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Needle: 4.4°/2.8° C
Cooler Pleasure House: 0.6°/1.6° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Samples were placed in boxes with dividers instead of being individually bagged.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

The CoC and bottle label for samples 14PH-RRS-H42V08-D-12 and 14PH-RRS-H42V08-D-12-9 did not match. The collection time for sample 14PH-RRS-H52V09-D-18 has 1158 on the label instead of 1157. Samples were scheduled as per the CoC.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and two MS/MSDs were included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H42V39-D-18 MS/MSD recovery for Aroclor 1260 in batch KWG1405024 was outside of QC criteria (biased low).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-RRS-H42V39-D-18

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for MS/MSD recovery was not required for sample 14PH-RRS-H42V39-D-18. The parent sample concentration was greater than the spike amount.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Three field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H48V08-D-12/ 14PH-RRS-H48V08-D-12-9, 14PH-RRS-H42V39-D-12/ 14PH-RRS-H42V39-D-12-9, 14PH-RRS-H46V35-D-24/ 14PH-RRS-H46V35-D-24-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

NA

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405435
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Pleasure House: 0.6°/1.6° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H54V38-D-18 MS recovery for Aroclor 1260 in batch KWG1405337 was outside of QC criteria (biased high).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-RRS-H54V38-D-18

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for MS/MSD recovery was not required for sample 14PH-RRS-H54V38-D-18. The parent sample concentration was greater than the spike amount.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

No field duplicates were included in this laboratory report. Additional field duplicates, with an associated COC, are included in K1405357. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405447
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Raven: 5.9°/4.6° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H41V06-D-24/ 14PH-RRS-H41V06-D-24-9, 14PH-TU92-L15-E-D-12/ 14PH-TU92-L15-E-D-12-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

NA

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1405448
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Raven: 5.9°/4.6° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The MS recovery for Aroclor 1260 in batch KWG1405337 was outside of QC criteria (biased low).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

The parent sample was from another SDG (see checklist for K1405435).

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID:
14PH-TU92-L15-A-D-18/ 14PH-TU92-L15-A-D-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

NA

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406026
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Spear Handler: 2.1°/5.5° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for 14PH-RRS-H37V11-D-30, 14PH-RRS-H42V09-D-30 and 14PH-RRS-H46V07-D-30 due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased high) for the following samples: 14PH-RRS-H46V07-D-30, 14PH-RRS-H42V09-D-30, and 14PH-RRS-H37V11-D-30.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for these samples was not applied because the samples were diluted by a factor of 5 or greater.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

No field duplicates were included in this laboratory report. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

NA

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406332
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Gilly: 2.9°/4.0° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The CoC was not received with the cooler. The CoC was later sent electronically.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

No field duplicates were included in this laboratory report. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

NA

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406584
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Red Wedding: 5.1°/3.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There was two custody seals on the cooler that did not match.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for 14-PH-RRS-H42V09-C-36 due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased high) for the following samples: 14PH-AR04-L1-E-C-12.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A data flag for these samples was not applied because the samples were diluted by a factor of 5 or greater.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14-PH-RRS-H46V10-C-36/ 14-PH-RRS-H46V10-C-36-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14-PH-RRS-H46V10-C-36/ 14-PH-RRS-H46V10-C-36-9 were greater than 50% for Aroclor 1260 at 74%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14-PH-RRS-H46V10-C-36/ 14-PH-RRS-H46V10-C-36-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406585
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Unic: 2.8°/5.3° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified by the laboratory. Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was included for 19 project samples. Additional field duplicates, with an associated COC, are included in K1406586 and K1406587. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID:
14PH-TU92-L11-G-C-24/ 14PH-TU92-L11-G-C-24-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-TU92-L11-G-C-24/14PH-TU92-L11-G-C-24-9 were greater than 50% for Aroclor 1260 at 91%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-TU92-L11-G-C-24/14PH-TU92-L11-G-C-24-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406586
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Unic: 2.8°/5.3° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist. Additional items identified by the lab:

CCV recoveries for surrogate decachlorobiphenyl on the confirmation column were outside of QC criteria. The results were reported from the primary column with acceptable CCVs.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Three field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H47V14-C-6/ 14PH-RRS-H47V14-C-6-9, 14PH-RRS-H48V11-C-24/ 14PH-RRS-H48V11-C-24-9, 14PH-TU92-L21-G-C-12/ 14PH-TU92-L21-G-C-12-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-RRS-H47V14-C-6/ 14PH-RRS-H47V14-C-6-9 were greater than 50% for Aroclor 1260 at 84%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-RRS-H47V14-C-6/ 14PH-RRS-H47V14-C-6-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-17-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406587
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Unic: 2.8°/5.3° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist. Additional items identified by the lab:

CCV recoveries for surrogate decachlorobiphenyl on the confirmation column were outside of QC criteria. The results were reported from the primary column with acceptable CCVs.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-TU92-L22-F-C-12 MS/MSD recovery for Aroclor 1260 in batch KWG1407274 was outside of QC criteria (biased low).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-TU92-L22-F-C-12

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The Aroclor 1260 results for 14PH-TU92-L22-F-C-12 were qualified JM- due to MS recoveries below the QC limit.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality was minimally affected. The 14PH-TU92-L22-F-C-12 Aroclor 1260 sample results qualified JM- are considered estimated and biased low. The impact is minimal since the LCS/LCSD recoveries and precision were acceptable and the sample results for Aroclor 1260 is above the action limit.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU92-L21-E-C-12/ 14PH-TU92-L21-E-C-12-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-18-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406765
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Reek: 10.9°/3.0° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The samples were not sealed in separate bags.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was affected. The samples in cooler Reek have been qualified JTE due to sample temperature above acceptable range. The results are considered estimated and potentially biased low.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU92-L2-C-F-18/ 14PH-TU92-L2-C-F-18-9, 14PH-RRS-H46V07-C-36/ 14PH-RRS-H46V07-C-36-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

NA

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-18-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406769
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler TBs: 4.0°/4.9° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The samples were not sealed in separate bags.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for 14PH-RRS-H39V09-C-24, 14PH-RRS-H41V08-C-24 and 14PH-RRS-H41V09-C-24 due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased high) for the following samples: 14PH-RRS-H41V08-C-24.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for this sample was not applied because the samples were diluted by a factor of 5 or greater.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Three field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H40V10-C-24/ 14PH-RRS-H40V10-C-24-9, 14PH-RRS-H42V13-C-24/ 14PH-RRS-H42V13-C-24-9, 14PH-RRS-H44V11-C-24/ 14PH-RRS-H44V11-C-24-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-RRS-H42V13-C-24/ 14PH-RRS-H42V13-C-24-9 were greater than 50% for Aroclor 1260 at 136%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-RRS-H42V13-C-24/ 14PH-RRS-H42V13-C-24-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-18-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406770
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler TBs: 4.0°/4.9° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Samples were not sealed in separate bags.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for 14PH-RRS-H45V11-C-24and 14PH-RRS-H46V11-C-24 due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in batch KWG1407748 and an LCS/LCSD was included in batch KWG1407926.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased high) for the following samples: 14PH-RRS-H45V11-C-24.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for this sample was not applied because the samples were diluted by a factor of 5 or greater.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was included with 19 samples in this laboratory report. Additional field duplicates, with an associated COC, are included in K1406769 and K1406772. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-ST05-1/ 14PH-ST05-1-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-ST05-1/14PH-ST05-1-9 were greater than 50% for Aroclor 1242 and Aroclor 1260 at 104% and 145%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The data quality and usability has been minimally affected. The Aroclor 1242 and Aroclor 1260 results for sample/duplicate 14PH-ST05-1/14PH-ST05-1-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	09-19-2014
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406771
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Reek: 10.9°/3.0° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Samples were not sealed in separate plastic bags.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was affected. The samples in cooler Reek have been qualified JTE due to sample temperature above acceptable range. The results are considered estimated and potentially biased low.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and two MS/MSDs were included in batch KWG1407742 and an LCS/LCSD was included in batch KWG1407926.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

One field duplicate was included with 19 samples in this laboratory report. Additional field duplicates, with an associated COC, are included in K1406765 and K1406772. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H46V06-C-36/ 14PH-RRS-H46V06-C-36-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1406772
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler TBs: 4.0°/4.9° C
Cooler Reek: 10.9°/3.0° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The samples were not sealed in separate bags.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality was affected. The samples in cooler Reek have been qualified JTE due to sample temperature above acceptable range. The results are considered estimated and potentially biased low.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was included with 13 samples in this laboratory report. Additional field duplicates, with an associated COC, are included in K1406765, K1406771, K1406769 and K1406770. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU92-L4-D-C-18/14PH-TU92-L4-D-C-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-TU92-L4-D-C-18/14PH-TU92-L4-D-C-18-9 were greater than 50% for Aroclor 1260 at 128%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-TU92-L4-D-C-18/14PH-TU92-L4-D-C-18-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410188
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Fluffy: 1.0°/4.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The samples were not sealed in separate bags.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 0922F003, 0922F016, 0922F024, and 0922F029. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-TU10-L17-E-C-8 MS/MSD recovery for Aroclor 1260 in batch KWG1412973 was outside of QC criteria (biased low).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-TU10-L17-E-C-8

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The Aroclor 1260 results for 14PH-TU92-L22-F-C-12 were qualified JM- due to MS recoveries below the QC limit.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality was minimally affected. The 14PH-TU92-L22-F-C-12 Aroclor 1260 sample results qualified JM- are considered estimated and biased low. The impact is minimal since the LCS/LCSD recoveries and precision were acceptable and the sample results for Aroclor 1260 is significantly below the action limit.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

One field duplicate was included with 11 primary samples in this laboratory report. Additional field duplicates, with an associated COC, are included in K1410190. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU10-L17-E-C-8/ 14PH-TU10-L17-E-C-8-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-TU10-L17-E-C-8/ 14PH-TU10-L17-E-C-8-9 were greater than 50% for Aroclor 1260 at 89%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-TU10-L17-E-C-8/ 14PH-TU10-L17-E-C-8-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410190
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Fluffy: 1.0°/4.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The samples were not sealed in separate bags.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The upper control criterion was exceeded on the confirmation column for Aroclor 1016 in CCVs 1004F013 and 1004F037; and for Aroclor 1016 and Aroclor 1260 in CCV 1004F025. The results for all target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicate was included with 14 primary samples in this laboratory report. Additional field duplicates, with an associated COC, are included in K1410188. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU10-L23-G-C-6/ 14PH-TU10-L23-G-C-6-9, 14PH-TU10-L20-A-C-6/ 14PH-TU10-L20-A-C-6-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-TU10-L23-G-C-6/ 14PH-TU10-L23-G-C-6-9 were greater than 50% for Aroclor 1260 at 59%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-TU10-L23-G-C-6/ 14PH-TU10-L23-G-C-6-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report. SW8082: The following Aroclor 1260 results were qualified "JPR" due to high RPDs (greater than 40%) between the two columns (RPD in parenthesis): 14PH-TU10-L15-B-C-6 (41.2%). The impact to data quality was minimal since the flagged results were well below the project action limit.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410316
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Roadkill: 0.5°/0.5° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in several associated CCVs. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H55V40-C-6/ 14PH-RRS-H55V40-C-6-9, 14PH-RRS-H57V37-C-6/ 14PH-RRS-H57V37-C-6-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report. SW8082: The following Aroclor 1260 results were qualified "JPR" due to high RPDs (greater than 40%) between the two columns (RPD in parenthesis): 14PH-RRS-H54V39-R-24 (44.8%). The impact to data quality was minimal since the flagged results were well below the project action limit.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410547
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Nobama: 2.0°/0.6° C
Cooler Jane Deere: 3.6°/0.1° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 1012F003 and 1012F026. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H54V10-C-6 MS recovery for Aroclor 1260 in batch KWG1413781 was outside of QC criteria (biased low).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H54V10-C-6 MS/MSD RPD for Aroclor 1260 in batch KWG1413781 was outside of QC criteria at 32%.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-RRS-H54V10-C-6

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☑ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for MS recovery was not required for sample 14PH-RRS-H54V10-C-6 because the parent sample concentration was greater than the spike amount. Sample 14PH-RRS-H54V10-C-6 was qualified JD due to RPD criteria.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H54V08-C-6/ 14PH-RRS-H54V08-C-6-9, 14PH-RRS-H56V07-C-6/ 14PH-RRS-H56V07-C-6-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report. SW8082: The following Aroclor 1260 results were qualified "JPR" due to high RPDs (greater than 40%) between the two columns (RPD in parenthesis): 14PH-RRS-H57V16-C-6 (41.5%). The impact to data quality was minimal since the flagged results were well below the project action limit.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410548
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Nobama: 2.0°/0.6° C
Cooler Jane Deere: 3.6°/0.1° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in all associated CCVs. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H55V06-C-6 MS/MSD recovery for Aroclor 1260 in batch KWG1414250 was outside of QC criteria (biased high).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-RRS-H55V06-C-6

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☑ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for MS recovery was not required for sample 14PH-RRS-H55V06-C-6because the parent sample concentration was greater than the spike amount.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-TU92-L25-F-C-6/ 14PH-RRS-TU92-L25-F-C-6-9, 14PH-RRS-TU92-L24-E-C-6/ 14PH-RRS-TU92-L24-E-C-6-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410549
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Jane Deere: 3.6°/0.1° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 1024F003, 1024F017, and 1024F029. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-RRS-H58V36-C-6 MSD recovery for Aroclor 1260 in batch KWG1414309 was outside of QC criteria (biased low).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-RRS-H58V36-C-6

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The Aroclor 1260 results for 14PH-RRS-H58V36-C-6 were qualified JM- due to MS/MSD recoveries below the QC limit.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality was minimally affected. The 14PH-RRS-H58V36-C-6 Aroclor 1260 sample results qualified JM- are considered estimated and biased low. The impact is minimal since the LCS/LCSD recoveries and precision were acceptable and the sample results for Aroclor 1260 is significantly below the action limit.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H59V35-C-6/ 14PH-RRS-H59V35-C-6-9, 14PH-RRS-H56V20-C-6/ 14PH-RRS-H56V20-C-6-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-RRS-H56V20-C-6/ 14PH-RRS-H56V20-C-6-9 were greater than 50% for Aroclor 1260 at 55%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-RRS-H56V20-C-6/ 14PH-RRS-H56V20-C-6-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410550
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Jane Deere: 3.6°/0.1° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample temperature outside of acceptable range was noted on the cooler receipt form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 1008F007, 1008F054, 1009F003, and 1009F007. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

Several Aroclor LODs do not meet the project action limit for one or more samples due to dilution for high concentrations of Aroclor 1260. The nondetect results with LODs greater than the project action limit were qualified "E".

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in each batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The 14PH-NFL-H09V24-D-12 MS/MSD recovery for Aroclor 1260 in batch KWG1413607 was outside of QC criteria (biased low/high).

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

14PH-NFL-H09V24-D-12

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for MS/MSD recovery was not required for sample 14PH-NFL-H09V24-D-12. The parent sample concentration was greater than the spike amount.

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased high) for the following samples: 14PH-NFL-H13V22-D-12, 14PH-NFL-H13V22-D-12-9, 14PH-NFL-H13V22-D-36, 14PH-NFL-H13V22-D-36-9, 14PH-NFL-H11V27-D-36, 14PH-NFL-H11V23-D-12, 14PH-NFL-H11V23-D-32, and 14PH-NFL-H12V18-D-36.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

A data flag for these samples was not applied because the samples were diluted by a factor of 5 or greater.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-NFL-H13V22-D-12/ 14PH-NFL-H13V22-D-12-9, 14PH-NFL-H13V22-D-36/ 14PH-NFL-H13V22-D-36-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410571
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Outty 5000: 3.8°/5.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 1001F003, 1004F003, and 1004F013; and for Aroclor 1016 and Aroclor 1260 in CCVs 1001F017, 1001F029, and 1001F042. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU10-L18-E-C-48/ 14PH-TU10-L18-E-C-48-9, 14PH-TU10-L19-D-B-24/ 14PH-TU10-L19-D-B-24-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The RPD for sample/duplicate 14PH-TU10-L19-D-B-24/ 14PH-TU10-L19-D-B-24-9 were greater than 50% for Aroclor 1260 at 108%.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability has been minimally affected. The Aroclor 1260 results for sample/duplicate 14PH-TU10-L19-D-B-24/ 14PH-TU10-L19-D-B-24-9 were qualified JD due to field duplicate precision exceedance. The higher value will be used for reporting purposes.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-02-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410574
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Outty 5000: 3.8°/5.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in all associated CCVs. The results were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased low) for sample 14PH-RRS-H41V40-C-6.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The results for sample 14PH-RRS-H41V40-C-6 was qualified JS-.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality was minimally affected. The 14PH-RRS-H41V40-C-6 results qualified JS- are considered estimated and biased low.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Two field duplicates were submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H43V40-C-6/ 14PH-RRS-H43V40-C-6-9, 14PH-RRS-H37V37-C-6/ 14PH-RRS-H37V37-C-6-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report. SW8082: The following Aroclor 1260 results were qualified "JPR" due to high RPDs (greater than 40%) between the two columns (RPD in parenthesis): 14PH-RRS-H42V40-C-6 (42.6%), 14PH-RRS-H41V40-C-6 (52.2%) and 14PH-RRS-H37V38-C-6 (42.4%). The impact to data quality was minimal since the flagged results were well below the project action limit.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-05-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410575
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Outty 5000: 3.8°/5.7° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCV 1008F054. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was submitted in this SDG. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H53V32-C-18/ 14PH-RRS-H53V32-C-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-05-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410940
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler SoLong: 3.2°/0.4° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCV 1021F003, 1021F015, 1021F027, 1021F033, 1022F003, 1022F015. The results were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was submitted in this SDG. Additional field duplicates, with an associated COC, are included in K1410942 and K1410943. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU92-L12-G-C-30/ 14PH-TU92-L12-G-C-30-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report. SW8082: The following Aroclor 1260 results were qualified "JPR" due to high RPDs (greater than 40%) between the two columns (RPD in parenthesis): 14PH-TU92-L9-G-C-24 (59.5%), 14PH-TU92-L11-F-C-24 (45.3%), 14PH-TU92-L11-F-B-24 (42.3%). The impact to data quality was minimal since the flagged results were well below the project action limit.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-05-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410942
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler SoLong: 3.2°/0.4° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in all associated CCVs. The results were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased low) for sample 14PH-RRS-H49V34-C-18.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The results for sample 14PH-RRS-H49V34-C-18 was qualified JS-.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality was minimally affected. The 14PH-RRS-H49V34-C-18 results qualified JS- are considered estimated and biased low.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicates was submitted in this SDG. Additional field duplicates, with an associated COC, are included in K1410940 and K1410943. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H48V34-C-18/ 14PH-RRS-H48V34-C-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-05-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410943
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler SoLong: 3.2°/0.4° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 1023F003 and 1023F017. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was included with 5 primary samples in this laboratory report. The primary sample for the field duplicate and additional field duplicates, with an associated COC, are included in K1410940 and K1410942. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H51V33-C-18/ 14PH-RRS-H51V33-C-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report. SW8082: The following Aroclor 1260 results were qualified "JPR" due to high RPDs (greater than 40%) between the two columns (RPD in parenthesis): 14PH-RRS-H50V33-F-18 (42.9%). The impact to data quality was minimal since the flagged results were well below the project action limit.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-05-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410952
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler ThanksForAllTheFish: 1.7°/3.0° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 1023F017, 1023F029, 1023F041, and 1023F053. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

The decachlorobiphenyl surrogate recovery was outside of QC criteria (biased low) for sample 14PH-RRS-H48V32-B-18.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The results for sample 14PH-RRS-H48V32-B-18 was qualified JS-.

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality was minimally affected. The 14PH-RRS-H48V32-B-18 results qualified JS- are considered estimated and biased low.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Three field duplicates were submitted in this SDG. Additional field duplicates, with an associated COC, are included in K1410953. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-RRS-H51V34-R-18/ 14PH-RRS-H51V34-R-18-9, 14PH-RRS-H52V35-C-18/ 14PH-RRS-H52V35-C-18-9, 14PH-RRS-H51V36-C-18/ 14PH-RRS-H51V36-C-18-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report. SW8082: The following Aroclor 1260 results were qualified "JPR" due to high RPDs (greater than 40%) between the two columns (RPD in parenthesis): 14PH-RRS-H49V34-L-18 (43.0%). The impact to data quality was minimal since the flagged results were well below the project action limit.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-05-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1410953
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler ThanksForAllTheFish: 1.7°/3.0° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The primary evaluation criteria were not met on the confirmation column for Aroclor 1016 in CCVs 1023F003, 1023F017, and 1023F029. The results for the associated target Aroclors were reported from the column with an acceptable CCV. The data quality was not affected.

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. <u>QC Samples</u>

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS and MS/MSD was included in the batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

One field duplicate was submitted in this SDG. Additional field duplicates, with an associated COC, are included in K1410952. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Sample / field duplicate ID: 14PH-TU10-L19-F-R-24/ 14PH-TU10-L19-F-R-24-9.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)
Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

A decontamination/equipment blank was not submitted with this SDG.

i. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

ii. If above PQL, what samples are affected?
Comments:

NA

iii. Data quality or usability affected? (Please explain.)
Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

Laboratory Data Review Checklist

Completed by:	Candace Ede		
Title:	Project Chemist	**Date:**	01-05-2015
CS Report Name:	2014 Port Heiden PCB RA	**Report Date:**	May 2015
Consultant Firm:	Jacobs Engineering Group Inc.		
Laboratory Name:	ALS	**Laboratory Report Number:**	K1411012
ADEC File Number:	2637.38.002.05	**ADEC Hazard ID:**	185

1. Laboratory

a. Did an ADEC CS-approved laboratory receive and perform all of the submitted sample analyses?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

All samples were analyzed by ALS of Kelso, WA.

2. Chain of Custody (CoC)

a. CoC information completed, signed, and dated (including released/received by)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Correct Analyses requested?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

The sample/cooler temperatures were:

Cooler Grand Finale: 0.9°/0.9° C

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

PCB wipes were preserved with non-lab grade acetone.

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

There were no discrepancies identified on the Cooler Receipt Form.

e. Data quality or usability affected? (Please explain.)

Comments:

The cooler that was received with temperatures below 2° C had no indication of frozen samples; therefore, the data quality and usability was not affected.

4. Case Narrative

a. Present and understandable?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Other QC failures are discussed in the relevant sections of this checklist.

c. Were all corrective actions documented?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality was not affected.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

b. All applicable holding times met?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

The data quality and usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. All method blank results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All method blank results were less than the LOD.

iii. If above PQL, what samples are affected?

Comments:

NA

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

v. Data quality or usability affected? (please explain)

Comments:

The data quality and usability were not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

An LCS/LCSD was included in the PCB wipe batch.

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

No metals/inorganics were reported.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

NA

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The data quality and usability were not affected.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

The data quality and usability were not affected.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.):
Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

There were no volatiles samples submitted with this SDG.

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

iii. All results less than PQL?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. If above PQL, what samples are affected?

Comments:

NA

v. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

☐ Yes ☑ No ☐ NA (Please explain.) Comments:

There were no field duplicates submitted with the wipe samples. The field duplicate frequency (10%) was met for this project.

ii. Submitted blind to lab?

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐ Yes ☐ No ☑ NA (Please explain.) Comments:

NA

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The data quality and usability were not affected.

f. Decontamination or Equipment Blank (If not used explain why).

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

A PCB wipe equipment/trip blank was submitted with this SDG.

i. All results less than PQL?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

All results were less than the LOD in the equipment blank wipe sample.

ii. If above PQL, what samples are affected?

Comments:

NA

iii. Data quality or usability affected? (Please explain.)

Comments:

The data quality and usability were not affected.

7. <u>Other Data Flags/Qualifiers (ACOE, AFCEE, Lab-Specific, etc.)</u>

a. Defined and appropriate?

☑ Yes ☐ No ☐ NA (Please explain.) Comments:

Qualifiers applied are defined in the Data Quality Assessment appendix of the report.

ATTACHMENT D-4

Laboratory Deliverables

(Provided separately on CD)

APPENDIX E

Estimate of Remaining Quantities of PCB-Contaminated Soil

JACOBS

4300 B Street, Suite 600
Anchorage, Alaska 99503 U.S.A.
1.907.563.3322 Fax 1.907.563.3320

December 31, 2014

To:
Meseret Ghebresllassie CEPOA-PM-ESP
5131 Stadium Lane H-104
SE Olympia, WA 98501

Subject: Estimated Remaining Volume of PCB-Contaminated Soil Associated with the Port Heiden Radio Relay Station - Draft

Dear Ms. Ghebresllassie:

This letter contains the estimated volume of remaining PCB-contaminated soil associated with the former Radio Relay Station (RRS) in Port Heiden. These areas include Soil Removal Area 2 (SRA2), the Access Road, the North Landfill, the Black Lagoon, the Drum Storage Area, the North Landfill Road, the Septic Lagoon, and Site Road. Delineation and removal actions have occurred at or near all of these sites; however PCB-contaminated soil above the cleanup levels of 1 mg/kg (non-TSCA) and 50 mg/kg (TSCA) remains in-situ as presented in the attached figure.

- **Soil Removal Area 2 (OT001)**
  - 3,553 cubic yards non-TSCA volume based on confirmation sample results
  - 3,668 cubic yards TSCA volume based on confirmation sample results
  - 597-1193 cubic yards non-TSCA potentially contaminated (stepout) volume based on sample results of adjacent cells
- **Access Road (OT001)**
  - 357 cubic yards non-TSCA volume based on confirmation sample results
  - 64 cubic yards TSCA volume based on confirmation sample results
  - 348 cubic yards non-TSCA potentially contaminated (stepout) volume based on sample results of adjacent cells
- **North Landfill (LF007)**
  - Approximately 2,033 cy non-TSCA volume based on delineation sample results
  - Approximately 1,333 cubic yards TSCA volume based on delineation sample results
  - Samples were collected from ten additional locations within the North Landfill cap at approximately 1 and 3 feet bgs to further refine these estimates. Of the ten locations sampled nine contained PCB concentrations greater than 1 mg/kg and

four contained PCB concentrations greater than 50 mg/kg. The highest PCB concentration detected was 400 mg/kg at 12 inches below ground surface (bgs). Landfill debris at these locations was encountered while hand auguring at depths much shallower than previously indicated (approximately 2 feet bgs) and in some locations was observed extruding from the cap.

- **Black Lagoon (WP002)**
  - 121 cubic yards non-TSCA volume based on confirmation sample results
  - 229 cubic yards non-TSCA potentially contaminated (stepout) volume based on sample results of adjacent cells
- **Drum Storage Area (OT001)**
  - 2,925 cubic yards non-TSCA volume based on confirmation sample results
  - 338 cubic yards TSCA volume based on confirmation sample results
- **North Landfill Road (OT001)**
  - 134 cubic yards non-TSCA volume based on delineation sample results
- **Septic Lagoon (SS004)**
  - 14-115 cubic yards non-TSCA volume based on delineation sample results
- **Site Road Sections 00-36 (OT001)**
  - 119 cubic yards non-TSCA volume based on confirmation sample results
  - 287 cubic yards non-TSCA potentially contaminated (stepout) volume based on sample results of adjacent cells)
- **Site Road Sections 89-92 (OT001)**
  - 11 cubic yards non-TSCA volume based on confirmation sample results
  - 258 cubic yards non-TSCA potentially contaminated (stepout) volume based on sample results of adjacent cells)

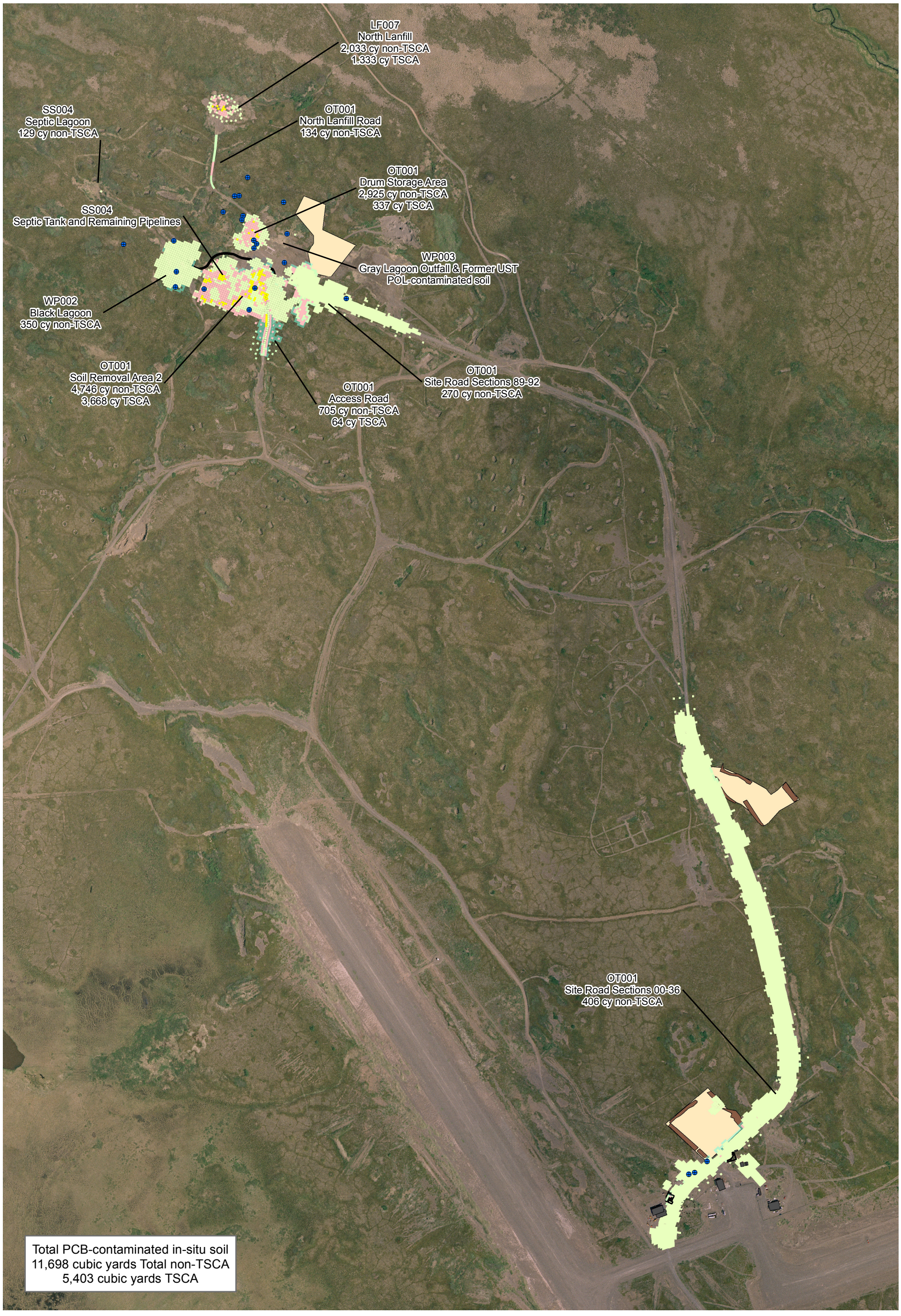
Summary

Based on current data, the potential total volume of non-TSCA PCB-contaminated soil remaining above the cleanup level of 1 mg/kg is estimated to be up to 11,698 cubic yards. The potential total volume of TSCA PCB-contaminated soil remaining above the cleanup level of 50 mg/kg is estimated to be up to 5,403 cubic yards (see attached tables).

The volumes of PCB-contaminated soil were calculated based on sample results above the cleanup levels. Grid areas were calculated in GIS and multiplied by 6 inches below the deepest

sample result above the PCB cleanup level except in the case of the North Landfill, where the contaminated cap is known to be 48 inches thick. Where sample results above the cleanup level were on the bounding edge of a contaminated area, stepout grid volumes were required for characterization. It was assumed when calculating the potential total volume of PCB-contaminated soil that these grid cells are above the cleanup level to the depth of the contaminated adjacent grid. These volume estimates will be refined as additional data becomes available.

Attachment 1



PCB Grid Composite Results

- Below Cleanup, <1 mg/kg
- TSCA, 1 to <50 mg/kg
- TSCA >50 mg/kg
- Stepouts Requiring Characterization

- Monitoring Well
- Overburden Pile
- Storage Area

All Locations Are Approximate

0 250 500 750 1,000

Feet

WGS 1984 UTM Zone 4N Transverse Mercator

N

Estimated Remaining Volume PCB-Contaminated Soil

Radio Relay Station Port Heiden, Alaska

JACOBS	DATE: 05 JAN 2015	PROJECT MANAGER: K. McGovern	FIGURE NO: 1

C:\Users\Jacobs\Desktop\Port Heiden\GIS\MXD\Kemron\14PH_FieldPlanning\KEMRON_RemainingVolumeEstimate9-23-14.mxd Jacobs

Attachment 2

Port Heiden PCB-Contaminated Soil Remaining In-Situ

Soil Removal Area 2 non-TSCA

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	87.41	940.90	940.90	34.85	
12.00	2222.48	23922.53	35883.80	1329.03	
18.00	822.15	8849.58	17699.17	655.52	
24.00	940.23	10120.53	25301.33	937.09	
30.00	247.91	2668.46	8005.37	296.50	
36.00	62.71	675.01	2362.53	87.50	
42.00	62.71	675.02	2700.08	100.00	
48.00	62.71	675.01	3037.56	112.50	
				3552.99	non-TSCA

Stepout Volume (Potentially contaminated based on results of adjacent cells)

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00		16108.48	16108.48	596.61	non-TSCA (min)
18.00		16108.48	32216.96	1193.22	non-TSCA (max)
				4746.21	**Total non-TSCA**

Soil Removal Area 2 TSCA

TSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	919.69	9899.43	9899.43	366.65	
12.00	1581.96	17028.08	25542.12	946.00	
18.00	606.19	6525.02	13050.03	483.33	
24.00	1389.44	14955.76	37389.39	1384.79	
30.00	209.03	2249.98	6749.93	250.00	
36.00	146.32	1575.01	5512.53	204.17	
42.00	20.90	225.00	900.02	33.33	
				3668.28	**Total TSCA**

Port Heiden PCB-Contaminated Soil Remaining In-Situ

Access Road non-TSCA

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	696.01	7491.77	7491.77	277.47	
12.00	133.14	1433.09	2149.64	79.62	
				357.09	non-TSCA

Stepout Volume (Potentially contaminated based on results of adjacent cells)

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	1744.85	18781.39	9390.69	347.80	non-TSCA
				704.89	**Total non-TSCA**

Access Road TSCA

TSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
12.00	0.81	8.73	13.09	0.48	
18.00	79.78	858.78	1717.56	63.61	
				64.10	**Total TSCA**

North Landfill non-TSCA

non-TSCA				
NONTSCA depth (feet)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
4.00	13722.75	54891.00	**2033.00**	**Total non-TSCA**
Assumption: cap is 4' thick, cap could be contamintated all the way through				

North Landfill TSCA

TSCA				
TSCA depth (feet)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
4.00	8997.75	35991.00	**1333.00**	**Total TSCA**
Assumption: cap is 4' thick, cap could be contamintated all the way through.				

Port Heiden PCB-Contaminated Soil Remaining In-Situ

Black Lagoon non-TSCA

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
24.00	83.60	899.86	2249.66	83.32	
12.00	62.70	674.90	1012.34	37.49	
				120.81	non-TSCA

Stepout Volume (Potentially contaminated based on results of adjacent cells)

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
12.00	188.10	2024.69	3037.03	112.48	
6.00	292.60	3149.52	3149.52	116.65	
				229.13	non-TSCA
				349.95	**Total non-TSCA**

Drum Storage Area nonTSCA

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
48.00	1630.43	17549.80	78974.10	**2924.97**	**Total non-TSCA**

Drum Storage Area TSCA

TSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
48.00	188.13	2024.98	9112.43	**337.50**	**Total TSCA**

North Landfill Road nonTSCA

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	336.00	3616.67	3616.67	**133.95**	**Total non-TSCA**

Septic Lagoon non-TSCA

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
12.00	24.00	258.33	387.50	14.35	non-TSCA

Stepout Volume (Potentially contaminated based on results of adjacent cells)

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
12.00	192.00	2066.67	3100.00	114.81	non-TSCA
				129.17	**Total non-TSCA**

Port Heiden PCB-Contaminated Soil Remaining In-Situ

Site Road Sections 00-36 non-TSCA

NONTSCA depth (inches)	NONTSCA depth (ft)	total area (ft2)	total volume (ft^3)	total volume (cy)	
6.00	0.50	842.38	842.38	31.20	
8.00	0.67	44.10	51.45	1.91	
10.00	0.83	164.86	219.82	8.14	
18.00	1.50	1048.62	2097.24	77.68	
				118.92	non-TSCA

Stepout Volume (Potentially contaminated based on results of adjacent cells)

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	720.00	7750.01	7750.01	287.04	non-TSCA
				405.96	**Total non-TSCA**

Site Road Sections 89-92 non-TSCA

NONTSCA depth (inches)	NONTSCA depth (ft)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	0.50	309.00	309.00	11.44	non-TSCA

Stepout Volume (Potentially contaminated based on results of adjacent cells)

NONTSCA depth (inches)	total area (m^2)	total area (ft^2)	total volume (ft^3)	total volume (cy)	
6.00	648.00	6975.01	6975.01	258.33	non-TSCA
				269.78	**Total non-TSCA**

Total PCB-contaminated in-situ soil	
11697.87	**Total non-TSCA**
5402.87	**Total TSCA**

APPENDIX F

2014 PCB Removal Status Meeting Presentation and Minutes

Port Heiden PCB-Contaminated Soil Removal

Removal Status Update

8 April 2015

Purpose

Provide a summary of the activities completed in 2014 and the planned activities for 2015 and 2016 including:

- Soil removal summary
- Containerized soil remaining onsite
- 2014 Excavation Areas
- Planned 2015/2016 activities
- Additional activities to be planned

2014 PCB Removal Summary

- Stockpiled Soil Removal
  - CA1 – 1,154.2 tons
  - CA4 – 629.4 tons
  - J1.1 – 2,229.42 tons
  - J1.3 – 2,821.71 tons
  - J1.5 – 2,536.90 tons
- **Stockpiled Soil Total = 9,371.63 tons**

2014 PCB Removal Summary

- Excavated Soil Quantities
  - SRA2 – 3,158.22 tons
  - CSR2 – 203.66 tons
  - BLO – 62.03 tons
  - SA1 – 179.56 tons
- **Excavated Soil Total = 3,603.47 tons**

- **Total Soil Bagged (TSCA) – 2082.11 tons**
- **Total Soil Bagged (non-TSCA) – 10,892.91 tons**

Bagged PCB Soil Remaining Onsite

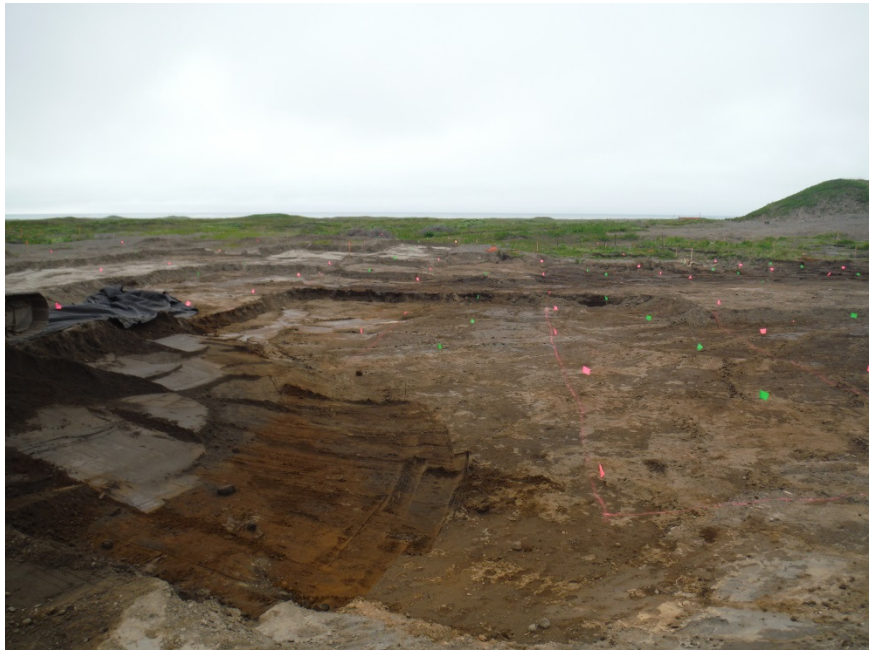
- **Non-TSCA Soil Bagged and Remaining Onsite – 3,723.3 tons**



2014 Excavation Areas

- **Soil Removal Area 2 (SRA2)**





2014 Excavation Areas

- **Contaminated Soil Removal Area 2 (CSR2)**



2014 Excavation Areas

- **Black Lagoon Outfall prior to Treatability Study excavation**



2014 Excavation Areas

- **Storage Area 1 Hot Spot**



2013/2014 Soil Loadout Summary

2013/2014 Barge Shipments						
Year	Task #	Soil Type	Quantity Shipped (Field Weight)	Quantity Billed (Certified Weight)	Quantity Shipped (Certified Weight)	Barge Total
2013	Task 4	TSCA	334.3	348.15	348.15	10790.88
		non-TSCA	10557	10442.73	10442.73	
2014	Task 4	TSCA	0	0	0	0
		non-TSCA	7107.27	7107.27	7107.27	10800.79
	Task 5	TSCA	2230.6	2082.11	2082.11	
		non-TSCA	440.3	466.47	466.47	
	Task 7	non-TSCA	681.23	1144.94	1144.94	

2015-2016 Look Ahead

- Continue excavation of known contamination in the SRA2, CSR2, and Site Road Sections 89-92
- Characterize and excavate Drum Storage Area debris pit upon issuing the approved Work Plan
- Collect additional characterization/stepout samples and excavate along Access Road
- Complete stepout sampling and removal activities along Site Road (Sections 00-36 and 89-92)
- Collect additional characterization/stepout samples from the Black Lagoon and Septic Lagoon areas and excavate
- Collect additional samples and excavate within the North Landfill Road

Soil Loadout

- 2015 soil loadout is tentatively scheduled for early August.
- 2016 soil loadout will be dependent on the quantity of soil available, which will be excavated and bagged in fall 2015 and spring/summer 2016.

Additional Activities

- Determine the deposition of the debris material removed from the Drum Storage Area.
- Determine a procedure for removing contaminated soil from the North Landfill area.

KEMRON
ENVIRONMENTAL SERVICES

Meeting Minutes

Revised 4/27/2015

Subject: Port Heiden Status Meeting (8 April 2015)

To: Keith Barnack, USAF
Meseret Ghebresllassie, USACE
Craig Scola, USACE
Louis Howard, ADEC
Brian Englund, ADEC
Lou Ehrhard, KEMRON
Greg Rutkowski, Jacobs
Hillary Jochens, Jacobs
Drew McClure, Jacobs

From: Gregory Rutkowski, Jacobs

1. **General Purpose of Meeting**- The purpose of this meeting was to provide a summary of the activities completed in 2014 and to look ahead to the planned activities for 2015 and 2016.
2. **Review of 2014 Field Season**- Greg described in detail to all participants what was completed in 2014.
    a. During the 2014 PCB Removal Field effort a total of 9,372 tons of stockpiled soil was containerized. The total number of tons per site is as followed: CA1 - 1,154.2 tons, CA4 - 629.4 tons, J1.1 – 2,229.42 tons, J1.3 – 2,821.71 tons, and J1.5 – 2,536.9 tons.
    b. During the 2014 PCB Removal Field effort a total of 3,603.47 tons of soil was excavated. The total number of tons per site is as followed: SRA2 – 3,158.22 tons, CSR2 – 203.66 tons, BLO – 62.03 tons, and SA1 – 179.56 tons.
    c. Between the 9,372 tons of soil that was stockpiled/bagged and the 3,603.47 tons of soil that was excavated/bagged, the total amount of bagged soil in tons equaled 12,975 tons. 2,082.11 tons of bagged soil was TSCA while 10,892.91 tons of bagged soil was non-TSCA.

   d. 3,723 tons of non-TSCA remains on site that are in bags and still need to be put on the barge and shipped out during the 2015 field season.

3. **2013/2014 Soil Load out Summary**- During the 2013 field season 10,770.88 tons of soil were loaded and shipped out by barge. Of this total 348.15 tons was TSCA while 10,422.73 tons was non-TSCA. 10,800.79 tons of soil was loaded and shipped out by barge during the 2014 field season. Of this total 2,082.11 was TSCA while 8,718.68 tons was non-TSCA.
4. **2015-2016 Look Ahead**- A combination of addition characterization and excavation activities will take place as well as soil load outs.
   a. We will continue to excavate known contamination soil at the SRA2, CSR2, and Site Road Sections 89-92.
   b. Characterize and excavate Drum Storage Area debris pit upon issuing the approved Work Plan.
   c. Collect additional characterization/step out samples and excavate along Access Road.
   d. Complete step out sampling and removal activities along Site Road (Sections 00-36 and 89-92).
   e. Collect additional characterization/step out samples from the Black Lagoon and Septic Lagoon areas and excavate.
   f. Collect additional samples and excavate within the North Landfill Road.
   g. 2015 soil load out is tentatively scheduled for early August.
   h. 2016 soil load out will be dependent on the quantity of soil available, which will be excavated and bagged in fall 2015 and spring/summer 2016.
5. **Additional Activities**- General comments based on the entirety of the status meeting and questions from participants regarding our meeting presentation.
   a. Determine the deposition of the debris material removed from the Drum Storage Area. There is uncertainty as to what type of debris is located at the Drum Storage Area. During the removal activities the staged debris will be inventoried and

photographed to aid in deposition discussions. This information will be included in the 2015 Interim Data Report.

b. Determine a procedure for removing contaminated soil from the North Landfill area. The consensus is that the contaminated soil within the landfill cap will be removed and the cap will be replaced. The solid waste within the landfill will not be removed. The cap will be replaced with clean material. Prior to conducting this work, a plan documenting the removal of only the cap and a design for the replacement will be submitted.

c. Question – Keith (USAF) – Do we expect to address all of the remaining contamination after the completion of this contract?

    i. Meseret (USACE) The current contract does not have the capacity to address the quantity of remaining/expected contamination. (Jacobs) We do not expect to identify additional sites separate from what has already been characterized. The sampling in 2015 will be aimed at delineating the remaining contamination on the southern edge of SRA 2, along Access Road at the Former RRS, within CSR 2, along North Landfill Road, in areas associated with Storage Area 1, and in sections 89-93 of Site Road. However, delineation activities will focus on areas proposed for excavation during 2015 and may not be completed in each of these areas. Based on previous sampling activities, there is no evidence of PCB contamination associated with the RRS beyond the areas that are currently identified.

d. Meseret (USACE) inquired about information regarding sampling of the road from the airport to the barge landing area. Keith replied that the USAF does not own or manage this portion of the road. Jacobs will look into this request. Update – Jacobs verified that the road from the airport to the barge landing was sampled in 2010 on 1,000-foot centers and at various depths. PCBs were not detected above the cleanup level in any sample from this section of the road.

e. Greg (Jacobs) – Another potential issue we may encounter is asbestos at the Drum Storage Area. Past reports state that TSI material containing asbestos was placed in 17 boxes, wrapped in plastic, labeled and disposed of in an area adjacent to the Drum Storage Area. Although we do not anticipate on discovering any gross asbestos contamination, the procedures for identifying and handling asbestos containing material will be presented in the upcoming Work Plan Addendum for the Drum Storage Area. Jaclyn Christensen from Aniakchak contacted our office on Tuesday April 7th. She will be setting up an EPA 40-hour asbestos abatement and 2-hour asbestos awareness class for the 2015 site workers.

APPENDIX G

Response to Comments and Alaska Department of Environmental Conservation Approval Letter

REVIEW COMMENTS

PROJECT: Port Heiden PCB Removal, 2014 Interim Data Report
DOCUMENT: Draft March 2014 Location: Port Heiden, Alaska

KEMRON	**DATE: 4/10/15** **REVIEWER: Craig Scola** **PHONE: 907-753-5769**	**Action taken on comment by:** Jacobs Engineering Group

Item No.	Drawing Sheet No., Spec. Para.	COMMENTS	REVIEW CONFERENCE A - comment accepted W - comment withdrawn (if neither, explain)	CONTRACTOR RESPONSE	USAED/ADEC RESPONSE ACCEPTANCE (A-AGREE) (D-DISAGREE)
1.	Section 1.0	Suggest mentioning the volume of the Super Sacks (bags) early in the report, not waiting until Sect 2. It's hard to appreciate how many bags/volume until you know how much each bag contains.	A	Agree. The number of Super Sacks and tonnage of soil per bag will be added to the third paragraph of Section 1.0.	
2.	Section 2.0, Bullet 4	Why were 5 bags of clean soil used by ELM for their ramp when loading the barge hauled off for disposal?	A	The 5 Super Sacks were not filled with soil but with other Super Sacks that were previously filled with clean soil and used to support the ramp constructed at the barge landing. Upon completion of the barge loading, the Super Sacks were emptied which basically destroyed them and they were placed in these 5 Super Sacks. These 5 bags are discussed because they are included in the back-up waste disposal documentation in Appendix C. Since the non-TSCA bags were not weighed individually there is no way to identify these bags in waste disposal documentation. These bags were not included in the total for non-TSCA soil and were not billed to the USACE.	
		----- End of Comments ----			

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

555 Cordova St
Anchorage, AK 99501
Main: 907-269-7552
Fax: 907-269-7687
www.dec.alaska.gov

File No: 2637.38.002.05

April 10, 2015

Keith Barnack
AFCEC/OLAR
10471 20th St STE 341
Elmendorf AFB, AK 99506-2201

Re: PCB Contaminated Soil Interim Data Report Port Heiden, AK dated March 2015

Dear Mr. Barnack:

The Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Program has received the above document on April 7, 2015 for CS DB Hazard ID 185. ADEC has reviewed the report and will approved the document as a final document.

If you have any questions regarding these comments, please call me at 269-7552.

Sincerely,

Louis Howard

Louis Howard
Environmental Program Specialist