

February 7, 2014 Project No. 0380.02.04

Steve King, PE City of Wenatchee 1350 McKittrick Street, Suite A Wenatchee, Washington 98801

Re: Data gap investigation summary Former Public Works Yard Property, Wenatchee, Washington

Dear Mr. King:

To support the City of Wenatchee in resolving legacy contamination concerns at the former Public Works Yard property at 25 North Worthen Street (the Property), Maul Foster & Alongi, Inc. (MFA) conducted a targeted environmental investigation at the Property on November 5 through 7, 2013 (see Figure 1).

The investigation approach, which is documented in a technical memorandum dated October 3, 2013 (MFA, 2013), was developed in collaboration with the Washington State Department of Ecology (Ecology) to address data gaps and environmental concerns on the non-landfill portion of the Property. Additional investigation of the non-landfill portion of the Property (see attached Figure 1) was determined necessary to further define impacts associated with non-landfill-related contaminant sources at the Property. The investigation findings documented in this letter, in combination with findings of prior investigations at the Property, will be used to develop a focused site assessment that identifies the appropriate action(s) for protection of human health and the environment on the non-landfill portion of the Property.

BACKGROUND

In December 1981, a soil gas generation investigation was conducted by Budinger & Associates (B&A) to understand the feasibility of construction of a public park on top of a historical landfill adjacent to the Columbia River. The investigation was conducted on the overall known boundaries of the landfill, which was a larger area that included a portion of the Property. Based on this work, B&A indicated that, while a great deal of refuse landfilling had taken place at the Property and adjoining areas, the vicinity area was suitable for park construction, with some exceptions. B&A recommended the following: a cap of a minimum of 5 feet in thickness of clean, imported cover material, placed throughout the areas to be developed; passive gas well installation throughout the park area to facilitate venting of methane generated during active decomposition of landfilling refuse; air monitoring for methane; construction of park buildings in areas with adequate subsurface conditions

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allowing for minimal subsidence; and selective planting of trees that will not have deeply invasive root structures (B&A, 1981).

In June 2000, Ecology and Environment, Inc. (E&E), in coordination with the U.S. Environmental Protection Agency (USEPA), conducted a targeted brownfield assessment and associated subsurface investigation at the Property to assess areas of potential contamination resulting from the known historical landfilling activities. E&E collected 41 soil samples (from ten soil borings) and five groundwater samples and submitted them for laboratory analysis. Soil boring locations were separated into areas interpreted to be from the inferred landfill portion of the Property as well as inferred non-landfilled areas. Analytical results indicated elevated concentrations of many analytes of concern—including heavy metals, carcinogenic polycyclic aromatic hydrocarbons (cPAHs), semivolatile organic compounds, and volatile organic compounds—exceeding Ecology Model Toxics Control Act (MTCA) cleanup levels (CULs) in both soil and groundwater from samples obtained in and outside the landfill area (E&E, 2000).

In October 2010, MFA conducted a subsurface assessment at the Property (MFA, 2011a). This investigation included installation of three piezometers (i.e., PZ1 through PZ3; see attached Figure 1), a combustible gas assessment, a surface soil staining assessment, and a landfill delineation and geologic cross section interpretation based on a directed geophysical evaluation. Piezometers were installed to measure shallow groundwater elevations in order to interpret groundwater migration at the Property. The October 2010 investigation concluded the following:

- Shallow groundwater migration at the Property is approximately south-southwest.
- Combustible gases are present at the Property, but at relatively low concentrations, and engineering controls should be considered during design and implementation at the Property.
- Stained surface soil on the non-landfill portion of the Property is below MTCA Method A CULs for unrestricted land use.
- There is a varied thickness of landfill debris and overburden material above shallow basalt, which varies in depth.

In September 2011, MFA conducted a focused investigation at the Property to delineate cPAH-impacted soil on the non-landfill portion of the Property and define the landfill/native soil boundary (MFA, 2011b). Soil borings were used to delineate cPAH impacts in the southern portion of the Property in the vicinity of a former fueling area and underground storage tanks (USTs). Test pits were used to delineate the landfill/native soil boundary. The results of the focused investigation concluded that impacts at the Property were distinguishable as two separate sites: landfill and non-landfill impacts. The landfill extends

well beyond the Property boundaries to the north, east, and south. The non-landfill portion of the Property has groundwater and soil vapor impacts that appear to be the result of migration from the landfill; independent sources were not identified through multiple investigations. Impacts of cPAHs in soil on the non-landfill portion of the Property likely are related to USTs, which have been removed from the Property.

NOVEMBER 2013 INVESTIGATION

An MFA staff geologist oversaw the field activities, which were conducted using industry standard techniques and in general accordance with the guidelines put forth in Ecology's Guidance on Sampling and Analysis Methods (Ecology, 1995) and the requirements of MTCA (Washington Administrative Code [WAC] 173-340). Soil samples and one groundwater sample were collected from temporary boreholes advanced using a direct-push drill rig, with additional groundwater samples collected from the three existing piezometers. Boring locations were checked for utilities by both public and private utility locators before drilling and were recorded using a handheld global positioning system device. Drilling was completed by Pacific Soil & Water of Tigard, Oregon. Soil and groundwater samples were labeled, preserved (as appropriate), and delivered for analysis to Specialty Analytical of Clackamas, Oregon, under standard chain-of-custody procedures.

Thirty-two soil samples and one groundwater sample were collected from 12 borings (GP11 through GP22), and three groundwater samples were collected from the three existing piezometers (PZ1, PZ2 and PZ3) (Figure 1). GeoprobeTM Macrocore[®] samplers were used to collect soil cores from the ground surface to a maximum depth of 20 feet below ground surface (bgs). During drilling, lithology, and visual and olfactory observations were recorded on field boring logs (Attachment A). Soil samples were chosen for analysis in accordance with the October 3 investigation approach memorandum (MFA, 2013), with additional soil samples that were not initially chosen for analysis archived for potential follow up analyses. The areas of concern that were investigated are the former fueling area and associated USTs, the former heating oil UST, the oil/water separators (OWSs), surface soil, and groundwater.

In the boring from which a groundwater sample was collected, a Geoprobe temporary well screen was set in the borehole at or near the water table for collection of a groundwater sample. This sample, as well as groundwater samples collected from the existing piezometers, was collected using a peristaltic pump with new, disposable polyethylene tubing.

Selected soil and groundwater samples were screened for petroleum hydrocarbons, using NWTPH-HCID and were analyzed for diesel-range and oil-range petroleum hydrocarbons (diesel and lube oil, respectively) by NWTPH-Dx; benzene, toluene, ethylbenzene, and xylenes (BTEX) by USEPA Method 8021B; polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270-SIM; polychlorinated biphenyls (PCBs) by USEPA Method 8082; and/or arsenic and lead by USEPA 6010B.

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The boreholes were decommissioned with hydrated bentonite chips in accordance with the WAC for Minimum Standards for Construction and Maintenance of Wells (WAC 173-360). Soil cuttings, purged groundwater, and decontamination fluids were stored on the Property in labeled 55-gallon drums.

Following is a summary of the investigation activities and related findings associated with each potential source/medium identified in the October investigation approach memorandum (MFA, 2013). Analytical results for soil and groundwater are presented in Tables 1 and 2, respectively, and logs associated with the 12 borings are provided in Attachment A. Analytical laboratory reports are provided in Attachment B. A data validation memorandum describing the laboratory data quality is included in Attachment C. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

Former heating oil underground storage tank

Two soil borings (GP11 and GP12) were advanced in the location of the former heating oil UST (see attached Figure 1) to obtain confirmation soil samples to satisfy tank decommissioning requirements.

Soil samples collected at 13 and 7 feet bgs from borings GP11 and GP12, respectively, were analyzed for petroleum hydrocarbon identification. Soil screening indicated the presence of diesel and lube oil; therefore, the laboratory was directed to conduct followup analyses for diesel, lube oil, BTEX, PAHs, and PCBs, following MTCA Table 830-1 analyses for petroleum releases. In addition, the deeper soil samples collected from 17.5 and 11 feet bgs from borings GP11 and GP12, respectively, were analyzed for diesel, lube oil, BTEX, PAH, and PCBs to evaluate vertical extent of contamination.

Petroleum hydrocarbons and their constituents, specifically benzene and PAHs, were detected in samples collected from this area (see Table 1). The only MTCA Method A CUL exceedances were exhibited in boring GP11 for benzene (0.064 milligram per kilogram [mg/kg] at 13 feet bgs), and in boring GP12 for cPAH toxicity equivalence (TEQ) (0.85 mg/kg at 7 feet bgs). Deeper samples collected at these locations indicated no MTCA Method A CUL exceedances. PCBs were not detected in soil samples from these locations. The former heating oil UST did impact the Property, but the impacts are shallow and do not extend to groundwater, and they likely are limited to the immediate vicinity of the former heating oil UST.

Oil/water separators

One soil boring was advanced adjacent to each of the two OWSs (GP13 and GP14; see attached Figure 1) to confirm that the OWSs have not adversely impacted subsurface soil.

Soil samples collected at 10 and 7.5 feet bgs from borings GP13 and GP14, respectively, were analyzed for petroleum hydrocarbon identification. Additional soil samples collected at 13

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and 15 feet bgs from GP13 and 11.5 feet bgs from GP14 were submitted to the laboratory but were held, pending results of the shallower samples. Soil screening results indicated the presence of diesel and lube oil in the shallow samples; therefore, the laboratory was directed to conduct followup analyses for diesel, lube oil, BTEX, PAHs, and PCBs. In addition, the deeper soil samples collected from 13 and 11.5 feet bgs from borings GP13 and GP14, respectively, were analyzed for diesel, lube oil, BTEX, and PAHs.

Diesel, lube oil, and PAHs were detected in soil samples from borings GP13 and GP14; however, none were found at concentrations exceeding the MTCA Method A CULs (see Table 1). BTEX and PCBs were not detected in these soil samples. The results indicate that the OWSs have not adversely impacted the Property.

Former fueling area and associated USTs

Eight soil borings were advanced in the vicinity of the former fueling area and associated USTs (see attached Figure 1) to define the lateral extent of cPAH- and lead-impacted soil in this area. MTCA Method A CUL exceedances were previously identified for cPAHs at GP3, GP4, GP5, and GP8 (at 11, 10, 11 and 9 feet bgs, respectively) and in USEPA boring LF14 at 0 to 4 and 8 to 12 feet bgs. In addition, a MTCA Method A CUL exceedance for lead, at the approximate location of GP19, is based on the UST decommissioning report. The sample depth for the lead exceedance is unknown, but is assumed to be near the base of the UST decommissioning excavation.

Soil samples associated with defining the lateral extent of cPAH contamination were collected from borings GP15 through GP18, with analyses following a tiered approach focusing first on samples collected from borings nearest the former fueling area (GP16 and GP17), with samples collected from outer borings (GP15 and GP18) held for later analyses only if the associated interior boring sample indicated a CUL exceedance. As a result, samples were collected at 14 and 12.5 feet bgs from borings GP16 and GP17, respectively, and analyzed for cPAHs.

Soil samples associated with assessing the extent of lead impacts were collected from borings GP17 and GP19 through GP22. Soil samples collected at 16 feet bgs from each of the five borings were analyzed for lead by USEPA 6010B.

Analytical results from borings GP16 and GP17 indicated no detections of cPAHs (see Table 1). Lead was detected only in soil analyzed at depth from GP19, GP20, and GP22 at concentrations ranging from 2.24 mg/kg to 10.1 mg/kg, but all at concentrations below the MTCA Method A CUL of 250 mg/kg (see Table 1). These results bound the lateral extent of cPAH and lead soil exceedances (see Figure 2).

Existing cover/cap soil

Composite soil samples were collected from five of the soil borings (GP11, GP14, GP15, GP17, and GP20) to better characterize potential contamination in the uppermost 6 feet of soil in the non-landfill portion of the Property. Each sample was composited from six discrete samples collected at 1-foot intervals from each of the above identified borings. Each composite sample was analyzed for petroleum hydrocarbon identification, arsenic, lead, and cPAHs.

Because diesel and/or lube oil were identified through the hydrocarbon scan, followup analyses were conducted to quantify diesel-range and oil-range petroleum hydrocarbons, cPAHs, BTEX, and/or PCBs, as appropriate.

The compounds analyzed were below CULs, except for arsenic at GP14 (30.4 mg/kg) and GP15 (68.4 mg/kg) and lead at GP-15 (313 mg/kg; see Table 1).

Groundwater

Previous sampling results indicate that groundwater impacts originating beneath the landfill are migrating under the non-landfill portion of the Property. The objective of the November 2013 sampling for petroleum hydrocarbons was to evaluate if the non-landfill portion of the Property was potentially impacting groundwater. Groundwater samples were analyzed for petroleum hydrocarbons. Groundwater samples collected from boring GP18 and piezometer PZ1, both of which are located outside the boundary of the delineated landfill, did not indicate the presence of petroleum hydrocarbons. Groundwater samples collected from boring the delineated landfill, did not indicate the presence of petroleum hydrocarbons. Groundwater samples collected from 2013 samples collected from piezometers PZ2 and PZ3, both of which are located within the boundary of the delineated landfill, indicate the presence of diesel- and lube-oil-range petroleum hydrocarbons (see Table 2).

Analytical results of groundwater collected from piezometers PZ2 and PZ3 detected diesel at 1,950 micrograms per liter (μ g/L) and 4,110 μ g/L, respectively, and lube oil at 1,740 μ g/L and 3,490 μ g/L, respectively (see Table 2). These concentrations are above the MTCA Method A CUL of 500 μ g/L. The results indicate that impacts in groundwater originate from the landfill and not from soil impacts on the non-landfill portion of the Property.

INVESTIGATION CONCLUSIONS

The results of the November field investigation allow for the following conclusions:

Former heating oil underground storage tank

Analytical results of soil samples collected from borings GP11 and GP12 did indicate MTCA Method A CUL exceedances for benzene in GP11 (13 feet bgs) and cPAH TEQ in GP12 (7 feet bgs); however, deeper samples collected from those borings did not indicate CUL exceedances. Therefore, while the former heating oil UST did impact the Property, the

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impacts are shallow and do not extend to groundwater, and they likely are limited to the immediate vicinity and footprint of the former UST. As a result, it is unlikely that the contamination is degrading the underlying groundwater.

Oil/water separators

Analytical results did not indicate any CUL exceedances; therefore, the OWSs have not impacted the Property.

Former fueling area and associated USTs

The analytical results of soil samples collected during the November 2013 investigation, when combined with the analytical results of prior investigations, allow for the full delineation of the lateral extent of cPAH contamination associated with the former fueling area/USTs, as well as confirmation that lead contamination is limited to the immediate vicinity of the former UST. Figure 2 presents the inferred lateral extent of cPAH contamination associated with this area.

Existing soil cap/cover

Two of the five composite soil samples collected between 0 and 6 feet bgs indicated the presence of arsenic and lead in excess of MTCA Method A CULs. As a result, the 0-to-6-foot-bgs layer of soil cannot be considered alone as a cap for deeper residual contamination, resulting in the need for institutional controls associated with redevelopment to be implemented at the Property.

Groundwater

Analyses of groundwater samples collected from piezometer PZ1 and boring GP18, both of which are located outside the landfill boundaries, did not indicate the presence of petroleum hydrocarbons, while samples collected from piezometers PZ2 and PZ3, located within the landfill boundaries, did indicate the presence of diesel and lube oil in excess of the MTCA Method A CUL. The results indicate that impacts in groundwater originate from the landfill and not from soil impacts on the non-landfill portion of the Property.

Next steps

Soil impacts have been defined on the non-landfill portion of the Property. The cleanup implementation strategies described in the focused characterization letter (MFA, 2011b) indicate that splitting the parcel based on the landfill boundary and mitigating the chemicals of concern in the non-landfill portion of the Property is a valid approach. Engineering and institutional controls and soil management should be considered during any redevelopment strategy implementation.

cPAHs have been laterally and vertically defined in the vicinity of the former fueling UST area. Soil impacts in the vicinity of the former heating oil UST are minimal and localized.

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Groundwater is impacted on the non-landfill portion of the Property through migration from the landfill portion of the Property. Metals impacts exist in the uppermost 6 feet of the existing soil cap material at the Property. The most likely remedial options for the non-landfill parcel would be an environmental covenant restricting groundwater use; requiring vapor mitigation for buildings; and implementation of a soil management plan for impacted soil, including a cap.

Sincerely,

cc:

Maul Foster & Alongi, Inc.

Justin L. Clary, PE Principal Engineer

Attachments: Limitations References Tables Figures A—Soil boring logs B—Laboratory data report C—Data validation memorandum

Kyle Roslund Project Geologist

Mary Monahan, Washington State Department of Ecology Matthew Durkee, Washington State Department of Ecology The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

The purpose of an environmental assessment is to reasonably evaluate the potential for or actual impact of past practices on a given Property area. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an exhaustive analysis of each conceivable issue of potential concern. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to exclude the presence of hazardous materials at a given Property. If hazardous conditions have not been identified during the assessment, such a finding should not, therefore, be construed as a guarantee of the absence of such materials on the Property.

Environmental conditions that cannot be identified by visual observation may exist at the Property. Where subsurface work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

Except where there is express concern of our client, or where specific environmental contaminants have been previously reported by others, naturally occurring toxic substances, potential environmental contaminants inside buildings, or contaminant concentrations that are not of current environmental concern may not be reflected in this document.

B&A. 1981. Soil investigation. Prepared for Chelan County Public Utility District. Budinger & Associates, Spokane, Washington. December 2.

E&E. 2000. Wenatchee landfill targeted brownfield assessment report. TDD: 98-11-0007. Contract: 68-W-0008. Prepared for U.S. Environmental Protection Agency. Ecology and Environment, Inc. June.

Ecology. 1995. Guidance on sampling and analysis methods. Publication No. 94-49. Washington State Department of Ecology Toxics Cleanup Program. January.

MFA. 2011a. Phase I environmental site assessment. Appendix B, subsurface evaluation. Prepared for City of Wenatchee Department of Public Works. Maul Foster & Alongi, Inc. August 31.

MFA. 2011b. Focused site characterization—25 North Worthen Street property. Prepared for City of Wenatchee Department of Public Works. Maul Foster & Alongi, Inc. December 9.

MFA. 2013. City of Wenatchee Public Works data gaps evaluation—25 North Worthen Street property. Prepared for City of Wenatchee Department of Public Works. Maul Foster & Alongi, Inc. October 3.

TABLES



	Location:		GP11		GP	12	GP1	3		GP14	
Sam	ple Name:	GP11-COMP	GP11-S-13	GP11-S-17.5	GP12-S-7	GP12-S-11	GP13-S-10	GP13-S-13	GP14-COMP	GP14-S-7.5	GP14-S-11.5
	tion Date:	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013		11/05/2013	11/05/2013
Collection Dep			13	17.5	7	11	10	13	,	7.5	11.5
	MTCAA		-	-			-			-	-
Total Metals (mg/kg)	-										
Arsenic	20	10.2							30.3		
Lead	250	38.1							190		
Volatile Organic Compound	s (mg/kg)										
Benzene	0.03		0.064	0.025 UJ	0.029	0.022 UJ	0.018 U	0.021 UJ	0.0279 U	0.019 U	0.022 UJ
Ethylbenzene	6		0.17 U	0.25 UJ	0.2 U	0.22 UJ	0.18 U	0.21 UJ	0.112 U	0.19 U	0.22 UJ
m,p-Xylene	9		0.51 U	0.75 UJ	0.59 U	0.66 UJ	0.53 U	0.64 UJ	0.335 U	0.57 U	0.65 UJ
Toluene	7		0.17 U	0.25 UJ	0.2 U	0.22 UJ	0.18 U	0.21 UJ	0.112 UJ	0.19 U	0.22 UJ
Polychlorinated Biphenyls (m	ng/kg)										
Aroclor 1016	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1221	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1232	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1242	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1248	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1254	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1260	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1262	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Aroclor 1268	NV	0.000372 U	0.000379 U		0.000387 U		0.000393 U			0.00039 U	
Total PCBs	1	ND	ND		ND		ND			ND	
cPAHs (mg/kg)											
Benzo(a)anthracene	NV	0.00744 U	0.00759 U		0.507	0.00758 U	0.0109		0.00745 U	0.00781 U	
Benzo(a)pyrene	0.1	0.00744 U	0.00759 U		0.668	0.00895	0.0141		0.00883	0.00781 U	
Benzo(b)fluoranthene	NV	0.00988	0.00759 U		0.611	0.00919	0.0158		0.00891	0.00781 U	
Benzo(k)fluoranthene	NV	0.00744 U	0.00759 U		0.164	0.00758 U	0.00788 U		0.00745 U	0.00781 U	
Chrysene	NV	0.0115	0.00874		0.584	0.0104	0.0162		0.00745 U	0.00781 U	
Dibenzo(a,h)anthracene	NV	0.00744 U	0.00759 U		0.101	0.00758 U	0.00788 U		0.00745 U	0.00781 U	
Indeno(1,2,3-cd)pyrene	NV	0.00744 U	0.00759 U		0.372	0.00758 U	0.00788 U		0.00745 U	0.00781 U	
CPAH TEQ	0.1	0.0063	0.0058		0.85	0.011	0.018		0.011	ND	
ncPAHs (mg/kg)											-
1-Methylnaphthalene	NV	0.0188	0.00759 U		0.0212	0.0138	0.155		0.00989	0.0274	
2-Methylnaphthalene	NV	0.0174	0.00759 U		0.0159	0.0157	0.216		0.00921	0.0285	
Acenaphthene	NV	0.00744 U	0.00759 U		0.024	0.0112	0.0161		0.00745 U	0.00781 U	
Acenaphthylene	NV	0.00744 U	0.00759 U		0.151	0.00758 U	0.00788 U		0.00745 U	0.00781 U	
Anthracene	NV	0.00744 U	0.00759 U		0.235	0.00758 U	0.0121		0.00745 U	0.00781 U	
Benzo(ghi)perylene	NV	0.00919	0.00906		0.504	0.0122	0.0157		0.0206	0.00781 U	
Fluoranthene	NV	0.0107	0.0101		0.86	0.0126	0.027		0.0108	0.00872	

	Location:		GP11		GP	12	GP1	3		GP14	
Sa	mple Name:	GP11-COMP	GP11-S-13	GP11-S-17.5	GP12-S-7	GP12-S-11	GP13-S-10	GP13-S-13	GP14-COMP	GP14-S-7.5	GP14-S-11.5
Coll	ection Date:	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013	11/05/2013
Collection D	epth (ft bgs):		13	17.5	7	11	10	13		7.5	11.5
	MTCA A										
Fluorene	NV	0.01	0.00759 U		0.0456	0.017	0.024		0.00745 U	0.00937	
Naphthalene	5	0.0101	0.00759 U		0.0132	0.00758 U	0.0532		0.00906	0.0148	
Phenanthrene	NV	0.0301	0.0192		0.298	0.0411	0.0646		0.0133	0.0166	
Pyrene	NV	0.0285	0.0183		1.29	0.0343	0.0466		0.0208	0.0152	
NWTPH-HCID											
Diesel	NV	ND	DETECT		DETECT		DETECT		DETECT	DETECT	
Gasoline	NV	ND	ND		ND		ND		ND	ND	
Kerosene	NV	ND	ND		ND		ND		ND	ND	
Lube Oil	NV	DETECT	DETECT		DETECT		DETECT		DETECT	DETECT	
Mineral Spirits	NV	ND	ND		ND		ND		ND	ND	
NWTPH-Dx (mg/kg)											
Diesel	2000	46.5 J	137 J	87.1 J	162 J	463 J	114 J	149 J	51.9 J	116 J	53.1 J
Lube Oil	2000	137	277	254	342	567 J	192	276	216	211	132
TPH	2000	183.5 J	414 J	341.1 J	504 J	1030 J	306 J	425 J	267.9 J	327 J	185.1 J

	Location:	GP	15	GP16		GP17		GP19	GP2	20	GP21	GP22
Sami	ple Name:	GP15-COMP	GP15-S-14	GP16-S-14	GP17-COMP	GP17-S-12.5	GP17-S-16	GP19-S-16	GP20-COMP	GP20-S-16	GP21-S-16	GP22-S-16
	tion Date:	11/05/2013	11/05/2013	11/05/2013	11/06/2013	11/06/2013	11/06/2013	11/05/2013	11/06/2013		11/05/2013	
Collection Dep			14	14		12.5	16	16		16	16	16
·	MTCA A							I				I
Total Metals (mg/kg)	-											
Arsenic	20	68.4			2.08 U				16			
Lead	250	313			23.2		2.14 U	2.24	68	3.21	2 U	10.1
Volatile Organic Compounds	s (mg/kg)											
Benzene	0.03											
Ethylbenzene	6											
m,p-Xylene	9											
Toluene	7											
Polychlorinated Biphenyls (m	ng/kg)											
Aroclor 1016	NV	0.00037 U			0.000346 U							
Aroclor 1221	NV	0.00037 U			0.000346 U							
Aroclor 1232	NV	0.00037 U			0.000346 U							
Aroclor 1242	NV	0.00037 U			0.000346 U							
Aroclor 1248	NV	0.00037 U			0.000346 U							
Aroclor 1254	NV	0.00037 U			0.000346 U							
Aroclor 1260	NV	0.00037 U			0.000346 U							
Aroclor 1262	NV	0.00037 U			0.000346 U							
Aroclor 1268	NV	0.00037 U			0.000346 U							
Total PCBs	1	ND			ND							
cPAHs (mg/kg)												
Benzo(a)anthracene	NV	0.00741 U		0.00719 U	0.0451	0.00767 U			0.00729 U			
Benzo(a)pyrene	0.1	0.00741 U		0.00719 U	0.062	0.00767 U			0.00967			
Benzo(b)fluoranthene	NV	0.00741 U		0.00719 U	0.0707	0.00767 U			0.0106			
Benzo(k)fluoranthene	NV	0.00741 U		0.00719 U	0.0215	0.00767 U			0.00729 U			
Chrysene	NV	0.00741 U		0.00719 U	0.0587	0.00767 U			0.00729 U			
Dibenzo(a,h)anthracene	NV	0.00741 U		0.00719 U	0.0161	0.00767 U			0.00729 U			
Indeno(1,2,3-cd)pyrene	NV	0.00741 U		0.00719 U	0.0415	0.00767 U			0.00729 U			
CPAH TEQ	0.1	ND		ND	0.082	ND			0.012			
ncPAHs (mg/kg)												
1-Methylnaphthalene	NV	0.00741 U		0.00719 U	0.00694 U	0.00767 U			0.00729 U			
2-Methylnaphthalene	NV	0.00859		0.00719 U	0.00915	0.00767 U			0.00729 U			
Acenaphthene	NV	0.00741 U		0.00719 U	0.00694 U	0.00767 U			0.00729 U			
Acenaphthylene	NV	0.00741 U		0.00719 U	0.0169	0.00767 U			0.00729 U			
Anthracene	NV	0.00741 U		0.00719 U	0.0222	0.00767 U			0.00729 U			
Benzo(ghi)perylene	NV	0.00741 U		0.00731	0.061	0.00767 U			0.0139			
Fluoranthene	NV	0.00988		0.00719 U	0.0937	0.00767 U			0.00729 U			

	Location:	GP	15	GP16		GP17		GP19	GP	20	GP21	GP22
Sam	ple Name:	GP15-COMP	GP15-S-14	GP16-S-14	GP17-COMP	GP17-S-12.5	GP17-S-16	GP19-S-16	GP20-COMP	GP20-S-16	GP21-S-16	GP22-S-16
Collec	ction Date:	11/05/2013	11/05/2013	11/05/2013	11/06/2013	11/06/2013	11/06/2013	11/05/2013	11/06/2013	11/06/2013	11/05/2013	11/06/2013
Collection Dep	oth (ft bgs):		14	14		12.5	16	16		16	16	16
	MTCA A											
Fluorene	NV	0.00741 U		0.00719 U	0.00797	0.00767 U			0.00729 U			
Naphthalene	5	0.0232		0.00719 U	0.0127	0.00767 U			0.00729 U			
Phenanthrene	NV	0.0205		0.00719 U	0.0873	0.00767 U			0.0108			
Pyrene	NV	0.0122		0.00719 U	0.142	0.00767 U			0.0136			
NWTPH-HCID												
Diesel	NV	ND			ND				DETECT			
Gasoline	NV	ND			ND				ND			
Kerosene	NV	ND			ND				ND			
Lube Oil	NV	ND			ND				DETECT			
Mineral Spirits	NV	ND			ND				ND			
NWTPH-Dx (mg/kg)												
Diesel	2000		16.6 U			17.2 U			27.7 J			
Lube Oil	2000		55.3 U			57.5 U			127 J			
ТРН	2000		ND			ND			154.7 J			

NOTES:

-- = not analyzed.

cPAH = carcinogenic polycyclic aromatic hydrocarbon.
cPAH TEQ = cPAH toxic equivalency quotient.
ft bgs = feet below ground surface.
J = Result is an estimated value.
mg/kg = milligrams per kilogram.
MTCA = Model Toxics Control Act.
MTCA A = MTCA Method A unrestricted land use screening values.
ncPAH = noncarcinogenic polycyclic aromatic hydrocarbon.
ND = not detected.
NV = no value.
NWTPH Dx = Northwest Total Petroleum Hydrocarbons—diesel.
NWTPH-HCID = Northwest Total Petroleum Hydrocarbon Identification.
Total PCBs = sum of polychlorinated biphenyls Aroclors. Non-detect results are not summed.

Detections that exceed MTCA screening level values are in **bold** font. Non-detect results are not evaluated against MTCA screening level values.

TPH = Total petroleum hydrocarbons calculated using both diesel and lube oil range.

U = Result is non-detect at or above method reporting limit.

UJ = Result is non-detect at or above method reporting limit. Reported value is estimated.

	Location:	GP18	PZ1	PZ2	PZ3					
San	nple Name:	GP18-W	PZ1-W	PZ2-W	PZ3-W					
Colle	ction Date:	11/06/2013	11/05/2013	11/07/2013	11/06/2013					
	MTCA A									
NWTPH-HCID										
Diesel	NV	ND	ND	DETECT	DETECT					
Gasoline	NV	ND	ND	ND	ND					
Kerosene	NV	ND	ND	ND	ND					
Lube Oil	NV	ND	ND	DETECT	DETECT					
Mineral Spirits	NV	ND	ND	ND	ND					
NWTPH-Dx (µg/L)										
Diesel 500 4110 J 1950 J										
Lube Oil 500 3490 J 1740 J										
TPH	500			7600 J	3690 J					
NOTES:										
Detections that exceed MTCA screening lev	el values are ir	n bold font.								
= not analyzed.										
J = Result is an estimated value.										
MTCA = Model Toxics Control Act.										
MTCA A = MTCA Method A unrestricted land	l use screening	values.								
ND = the result is non-detect.										
NWTPH-Dx = total petroleum hydrocarbons-	-diesel and lub	e oil.								
NWTPH-HCID = Hydrocarbon Identification.										
μ g/L = micrograms per liter (parts per billion)										
TPH = Total petroleum hydrocarbons calcula	ated using both	diesel and lube	oil range.							

FIGURES





Figure 1 Site Features and Investigation Locations

City of Wenatchee Wenatchee, Washington

Legend

- 2000 Sample Location
- 2011 Sample Locations
- Geoprobe Boring
- Test Pit
- Soil Gas Sample
- Piezometer

2013 Investigation Locations

- Geoprobe (PAHs)
- Geoprobe (HCID) •
- Geoprobe (Lead) •
- Groundwater Sample (TPH) \bigcirc

Landfill Boundary (dashed where approximate)

Measured Landfill Area

Former USTs

- Oil Water Separator
 - Chelan County Taxlots

Notes:

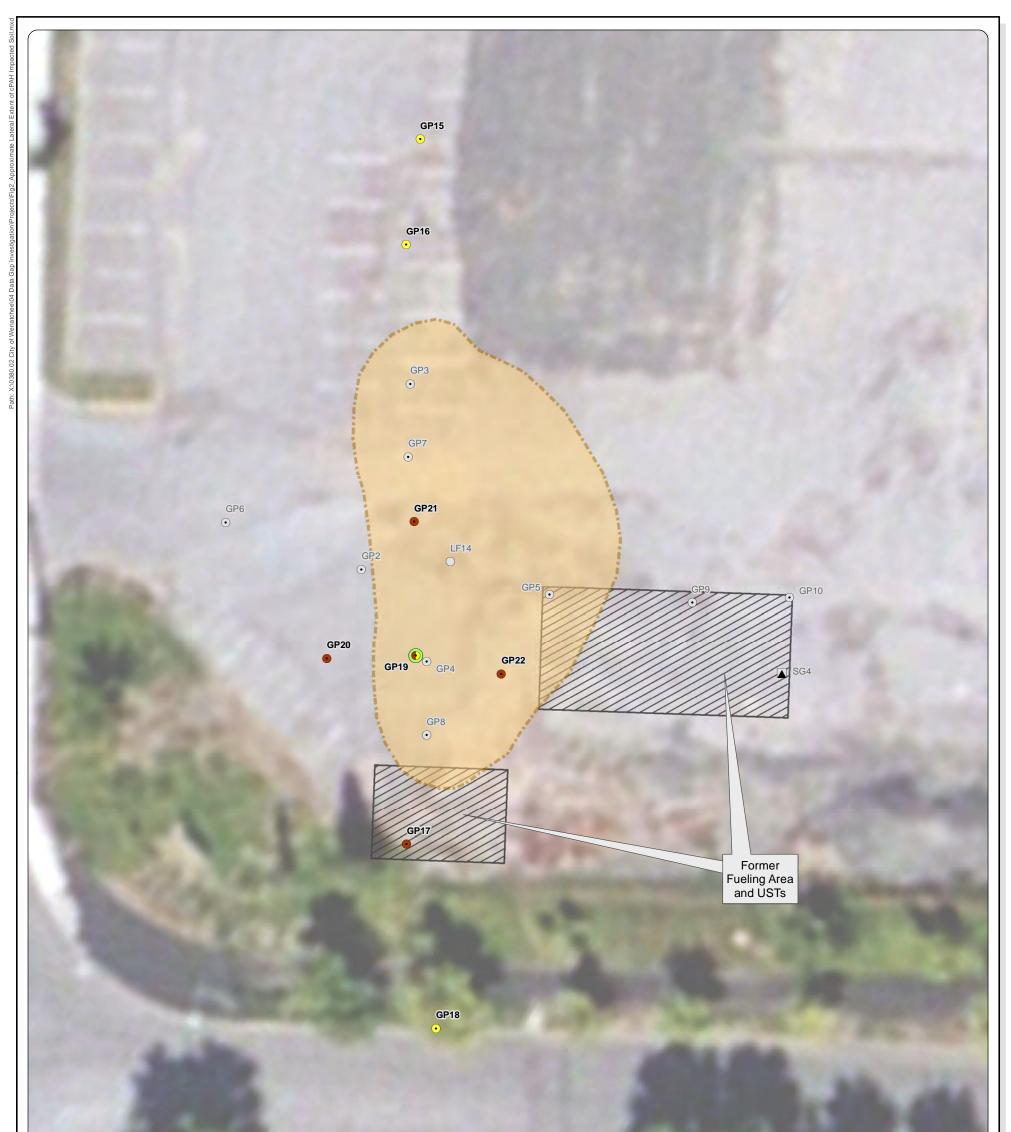
- 1. HCID = Hydrocarbon identification
- 2. PAHs = Polycyclic aromatic hydrocarbons
 3. TPH = Total petroleum hydrocarbons
- 4. USTs = Underground storage tanks



Source: Aerial photograph obtained from Esri ArcGIS Online; taxlots obtained from Chelan ArcGIS Online; taxlots obtained from Cretan County; 2000 sample location from targeted brownfield assessment conducted by Ecology & Environment, Inc. and is approximate; 2011 and 2013 sample locations surveyed by Maul Foster & Alongi, Inc. using GeoXH 2005.



This product is for informational purposes and may not have been prepared for, or be suitable for legal engineering, or surveying purposes. Users of this information should review or for legal, engir consult the pri is information should review or rtain the usability of the informa



Source: Aerial photograph obtained from Esri ArcGIS Online; 2000 sample location from targeted brownfield assessment conducted by Ecology & Environment, Inc. and is approximate; 2011 and 2013 sample locations surveyed by Maul Foster & Alongi, Inc. using GeoXH 2005.

Notes:

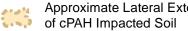
- PAHS = Polycyclic aromatic hydrocarbons
 cPAH = Carcinogenic polycyclic aromatic hydrocarbons
- 3. TPH = Total petroleum hydrocarbons
- 4. USTs = Underground storage tanks



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Legend

7777 Former UST



Approximate Lateral Extent

Sample and Investigation Locations

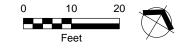
- 2013 INVESTIGATION LOCATIONS 2000 Sample Location
- 2011 SAMPLE LOCATION
 - ulletGeoprobe Boring

 \bigcirc

- Soil Gas Sample
- Geoprobe (PAHs/Lead) lacksquare
 - Geoprobe (PAHs)
 - Geoprobe (Lead) •
 - Groundwater Sample (TPH) ()

Figure 2 Approximate Lateral Extent of **cPAH Impacted Soil**

City of Wenatchee Wenatchee, Washington



ATTACHMENT A

SOIL BORING LOGS



Mau	I Foster &	Alongi,	Inc.		Project N 0380.0		er	Well N GF	umber	Sheet 1 of 1
Proje Stan Drille Geo	ect Name ect Location t/End Date er/Equipment logist/Engineer nple Method	11/5/13 to	Worthe 11/5/1 oil and /idoure	en Stre 3 Water	n Street, Wenatchee, WA ? Vater (Marcus)/Geoprobe 6600/Truck Mounted				TOC Elevation (fee Surface Elevation (f Northing Easting Hole Depth Outer Hole Diam	t)
GS)	Well Details		ا ک ^و ا	ample	Data				Soil Description	1
Uepun (feet, BGS)	Detaile	Interval Percent Recoverv	Collection Method 6	Number	Name (Type)	Blows/6"	Lithologic Column			
1 2 2		1009	6 GP					mottling; 80%		rown with reddish-brown ne to coarse, sub-angular to
3 4 5		1009	6 GP		GP11-Comp			@ 3.0 feet: Green	ish-gray.	
6 7 8 9								low plasticity;	LT with GRAVEL (N 10% gravel, fine to c race sand; moist.	IL); very dark gray; 90% fines, coarse, subangular to
10 11 12		1009	6 GP					@ 12.0 feet: Medi	ım wood debris.	
13 14 15 16		[—] 100%	6 GP		GP11-S-13		⊢ , ⊢ , ← , ⊢ , −			; 100% fines, low plasticity; gular to subrounded; moist.
17 18 19					GP11-S-17.5	;				
20								subangular to	GRAVEL (GP); white subrounded; dry. = 20.0 feet below gi	and green; 100% gravel, fine round surface.
NOTE								ble water. (2) Soil san 5 6.0 feet below grour		above and below depth provided i

laul Foste	r & Alongi, Inc	Project Numb 0380.02.04		Well Number GP12	Sheet 1 of 1
Project Name Project Location Start/End Date Driller/Equipme Geologist/Engir Sample Method	11/5/13 to 11/5/ nt Pacific Soil and eer Andrew Vidoui	hee hen Street, Wenatchee, V 13 I Water (Marcus)/Geopro	WA	TOC Elevation (fe Surface Elevation Northing	eet)
lebut (feet, BGS) (feet, BGS)	si Interval Percent Recovery Collection	Sample Data	Lithologic Column	Soil Descripti	on
1 2 3 4	100% GF			to 5.0 feet: GRAVELLY SILT (ML); 20% gravel, medium to coarse, s sand; dry.	
5 6 7 8 9	_ 100% GF	, GP12-S-7	5.0	0 to 13.5 feet: SILT (ML); very darl mottling; 95% fines, low plasticit subangular to subrounded; trace	y; 5% gravel, fine to medium,
10 11 12	_ 100% GF	, GP12-S-11	œ	11.0 feet: slight organic-like odor.	
13		GP12-S-13.5		8.5 to 15.0 feet: SILT (ML); very da trace gravel, fine to medium; mo	
15 💥	⊗		Tc	otal boring depth = 15.0 feet below	ground surface.
	hole was backfilled with 3 name. (3) GP = Geoprob		ated with potable	water. (2) Soil sample collected 0.5 fee	at above and below depth provided in

Name Location d Date quipment st/Engineer Method Well Details	11/5/13 to 1 Pacific Soil Andrew Vic Direct Push	orthen St 1/5/13 and Wate lourek	0380.02. treet, Wenatchee er (Marcus)/Geop le Data	probe 6600/Tru probe 6600/Tru Blows/e, Column Colu	GP13 TOC Elevation (feet Surface Elevation (f Northing Hole Depth Outer Hole Diam Soil Description 0 to 0.5 feet: GRAVEL FILL; dark reddi 0.5 to 2.0 feet: SILTY GRAVEL (GM); g fines, low plasticity; 60% gravel, m dry. 2.0 to 15.0 feet: SILT with GRAVEL (M fines, low plasticity; 10% gravel, m flecks; dry.	feet) 15.0-feet 2.25-inch ish-brown; dry. greenish gray and white; 40% edium to coarse, subangular; 1L); dark greenish-gray; 90%
	100%	Collectio Method Number			0 to 0.5 feet: GRAVEL FILL; dark reddi 0.5 to 2.0 feet: SILTY GRAVEL (GM); g fines, low plasticity; 60% gravel, m dry. 2.0 to 15.0 feet: SILT with GRAVEL (M fines, low plasticity; 10% gravel, m	ish-brown; dry. greenish gray and white; 40% edium to coarse, subangular; IL); dark greenish-gray; 90%
	100%				 to 2.0 feet: SILTY GRAVEL (GM); g fines, low plasticity; 60% gravel, m dry. to 15.0 feet: SILT with GRAVEL (M fines, low plasticity; 10% gravel, m 	greenish gray and white; 40% edium to coarse, subangular; IL); dark greenish-gray; 90%
	- 100%	GP GP	GP13-S-10		@ 7.5 feet: 1-inch red lens of fine grave	el.
			GP13-S-13		@ 13.5 feet: 1-inch lens, very dark bro	wn, light chemical-like odor.
			Gr 13-3-13		Total boring depth = 15.0 feet below gr	round surface.
) Borehole was backfilled with 3/4-incl imple name. (3) GP = Geoprobe.) Borehole was backfilled with 3/4-inch bentonite chips hy	Borehole was backfilled with 3/4-inch bentonite chips hydrated with potable	GP13-S-13 GP13-S-15

Agul Eastar &	Alongi Inc		Borehole Log/Well Cons Well Number	Sheet
laul Foster &		Project Number 0380.02.04	GP14	Sheet 1 of 1
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	11/5/13 to 11/5/1	en Street, Wenatchee, WA 3 Water (Marcus)/Geoprobe 6600/Tı	TOC Elevation (fee Surface Elevation Northing Easting Hole Depth Outer Hole Diam	
Well Details	Interval Percent Recovery Collection Soldection	ample Data <i>n</i> mp et <i>Name (Type)</i> <i>Name (Type)</i> <i>Name (Type)</i>	Soil Description	n
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	100% GP	GP14-Comp	 0 to 1.0 feet: SILTY GRAVEL (GM); v. nonplastic; 60% gravel, medium, 1.0 to 7.0 feet: SILT with GRAVEL (M plasticity; 15% gravel, fine to coal @ 4.0 feet: Greenish-gray. 7.0 to 15.0 feet: SILT (ML); Greenish-trace gravel; moist. 7.0 to 15.0 feet: SILT (ML); Greenish-trace gravel; moist. 	subangular to subrounded; dry. L); dark brown; 85% fines, low se, subangular; moist. gray; 100% fines, low plasticity;

	1			
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	City of Wenatchee 25 North Worthen Str 11/5/13 to 11/5/13 Pacific Soil and Wate Andrew Vidourek Direct Push	0380.02.04 reet, Wenatchee, WA r (Marcus)/Geoprobe 6600/Tr	GP15 TOC Elevation (feet) Surface Elevation (feet Northing Uck Mounted Easting Hole Depth Outer Hole Diam	1 of 1) 15.0-feet 2.25-inch
Well Details	Interval Percent Recovery Collection Method Number	a Data Name (Type) Name (Type)	Soil Description	
1 2 3 4 5	100% GP	GP15-Comp	0 to 5.0 feet: SILT with GRAVEL (ML); da 10% gravel, medium, subangular to s 5.0 to 7.0 feet: NO RECOVERY.	
6 7 8 9 10	_ 40% GP		7.0 to 10.0 feet: SILT with GRAVEL (ML); 80% fines, nonplastic; 20% gravel, m subrounded; dry. 10.0 to 13.0 feet: NO RECOVERY.	brown with white and red; edium, subangular to
11 12 13 14		GP15-S-14	13.0 to 15.0 feet: SILTY GRAVEL (GM); g fines; 70% gravel, medium to coarse,	
			Total boring depth = 15.0 feet below groui	nd surface.

Maul Foster &	Alongi, li	nc.	Project I		-		lumber	Sheet
	•		0380.0	02.04		Gł	216	1 of 1
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	11/5/13 to 1	orthen S 1/5/13 and Wat lourek	treet, Wenatch ter (Marcus)/Ge			uck Mounted	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Hole Depth Outer Hole Diam	15.0-feet 2.25-inch
		0.0.000	le Data				Soil Description	2120 1101
Well Details (Leet BCS)	Interval Percent Recovery	Collection Method S		Blows/6"	Lithologic Column			
1 2 3 4 5 6 7 8 9 10 11 12	60%	GP GP GP	GP16-S-4			0.5 to 5.0 feet: GF nonplastic; 20 5.0 to 7.0 feet: NC 7.0 to 8.0 feet: GF nonplastic; 20 dry. 8.0 to 10.0 feet: G brown; 15% fi	% fine to medium, suban RECOVERY. % gravel, fine to medium RAVEL with SILT (GW-G nes, nonplastic; 85% grav angular; trace rock flour	reddish-brown; 80% fine gular to angular; dry. reddish-brown; 80% fine , subangular to angular; (M); green, white and vel, fine to coarse.
13 14 15			GP16-S-14			12.5 to 15.0 feet: . dry.	SILT (ML); brown; 95% fil	nes, nonplastic; 5% sand,
						Total boring depth	= 15.0 feet below ground	d surface.
	was backfilled w e. (3) GP = Geop		h bentonite chips	hydrate	d with pota	ble water. (2) Soil sar	nple collected 0.5 feet above	e and below depth provided i

Maul Foster & Alongi, Inc. Project Number Project Name Pr					Borehole Log/Well Cor	struction
Project Name Bind ToD Date Dilard Equipment GeologitFigner Geolog	Maul Foster 8	Alongi, Inc.	-		Well Number GP17	Sheet 1 of 2
1 20% GP 1 20% GP 2 3 60% 3 60% GP 4 5 60% 6 60% GP 10 10 to 2.5 feet: SANDY GRAVEL Y SILT (ML); dark brown; 5% fines,	Project Location Start/End Date Driller/Equipment Geologist/Engineer	25 North Worthe 11/6/13 to 11/6/1 Pacific Soil and Andrew Vidoure	ee en Street, Wenatchee, 3 Water (Marcus)/Geop	, WA	TOC Elevation (fe Surface Elevation Northing uck Mounted Easting Hole Depth	(feet) 21.0-feet
1 20% GP 1 0 to 0.5 feet: GRAVELLY SILT (ML); dark brown; 70% fines, nonplastic; 30% gravel, subrounded to rounded; trace rootets; monplastic; 30% gravel, subrounded to rounded; trace rootets; monplastic; 30% gravel, subrounded to rounded; trace rootets; monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.5 to 72.5 feet: SANDY GRAVEL (GW); dark brown; 5% fines, monplastic; 4.7 to 70% fines, nonplastic; 4.7 to 70% sand, fine; 4.7 to 70% fines, 70% sand, fine; 4.5 to 79.5 fines; 2.7 to 70% sand, fine; 4.5 to 79.5 to 79.		<u>ج</u> ج		U	Soil Description	on
1 Image: State in the image: State in th	Depth (freet, BG	Interval Percent Recover Collectio Method	Name (Type)	Lithologi Column		
4 5 6 6 7 6 7 8 9 10 100% GP 100% GP 100% GP 100% GP 11 12 13 14 15 15 100% GP 14 15 16 17 18 19 19 19 10 100% GP 11 1 100% GP 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		20% GP			nonplastic; 30% gravel, subroundry.	
60% GP 60% GP 7 8 9 10 10 10 10 10 10 10 10 10 10			GP17-Comp			
8 9 10 100% GP 11 12 13 12.5 to 14.5 feet: SILT (ML); dark brown; 100% fines, nonplastic; dry. 14 15 15 14.5 to 19.0 feet: SILTY SAND (SM); strong brown; 30% fines; 70% sand, fine; dry. 16 17 18 19		- 60% GP			nonplastic; 40% sand, fine to coa	W); dark brown; 5% fines, arse; 55% gravel, fine to medium
11 100% GP 12 13 13 14 15 100% GP 16 100% GP 17 18 19 GP17-S-16	8					
13 14 14 15 15 100% GP 16 14.5 to 19.0 feet: SILTY SAND (SM); strong brown; 30% fines; 70% sand, fine; dry. 16 17 17 18 19 • • • • • • • • • • • • • • • • • • •	11	[–] 100% GP				
100% GP 16 GP17-S-16 17 GP17-S-16 18 GP17-S-16 19 Image: Second Sec			GP17-S-12.5		12.5 to 14.5 feet: SILT (ML); dark bro	own; 100% fines, nonplastic; dry
18 19 19 19 19 19.0 to 21.0 feet: GRAVELLY SILT (ML); dark grayish-brown; 80% fines; 20% gravel, fine to coarse, subangular to subrounded; dry.		100% GP	GP17-S-16			; strong brown; 30% fines; 70%
19.0 to 21.0 feet: GRAVELLY SILT (ML); dark grayish-brown; 80% fines; 20% gravel, fine to coarse, subangular to subrounded; dry.						
					19.0 to 21.0 feet: GRAVELLY SILT (fines; 20% gravel, fine to coarse	ML); dark grayish-brown; 80% , subangular to subrounded; dry.

Maul Foster & Alongi, Inc.						Proiect I	Numb	er	Borehole Log/Well Construction Well Number Sheet		
			··ə',		Project Number 0380.02.04				GP17	2 of 2	
S)	Well			_ Sa	ample	Data		0	Soil Desci	ription	
Depth (feet, BGS)	Details	val	Percent Recovery	Collection Method C	Number		Blows/6"	Lithologic Column			
Teet,		Interval	Perc	Colle	Mum	Name (Type)	Blow	Colu			
		-			<			01			
X			100%	GP		GP20-S-20		0000			
21											
-									Total boring depth = 21.0 feet bel	low ground surface.	
NOTES	S: (1) Borehole sample name	was ba e. (3) G	ckfilled P = Geo	with 3/4 oprobe	<i>ו-inch t</i> (4) Co	bentonite chips	hydra e colle	ted with potal cted from 0 fr	ble water. (2) Soil sample collected 0.5 6.0 feet below ground surface.	5 feet above and below depth	provided
			200		, 55		20110		given a builder		

				Borehole Log/Well Co	nstruction
Maul Foster &	Alongi, Inc.	Project Nur 0380.02.0		Well Number GP18	Sheet 1 of 2
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	11/6/13 to 11/6/13	n Street, Wenatchee, Vater (Marcus)/Geop	-	TOC Elevation (Surface Elevatio Northing uck Mounted Easting Hole Depth Outer Hole Dian	on (feet) 25.0-feet
	6	mple Data	. U	Soil Descrip	
Meeth (feet, BGS) Details	Interval Percent Recovery Collection Method	Name (Type)	Lithologic Column		
	- 80% GP	GP18-S-7 GP18-S-11		0 to 0.5 feet: GRAVEL FILL. 0.5 to 7.0 feet: GRAVELLY SILT (N 10% sand; 40% gravel, fine to dry. 7.0 to 11.0 feet: SILT (ML); brown; 11.0 to 11.5 feet: SAND (SP); stron	coarse, subangular to subrounded;
- 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 NOTES: (1) Borehole sample name Water level 20. water level ind screen set.	⁻ 100% GP	GP18-S-15		11.5 to 16.0 feet: SILT (ML); strong 16.0 to 17.0 feet: GRAVELLY SILT 30% gravel, fine to coarse, sub 17.0 to 25.0 feet: SANDY GRAVEL	(ML); strong brown; 70% fines; angular to subrounded; dry. (GW); strong brown with white w plasticity; 35% sand, medium;
NOTES: (1) Borehole				le water. (2) Soil sample collected 0.5 fe	eet above and below depth provided in
sample name Water level 20.	1 feet measured us	ing	collected using a	a 4-foot long temporary screen.	
water level ind ∇ screen set.	icator after tempor	ary			

							G	eologic	Borehole Log/Well Construction		
Maul Foster & Alongi, Inc.						Project I 0380. 0	Numb	er	Well Number GP18		Sheet 2 of 2
Interval Method					mple	Data				Description	
et, BG	Details	Interval	Percent Recovery	Collection Method C	Number	Name (Type)	Blows/6"	Lithologic Column			
(fee			Ре Ке	Me Me	Nui	Ivanie (Type)	Blo	COL			
		⊻ –	100%	GP							
21			_								
				GW		GP18-W					
22											
23											
24											
25											
25			Ξ						Total boring depth = 25.0 fe	et below ground	l surface.
										-	

NOTES: (1) Borehole was backfilled with 3/4-inch bentonite chips hydrated with potable water. (2) Soil sample collected 0.5 feet above and below depth provided in sample name. (3) GP = Geoprobe. (4) Groundwater sample collected using a 4-foot long temporary screen.

Water level 20.1 feet measured using water level indicator after temporary screen set.

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Project Name City of Wenatchee TOC Elevation (feet) Project Location 25 North Worthen Street, Wenatchee, WA Surface Elevation (feet) Start/End Date 11/5/13 to 11/6/13 Northing Driller/Equipment Pacific Soil and Water (Marcus)/Geoprobe 6600/Truck Mounted Easting Geologist/Engineer Andrew Vidourek Hole Depth 25.0-feet	Maul Foster &	Alongi, Inc.	Project Number	Borehole Log/Well Cons	Sheet
and back	Project Location Start/End Date Driller/Equipment Geologist/Engineer	25 North Worthe 11/5/13 to 11/6/13 Pacific Soil and I Andrew Vidourel	n Street, Wenatchee, WA 3 Vater (Marcus)/Geoprobe 6600/Tr	Surface Elevation († Northing uck Mounted Easting Hole Depth	eet)
1 100% GP 1 100% GP 2 3 100% GP 3 100% GP 100% GP 4 5 100% GP 2 2 0 1 3 0 feet: GRAVEL FilL: black and dark gray. 3 100% GP 100% GP 0 to 0.5 feet: GRAVEL FilL: black and dark gray. 4 5 100% GP 0 to 0.5 feet: GRAVEL Fill: black and dark gray. 0 to 0.5 feet: GRAVEL Will, dark brown with green, while subangular to angular, dry. 3 100% GP 0 to 0.5 feet: GRAVEL Fill: black and dark gray. 0 to 0.5 feet: GRAVEL Will, dark brown with green, while subangular to angular, dry. 4 5 0 to 0.5 feet: GRAVEL Will, dark brown and white; 100% sand, medium dy. 0 to 0.5 feet: SILT (ML); dark brown and white; 100% sand, medium dy. 10 100% GP 0 to 0.5 feet: SILT (ML); dark brown; 100% fines, nonplastic; dry 11 100% GP 11.5 to 12.0 feet: SILT (ML); dark brown; 100% fines, nonplastic; dry 12 100% GP 11.5 to 12.0 feet: SILT (ML); dark brown; 100% fines, nonplastic; dry 12 100% GP 11.5 to 12.0 feet: SILT with GRAVEL (ML); dark brown; 65% fines.	Well Well Details	nterval Percent Recovery Collection	mple Data	Soil Description	
1 0.5 to 115 feet: GRAVELLY SICT With GRAVEL (ML): dark brown with green, white subargular to angular. dry. 2 0.5 to 115 feet: GRAVELLY SICT With GRAVEL (ML): dark brown with green, white subargular to angular. dry. 3 0.5 to 115 feet: GRAVELLY SICT With GRAVEL (ML): dark brown with green, white subargular to angular. dry. 4 0.5 to 115 feet: GRAVEL (ML): dark brown with green, white subargular to angular. dry. 6 0.5 to 15 feet: SICT (ML): dark brown and white. 100% send. 7 0.5 to 12 0 feet: SICT (ML): dark brown and white. 100% send. 10 100% GP 11 12 0 to 15 5 feet: SICT (ML): dark brown. 100% fines. nonplastic. dry 12 100% GP 13 14 14 15 15 100% GP 16 11.5 to 12 0 feet: SICT (ML): dark brown. 100% fines. nonplastic. dry 14 15 15 100% GP 16 19.5 to 25.0 feet: SICT (ML): dark brown. 85% fines. 17 19.5 to 25.0 feet: SICT with GRAVEL (ML): dark brown. 85% fines. 18 19.5 to 25.0 feet: SICT with GRAVEL (ML): dark brown. 85% fines. 19 19.5 to 25.0 feet: SICT with GRAVEL (ML): dark brown. 85% fines.				0 to 0.5 feet: GRAVEL FILL: black and	dark grav.
9 10 11 100% GP 11 11 12 13 14 15 100% GP 10 100% GP 11.5 to 12.0 feet: SAND (SP); dark brown and while; 100% sand, medium; dy. 12.0 to 19.5 feet: SILT (ML); dark brown; 100% fines, nonplastic; dry 12.0 to 19.5 feet: SILT (ML); dark brown; 100% fines, nonplastic; dry 14 15 100% GP 16 17 18 19 20 NOTES: (1) Borehole was backfilled with 3/4-inch bentonite chips hydrated with potable water. (2) Soil sample collected 0.5 feet above and below depth provided in	2 3 4 5 6			0.5 to 11.5 feet: GRAVELLY SILT (ML) and black gravel; 70% fines; 30% g subangular to angular; dry.	; dark brown with green, white
NOTES: (1) Borehole was backfilled with 3/4-inch bentonite chips hydrated with potable water. (2) Soll sample collected 0.5 feet above and below depth provided in	9 10 11	100% GP			
NOTES: (1) Borehole was backfilled with 3/4-inch bentonite chips hydrated with potable water. (2) Soil sample collected 0.5 feet above and below depth provided in	13 14 15 16 17 18	[–] 100% GP		medium; dry. 12.0 to 19.5 feet: SILT (ML); dark brow	n; 100% fines, nonplastic; dry.
	20			19.5 to 25.0 feet: SILT with GRAVEL (I	ML); dark brown; 85% fines,
			-inch bentonite chips hydrated with potal	ble water. (2) Soil sample collected 0.5 feet a	bove and below depth provided in

						G	eologic l	Borehole Log/Well Con	struction	
Mau	I Foster & A	longi,	Inc.		Project N	Numbe	er	Well Number	Sheet	
	Well			ample	0380.0	J2.04		GP19 Soil Descriptic	2 of 2	
Depth (feet, BGS)	Details	Interval Percent Recovery		Number d	Name (Type)	Blows/6"	Lithologic Column		лт 	
21 22 23 24 25		100%	GP		GP19-S-20			nonplastic; 15% gravel, med	lium, subangular; dry.	

Total boring depth = 25.0 feet below ground surface.

NOTES: (1) Borehole was backfilled with 3/4-inch bentonite chips hydrated with potable water. (2) Soil sample collected 0.5 feet above and below depth provided in sample name. (3) GP = Geoprobe.

	Alongi, Inc.	Project Number	Borehole Log/Well Constr Well Number	Sheet
		0380.02.04	GP20	1 of 2
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	11/6/13 to 11/6/13	n Street, Wenatchee, WA 3 Water (Marcus)/Geoprobe 6600/Tr	TOC Elevation (feet) Surface Elevation (fee Northing uck Mounted Easting Hole Depth Outer Hole Diam	t) 20.0-feet 2.25-inch
S Well	sa Sa	ample Data	Soil Description	
Depth Details (Leet: BCS) (Leet: BCS)	Interval Percent Recovery Collection Method	Name (Type) Rithologic Dollar Name (Type) Rithologic Column		
1 2 3 4 5 6 7 8 9 10	80% GP	GP20-Comp	0 to 11.0 feet: GRAVELLY SILT (ML); da. nonplastic; 30% gravel, fine to coarse dry.	rk brown; 70% fines, e, angular to subrounded;
11 12 13 14 15	- 100% GP		11.0 to 19.0 feet: SILT (ML); strong brown sand, fine; dry.	n; 70% fines, nonplastic; 30
16 17 18 19 20		GP20-S-16	19.0 to 20.0 feet: SIL TY GRAVEL (GM); fines; 70% gravel, fine to coarse, ang rock flour from drilling action; dry.	dark grayish-brown; 30% ular to subrounded; trace
_ 19			fines; 70% gravel, fine to coarse, and	dark grayish-brown; 30% ular to subrounded; trac

. .							Ge	eologio	Borehole Log/Well C	onstruction	
laul	Foster &	Alon	ngi, l	inc.		Project I 0380 .		er	Well Number GP20		Sheet 2 of 2
(SE	Well		4	Sa	mple	Data		<u>.</u>	Soil Desc		
Ueptin (feet, BGS)	Details	Interval	Percent Recovery	Collection Method C	Number ⁻	Name (Type)	Blows/6"	Lithologic Column			
e fe		Int	Pe Re	Ϋ́C	Nn		Blc	Co Co			
									Total boring depth = 20.0 feet be	low ground surface).
OTES	S: (1) Borehole v sample name.	vas bac (3) GP	kfilled ? = Geo	with 3/4 oprobe.	-inch l (4) Co	bentonite chips mposite sampl	hydrat e collec	ed with pota ted from 0	ble water. (2) Soil sample collected 0. o 6.0 feet below ground surface.	5 feet above and belo	w depth provided
	•								-		

Project Location25Start/End Date11/Driller/EquipmentParticleGeologist/EngineerAn	1/5/13 to 1 acific Soil Indrew Vid Frect Push Levent Useoney 100%	orthen S 1/5/13 and Wa lourek	0380.0 Street, Wenatche ater (Marcus)/Ge ple Data Name (Type)	ee, N	AA	GP21 TOC Elevation (feet) Surface Elevation (feet) Northing Easting Hole Depth Outer Hole Diam Soil Description 0 to 7.0 feet: GRAVELLY SILT (ML); dat black gravel; 80% fines, nonplastic; coarse, angular to subangular; dry. @ 4.5 feet: 2-inch lens of white and black	et) 20.0-feet 2.25-inch *k brown soil with white and 20% gravel, medium to
1 2 3 4 5 6 7	100%	A Collection		Blows/6"		0 to 7.0 feet: GRAVELLY SILT (ML); dar black gravel; 80% fines, nonplastic; coarse, angular to subangular; dry.	20% gravel, medium to
1 2 3 4 5 6 7	100%	GP				black gravel; 80% fines, nonplastic; coarse, angular to subangular; dry.	20% gravel, medium to
- 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 - 20 NOTES: (1) Borehole was b sample name. (3) (1)		GP GP	GP21-S-16			7.0 to 12.0 feet: GRAVELLY SILT (ML); black gravel; 70% fines, nonplastic; to subangular; trace rock flour; dry. 12.0 to 19.0 feet: SILT (ML); brown; 100	dark brown soil with white an 30% gravel, coarse, angular
19 20			GP21-S-20			19.0 to 20.0 feet: SILT with GRAVEL (M nonplastic; 10% gravel, medium to o dry.	L); brown; 90% fines, — — — coarse, angular to subangular

		• -					G	eologio	Borehole Log/Well	Construct	on
Maul	Foster &	Alor	ngi, l	nc.		Project I 0380 .		er	Well Number GP21		Sheet 2 of 2
Depth (feet, BGS)	Well Details	Interval	Percent Recovery	Collection Method S	Number du		Blows/6"	Lithologic Column	Soil De	escription	
		-	44	0<	~		Ш	01			
									Total boring depth = 20.0 feet	below ground su	face.
NOTES	: (1) Borehole v sample name.	vas bao	ckfilled	with 3/4-	-inch b	entonite chips	hydrat	ed with pote	ble water. (2) Soil sample collected	l 0.5 feet above and	below depth provided in

								Borehole Lo		
Mau	I Foster &	Along	i, In	C.	Project I 0380.			Well Nu GP		Sheet 1 of 2
Proje Start Drille Geol	ect Name ect Location t/End Date er/Equipment logist/Engineer aple Method	11/6/13	h Wo to 11 Soil a Vido	rthen /6/13 and W	Street, Wenatch ater (Marcus)/G			TOC Elevation (feet) Surface Elevation (feet) Northing Easting Hole Depth 20.0- Outer Hole Diam 2.25-		
GS)	Well Details		2	Sam	nple Data	1.0	dic –		Soil Descriptio	n
Depth (feet, BGS)	Dotailo	Interval Percent	Recove	Method Sau	Name (Type)	Blows/6"	Lithologic Column			
		10	0%	GP				0 to 0.5 feet: GRA	/EL FILL; black an	d dark gray.
_ 1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8 _ 9		- 10	0% (GP				white and blac	k gravel; 70% fines	L); reddish-brown soil with red, s, nonplastic; 30% gravel, fine t ace rock flour from drilling
_ 10 _ 11 _ 12 _ 13 _ 14 _ 15		- o	% (GP				10.0 to 15.0 feet: N	O RECOVERY.	
_ 14 _ 15 _ 16 _ 17 _ 18 _ 19 _ 20 		- 80 -	9% (GP	GP22-S-16				ILTY SAND (SM); 6 sand, fine; dry.	strong brown; 40% fines,
								and white grav	el; 5% fines, nonpl	(SW); dark brown soil with blac astic; 65% sand, fine to mediu
20					GP22-S-20		<u></u>			ngular to subrounded; dry.
NOTE	:S: (1) Borehole sample name				ion bentonite chips	i nydra	itea with potal	ole water. (2) Soll sam	ule collected 0.5 feet	above and below depth provided i

							Ge	eologic	Borehole Log/Well C	onstruction	
Maul	Foster & A	Alor	ngi, l	nc.		Project I 0380 .		er	Well Number GP22	Sheet 2 of 2	
Depth (feet, BGS)	Well Details	Interval	Percent Recovery	Collection Method S	Number and		Blows/6"	L ithologic Column	Soil Desc		
		~	44	0<	~		Ш	10			
									Total boring depth = 20.0 feet be	low ground surface.	
NOTES	: (1) Borehole w sample name.	vas bao (3) GF	ckfilled P = Geo	with 3/4-	-inch b	pentonite chips	hydrat	ed with pota	ble water. (2) Soil sample collected 0.	5 feet above and below depth p	provided in

		Geolo	gic Borehole Log/Well	
Maul Foster &	Alongi, Inc.	Project Number 0380.02.01	Well Number PZ1	Sheet 1 of 2
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method		ee en St	TOC Elevati Surface Elev Northing Easting Hole Depth Outer Hole D	on (feet) 641.42 vation (feet) 641.6 156037.3 1770236.0 29.2-feet
Depth (feet, BGS) (feet, BGS)	Interval Percent Recovery Collection Method &	ample Data	Soil Desc	cription
	100 GP		0.0 to 0.3 feet: ASPHALT; blac	k
$\begin{array}{c} & & & & & & \\ 1 & & & & & & \\ & & & & &$	- 100 GP	2	0.3 to 0.6 feet: SANDY GRAVE	
. 6 . 7 . 8 . 9	- 100 GP	3	dense; moist. 7.1 to 8.0 feet: SILTY SANDY of sand, fine to medium; 60% dry.	gravel, rounded, fine to medium; /EL; dark gray; 30% sand, medium ⁻
10 11 12	- 50 GP	4		
13	30 GF		12.5 to 14.1 feet: SAND; brown dry.	n; 100% sand, medium to coarse;
15			14.1 to 16.0 feet: No Recovery	
16 17 18 19 20	- 100 GP	5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	16.0 to 25.5 feet: SANDY GRA to coarse; 60% gravel, fine	VEL; brownish gray; 40% sand, fine to cobbles, dense.
NOTES:				
$\overline{\sum}$ Observed Wate	er Level during dı	illing.		

J ,	Diject Number Well Number D380.02.01 PZ1 (Type) Soil Description	Sheet 2 of 2
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Soil Description	
_21 _22 _23 _24 _24 _25 _26 _∑		
28 - 25 GP 8 29	25.5 to 25.8 feet: GRANITE; white. 25.8 to 29.16 feel: SANDY GRAVEL; dark gr coarse; 50% gravel, fine to medium; wet.	—————————— ay; 50% sand, fine to
	Refusal: 29.16 feet below ground surface.	

GBLWC W:\GINT\NFROJECTS\0380.02\0380.02.01.GPJ 12/2/10

NOTES:

			gic Borehole Log/Well Cons	
Maul Foster &	Alongi, Inc.	Project Number 0380.02.01	Well Number PZ2	Sheet 1 of 2
Project Name Project Location Start/End Date Driller/Equipment Geologist/Engineer Sample Method	City of Wenatche 25 North Worthe 10/6/2010 to 10/6 Frank S/6600 true Justin Pounds Geoprobe	ee n St	TOC Elevation (feet) Surface Elevation (fee Northing Easting Hole Depth Outer Hole Diam	641.22
		mple Data	Sail Deparintion	
Depth Details	Interval Percent Recovery Collection Method S	Number Data Number Name (Type) BBlows/6"		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	 75 GP 25 GP 0 GP 0 GP 0 GP 	1 0 <td> 0.0 to 0.3 feet: ASPHALT; black. 0.3 to 2.5 feet: SILTY SANDY GRAVEL sand, fine to medium; 60% gravel, f 2.5 to 3.0 feet: SANDY SILT; dark brow damp. 3.0 to 4.0 feet: No Recovery. 4.0 to 5.0 feet: SANDY SILT; dark brow damp. 5.0 to 24.0 feet: No Recovery. 6.0 to 24.0 feet: No Recovery. </td> <td>ine to coarse, angular; dry. n; 70% fines; 30% sand; </td>	 0.0 to 0.3 feet: ASPHALT; black. 0.3 to 2.5 feet: SILTY SANDY GRAVEL sand, fine to medium; 60% gravel, f 2.5 to 3.0 feet: SANDY SILT; dark brow damp. 3.0 to 4.0 feet: No Recovery. 4.0 to 5.0 feet: SANDY SILT; dark brow damp. 5.0 to 24.0 feet: No Recovery. 6.0 to 24.0 feet: No Recovery. 	ine to coarse, angular; dry. n; 70% fines; 30% sand;
18 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8				
NOTES:		- I I I		
$\overline{ar{bar}}$ Observed Wate	er Level during dri	lling.		

Nau	I Foster &	Alo	nai.	Inc		Project N	Ge Jumb	er	Borehole Log/Well Constru	ICTION Sheet
	1					0380.0		1	PZ2	2 of 2
Depth (feet, BGS)	Well Details	16	nt 'eny	Sa q ;tion	mple ັຈ	Data	.9/	ogic nr	Soil Description	
Jepth feet, I		Interval	Percent Recovery	Collection Method S	Number ⁻	Name (Type)	Blows/6"	Lithologic Column		
			0	GP	6					
21			U	GP	0					
21										
22										
23										
24		,			_			<i><u></u></i>		
		-	100	GP	7				24.0 to 27.0 feet: CLAY; light gray; dense;	wet.
25										
26										
27									27.0 to 28.8 feet: SILT; damp.	
28										
			20	GP	8					
29									28.0 to 32.0 feet: No Recovery.	
30										
31										
32										
			55	GP	9				32.0 to 34.3 feet: SANDY SILT; brown; 609 % sand, fine to medium; wet.	6 fines; 40
33										
34										
									34.3 to 36.0 feet: SILT; dark gray; dense; w	
35										
36										
						1 1			Total depth: 36.0 feet below ground surface	
									Total depth. So.o leet below ground surface	<i>.</i>
NOTE	ES:									
<u> </u>				_						
$\overline{\Delta}$	Observed Wate	er Lev	vel dur	ring dr	illing					

Maul Foster & Alongi, Inc. Implet Number 0380.02 of Well Number Project Loadon 1 of 2 Sheet 1 of 2 Project Name Project Loadon StattErd Date DileksGuipmer GeologisExpiner Geol	· · -									Borehole Log/Well Const		
Project Name City at Menatches TOC Elevation (feet) 64.2 Bart/Fad Date 25 Aort Worthen S1 Surface Elevation (feet) 64.2 Differ Equipmer Frank Short On to 105/2010 Host Nummer 1554 Differ Equipmer Frank Short On turk no united Geoprope Easting 177031 Differ Equipmer Sample Date Soil Description 3.25-free Differ Equipmer Sample Date Soil Description 1.1 1.2	Maul Fo	oster &	Alon	gi,	Inc.		•	Numb	er	Well Number	Sheet	
Grad Weil Sample Data Sample Data Sample Data Solid Description 1	Project L Start/End Driller/Eq Geologis	ocation I Date uipment t/Engineer	/orthe o 10/6 00 tru	n St 5/2010	0			Surface Elevation (feet) Northing Easting Hole Depth				
1 50 GP 1 2 50 GP 1 2 21 1 1 2 21 1 1 3 1 1 1 3 1 1 1 1 4 1 1 1 1 1 5 1		Well			s Sa	mple	Data		0			
1 12 13 12 13 12 13 12 13 12 13 12 13 12 13 12 13 12 13 14 15 12 14 16 16 10 14 16 12 12 14 16 12 16 12 16 12 16	Depth (feet, BG	Details	Interval	Recovery	Collectio Method			Blows/6"	Lithologic Column			
2 1				50	GP	1				0.2 to 1.8 feet: SANDY GRAVEL; dark g	ray; 10% fines; 30% sand,	
3 1.4 20 GP 2 4 5 20 GP 2 5 6 12.0 12.0 12.0 12.0 6 7 8 - 0 GP 3 9 10 11 12 60 GP 4 11 12 60 GP 4 12.0 13.8 feet: SILTY SANDY GRAVEL; dark gray, fill; dry. 10 11 12 60 GP 4 12.0 13.8 feet: SILTY SANDY GRAVEL; dark gray, fill; dry. 11 12 60 GP 4 12.0 13.8 feet: SILTY SANDY GRAVEL; dark gray, fill; dry. 13 14 15 13.8 feet: No recovery. 14.4 feet: No recovery. 16 0.15 GP 5 5 feet: No recovery. 14.4 19 19 19 10 16.0 feet: No recovery. 16.4 feet: No recovery. 19 19 19 19 10 16.4 feet: No recovery. 16.4 feet: No recovery.										medium; dry.		
3 4 20 GP 2 5 6 7 6 7 6 7 8 - 0 GP 3 9 10 11 12 60 GP 4 111 12 60 GP 4 12.0 to 13.8 feet: SILTY SANDY GRAVEL; dark gray; fill; dry. 12 60 GP 4 12.0 to 13.8 feet: SILTY SANDY GRAVEL; dark gray; fill; dry. 14 15 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 14.4 to 16.0 feet: No recovery. 16 0.15 GP 5 16.0 to 16.4 feet: FILL dark gray. 17 16.6 to 16.5 feet: RUBBER; black; damp. 16.6 to 16.5 feet: RUBBER; black, moist. 18 19 19 19 10.15										gravel, rounded; dry.	rown; 75% fines; 25%	
5 6 7 8 0 GP 2 6 7 8 0 GP 3 9 10 6 6 7 10 10 10 10 10 11 12 60 GP 4 12 60 GP 4 13 14 15 13.8 to 14.4 feet: SILTY SANDY GRAVEL; dark gray; fill, dry. 14 15.5 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 14 15.6 13.8 to 14.4 feet: No recovery. 16 0.15 GP 5 17 16.6 to 16.5 feet: RUBER; black; damp. 14.4 to 16.5 feet: RUBER; black; damp. 16 16.5 to 16.6 feet: WOODY DEBRIS; molet. 16.6 to 20.0 feet: No Recovery.										,		
6 7 8 9 10 6 11 12 12 60 13 60 14 13 15 14 16 0.15 60 6 50 6 6 13.8 to 14.4 feet. SILTY SANDY GRAVEL; dark gray; fill; dy. 14 15 15 14.4 to 16.0 feet. No recovery. 16 0.15 6 5 17 16.0 to 16.4 feet. FILL dark gray. 16 17.5 to 16.5 feet. WOODY DEBRIS; black. 17 16.6 to 20.0 feet. No Recovery. 18 19 20 10				20	GP	2				4.0 to 4.8 feet: SILTY SANDY GRAVEL; (wood); 20% fines; 20% sand, fine to	dark brown; with organics medium; 60% gravel; dry	
7 8 0 GP 3 9 10 11 12 12.0 to 13.8 feet: SILTY SANDY GRAVEL; dark gray; fill; dry. 11 60 GP 4 $0^{\circ} \circ $	5									4.8 to 12.0 feet: No Recovery.		
8 9 0 GP 3 9 10 11 12 60 GP 4 12 60 GP 4 12.0 to 13.8 feet: SILTY SANDY GRAVEL; dark gray; fill; dry. 13 0 0 0 0 0 14 15 12.0 to 13.8 feet: SILTY SANDY GRAVEL; dark gray; fill; dry. 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 15 16.0 to 16.4 feet: No recovery. 16.0 to 16.4 feet: No recovery. 16 0.15 GP 5 17 16.5 to 16.6 feet: No Recovery. 16.5 to 20.0 feet: No Recovery. 18 19 10 10 10 19 20 11 11 11	6											
9 0 GP 3 10 11 12 60 GP 4 12 60 GP 4 12.0 to 13.8 feet: SILTY SANDY GRAVEL; dark gray; fill; dry. 13 0 0 0 0 0 14 14 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 14.4 to 16.0 feet: No recovery. 16 0.15 GP 5 16.0 to 16.4 feet: FILL. dark gray. 17 16.5 to 16.6 feet: WOODY DEBRIS; moist. 16.6 to 20.0 feet: No Recovery. 18 19 20 14.4 to 16.0 feet: No Recovery.	7											
10 11 11 12 12 60 GP 13 0 0 0 14 0 0 0 15 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 14.4 to 16.0 feet: No recovery. 16 0.15 GP 5 17 16.4 to 16.5 feet: RUBBER; black. 16.5 to 16.6 feet: WOODY DEBRIS; moist. 18 19 20 10	8			0	GP	3						
11 60 GP 4 12 60 GP 4 13 0.15 GP 4 14 13.8 to 14.4 feet: SILTY SANDY GRAVEL; dark gray, fill; dry. 15 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 16 14.4 to 16.0 feet: No recovery. 16 16.0 to 16.4 feet: FILL. dark gray. 17 16.4 to 16.5 feet: WOODY DEBRIS; moist. 18 19 20 11	9											
13 60 GP 4 13 14 15 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 15 16 0.15 GP 5 16 0.15 GP 5 16.0 to 16.4 feet: FILL. dark gray. 17 16.4 to 16.5 feet: RUBBER; black. 16.5 to 16.6 feet: WOODY DEBRIS; moist. 18 19 20 16.6 to 20.0 feet: No Recovery.	10											
60 GP 4 13 14 14 15 16 0.15 17 16.4 to 16.0 feet: No recovery. 18 16.5 to 16.6 feet: WOODY DEBRIS; moist. 19 20	11											
14 13.8 to 14.4 feet: WOODY DEBRIS; black; damp. 15 14.4 to 16.0 feet: No recovery. 16 16.0 to 16.4 feet: FILL. dark gray. 17 16.4 to 16.5 feet: RUBBER; black. 18 19 20 10	12			60	GP	4				12.0 to 13.8 feet: SILTY SANDY GRAVE	L; dark gray; fill; dry.	
15 14.4 leet. WOODY DEBRIS, black, damp. 16 14.4 to 16.0 feet: No recovery. 16 16.0 to 16.4 feet: FILL. dark gray. 17 16.4 to 16.5 feet: RUBBER; black. 18 16.6 to 20.0 feet: No Recovery. 19 20	13											
15 16 0.15 GP 5 17 16.4 to 16.5 feet: FILL. dark gray. 18 16.6 to 20.0 feet: No Recovery. 19 20	14									13.8 to 14.4 feet: WOODY DEBRIS; blac	k; damp.	
17 16.0 to 16.4 feet: FILL. dark gray. 17 16.4 to 16.5 feet: RUBBER; black. 16.5 to 16.6 feet: WOODY DEBRIS; moist. 18 19 20	15									14.4 to 16.0 feet: No recovery.		
17 16.4 to 16.5 feet: RUBBER; black. 16.5 to 16.6 feet: WOODY DEBRIS; moist. 18 19 20	16		- n).15	GP	5			×****	16.0 to 16.4 feet: FILL. dark grav		
18 16.6 to 20.0 feet: No Recovery. 19 20	17		Ĩ			-				16.4 to 16.5 feet: RUBBER; black.		
											<u></u>	
		<u> </u>					<u> </u>		L			

Maul	I Foster & A		nai	Inc		Project I	U Numh		Borehole Log/Well Cons Well Number	Sheet
nau			··ອ·,			0380.0			PZ3	2 of 2
(SE	Well Details		5	ج Sa	mple	Data	. .	ĮĊ.	Soil Description	
Depth (feet, BGS)	Details	Interval	Percent Recovery	Collection Method S	Number	Name (Type)	Blows/6"	Lithologic Column		
(fec		Inte	Pei Re(Co, Mei	NUI		Blo	Col		
			30	GP	6			0000	20.0 to 21.2 feet: SILTY SANDY GRA 30% sand, fine to medium; 60% g	VEL; dark gray; 10% fines;
21								6000	30% sand, fine to medium; 60% g	ravel, coarse; moist.
									21.2 to 24.0 feet: No Recovery.	
22										
23										
24										
			57	GP	7				24.0 to 26.3 feet: SILTY SANDY GRA 30% sand, fine to medium; 60% g	VEL; dark gray; 10% fines;
25									30% Sanu, ime io medium; 60% gi	avel, coalse, wel.
26										
27								• فد آ ــــ ا ـنا ــــــــــــــــــــــــــ	26.3 to 28.0 feet: No Recovery.	
27										
28								L		
			100	GP	8				28.0 to 29.1 feet: SILTY SANDY GRA 30% sand; 60% gravel, fine to me	VEL; dark gray; 10% fines; dium; wet.
29									-	
20									29.1 to 31.4 feet: SILT; brown; stiff; da	mp.
30										
31										
								+++++++++++++++++++++++++++++++++++++++	31.4 to 32.0 feet: SANDY SILT; brown	20% and fine to medium
32									70% fines; wet.	, 5070 Sanu, iine lu meulum
									Total depth: 32.0 feet below ground su	ırface.
NOTE	S:									

ATTACHMENT B

LABORATORY DATA REPORT





11711 SE Capps Road, Ste B Clackamas, Oregon 97015 TEL: 503-607-1331 FAX: 503-607-1336 Website: <u>www.specialtyanalytical.com</u>

February 07, 2014

Alan Hughes Maul Foster & Alongi 400 E. Mill Plain Blvd. Suite 400 Vancouver, WA 98660 TEL: (360) 694-2691 FAX (360) 906-1958 RE: City of Wenatchee / 0380.02.04

Dear Alan Hughes:

Order No.: 1311104

Specialty Analytical received 37 sample(s) on 11/8/2013 for the analyses presented in the following report.

REVISED REPORT: Please see case narrative for information on revision.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Marty French Lab Director

Case Narrative

WO#: **1311104** Date: **2/7/2014**

Specialty Analytical

CLIENT:	Maul Foster & Alongi
Project:	City of Wenatchee / 0380.02.04

Report Revision 2

At the clients request sample names PZ2-W and PZ2-3 (1311104-036 and 1311104-037) were switched in the field. This report reflects the correction.

Report Revision 1

This report includes the orginal data with a correction to the Benzene reporting limit on the BTEX by 8021/5035 for Specialty Analytical samples 1311104-003, 005, 009 and 011.

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 10:35:00 AM

Project:City of Wenatchee / 0380.02.04Lab ID:1311104-001Client Sample ID:GP11-Comp

nalyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	22.3		mg/Kg-dry	1	11/12/2013 12:52:15 PN
Mineral Spirits	ND	22.3		mg/Kg-dry	1	11/12/2013 12:52:15 PN
Kerosene	ND	55.8		mg/Kg-dry	1	11/12/2013 12:52:15 PN
Diesel	ND	55.8		mg/Kg-dry	1	11/12/2013 12:52:15 PN
Lube Oil	LUBE OIL	112		mg/Kg-dry	1	11/12/2013 12:52:15 PN
Surr: BFB	69.5	50-150		%REC	1	11/12/2013 12:52:15 PM
Surr: o-Terphenyl	84.4	50-150		%REC	1	11/12/2013 12:52:15 PN
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	46.5	16.7	A1	mg/Kg-dry	1	11/19/2013 3:51:49 PM
Lube Oil	137	55.8		mg/Kg-dry	1	11/19/2013 3:51:49 PM
Surr: o-Terphenyl	79.0	50-150		%REC	1	11/19/2013 3:51:49 PM
ICP METALS- TOTAL RECOVERA	BLE	SW6010C				Analyst: VAS
Arsenic	10.2	2.07		mg/Kg-dry	1	11/13/2013 8:14:38 PM
Lead	38.1	2.07		mg/Kg-dry	1	11/13/2013 8:14:38 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	18.8	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
2-Methylnaphthalene	17.4	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Acenaphthene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Acenaphthylene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Anthracene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Benz(a)anthracene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Benzo(a)pyrene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Benzo(b)fluoranthene	9.88	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Benzo(g,h,i)perylene	9.19	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Benzo(k)fluoranthene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Chrysene	11.5	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Dibenz(a,h)anthracene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Fluoranthene	10.7	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Fluorene	10.0	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Naphthalene	10.1	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Phenanthrene	30.1	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Pyrene	28.5	7.44		µg/Kg-dry	1	11/19/2013 3:38:00 PM
Surr: 2-Fluorobiphenyl	60.5	42.6-128		%REC	1	11/19/2013 3:38:00 PM
Surr: Nitrobenzene-d5	70.8	21.7-155		%REC	1	11/19/2013 3:38:00 PM
Surr: p-Terphenyl-d14	69.8	44.9-155		%REC	1	11/19/2013 3:38:00 PM

Date Reported: 07-Feb-14

CLIENT: Mau

Maul Foster & Alongi

Collection Date: 11/5/2013 10:35:00 AM

Project:City of Wenatchee / 0380.02.04Lab ID:1311104-001Client Sample ID:GP11-Comp

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PCB'S IN SOLIDS		SW 8082A				Analyst: ajr
Aroclor 1016	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1221	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1232	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1242	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1248	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1254	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1260	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1262	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Aroclor 1268	ND	0.372		µg/Kg-dry	1	11/18/2013 4:36:00 PM
Surr: Decachlorobiphenyl	58.3	56.5-130		%REC	1	11/18/2013 4:36:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 10:45:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-002

Client Sample ID: GP11-S-13

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	22.8		mg/Kg-dry	1	11/12/2013 1:36:18 PM
Mineral Spirits	ND	22.8		mg/Kg-dry	1	11/12/2013 1:36:18 PM
Kerosene	ND	56.9		mg/Kg-dry	1	11/12/2013 1:36:18 PM
Diesel	DIESEL	56.9		mg/Kg-dry	1	11/12/2013 1:36:18 PM
Lube Oil	LUBE OIL	114		mg/Kg-dry	1	11/12/2013 1:36:18 PM
Surr: BFB	65.0	50-150		%REC	1	11/12/2013 1:36:18 PM
Surr: o-Terphenyl	87.3	50-150		%REC	1	11/12/2013 1:36:18 PM
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	137	17.1	A1	mg/Kg-dry	1	11/19/2013 6:31:06 PM
Lube Oil	277	56.9		mg/Kg-dry	1	11/19/2013 6:31:06 PM
Surr: o-Terphenyl	79.8	50-150		%REC	1	11/19/2013 6:31:06 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	0.064	0.017		mg/Kg-dry	1	11/14/2013 10:37:02 PN
Ethylbenzene	ND	0.17		mg/Kg-dry	1	11/14/2013 10:37:02 PM
Toluene	ND	0.17		mg/Kg-dry	1	11/14/2013 10:37:02 PM
Xylenes, Total	ND	0.51		mg/Kg-dry	1	11/14/2013 10:37:02 PM
Surr: 4-Bromofluorobenzene	67.6	42.6-126		%REC	1	11/14/2013 10:37:02 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
2-Methylnaphthalene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Acenaphthene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Acenaphthylene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Anthracene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Benz(a)anthracene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Benzo(a)pyrene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Benzo(b)fluoranthene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Benzo(g,h,i)perylene	9.06	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Benzo(k)fluoranthene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Chrysene	8.74	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Dibenz(a,h)anthracene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Fluoranthene	10.1	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Fluorene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Naphthalene	ND	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Phenanthrene	19.2	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM
Pyrene	18.3	7.59		µg/Kg-dry	1	11/19/2013 4:02:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 10:45:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-002

Client Sample ID: GP11-S-13

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
Surr: 2-Fluorobiphenyl	53.3	42.6-128		%REC	1	11/19/2013 4:02:00 PM
Surr: Nitrobenzene-d5	71.6	21.7-155		%REC	1	11/19/2013 4:02:00 PM
Surr: p-Terphenyl-d14	76.9	44.9-155		%REC	1	11/19/2013 4:02:00 PM
PCB'S IN SOLIDS		SW 8082A				Analyst: ajr
Aroclor 1016	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1221	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1232	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1242	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1248	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1254	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1260	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1262	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Aroclor 1268	ND	0.379		µg/Kg-dry	1	11/18/2013 4:53:00 PM
Surr: Decachlorobiphenyl	69.6	56.5-130		%REC	1	11/18/2013 4:53:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 10:55:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-003

 Client Sample ID:
 GP11-S-17.5

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	87.1	18.6	A1	mg/Kg-dry	1	11/19/2013 6:09:13 PM
Lube Oil	254	62.1		mg/Kg-dry	1	11/19/2013 6:09:13 PM
Surr: o-Terphenyl	76.6	50-150		%REC	1	11/19/2013 6:09:13 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	ND	0.025	HT	mg/Kg-dry	1	11/20/2013 12:57:44 AM
Ethylbenzene	ND	0.25	HT	mg/Kg-dry	1	11/20/2013 12:57:44 AM
Toluene	ND	0.25	HT	mg/Kg-dry	1	11/20/2013 12:57:44 AM
Xylenes, Total	ND	0.75	HT	mg/Kg-dry	1	11/20/2013 12:57:44 AM
Surr: 4-Bromofluorobenzene	59.0	42.6-126	HT	%REC	1	11/20/2013 12:57:44 AM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 11:00:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-004

Client Sample ID: GP12-S-7

analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	23.2		mg/Kg-dry	1	11/12/2013 1:58:14 PM
Mineral Spirits	ND	23.2		mg/Kg-dry	1	11/12/2013 1:58:14 PM
Kerosene	ND	58.1		mg/Kg-dry	1	11/12/2013 1:58:14 PM
Diesel	DIESEL	58.1		mg/Kg-dry	1	11/12/2013 1:58:14 PM
Lube Oil	LUBE OIL	116		mg/Kg-dry	1	11/12/2013 1:58:14 PM
Surr: BFB	67.9	50-150		%REC	1	11/12/2013 1:58:14 PM
Surr: o-Terphenyl	93.5	50-150		%REC	1	11/12/2013 1:58:14 PM
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	162	17.4	A1	mg/Kg-dry	1	11/19/2013 6:52:59 PM
Lube Oil	342	58.1		mg/Kg-dry	1	11/19/2013 6:52:59 PM
Surr: o-Terphenyl	86.2	50-150		%REC	1	11/19/2013 6:52:59 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	0.029	0.020		mg/Kg-dry	1	11/14/2013 11:02:36 PN
Ethylbenzene	ND	0.20		mg/Kg-dry	1	11/14/2013 11:02:36 PN
Toluene	ND	0.20		mg/Kg-dry	1	11/14/2013 11:02:36 PN
Xylenes, Total	ND	0.59		mg/Kg-dry	1	11/14/2013 11:02:36 PM
Surr: 4-Bromofluorobenzene	72.0	42.6-126		%REC	1	11/14/2013 11:02:36 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	21.2	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
2-Methylnaphthalene	15.9	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Acenaphthene	24.0	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Acenaphthylene	151	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Anthracene	235	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Benz(a)anthracene	507	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Benzo(a)pyrene	668	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Benzo(b)fluoranthene	611	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Benzo(g,h,i)perylene	504	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Benzo(k)fluoranthene	164	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Chrysene	584	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Dibenz(a,h)anthracene	101	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Fluoranthene	860	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Fluorene	45.6	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Indeno(1,2,3-cd)pyrene	372	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Naphthalene	13.2	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Phenanthrene	298	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM
Pyrene	1290	7.75		µg/Kg-dry	1	11/19/2013 4:26:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 11:00:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-004

Client Sample ID: GP12-S-7

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
Surr: 2-Fluorobiphenyl	65.4	42.6-128		%REC	1	11/19/2013 4:26:00 PM
Surr: Nitrobenzene-d5	83.8	21.7-155		%REC	1	11/19/2013 4:26:00 PM
Surr: p-Terphenyl-d14	76.8	44.9-155		%REC	1	11/19/2013 4:26:00 PM
PCB'S IN SOLIDS		SW 8082A				Analyst: ajr
Aroclor 1016	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1221	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1232	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1242	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1248	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1254	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1260	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1262	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Aroclor 1268	ND	0.387		µg/Kg-dry	1	11/18/2013 5:10:00 PM
Surr: Decachlorobiphenyl	98.2	56.5-130		%REC	1	11/18/2013 5:10:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 11:10:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-005

Client Sample ID: GP12-S-11

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	463	17.0	A1	mg/Kg-dry	1	11/19/2013 10:51:47 PM
Lube Oil	567	56.8	A2	mg/Kg-dry	1	11/19/2013 10:51:47 PM
Surr: o-Terphenyl	93.5	50-150		%REC	1	11/19/2013 10:51:47 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	ND	0.022	HT	mg/Kg-dry	1	11/20/2013 1:23:16 AM
Ethylbenzene	ND	0.22	HT	mg/Kg-dry	1	11/20/2013 1:23:16 AM
Toluene	ND	0.22	HT	mg/Kg-dry	1	11/20/2013 1:23:16 AM
Xylenes, Total	ND	0.66	HT	mg/Kg-dry	1	11/20/2013 1:23:16 AM
Surr: 4-Bromofluorobenzene	60.6	42.6-126	HT	%REC	1	11/20/2013 1:23:16 AM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	13.8	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
2-Methylnaphthalene	15.7	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Acenaphthene	11.2	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Acenaphthylene	ND	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Anthracene	ND	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Benz(a)anthracene	ND	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Benzo(a)pyrene	8.95	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Benzo(b)fluoranthene	9.19	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Benzo(g,h,i)perylene	12.2	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Benzo(k)fluoranthene	ND	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Chrysene	10.4	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Dibenz(a,h)anthracene	ND	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Fluoranthene	12.6	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Fluorene	17.0	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Naphthalene	ND	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Phenanthrene	41.1	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Pyrene	34.3	7.58		µg/Kg-dry	1	11/20/2013 2:47:00 PM
Surr: 2-Fluorobiphenyl	43.3	42.6-128		%REC	1	11/20/2013 2:47:00 PM
Surr: Nitrobenzene-d5	54.9	21.7-155		%REC	1	11/20/2013 2:47:00 PM
Surr: p-Terphenyl-d14	56.2	44.9-155		%REC	1	11/20/2013 2:47:00 PM

CLIENT: Project:	Maul Foster & Al City of Wenatchee	e	Collection Date: 11/5/2013 11:20:00 AM				
v	•	27 0380.02.04					
Lab ID:	1311104-006						
Client Sample ID:	GP12-S-13.5				Matrix:	SOIL	
1							
-							
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
	T REQUEST		RL PER CLIENT	Qual	Unit	DF	Date Analyzed Analyst: knb

Date Reported: 07-Feb-14

Collection Date: 11/5/2013 11:50:00 AM

CLIENT:Maul Foster & AlongiProject:City of Wenatchee / 0380.02.04Lab ID:1311104-007Client Sample ID:GP14-Comp

analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	22.3		mg/Kg-dry	1	11/12/2013 2:20:16 PM
Mineral Spirits	ND	22.3		mg/Kg-dry	1	11/12/2013 2:20:16 PM
Kerosene	ND	55.8		mg/Kg-dry	1	11/12/2013 2:20:16 PM
Diesel	DIESEL	55.8		mg/Kg-dry	1	11/12/2013 2:20:16 PM
Lube Oil	LUBE OIL	112		mg/Kg-dry	1	11/12/2013 2:20:16 PM
Surr: BFB	88.2	50-150		%REC	1	11/12/2013 2:20:16 PM
Surr: o-Terphenyl	96.7	50-150		%REC	1	11/12/2013 2:20:16 PM
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	51.9	16.7	A1	mg/Kg-dry	1	11/19/2013 10:30:11 PM
Lube Oil	216	55.8		mg/Kg-dry	1	11/19/2013 10:30:11 PM
Surr: o-Terphenyl	75.0	50-150		%REC	1	11/19/2013 10:30:11 PM
BTEX - RBC		SW8021B				Analyst: ZP
Benzene	ND	0.0279		mg/Kg-dry	1	11/14/2013 8:28:57 PM
Toluene	ND	0.112		mg/Kg-dry	1	11/14/2013 8:28:57 PM
Ethylbenzene	ND	0.112		mg/Kg-dry	1	11/14/2013 8:28:57 PM
Xylenes, Total	ND	0.335		mg/Kg-dry	1	11/14/2013 8:28:57 PM
Surr: 4-Bromofluorobenzene	53.2	42.6-126		%REC	1	11/14/2013 8:28:57 PM
ICP METALS- TOTAL RECOVERA	BLE	SW6010C				Analyst: VAS
Arsenic	30.3	2.23		mg/Kg-dry	1	11/13/2013 8:19:37 PM
Lead	190	2.23		mg/Kg-dry	1	11/13/2013 8:19:37 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	9.89	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
2-Methylnaphthalene	9.21	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Acenaphthene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Acenaphthylene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Anthracene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Benz(a)anthracene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Benzo(a)pyrene	8.83	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Benzo(b)fluoranthene	8.91	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Benzo(g,h,i)perylene	20.6	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Benzo(k)fluoranthene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Chrysene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Dibenz(a,h)anthracene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Fluoranthene	10.8	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Fluorene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM

Date Reported: 07-Feb-14

CLIENT: Maul Foster & Alongi

Project:City of Wenatchee / 0380.02.04Lab ID:1311104-007Client Sample ID:GP14-Comp

Collection Date: 11/5/2013 11:50:00 AM

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
Indeno(1,2,3-cd)pyrene	ND	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Naphthalene	9.06	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Phenanthrene	13.3	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Pyrene	20.8	7.45		µg/Kg-dry	1	11/19/2013 1:36:00 PM
Surr: 2-Fluorobiphenyl	67.9	42.6-128		%REC	1	11/19/2013 1:36:00 PM
Surr: Nitrobenzene-d5	94.8	21.7-155		%REC	1	11/19/2013 1:36:00 PM
Surr: p-Terphenyl-d14	77.3	44.9-155		%REC	1	11/19/2013 1:36:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 12:00:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-008

Client Sample ID: GP14-S-7.5

analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	23.4		mg/Kg-dry	1	11/12/2013 2:42:15 PM
Mineral Spirits	ND	23.4		mg/Kg-dry	1	11/12/2013 2:42:15 PM
Kerosene	ND	58.5		mg/Kg-dry	1	11/12/2013 2:42:15 PM
Diesel	DIESEL	58.5		mg/Kg-dry	1	11/12/2013 2:42:15 PM
Lube Oil	LUBE OIL	117		mg/Kg-dry	1	11/12/2013 2:42:15 PM
Surr: BFB	67.1	50-150		%REC	1	11/12/2013 2:42:15 PM
Surr: o-Terphenyl	89.8	50-150		%REC	1	11/12/2013 2:42:15 PM
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	116	17.6	A1	mg/Kg-dry	1	11/19/2013 5:25:23 PM
Lube Oil	211	58.5		mg/Kg-dry	1	11/19/2013 5:25:23 PM
Surr: o-Terphenyl	86.1	50-150		%REC	1	11/19/2013 5:25:23 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	ND	0.019		mg/Kg-dry	1	11/14/2013 11:28:11 PM
Ethylbenzene	ND	0.19		mg/Kg-dry	1	11/14/2013 11:28:11 PM
Toluene	ND	0.19		mg/Kg-dry	1	11/14/2013 11:28:11 PM
Xylenes, Total	ND	0.57		mg/Kg-dry	1	11/14/2013 11:28:11 PM
Surr: 4-Bromofluorobenzene	58.2	42.6-126		%REC	1	11/14/2013 11:28:11 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	27.4	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
2-Methylnaphthalene	28.5	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Acenaphthene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Acenaphthylene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Anthracene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Benz(a)anthracene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Benzo(a)pyrene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Benzo(b)fluoranthene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Benzo(g,h,i)perylene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Benzo(k)fluoranthene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Chrysene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Dibenz(a,h)anthracene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Fluoranthene	8.72	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Fluorene	9.37	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Naphthalene	14.8	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Phenanthrene	16.6	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM
Pyrene	15.2	7.81		µg/Kg-dry	1	11/19/2013 2:00:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 12:00:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-008

Client Sample ID: GP14-S-7.5

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
Surr: 2-Fluorobiphenyl	54.3	42.6-128		%REC	1	11/19/2013 2:00:00 PM
Surr: Nitrobenzene-d5	84.9	21.7-155		%REC	1	11/19/2013 2:00:00 PM
Surr: p-Terphenyl-d14	74.5	44.9-155		%REC	1	11/19/2013 2:00:00 PM
PCB'S IN SOLIDS		SW 8082A				Analyst: ajr
Aroclor 1016	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1221	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1232	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1242	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1248	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1254	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1260	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1262	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Aroclor 1268	ND	0.390		µg/Kg-dry	1	11/18/2013 5:26:00 PM
Surr: Decachlorobiphenyl	99.8	56.5-130		%REC	1	11/18/2013 5:26:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 12:10:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-009

 Client Sample ID:
 GP14-S-11.5

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	53.1	18.0	A1	mg/Kg-dry	1	11/19/2013 4:19:46 PM
Lube Oil	132	60.1		mg/Kg-dry	1	11/19/2013 4:19:46 PM
Surr: o-Terphenyl	72.2	50-150		%REC	1	11/19/2013 4:19:46 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	ND	0.022	HT	mg/Kg-dry	1	11/20/2013 1:48:52 AM
Ethylbenzene	ND	0.22	HT	mg/Kg-dry	1	11/20/2013 1:48:52 AM
Toluene	ND	0.22	HT	mg/Kg-dry	1	11/20/2013 1:48:52 AM
Xylenes, Total	ND	0.65	HT	mg/Kg-dry	1	11/20/2013 1:48:52 AM
Surr: 4-Bromofluorobenzene	65.9	42.6-126	HT	%REC	1	11/20/2013 1:48:52 AM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 1:10:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-010

Client Sample ID: GP13-S-10

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	23.6		mg/Kg-dry	1	11/12/2013 3:04:15 PM
Mineral Spirits	ND	23.6		mg/Kg-dry	1	11/12/2013 3:04:15 PM
Kerosene	ND	59.1		mg/Kg-dry	1	11/12/2013 3:04:15 PM
Diesel	DIESEL	59.1		mg/Kg-dry	1	11/12/2013 3:04:15 PM
Lube Oil	LUBE OIL	118		mg/Kg-dry	1	11/12/2013 3:04:15 PM
Surr: BFB	68.4	50-150		%REC	1	11/12/2013 3:04:15 PM
Surr: o-Terphenyl	93.3	50-150		%REC	1	11/12/2013 3:04:15 PM
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	114	17.7	A1	mg/Kg-dry	1	11/19/2013 5:03:33 PM
Lube Oil	192	59.1		mg/Kg-dry	1	11/19/2013 5:03:33 PM
Surr: o-Terphenyl	81.5	50-150		%REC	1	11/19/2013 5:03:33 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	ND	0.018		mg/Kg-dry	1	11/14/2013 11:53:45 PM
Ethylbenzene	ND	0.18		mg/Kg-dry	1	11/14/2013 11:53:45 PM
Toluene	ND	0.18		mg/Kg-dry	1	11/14/2013 11:53:45 PM
Xylenes, Total	ND	0.53		mg/Kg-dry	1	11/14/2013 11:53:45 PM
Surr: 4-Bromofluorobenzene	58.4	42.6-126		%REC	1	11/14/2013 11:53:45 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	155	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
2-Methylnaphthalene	216	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Acenaphthene	16.1	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Acenaphthylene	ND	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Anthracene	12.1	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Benz(a)anthracene	10.9	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Benzo(a)pyrene	14.1	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Benzo(b)fluoranthene	15.8	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Benzo(g,h,i)perylene	15.7	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Benzo(k)fluoranthene	ND	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Chrysene	16.2	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Dibenz(a,h)anthracene	ND	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Fluoranthene	27.0	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Fluorene	24.0	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Naphthalene	53.2	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Phenanthrene	64.6	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM
Pyrene	46.6	7.88		µg/Kg-dry	1	11/19/2013 2:25:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 1:10:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-010

Client Sample ID: GP13-S-10

Matrix: SOIL

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
Surr: 2-Fluorobiphenyl	62.6	42.6-128		%REC	1	11/19/2013 2:25:00 PM
Surr: Nitrobenzene-d5	88.2	21.7-155		%REC	1	11/19/2013 2:25:00 PM
Surr: p-Terphenyl-d14	85.3	44.9-155		%REC	1	11/19/2013 2:25:00 PM
PCB'S IN SOLIDS		SW 8082A				Analyst: ajr
Aroclor 1016	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1221	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1232	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1242	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1248	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1254	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1260	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1262	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Aroclor 1268	ND	0.393		µg/Kg-dry	1	11/18/2013 5:43:00 PM
Surr: Decachlorobiphenyl	75.2	56.5-130		%REC	1	11/18/2013 5:43:00 PM

Page 16 of 45

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 1:20:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-011

Client Sample ID: GP13-S-13

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	149	17.2	A1	mg/Kg-dry	1	11/19/2013 5:47:24 PM
Lube Oil	276	57.5		mg/Kg-dry	1	11/19/2013 5:47:24 PM
Surr: o-Terphenyl	116	50-150		%REC	1	11/19/2013 5:47:24 PM
BTEX BY 8021/5035		SW8021B				Analyst: ZP
Benzene	ND	0.021	HT	mg/Kg-dry	1	11/20/2013 2:14:22 AM
Ethylbenzene	ND	0.21	HT	mg/Kg-dry	1	11/20/2013 2:14:22 AM
Toluene	ND	0.21	HT	mg/Kg-dry	1	11/20/2013 2:14:22 AM
Xylenes, Total	ND	0.64	HT	mg/Kg-dry	1	11/20/2013 2:14:22 AM
Surr: 4-Bromofluorobenzene	70.1	42.6-126	HT	%REC	1	11/20/2013 2:14:22 AM

CLIENT:	Maul Foster & Al	ongi		Collec	tion Date:	: 11/5/2	2013 1:30:00 PM
Project:	City of Wenatche	e / 0380.02.04					
Lab ID:	1311104-012						
Client Sample ID:	GP13-S-15		Matrix: SOIL				
- · · · · · · · · · · · · · · · · · · ·						• ~ • •	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
	T REQUEST		RL PER CLIENT	Qual			Date Analyzed Analyst: knb

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 2:15:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-013

 Client Sample ID:
 GP15-Comp

Matrix: SOIL

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	22.2		mg/Kg-dry	1	11/12/2013 3:26:20 PM
Mineral Spirits	ND	22.2		mg/Kg-dry	1	11/12/2013 3:26:20 PM
Kerosene	ND	55.5		mg/Kg-dry	1	11/12/2013 3:26:20 PM
Diesel	ND	55.5		mg/Kg-dry	1	11/12/2013 3:26:20 PM
Lube Oil	ND	111		mg/Kg-dry	1	11/12/2013 3:26:20 PM
Surr: BFB	60.0	50-150		%REC	1	11/12/2013 3:26:20 PM
Surr: o-Terphenyl	80.9	50-150		%REC	1	11/12/2013 3:26:20 PM
ICP METALS- TOTAL RECOVERABLE		SW6010C				Analyst: VAS
Arsenic	68.4	2.06		mg/Kg-dry	1	11/13/2013 8:24:38 PM
Lead	313	2.06		mg/Kg-dry	1	11/13/2013 8:24:38 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
2-Methylnaphthalene	8.59	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Acenaphthene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PN
Acenaphthylene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Anthracene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Benz(a)anthracene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Benzo(a)pyrene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Benzo(b)fluoranthene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Benzo(g,h,i)perylene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Benzo(k)fluoranthene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Chrysene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Dibenz(a,h)anthracene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Fluoranthene	9.88	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Fluorene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Naphthalene	23.2	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Phenanthrene	20.5	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Pyrene	12.2	7.41		µg/Kg-dry	1	11/19/2013 12:47:00 PM
Surr: 2-Fluorobiphenyl	68.2	42.6-128		%REC	1	11/19/2013 12:47:00 PM
Surr: Nitrobenzene-d5	103	21.7-155		%REC	1	11/19/2013 12:47:00 PM
Surr: p-Terphenyl-d14	75.8	44.9-155		%REC	1	11/19/2013 12:47:00 PM
PCB'S IN SOLIDS		SW 8082A				Analyst: ajr
Aroclor 1016	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Aroclor 1221	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Aroclor 1232	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM

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Date Reported: 07-Feb-14

CLIENT: Maul

Maul Foster & Alongi

Collection Date: 11/5/2013 2:15:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-013

 Client Sample ID:
 GP15-Comp

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PCB'S IN SOLIDS	:	SW 8082A				Analyst: ajr
Aroclor 1242	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Aroclor 1248	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Aroclor 1254	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Aroclor 1260	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Aroclor 1262	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Aroclor 1268	ND	0.370		µg/Kg-dry	1	11/18/2013 6:00:00 PM
Surr: Decachlorobiphenyl	106	56.5-130		%REC	1	11/18/2013 6:00:00 PM

Date Reported: 07-Feb-14

CLIENT: Maul

Maul Foster & Alongi

Collection Date: 11/5/2013 2:40:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-014

 Client Sample ID:
 GP15-S-14

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX	1	WTPH-DX				Analyst: ZP
Diesel	ND	16.6		mg/Kg-dry	1	11/19/2013 1:05:33 PM
Lube Oil	ND	55.3		mg/Kg-dry	1	11/19/2013 1:05:33 PM
Surr: o-Terphenyl	73.0	50-150		%REC	1	11/19/2013 1:05:33 PM

Specialty	Analytical
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CLIENT: Project:	Maul Foster & Al City of Wenatche	e		Collec	tion Date:	: 11/5/2	2013 3:15:00 PM
Lab ID:	1311104-015						
Client Sample ID:	GP16-S-4				Matrix	: SOIL	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
Analyses HOLD PER CLIEN	T REQUEST		RL PER CLIENT	Qual	Unit	DF	Date Analyzed Analyst: knb

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Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 3:20:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-016

 Client Sample ID:
 GP16-S-14

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PAH'S BY GC/MS - LOW LEVEL	;	SW8270D				Analyst: bda
1-Methylnaphthalene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
2-Methylnaphthalene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Acenaphthene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Acenaphthylene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Anthracene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Benz(a)anthracene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Benzo(a)pyrene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Benzo(b)fluoranthene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Benzo(g,h,i)perylene	7.31	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Benzo(k)fluoranthene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PN
Chrysene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PN
Dibenz(a,h)anthracene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PN
Fluoranthene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PN
Fluorene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PN
Indeno(1,2,3-cd)pyrene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PN
Naphthalene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Phenanthrene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PM
Pyrene	ND	7.19		µg/Kg-dry	1	11/19/2013 12:23:00 PN
Surr: 2-Fluorobiphenyl	61.7	42.6-128		%REC	1	11/19/2013 12:23:00 PN
Surr: Nitrobenzene-d5	80.8	21.7-155		%REC	1	11/19/2013 12:23:00 PN
Surr: p-Terphenyl-d14	76.7	44.9-155		%REC	1	11/19/2013 12:23:00 PN

Date Reported: 07-Feb-14

CLIENT: Project:	Maul Foster & Alongi City of Wenatchee / 0380.02.04			Collection Date: 11/5/2013 4:10:00 PM			
Lab ID:	1311104-017	0000.02.0					
Client Sample ID:	GP21-S-16				Matrix:	SOIL	
enene sumpre met					muuna.	501 <u></u>	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
Analyses	AL RECOVERABLE	Result	RL SW6010C	Qual			Date Analyzed Analyst: VAS

CLIENT:	Maul Foster & Alongi Colle				tion Date:	: 11/5/2	013 4:20:00 PM
Project:	City of Wenatche	e / 0380.02.04					
Lab ID:	1311104-018						
Client Sample ID:	GP21-S-20				Matrix	SOIL	
					10140112	. 501E	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
	T REQUEST		RL PER CLIENT	Qual		-	Date Analyzed Analyst: knb

Date Reported: 07-Feb-14

CLIENT: Project:	Maul Foster & Alongi City of Wenatchee / 0380.02.04				tion Date:	11/5/2	013 5:00:00 PM
Lab ID:	1311104-019	0200.02.					
Client Sample ID:	GP19-S-16				Matrix:	SOIL	
1							
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
Analyses	AL RECOVERABLE	Result	RL SW6010C	Qual	Unit	DF	Date Analyzed Analyst: VAS

Specially many fical	Specialty	Analytical
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CLIENT: Project:	Maul Foster & Al City of Wenatche	U		Collec	tion Date:	11/5/2	2013 5:10:00 PM
Lab ID:	1311104-020	e, 0000.02.01					
Client Sample ID:	GP19-S-20				Matrix:	SOIL	
-							
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
Analyses HOLD PER CLIEN	T REQUEST		RL PER CLIENT	Qual	Unit		Date Analyzed Analyst: knb

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/5/2013 3:55:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-021

Client Sample ID: PZ1-W

Matrix: WATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH HCID	1	WHCID				Analyst: ZP
Diesel	ND	0.638		mg/L	1	11/13/2013
Gasoline	ND	0.253		mg/L	1	11/13/2013
Kerosene	ND	0.638		mg/L	1	11/13/2013
Lube Oil	ND	0.638		mg/L	1	11/13/2013
Mineral Spirits	ND	0.253		mg/L	1	11/13/2013
Surr: BFB	92.9	30.2-133		%REC	1	11/13/2013
Surr: o-Terphenyl	88.9	50-150		%REC	1	11/13/2013

Date Reported: 07-Feb-14

CLIENT: Project:	Maul Foster & Alongi City of Wenatchee / 0380.02.04			Collec	tion Date:	11/6/2	2013 8:00:00 AM
Lab ID:	1311104-022						
Client Sample ID:	GP22-S-16				Matrix:	SOIL	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
	AL RECOVERABLE	Result	RL SW6010C	Qual	Unit	DF	Date Analyzed Analyst: VAS

CLIENT: Project:	Maul Foster & Al City of Wenatchee	U		Collec	tion Date:	11/6/2	2013 8:10:00 AM
Lab ID:	1311104-023						
Client Sample ID:	GP22-S-20				Matrix:	SOIL	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
Analyses HOLD PER CLIEN	T REQUEST		RL PER CLIENT	Qual	Unit	DF	Date Analyzed Analyst: knb

Specialty Analytical				Date	Reported	0'	07-Feb-14		
CLIENT:	Maul Foster & A	longi		Collec	tion Date	: 11/5/2	2013		
Project:	City of Wenatch	ee / 0380.02.04							
Lab ID:	1311104-024								
Client Sample ID:	Trip Blank				Matrix	: AQUI	EOUS		
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed		
HOLD PER CLIEN	T REQUEST	F	PER CLIENT				Analyst: knb		
Hold		Hold	0			1	11/25/2013 9:09:10 AM		

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/6/2013 8:40:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-025

 Client Sample ID:
 GP17-Comp

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	20.8		mg/Kg-dry	1	11/12/2013 3:48:18 PM
Mineral Spirits	ND	20.8		mg/Kg-dry	1	11/12/2013 3:48:18 PM
Kerosene	ND	52.0		mg/Kg-dry	1	11/12/2013 3:48:18 PM
Diesel	ND	52.0		mg/Kg-dry	1	11/12/2013 3:48:18 PM
Lube Oil	ND	104		mg/Kg-dry	1	11/12/2013 3:48:18 PM
Surr: BFB	67.9	50-150		%REC	1	11/12/2013 3:48:18 PM
Surr: o-Terphenyl	85.6	50-150		%REC	1	11/12/2013 3:48:18 PM
ICP METALS- TOTAL RECOVERABLE		SW6010C				Analyst: VAS
Arsenic	ND	2.08		mg/Kg-dry	1	11/14/2013 11:56:51 AN
Lead	23.2	2.08		mg/Kg-dry	1	11/13/2013 9:05:16 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	ND	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
2-Methylnaphthalene	9.15	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Acenaphthene	ND	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Acenaphthylene	16.9	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Anthracene	22.2	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Benz(a)anthracene	45.1	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Benzo(a)pyrene	62.0	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Benzo(b)fluoranthene	70.7	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Benzo(g,h,i)perylene	61.0	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Benzo(k)fluoranthene	21.5	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Chrysene	58.7	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Dibenz(a,h)anthracene	16.1	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Fluoranthene	93.7	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Fluorene	7.97	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Indeno(1,2,3-cd)pyrene	41.5	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Naphthalene	12.7	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Phenanthrene	87.3	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Pyrene	142	6.94		µg/Kg-dry	1	11/19/2013 2:49:00 PM
Surr: 2-Fluorobiphenyl	54.8	42.6-128		%REC	1	11/19/2013 2:49:00 PM
Surr: Nitrobenzene-d5	64.6	21.7-155		%REC	1	11/19/2013 2:49:00 PM
Surr: p-Terphenyl-d14	78.5	44.9-155		%REC	1	11/19/2013 2:49:00 PM
PCB'S IN SOLIDS		SW 8082A				Analyst: ajr
Aroclor 1016	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Aroclor 1221	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Aroclor 1232	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM

Date Reported: 07-Feb-14

CLIENT: Maul

Maul Foster & Alongi

Collection Date: 11/6/2013 8:40:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-025

 Client Sample ID:
 GP17-Comp

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
PCB'S IN SOLIDS	:	SW 8082A				Analyst: ajr
Aroclor 1242	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Aroclor 1248	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Aroclor 1254	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Aroclor 1260	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Aroclor 1262	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Aroclor 1268	ND	0.346		µg/Kg-dry	1	11/18/2013 6:17:00 PM
Surr: Decachlorobiphenyl	90.4	56.5-130		%REC	1	11/18/2013 6:17:00 PM

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/6/2013 8:50:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-026

 Client Sample ID:
 GP17-S-12.5

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	ND	17.2		mg/Kg-dry	1	11/19/2013 12:43:33 PM
Lube Oil	ND	57.5		mg/Kg-dry	1	11/19/2013 12:43:33 PM
Surr: o-Terphenyl	71.2	50-150		%REC	1	11/19/2013 12:43:33 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
2-Methylnaphthalene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Acenaphthene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Acenaphthylene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Anthracene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Benz(a)anthracene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Benzo(a)pyrene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Benzo(b)fluoranthene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Benzo(g,h,i)perylene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Benzo(k)fluoranthene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Chrysene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Dibenz(a,h)anthracene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Fluoranthene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Fluorene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Naphthalene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Phenanthrene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Pyrene	ND	7.67		µg/Kg-dry	1	11/19/2013 1:12:00 PM
Surr: 2-Fluorobiphenyl	52.9	42.6-128		%REC	1	11/19/2013 1:12:00 PM
Surr: Nitrobenzene-d5	66.5	21.7-155		%REC	1	11/19/2013 1:12:00 PM
Surr: p-Terphenyl-d14	73.8	44.9-155		%REC	1	11/19/2013 1:12:00 PM

Date Reported: 07-Feb-14

CLIENT: Project:	6			Collection Date: 11/6/2013 9:00:00 AM				
Lab ID:	1311104-027	0000020						
Client Sample ID:	GP17-S-16				Matrix:	SOIL		
Cheffe Sample ID.	011/ 5 10				Matilix.	DOIL		
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed	
Analyses		Result	RL SW6010C	Qual			Date Analyzed Analyst: VAS	

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CLIENT: Project:				Collection Date: 11/6/2013 9:10:00 AM				
Lab ID:	1311104-028	• • • • • • • • • • • • • • • • • • • •						
Client Sample ID:	GP17-S-20			Matrix: SOIL				
-						-		
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed	
Analyses HOLD PER CLIEN	TREQUEST		RL PER CLIENT	Qual	Unit	DF	Date Analyzed Analyst: knb	

CLIENT: Project:	ongi 2 / 0380.02.04		Collec	tion Date:	11/6/2	013 10:00:00 AM	
Lab ID:	1311104-029						
Client Sample ID:	GP18-S-7				Matrix:	SOIL	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
Analyses HOLD PER CLIEN	T REQUEST		RL PER CLIENT	Qual	Unit	DF	Date Analyzed Analyst: knb

CLIENT:Maul Foster & AlongiProject:City of Wenatchee / 0380				Collec	tion Date:	11/6/2	013 10:10:00 AM
Lab ID:	1311104-030						
Client Sample ID:	GP18-S-11				Matrix:	SOIL	
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
Analyses HOLD PER CLIEN	TREQUEST		RL PER CLIENT	Qual	Unit	DF	Date Analyzed Analyst: knb

CLIENT: Project:	Maul Foster & Ald City of Wenatchee	U		Collec	tion Date:	11/6/2	2013 10:20:00 AM
Lab ID:	1311104-031	,					
Client Sample ID:	GP18-S-15				Matrix:	SOIL	
- · · · · · · · · · · · · · · · · · · ·							
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed
	T REQUEST		RL PER CLIENT	Qual	Unit		Date Analyzed Analyst: knb

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/6/2013 11:45:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-032

Client Sample ID: GP18-W

Matrix: WATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH HCID	NWHCID					Analyst: ZP
Diesel	ND	0.645		mg/L	1	11/13/2013
Gasoline	ND	0.256		mg/L	1	11/13/2013
Kerosene	ND	0.645		mg/L	1	11/13/2013
Lube Oil	ND	0.645		mg/L	1	11/13/2013
Mineral Spirits	ND	0.256		mg/L	1	11/13/2013
Surr: BFB	59.8	30.2-133		%REC	1	11/13/2013
Surr: o-Terphenyl	90.3	50-150		%REC	1	11/13/2013

Date Reported: 07-Feb-14

CLIENT:Maul Foster & AlongiProject:City of Wenatchee / 0380.02.04Lab ID:1311104-033

Client Sample ID: GP20-Comp

Collection Date: 11/6/2013 12:50:00 PM

nalyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-HCID		NWHCID				Analyst: ZP
Gasoline	ND	21.9		mg/Kg-dry	1	11/12/2013 4:10:14 PM
Mineral Spirits	ND	21.9		mg/Kg-dry	1	11/12/2013 4:10:14 PM
Kerosene	ND	54.6		mg/Kg-dry	1	11/12/2013 4:10:14 PM
Diesel	DIESEL	54.6		mg/Kg-dry	1	11/12/2013 4:10:14 PM
Lube Oil	LUBE OIL	109		mg/Kg-dry	1	11/12/2013 4:10:14 PM
Surr: BFB	77.0	50-150		%REC	1	11/12/2013 4:10:14 PM
Surr: o-Terphenyl	87.7	50-150		%REC	1	11/12/2013 4:10:14 PM
NWTPH-DX		NWTPH-DX				Analyst: ZP
Diesel	27.7	16.4	A1	mg/Kg-dry	1	11/21/2013 1:01:11 PM
Lube Oil	127	54.6		mg/Kg-dry	1	11/21/2013 1:01:11 PM
Surr: o-Terphenyl	31.1	50-150	SMI	%REC	1	11/21/2013 1:01:11 PM
ICP METALS- TOTAL RECOVERAE	BLE	SW6010C				Analyst: VAS
Arsenic	16.0	2.19		mg/Kg-dry	1	11/14/2013 12:01:51 PN
Lead	68.0	2.19		mg/Kg-dry	1	11/13/2013 9:15:19 PM
PAH'S BY GC/MS - LOW LEVEL		SW8270D				Analyst: bda
1-Methylnaphthalene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
2-Methylnaphthalene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Acenaphthene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Acenaphthylene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Anthracene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Benz(a)anthracene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Benzo(a)pyrene	9.67	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Benzo(b)fluoranthene	10.6	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Benzo(g,h,i)perylene	13.9	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Benzo(k)fluoranthene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Chrysene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Dibenz(a,h)anthracene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Fluoranthene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Fluorene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Indeno(1,2,3-cd)pyrene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Naphthalene	ND	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Phenanthrene	10.8	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Pyrene	13.6	7.29		µg/Kg-dry	1	11/19/2013 3:13:00 PM
Surr: 2-Fluorobiphenyl	57.4	42.6-128		%REC	1	11/19/2013 3:13:00 PM
Surr: Nitrobenzene-d5	59.5	21.7-155		%REC	1	11/19/2013 3:13:00 PM
Surr: p-Terphenyl-d14	73.1	44.9-155		%REC	1	11/19/2013 3:13:00 PM

Date Reported: 07-Feb-14

CLIENT: Project:	Maul Foster & Alor City of Wenatchee /							
Lab ID:	1311104-034							
Client Sample ID:	GP20-S-16				Matrix:	SOIL		
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed	
	AL RECOVERABLE	Result	RL SW6010C	Qual	Unit	DF	Date Analyzed Analyst: VAS	

CLIENT:	Maul Foster & Al	U		Collec	tion Date	: 11/6/2	2013 1:10:00 PM				
Project:	City of Wenatche	e / 0380.02.04									
Lab ID:	1311104-035										
Client Sample ID:	GP20-S-20		Matrix: SOIL								
r i i i i i i i i i i i i i i i i i i i					1/14/17/12						
Analyses		Result	RL	Qual	Unit	DF	Date Analyzed				
	T REQUEST		RL PER CLIENT	Qual			Date Analyzed Analyst: knb				

Date Reported: 07-Feb-14

CLIENT:

Maul Foster & Alongi

Collection Date: 11/6/2013 4:13:00 PM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-036

Client Sample ID: PZ3-W

Matrix: WATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX - RBC	1	WTPH-DX				Analyst: ZP
Diesel	1.95	0.0820	BA1	mg/L	1	11/20/2013 2:06:42 AM
Lube Oil	1.74	0.205	BA2	mg/L	1	11/20/2013 2:06:42 AM
Surr: o-Terphenyl	161	50-150	SMI	%REC	1	11/20/2013 2:06:42 AM
NWTPH HCID	1	WHCID				Analyst: ZP
Diesel	DIESEL	0.639		mg/L	1	11/13/2013
Gasoline	ND	0.254		mg/L	1	11/13/2013
Kerosene	ND	0.639		mg/L	1	11/13/2013
Lube Oil	LUBE OIL	0.639		mg/L	1	11/13/2013
Mineral Spirits	ND	0.254		mg/L	1	11/13/2013
Surr: BFB	76.3	30.2-133		%REC	1	11/13/2013
Surr: o-Terphenyl	108	50-150		%REC	1	11/13/2013

Date Reported: 07-Feb-14

CLIENT:

Client Sample ID:

Maul Foster & Alongi

Collection Date: 11/7/2013 9:15:00 AM

 Project:
 City of Wenatchee / 0380.02.04

 Lab ID:
 1311104-037

PZ2-W

Matrix: WATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
NWTPH-DX - RBC	1	WTPH-DX				Analyst: ZP
Diesel	4.11	0.0825	BA1	mg/L	1	11/20/2013 2:28:43 AM
Lube Oil	3.49	0.206	BA2	mg/L	1	11/20/2013 2:28:43 AM
Surr: o-Terphenyl	120	50-150		%REC	1	11/20/2013 2:28:43 AM
NWTPH HCID	1	WHCID				Analyst: ZP
Diesel	DIESEL	0.634		mg/L	1	11/13/2013
Gasoline	ND	0.252		mg/L	1	11/13/2013
Kerosene	ND	0.634		mg/L	1	11/13/2013
Lube Oil	LUBE OIL	0.634		mg/L	1	11/13/2013
Mineral Spirits	ND	0.252		mg/L	1	11/13/2013
Surr: BFB	53.6	30.2-133		%REC	1	11/13/2013
Surr: o-Terphenyl	71.9	50-150		%REC	1	11/13/2013

WO#: 1311104

07-Feb-14

Client: Project:		Maul Foster & Alongi City of Wenatchee / 03	80.02.04						Т	SestCode: 6	5010_S		
Sample ID:	ICV	SampType:	ICV	TestCoo	le: 6010_S	Units: mg/Kg	Prep Date:		ie:		RunNo: 12	374	
Client ID:	ICV	Batch ID:	6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	te: 11/13/2	2013	SeqNo: 158	3381	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			104	2.00	100.0	0	104	90	110				
Lead			104	2.00	100.0	0	104	90	110				
Sample ID:	CCV	SampType:	CCV	TestCoo	le: 6010_S	Units: mg/Kg		Prep Dat	e:		RunNo: 12:	374	
Client ID:	CCV	Batch ID:	6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	te: 11/13/2	2013	SeqNo: 158	3382	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			108	2.00	100.0	0	108	90	110				
Lead			107	2.00	100.0	0	107	90	110				
Sample ID:	MBLK-	6256 SampType:	MBLK	TestCoo	le: 6010_S	Units: mg/Kg		Prep Dat	ie:		RunNo: 12:	374	
Client ID:	PBS	Batch ID:	6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	te: 11/13/2	2013	SeqNo: 158	3383	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			ND	2.00									
Lead			ND	2.00									
Sample ID:	LCS-62	56 SampType:	LCS	TestCoo	le: 6010_S	Units: mg/Kg		Prep Dat	te: 11/13/2	2013	RunNo: 12	374	
Client ID:	LCSS	Batch ID:	6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	te: 11/13/2	2013	SeqNo: 158	3384	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			107	2.00	100.0	0	107	85.1	107				
Qualifiers:	B O	Analyte detected in the associ RSD is greater than RSDlimit		lank		g times for preparation utside accepted recover		sexceeded		Not Detected at the Spike Recovery ou		14	ge 1 of .

WO#: 1311104

07-Feb-14

Client: Project:	Maul Foster City of Wer	r & Alongi natchee / 0380.02.04						Ţ	TestCode: 6	6010_8		
Sample ID: Client ID:	LCS-6256 LCSS	SampType: LCS Batch ID: 6256		le: 6010_S lo: SW6010C	Units: mg/Kg SW3050B		Prep Dat Analysis Dat	e: 11/13/2 e: 11/13/2		RunNo: 123 SeqNo: 158		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		108	2.00	100.0	0	108	84.9	109				
Sample ID:	1310269-001ADUP	SampType: DUP	TestCoc	le: 6010_S	Units: mg/Kg		Prep Dat	e: 11/13/2	2013	RunNo: 123	374	
Client ID:	ZZZZZZ	Batch ID: 6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	e: 11/13/2	2013	SeqNo: 158	3386	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic Lead		ND 18.5	2.00 2.00						0 19.87	0 7.36	20 20	
Sample ID:	1310269-001AMS	SampType: MS	TestCoc	le: 6010_S	Units: mg/Kg		Prep Dat	e: 11/13/2	2013	RunNo: 123	374	
Client ID:	ZZZZZZ	Batch ID: 6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	e: 11/13/2	2013	SeqNo: 158	3387	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic Lead		98.8 124	1.92 1.92	96.15 96.15	1.460 19.87	101 108	86.1 84.9	109 109				
Sample ID:	1310269-001AMSD	SampType: MSD	TestCod	le: 6010_S	Units: mg/Kg		Prep Dat	e: 11/13/2	2013	RunNo: 123	374	
Client ID:	ZZZZZZ	Batch ID: 6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	e: 11/13/2	2013	SeqNo: 158	3388	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		105	2.00	100.0	1.460	103	86.1	109	98.85	5.66	20	
Lead		122	2.00	100.0	19.87	102	84.9	109	123.6	1.27	20	
Qualifiers:	•	ted in the associated Method Bla r than RSDlimit	ink		g times for preparation utside accepted recover	•	exceeded		Not Detected at the Spike Recovery ou	1 0	1 u	ge 2 of

1311104 WO#:

Client: Project:	Maul Foster City of Wen	* & Alongi hatchee / 0380.02.04	TestCode:						6010_S				
•	1310269-001AMSD	SampType: MSD		de: 6010_S	Units: mg/Kg			e: 11/13/2		RunNo: 12:			
Client ID:	ZZZZZZ	Batch ID: 6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	e: 11/13/2	013	SeqNo: 158	3388		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val				%RPD	RPDLimit	Qual	
Sample ID:	CCV	SampType: CCV	TestCoo	TestCode: 6010_S Units: mg/Kg Prep				e:		RunNo: 12374			
Client ID:	CCV	Batch ID: 6256	TestN	lo: SW6010C	SW3050B	Analysis Date: 11/13/2013			SeqNo: 158	3392			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic		109	2.00	100.0	0	109	90	110					
Lead		108	2.00	100.0	0	108	90	110					
Sample ID:	CCV	SampType: CCV	TestCoo	de: 6010_S	Units: mg/Kg		Prep Dat	e:		RunNo: 12:	374		
Client ID:	CCV	Batch ID: 6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	e: 11/13/2	013	SeqNo: 158	3402		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic		109	2.00	100.0	0	109	90	110					
Lead		108	2.00	100.0	0	108	90	110					
Sample ID:	ICV	SampType: ICV	TestCoc	le: 6010_S	Units: mg/Kg		Prep Dat	e:		RunNo: 12:	374		
Client ID:	ICV	Batch ID: 6256	TestN	lo: SW6010C	SW3050B		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3519		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
		104	2.00	100.0	0	104	90	110					

Specialty Analytical

В

0

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

RSD is greater than RSDlimit

R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery Page 3 of 35

WO#: 1311104

Specialty Analytical

Client: Project:	Maul Foster & Alongi City of Wenatchee / 0380.02.04 TestCode: 6010_S										
Sample ID: CCV Client ID: CCV	SampType: CCV Batch ID: 6256		TestCode: 6010_S Units: mg/Kg Prep Date: TestNo: SW6010C SW3050B Analysis Date: 11/14/2013						RunNo: 12374 SeqNo: 158531		
Analyte	Result	PQL SF	YK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	105	2.00	100.0	0	105	90	110				

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

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O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

WO#: 1311104

07-Feb-14

Client: Project:	Maul Foster City of Wen	U	0.02.04	TestCode: 8							082LL_S		
Sample ID: 1016/1	260 CCV 1	SampType:	CCV	TestCoo	le: 8082LL_S	Units: µg/Kg		Prep Dat	e:		RunNo: 124	433	
Client ID: CCV		Batch ID:	6267	TestN	lo: SW 8082A	3545_8082LL	Analysis Date: 11/15/2013			013	SeqNo: 159121		
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260			66.9	0.333	66.67	0	100	85	115				
Aroclor 1260			64.3	0.333	66.67	0	96.4	85	115				
Sample ID: 13111	44-003BMS	SampType:	MS	TestCoo	le: 8082LL_S	Units: µg/Kg		Prep Dat	e: 11/14/2	013	RunNo: 124	433	
Client ID: ZZZZ	ZZ	Batch ID:	6267	TestN	lo: SW 8082A	3545_8082LL		Analysis Dat	e: 11/15/2	013	SeqNo: 159	9125	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260			66.8	0.333	66.67	0	100	56.6	123				
Sample ID: 131114	44-003BMSD	SampType:	MSD	TestCoo	le: 8082LL_S	Units: µg/Kg		Prep Dat	e: 11/14/2	013	RunNo: 124	433	
Client ID: ZZZZ	ZZ	Batch ID:	6267	TestN	lo: SW 8082A	3545_8082LL		Analysis Dat	e: 11/15/2	013	SeqNo: 159	9126	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260			47.4	0.333	66.67	0	71.1	56.6	123	66.80	34.0	20	RMI
Sample ID: MBLK	-6267	SampType:	MBLK	TestCoo	le: 8082LL_S	Units: µg/Kg		Prep Dat	e:		RunNo: 12 4	433	
Client ID: PBS		Batch ID:	6267	TestN	lo: SW 8082A	3545_8082LL		Analysis Dat	e: 11/15/2	013	SeqNo: 159	9131	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
			ND	0.333									
Aroclor 1016													
Aroclor 1016 Aroclor 1221			ND	0.333									
			ND ND	0.333 0.333									

WO#: 1311104

07-Feb-14

Client: Project:	Maul Foster of City of Wena	& Alongi tchee / 0380.02.04	4	TestCode:							8082LL_S			
Sample ID: MBLK-	6267	SampType: MBLK	TestCo	de: 8082LL_S	Units: µg/Kg	Prep Date:				RunNo: 12				
Client ID: PBS		Batch ID: 6267	Test	No: SW 8082A	3545_8082LL		Analysis Da	te: 11/15/2	013	SeqNo: 15				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Aroclor 1242		ND	0.333											
Aroclor 1248		ND	0.333											
Aroclor 1254		ND	0.333											
Aroclor 1260		ND	0.333											
Aroclor 1262		ND	0.333											
Aroclor 1268		ND	0.333											
Surr: Decachlorob	iphenyl	6190		6667		92.9	56.5	130						
Sample ID: LCS-62	67	SampType: LCS	TestCo	de: 8082LL_S	Units: µg/Kg		Prep Da	te: 11/14/2	2013	RunNo: 12	433			
Client ID: LCSS		Batch ID: 6267	Test	No: SW 8082A	3545_8082LL		Analysis Da	te: 11/15/2	2013	SeqNo: 15	9132			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Aroclor 1016/1260		30.2	0.333	66.67	0	45.3	44.3	137						
Sample ID: 1016/12	60 CCV 1	SampType: CCV	TestCo	de: 8082LL_S	Units: µg/Kg		Prep Da	te:		RunNo: 12	454			
Client ID: CCV		Batch ID: 6267	Test	No: SW 8082A	3545_8082LL		Analysis Da	ite: 11/18/2	2013	SeqNo: 15	9396			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Aroclor 1016/1260		64.7	0.333	66.67	0	97.0	85	115						

Specialty Analytical

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

Spike Recovery outside accepted recover

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WO#: 1311104

07-Feb-14

Client: Project:		r & Alongi natchee / 0380.02.04	TestCode:							3082LL_S			
Sample ID: Client ID:	1016/1260 CCV 1 CCV	SampType: CCV Batch ID: 6267	TestCode: 8082LL_S Units: µg/Kg TestNo: SW 8082A 3545_8082LL			Prep Dat Analysis Dat		013	RunNo: 124 SeqNo: 15				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aroclor 101	6/1260	64.9	0.333	66.67	0	97.3	85	115					
-	1254 CCV 1.0 CCV	SampType: CCV Batch ID: 6267		e: 8082LL_S o: SW 8082A	Units: µg/Kg 3545_8082LL		Prep Dat Analysis Dat		13	RunNo: 124 SeqNo: 164			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aroclor 125	4	69.0	0.333	66.67	0	104	85	115					
Sample ID:	1254 CCV 1.0	SampType: CCV	TestCod	e: 8082LL_S	Units: µg/Kg		Prep Dat	te:		RunNo: 124	433		
Client ID:	CCV	Batch ID: 6267	TestN	o: SW 8082A	3545_8082LL		Analysis Dat	te: 12/4/20	13	SeqNo: 164	4709		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aroclor 125	4	72.0	0.333	66.67	0	108	85	115					

Specialty Analytical

Qualifiers: B Analyte detected in the associated Method Blank

RPD outside accepted recovery limits

R

S Spike Recovery outside accepted recovery

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O RSD is greater than RSDlimit

ND Not Detected at the Reporting Limit

WO#: 1311104

07-Feb-14

	Foster & Alongi of Wenatchee / 0380.02.04						Т	'estCode: B	STEXRBC_S	5	
Sample ID: LCS-6273	SampType: LCS	TestCod	e: BTEXRBC	_ S Units: mg/Kg		Prep Dat	e: 11/14/2	013	RunNo: 124	113	
Client ID: LCSS	Batch ID: 6273	TestN	o: SW8021B	5030		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3843	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.10	0.0250	1.250	0	88.0	68.7	117				
Toluene	1.20	0.100	1.250	0	95.7	71.4	115				
Ethylbenzene	1.03	0.100	1.250	0	82.7	76.3	115				
Xylenes, Total	3.53	0.300	3.750	0	94.0	70.1	116				
Sample ID: MB-6273	SampType: MBLK	TestCod	e: BTEXRBC	_ S Units: mg/Kg		Prep Dat	e: 11/14/2	013	RunNo: 12 4	113	
Client ID: PBS	Batch ID: 6273	TestN	o: SW8021B	5030		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3844	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0250									
Toluene	ND	0.100									
Ethylbenzene	ND	0.100									
Xylenes, Total	ND	0.300									
Surr: 4-Bromofluorobenze	ene 2.87		5.000		57.4	42.6	126				
Sample ID: 1311104-007A	MS SampType: MS	TestCod	e: BTEXRBC	_S Units: mg/Kg	dry	Prep Dat	e: 11/14/2	013	RunNo: 124	113	
Client ID: GP14-Comp	Batch ID: 6273	TestN	o: SW8021B	5030		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3846	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.03	0.0279	1.395	0.4019	44.8	32.2	108				
Toluene	1.09	0.112	1.395	0.5693	37.2	56.7	110				S
Ethylbenzene	0.970	0.112	1.395	0.3349	45.5	53.3	107				S
Xylenes, Total	3.36	0.335	4.186	1.663	40.5	47.5	119				S
Qualifiers: B Analyt	e detected in the associated Method Bl	ank	H Holdin	g times for preparation	or analysis	sexceeded	ND I	Not Detected at the	e Reporting Limi	t Pa	age 8 of 1
O RSD is	s greater than RSDlimit		R RPD o	utside accepted recove	ry limits		S S	Spike Recovery ou	tside accepted re	COV	-

WO#: 1311104

07-Feb-14

Client: Project:	Maul Foster City of Wer	r & Alongi natchee / 0380.02.04						Т	estCode: E	BTEXRBC_S	S	
Sample ID:	1311104-007AMS	SampType: MS	TestCoo	le: BTEXRBC	_S Units: mg/K	g-dry	Prep Dat	e: 11/14/2	013	RunNo: 124	413	
Client ID:	GP14-Comp	Batch ID: 6273	TestN	lo: SW8021B	5030		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3846	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID:	1311104-007AMSD	SampType: MSD	TestCoo	le: BTEXRBC	_ S Units: mg/K	g-dry	Prep Dat	e: 11/14/2	013	RunNo: 124	413	
Client ID:	GP14-Comp	Batch ID: 6273	TestN	lo: SW8021B	5030		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3847	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		1.13	0.0279	1.395	0.4019	52.0	32.2	108	1.026	9.38	20	
Toluene		1.21	0.112	1.395	0.5693	45.9	56.7	110	1.089	10.5	20	S
Ethylbenzen	ie	1.08	0.112	1.395	0.3349	53.4	53.3	107	0.9701	10.7	20	
Xylenes, Tot	tal	3.70	0.335	4.186	1.663	48.7	47.5	119	3.360	9.69	20	
Sample ID:	сси	SampType: CCV	TestCoo	le: BTEXRBC	_ S Units: mg/K	g	Prep Dat	e:		RunNo: 124	413	
Client ID:	CCV	Batch ID: 6273	TestN	lo: SW8021B	5030		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3849	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		2.29	0.0250	2.500	0	91.6	85	115				
Toluene		2.34	0.100	2.500	0	93.4	85	115				
Ethylbenzen	ne	2.20	0.100	2.500	0	87.9	85	115				
Xylenes, Tot	tal	7.08	0.300	7.500	0	94.4	85	115				

Specialty Analytical

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery

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	ul Foster & Alongi y of Wenatchee / 0380.02.04						Т	'estCode: B	TEXRBC_	8	
Sample ID: CCV	SampType: CCV	TestCode: BTEXRBC_S Units: mg/Kg				Prep Dat	te:		RunNo: 124	413	
Client ID: CCV	Batch ID: 6273	TestN	lo: SW8021B	5030		Analysis Dat	te: 11/15/2	013	SeqNo: 159	9150	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.47	0.0250	2.500	0	98.6	85	115				
Toluene	2.50	0.100	2.500	0	100	85	115				
Ethylbenzene	2.38	0.100	2.500	0	95.3	85	115				
Xylenes, Total	7.60	0.300	7.500	0	101	85	115				
Sample ID: CCB	SampType: CCB	TestCoo	le: BTEXRBC	_ S Units: mg/Kg		Prep Dat	te:		RunNo: 12 4	413	
Client ID: CCB	Batch ID: 6273	TestN	lo: SW8021B	5030		Analysis Dat	te: 11/15/2	013	SeqNo: 159	9405	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0250									
Toluene	ND	0.100									
Ethylbenzene	ND	0.100									
Xylenes, Total	ND	0.300									
Surr: 4-Bromofluorobe	nzene 4.67		5.000		93.5	42.6	126				

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

Specialty Analytical

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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Client: Project:	Maul Foster City of Wen	& Alongi atchee / 0380.02.04						Т	CestCode: E	BTEXRBC_S	SA	
Sample ID:	A1311104-007AMS	SampType: MS	TestCoc	le: BTEXRBC_	S Units: mg/Kg	nits: mg/Kg-dry Prep Date:			013	RunNo: 124		
Client ID:	ZZZZZZ	Batch ID: 6274	TestN	lo: SW8021B	5035		Analysis Date	e: 11/14/2	013	SeqNo: 158	3851	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		1.0	0.028	1.395	0.02009	72.1	32.2	108				
Ethylbenzer	ne	0.97	0.11	1.395	0.01674	68.3	53.3	107				
Toluene		1.1	0.11	1.395	0.02847	76.0	56.7	101				
Xylenes, To	tal	3.4	0.33	4.186	0.08316	78.3	47.5	119				
Sample ID:	A1311104-007AMSD	SampType: MSD	TestCod	le: BTEXRBC_	S Units: mg/Kg	J-dry	Prep Dat	e: 11/14/2	013	RunNo: 124	114	
Client ID:	ZZZZZZ	Batch ID: 6274	TestN	lo: SW8021B	5035		Analysis Dat	e: 11/14/2	013	SeqNo: 158	3852	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		1.1	0.028	1.395	0.02009	79.4	32.2	108	1.026	9.38	20	
Ethylbenzer	ne	1.1	0.11	1.395	0.01674	76.2	53.3	107	0.9701	10.7	20	
Toluene		1.2	0.11	1.395	0.02847	84.7	56.7	101	1.089	10.5	20	
Xylenes, To	tal	3.7	0.33	4.186	0.08316	86.4	47.5	119	3.360	9.69	20	
Sample ID:	LCS-6274	SampType: LCS	TestCod	le: BTEXRBC_	S Units: mg/Kg		Prep Dat	e: 11/14/2	013	RunNo: 124	114	
Client ID:	LCSS	Batch ID: 6274	TestN	lo: SW8021B	5035		Analysis Date	e: 11/14/2	013	SeqNo: 158	3853	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		1.1	0.010	1.250	0	88.0	68.7	117				
Ethylbenzer	ne	1.0	0.10	1.250	0	82.7	76.3	115				
Toluene		1.2	0.10	1.250	0	95.7	71.4	115				
Xylenes, To	tal	3.5	0.30	3.750	0	94.0	70.1	116				
Surr: 4-B	romofluorobenzene	3.4										
Qualifiers:	B Analyte detecteO RSD is greater	ed in the associated Method Bla than RSDlimit	ank		times for preparatio	•	sexceeded		Not Detected at the Spike Recovery ou	1 0	1 45	e 11 o

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	ll Foster & Alongi of Wenatchee / 0380.02.04						Т	estCode: I	BTEXRBC_S	SA	
Sample ID: LCS-6274	SampType: LCS	TestCode: BT	EXRBC_	S Units: mg/Kg		Prep Dat	e: 11/14/20	013	RunNo: 124	14	
Client ID: LCSS	Batch ID: 6274	TestNo: SV	V8021B	5035		Analysis Date	e: 11/14/20	013	SeqNo: 158	853	
Analyte	Result	PQL SPI	K value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID: MB-6274	SampType: MBLK	TestCode: BT	EXRBC_	S Units: mg/Kg		Prep Date	e: 11/14/20	013	RunNo: 12 4	14	
Client ID: PBS	Batch ID: 6274	TestNo: SV	V8021B	5035		Analysis Date	e: 11/14/20	013	SeqNo: 158	8854	
Analyte	Result	PQL SPI	< value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.010									
Ethylbenzene	ND	0.10									
Toluene	ND	0.10									
Xylenes, Total	ND	0.30									
Surr: 4-Bromofluorobenz	zene 2.9		5.000		57.4	42.6	126				
Sample ID: CCV	SampType: CCV	TestCode: BT	EXRBC_	S Units: mg/Kg		Prep Dat	e:		RunNo: 12 4	14	
Client ID: CCV	Batch ID: 6274	TestNo: SV	V8021B	5035		Analysis Dat	e: 11/14/20	013	SeqNo: 158	859	
Analyte	Result	PQL SPI	< value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.3	0.025	2.500	0	91.6	85	115				
Ethylbenzene	2.2	0.10	2.500	0	87.9	85	115				
Toluene	2.3	0.10	2.500	0	93.4	85	115				
Xylenes, Total	7.1	0.30	7.500	0	94.4	85	115				
Surr: 4-Bromofluorobenz	zene 5.3										

Specialty Analytical

Qualifiers: B Analyte detected in the

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery

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	Foster & Alongi f Wenatchee / 0380.02.04						Те	estCode: B	STEXRBC_S	SA	
Sample ID: LCS-6301	SampType: LCS	TestCoo	le: BTEXRBC_	S Units: mg/Kg		Prep Dat	te: 11/19/20	13	RunNo: 125	524	
Client ID: LCSS	Batch ID: 6301	TestN	lo: SW8021B	5035		Analysis Dat	te: 11/19/20	13	SeqNo: 160)566	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.1	0.010	1.250	0	88.2	68.7	117				
Ethylbenzene	0.99	0.10	1.250	0	78.8	76.3	115				
Toluene	1.2	0.10	1.250	0	93.1	71.4	115				
Xylenes, Total	3.3	0.30	3.750	0	88.5	70.1	116				
Sample ID: MB-6301	SampType: MBLK	TestCoo	le: BTEXRBC_	S Units: mg/Kg		Prep Dat	te: 11/19/20	13	RunNo: 12:	524	
Client ID: PBS	Batch ID: 6301	TestN	lo: SW8021B	5035		Analysis Dat	te: 11/20/20	13	SeqNo: 160)568	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.010									
Ethylbenzene	ND	0.10									
Toluene	ND	0.10									
Xylenes, Total	ND	0.30									
Surr: 4-Bromofluorobenzer	ne 2.8		5.000		56.6	42.6	126				
Sample ID: CCV	SampType: CCV	TestCoo	le: BTEXRBC_	S Units: mg/Kg		Prep Dat	ie:		RunNo: 125	524	
Client ID: CCV	Batch ID: 6301	TestN	lo: SW8021B	5035		Analysis Dat	te: 11/19/20	13	SeqNo: 160)599	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.4	0.025	2.500	0	95.1	85	115				
Ethylbenzene	2.3	0.10	2.500	0	93.9	85	115				
Toluene	2.4	0.10	2.500	0	98.0	85	115				
Xylenes, Total	7.4	0.30	7.500	0	98.1	85	115				
	detected in the associated Method Bla greater than RSDlimit	ink	-	times for preparation tside accepted recover	-	exceeded		ot Detected at the pike Recovery ou		1 45	ge 13 o

1311104 WO#:

	Maul Foster & Alongi City of Wenatchee / 0380.02.04]	FestCode: 1	BTEXRBC_S	SA	
Sample ID: CCV	SampType: CCV	TestCod	le: BTEXRBC	_S Units: mg/Kg		Prep Da	te:		RunNo: 12	524	
Client ID: CCV	Batch ID: 6301	TestN	lo: SW8021B	5035		Analysis Da	te: 11/19/2	2013	SeqNo: 160)599	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID: CCV	SampType: CCV	TestCod	le: BTEXRBC	_S Units: mg/Kg		Prep Da	te:		RunNo: 12	524	
Client ID: CCV	Batch ID: 6301	TestN	lo: SW8021B	5035		Analysis Da	te: 11/20/2	2013	SeqNo: 160	0600	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.5	0.025	2.500	0	101	85	115				
Ethylbenzene	2.5	0.10	2.500	0	99.5	85	115				
Toluene	2.6	0.10	2.500	0	104	85	115				
Xylenes, Total	7.9	0.30	7.500	0	105	85	115				
Sample ID: 1311104	003BMS SampType: MS	TestCoc	le: BTEXRBC	_S Units: mg/Kg-	dry	Prep Da	te:		RunNo: 12	524	
Client ID: GP11-S-	17.5 Batch ID: 6301	TestN	lo: SW8021B	5035		Analysis Da	te: 11/22/2	2013	SeqNo: 161	304	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.9	0.025	3.107	0	93.0	32.2	108				HT
Ethylbenzene	3.0	0.25	3.107	0	96.4	53.3	107				HT
Toluene	3.3	0.25	3.107	0.07359	104	56.7	101				SHT
Xylenes, Total	9.8	0.75	9.322	0.1422	104	47.5	119				HT

Specialty Analytical

Analyte detected in the associated Method Blank Qualifiers: В

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

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0 RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery

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	Foster & Alongi Wenatchee / 0380.02.04						Т	SestCode: E	BTEXRBC_	SA	
Sample ID: 1311104-003BM	ISD SampType: MSD	TestCoo	de: BTEXRBC	_S Units: mg/Kg-	dry	Prep Dat	te:		RunNo: 12	524	
Client ID: GP11-S-17.5	Batch ID: 6301	TestNo: SW8021B 5035			Analysis Dat	te: 11/22/2	013	SeqNo: 161	1305		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.9	0.025	3.107	0	94.5	32.2	108	2.890	1.62	20	HT
Ethylbenzene	2.7	0.25	3.107	0	88.5	53.3	107	2.995	8.57	20	HT
Toluene	3.3	0.25	3.107	0.07359	102	56.7	101	3.317	2.01	20	SHT
Xylenes, Total	9.0	0.75	9.322	0.1422	95.2	47.5	119	9.805	8.40	20	ΗT
Sample ID: CCV	SampType: CCV	TestCoo	de: BTEXRBC	_ S Units: mg/Kg		Prep Dat	te:		RunNo: 12	524	
Client ID: CCV	Batch ID: 6301	TestN	lo: SW8021B	5035		Analysis Dat	te: 11/22/2	013	SeqNo: 161	1306	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2.5	0.025	2.500	0	101	85	115				
Ethylbenzene	2.5	0.10	2.500	0	98.5	85	115				
Toluene	2.6	0.10	2.500	0	104	85	115				
Xylenes, Total	7.9	0.30	7.500	0	105	85	115				

Specialty Analytical

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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07-Feb-14

	aul Foster & Alongi ity of Wenatchee / 0380.02.04						T	estCode: H	ICID_NW		
Sample ID: MB-6236 Client ID: PBS	SampType: MBLK Batch ID: 6236		e: HCID_NW o: NWHCID	Units: mg/Kg		Prep Date Analysis Date	e: 11/11/20 e: 11/12/20		RunNo: 123 SeqNo: 158		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	20.0									
Mineral Spirits	ND	20.0									
Kerosene	ND	50.0									
Diesel	ND	50.0									
Lube Oil	ND	100									
Surr: BFB	93.4		100.0		93.4	50	150				
Surr: o-Terphenyl	90.6		100.0		90.6	50	150				
Sample ID: 1311076-0	01ADUP SampType: DUP	TestCod	e: HCID_NW	Units: mg/Kg-	Iry	Prep Date	e: 11/11/2(013	RunNo: 123	353	
Client ID: ZZZZZZ	Batch ID: 6236	TestN	o: NWHCID			Analysis Date	e: 11/12/20	013	SeqNo: 158	3101	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	24.5						0	0	20	
Mineral Spirits	ND	24.5						0	0	20	
Kerosene	ND	61.1						0	0	20	
Diesel	DIESEL	61.1						100.6	5.05	20	
Lube Oil	LUBE OIL	122						876.8	17.5	20	
Sample ID: 1311104-0	01ADUP SampType: DUP	TestCod	e: HCID_NW	Units: mg/Kg-	Iry	Prep Date	e: 11/11/20	013	RunNo: 123	353	
Client ID: GP11-Con	Batch ID: 6236		o: NWHCID			Analysis Date	e: 11/12/20	013	SeqNo: 158	3103	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	22.3						0	0	20	
e de la companya de la	nalyte detected in the associated Method B SD is greater than RSDlimit	lank		g times for preparation utside accepted recover	-	s exceeded		lot Detected at the pike Recovery ou	1 0	1 45	ge 16 of 3

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Client: Project:	Maul Foster City of Wer	r & Alongi natchee / 0380.02.04						Т	'estCode: H	ICID_NW		
Sample ID:	1311104-001ADUP	SampType: DUP	TestCoo	de: HCID_NW	Units: mg/ł	(g-dry	Prep Dat	e: 11/11/2	013	RunNo: 123	53	
Client ID:	GP11-Comp	Batch ID: 6236	TestN	lo: NWHCID			Analysis Dat	e: 11/12/2	013	SeqNo: 158	103	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mineral Spir	rits	ND	22.3						0	0	20	
Kerosene		ND	55.8						0	0	20	
Diesel		DIESEL	55.8						0	0	20	RF
Lube Oil		LUBE OIL	112						157.0	20.1	20	R
Sample ID:	1311108-001ADUP	SampType: DUP	TestCod	de: HCID_NW	Units: mg/ł	(g-dry	Prep Dat	e: 11/11/2	013	RunNo: 123	53	
Client ID:	ZZZZZZ	Batch ID: 6236	TestN	lo: NWHCID			Analysis Dat	e: 11/12/2	013	SeqNo: 158	3113	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline		ND	21.7						0	0	20	
Mineral Spir	rits	ND	21.7						0	0	20	
Kerosene		ND	54.2						0	0	20	
Diesel		DIESEL	54.2						0	0	20	RF
Lube Oil		LUBE OIL	108						224.3	25.3	20	R

Analyte detected in the associated Method Blank Qualifiers: В 0

Specialty Analytical

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

RSD is greater than RSDlimit

R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery Page 17 of 35

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07-Feb-14

Client: Project:		ter & Alongi Venatchee / 0380.02.04	TestCode: NWTPHD	X_S
Sample ID:		SampType: LCS	TestCode: NWTPHDX_S Units: mg/Kg Prep Date: 11/15/2013 RunNo:	
Client ID:	LCSS	Batch ID: 6284	TestNo:NWTPH-DxSW3545AAnalysis Date:11/19/2013SeqNo:	159823
Analyte		Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RP	D RPDLimit Qual
Diesel		185	15.0 166.5 0 111 76.3 125	
Lube Oil		148	50.0 166.5 0 89.1 69.9 127	
Sample ID:	MB-6284	SampType: MBLK	TestCode: NWTPHDX_S Units: mg/Kg Prep Date: 11/15/2013 RunNo:	12482
Client ID:	PBS	Batch ID: 6284	TestNo:NWTPH-DxSW3545AAnalysis Date:11/19/2013SeqNo:	159824
Analyte		Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RP	D RPDLimit Qual
Diesel		ND	15.0	
Lube Oil		ND	50.0	
Surr: o-T	erphenyl	24.0	33.30 72.1 50 150	
Sample ID:	1311104-009ADUP	SampType: DUP	TestCode: NWTPHDX_S Units: mg/Kg-dry Prep Date: 11/15/2013 RunNo:	12482
Client ID:	GP14-S-11.5	Batch ID: 6284	TestNo: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 SeqNo:	159834
Analyte		Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RP	D RPDLimit Qual
Diesel		78.5	18.0 53.06 38	7 20 RA1
Lube Oil		169	60.1 131.9 24	7 20 R
Sample ID:	1311108-002ADUP	SampType: DUP	TestCode: NWTPHDX_S Units: mg/Kg-dry Prep Date: 11/15/2013 RunNo:	12482
Client ID:	ZZZZZZ	Batch ID: 6284	TestNo:NWTPH-DxSW3545AAnalysis Date:11/19/2013SeqNo:	159844
Analyte		Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RP	D RPDLimit Qual
Qualifiers:	-	ected in the associated Method Bla ater than RSDlimit	hk H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting L R RPD outside accepted recovery limits S Spike Recovery outside accepted	1 450 10 01 5

WO#: 1311104

07-Feb-14

Client: Project:		Maul Foster City of Wer	: & Alongi atchee / 038	30.02.04								TestCode	e: N	NWTPHDX_	S	
•		8-002ADUP Z	SampType: Batch ID:			e: NWTPHD) o: NWTPH-D	_	Units: mg/Kg-o SW3545A	iry	Prep Da Analysis Da	ate: 11/1 ate: 11/1			RunNo: 12482 SeqNo: 159844		
Analyte				Result	PQL	SPK value	SP	YK Ref Val	%REC	LowLimit	HighLim	it RPD Re	ef Val	%RPD	RPDLimit	Qual
Diesel Lube Oil				2060 2210	33.4 111								1254 1364	48.7 47.5	20 20	RA1 RA2
Sample ID: Client ID:	CCV CCV		SampType: Batch ID:			e: NWTPHD) o: NWTPH-D		Units: mg/Kg SW3545A		Prep Da Analysis Da		9/2013		RunNo: 124 SeqNo: 15 9		
Analyte				Result	PQL	SPK value	SP	YK Ref Val	%REC	LowLimit	HighLim	it RPD Re	ef Val	%RPD	RPDLimit	Qual
Diesel Lube Oil				978 478	15.0 50.0	1014 522.7		0 0	96.4 91.4	85 85	11 11					
Sample ID:	ссу		SampType:	CCV	TestCod	e: NWTPHD)	(_S	Units: mg/Kg		Prep Da	ite:			RunNo: 124	82	
Client ID:	ссу		Batch ID:	6284	TestN	o: NWTPH-D	x	SW3545A		Analysis Da	ite: 11/1	9/2013		SeqNo: 159	846	
Analyte				Result	PQL	SPK value	SP	YK Ref Val	%REC	LowLimit	HighLim	it RPD Re	ef Val	%RPD	RPDLimit	Qual
Diesel Lube Oil				1290 591	15.0 50.0	1352 696.9		0 0	95.2 84.7	85 85	11 11					
Sample ID:	CCV		SampType:	CCV	TestCod	e: NWTPHD)	(_S	Units: mg/Kg		Prep Da	ite:			RunNo: 124	82	
Client ID:	CCV		Batch ID:	6284	TestN	o: NWTPH-D	x	SW3545A		Analysis Da	ite: 11/2	0/2013		SeqNo: 159	867	
Analyte				Result	PQL	SPK value	SP	PK Ref Val	%REC	LowLimit	HighLim	iit RPD Re	f Val	%RPD	RPDLimit	Qual
Diesel				1020	15.0	1014		0	100	85	11	5				
Qualifiers:	B O	•	ed in the associa than RSDlimit	ted Method Blank			-	nes for preparation le accepted recovery	•	exceeded	ND S			e Reporting Limit	1 45	e 19 of

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	e				TestCode: NWTPHDX_S							
cv cv	SampType: CCV Batch ID: 6284			- 00								
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
	457	50.0	522.7	0	87.4	85	115					
CS-6302	SampType: LCS	TestCoo	de: NWTPHDX	_S Units: mg/Kg		Prep Date	: 11/19/2	013	RunNo: 12	514		
CSS	Batch ID: 6302	TestN	lo: NWTPH-D x	SW3545A		Analysis Date	: 11/20/2	013	SeqNo: 160	0296		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
	179 182	15.0 50.0	166.5 166.5	0 0	108 109	76.3 69.9	125 127					
B-6302	SampType: MBLK	TestCoo	de: NWTPHDX	_ S Units: mg/Kg		Prep Date	: 11/19/2	013	RunNo: 12	514		
BS	Batch ID: 6302	TestN	lo: NWTPH-D x	SW3545A		Analysis Date	: 11/20/2	013	SeqNo: 160	0297		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
henvl	ND ND 20.1	15.0 50.0	33 30		60.4	50	150					
	20.1		00.00		00.4		100					
311061-006ADUP	SampType: DUP	TestCo	de: NWTPHDX	_S Units: mg/Kg	-dry	Prep Date	: 11/19/2	013	RunNo: 12	514		
ZZZZZ	Batch ID: 6302	TestN	lo: NWTPH-D x	sw3545A		Analysis Date	: 11/20/2	013	SeqNo: 160	0301		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
	City of Wer	CV Batch ID: 6284 Result 457 CS-6302 SampType: LCS CSS Batch ID: 6302 Result 179 182 B-6302 SampType: MBLK Batch ID: 6302 Result MD ND 20.1 MD ND 20.1	City of Wenatchee / 0380.02.04 CV SampType: CCV TestCod CV Batch ID: 6284 Testh Result PQL 457 50.0 CS-6302 SampType: LCS TestCod CS-6302 SampType: LCS TestCod CS-6302 SampType: LCS TestCod Result PQL 179 15.0 179 15.0 Batch ID: 6302 Testh Result PQL ND 15.0 ND 50.0 Alt1061-006ADUP	City of Wenatchee / 0380.02.04 CV SampType: CCV TestCode: NWTPHDX CV Batch ID: 6284 TestNo: NWTPH-Dx CV Batch ID: 6284 TestNo: NWTPH-Dx CV Batch ID: 6284 TestCode: NWTPHDX CS-6302 SampType: LCS TestCode: NWTPHDX CS-6302 SampType: LCS TestCode: NWTPHDX CS-6302 SampType: LCS TestNo: NWTPH-Dx Result PQL SPK value 179 15.0 166.5 Result PQL SPK value ND 15.0 ND 15.0	City of Wenatchee / 0380.02.04 CV SampType: CCV Batch ID: 6284 Result PQL SPK value PQL SPK value SPK Ref Val 457 50.0 522.7 0 CS-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A CS-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A CS-6302 SampType: LCS TestNo: NWTPH-Dx SW3545A Result PQL SPK value SPK Ref Val 179 15.0 166.5 0 179 15.0 166.5 0 182 50.0 166.5 0 B-6302 SampType: MBLK TestCode: NWTPHDX_S Units: mg/Kg Bs Batch ID: 6302 TestNo: NWTPH-Dx SW3545A MD 15.0 ND 15.0 ND 15.0 ND 15.0 ND 50.0 33.30 150.0 henyl 20.1 33.30 33.30 150.0 150.0	City of Wenatchee / 0380.02.04 CV SampType: CV TestCode: NWTPHDX_S Units: mg/Kg CV Batch ID: 6284 TestNo: NWTPH-Dx SW3545A Result PQL SPK value SPK Ref Val %REC 457 50.0 522.7 0 87.4 CS-6302 SampType: LCS TestCode: NWTPHDX_S Units: mg/Kg CS-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A CSS Batch ID: 6302 TestNo: NWTPH-Dx SW3545A Result PQL SPK value SPK Ref Val %REC 179 15.0 166.5 0 108 Be6302 SampType: MBLK TestCode: NWTPHDx_S Watts: mg/Kg Be6302 SampType: MBLK TestCode: NWTPHDx_S Units: mg/Kg Batch ID: 6302 TestNo: NWTPH-Dx SW3545A %Ref	City of Wenatchee / 0380.02.04 CV SampType: CCV TestCode: NWTPHDX_S Units: mg/Kg Prep Date CV Batch ID: 6284 TestCode: NWTPHDX_S Units: mg/Kg Prep Date CV Batch ID: 6284 TestCode: NWTPHDX_S Units: mg/Kg Prep Date Result PQL SPK Ref Val %REC LowLimit 457 50.0 52.7 0 87.4 85 CS-6302 SampType: LCS TestCode: NWTPHDX_S Units: mg/Kg Prep Date CS-6302 SampType: LCS TestNo: NWTPH-Dx SW3545A Analysis Date Result PQL SPK Ref Val %REC LowLimit 179 15.0 108 TestNo: NWTPH-Dx_S SW3545A Analysis Date Batch ID: 6302	City of Wenatchee / 0380.02.04 T CV SampType: CCV TestCode: NWTPHDX_S Units: mg/Kg Prep Date: CV Batch ID: 6284 TestNo: NWTPHDx SW3545A Analysis Date: 11/20/2 CV Batch ID: 6284 PCL SPK value SPK Ref Val %REC LowLimit HighLimit CS-6302 SampType: LCS TestCode: NWTPHDX_S Units: mg/Kg Prep Date: 11/19/2 CS-6302 SampType: LCS TestCode: NWTPHDX_S Units: mg/Kg Prep Date: 11/19/2 CS-6302 SampType: MBLK TestCode: NWTPHDX_S Units: mg/Kg Prep Date: 11/19/2 Result PQL SPK value SPK Val %REC LowLimit HighLimit 179 <td c<="" td=""><td>City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: CV SampType: CCV Batch ID: 6284 PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val CV Batch ID: 6284 PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val Result PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val 25-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 258 Batch ID: 6302 TestCode: NWTPH-Dx SW3545A Analysis Date: 11/20/2013 Result PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val 179 15.0 166.5 0 108 76.3 125 11/20/2013 Be302 SampType: MBLK TestCode: NWTPH-Dx SW3545A</td><td>City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: RunNo: 12 CV SampType: CCV TestNo: NWTPHDX_S Units: mg/Kg Prep Date: III/0/2013 SeqNo: 15 CV Batch ID: 6284 TestNo: NWTPHDX_S SW3545A Analysis Date: 11/20/2013 SeqNo: 15 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD RP RP del %RPD 457 50.0 522.7 0 87.4 85 115 15 CS-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 CS-6302 SampType: LCS TestNo: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 CS-6302 SampType: MBLK TestNo: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 <</td><td>City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: NWTPHDX_S RunNo: 12482 CV Batch ID: 6284 TestNo: NWTPHDX_S SW3545A Analysis Date: 11/20/2013 SeqNo: 159867 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit 457 50.0 522.7 0 87.4 85 115 ************************************</td></td>	<td>City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: CV SampType: CCV Batch ID: 6284 PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val CV Batch ID: 6284 PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val Result PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val 25-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 258 Batch ID: 6302 TestCode: NWTPH-Dx SW3545A Analysis Date: 11/20/2013 Result PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val 179 15.0 166.5 0 108 76.3 125 11/20/2013 Be302 SampType: MBLK TestCode: NWTPH-Dx SW3545A</td> <td>City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: RunNo: 12 CV SampType: CCV TestNo: NWTPHDX_S Units: mg/Kg Prep Date: III/0/2013 SeqNo: 15 CV Batch ID: 6284 TestNo: NWTPHDX_S SW3545A Analysis Date: 11/20/2013 SeqNo: 15 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD RP RP del %RPD 457 50.0 522.7 0 87.4 85 115 15 CS-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 CS-6302 SampType: LCS TestNo: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 CS-6302 SampType: MBLK TestNo: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 <</td> <td>City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: NWTPHDX_S RunNo: 12482 CV Batch ID: 6284 TestNo: NWTPHDX_S SW3545A Analysis Date: 11/20/2013 SeqNo: 159867 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit 457 50.0 522.7 0 87.4 85 115 ************************************</td>	City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: CV SampType: CCV Batch ID: 6284 PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val CV Batch ID: 6284 PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val Result PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val 25-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 258 Batch ID: 6302 TestCode: NWTPH-Dx SW3545A Analysis Date: 11/20/2013 Result PQL SPK value SPK Ref Val %REC LowLinit HighLinit RPD Ref Val 179 15.0 166.5 0 108 76.3 125 11/20/2013 Be302 SampType: MBLK TestCode: NWTPH-Dx SW3545A	City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: RunNo: 12 CV SampType: CCV TestNo: NWTPHDX_S Units: mg/Kg Prep Date: III/0/2013 SeqNo: 15 CV Batch ID: 6284 TestNo: NWTPHDX_S SW3545A Analysis Date: 11/20/2013 SeqNo: 15 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD RP RP del %RPD 457 50.0 522.7 0 87.4 85 115 15 CS-6302 SampType: LCS TestCode: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 CS-6302 SampType: LCS TestNo: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 CS-6302 SampType: MBLK TestNo: NWTPH-Dx SW3545A Analysis Date: 11/19/2013 RunNo: 12 <	City of Wenatchee / 0380.02.04 TestCode: NWTPHDX_S Units: mg/Kg Prep Date: NWTPHDX_S RunNo: 12482 CV Batch ID: 6284 TestNo: NWTPHDX_S SW3545A Analysis Date: 11/20/2013 SeqNo: 159867 Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit 457 50.0 522.7 0 87.4 85 115 ************************************

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Specialty	Analytical
Cliente	Maul Easter & Alongi

Client: Project:		er & Alongi enatchee / 0380.02.04						ſ	TestCode: N	WTPHDX_	S	
Sample ID:	1311061-006ADUP	SampType: DUP	TestCode	: NWTPHDX	_S Units: mg/Kg	dry	Prep Da	te: 11/19/2	2013	RunNo: 12	514	
Client ID:	ZZZZZZ	Batch ID: 6302	TestNo	: NWTPH-Dx	SW3545A		Analysis Da	te: 11/20/2	2013	SeqNo: 160	0301	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil		ND	74.1						0	0	20	HT
Sample ID:	1311200-004ADUP	SampType: DUP	TestCode	: NWTPHDX	_ S Units: mg/Kg	dry	Prep Da	te: 11/19/2	2013	RunNo: 12	514	
Client ID:	ZZZZZZ	Batch ID: 6302	TestNo	: NWTPH-Dx	SW3545A		Analysis Da	te: 11/20/2	2013	SeqNo: 160	0311	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Lube Oil		22.9 ND	16.3 54.4						306.8 95.74	172 200	20 20	R RF
Sample ID: Client ID:	ccv ccv	SampType: CCV Batch ID: 6302		: NWTPHDX	_ 00		Prep Da Analysis Da		2013	RunNo: 12: SeqNo: 16		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		995	15.0	1014	0	98.1	85	115				
Lube Oil		566	50.0	522.7	0	108	85	115				
Sample ID:	CCV	SampType: CCV	TestCode	: NWTPHDX	_S Units: mg/Kg		Prep Da	te:		RunNo: 12	514	
Client ID:	ccv	Batch ID: 6302	TestNo	: NWTPH-Dx	sw3545A		Analysis Da	te: 11/20/2	2013	SeqNo: 160	0319	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		1270	15.0	1352	0	94.2	85	115				
Lube Oil		717	50.0	696.9	0	103	85	115				
Qualifiers:	•	cted in the associated Method Blan ter than RSDlimit	k		g times for preparation utside accepted recove	•	s exceeded		Not Detected at the Spike Recovery ou		1 45	e 21 of 3

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Client: Project:		Maul Foster & Alongi City of Wenatchee / 0380.02.04						Т	estCode: 1	NWTPHDX_	S	
Sample ID:	CCV	SampType: CCV	TestCod	le: NWTPHDX	(_S Units: mg/Kg		Prep Dat	e:		RunNo: 12514		
Client ID:	CCV	Batch ID: 6302	TestN	lo: NWTPH-D	x SW3545A		Analysis Date: 11/20/2013			SeqNo: 160		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID:	ссу	SampType: CCV	TestCod	le: NWTPHD)	(_S Units: mg/Kg		Prep Date	e:		RunNo: 12	514	
Client ID:	ccv	Batch ID: 6302	TestN	lo: NWTPH-D	x SW3545A		Analysis Date	e: 11/21/2	013	SeqNo: 160	0665	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		891	15.0	1014	0	87.8	85	115				
Lube Oil		482	50.0	522.7	0	92.2	85	115				
Sample ID:	ccv	SampType: CCV	TestCod	le: NWTPHD)	(_S Units: mg/Kg		Prep Dat	e:		RunNo: 12	514	
Client ID:	ccv	Batch ID: 6302	TestN	lo: NWTPH-D	x SW3545A		Analysis Date	e: 11/21/2	013	SeqNo: 160	0666	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		1190	15.0	1352	0	88.3	85	115				
Lube Oil		607	50.0	696.9	0	87.1	85	115				

Specialty Analytical

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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Client: Project:		oster & Alongi Wenatchee / 0380.02.04						Т	CestCode: N	NWTPHDXI	LL_W	
Sample ID: Client ID:	LCS-6293 LCSW	SampType: LCS Batch ID: 6293		e: NWTPHDX o: NWTPH-Dx	•		Prep Dat Analysis Dat			RunNo: 12485 SeqNo: 159873		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Lube Oil		1.01 0.934	0.0800 0.200	1.000 1.000	0 0	101 93.4	60.7 64	121 126				B B
	LCSD-6293 LCSS02	SampType: LCSD Batch ID: 6293		e: NWTPHDX o: NWTPH-Dx	LL Units: mg/L x SW3510B		Prep Dat Analysis Dat	e: 11/18/2 e: 11/20/2		RunNo: 124 SeqNo: 159		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Lube Oil		1.01 0.953	0.0800 0.200	1.000 1.000	0 0	101 95.3	60.7 64	121 126	1.011 0.9335	0.290 2.07	20 20	B B
Sample ID:		SampType: MBLK		e: NWTPHDX	•		Prep Dat			RunNo: 124		
Client ID: Analyte	PBW	Batch ID: 6293 Result	l estN PQL	o: NWTPH-D x	sPK Ref Val	%REC	Analysis Dat		RPD Ref Val	SeqNo: 159 %RPD	RPDLimit	Qual
Diesel Lube Oil Surr: o-T	erphenyl	0.0990 0.268 0.100	0.0800 0.200	0.2000		50.1	50	150				
Sample ID:		SampType: CCV		e: NWTPHDX	J		Prep Dat			RunNo: 124		
Client ID: Analyte	CCV	Batch ID: 6293 Result	TestN PQL	o: NWTPH-D x	sPK Ref Val	%REC	Analysis Dat		RPD Ref Val	SeqNo: 159 %RPD	9882 RPDLimit	Qual

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Client: Project:	Maul Foster & Alongi City of Wenatchee / 0380.02.04						Т	estCode: N	WTPHDXI	LL_W	
Sample ID: CCV Client ID: CCV	SampType: CCV Batch ID: 6293							013	RunNo: 12485 SeqNo: 159882		
Analyte	Result	PQL SPł	K value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	6.10	0.0800	6.090	0	100	85	115				В
Lube Oil	2.74	0.200	3.139	0	87.4	85	115				В
Sample ID: CCV	SampType: CCV	TestCode: NV	VTPHDXLL	Units: mg/L		Prep Dat	e:		RunNo: 12 4	185	
Client ID: CCV	Batch ID: 6293	TestNo: NV	VTPH-Dx	SW3510B		Analysis Dat	e: 11/19/2	013	SeqNo: 159	9886	
Analyte	Result	PQL SPł	K value S	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	7.73	0.0800	8.120	0	95.2	85	115				В
Lube Oil	3.55	0.200	4.186	0	84.7	85	115				В

Specialty Analytical

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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Client: Project:	Maul Foster of City of Wena	& Alongi .tchee / 0380.02.04				TestCode: NWTPHHCID_W						
•			TestCode: NWTPHHC TestNo: NWHCID		_ 0		Prep Date: 11/12/2013 Analysis Date: 11/13/2013			RunNo: 123 SeqNo: 158		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel		ND	0.630									
Gasoline		ND	0.250									
Kerosene		ND	0.630									
Lube Oil		ND	0.630									
Mineral Spirits		ND	0.250									
Surr: BFB		0.911		1.000		91.1	30.2	133				
Surr: o-Terphe	enyl	0.911		1.000		91.1	50	150				

 Qualifiers:
 B
 Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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Client: Project:	Maul Foster City of Wer	r & Alongi natchee / 0380.02.04						Т	CestCode: P	AHLL_S		
Sample ID: CCV-6	292	SampType: CCV	TestCo	de: PAHLL_S	Units: µg/Kg		Prep Da	te:		RunNo: 124	451	
Client ID: CCV		Batch ID: 6292	Test	lo: SW8270D	SW 3545A		Analysis Da	te: 11/19/2	013	SeqNo: 159	9380	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalen	ie	122	6.67	133.3	0	91.7	80	120				
2-Methylnaphthalen	e	142	6.67	133.3	0	106	80	120				
Acenaphthene		113	6.67	133.3	0	84.8	80	120				
Acenaphthylene		125	6.67	133.3	0	93.8	80	120				
Anthracene		110	6.67	133.3	0	82.6	80	120				
Benz(a)anthracene		114	6.67	133.3	0	85.6	80	120				
Benzo(a)pyrene		119	6.67	133.3	0	89.3	80	120				
Benzo(b)fluoranthe	ne	115	6.67	133.3	0	86.3	80	120				
Benzo(g,h,i)perylen	е	121	6.67	133.3	0	91.0	80	120				
Benzo(k)fluoranther	ne	115	6.67	133.3	0	86.5	80	120				
Carbazole		118	6.67	133.3	0	88.2	80	120				
Chrysene		110	6.67	133.3	0	82.2	80	120				
Dibenz(a,h)anthrac	ene	120	6.67	133.3	0	89.8	80	120				
Dibenzofuran		116	6.67	133.3	0	87.3	80	120				
Fluoranthene		112	6.67	133.3	0	84.3	80	120				
Fluorene		119	6.67	133.3	0	89.4	80	120				
Indeno(1,2,3-cd)pyr	rene	122	6.67	133.3	0	91.3	80	120				
Naphthalene		120	6.67	133.3	0	89.9	80	120				
Phenanthrene		115	6.67	133.3	0	86.5	80	120				
Pyrene		119	6.67	133.3	0	89.2	80	120				

Specialty Analytical

Qualifiers: B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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WO#: 1311104

07-Feb-14

	ul Foster & Alongi y of Wenatchee / 0380.02.04						Т	estCode: P	PAHLL_S		
Sample ID: LCS-6292 Client ID: LCSS	SampType: LCS Batch ID: 6292		e: PAHLL_S o: SW8270D	Units: µg/Kg SW 3545A		•	te: 11/18/20 te: 11/19/20		RunNo: 124 SeqNo: 15 9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	225	6.67	333.4	0	67.6	29.1	109				
2-Methylnaphthalene	305	6.67	333.4	0	91.5	29.1	109				
Acenaphthene	222	6.67	333.4	0	66.5	39.6	107				
Benzo(a)pyrene	253	6.67	333.4	0	75.8	37.7	137				
Benzo(g,h,i)perylene	292	6.67	333.4	0	87.5	49.7	135				
Naphthalene	202	6.67	333.4	0	60.7	29.1	109				
Phenanthrene	231	6.67	333.4	0	69.4	48.4	115				
Pyrene	254	6.67	333.4	0	76.2	47.2	134				
Sample ID: MB-6292	SampType: MBLK	TestCod	e: PAHLL_S	Units: µg/Kg		Prep Dat	te: 11/18/20	13	RunNo: 12 4	51	
Client ID: PBS	Batch ID: 6292	TestN	o: SW8270D	SW 3545A		Analysis Dat	te: 11/19/20	13	SeqNo: 159	383	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	6.67									
O Mathala and the also a											
2-Methylnaphthalene	ND	6.67									
Acenaphthene	ND ND	6.67 6.67									
• •											
Acenaphthene	ND	6.67									
Acenaphthene Acenaphthylene	ND ND	6.67 6.67									
Acenaphthene Acenaphthylene Anthracene	ND ND ND	6.67 6.67 6.67									
Acenaphthene Acenaphthylene Anthracene Benz(a)anthracene	ND ND ND ND	6.67 6.67 6.67 6.67									
Acenaphthene Acenaphthylene Anthracene Benz(a)anthracene Benzo(a)pyrene	ND ND ND ND	6.67 6.67 6.67 6.67 6.67									
Acenaphthene Acenaphthylene Anthracene Benz(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene	ND ND ND ND ND	6.67 6.67 6.67 6.67 6.67 6.67									

Qualifiers:

В

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

Specialty Analytical

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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WO#: 1311104

07-Feb-14

	ster & Alongi Venatchee / 0380.02.04						Te	stCode: P	PAHLL_S		
Sample ID: MB-6292	SampType: MBLK	TestCoc	le: PAHLL_S	Units: µg/Kg		Prep Da	te: 11/18/20		 RunNo: 12 4	151	
Client ID: PBS	Batch ID: 6292	TestN	lo: SW8270D	SW 3545A		Analysis Da	te: 11/19/20	13	SeqNo: 159	9383	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibenz(a,h)anthracene	ND	6.67									
Fluoranthene	ND	6.67									
Fluorene	ND	6.67									
Indeno(1,2,3-cd)pyrene	ND	6.67									
Naphthalene	ND	6.67									
Phenanthrene	ND	6.67									
Pyrene	ND	6.67									
Surr: 2-Fluorobiphenyl	3.69		6.667		55.4	42.6	128				
Surr: Nitrobenzene-d5	4.75		6.667		71.3	21.7	155				
Surr: p-Terphenyl-d14	4.78		6.667		71.7	44.9	155				
Sample ID: 1311104-007AMS	SampType: MS	TestCoo	le: PAHLL_S	Units: µg/Kg-o	lry	Prep Da	te: 11/18/20	13	RunNo: 12 4	151	
Client ID: GP14-Comp	Batch ID: 6292	TestN	lo: SW8270D	SW 3545A		Analysis Da	te: 11/19/20	13	SeqNo: 159	9681	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	244	37.2	372.1	1.871	65.0	33.7	111				
Benzo(a)pyrene	305	37.2	372.1	8.834	79.7	64.6	110				
Benzo(g,h,i)perylene	320	37.2	372.1	20.64	80.4	15	128				
Naphthalene	200	37.2	372.1	9.062	51.3	27.7	108				
Phenanthrene	281	37.2	372.1	13.33	71.8	20.2	139				
Pyrene	307	37.2	372.1	20.80	77.0	26.8	142				

Qualifiers: В

Specialty Analytical

Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded Η

ND Not Detected at the Reporting Limit

0 RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery

WO#: 1311104

07-Feb-14

Client:Maul FosteProject:City of Wei	r & Alongi natchee / 0380.02.04						Т	'estCode: P	PAHLL_S		
Sample ID: 1311104-007AMSD Client ID: GP14-Comp	SampType: MSD Batch ID: 6292		de: PAHLL_S No: SW8270D	Units: µg/Kg- SW 3545A	dry	Prep Dat Analysis Dat	e: 11/18/2 e: 11/19/2		RunNo: 124 SeqNo: 15 9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	247	37.2	372.1	1.871	65.9	33.7	111	243.9	1.25	20	
Benzo(a)pyrene	330	37.2	372.1	8.834	86.3	64.6	110	305.3	7.74	20	
Benzo(g,h,i)perylene	335	37.2	372.1	20.64	84.4	15	128	319.7	4.55	20	
Naphthalene	214	37.2	372.1	9.062	55.1	27.7	108	199.9	6.83	20	
Phenanthrene	274	37.2	372.1	13.33	70.2	20.2	139	280.7	2.28	20	
Pyrene	284	37.2	372.1	20.80	70.7	26.8	142	307.2	7.89	20	
Sample ID: CCV-6292	SampType: CCV	TestCo	de: PAHLL_S	Units: µg/Kg		Prep Dat	e:		RunNo: 12 4	151	
Client ID: CCV	Batch ID: 6292	TestN	lo: SW8270D	SW 3545A		Analysis Dat	e: 11/20/2	013	SeqNo: 160	0071	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	115	6.67	133.3	0	86.3	80	120				
2-Methylnaphthalene	145	6.67	133.3	0	109	80	120				
Acenaphthene	114	6.67	133.3	0	85.7	80	120				
Acenaphthylene	130	6.67	133.3	0	97.4	80	120				
Anthracene	116	6.67	133.3	0	86.8	80	120				
Benz(a)anthracene	118	6.67	133.3	0	88.9	80	120				
Benzo(a)pyrene	127	6.67	133.3	0	95.4	80	120				
Benzo(b)fluoranthene	118	6.67	133.3	0	88.4	80	120				
Benzo(g,h,i)perylene	138	6.67	133.3	0	104	80	120				
Benzo(k)fluoranthene	120	6.67	133.3	0	90.0	80	120				
Carbazole	120	6.67	133.3	0	90.3	80	120				
	440	6.67	133.3	0	85.0	80	120				
Chrysene	113	0.07	100.0	0	05.0	00	120				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

Specialty Analytical

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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WO#: 1311104

07-Feb-14

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	Maul Foster & Alongi City of Wenatchee / 0380.02.04						ſ	SestCode: I	PAHLL_S		
Sample ID: CCV-62	92 SampType: CCV	TestCo	de: PAHLL_S	Units: µg/Kg		Prep Dat	ie:		RunNo: 124	151	
Client ID: CCV	Batch ID: 6292	Test	lo: SW8270D	SW 3545A		Analysis Dat	te: 11/20/2	013	SeqNo: 160	0071	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibenzofuran	117	6.67	133.3	0	88.1	80	120				
Fluoranthene	122	6.67	133.3	0	91.5	80	120				
Fluorene	121	6.67	133.3	0	91.1	80	120				
Indeno(1,2,3-cd)pyre	ne 140	6.67	133.3	0	105	80	120				
Naphthalene	120	6.67	133.3	0	90.3	80	120				
Phenanthrene	118	6.67	133.3	0	88.8	80	120				
Pyrene	115	6.67	133.3	0	86.5	80	120				
Sample ID: CCB-62	92 SampType: CCB	TestCo	de: PAHLL_S	Units: µg/Kg		Prep Dat	ie:		RunNo: 12 4	451	
Client ID: CCB	Batch ID: 6292	Test	lo: SW8270D	SW 3545A		Analysis Dat	te: 11/20/2	013	SeqNo: 160	0072	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	6.67									
2-Methylnaphthalene	ND	6.67									
Acenaphthene	ND	6.67									
Acenaphthylene	ND	6.67									
Anthracene	ND	6.67									
Benz(a)anthracene	ND	6.67									
Benzo(a)pyrene	ND	6.67									
Benzo(b)fluoranthene	e ND	6.67									
Benzo(g,h,i)perylene	ND	6.67									
Benzo(k)fluoranthene	e ND	6.67									
Carbazole	ND	6.67									
Chrysene	ND	6.67									

Qualifiers:

В

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

Specialty Analytical

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

WO#: 1311104

07-Feb-14

	oster & Alongi Wenatchee / 0380.02.04						Т	SestCode: P	AHLL_S		
Sample ID: CCB-6292	SampType: CCB	TestCoo	de: PAHLL_S	Units: µg/Kg		Prep Dat	te:		RunNo: 124	451	
Client ID: CCB	Batch ID: 6292	TestN	lo: SW8270D	SW 3545A		Analysis Dat	te: 11/20/2	013	SeqNo: 160	0072	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Dibenz(a,h)anthracene	ND	6.67									
Dibenzofuran	ND	6.67									
luoranthene	ND	6.67									
luorene	ND	6.67									
ndeno(1,2,3-cd)pyrene	ND	6.67									
Naphthalene	ND	6.67									
Phenanthrene	ND	6.67									
yrene	ND	6.67									
Surr: 2-Fluorobiphenyl	3.60		6.667		53.9	42.6	128				
Surr: Nitrobenzene-d5	4.84		6.667		72.6	21.7	155				
Surr: p-Terphenyl-d14	4.55		6.667		68.3	44.9	155				
Sample ID: CCV-6299	SampType: CCV	TestCoo	le: PAHLL_S	Units: µg/Kg		Prep Dat	te:		RunNo: 12	501	
Client ID: CCV	Batch ID: 6299	TestN	lo: SW8270D	SW 3545A		Analysis Dat	te: 11/20/2	013	SeqNo: 160	0078	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
-Methylnaphthalene	115	6.67	133.3	0	86.3	80	120				
-Methylnaphthalene	145	6.67	133.3	0	109	80	120				
cenaphthene	114	6.67	133.3	0	85.7	80	120				
Acenaphthylene	130	6.67	133.3	0	97.4	80	120				
Inthracene	116	6.67	133.3	0	86.8	80	120				
enz(a)anthracene	118	6.67	133.3	0	88.9	80	120				
Benzo(a)pyrene	127	6.67	133.3	0	95.4	80	120				
Benzo(b)fluoranthene	118	6.67	133.3	0	88.4	80	120				
Qualifiers: B Analyte d	letected in the associated Method Bla	unk	H Holdir	g times for preparation	or analysis	exceeded	ND 1	Not Detected at the	Reporting Limi	t D	
	reater than RSDlimit	uik	11 1101011	ig unles for preparation	or analysis	CALEGUEU		NOT DETECTED at the	reporting Lilli	' Pag	ge 31

WO#: 1311104

07-Feb-14

Client: Project:	Maul Foster City of Wen	& Alongi atchee / 0380.02.04						Т	SestCode: P	AHLL_S		
Sample ID: CCV-	6299	SampType: CCV		le: PAHLL_S	Units: µg/Kg		Prep Dat			RunNo: 125		
Client ID: CCV		Batch ID: 6299	TestN	lo: SW8270D	SW 3545A		Analysis Dat	te: 11/20/2	013	SeqNo: 160	078	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(g,h,i)peryle	ne	138	6.67	133.3	0	104	80	120				
Benzo(k)fluoranthe	ene	120	6.67	133.3	0	90.0	80	120				
Carbazole		120	6.67	133.3	0	90.3	80	120				
Chrysene		113	6.67	133.3	0	85.0	80	120				
Dibenz(a,h)anthrac	cene	139	6.67	133.3	0	104	80	120				
Dibenzofuran		117	6.67	133.3	0	88.1	80	120				
Fluoranthene		122	6.67	133.3	0	91.5	80	120				
Fluorene		121	6.67	133.3	0	91.1	80	120				
Indeno(1,2,3-cd)py	rene	140	6.67	133.3	0	105	80	120				
Naphthalene		120	6.67	133.3	0	90.3	80	120				
Phenanthrene		118	6.67	133.3	0	88.8	80	120				
Pyrene		115	6.67	133.3	0	86.5	80	120				
Sample ID: LCS-	6299	SampType: LCS	TestCoo	le: PAHLL_S	Units: µg/Kg		Prep Dat	te: 11/19/2	013	RunNo: 125	501	
Client ID: LCSS		Batch ID: 6299	TestN	lo: SW8270D	SW 3545A		Analysis Dat	te: 11/20/2	013	SeqNo: 160	079	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene		171	6.67	333.4	0	51.4	39.6	107				
Benzo(a)pyrene		156	6.67	333.4	0	46.8	37.7	137				
Benzo(g,h,i)perylei	ne	208	6.67	333.4	0	62.4	49.7	135				
Naphthalene		163	6.67	333.4	0	48.8	29.1	109				
Phenanthrene		181	6.67	333.4	0	54.3	48.4	115				
Pyrene		196	6.67	333.4	0	58.9	47.2	134				

Qualifiers:

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded Η

0 RSD is greater than RSDlimit

Specialty Analytical

R RPD outside accepted recovery limits ND Not Detected at the Reporting Limit S

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Spike Recovery outside accepted recovery

WO#: 1311104

07-Feb-14

Client: Project:	Maul Foster & Alongi City of Wenatchee / 0380).02.04						Т	estCode: P	AHLL_S		
Sample ID: MB-62	99 SampType: N	IBLK T	estCode: P	AHLL_S	Units: µg/Kg		Prep Date:	11/19/20	13	RunNo: 125	01	
Client ID: PBS	Batch ID: 6	299	TestNo: S	N8270D	SW 3545A		Analysis Date:	11/20/20	13	SeqNo: 160	080	
Analyte		Result F	PQL SP	K value	SPK Ref Val	%REC	LowLimit H	lighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalen	e	ND 6	6.67									
2-Methylnaphthalen	e	ND 6	6.67									
Acenaphthene			6.67									
Acenaphthylene			6.67									
Anthracene		ND 6	6.67									
Benz(a)anthracene		ND 6	6.67									
Benzo(a)pyrene		ND 6	6.67									
Benzo(b)fluoranther	ne	ND 6	6.67									
Benzo(g,h,i)perylen	e	ND 6	6.67									
Benzo(k)fluoranther	ne	ND 6	6.67									
Carbazole		ND 6	6.67									
Chrysene		ND 6	6.67									
Dibenz(a,h)anthrace	ene	ND 6	6.67									
Dibenzofuran		ND 6	6.67									
Fluoranthene		ND 6	6.67									
Fluorene		ND 6	6.67									
Indeno(1,2,3-cd)pyr	rene	ND 6	6.67									
Naphthalene		ND 6	6.67									
Phenanthrene		ND 6	6.67									
Pyrene		ND 6	6.67									
Surr: 2-Fluorobip	henyl	4.48		6.667		67.3	42.6	128				
Surr: Nitrobenzer	ne-d5	6.07		6.667		91.1	21.7	155				
Surr: p-Terpheny	<i>i</i> l-d14	4.79		6.667		71.8	44.9	155				

Qualifiers:

В

Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ded ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

Specialty Analytical

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

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WO#: **1311104**

07-Feb-14

Client: Maul Foste Project: City of We	r & Alongi natchee / 0380.02.04						Tes	stCode: F	PAHLL_S		
Sample ID: 1311104-005AMS	SampType: MS	TestCo	de: PAHLL_S	Units: µg/Kg	g-dry	Prep Date	e: 11/19/201	3	RunNo: 125	601	
Client ID: GP12-S-11	Batch ID: 6299	Test	lo: SW8270D	SW 3545A		Analysis Date	e: 11/20/201	3	SeqNo: 160	083	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qua
I-Methylnaphthalene	235	7.58	378.7	13.76	58.4	27.7	108				
2-Methylnaphthalene	318	7.58	378.7	15.69	79.9	27.7	108				
Acenaphthene	220	7.58	378.7	11.19	55.1	33.7	111				
Acenaphthylene	235	7.58	378.7	3.051	61.2	32.3	125				
Anthracene	235	7.58	378.7	6.513	60.3	42.7	121				
Benz(a)anthracene	244	7.58	378.7	6.639	62.8	63.4	121				S
Benzo(a)pyrene	273	7.58	378.7	8.946	69.7	64.6	110				
Benzo(b)fluoranthene	270	7.58	378.7	9.192	68.8	41.6	172				
Benzo(g,h,i)perylene	277	7.58	378.7	12.24	69.8	15	128				
Benzo(k)fluoranthene	216	7.58	378.7	0.5755	57.0	47.9	140				
Chrysene	230	7.58	378.7	10.43	58.0	37.5	125				
Dibenz(a,h)anthracene	280	7.58	378.7	0.6973	73.6	23.6	125				
luoranthene	267	7.58	378.7	12.60	67.2	56.8	141				
Fluorene	227	7.58	378.7	16.96	55.5	48.6	117				
ndeno(1,2,3-cd)pyrene	282	7.58	378.7	0.8914	74.3	26.8	133				
Naphthalene	192	7.58	378.7	7.534	48.7	27.7	108				
Phenanthrene	267	7.58	378.7	41.07	59.7	20.2	139				
Pyrene	280	7.58	378.7	34.28	64.8	26.8	142				
Sample ID: 1311104-005AMSD	SampType: MSD	TestCo	de: PAHLL_S	Units: µg/Kg	g-dry	Prep Date	e: 11/19/201	3	RunNo: 125	i01	
Client ID: GP12-S-11	Batch ID: 6299	Test	lo: SW8270D	SW 3545A		Analysis Date	e: 11/20/201	3	SeqNo: 160	084	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit F	RPD Ref Val	%RPD	RPDLimit	Qua
1-Methylnaphthalene	213	7.58	378.7	13.76	52.6	27.7	108	235.0	9.78	20	
	ted in the associated Method Bla r than RSDlimit	ank		g times for preparati utside accepted reco	-	exceeded			e Reporting Limit	1 45	ge 34

WO#: 1311104

07-Feb-14

Client:Maul FosterProject:City of Wer	r & Alongi natchee / 0380.02.04						Т	'estCode: P	AHLL_S		
Sample ID: 1311104-005AMSD	SampType: MSD	TestCo	de: PAHLL_S	Units: µg/Kg	g-dry	Prep Dat	te: 11/19/2	013	RunNo: 125	501	
Client ID: GP12-S-11	Batch ID: 6299	TestN	lo: SW8270D	SW 3545A		Analysis Dat	te: 11/20/2	013	SeqNo: 160	084	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	307	7.58	378.7	15.69	77.0	27.7	108	318.3	3.45	20	
Acenaphthene	213	7.58	378.7	11.19	53.4	33.7	111	219.9	3.02	20	
Acenaphthylene	231	7.58	378.7	3.051	60.1	32.3	125	234.7	1.75	20	
Anthracene	212	7.58	378.7	6.513	54.3	42.7	121	235.0	10.2	20	
Benz(a)anthracene	227	7.58	378.7	6.639	58.3	63.4	121	244.5	7.28	20	S
Benzo(a)pyrene	249	7.58	378.7	8.946	63.3	64.6	110	272.9	9.27	20	S
Benzo(b)fluoranthene	232	7.58	378.7	9.192	58.9	41.6	172	269.7	14.9	20	
Benzo(g,h,i)perylene	260	7.58	378.7	12.24	65.4	15	128	276.7	6.31	20	
Benzo(k)fluoranthene	215	7.58	378.7	0.5755	56.7	47.9	140	216.3	0.526	20	
Chrysene	201	7.58	378.7	10.43	50.3	37.5	125	230.0	13.5	20	
Dibenz(a,h)anthracene	259	7.58	378.7	0.6973	68.2	23.6	125	279.6	7.58	20	
Fluoranthene	235	7.58	378.7	12.60	58.6	56.8	141	267.2	13.0	20	
Fluorene	246	7.58	378.7	16.96	60.4	48.6	117	227.1	7.95	20	
Indeno(1,2,3-cd)pyrene	260	7.58	378.7	0.8914	68.4	26.8	133	282.3	8.31	20	
Naphthalene	185	7.58	378.7	7.534	46.8	27.7	108	191.8	3.79	20	
Phenanthrene	243	7.58	378.7	41.07	53.3	20.2	139	267.3	9.52	20	
Pyrene	250	7.58	378.7	34.28	56.8	26.8	142	279.8	11.4	20	

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

Specialty Analytical

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery

Page 35 of 35

KEY TO FLAGS

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- * The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

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# ATTACHMENT C

# DATA VALIDATION MEMORANDUM



# DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

## PROJECT NO. 0380.02.04 | DECEMBER 4, 2013 | CITY OF WENATCHEE

This report reviews the analytical results for groundwater and soil samples collected by the Maul Foster & Alongi, Inc. project team on the property located at 25 North Worthen Street, Wenatchee, Washington. The samples were collected in November 2013.

Specialty Analytical, Inc. (SA) performed the analyses. SA report number 1311104rev1 was reviewed. The analyses performed are listed below. Some analyses may not have been performed on all samples.

Analysis	Reference
BTEX by 8021/5035	USEPA 8021
Diesel and Lube Oil	NWTPH-Dx
NWTPH-HCID	NWTPH-HCID
Polycyclic Aromatic Hydrocarbons	USEPA 8270D
Polychlorinated Biphenyls	USEPA 8082A
Semivolatile Organic Compounds	USEPA 8270D
Total Metals	USEPA 6020

BTEX = benzene, toluene, ethylbenzene, and xylene.

NWTPH = Northwest Total Petroleum Hydrocarbons.

USEPA = U.S. Environmental Protection Agency.

## DATA QUALIFICATIONS

Analytical results were evaluated according to applicable sections of USEPA procedures (USEPA, 2008, 2010) and appropriate laboratory, method-specific guidelines (SA, 2013; USEPA, 1986).

Data validation procedures were modified, as appropriate, to accommodate quality-control requirements for methods not specifically addressed by the functional guidelines (i.e., NWTPH-Dx and NWTPH-HCID analyses).

Some NWTPH-Dx diesel and lube oil results were identified and documented by the laboratory as containing compounds not identified as specific hydrocarbon products. The reviewer qualified these results with "J," as estimated.

Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
GP11-Comp	Diesel	46.5	46.5 J
GP11-S-13	Diesel	137	137 J
GP11-S-17.5	Diesel	87.1	87.1 J
GP12-S-7	Diesel	162	162 J
GP12-S-11	Diesel	463	463 J

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HCID = Hydrocarbon Identification.

Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
GP12-S-11	Lube Oil	567	567 J
GP14-Comp	Diesel	51.9	51.9 J
GP14-S-7.5	Diesel	116	116 J
GP14-S-11.5	Diesel	53.1	53.1 J
GP13-S-10	Diesel	114	114 J
GP13-S-13	Diesel	149	149 J
GP20-Comp	Diesel	27.7	27.7 J

mg/kg = milligrams per kilogram.

Sample	Component	Original Result (mg/L)	Qualified Result (mg/L)
PZ2-W	Diesel	1.95	1.95 J
PZ2-W	Lube Oil	1.74	1.74 J
PZ3-W	Diesel	4.11	4.11 J
PZ3-W	Lube Oil	3.49	3.49 J

mg/L = milligrams per liter.

The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

## HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

#### Holding Times

Samples GP11-S-17.5, GP12-S-11, GP14-S-11.5, and GP13-S-13 were analyzed by USEPA Method 8021B one day past the recommended 14-day holding time. The reviewer qualified the results "UJ," as non-detect and estimated.

Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
GP11-S-17.5	Benzene	0.062 U	0.062 UJ
GP11-S-17.5	Ethylbenzene	0.25 U	0.25 UJ
GP11-S-17.5	Toluene	0.25 U	0.25 UJ
GP11-S-17.5	Total Xylenes	0.75 U	0.75 UJ
GP12-S-11	Benzene	0.055 U	0.055 UJ
GP12-S-11	Ethylbenzene	0.22 U	0.22 UJ
GP12-S-11	Toluene	0.22 U	0.22 UJ
GP12-S-11	Total Xylenes	0.66 U	0.66 UJ
GP14-S-11.5	Benzene	0.054 U	0.054 UJ
GP14-S-11.5	Ethylbenzene	0.22 U	0.22 UJ
GP14-S-11.5	Toluene	0.22 U	0.22 UJ
GP14-S-11.5	Total Xylenes	0.65 U	0.65 UJ
GP13-S-13	Benzene	0.054 U	0.054 UJ

Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
GP13-S-13	Ethylbenzene	0.21 U	0.21 UJ
GP13-S-13	Toluene	0.21 U	0.21 UJ
GP13-S-13	Total Xylenes	0.64 U	0.64 UJ

The remaining extractions and analyses were performed within the recommended holding time criteria.

### Preservation and Sample Storage

The samples were preserved and stored appropriately.

## BLANKS

#### Method Blanks

Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the method blanks were associated with all samples prepared in the analytical batch. For an analyte detected in a sample and in the associated method blank, the sample result was qualified if the concentration was less than five times the method blank concentration. Method reporting limits (MRLs) were elevated to the concentration detected in the samples, and results were qualified as not detected, "U," at the elevated MRL.

Diesel and lube oil were detected in the NWTPH-Dx water method blank. The associated sample results were greater than five times the method blank concentrations; thus, no results were qualified.

All remaining laboratory method blanks were non-detect.

#### CONTINUING CALIBRATION BLANK

Continuing calibration blanks (CCBs) were reported for some analyses. All CCBs were non-detect.

#### Trip Blanks

A trip blank was submitted with sample delivery group (SDG) 1311104. The trip blank was not analyzed.

#### Equipment Rinsate Blanks

Equipment rinsate blanks were not collected for this sampling event. Equipment was decontaminated after each composite sample was collected, and discrete samples were collected using dedicated, single-use equipment.

## SURROGATE RECOVERY RESULTS

When appropriate, individual samples were spiked with surrogate compounds to evaluate laboratory performance. The laboratory appropriately documented and qualified surrogate outliers. Associated batch quality assurance/quality control for samples with surrogate outliers was within acceptance limits.

Results for the surrogate o-terphenyl, as part of the NWTPH-Dx analysis, exceeded the lower acceptance limit for samples GP20-Comp and PZ2-W because of matrix interference. The reviewer qualified the associated results with "J," as estimated. The GP20-Comp diesel result and the results for PZ2-W were qualified for containing compounds not identified as specific hydrocarbon patterns; qualifications are documented in the data qualifications section above.

Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
GP20-Comp	Lube Oil	127	127 J

All remaining surrogate recoveries were within acceptance limits.

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Matrix spike/matrix spike duplicate (MS/MSD) results are used to evaluate laboratory precision and accuracy. All MS/MSD samples were extracted and analyzed at the required frequency.

The USEPA Method 8082A MS/MSD exceeded the relative percent difference (RPD) acceptance limit for Aroclor 1016/1260 because of matrix interference. The sample used to prepare the MS/MSD was from a different SDG; thus, the MS/MSD matrices do not represent the soil samples submitted in SDG 1311104. The remaining batch quality control met acceptance criteria. No results were qualified.

The USEPA Method 8021B batch 6273 MS exceeded lower percent recovery acceptance limits for toluene, ethylbenzene, and total xylenes, and the MSD exceeded the lower acceptance limit for toluene. The remaining batch quality control met acceptance criteria. The ethylbenzene and total xylenes percent recovery exceedances were minor; thus, no results were qualified. The associated sample was non-detect for toluene and was qualified with "UJ," as non-detect and estimated.

Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
GP14-Comp	Toluene	2.23 U	2.23 UJ

The USEPA Method 8021B batch 6301 MS and MSD exceeded the upper acceptance limit for toluene. The exceedances were minor; thus no results were qualified.

The USEPA Method 8270D MS/MSD for batch 6299 exceeded the lower percent recovery acceptance limit for benzo(a) anthracene, and the MSD exceeded the lower percent recovery acceptance limit for benzo(a)pyrene. The exceedances were minor and the remaining batch quality control met acceptance criteria; thus, no results were qualified.

All remaining recoveries were within acceptance limits for percent recovery and RPDs.

## LABORATORY DUPLICATE RESULTS

Duplicate results are used to evaluate laboratory precision. All duplicate samples were extracted and analyzed at the required frequency.

Two of the NWTPH-HCID laboratory duplicates analyzed on 11/12/2013 exceeded RPD limits for diesel and lube oil. The NWTPH-HCID results are qualitative; thus, no results were qualified.

Both NWTPH-Dx batch 6284 laboratory duplicates exceeded RPD acceptance limits for diesel and lube oil. One laboratory duplicate with significant RPD exceedances was prepared with a sample from a different SDG. The second laboratory duplicate was prepared with sample GP14-S-11.5, and the RPD exceedances were relatively minor. No results were qualified.

One of the laboratory duplicates for NWTPH-Dx batch 6302 exceeded RPD acceptance limits for diesel and lube oil. The laboratory duplicate was prepared with a sample from a different SDG and the remaining batch quality control had acceptable recoveries; however, the RPD exceedances were significant and the second laboratory duplicate for this batch was non-detect for diesel and lube oil. The diesel result was qualified for containing compounds not identified as specific hydrocarbon patterns; qualifications are documented in the data qualifications section above. The lube oil result was qualified as estimated because of low surrogate percent recovery in the surrogate recovery results section above.

All remaining laboratory duplicate RPDs were within acceptance limits.

# LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

A laboratory control sample/laboratory control sample duplicate (LCS/LCSD) is spiked with target analytes to provide information on laboratory precision and accuracy.

The NWTPH-HCID water matrix batch quality control did not include an LCS. The remaining LCS/LCSD samples were extracted and analyzed at the required frequency.

All LCS/LCSD analytes were within acceptance limits for percent recovery.

## FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. Field duplicates were not submitted for analysis.

## CONTINUING CALIBRATION VERIFICATION RESULTS

Continuing calibration verification (CCV) results are used to demonstrate instrument precision and accuracy through the end of the sample batch. All CCVs were within acceptance limits for percent recovery.

### **REPORTING LIMITS**

SA used routine reporting limits for non-detect results, except when samples required dilutions because of limited sample or extract volume, high analyte concentrations, and/or matrix interferences.

## DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies.

Some analyses, such as BTEX by USEPA Method 8021B and NWTPH-Dx, were added after samples were received by the laboratory. A record of the request for analysis was not included in the report.

No additional issues were found.

SA. 2013. Quality assurance manual. Specialty Analytical, Inc., Clackamas, Oregon.

- USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. EPA-530/SW-846. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. September (revision 6, February 2007).
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- USEPA. 2010. USEPA contract laboratory program national functional guidelines for inorganic superfund data review. EPA 540/R-10/011. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. January.