COMPLETION REPORT

PALOUSE PRODUCERS PROPERTY: REMEDIAL ACTION—SOIL REMOVAL

Prepared for
CITY OF PALOUSE
March 27, 2013
Project No.0477.01.06

Prepared by
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MAUL
FOSTER
ALONGI

COMPLETION REPORT

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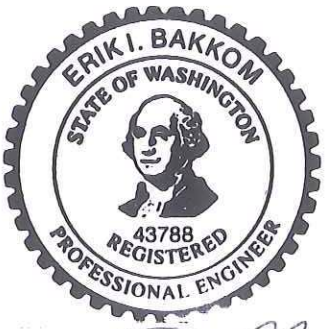
REMEDIAL ACTION—SOIL REMOVAL

The material and data in this report were prepared under the supervision and direction of the undersigned.

MAUL FOSTER & ALONGI, INC.



Erik Bakkom, P.E.
Senior Engineer

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ACRONYMS AND ABBREVIATIONS

AST	aboveground storage tank
bgs	below ground surface
CAP	cleanup action plan
City	City of Palouse
CY	cubic yards
Ecology	Washington State Department of Ecology
XRF	X-ray fluorescence
LCA	lead-contaminated area
MD+A	Munir Daud + Associates
MFA	Maul Foster & Alongi, Inc.
mg/L	milligrams per liter
ppm	parts per million
PSC	PSC-Burlington Environmental Services
RAP	remedial action plan
REL	remediation level
TCLP	toxicity characteristic leaching procedure
UST	underground storage tank

1 INTRODUCTION

On behalf of the City of Palouse (City), Maul Foster & Alongi, Inc. (MFA) has prepared this report describing the completion of the remedial action on the former Palouse Producers property located at 335 East Main Street in Palouse, Washington (Facility Site No. 787). Larson's Demolition, Inc. performed demolition of the concrete building on site in June 2012 with oversight from MFA. PSC-Burlington Environmental Services (PSC) performed the soil excavation remedial action tasks, with oversight from MFA and the Washington State Department of Ecology (Ecology), from September to October 2012. The remedial action was completed in accordance with a Prospective Purchaser Consent Decree between the State of Washington and the City, and the cleanup action plan (CAP) finalized in December 2011 (Ecology, 2011). Engineering and design documents for implementation of the CAP were prepared in a remedial action plan (RAP) that was reviewed and approved by Ecology (MFA, 2012a).

The remedial action was designed to meet the requirements of the Model Toxics Control Act (RCW 70.105D) and implementing regulations (WAC 173-340), as well as site-specific criteria established in the CAP. These criteria have been met by the completed work documented in this report.

The remedial action consisted of excavation, on-site management and treatment, and off-site disposal of contaminated soil; placement of clean backfill; and installation of three monitoring wells.

2 BACKGROUND

2.1 Site Location and Background

The Property is located in section 6 of township 16 north, range 46 east of the Willamette Meridian. The Property is approximately 150 feet long (north-south) and 200 feet wide (east-west) and is generally flat, with a steep slope on the southern boundary toward the Palouse River (south). There is an approximately 18-foot slope down to the river.

The Property is bordered by Main Street and commercial development to the north; by the Palouse River to the south, with green space and residential properties located across the river; by commercial property to the west (referred to as the old gymnasium); and by an alleyway and an adjacent commercial development to the east (Bagott Motors).

The Property originally had two structures. The structure that was near the center of the northern property boundary had a small office and two bays and was formerly used to service vehicles The structure in the northwest corner of the Property was used as storage. Fuel dispensers were located north and west of the service building. The northern half of the Property was paved and the southern half was covered in ruderal vegetation.

2.2 Site History

The Property has been used for over a century for commercial activities serving the agricultural industry (e.g., service station, blacksmith, welding shop). During the service station (Conoco) operation on the Property from approximately 1955 to 1977, five aboveground storage tanks (ASTs) and four underground storage tanks (USTs) were installed. In 1977, Palouse Producers began operations and, until approximately 1985, used the facility to fuel vehicles and to store and distribute bulk fuel.

A review of historical documents shows that uncontained spills and drips occurred on the property, resulting in releases to the environment. In addition, underground features such as tanks and piping appear to have leaked.

In 1985, all of the ASTs and three of the USTs were removed. What was believed to be the final UST was removed in 1992. Beginning in 1984 and continuing through 1985, several interim actions to address known contamination were performed on the Property, including the following:

- In 1984, an interceptor trench reaching down to the water table was installed approximately 60 feet north of and parallel to the Palouse River. The trench was designed to remove floating product from groundwater. Approximately 250 cubic yards of impacted soil was removed during the installation. In addition, approximately 4,000 gallons of product was removed by the trench over time.
- In 1985, a second interceptor trench was installed on the bank of the river, extending down to the water table. Approximately 600 cubic yards of impacted soil was removed during the installation. There is no record of volumes of contaminants removed by the second interceptor trench.
- In 1984, a polymer liner was installed on the riverbank and was covered by felt fabric and riprap to limit contaminant migration to the river.

Both interceptor trenches were removed in 1992.

3 REMOVAL OF STRUCTURES

Two structures were removed from the site as part of the remedial action. The former service building was demolished and the storage building was dismantled and reused elsewhere prior to the remediation of soil. The structure formerly used to service vehicles had two sump areas that were vacuumed out during the demolition using a vac-truck. The material from the sumps was drummed and disposed of as part of the soil removal. A lead and asbestos survey (Appendix A) and subsequent abatement was performed prior to the demolition of the structures. Both structures were removed in one week in spring 2012; however, the foundations and building slabs of both buildings remained to be removed as part of the soil removal action.

4 EXCAVATION OF CONTAMINATED SOIL

The remedial action included excavation of soils exceeding remediation levels (RELs); X-ray fluorescence (XRF) screening for lead to verify that soil at the extents of designated lead-contaminated areas (LCAs) was under the screening limit; on-site treatment of lead-contaminated soil above the Resource Conservation and Recovery Act (RCRA) disposal limit; backfilling the excavations; and transporting the contaminated material off site for disposal. Photographs showing contaminated material excavation, screening, backfilling, and LCA treatment are presented in Appendix B.

4.1 Site Preparation and Layout

Before excavation, silt fence was installed bordering locations where stormwater runoff had the potential to migrate off site.

The LCAs and general excavation limits were laid out by Munir Daud + Associates (MD+A), a surveying company licensed by the State of Washington. Corner markers were placed for the LCAs, and excavation boundaries were painted and staked by the surveyor.

4.2 Excavation

Soil within the remedial action excavation boundaries was excavated with a trackhoe excavator. Initially, soil was excavated to the approximate depths and extents indicated on the RAP design drawings. Additional soil was removed in specific locations where confirmation sample results indicated REL exceedances. Soil managed during the remedial action was separated into two categories: general excavation soil and LCA soil. The general excavation soil was loaded directly into haul trucks for disposal. LCA soil was stockpiled on site for testing and treatment as needed (described in more detail in Section 3.2.1), and then disposed offsite.

Dust generation was strictly controlled through the wetting of soil during excavation because of concerns related to the lead in the soil. Additionally, when not being used, the LCA stockpile was covered with plastic to control dust generation.

MD+A surveyed the excavation limits upon notification of completion by PSC. A comprehensive as-built survey showing the excavation extents and depths is included.

4.2.1 LCA Soil Excavation

LCA soils were identified and delineated in the RAP as areas where lead concentrations in soil exceed 100 parts per million (ppm).[1] Soil within the LCA excavation limits was defined as a possible characteristic waste because of elevated lead concentrations. If TCLP sampling for lead indicated that unacceptable levels of lead was present in the soil stockpile, it would require treatment prior to transport from the site. Excavation and stockpiling of the LCA-delineated soil began first on the west side of the site. The LCAs were excavated and placed directly into the stockpile area on-site.

During the excavation, measurements were collected at LCA boundaries, using an XRF to detect if elevated lead concentrations extended beyond the estimated LCA boundary. A conservative field screening level was determined for the XRF in the sampling and analysis plan (MFA, 2012b). When XRF readings at the LCA boundaries exceeded the screening level, the site engineer directed the contractor to excavate further until an acceptable level of lead was detected by XRF. All soil excavated in conjunction with the LCA removal was placed directly into the LCA stockpile to keep it segregated from the general excavation soil and for further characterization.

Stockpiled LCA soil was managed in units that were approximately 100 cubic yards (CY) in volume. From each 100-CY unit, a five-point composite sample was obtained for laboratory analysis. The sample from each stockpile was analyzed for lead by the TCLP test method (U.S. Environmental Protection Agency Method 6010).

Composite samples were collected by MFA and submitted to Specialty Analytical in Clackamas, Oregon, for analysis. Table 1 summarizes laboratory analytical results for LCA stockpile soil composite samples collected at the site. Appendix C contains the laboratory reports and the data validation memorandum.

Eight 100-CY units of LCA soil were generated at the site. Two of the eight units exceeded the hazardous disposal limit for lead, requiring on-site treatment of soil (discussed in Section 3.4). The TCLP results were below the hazardous disposal limit for the other six units after the initial sampling. Soil that was below the TCLP limit was disposed off-site as non-hazardous waste, as discussed in Section 3.5.

4.2.2 General Excavation

General excavation soil was designated in the RAP as areas outside the delineated LCAs, with total petroleum hydrocarbons and benzene exceeding RELs. Following excavation, the general excavation soil was transported off site and disposed of as special waste at a Subtitle D landfill. Site characterization data were provided to the landfill prior to the start of site work in order to obtain a disposal permit. General excavation soil and the LCA soil were kept separate and each designated area carefully delineated during excavation.

[1] The toxicity characteristic leaching procedure (TCLP) limit for lead is 5 milligrams per liter (mg/L). By applying the "20 times rule" to the leachable limit, the converted TCLP limit can be compared to a total concentration in soil. In this case 5 mg/L x 20 = 100 ppm.

Approximately 2,800 CY of soil was removed as part of the remedial action. The CAP identified the depth of excavation to be the extent of impacts or to just above the water table, whichever was reached first. The water table was found to be at approximately 8 feet below ground surface (bgs) on the southern end of the site, shallowing to approximately 7 feet bgs on the northern end. During construction, additional soil was removed below the water table in areas at the request of Ecology staff.

During excavation, confirmation samples on the floor and sidewalls were collected by MFA and submitted to Specialty Analytical for analysis. Table 2 summarizes laboratory analytical results for soil confirmation samples collected at the site. Figure 1 shows the location of soil confirmation samples that exceed RELs but could not be removed because of groundwater level and/or other site constraints. Figure 2 shows the location of all soil confirmation samples that were collected. Appendix C contains the laboratory reports and the data validation memorandum.

Due to site constraints, including bank rubble, an adjacent building, and the inability to dig below the groundwater table, some areas of higher-concentration indicator hazardous substances were left in place; however, where possible, additional soil was removed beyond the planned excavation extent, as agreed with Ecology staff.

4.3 As-Built

The soil removal was surveyed during and at the conclusion of excavation operations. The top and toe of the excavation extents were recorded for final elevation and location. The as-built surveys were used to verify that the boundary of the excavation had been met and that the quantity of material removed was sufficient, and to map the location and elevations of all additional excavation. A final as-built plan is included as Appendix D.

4.4 Soil Treatment

The two 100-CY units of LCA soils that failed TCLP metals analyses for lead were segregated and kept in the stockpile area to be treated to stabilize the lead and prevent future leaching. PSC performed the soil treatment activities on site, in the segregated stockpile area.

Portland cement was used to treat the soil. A trackhoe excavator was used to turn the soil stockpile and blend in cement until a visual homogenization was noted. After treatment, the soil was resampled in the same representative manner as described in Section 3.2.1 to assess the effectiveness of the treatment. The TCLP results for the two soil units were not detected, and therefore below RCRA TCLP hazardous waste limits. Because the treated soil was found to be nonhazardous, it was disposed off-site, as discussed below. A total of 256 CY of soil was treated on site and subsequently hauled off for disposal.

4.5 Disposal

All soil leaving the site was determined to be non-hazardous prior to loading into haul trucks for transport and disposal at the Waste Management Graham Road landfill in Medical Lake, Washington.

4.6 Backfill

Following excavation, and in order to maintain operations on site, backfill was conducted concurrently with excavation operations. Excavations were backfilled using clean soil from two local sources. A fill source statement from the landowner for each proposed off-site soil borrow source stating the location, current and previous land uses, and that to the best of the landowner's knowledge there had never been contamination of the borrow source site with hazardous or toxic materials was required and provided (Appendix E).

Clean soil backfill was placed in the excavated areas and compacted in accordance with the project specifications. The final grade was placed to match the existing grade, and was leveled, sloped, and protected with geotextile road fabric and gravel to guard against runoff.

5 UNDERGROUND STORAGE TANK

A previously unknown UST was encountered and removed from the site. Tank removal was not part of the planned remedial action, as specified in the CAP, but is documented here for completeness. A 500-gallon waste oil storage tank containing approximately 75 gallons of water mixed with product was encountered during excavation in the northern portion of the site. The top of the tank was approximately 2 feet bgs and the bottom was approximately 6 to 7 feet bgs. The tank was unregistered and was not documented in any previous environmental reports on the property or identified during utility locates that were conducted before either remedial investigation activities or the remedial action.

The UST was encountered as an excavator was removing soil in the middle of the site and contact with the exactor punctured the tank and caused a small release in the adjacent open excavation. The contractor, PSC, immediately deployed absorbent material to contain the release. PSC pumped the water from the adjacent excavation, as well as the remaining fluid in the UST, into poly totes. The pumped fluid was sent to a PSC waste treatment facility. Approximately 3,100 gallons of tank water and groundwater were recovered and treated.

Ecology indicated that the tank removal should be considered part of the ongoing cleanup action and would not require additional Ecology approval, separate reporting, or additional characterization beyond the confirmation sampling included in the RAP.

6 GROUNDWATER MONITORING WELL INSTALLATION

Three groundwater monitoring wells were installed on the Property to evaluate natural attenuation in groundwater. Figure 3 shows the well locations.

6.1 Monitoring Well Installation

Before drilling was conducted on site, all drilling locations were cleared by public (i.e., Underground Utility Notification Center) and private utility locators (Utilities Plus of Spokane, Washington). Drilling services were provided by Cascade Drilling, LLC, of Boise, Idaho, using a truck-mounted AMS direct-push drill rig.

On October 30, 2012, MFA observed the installation of three groundwater monitoring wells: one upgradient (MW-01) and two downgradient (MW-02 and MW-03). All wells were located within the Property boundaries. In general, soil from the borings was observed in 5-foot intervals to the maximum explored depth of 15 feet bgs. Gravelly sand with silt fill was observed in the upper 0.5 foot bgs of MW-01 to 10 feet bgs in MW-02. Gray silt was observed to approximately 8.5 to 10 feet bgs, then transitioned to brown silt in MW-01 and MW-02. Silty fine sand was observed to depth in MW-02 and MW-03. Soil observed in MW-03 from 5.5 to 15.0 feet bgs contained sheen on the core. Odor was noted in all borings observed, with the strongest odor in all soils observed in MW-03. Water was encountered from depths ranging from 5.0 to 7.5 feet bgs.

The monitoring wells were constructed at a general depth of 15 feet bgs, with 10-foot pre-pack screens installed generally between 5 and 15 feet bgs, straddling the water column. Boring logs and monitoring well construction details are included as Appendix F.

6.2 Monitoring Well Development

The wells were developed from October 31 through November 2, 2012, by purging alternately with a Waterra pump and a peristaltic pump. The water was purged until groundwater turbidity measurements were below 10 nephelometric turbidity units or water was clear, and a minimum of ten well volumes were purged. Seventy-five gallons was purged from MW-01, 29 gallons was purged from MW-02, and 34 gallons was purged from MW-03. Water in MW-03 contained sheen, and water from both MW-02 and MW-03 had a strong petroleum hydrocarbon-like odor. Groundwater samples were collected on November 6, 2012, as summarized in Appendix F.

7 FINAL INSPECTION

The final inspection of the excavation work was completed on October 15, 2012. No unresolved issues or work items remained at that time.

LIMITATIONS

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.

REFERENCES

Ecology. 2011. Cleanup action plan: Palouse Producers Site. Washington State Department of Ecology. November.

MFA. 2012a. Final remedial action plan and engineering design report: former Palouse Producers property. Prepared for the City of Palouse. Maul Foster and Alongi, Inc., Portland, Oregon. August 31.

MFA. 2012b. Final remedial action sampling and analysis plan: former Palouse Producers property. Prepared for the City of Palouse. Maul Foster and Alongi, Inc., Portland, Oregon. August 31.

TABLES

Table 1
TCLP Analytical Summary
City of Palouse
Palouse, Washington

		Analyte	Lead	
		RCRA TCLP Limit (mg/L)	5	
Sample Location	Sample Date		Result (mg/L)	Q
PTS01	9/7/2012		0.1	U
PTS02	9/10/2012		0.1	U
PTS03	9/10/2012		0.1	U
PTS04	9/11/2012		0.1	U
PTS05	9/13/2012		0.1	U
PTS06	9/17/2012		0.1	U
PTS07	9/17/2012		**16.73**	
TS01	10/3/2012		0.1	U
TS02	10/3/2012		0.1	U

NOTES:

RCRA TCLP Limit exceedances in **bold**.

mg/L = milligrams per liter (parts per million).

RCRA = Resource Conservation and Recovery Act.

TCLP = toxicity characteristic leaching procedure.

U = Analyte was not detected at or above method reporting limit.

Table 2
Confirmation Sample Summary
City of Palouse
Palouse, Washington

		Analyte	Arsenic		Lead		Benzene		Diesel		Gasoline		Lube Oil		Total Petroleum Hydrocarbons	
		Remediation Levels (mg/kg)	9		118		18		NV		NV		NV		2250	
Sample Location	Depth (ft bgs)	Sample Date	Result (mg/kg)	Q	Result (mg/kg)	Q	Result (mg/kg)	Q	Result (mg/kg)	Q	Result (mg/kg)	Q	Result (mg/kg)	Q	Result (mg/kg)	Q
CS01	8	9/7/2012	2.44	U	5.95		0.00844	U	73.7		19.6		65.8	U	159.1	
CS02	8	9/7/2012	2.56	U	1.77		0.00954	U	1980		855		28.1		**2903**	
CS03	4	9/7/2012	1.89	U	18.3		0.00563	U	358		82.2		160		600	
CS03	8	9/10/2012	2.34	U	89.3		0.0275	U	170		245		180		595	
CS04	8	9/10/2012	2.55	U	6.64		0.03		543		72.5		31		681.9	
CS05	8	9/10/2012	1.33		8.45		0.225		42.6		3220		55.5		**3330.3**	
CS06	8	9/10/2012	2.79	U	4.11		0.0228	U	86.5		79.9		71.3	U	237.7	
CS07	4	9/10/2012	2.36	U	81.1		0.0153	U	11.3		16.1		24.6		95.9	
CS08	4	9/10/2012	2.58	U	54.9		0.128		7840		5340		197		**13377**	
CS09	8	9/10/2012	2.3	U	2		0.0273	U	13.9		2760		64		**2842**	
CS10	4	9/10/2012	2.77	U	**120**		0.0346	U	72.3		14.7	U	138		225	
CS11	8	9/10/2012	2.5	U	1.06		0.0272	U	18.8	U	11.5	U	22.7		92.9	
CS12	4	9/10/2012	2.27		**776**		0.0285		1720		2240		77.8		**4037.8**	
CS13	4	9/10/2012	8.06		**299**		0.0455		963		5040		71		**6074**	
CS13 DUP	4	9/10/2012	7.45		**295**		0.0412	U	5220		746		179		**6145**	
CS14	4	9/10/2012	2.06	U	**170**		0.0297		927		66.6		248		1241.6	
CS15	4	9/13/2012	2.23		25.9		0.0545	U	18.7	U	42.9		62.2	U	123.8	
CS16	4	9/13/2012	2.74		63.5		0.0257	U	21.6		98.9		136		156.5	
CS17	4	9/13/2012	2.35	U	10.7		0.0196	U	751		7810		1460		**10021**	
CS18	8	9/13/2012	2.03		18.6		0.0171	U	162		2080		182		**2424**	
CS19	4	9/17/2012	2.41	U	23.5		0.00956	U	9.2		13.9		38.5		97.8	
CS23	8	9/17/2012	2.63	U	2.82		0.00928	U	20.5	U	39.5		68.3	U	128.3	
CS24	4	9/17/2012	2.28	U	4.9		0.017	U	64.6		11.9	U	63.6		140.1	
CS25	4	9/24/2012	2.37	U	15.7		0.009	U	47.7		6.19	U	237		290.9	
CS26	4	9/24/2012	2.42	U	7.15		0.0116	U	15		5.97	U	55.3		87.9	
CS27	4	9/24/2012	2.78	U	**1810**		0.195		41.2		82.1		123		246.3	
CS28	9.5	9/24/2012	2.65	U	2.65	U	0.00907	U	19.9	U	5.44	U	23.4		91.64	
CS29	4	9/19/2012	2.33	U	3.74		0.0324	U	19.9	U	8.14		23.8		110.5	U
CS30	9.5	9/19/2012	2.34	U	2.34	U	0.0252	U	407		2370		66.7	U	**2843.7**	
CS31	4	9/26/2012	2.26	U	3.05		0.0106	U	18.6	U	5.65	U	62.1	U	86.4	

NOTES:
Remediation level exceedances in **bold**.
ft bgs = feet below ground surface.
mg/kg = milligrams per kilogram (parts per million).
NV = no value.
U = Analyte was not detected at or above method reporting limit.

FIGURES

Figure 1
Remaining REL Exceedances

Former Palouse Producers Property
Palouse, Washington

Legend

- Sidewall Sample Location
- Bottom Sample Location
- Remaining TPH REL Exceedance (depth bgs noted in sample ID)
- Remaining Lead REL Exceedance (depth bgs noted in sample ID)
- Property Boundary and Soil Management Area
- Stockpile / Soil Handling Area
- Excavated Material

Notes:
1. bgs = below ground surface
2. Depth of excavation = 8 feet bgs, except in vicinity of CS 28 and CS 30 where depth of excavation = 9.5 feet bgs.

0 15 30
Feet

Source: Aerial photograph obtained from the City of Palouse (2007)

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Figure 2
Confirmation Sample Locations

Former Palouse Producers Property
Palouse, Washington

E Main Street

CS27-4.0
CS26-4.0
CS23-8.0
Location of Removed Tank
CS29-4.0
CS30-9.5
CS19-4.0
CS25-4.0
CS28-9.5
CS31-4.0
CS13-4.0
CS17-4.0
CS24-4.0
CS14-4.0
CS05-8.0
CS06-8.0
CS11-8.0
CS09-8.0
CS01-8.0
CS18-8.0
CS16-4.0
CS10-4.0
CS04-8.0
CS02-8.0
CS03-8.0
CS03-4.0
CS07-4.0
CS08-4.0
CS12-4.0
CS15-4.0

Palouse River

Legend

- Sidewall Sample Location (depth bgs noted in sample ID)
- Bottom Sample Location (depth bgs noted in sample ID)
- Property Boundary and Soil Management Area
- Stockpile / Soil Handling Area
- Excavated Material

Notes:
1. bgs = below ground surface
2. Depth of excavation = 8 feet bgs, except in vicinity of CS 28 and CS 30 where depth of excavation = 9.5 feet bgs.

0 15 30
Feet

Source: Aerial photograph obtained from the City of Palouse (2007)

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Print Date: 2/19/2013
Approved By: C. Lamb
Produced By: J. Schane
Project: 0477.01.05/04

Source: Aerial photograph obtained from the City of Palouse (2007)

Legend

- Monitoring Well
- Property Boundary and Soil Management Area

Figure 3
Monitoring Well Locations

Former Palouse Producers Property
Palouse, Washington

0 10 20
Feet

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Print Date: 3/25/2013
Approved By: C. Johnson
Produced By: jschane
Project: 0477.01.03/02

APPENDIX A

ASBESTOS AND LEAD SURVEY

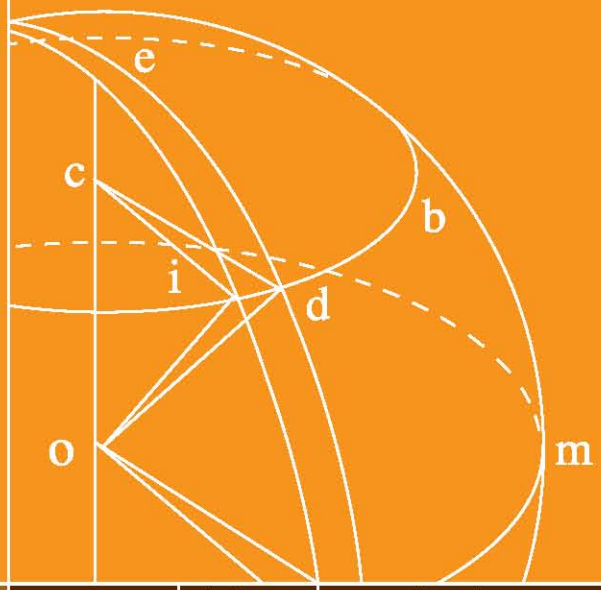
FULCRUM
environmental consulting

HAZARDOUS BUILDING MATERIALS INSPECTION REPORT DRAFT

335 East Main Street
Palouse, Washington 99161

Project Number: 12667

May 10, 2012



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Report Title: Hazardous Building Materials Inspection Report

Project Number: 12667

Date: May 10, 2012

Site: 335 East Main Street
Palouse, Washington, 99161

Prepared for: Maul Foster & Alongi
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Portland Oregon 97209

Prepared by: Fulcrum Environmental Consulting, Inc.
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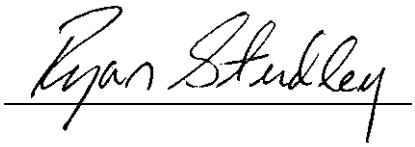
509.459.9220

The professionals who completed site services, prepared, and reviewed this report include but are not limited to:

Authored by:  **Date:** 5/10/2012

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Fulcrum Environmental Consulting, Inc.

Reviewed by:  **Date:** 5/10/2012

Travis Trent, CIH, PG, Principal
Fulcrum Environmental Consulting, Inc.

Report Integrity

Fulcrum Environmental Consulting, Inc.'s scope of service for this project was limited to those services as established in the proposal, contract, verbal direction, and/or agreement. This report is subject to applicable federal, state, and local regulations governing project-specific conditions and was performed using recognized procedures and standards of the industry. Scientific data collected in situ may document conditions that may be specific to the time and day of service, and subject to change as a result of conditions beyond Fulcrum's control or knowledge. Fulcrum makes no warranties, expressed or implied as to the accuracy or completeness of other's work included herein. Fulcrum has performed these services in accordance with generally accepted environmental science standards of care at the time of the inspection. No warranty, expressed or implied, is made.

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INSPECTOR CERTIFICATION SUMMARY

The following summarizes the relevant professionals and their certification(s) responsible for the completion of field inspection services for this project. Certificates are presented in Appendix A.

Ryan Studley

- AHERA Building Inspector # BIR-12-011, Expiration Date: February 13, 2013
- Washington Certified Lead Risk Assessor # 6195, Expiration Date: May 5, 2013
- 40 Hour Hazardous Waste Operations Emergency Response Training

Travis Trent

- AHERA Building Inspector # 111530, Expiration Date: May 9, 2013
- Washington Certified Lead Risk Assessor # IRR-011510-04
- Certified Industrial Hygienist # 9850, Expiration Date: June 1, 2016

EXECUTIVE SUMMARY

On May 1, 2012 Fulcrum Environmental Consulting, Inc. (Fulcrum) performed a pre-demolition inspection for hazardous building materials (HBM) at a former commercial building located at 335 East Main Street in Palouse, Washington. Fulcrum's inspection included observation, testing, and/or sampling for asbestos containing materials (ACM) and lead-containing materials (LCM). The purpose of this HBM inspection was to facilitate building demolition. Ryan Studley with Fulcrum performed the HBM inspection. Professional certifications are presented in Appendix A.

Inspection Results

Fulcrum's inspection identified the following HBM:

Asbestos Containing Materials

Asbestos containing material (ACM) is defined by state and federal regulations as "any material that contains greater than 1% asbestos." All suspect asbestos containing materials sampled during the inspection were analyzed by Polarized Light Microscopy (PLM), EPA Method 600/R-93/116. The following building materials identified during Fulcrum's inspection were confirmed through laboratory analysis to be ACM:

- Gray 9-inch vinyl tile and associated black adhesive
- Yellow 12-inch vinyl tile and associated black adhesive
- Gray window putty

The following materials were confirmed through PLM by point count analysis method EPA 600 to contain detectable amounts of asbestos that are less than 1%:

- White powdery material with paint associated with the gypsum wall board (joint compound).

Asbestos Containing Material (ACM) laboratory analytical results, sample location maps and site photographs are presented in Appendix B, C and D, respectively.

Lead Containing Materials

Fulcrum's LCM inspection identified the following lead containing materials:

- Brown metal hand rail
- Beige metal window frame

Lead results are presented in Appendix E.

Conclusions

Asbestos Containing Materials

Asbestos containing materials must be removed in accordance with applicable regulations prior to any impacting activity. The building owner or employer is responsible under Washington State Department of Occupational Safety and Health (DOSH) regulations to notify all employees, occupants, and/or contractors whose duties/activities may potentially contact or disturb ACM and must provide documentation of their presence and location. All applicable regulations must be adhered to when any ACM will be disturbed. Work during which employees will contact, but not disturb, asbestos shall be performed by persons with a minimum of two hours of asbestos awareness training.

Select regulations will apply to activities impacting building materials containing less the 1% asbestos. Demolition of these materials does not constitute an asbestos project and does not require notifications, certified workers, or the specific work practices outlined for Class II work. However, impact does require the implementation of universal precautions including wet non-aggressive removal, prompt cleanup, and asbestos awareness training (WAC 296-62-07712) and respiratory protection based on overall dust levels. Additional relative direction can be found in the December 28, 2000 WISHA Regional Directive (WRD) 23.30 *ASBESTOS CONTAINING JOINT COMPOUND IN WALLBOARD SYSTEMS.* Specific requirements and procedures should be addressed in the abatement specifications by an AHERA Accredited Project Designer. Facilities accepting demolition debris for disposal may elect to not take mixed demolition debris including materials with less than 1% asbestos.

Lead Containing Materials

The extent and nature of identified and assumed lead containing materials does not suggest the probability for generation of elevated airborne lead concentrations during normal renovation activities or for a typical renovation waste stream to require characterization for lead content.

Worker protection regulations apply to potential lead exposure for any detectable lead concentration identified on building components. Impacting activities should be conducted in accordance with applicable regulations and under a written Lead Compliance Plan. Building occupants, maintenance personnel, and contractors should be notified of the presence of LCM consistent with hazard communication program requirements.

1.0 INTRODUCTION

On May 1, 2012 Fulcrum Environmental Consulting, Inc. (Fulcrum) performed a pre-demolition inspection for hazardous building materials (HBM) at a former commercial building located at 335 East Main Street in Palouse, Washington. Fulcrum's inspection included observation, testing, and/or sampling for asbestos containing materials (ACM) and lead-containing materials (LCM. The purpose of this HBM inspection was to facilitate building demolition. Ryan Studley with Fulcrum performed the HBM inspection. Professional certifications are presented in Appendix A.

2.0 SCOPE OF WORK

Fulcrum was retained by Maul Foster & Alongi (MFA) to complete a pre-demolition inspection to facilitate pending demolition of the building for the following HBM:

- Asbestos Containing Materials
- Lead Containing Materials

The inspection consisted of site inspections, material sampling, sample analysis, and reporting. Sampling of suspect materials within the identified areas was limited to accessible areas. All HBM inspection tasks were completed by accredited and/or certified professionals.

3.0 BUILDING DESCRIPTIONS

The building located at 335 East Main Street in Palouse, Washington is a single story structure consisting of two automotive bays and office space and is approximately 1,500 square feet. Characteristic interior building materials include vinyl tile, and concrete flooring, gypsum wallboard and cement masonry unit (CMU) walls. Exterior building materials included wooden siding and a metal roof. The building is reported to have been historically occupied by a commercial automotive mechanic shop.

4.0 ASBESTOS CONTAINING MATERIALS

Asbestos containing materials (ACM) were used extensively from the early 1900s to the late 1970s, when the manufacture of most asbestos products was banned in the U.S. The ban did not include all products nor the use and application of asbestos products. Therefore, suspect ACM may be present in structures built after the initial ACM ban and in newly constructed facilities. Since the 1990s, importation of building materials from foreign countries, perhaps unknowingly, has resulted in the use of ACM in new construction.

4.1 Regulatory Basis

The purpose of the asbestos inspection is to comply with regulatory requirements enforced by local, state and federal agencies, including: 40 Code of Federal Regulations (CFR) Part 61 *National Emission Standards for Hazardous Air Pollutants* (NESHAP) administered by the Washington State Department of Ecology; 40 CFR Part 763 *Asbestos Hazard Emergency Response Act* (AHERA), 29 CFR Part 1926.1101 *Asbestos*; and Washington State Division of Occupational Safety and Health (DOSH), Washington Administrative Code (WAC) 296-62-077, *Asbestos, tremolite, anthrophyllite, and actinolite;* and the Spokane Regional Clean Authority (Article IX). Under these regulations an ACM is defined as any material containing greater than one (1) percent asbestos.

Regulations require the owner to inspect a facility for the presence of ACM prior to undertaking a construction, remodel, renovation, maintenance, or demolition project, and to provide inspection results to affected contractors or employees.

4.2 Sampling Methodology

The asbestos inspection was conducted by an AHERA accredited Building Inspector(s), as specified in pertinent regulatory references.

Fulcrum's ACM sampling method consisted of the following tasks:

- Visual inspection of the investigation area for the presence of suspect ACM, determination of friability, and any damage to highly suspect ACM.
- Identification of homogeneous materials present within the area of investigation and the AHERA classification of the material as either a surfacing material (SUR), thermal system insulation (TSI), or miscellaneous (MSC) material.
- Establishment of the homogeneous material identifier and a description of the homogeneous material, such as, dimensions, color, texture, etc.
- Collection of representative sample(s) of the homogeneous material per AHERA sampling requirements.

4.2.1 Visual Inspection

A visual inspection of all accessible spaces within the identified investigation area was conducted in accordance with applicable regulatory and industry standards. Building

materials were visually inspected for suspect materials; however, Fulcrum did not complete deconstructive sampling of building materials.

4.2.2 AHERA Material Classification

Under AHERA, suspect ACM are classified as surfacing, TSI, or MSC. As defined in AHERA, 40 CFR 763:

> Surfacing Material (SUR) means material in a school building that is sprayed-on, troweled-on, or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.
>
> Thermal System Insulation (TSI) means material in a school building applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.
>
> Miscellaneous Material (MSC) means interior building material on structural components, structural members or fixtures, such as floor and ceiling tiles, and does not include SUR or TSI.

Subsequent revisions and regulatory guidance has applied these definitions to all buildings, regardless of use, and inclusion of exterior ACM based on their material type. For instance, pipe insulation in an exterior tunnel is considered TSI.

4.2.3 Homogeneous Areas

An AHERA material classification was further subdivided into “Homogeneous Areas”. Homogeneous Areas are those materials that are consistent throughout a building and are based on color, texture and/or construction era. Identification of suspect building materials using this homogeneous area definition is the current industry standard, and is the process used by federal, state, and local agencies for determining regulatory compliance.

Homogeneous Areas are often then subcategorized into general material type groups or systems, such as vinyl tile, that can be indexed with an abbreviation, such as VT, for ease of reference in summary data tables.

4.2.4 Representative Samples

Fulcrum collected samples of suspect materials per AHERA regulations, the industry standard for both sample collection and analysis. Except where the AHERA Building Inspector has identified a limited quantity of MSC, Fulcrum’s standard sampling method requires that analytical results from three (3) samples of each suspect material are collected to determine if a material is non-ACM. Of each suspect ACM, a representative, full depth sample of the material is sampled and placed into a labeled re-sealable bag.

Where Fulcrum's AHERA Building Inspector identifies a suspect ACM to be unique, the total area/length of the suspect ACM to be limited, or simply an additional confirmatory sample is useful to conclude a report, less than three may be determined by the inspector to be sufficient.

Fulcrum collected 14 samples from throughout the investigation area. Samples were labeled with a sample identification of P-01 through P-14. An ACM sample location map is presented in Appendix C.

4.2.5 Friability

Friability is an indicator of a material's potential to release asbestos fibers. Materials are divided into two general friability categories, friable or non-friable.

> "*Friable*" means that the material, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Friable material also includes previously non-friable material that has become damaged to the extent that when dry it may be crumbled, pulverized, or reduced to powder by hand pressure.
>
> "*Non-friable*" materials are defined as materials which when dry may not be crumbled, pulverized, or reduced to a powder by hand pressure.

Friable materials are the most hazardous form of ACM. Their physical composition lends them more susceptible to releasing asbestos fibers into the air when they are disturbed.

Non-friable ACM are generally associated with materials that have the asbestos fibers bound within a protective covering or in an asphalt or concrete/mortar matrix. The release of asbestos fibers by these materials is typically associated with an external force or aggressive action being applied to the material: sawing, grinding, chipping, sanding, etc. Non-friable ACM are considered the less hazardous of these two categories.

The friability of a material is an important consideration when assessing and recommending a material's response action. In addition to the assessment considerations, the friability of a material is important with respect to regulatory compliance. Compliance considerations include, but not limited to, worker certification and protection, engineering controls, notification and disposal requirements.

When determining the friability of a material, Fulcrum inspectors utilize the "hand pressure or touch" test as required by law. However, this friability test was further supplemented by visual observations as to the material's matrix structure and judging whether an external aggressive action (cutting, sawing, grinding, sanding, etc.) would be required to release asbestos fibers. If a non-aggressive action, such as striking or bumping the material with a sharp object, water damage, delamination, etc. is anticipated to release fibers, the material is classified as a friable material by Fulcrum.

4.3 Homogeneous Materials Identified During the Inspection

The following summary presents the homogeneous areas identified during the inspection by AHERA material classification. Following the homogeneous area general description is the associated abbreviations used during sample collection and reported in summary tables:

MSC:

- Floor base (FB)
- Gypsum wallboard system materials (GWB)
- Miscellaneous materials (MSC)
- Vinyl tile (VT)

4.3.1 Assumed ACM

An assumed ACM is any material that the inspector assumes contains greater than 1 % asbestos based on previous inspection results; manufacturers' labels, age, appearance; or inspector's expertise. Fulcrum did not observe materials assumed to be ACM.

4.3.2 Assumed Non-ACM

Under AHERA inspection criteria, some materials can be assumed to be non-ACM based on manufacturers' labels, age, appearance, or inspector's expertise. The following materials were identified throughout the facility and were assumed to be non-ACM based on manufacturers' labels, age, appearance, or inspector's expertise:

- Wood components – shelves, doors, trim, framing, throughout
- Glass – windows, exterior/interior, throughout
- Concrete – foundation, throughout
- Metal – plumbing, ducting, throughout
- Fiberglass-like insulation – plumbing, ducting, throughout

4.4 Laboratory Methodologies

Seattle Asbestos Test, LLC, a NVLAP accredited laboratory (#200768) located in Lynnwood, Washington was utilized for asbestos analysis. All materials sampled during the inspection were analyzed by Polarized Light Microscopy (PLM), EPA Method 600/R-93/116.

4.5 Laboratory Results

4.5.1 Asbestos Containing Materials

Asbestos Containing Materials (ACM) are any homogeneous areas that contains greater than 1 % asbestos in one or more of the samples analyzed or were classified as ACM based on the inability to differentiate between ACM and non-ACM areas. The following tables list homogeneous materials that were identified through lab analysis as asbestos containing. Laboratory analytical results are presented in Appendix B.

Table 1: Asbestos Containing Materials – May 1, 2012

Index	Sample Description	Material Location(s)[1]	Friability	Condition	Sample Number(s)
VT-01	Gray 12-inch vinyl tile and associated black adhesive	Office area	Non-Friable	Good	P-01 P-02 P-03
VT-02	Yellow 12-inch vinyl tile and associated black adhesive	Office restroom	Non-Friable	Good	P-04 P-05 P-06
MSC-01	Gray adhesive associated with wall paneling	Building west and north windows	Non-Friable	Good	P-09 P-10 P-11

1 Locations identified in the table may not represent all locations in which the identified material is present

4.5.2 Materials Containing Less than 1% Asbestos

The following materials were confirmed through PLM by point count analysis Method EPA 600 to contain less than 1% asbestos. Laboratory analytical results are presented in Appendix B.

Table 2: Materials Containing Less than 1% Asbestos – May 1, 2012

Index	Sample Description	Material Location(s)[1]	Friability	Condition	Sample Number(s)
GWB-01	Gypsum wallboard joint compound	Gypsum wallboard throughout office and storage closet	Non-Friable	Good	P-12 P-13 P-13

1 Locations identified in the table may not represent all locations in which the identified material is present.

4.5.3 Non-ACM

Non-ACM are any materials that contain 1% or less asbestos. The following tables list homogeneous materials that were identified through laboratory analysis as non-asbestos containing. Laboratory analytical results are presented in Appendix B.

Table 3: Non-Asbestos Containing Materials – May 1, 2012

Index	Sample Description	Material Location(s)[1]	Sample Number
FB-01	Black 6-inch floor base and brown adhesive	Office restroom	P-07
FB-02	Black 4-inch floor base and brown adhesive	Office	P-08

1 Locations identified in the table may not represent all locations in which the identified material is present

4.6 Quantities of Asbestos Containing Materials

Fulcrum made field estimates for quantities of identified ACM associated with the building. Quantities are presented for informational use, and are specifically not intended or warranted for bidding purposes:

- Gray 9-inch floor tile and associated black adhesive – approximately 150 square feet
- Yellow 12-inch floor tile and associated black adhesive – approximately 150 square feet
- Gray window putty– approximately 50 Linear Feet

5.0 LEAD CONTAINING MATERIALS

Lead containing materials (LCM) are any product, with naturally occurring lead or manufactured or produced with lead. Lead containing materials can include, but are not limited to, paint, varnish, mortar, alloys, etc. Under DOSH regulations, any concentration of lead is sufficient to require work protection evaluation, testing, and exposure prevention.

5.1 Regulatory Basis

The purpose of the lead base paint (LBP) investigation was to facilitate pending demolition activities in compliance with DOSH and Washington State Department of (Ecology) regulations for building modernization and demolition projects. Lead Containing Materials are regulated under the Washington Administrative Code (WAC) 296-155-176, *Lead*; WAC 173-303, *Dangerous Waste Regulations*. Furthermore, the inspection forms the foundation for compliance with WAC 365-230, *Accreditation of lead-based paint training programs and the certification of firms and individuals conducting lead-based paint activities and renovation*, commonly referred to as the *Renovation, Repair and Paint* (RRP) rule, for impacting activities that occur within target housing and child occupied facilities.

The RRP rule applies to LBP regulations which regulate LBP impacting activities that occur within target housing and target occupants (children less than 6 years of age and women of childbearing age) and identify LBP as those paints or varnishes with lead concentrations at or above 1.00 milligrams per square centimeter (mg/cm^2). However, worker protection regulations apply to any material containing any detectable concentration of lead. For the purpose of this report, any painted or varnished surface containing lead concentrations above the method detection limit will be identified as an LCM.

5.2 Sampling Methodology

A visual inspection of accessible portions of the investigation area was conducted. The inspection was conducted in substantial conformance with applicable regulatory and industry standards. Relevant portions of the 1995 HUD guidance (Revised in 1997) and Washington State LBP regulations, including the use of field x-ray fluorescent (XRF) sampling protocol, were utilized.

Fulcrum's Washington State certified Lead Risk Assessor utilized X-ray fluorescence (XRF) instrument to directly analyze the concentration of lead in characteristics painted or coated surfaces. The XRF analysis was used to determine paints most likely to generate airborne lead during demolition activities or that may require additional laboratory analysis. For all field XRF testing, a method detection limit, which varies from 0.00 mg/cm^2 to 0.40 mg/cm^2 depending on the level of analytical sensitivity selected, is used to classify a material as LCM.

Where LCM was identified, other than recyclable structural steel and large metal components, additional physical samples of building components are needed for waste characterization. Under the waste characterization process, building components are sampled for lead in conformance with ASTM Standard E 1908-03 *Standard Guide for Sample Selection of Debris Waste from a Building Renovation or Lead Abatement Project for Toxicity Characteristic Leaching Procedure (TCLP) Testing for Leachable Lead (Pb).*

The LCM inspection consists of three basic steps:

- Identification of homogeneous areas and components
- Testing of homogeneous areas and components
- Waste characterization sample analysis – to be completed once modernization schedule has been established

5.2.1 Identification of Homogeneous Areas and Components

Characteristic interior painted surfaces were classified as homogeneous areas based on color of surface paint, substrate, construction era, and in some cases, color of sublayers. Homogeneous areas are one of the key elements for referencing both lead and non-lead materials identified during the inspection and used within this report. Sample locations in the facility were selected to be representative of the various homogeneous areas. Full layer thicknesses of existing paint were sampled to obtain a historical representation of all paints applied to similar components.

Paints that appear homogeneous for a given substrate may have been manufactured during different time periods and by different companies. To counterbalance this possibility, multiple XRF analysis of suspect homogeneous areas with surface areas greater than 1,000 square feet were collected in different locations and analytical results compared to confirm lead content conclusions.

For this inspection report, homogeneous areas/materials were developed using the site figures, surface color, and component composition as primary considerations, supported by visual observations made in the field regarding material appearance, texture, size, color, and/or manufacturers' labels. Suspect painted surfaces were then sampled to determine if they contain lead or are non-lead containing based on field XRF or laboratory results. Once the analytical results were received and reviewed, additional samples may be collected for materials with inconsistent results.

5.2.2 Field Testing of Homogeneous Areas and Components

Lead containing material (LCM) inspections may be performed using paint chip sampling and laboratory analysis, or a field XRF instrument. For this particular project, field XRF analysis was used.

Fulcrum utilized a Metals Analysis Probe (MAP) 4 XRF Spectrum Analyzer, manufactured by EDAX, Inc., model number C1, serial number M41471, with a July 2010 radioactive source, to test for lead in painted or stained surfaces. The MAP 4 sends energy in the form of a gamma ray photon into the sample material. Some gamma rays dislodge electrons in the inner shell of atoms, causing the atom to become unstable. Electrons from the outer shell of the atom fill vacant gaps in the inner shells. During this process, the electrons release an x-ray photon. An x-ray photon has an energy level characteristic of the type of element that it came from. The MAP 4 instrument measures the energy level and quantity of returning x-ray photons to determine the amount of lead present at the sample point. Calibration samples collected per sampling protocol were within acceptable ranges.

An XRF instrument directly reads the lead concentrations in mg/cm^2 and cannot determine percent by weight reported as mg/Kg or ppm. There is no direct relationship between mg/cm^2 and percent lead by weight (mg/Kg or ppm). Determination of percent by weight can only be confirmed by laboratory analysis.

For XRF analysis, all painted surfaces are initially tested with an analytical precision level of 0.40 mg/cm^2. Test results below 0.40 mg/cm^2 are classified as non-LCM, results above 0.40 mg/cm^2 are classified as LCM. Furthermore, results above 1.00 mg/cm^2 are classified as LBP. The following system was used to identify homogeneous materials:

- Materials that were sampled and reported as LCM via XRF analysis and materials that were applied during the same construction/renovation phase and appeared the same were assigned to a homogeneous material group.
- Materials that were assumed to contain lead based on the experience and expertise of the Lead Inspector/Risk Assessor are considered homogeneous.
- Materials sampled and reported as negative for lead content were considered homogeneous based on HUD protocol.
- Analyses of multiple samples from a homogeneous material were compared for classification purposes.
- All samples analyzed from a homogeneous material must have results (analytical reading plus method variability) less than 0.40 mg/cm^2 (or applicable detection limit) to confirm the material non-lead containing for worker protection purposes.

5.2.3 Waste Characterization

The composite sample method requires collection of representative building components, including both lead and non-LCM from the building. Sampled materials include, but are not limited to: painted components, unpainted “natural” components, fiberglass-type insulation, glazed ceramic tile, ceiling tiles, carpet, carpet pad, roofing, flooring, etc. Aggregation of all building components allows for whole demolition debris characterization as required under the

method. The only materials typically excluded are materials that are *de minimis*, are hazardous building materials that will be removed prior to demolition, or are recyclables that will be substantially recovered from the demolition debris prior to disposal.

Following collection of all samples, Fulcrum's certified Risk Assessor completes detailed measurements of the building components and calculates a percent composition of the whole building debris for use in the analytical method.

Waste characterization analysis was not completed during this initial inspection.

5.3 Components Identified During the Inspection

Painted components identified during the inspection included: walls, ceilings, floors, doors, door casings/frames, window trim, window units, piping, and other miscellaneous components.

5.3.1 Assumed Lead Containing Materials Identified

The following materials are assumed to contain lead greater than the limit of detection:

- Metal pipe caps and plumbing, roof jackets
- Plumbing components
- Solder or plumbing and metal brazed components

5.3.2 Assumed Non-Lead Containing Materials

The following materials are assumed to be non-LCM:

- Glass
- Unpainted wood
- Unpainted concrete
- Unpainted pipe
- Plastic
- Carpet
- Insulations
- Roofing materials

5.4 LCM Inspection Results

Results of this inspection indicate that lead was detected in amounts greater than or equal to the method limit of detection (0.40 mg/cm^2 unless otherwise stated) on at least one location of the following tested components. All similar coated or painted components should be assumed to be lead containing. Instrument calibrations were performed before and after lead testing. The instrument was performing within acceptable limits. XRF results are provided in Appendix E.

Based on sampling results the following should be assumed to contain lead at concentrations greater than 0.40 mg/cm^2.

Table 4: Identified Lead Containing Materials – May 1, 2012

Color	Substrate	Component	Tested Location	Condition
Brown	Metal	Hand rail	Exterior southeast corner of building	Poor
Beige	Metal	Window frame	Northeast garage window	Fair

1 Results in mg/cm^2

Table 5: Identified non-Lead Containing Materials – May 1, 2012

Color	Substrate	Component	Tested Location	Condition
Tan	CMU	Wall	Exterior west wall	Poor
			Exterior south wall	
Brown Stain	Wood	Door	Exterior southeast corner of building	Intact
		Door frame		Intact
Brown	Glass	Window	Garage southwest window	Poor
	Brick	Wall	Exterior southeast corner of building	Fair
			West of west-most garage door	Poor
Dark Brown	Wood	Garage door	West-most garage door	Poor
Gray	Wood	Siding	Exterior northeast corner of building	Intact
Beige	CMU	Wall	West interior garage wall	Poor
			South interior garage wall	
	Brick		North interior garage wall	Poor
	Metal	Window frame	Garage northeast window	Fair
	Particle board	Ceiling	Garage center	Poor
White	Wood	Hangar door	Interior of west garage door	Poor
		Door frame	Office north doorway	Fair
		Window frame	Office west wall	Fair
	Cement	Curb	Garage southwest corner	Poor
	Particle board	Ceiling	Bathroom center	Intact
	Brick	Wall	Bathroom west wall	Intact
	GWB	Wall	Office west wall	Fair

Color	Substrate	Component	Tested Location	Condition
Green	Cement	Curb	Garage southwest corner	Poor
Off-white	GWB	Wall	Storage closet north wall	Poor
	Metal	Structural support	North of and adjacent to storage closet	Poor
	Wood	Window frame	Office east window	Fair
		Window sill		
	Particle Board	Ceiling	Office center	Poor
Red	Wood	Wall	Exterior northwest corner of building	Poor

Based on sampling results the following should be assumed to contain lead at concentrations greater than 0.40 mg/cm^2:

- Brown painted metal hand rail located on the exterior southeast corner of the building
- Beige painted metal window frame located on the northeast garage window

5.5 Conclusions

Results of this inspection indicate that two painted components within the building contain lead in amounts greater than or equal to the method limit of detection of 0.40 mg/cm^2 and are therefore considered a lead coating under DOSH regulations.

6.0 CONCLUSIONS

6.1 Asbestos Containing Materials

Fulcrum's inspection confirmed the presence of suspect ACM within the building. The following summarizes materials confirmed to be asbestos by laboratory analysis.

- Gray 9-inch vinyl tile and associated black adhesive
- Yellow 12-inch vinyl tile and associated black adhesive
- Gray window putty

The following materials were confirmed through PLM by point count analysis method EPA 600 to contain detectable amounts of asbestos that are less than 1%:

- White powdery material with paint associated with the gypsum wall board (joint compound).

Asbestos containing materials must be removed in accordance with applicable regulations prior to any impacting activity. The building owner or employer is responsible under DOSH regulations to notify all employees, occupants, and/or contractors whose duties/activities may potentially contact or disturb ACM and must provide documentation of their presence and location. All applicable regulations must be adhered to when any ACM will be disturbed. Work during which employees will contact, but not disturb, asbestos shall be performed by persons with a minimum of two hours of asbestos awareness training.

Select regulations will apply to activities impacting building materials containing less the 1% asbestos. Demolition of these materials does not constitute an asbestos project and does not require notifications, certified workers, or the specific work practices outlined for Class II work. However, impact does require the implementation of universal precautions including wet non-aggressive removal, prompt cleanup, and asbestos awareness training (WAC 296-62-07712) and respiratory protection based on overall dust levels. Additional relative direction can be found in the December 28, 2000 WISHA Regional Directive (WRD) 23.30 *ASBESTOS CONTAINING JOINT COMPOUND IN WALLBOARD SYSTEMS.* Specific requirements and procedures should be addressed in the abatement specifications by an AHERA Accredited Project Designer. Facilities accepting demolition debris for disposal may elect to not take mixed demolition debris including materials with less than 1% asbestos.

6.2 Lead Containing Materials

Fulcrum's LCM inspection identified the following materials:

- Brown painted metal hand rail located on the exterior southeast corner of the building
- Beige painted metal window frame located on the northeast garage window

The extent and nature of identified and assumed lead containing materials does not suggest the probability for generation of elevated airborne lead concentrations during normal renovation activities or for a typical renovation waste stream to require characterization for lead content.

Worker protection regulations apply to potential lead exposure for any detectable lead concentration identified on building components. Impacting activities should be conducted in accordance with applicable regulations and under a written Lead Compliance Plan. Building occupants, maintenance personnel, and contractors should be notified of the presence of LCM consistent with hazard communication program requirements.

8.0 LIMITATIONS

Construction/renovation era considerations assume that all of the materials applied during the original construction or subsequent major renovation were of the same type and by the same manufacturer. Not all materials used during a construction project are of identical type and produced by the same manufacturer. If one material provides the same end result as another, cost and availability may cause materials to be switched or used temporarily during construction. The obvious limitation for persons defining these materials as homogeneous stems from identical visual perceptions, and limited or nonexistent documentation identifying material application changes.

Construction/renovation eras are based on major construction projects, including original construction and major additions or alterations. The identification of, and dates for, all construction projects, building alterations, repair projects, maintenance alterations, finished surface changes, or similar small scale projects is beyond the scope of this inspection. These events are common occurrences during the life of a facility. While samples are collected in random locations with the intent of selecting a representative “population” of the materials present, non-typical materials may alter the conclusions made.

The inspector defining homogeneous materials is forced to rely on visual perceptions and judgments during the identification process. Fulcrum certifies the methodology employed utilizes current and accepted inspection procedures. These limitations should be considered when making health, safety, and regulatory compliance decisions.

APPENDIX A

Professional Certifications

ABIH®

american board of industrial hygiene®

organized to improve the practice of industrial hygiene
proclaims that

Travis L. Trent

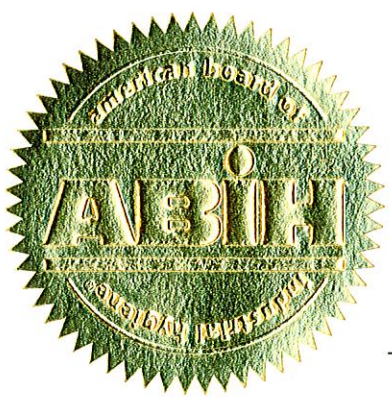
having met all requirements of
education, experience and examination,
is hereby certified in the

COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH



Certificate Number	9850
Awarded:	November 19, 2010
Expiration Date:	June 1, 2016

Chair ABIH

Executive Director ABIH

Certificate of Completion

This is to certify that

Travis L. Trent

has satisfactorily completed
4 hours of refresher training as an

Asbestos Building Inspector

to comply with the training requirements of
TSCA Title II / 40 CFR 763 (AHERA)

136804
Certificate Number

Instructor

EPA Provider Cert. Number: 1085

ARGUS PACIFIC
TRAINING • CONSULTING

May 9, 2012
Date(s) of Training

Exam Score: NA

Expiration Date: May 9, 2013

Argus Pacific, Inc. • 1900 W. Nickerson, Suite 315 • Seattle, Washington • 98119 • 206.285.3373 • fax 206.285.3927

Western Regional Lead Training Center

1950 S.E. 176th. Ave. Portland, OR. 97233-4739 503.761.2800

In Recognition That

Travis Trent

1127 West 8th Ave. Spokane WA. 99204

Has successfully fulfilled the requirements for the

State of Oregon & Washington Accredited

Lead Inspector

&

Risk Assessor

8 Hour Refresher Training Course Per 40 CFR Part 745.225

Patrick J. Lehne
Program Manager

P. J. Lehne

Date of exam

1/15/2010

Certificate Number

IRR-011510-04

Passed Final Examination with a minimum score of at least 70%

MICRIST ENVIRONMENTAL RESOURCE

Recognizes

Ryan Studley

Michael D. Thomas - Administrator

Richard Johnson, CIH
2293 West Windermere Ave.
Coeur d' Alene, ID 83815

In Successful Course Completion of

AHERA Building Inspector Refresher Training

In Accordance with TSCA Title II, Date of Training: Febuary 14, 2012 in Coeur d'Alene, ID

Certification Valid through February 14, 2013 Certification Number: BIR-12-011

7045 East Greta Avenue
Post Falls, Idaho 83854 (208) 818-0455

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Program

Ryan Studley

Has fulfilled the certification requirements of Washington Administrative code (WAC) 365-230 and has been certified to conduct lead-based paint activities pursuant to WAC 365-230-200 as a:

Risk Assessor

Certification #	Issuance Date	Expiration Date
6195	5/5/2010	5/5/2013

APPENDIX B

Laboratory Analytical Results

20121062

SEATTLE ASBESTOS TEST, LLC

Analyzing Quality

Lynnwood Lab: 19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, T:425.673.9850, F:425.673.9810
Bellevue Lab: 12727 Northup Way, Suite 24, Bellevue, WA 98005, T:425.861.1111, F:425.861.1118
Email: admin@seattleasbestostest.com, website: www.seattleasbestostest.com
NVLAP Lab Code: Lynnwood: 200768-0, Bellevue: 200876-0

Batch#:

CHAIN OF CUSTODY

☐ Bulk Asbestos ☐ Point Count 400 ☐ Point Count 1000 ☐ Point. Count. Gravimetric ☐ Other (Specify)

☐ 1 Hour ☐ 2 Hours ☐ Same Day (4 to 6 hrs) ☐ 1Day ☐ _____ Days

Fulcrum Environmental Consulting Address: **207 West boone street, Spokane, WA 99201**
Phone: **(509) 459-9220** Fax: **(509) 459-9219** Email: rstudley@efulcrum.net

# of Samples: 14 Job Number: 12-667 Project Loc: 335 E. Main, Palouse, WA

Project Manager (Check one):

☐ Adrianne Pearson apearson@efulcrum.net
☐ Bryan Byrd bbyrd@efulcrum.net
☐ Ryan Studley rstudley@efulcrum.net
☐ Nicole Savell nsavell@efulcrum.net
☐ Travis Trent ttrent@efulcrum.net

SEQ#	CLIENT SAMPLE #	SAMPLE DESCRIPTION	LAB ID	COMMENTS
	P-01	Gray Vinyl Tile		
	P-02	Gray Vinyl Tile		
	P-03	Gray Vinyl Tile		
	P-04	Yellow Vinyl Tile		
	P-05	Yellow Vinyl Tile		
	P-06	Yellow Vinyl Tile		
	P-07	Black Cove Base		
	P-08	Black Cove Base		
	P-09	Gray Window Putty		
	P-10	Gray Window Putty		
	P-11	Gray Window Putty		
	P-12	Gypsum wallboard system		
	P-13	Gypsum wallboard system		
	P-14	Gypsum wallboard system		

	Print Name	Signature	Company Name	Date	Time
Sampled	Ryan Studley		Fulcrum Environmental	5/1/2012	11:00pm
Relinquished	Ryan Studley		Fulcrum Environmental	5/1/2012	4:00pm
Delivered					
Received	H. Mummey		Seattle Asbestos Test, LLC	5-2-12	1245
Analyzed	H. Mummey		Seattle Asbestos Test, LLC	5-3-12	1200
Reported			Seattle Asbestos Test, LLC		

Results reporting method: ☐ Phone ☐ Fax ☐ Email ☐ Pick-up

Project #:

SEATTLE ASBESTOS TEST, LLC

NVLAP Accredited Lab Code - Bellevue:200876; Lynnwood:200768

Lynnwood Laboratory: 19711 Scriber Lake Rd, Suite D, Lynnwood, WA 98036; Tel: 425.673.9850, Fax:425.673.9810

Bellevue Laboratory: 12727 Northup Way, Suite 1, Bellevue, WA 98005; Tel: 425.861.1111, Fax: 425.861.1118

Website: http://www.seattleasbestostest.com, E-mail: admin@seattleasbestostest.com

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211062
Date Received: 5/2/2012
Samples Received: 14
Date Analyzed: 5/3/2012
Samples Analyzed: 14

Project: 335 E. Main, Palouse, WA

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-Fibrous Components	%	Non-asbestos Fibers
1	P-01	1	Gray tile	2	Chrysotile	Vinyl/binder, Mineral grains	2	Cellulose
		2	Black mastic	3	Chrysotile	Mastic/binder	5	Cellulose
2	P-02	1	Gray tile	2	Chrysotile	Vinyl/binder, Mineral grains	3	Cellulose
		2	Black mastic	3	Chrysotile	Mastic/binder	6	Cellulose
3	P-03	1	Gray tile	2	Chrysotile	Vinyl/binder, Mineral grains	2	Cellulose
		2	Black mastic	3	Chrysotile	Mastic/binder	4	Cellulose
4	P-04	1	Yellow tile	2	Chrysotile	Vinyl/binder, Mineral grains	3	Cellulose
		2	Black mastic	3	Chrysotile	Mastic/binder	5	Cellulose
5	P-05	1	Yellow tile	2	Chrysotile	Vinyl/binder, Mineral grains	2	Cellulose
		2	Black mastic	3	Chrysotile	Mastic/binder	4	Cellulose
6	P-06	1	Yellow tile	2	Chrysotile	Vinyl/binder, Mineral grains	2	Cellulose
		2	Black mastic	3	Chrysotile	Mastic/binder	5	Cellulose
7	P-07	1	Black rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Brown mastic		None detected	Mastic/binder	4	Cellulose, Talc
8	P-08	1	Black rubbery material		None detected	Rubber/binder	2	Cellulose
		2	Brown mastic		None detected	Mastic/binder	7	Cellulose, Talc
9	P-09	1	Gray brittle material with paint	2	Chrysotile	Paint, Filler, Binder	2	Cellulose
10	P-10	1	Gray brittle material with paint	3	Chrysotile	Paint, Filler, Binder	3	Cellulose
11	P-11	1	Gray brittle material with paint	3	Chrysotile	Paint, Filler, Binder	2	Cellulose
12	P-12	1	White powdery material with paint	2	Chrysotile	Binder/filler, Paint	5	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	27	Cellulose
13	P-13	1	White powdery material with paint	2	Chrysotile	Binder/filler, Paint	4	Cellulose
		2	White chalky material with paper		None detected	Binder/filler, Gypsum/binder	25	Cellulose

Analyzed by: Heather Mummey

Report reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST, LLC

NVLAP Accredited Lab Code - Bellevue:200876; Lynnwood:200768

Lynnwood Laboratory: 19711 Scriber Lake Rd, Suite D, Lynnwood, WA 98036; Tel: 425.673.9850, Fax:425.673.9810

Bellevue Laboratory: 12727 Northup Way, Suite 1, Bellevue, WA 98005; Tel: 425.861.1111, Fax: 425.861.1118

Website: http://www.seattleasbestostest.com, E-mail: admin@seattleasbestostest.com

ANALYTICAL LABORATORY REPORT

PLM by Method EPA/600/R-93/116

Attn.: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211062
Date Received: 5/2/2012
Samples Received: 14
Date Analyzed: 5/3/2012
Samples Analyzed: 14

Project: 335 E. Main, Palouse, WA

Lab ID	Client Sample ID	Layer	Description	%	Asbestos Fibers	Non-Fibrous Components	%	Non-asbestos Fibers
14	P-14	1	White chalky material with paper and paint		**None detected**	Binder/filler, Paint, Gypsum/binder	31	Cellulose

Analyzed by: Heather Mummey

Report reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-01

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 1
Previous Description: Gray tile
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 1

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	0	50	50
Slide 3	0	50	50
Slide 4	0	50	50
Slide 5	0	50	50
Slide 6	1	49	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	2	398	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.5%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

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Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-01

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 1
Previous Description: Black mastic
Layer to be Point Counted: 2
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures

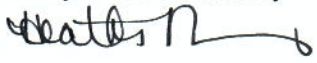
New Lab ID: 2

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	1	49	50
Slide 3	1	49	50
Slide 4	0	50	50
Slide 5	1	49	50
Slide 6	1	49	50
Slide 7	1	49	50
Slide 8	1	49	50
Total	6	394	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 1.5%

Analyzed By: Heather Mummey



Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-02

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 2
Previous Description: Gray tile
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 3

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	0	50	50
Slide 3	0	50	50
Slide 4	0	50	50
Slide 5	0	50	50
Slide 6	0	50	50
Slide 7	1	49	50
Slide 8	0	50	50
Total	1	399	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.25%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
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Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-02

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 2
Previous Description: Black mastic
Layer to be Point Counted: 2
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures New Lab ID: 4

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	2	48	50
Slide 2	1	49	50
Slide 3	0	50	50
Slide 4	1	49	50
Slide 5	1	49	50
Slide 6	2	48	50
Slide 7	0	50	50
Slide 8	1	49	50
Total	8	392	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 2%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

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12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-03

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 3
Previous Description: Gray tile
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 5

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	0	50	50
Slide 3	0	50	50
Slide 4	1	49	50
Slide 5	0	50	50
Slide 6	0	50	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	2	398	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.5%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-03

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 3
Previous Description: Black mastic
Layer to be Point Counted: 2
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures New Lab ID: 6

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	1	49	50
Slide 3	1	49	50
Slide 4	1	49	50
Slide 5	2	48	50
Slide 6	1	49	50
Slide 7	1	49	50
Slide 8	1	49	50
Total	9	391	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 2.25%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-04

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 4
Previous Description: Yellow tile
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 7

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	0	50	50
Slide 3	0	50	50
Slide 4	0	50	50
Slide 5	0	50	50
Slide 6	1	49	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	1	399	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.25%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-04

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 4
Previous Description: Black mastic
Layer to be Point Counted: 2
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures New Lab ID: 8

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	1	49	50
Slide 3	1	49	50
Slide 4	0	50	50
Slide 5	1	49	50
Slide 6	0	50	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	3	397	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.75%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-05

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 5
Previous Description: Yellow tile
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 9

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	0	50	50
Slide 3	0	50	50
Slide 4	0	50	50
Slide 5	0	50	50
Slide 6	0	50	50
Slide 7	0	50	50
Slide 8	1	49	50
Total	2	398	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.5%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-05

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 5
Previous Description: Black mastic
Layer to be Point Counted: 2
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures New Lab ID: 10

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	1	49	50
Slide 3	1	49	50
Slide 4	0	50	50
Slide 5	1	49	50
Slide 6	1	49	50
Slide 7	1	49	50
Slide 8	0	50	50
Total	5	395	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 1.25%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-06

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 6
Previous Description: Yellow tile
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 11

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	0	50	50
Slide 3	1	49	50
Slide 4	1	49	50
Slide 5	0	50	50
Slide 6	0	50	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	2	398	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.5%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-06

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 6
Previous Description: Black mastic
Layer to be Point Counted: 2
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures New Lab ID: 12

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	1	49	50
Slide 3	0	50	50
Slide 4	0	50	50
Slide 5	1	49	50
Slide 6	0	50	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	3	397	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.75%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

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12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-09

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 9
Previous Description: Gray brittle material with paint
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 13

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	0	50	50
Slide 3	0	50	50
Slide 4	0	50	50
Slide 5	0	50	50
Slide 6	1	49	50
Slide 7	1	49	50
Slide 8	1	49	50
Total	3	397	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.75%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

19711 Scriber Lake Road, Suite D, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810
12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-10

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 10
Previous Description: Gray brittle material with paint
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures

New Lab ID: 14

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	0	50	50
Slide 3	1	49	50
Slide 4	1	49	50
Slide 5	1	49	50
Slide 6	0	50	50
Slide 7	1	49	50
Slide 8	0	50	50
Total	5	395	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 1.25%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

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Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-11

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 11
Previous Description: Gray brittle material with paint
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 3

Point Count Analytical Procedures New Lab ID: 15

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	1	49	50
Slide 2	1	49	50
Slide 3	1	49	50
Slide 4	0	50	50
Slide 5	1	49	50
Slide 6	1	49	50
Slide 7	0	50	50
Slide 8	1	49	50
Total	6	394	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 1.5%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

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Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-12

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 12
Previous Description: White powdery material with paint
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 16

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	0	50	50
Slide 3	0	50	50
Slide 4	1	49	50
Slide 5	0	50	50
Slide 6	0	50	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	1	399	400

Point Count Summary Results

Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.25%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

SEATTLE ASBESTOS TEST

NVLAP Accreditation Lab Codes: 200768 and 200876

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12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118
Website:www.seattleasbestostest.com, Email:admin@seattleasbestostest.com

PLM by Point Count (400 Points)

Attention: Mr. Ryan Studley
Client: Fulcrum Environmental, Spokane
Address: 207 West Boone Ave., Spokane, WA 99201

Client Job #: 12-667
Laboratory Batch #: 201211128
Date Received: 5/4/2012
Samples Received: 17
Date Analyzed: 5/6/2012

Project: 335 E. Main, Palouse, WA

Sample Requested for Point Count P-13

Previous Analytical Information

Previously Analyzed by: Heather Mummey
Previous Batch #: 201211062
Previous Lab ID: 13
Previous Description: White powdery material with paint
Layer to be Point Counted: 1
Asbestos Type Found: Chrysotile
Asbestos Percentage Found: 2

Point Count Analytical Procedures New Lab ID: 17

	Asbestos Points	Non-Asbestos Points	Total Points Counted
Slide 1	0	50	50
Slide 2	1	49	50
Slide 3	0	50	50
Slide 4	0	50	50
Slide 5	0	50	50
Slide 6	1	49	50
Slide 7	0	50	50
Slide 8	0	50	50
Total	2	398	400

Point Count Summary Results

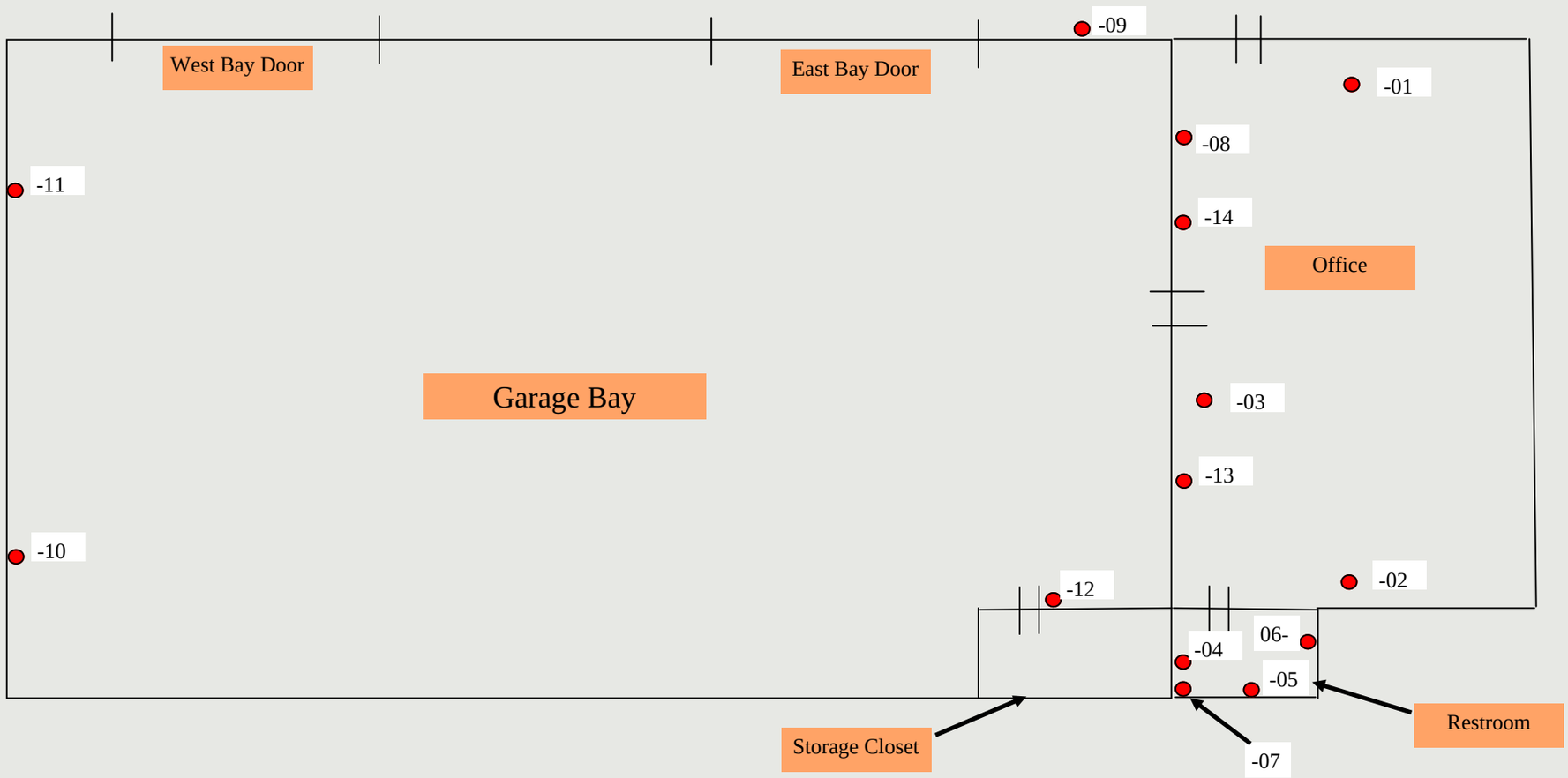
Type of Asbestos: Chrysotile
Percentage of Asbestos: 0.5%

Analyzed By: Heather Mummey

Reviewed by: Steve (Fanyao) Zhang, President

APPENDIX C

ACM Sample Location Map



LEGEND

ACM Sample Location

Map is not to scale

Figure 1: 335 East Main Street, Palouse, Washington - ACM Sample Location Map

FULCRUM environmental consulting

Fulcrum Environmental Consulting, Inc.
207 West Boone Avenue

Map By: RS	Project Number: 12667
Date: 5/9/2012	Reviewed By: TT

APPENDIX D

Site Photographs

Image 1: The building located at 335 East Main Street in Palouse, Washington is reported to have historically been used as a commercial automotive facility

Image 2: The interior of the garage portion of the facility looking west

Image 3: The interior of the garage portion of the facility looking east

Image 4: The interior of the office portion of the facility looking east

Image 5: Yellow 12-inch vinyl tile and associated black adhesive, located within the office restroom was identified through laboratory analysis to be an **ACM**

Image 6: Gray 9-inch vinyl tile and associated black adhesive, located within the office was identified through laboratory analysis to be an **ACM**

Image 7: Gray window putty was identified through laboratory analysis to be an **ACM**

Image 8: Gray window putty was identified through laboratory analysis to be an **ACM**

Image 9: Joint compound associated with gypsum wallboard was identified through laboratory analysis to contain less than 1% asbestos

APPENDIX E

Lead Summary Table

LEAD SURVEY FORM

Project Name: 335 East Main Street Hazmat
Project Number: 12-667
Address: 335 East Main Street, Palouse, Washington
Date Inspected: 05/01/2012
Inspector(s): Ryan Studley
Room Equivalent: Interior and Exterior

SAMPLE #	SUBSTRATE	COMPONENT	COLOR	TEST LOCATIONS	XRF RESULTS (mg/cm^2)	PRECISION READING	CONDITION (Intact/Fair/Poor)	Lead Present Above Method Detection Limit
P-01, 02, 03, 04, 05	1.00 mg/CM² Calibration				1.01, 1.04, 1.00, 0.97, 0.98	0.40	NA	NA
P-06	CMU	Wall	Tan	Ext. W wall	0.00	0.40	Poor	No
P-07	CMU	Wall	Tan	Ext. S wall	0.00	0.40	Poor	No
P-08, 09,10	**Metal**	**Handrail**	**Brown**	**Ext. SE corner**	**0.47, 0.59, 0.57**	**0.40**	**Poor**	**Yes**
P-11	Wood	Door	Brown stain	SE corner door	0.00	0.40	Intact	No
P-12	Wood	Door frame	Brown	SE corner door	0.36	0.40	Intact	No
P-13	Brick	Wall	Brown	SE corner ext. wall	0.00	0.40	Fair	No
P-14	Wood	Siding	Gray	NE ext. corner	0.00	0.40	Intact	No
P-15	Wood	Garage door	Dark brown	W garage door	0.00	0.40	Poor	No
P-16	Brick	Wall	Brown	W of garage door	0.00	0.40	Poor	No
P-17	CMU	Wall	Beige	W wall Interior garage	0.00	0.40	Poor	No
P-18	CMU	Wall	Beige	S wall Interior garage	0.00	0.40	Poor	No
P-19	Brick	Wall	Beige	N wall Interior garage	0.00	0.40	Poor	No

SAMPLE #	SUBSTRATE	COMPONENT	COLOR	TEST LOCATIONS	XRF RESULTS (mg/cm^2)	PRECISION READING	CONDITION (Intact/Fair/Poor)	Lead Present Above Method Detection Limit
P-20	Wood	Garage door	White	Intact. of W garage door	0.00	0.40	Poor	No
P-21	Cement	Curb	White	Garage SW corner	0.12	0.40	Poor	No
P-22	Cement	Curb	Green	Garage SW corner	0.00	0.40	Poor	No
P-23	GWB	Closet wall	Off-white	Closet N wall	0.00	0.40	Poor	No
P-24	Metal	Structural Support	Off-white	Garage outside of storage closet	0.26	0.40	Poor	No
P-25	Brick	Wall	White	Bathroom W wall	0.00	0.40	Intact	No
P-26	Particle board	Ceiling	White	Bathroom center	0.00	0.40	Intact	No
P-27	GWB	Wall	White	Off W wall	0.10	0.40	Fair	No
P-28	Wood	Door frame	White	Off W door	0.00	0.40	Fair	No
P-29	Wood	Window frame	White	Off W wall window	0.00	0.40	Fair	No
P-30, 31, 32	**Metal**	**Window frame**	**Beige**	**Garage NE window**	**0.52, 0.47, 0.46**	**0.40**	**Fair**	**Yes**
P-33	Particle board	Ceiling	Beige	Garage center	0.01	0.40	Poor	No
P-34	Particle board	Ceiling	Off-white	Office center	0.00	0.40	Intact	No
P-35	Wood	Window frame	Off-white	Office E window	0.00	0.40	Fair	No
P-36	Wood	Window sill	Off-white	Office E window	0.00	0.40	Fair	No
P-37	Glass	Window	Brown	Garage W window.	0.00	0.40	Poor	No
P-38	Wood	Wall	Red	Ext. NW corner of bldg..	0.00	0.40	Poor	**No**
P-39	Wood	Soffit	White	Ext. N of office	0.00	0.40	Fair	**No**

SAMPLE #	SUBSTRATE	COMPONENT	COLOR	TEST LOCATIONS	XRF RESULTS (mg/cm^2)	PRECISION READING	CONDITION (Intact/Fair/Poor)	Lead Present Above Method Detection Limit
P-40, -42, -43, -44, -45				1.00 mg/CM² Calibration	0.94, 0.99, 1.03, 1.01, 1.00	0.40	NA	NA

Bold indicates paint/building material combination tested above the method detection limit of 0.40 mg/cm^2 lead concentration, identified as Lead-based paint(LBP).
GWB = Gypsum wallboard
NA = Not Applicable

APPENDIX B

PHOTOGRAPHS

PHOTOGRAPHS

Project Name: Palouse Producers Property: Remedial Action—Soil Removal
Project Number: 0477.01.05
Location: Palouse, Washington

Photo No.
1

Description
Looking east, general excavation down to groundwater table

Photo No.
2

Description
Looking west, LCA removal and segregation

PHOTOGRAPHS

Project Name: Palouse Producers Property: Remedial Action—Soil Removal
Project Number: 0477.01.05
Location: Palouse, Washington

Photo No.
3

Description
XRF screening and construction oversight trappings

Photo No.
4

Description
Looking east, uncovered UST

PHOTOGRAPHS

Project Name: Palouse Producers Property: Remedial Action—Soil Removal
Project Number: 0477.01.05
Location: Palouse, Washington

Photo No.
5

Description
Placement of ORC in bottom of excavation prior to backfill

Photo No.
6

Description
Looking south, backfill and compaction of clean import material

PHOTOGRAPHS

Project Name: Palouse Producers Property: Remedial Action—Soil Removal
Project Number: 0477.01.05
Location: Palouse, Washington

Photo No.
7

Description
Pumping the Portland cement over the LCA pile for mixing and treatment

Photo No.
8

Description
Mixing the soil and cement to stabilize the LCA soil

PHOTOGRAPHS

Project Name: Palouse Producers Property: Remedial Action—Soil Removal
Project Number: 0477.01.05
Location: Palouse, Washington

Photo No.
9

Description
Looking southeast, fabric being placed prior to gravel finish course

Photo No.
10

Description
Placing gravel finish course

PHOTOGRAPHS

Project Name: Palouse Producers Property: Remedial Action—Soil Removal
Project Number: 0477.01.05
Location: Palouse, Washington

APPENDIX C

LABORATORY REPORTS AND DATA VALIDATION MEMORANDUM

Specialty Analytical

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

September 14, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958
RE: Palouse / 0477.01.05

Dear Connor Lamb: Order No.: 1209043

Specialty Analytical received 5 sample(s) on 9/10/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 14-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/7/2012 10:45:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209043-001
Client Sample ID: CS01-12/9/7-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	73.7	19.7		mg/Kg-dry	1	9/11/2012 11:14:00 AM
Lube Oil	ND	65.8		mg/Kg-dry	1	9/11/2012 11:14:00 AM
Surr: o-Terphenyl	87.2	50-150		%REC	1	9/11/2012 11:14:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	19.6	0.434	A	mg/Kg-dry	1	9/11/2012 11:22:00 AM
Surr: 4-Bromofluorobenzene	111	50-150		%REC	1	9/11/2012 11:22:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.44		mg/Kg-dry	1	9/11/2012 11:40:42 AM
Lead	5.95	2.44		mg/Kg-dry	1	9/11/2012 11:40:42 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	8.44		µg/Kg-dry	1	9/12/2012 1:40:00 PM
Surr: 1,2-Dichloroethane-d4	43.0	71.5-112	S	%REC	1	9/12/2012 1:40:00 PM
Surr: 4-Bromofluorobenzene	90.4	75.7-122		%REC	1	9/12/2012 1:40:00 PM
Surr: Dibromofluoromethane	53.3	64.3-124	S	%REC	1	9/12/2012 1:40:00 PM
Surr: Toluene-d8	73.2	74.9-120	S	%REC	1	9/12/2012 1:40:00 PM

Specialty Analytical

Date Reported: 14-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/7/2012 1:00:00 PM
Project: Palouse / 0477.01.05
Lab ID: 1209043-002
Client Sample ID: CS02-12/9/7-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	1980	20.4		mg/Kg-dry	1	9/11/2012 11:36:00 AM
Lube Oil	ND	68.0		mg/Kg-dry	1	9/11/2012 11:36:00 AM
Surr: o-Terphenyl	160	50-150	SMI	%REC	1	9/11/2012 11:36:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	855	6.10	A	mg/Kg-dry	1	9/11/2012 12:09:00 PM
Surr: 4-Bromofluorobenzene	180	50-150	SMI	%REC	1	9/11/2012 12:09:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.56		mg/Kg-dry	1	9/11/2012 12:03:01 PM
Lead	ND	2.56		mg/Kg-dry	1	9/11/2012 12:03:01 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	9.54		µg/Kg-dry	1	9/11/2012 5:13:00 PM
Surr: 1,2-Dichloroethane-d4	36.8	71.5-112	S	%REC	1	9/11/2012 5:13:00 PM
Surr: 4-Bromofluorobenzene	84.6	75.7-122		%REC	1	9/11/2012 5:13:00 PM
Surr: Dibromofluoromethane	45.2	64.3-124	S	%REC	1	9/11/2012 5:13:00 PM
Surr: Toluene-d8	82.2	74.9-120		%REC	1	9/11/2012 5:13:00 PM

Specialty Analytical

Date Reported: 14-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/7/2012 1:10:00 PM
Project: Palouse / 0477.01.05
Lab ID: 1209043-003
Client Sample ID: CS03-12/9/7-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	358	15.9	A1	mg/Kg-dry	1	9/11/2012 12:20:00 PM
Lube Oil	160	52.9		mg/Kg-dry	1	9/11/2012 12:20:00 PM
Surr: o-Terphenyl	119	50-150		%REC	1	9/11/2012 12:20:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	82.2	5.53	A	mg/Kg-dry	1	9/11/2012 12:32:00 PM
Surr: 4-Bromofluorobenzene	99.0	50-150		%REC	1	9/11/2012 12:32:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	1.89		mg/Kg-dry	1	9/11/2012 12:07:33 PM
Lead	18.3	1.89		mg/Kg-dry	1	9/11/2012 12:07:33 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	5.63		µg/Kg-dry	1	9/11/2012 5:46:00 PM
Surr: 1,2-Dichloroethane-d4	32.9	71.5-112	S	%REC	1	9/11/2012 5:46:00 PM
Surr: 4-Bromofluorobenzene	45.9	75.7-122	S	%REC	1	9/11/2012 5:46:00 PM
Surr: Dibromofluoromethane	34.1	64.3-124	S	%REC	1	9/11/2012 5:46:00 PM
Surr: Toluene-d8	57.5	74.9-120	S	%REC	1	9/11/2012 5:46:00 PM

Specialty Analytical

Date Reported: 14-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/7/2012 12:30:00 PM
Project: Palouse / 0477.01.05
Lab ID: 1209043-004
Client Sample ID: PTS01-12/9/7
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS		**SW6010C**				Analyst: **CT**
Lead,TCLP	ND	0.1000		mg/L	1	9/11/2012 10:41:30 AM

Specialty Analytical

Date Reported: 14-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/6/2012 9:00:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209043-005
Client Sample ID: SS01-12/9/6-6.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	20.5		mg/Kg-dry	1	9/10/2012 4:48:00 PM
Lube Oil	ND	68.5		mg/Kg-dry	1	9/10/2012 4:48:00 PM
Surr: o-Terphenyl	73.9	50-150		%REC	1	9/10/2012 4:48:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	3.42		mg/Kg-dry	1	9/10/2012 2:46:00 PM
Surr: 4-Bromofluorobenzene	62.2	50-150		%REC	1	9/10/2012 2:46:00 PM
PAH'S BY GC/MS - LOW LEVEL		**SW8270D**				Analyst: **bda**
1-Methylnaphthalene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
2-Methylnaphthalene	11.9	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Acenaphthene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Acenaphthylene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Anthracene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Benz(a)anthracene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Benzo(a)pyrene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Benzo(b)fluoranthene	10.0	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Benzo(g,h,i)perylene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Benzo(k)fluoranthene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Chrysene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Dibenz(a,h)anthracene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Fluoranthene	12.8	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Fluorene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Indeno(1,2,3-cd)pyrene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Naphthalene	ND	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Phenanthrene	14.6	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Pyrene	11.9	9.13		µg/Kg-dry	1	9/11/2012 8:57:00 AM
Surr: 2-Fluorobiphenyl	58.8	42.6-128		%REC	1	9/11/2012 8:57:00 AM
Surr: Nitrobenzene-d5	111	21.7-155		%REC	1	9/11/2012 8:57:00 AM
Surr: p-Terphenyl-d14	83.5	44.9-155		%REC	1	9/11/2012 8:57:00 AM
PCB'S IN SOIL		**SW 8082A**				Analyst: **ajr**
Aroclor 1016	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Aroclor 1221	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Aroclor 1232	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Aroclor 1242	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Aroclor 1248	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Aroclor 1254	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Aroclor 1260	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM

Specialty Analytical

Date Reported: 14-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/6/2012 9:00:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209043-005
Client Sample ID: SS01-12/9/6-6.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
PCB'S IN SOIL		**SW 8082A**				Analyst: **ajr**
Aroclor 1262	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Aroclor 1268	ND	0.456		µg/Kg-dry	1	9/11/2012 10:35:06 AM
Surr: Decachlorobiphenyl	119	56.5-130		%REC	1	9/11/2012 10:35:06 AM

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 6010_S**

Sample ID: **ICV** SampType: **ICV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6164**
Client ID: **ICV** Batch ID: **3485** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/11/2012** SeqNo: **79157**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	102	2.00	100.0	0	102	90	110				
Lead	103	2.00	100.0	0	103	90	110				

Sample ID: **MBLK-3485** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/11/2012** RunNo: **6164**
Client ID: **PBS** Batch ID: **3485** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/11/2012** SeqNo: **79159**

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-3485** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/11/2012** RunNo: **6164**
Client ID: **LCSS** Batch ID: **3485** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/11/2012** SeqNo: **79160**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	96.1	2.00	100.0	0	96.1	85.1	107				
Lead	96.9	2.00	100.0	0	96.9	84.9	109				

Sample ID: **1209043-001ADUP** SampType: **DUP** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/11/2012** RunNo: **6164**
Client ID: **CS01-12/9/7-8.0** Batch ID: **3485** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/11/2012** SeqNo: **79162**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.44						0	0	20	
Lead	6.64	2.44						5.945	11.0	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: 6010_S**

Sample ID: **1209043-001AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/11/2012** RunNo: **6164**

Client ID: **CS01-12/9/7-8.0** Batch ID: **3485** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/11/2012** SeqNo: **79163**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	127	2.53	126.5	0	100	86.1	109				
Lead	128	2.53	126.5	5.945	96.7	84.9	109				

Sample ID: **1209043-001AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/11/2012** RunNo: **6164**

Client ID: **CS01-12/9/7-8.0** Batch ID: **3485** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/11/2012** SeqNo: **79164**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	124	2.53	126.5	0	98.1	86.1	109	126.5	1.88	20	
Lead	126	2.53	126.5	5.945	94.9	84.9	109	128.3	1.84	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6164**

Client ID: **CCV** Batch ID: **3485** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/11/2012** SeqNo: **79168**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	102	2.00	100.0	0	102	90	110				
Lead	103	2.00	100.0	0	103	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_W**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6162**
Client ID: **ICV**	Batch ID: **3486**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/11/2012**	SeqNo: **79137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.034	0.0200	1.000	0	103	90	110				

Sample ID: **MBLK-3486**	SampType: **MBLK**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/11/2012**	RunNo: **6162**
Client ID: **PBW**	Batch ID: **3486**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/11/2012**	SeqNo: **79138**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.0200									

Sample ID: **LCS-3486**	SampType: **LCS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/11/2012**	RunNo: **6162**
Client ID: **LCSW**	Batch ID: **3486**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/11/2012**	SeqNo: **79139**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.074	0.0200	1.000	0	107	93.1	112				

Sample ID: **1209043-004ADUP**	SampType: **DUP**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/11/2012**	RunNo: **6162**
Client ID: **PTS01-12/9/7**	Batch ID: **3486**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/11/2012**	SeqNo: **79141**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.1000						0	200	20	

Sample ID: **1209043-004AMS**	SampType: **MS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/11/2012**	RunNo: **6162**
Client ID: **PTS01-12/9/7**	Batch ID: **3486**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/11/2012**	SeqNo: **79142**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.180	0.1000	5.000	0.0605	102	91.9	112				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

14-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: 6010_W**

Sample ID: **1209043-004AMSD**	SampType: **MSD**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/11/2012**	RunNo: **6162**
Client ID: **PTS01-12/9/7**	Batch ID: **3486**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/11/2012**	SeqNo: **79143**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.055	0.1000	5.000	0.0605	99.9	91.9	112	5.180	2.44	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6162**
Client ID: **CCV**	Batch ID: **3486**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/11/2012**	SeqNo: **79145**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.041	0.0200	1.000	0	104	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

14-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: 8082LL_S**

Sample ID: **1209043-005AMS** SampType: **MS** TestCode: **8082LL_S** Units: **µg/Kg-dry** Prep Date: **9/10/2012** RunNo: **6163**

Client ID: **SS01-12/9/6-6.0** Batch ID: **3481** TestNo: **SW 8082A** **3545_8082LL** Analysis Date: **9/11/2012** SeqNo: **79146**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260	91.2	0.456	91.30	0	99.9	56.6	123				

Sample ID: **1209043-005AMSD** SampType: **MSD** TestCode: **8082LL_S** Units: **µg/Kg-dry** Prep Date: **9/10/2012** RunNo: **6163**

Client ID: **SS01-12/9/6-6.0** Batch ID: **3481** TestNo: **SW 8082A** **3545_8082LL** Analysis Date: **9/11/2012** SeqNo: **79147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260	13.7	0.456	91.30	0	15.0	56.6	123	91.24	148	20	SRMI

Sample ID: **MB-3481** SampType: **MBLK** TestCode: **8082LL_S** Units: **µg/Kg** Prep Date: **9/10/2012** RunNo: **6163**

Client ID: **PBS** Batch ID: **3481** TestNo: **SW 8082A** **3545_8082LL** Analysis Date: **9/11/2012** SeqNo: **79148**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.333									
Aroclor 1016/1260	ND	0.333									
Aroclor 1221	ND	0.333									
Aroclor 1232	ND	0.333									
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: Decachlorobiphenyl	6090		6667		91.4	56.5	130				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: 8082LL_S**

Sample ID: **LCS-3481**	SampType: **LCS**	TestCode: **8082LL_S**	Units: **µg/Kg**	Prep Date: **9/10/2012**	RunNo: **6163**
Client ID: **LCSS**	Batch ID: **3481**	TestNo: **SW 8082A**	**3545_8082LL**	Analysis Date: **9/11/2012**	SeqNo: **79149**

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	44.3	137				

Sample ID: **CCV-3481**	SampType: **CCV**	TestCode: **8082LL_S**	Units: **µg/Kg**	Prep Date:	RunNo: **6163**
Client ID: **CCV**	Batch ID: **3481**	TestNo: **SW 8082A**	**3545_8082LL**	Analysis Date: **9/11/2012**	SeqNo: **79181**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1248	69.0	0.333	66.67	0	103	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **LCS-3497**	SampType: **LCS**	TestCode: **8260_5035**	Units: **µg/Kg**	Prep Date: **9/11/2012**	RunNo: **6172**
Client ID: **LCSS**	Batch ID: **3497**	TestNo: **SW8260B**	**SW5035A**	Analysis Date: **9/11/2012**	SeqNo: **79216**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	65.7	10.0	60.00	0	110	74.3	136				

Sample ID: **LCSD-3497**	SampType: **LCSD**	TestCode: **8260_5035**	Units: **µg/Kg**	Prep Date: **9/11/2012**	RunNo: **6172**
Client ID: **LCSS02**	Batch ID: **3497**	TestNo: **SW8260B**	**SW5035A**	Analysis Date: **9/11/2012**	SeqNo: **79217**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	66.9	10.0	60.00	0	111	74.3	136	65.71	1.75	20	

Sample ID: **MBLK**	SampType: **MBLK**	TestCode: **8260_5035**	Units: **µg/Kg**	Prep Date:	RunNo: **6172**
Client ID: **PBS**	Batch ID: **3497**	TestNo: **SW8260B**	**SW5035A**	Analysis Date: **9/11/2012**	SeqNo: **79218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	86.1		100.0		86.1	71.5	112				
Surr: 4-Bromofluorobenzene	105		100.0		105	75.7	122				
Surr: Dibromofluoromethane	101		100.0		101	64.3	124				
Surr: Toluene-d8	106		100.0		106	74.9	120				

Sample ID: **CCV-3497**	SampType: **CCV**	TestCode: **8260_5035**	Units: **µg/Kg**	Prep Date:	RunNo: **6172**
Client ID: **CCV**	Batch ID: **3497**	TestNo: **SW8260B**	**SW5035A**	Analysis Date: **9/12/2012**	SeqNo: **79301**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	65.7	10.0	60.00	0	110	80	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

14-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **CCB** SampType: **CCB** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6172**

Client ID: **CCB** Batch ID: **3497** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/12/2012** SeqNo: **79302**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	62.9		100.0		62.9	71.5	112				S
Surr: 4-Bromofluorobenzene	93.8		100.0		93.8	75.7	122				
Surr: Dibromofluoromethane	61.9		100.0		61.9	64.3	124				S
Surr: Toluene-d8	117		100.0		117	74.9	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

14-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **MB-3478**	SampType: **MBLK**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **9/10/2012**	RunNo: **6154**
Client ID: **PBS**	Batch ID: **3478**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/10/2012**	SeqNo: **79062**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.5		33.30		82.5	50	150				

Sample ID: **LCS-3478**	SampType: **LCS**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **9/10/2012**	RunNo: **6154**
Client ID: **LCSS**	Batch ID: **3478**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/10/2012**	SeqNo: **79063**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	161	15.0	166.5	0	96.9	76.3	125				
Lube Oil	152	50.0	166.5	0	91.0	69.9	127				

Sample ID: **1209043-005ADUP**	SampType: **DUP**	TestCode: **NWTPHDX_S**	Units: **mg/Kg-dry**	Prep Date: **9/10/2012**	RunNo: **6154**
Client ID: **SS01-12/9/6-6.0**	Batch ID: **3478**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/10/2012**	SeqNo: **79065**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	20.5						0	0	20	
Lube Oil	ND	68.5						0	0	20	

Sample ID: **1209039-001ADUP**	SampType: **DUP**	TestCode: **NWTPHDX_S**	Units: **mg/Kg-dry**	Prep Date: **9/10/2012**	RunNo: **6154**
Client ID: **ZZZZZZ**	Batch ID: **3478**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/10/2012**	SeqNo: **79068**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	7960	203						7877	1.09	20	A1
Lube Oil	4500	676						3697	19.5	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

14-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: RunNo: **6154**

Client ID: **CCV** Batch ID: **3478** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/11/2012** SeqNo: **79529**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1240	15.0	1346	0	91.8	85	115				
Lube Oil	620	50.0	708.4	0	87.5	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

14-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_S**

Sample ID: **MB-3479**	SampType: **MBLK**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/10/2012**	RunNo: **6160**
Client ID: **PBS**	Batch ID: **3479**	TestNo: **NWTPH-Gx**	**5030_G_S**	Analysis Date: **9/10/2012**	SeqNo: **79122**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	5.04		5.000		101	50	150				

Sample ID: **LCS-3479**	SampType: **LCS**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/10/2012**	RunNo: **6160**
Client ID: **LCSS**	Batch ID: **3479**	TestNo: **NWTPH-Gx**	**5030_G_S**	Analysis Date: **9/10/2012**	SeqNo: **79123**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	52.6	2.50	50.00	0	105	53.5	121				

Sample ID: **1209043-005ADUP**	SampType: **DUP**	TestCode: **NWTPHGX_S**	Units: **mg/Kg-dry**	Prep Date: **9/10/2012**	RunNo: **6160**
Client ID: **SS01-12/9/6-6.0**	Batch ID: **3479**	TestNo: **NWTPH-Gx**	**5030_G_S**	Analysis Date: **9/10/2012**	SeqNo: **79125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	3.42						0	0	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6160**
Client ID: **CCV**	Batch ID: **3479**	TestNo: **NWTPH-Gx**	**5030_G_S**	Analysis Date: **9/10/2012**	SeqNo: **79126**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	138	2.50	150.0	0	92.1	80	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_SA**

Sample ID: **MB-3484**	SampType: **MBLK**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/10/2012**	RunNo: **6197**
Client ID: **PBS**	Batch ID: **3484**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/10/2012**	SeqNo: **79547**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	5.04		5.000		101	50	150				

Sample ID: **LCS-3484**	SampType: **LCS**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/10/2012**	RunNo: **6197**
Client ID: **LCSS**	Batch ID: **3484**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/10/2012**	SeqNo: **79548**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	52.6	2.50	50.00	0	105	53.5	121				

Sample ID: **1209043-001BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_S**	Units: **mg/Kg-dry**	Prep Date: **9/10/2012**	RunNo: **6197**
Client ID: **CS01-12/9/7-8.0**	Batch ID: **3484**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/11/2012**	SeqNo: **79553**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	24.3	0.461						19.63	21.1	20	R,A

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6197**
Client ID: **CCV**	Batch ID: **3484**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/11/2012**	SeqNo: **79556**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	130	2.50	150.0	0	87.0	80	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: PAHLL_S**

Sample ID: **CCV-3482** SampType: **CCV** TestCode: **PAHLL_S** Units: **µg/Kg** Prep Date: RunNo: **6157**
Client ID: **CCV** Batch ID: **3482** TestNo: **SW8270D** **SW 3545A** Analysis Date: **9/11/2012** SeqNo: **79090**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	375	6.67	333.4	0	112	80	120				
2-Methylnaphthalene	369	6.67	333.4	0	111	80	120				
Acenaphthene	361	6.67	333.4	0	108	80	120				
Acenaphthylene	377	6.67	333.4	0	113	80	120				
Anthracene	327	6.67	333.4	0	98.0	80	120				
Benz(a)anthracene	323	6.67	333.4	0	96.8	80	120				
Benzo(a)pyrene	385	6.67	333.4	0	116	80	120				
Benzo(b)fluoranthene	360	6.67	333.4	0	108	80	120				
Benzo(g,h,i)perylene	347	6.67	333.4	0	104	80	120				
Benzo(k)fluoranthene	396	6.67	333.4	0	119	80	120				
Chrysene	283	6.67	333.4	0	85.0	80	120				
Dibenz(a,h)anthracene	319	6.67	333.4	0	95.6	80	120				
Fluoranthene	339	6.67	333.4	0	102	80	120				
Fluorene	345	6.67	333.4	0	104	80	120				
Indeno(1,2,3-cd)pyrene	367	6.67	333.4	0	110	80	120				
Naphthalene	384	6.67	333.4	0	115	80	120				
Phenanthrene	353	6.67	333.4	0	106	80	120				
Pyrene	319	6.67	333.4	0	95.8	80	120				

Sample ID: **MB-3482** SampType: **MBLK** TestCode: **PAHLL_S** Units: **µg/Kg** Prep Date: **9/10/2012** RunNo: **6157**
Client ID: **PBS** Batch ID: **3482** TestNo: **SW8270D** **SW 3545A** Analysis Date: **9/11/2012** SeqNo: **79091**

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									

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **PAHLL_S**

Sample ID: **MB-3482**	SampType: **MBLK**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date: **9/10/2012**	RunNo: **6157**
Client ID: **PBS**	Batch ID: **3482**	TestNo: **SW8270D**	**SW 3545A**	Analysis Date: **9/11/2012**	SeqNo: **79091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	ND	6.67									
Benzo(g,h,i)perylene	ND	6.67									
Benzo(k)fluoranthene	ND	6.67									
Chrysene	ND	6.67									
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	3760		6667		56.3	42.6	128				
Surr: Nitrobenzene-d5	6720		6667		101	21.7	155				
Surr: p-Terphenyl-d14	5770		6667		86.6	44.9	155				

Sample ID: **LCS-3482**	SampType: **LCS**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date: **9/10/2012**	RunNo: **6157**
Client ID: **LCSS**	Batch ID: **3482**	TestNo: **SW8270D**	**SW 3545A**	Analysis Date: **9/11/2012**	SeqNo: **79093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	269	6.67	333.4	0	80.6	39.6	107				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

14-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **PAHLL_S**

Sample ID: **LCS-3482** SampType: **LCS** TestCode: **PAHLL_S** Units: **µg/Kg** Prep Date: **9/10/2012** RunNo: **6157**

Client ID: **LCSS** Batch ID: **3482** TestNo: **SW8270D** **SW 3545A** Analysis Date: **9/11/2012** SeqNo: **79093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(g,h,i)perylene	244	6.67	333.4	0	73.2	49.7	135				
Chrysene	270	6.67	333.4	0	81.0	57.1	130				
Naphthalene	235	6.67	333.4	0	70.4	29.1	109				
Phenanthrene	261	6.67	333.4	0	78.2	48.4	115				
Pyrene	249	6.67	333.4	0	74.6	47.2	134				

Sample ID: **1209043-005AMS** SampType: **MS** TestCode: **PAHLL_S** Units: **µg/Kg-dry** Prep Date: **9/10/2012** RunNo: **6157**

Client ID: **SS01-12/9/6-6.0** Batch ID: **3482** TestNo: **SW8270D** **SW 3545A** Analysis Date: **9/11/2012** SeqNo: **79094**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	292	9.13	456.5	0	64.0	33.7	111				
Benzo(g,h,i)perylene	298	9.13	456.5	2.739	64.6	15	128				
Chrysene	325	9.13	456.5	9.129	69.2	37.5	125				
Naphthalene	272	9.13	456.5	7.304	58.0	27.7	108				
Phenanthrene	318	9.13	456.5	14.61	66.4	20.2	139				
Pyrene	308	9.13	456.5	11.87	64.8	26.8	142				

Sample ID: **1209043-005AMSD** SampType: **MSD** TestCode: **PAHLL_S** Units: **µg/Kg-dry** Prep Date: **9/10/2012** RunNo: **6157**

Client ID: **SS01-12/9/6-6.0** Batch ID: **3482** TestNo: **SW8270D** **SW 3545A** Analysis Date: **9/11/2012** SeqNo: **79095**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	287	9.13	456.5	0	62.8	33.7	111	292.1	1.89	20	
Benzo(g,h,i)perylene	299	9.13	456.5	2.739	64.8	15	128	297.6	0.306	20	
Chrysene	324	9.13	456.5	9.129	69.0	37.5	125	325.0	0.281	20	
Naphthalene	237	9.13	456.5	7.304	50.4	27.7	108	272.1	13.6	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209043**

Specialty Analytical

14-Sep-12

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: PAHLL_S**

Sample ID: **1209043-005AMSD** SampType: **MSD** TestCode: **PAHLL_S** Units: **µg/Kg-dry** Prep Date: **9/10/2012** RunNo: **6157**

Client ID: **SS01-12/9/6-6.0** Batch ID: **3482** TestNo: **SW8270D** **SW 3545A** Analysis Date: **9/11/2012** SeqNo: **79095**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	309	9.13	456.5	14.61	64.6	20.2	139	317.7	2.62	20	
Pyrene	301	9.13	456.5	11.87	63.4	26.8	142	307.7	2.10	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Connor Lamb
Company: Maul Foster Alongi
Address: 2001 NW 19th Ave, Ste 200
Portland, OR 97209
Phone: 971-544-2139 Fax:
Project No. 0477.01.05 Project Name: Palouse
Project Site Location OR: WA: ✓ Other:
Invoice To: MFA P.O. No.:

Collected By:
Signature:
Printed: David Knutson

Signature:
Printed:

Turn Around Time
☐ Normal 5-7 Business Days
☑ Rush
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209043
Shipped Via: UPS
Air Bill No.:
Temperature On Receipt °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: PCBs	TCLP lead	Benz - 8260 -	Lead - As, Pb 6010	MW TPH Gx/Dx	PAH					Comments	Lab I.D.
1045	9/7	CS01-12/9/7-8.0					X	X	X							
1300	9/7	CS02-12/9/7-8.0					X	X	X							
1310	9/7	CS03-12/9/7-4.0					X	X	X							
1230	9/7	PTS01-12/9/7				X									Composite, rush	
~~0900~~ 900	9/6	SS01-12/9/6-6.0			X				X	X					rush	

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
D. Knutson	9/7/2012	15:30				
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Nikki Pappes — Date: 9/10/12 — Time: 1030

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

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

September 19, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958
RE: Palouse / 0477.01.05

Dear Connor Lamb: Order No.: 1209081

Specialty Analytical received 16 sample(s) on 9/14/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT:	Maul Foster & Alongi	**Collection Date:**	9/11/2012 2:50:00 PM
Project:	Palouse / 0477.01.05		
Lab ID:	1209081-001		
Client Sample ID:	PTS04-12/9/11	**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP 8		**SW6010C**				Analyst: **CT**
Lead, TCLP	ND	0.1000		mg/L	1	9/17/2012 10:06:52 AM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 9:20:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-002
Client Sample ID: CS06-12/9/10-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	86.5	21.4	A4	mg/Kg-dry	1	9/14/2012 8:34:00 PM
Lube Oil	ND	71.3		mg/Kg-dry	1	9/14/2012 8:34:00 PM
Surr: o-Terphenyl	91.6	50-150		%REC	1	9/14/2012 8:34:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	79.9	17.0		mg/Kg-dry	1	9/17/2012 3:37:00 PM
Surr: 4-Bromofluorobenzene	88.5	50-150		%REC	1	9/17/2012 3:37:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.79		mg/Kg-dry	1	9/14/2012 2:04:48 PM
Lead	4.11	2.79		mg/Kg-dry	1	9/14/2012 2:04:48 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	22.8		µg/Kg-dry	1	9/14/2012 4:11:00 PM
Surr: 1,2-Dichloroethane-d4	103	71.5-112		%REC	1	9/14/2012 4:11:00 PM
Surr: 4-Bromofluorobenzene	100	75.7-122		%REC	1	9/14/2012 4:11:00 PM
Surr: Dibromofluoromethane	97.1	64.3-124		%REC	1	9/14/2012 4:11:00 PM
Surr: Toluene-d8	97.1	74.9-120		%REC	1	9/14/2012 4:11:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 9:45:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-003
Client Sample ID: CS08-12/9/10-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	7840	96.7	A1	mg/Kg-dry	5	9/14/2012 8:57:00 PM
Lube Oil	197	64.4	A2	mg/Kg-dry	1	9/15/2012 3:59:00 AM
Surr: o-Terphenyl	284	50-150	SMI	%REC	1	9/15/2012 3:59:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	5340	142	A	mg/Kg-dry	5	9/15/2012 12:21:00 AM
Surr: 4-Bromofluorobenzene	195	50-150	SMI	%REC	5	9/15/2012 12:21:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.58		mg/Kg-dry	1	9/14/2012 2:09:20 PM
Lead	54.9	2.58		mg/Kg-dry	1	9/14/2012 2:09:20 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	128	27.2		µg/Kg-dry	1	9/14/2012 4:41:00 PM
Surr: 1,2-Dichloroethane-d4	80.4	71.5-112		%REC	1	9/14/2012 4:41:00 PM
Surr: 4-Bromofluorobenzene	393	75.7-122	SEMI	%REC	1	9/14/2012 4:41:00 PM
Surr: Dibromofluoromethane	74.2	64.3-124		%REC	1	9/14/2012 4:41:00 PM
Surr: Toluene-d8	137	74.9-120	SMI	%REC	1	9/14/2012 4:41:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 1:55:00 PM
Project: Palouse / 0477.01.05
Lab ID: 1209081-004
Client Sample ID: CS13-12/9/10-4.0-DUP
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	5220	24.2		mg/Kg-dry	1	9/14/2012 9:41:00 PM
Lube Oil	179	80.8		mg/Kg-dry	1	9/14/2012 9:41:00 PM
Surr: o-Terphenyl	201	50-150	SMI	%REC	1	9/14/2012 9:41:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	746	123		mg/Kg-dry	5	9/17/2012 2:50:00 PM
Surr: 4-Bromofluorobenzene	99.0	50-150		%REC	5	9/17/2012 2:50:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	7.45	3.23		mg/Kg-dry	1	9/14/2012 1:10:28 PM
Lead	295	3.23		mg/Kg-dry	1	9/14/2012 1:10:28 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	41.2		µg/Kg-dry	1	9/14/2012 12:06:00 PM
Surr: 1,2-Dichloroethane-d4	106	71.5-112		%REC	1	9/14/2012 12:06:00 PM
Surr: 4-Bromofluorobenzene	178	75.7-122	S	%REC	1	9/14/2012 12:06:00 PM
Surr: Dibromofluoromethane	95.8	64.3-124		%REC	1	9/14/2012 12:06:00 PM
Surr: Toluene-d8	104	74.9-120		%REC	1	9/14/2012 12:06:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 1:45:00 PM
Project: Palouse / 0477.01.05
Lab ID: 1209081-005
Client Sample ID: CS13-12/9/10-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	963	21.3		mg/Kg-dry	1	9/14/2012 10:26:00 PM
Lube Oil	71.0	70.8		mg/Kg-dry	1	9/14/2012 10:26:00 PM
Surr: o-Terphenyl	125	50-150		%REC	1	9/14/2012 10:26:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	5040	32.3	A	mg/Kg-dry	1	9/14/2012 10:17:00 PM
Surr: 4-Bromofluorobenzene	114	50-150		%REC	1	9/14/2012 10:17:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	8.06	2.78		mg/Kg-dry	1	9/14/2012 1:28:19 PM
Lead	299	2.78		mg/Kg-dry	1	9/14/2012 1:28:19 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	45.5	36.5		µg/Kg-dry	1	9/14/2012 12:33:00 PM
Surr: 1,2-Dichloroethane-d4	102	71.5-112		%REC	1	9/14/2012 12:33:00 PM
Surr: 4-Bromofluorobenzene	262	75.7-122	SE	%REC	1	9/14/2012 12:33:00 PM
Surr: Dibromofluoromethane	92.3	64.3-124		%REC	1	9/14/2012 12:33:00 PM
Surr: Toluene-d8	110	74.9-120		%REC	1	9/14/2012 12:33:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 9:05:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-006
Client Sample ID: CS05-12/9/10-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	42.6	20.3		mg/Kg-dry	1	9/15/2012 2:08:00 AM
Lube Oil	ND	67.7		mg/Kg-dry	1	9/15/2012 2:08:00 AM
Surr: o-Terphenyl	86.8	50-150		%REC	1	9/15/2012 2:08:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	3220	63.3	A	mg/Kg-dry	5	9/15/2012 12:48:00 AM
Surr: 4-Bromofluorobenzene	222	50-150	S	%REC	5	9/15/2012 12:48:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.66		mg/Kg-dry	1	9/14/2012 2:13:51 PM
Lead	8.45	2.66		mg/Kg-dry	1	9/14/2012 2:13:51 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	225	28.3		µg/Kg-dry	1	9/14/2012 5:08:00 PM
Surr: 1,2-Dichloroethane-d4	86.2	71.5-112		%REC	1	9/14/2012 5:08:00 PM
Surr: 4-Bromofluorobenzene	218	75.7-122	SEMI	%REC	1	9/14/2012 5:08:00 PM
Surr: Dibromofluoromethane	83.5	64.3-124		%REC	1	9/14/2012 5:08:00 PM
Surr: Toluene-d8	111	74.9-120		%REC	1	9/14/2012 5:08:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 10:10:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-007
Client Sample ID: CS10-12/9/10-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	72.3	21.6		mg/Kg-dry	1	9/15/2012 1:46:00 AM
Lube Oil	138	72.1	A2	mg/Kg-dry	1	9/15/2012 1:46:00 AM
Surr: o-Terphenyl	88.9	50-150		%REC	1	9/15/2012 1:46:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	14.7		mg/Kg-dry	1	9/17/2012 4:01:00 PM
Surr: 4-Bromofluorobenzene	88.7	50-150		%REC	1	9/17/2012 4:01:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.77		mg/Kg-dry	1	9/14/2012 1:32:49 PM
Lead	120	2.77		mg/Kg-dry	1	9/14/2012 1:32:49 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	34.6		µg/Kg-dry	1	9/14/2012 1:00:00 PM
Surr: 1,2-Dichloroethane-d4	101	71.5-112		%REC	1	9/14/2012 1:00:00 PM
Surr: 4-Bromofluorobenzene	90.7	75.7-122		%REC	1	9/14/2012 1:00:00 PM
Surr: Dibromofluoromethane	93.9	64.3-124		%REC	1	9/14/2012 1:00:00 PM
Surr: Toluene-d8	97.9	74.9-120		%REC	1	9/14/2012 1:00:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT:	Maul Foster & Alongi	**Collection Date:**	9/10/2012 3:00:00 PM
Project:	Palouse / 0477.01.05		
Lab ID:	1209081-008		
Client Sample ID:	PTS03-12/9/11	**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP 8		**SW6010C**				Analyst: **CT**
Lead, TCLP	ND	0.1000		mg/L	1	9/17/2012 10:24:51 AM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 11:00:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-009
Client Sample ID: CS11-12/9/10-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	18.8		mg/Kg-dry	1	9/14/2012 6:43:00 PM
Lube Oil	ND	62.6		mg/Kg-dry	1	9/14/2012 6:43:00 PM
Surr: o-Terphenyl	91.3	50-150		%REC	1	9/14/2012 6:43:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	11.5		mg/Kg-dry	1	9/17/2012 4:25:00 PM
Surr: 4-Bromofluorobenzene	86.4	50-150		%REC	1	9/17/2012 4:25:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.50		mg/Kg-dry	1	9/14/2012 2:23:00 PM
Lead	ND	2.50		mg/Kg-dry	1	9/14/2012 2:23:00 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	27.2		µg/Kg-dry	1	9/14/2012 5:35:00 PM
Surr: 1,2-Dichloroethane-d4	102	71.5-112		%REC	1	9/14/2012 5:35:00 PM
Surr: 4-Bromofluorobenzene	92.5	75.7-122		%REC	1	9/14/2012 5:35:00 PM
Surr: Dibromofluoromethane	96.7	64.3-124		%REC	1	9/14/2012 5:35:00 PM
Surr: Toluene-d8	94.8	74.9-120		%REC	1	9/14/2012 5:35:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 8:45:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-010
Client Sample ID: CS03-12/9/10-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	170	20.0		mg/Kg-dry	1	9/14/2012 7:05:00 PM
Lube Oil	180	66.8		mg/Kg-dry	1	9/14/2012 7:05:00 PM
Surr: o-Terphenyl	104	50-150		%REC	1	9/14/2012 7:05:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	245	11.4		mg/Kg-dry	1	9/17/2012 4:48:00 PM
Surr: 4-Bromofluorobenzene	113	50-150		%REC	1	9/17/2012 4:48:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.34		mg/Kg-dry	1	9/14/2012 2:27:32 PM
Lead	89.3	2.34		mg/Kg-dry	1	9/14/2012 2:27:32 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	27.5		µg/Kg-dry	1	9/14/2012 6:01:00 PM
Surr: 1,2-Dichloroethane-d4	110	71.5-112		%REC	1	9/14/2012 6:01:00 PM
Surr: 4-Bromofluorobenzene	113	75.7-122		%REC	1	9/14/2012 6:01:00 PM
Surr: Dibromofluoromethane	98.7	64.3-124		%REC	1	9/14/2012 6:01:00 PM
Surr: Toluene-d8	96.6	74.9-120		%REC	1	9/14/2012 6:01:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 11:40:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-011
Client Sample ID: CS12-12/9/10-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	1720	19.7	A1	mg/Kg-dry	1	9/14/2012 7:27:00 PM
Lube Oil	77.8	65.8		mg/Kg-dry	1	9/14/2012 7:27:00 PM
Surr: o-Terphenyl	140	50-150		%REC	1	9/14/2012 7:27:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	2240	60.8	A	mg/Kg-dry	5	9/15/2012 2:07:00 AM
Surr: 4-Bromofluorobenzene	165	50-150	SMI	%REC	5	9/15/2012 2:07:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.44		mg/Kg-dry	1	9/14/2012 2:32:03 PM
Lead	776	2.44		mg/Kg-dry	1	9/14/2012 2:32:03 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	28.5	27.3		µg/Kg-dry	1	9/14/2012 6:28:00 PM
Surr: 1,2-Dichloroethane-d4	92.2	71.5-112		%REC	1	9/14/2012 6:28:00 PM
Surr: 4-Bromofluorobenzene	96.6	75.7-122		%REC	1	9/14/2012 6:28:00 PM
Surr: Dibromofluoromethane	91.9	64.3-124		%REC	1	9/14/2012 6:28:00 PM
Surr: Toluene-d8	101	74.9-120		%REC	1	9/14/2012 6:28:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 8:50:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-012
Client Sample ID: CS04-12/9/10-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	543	19.9	A4	mg/Kg-dry	1	9/14/2012 7:49:00 PM
Lube Oil	ND	66.4		mg/Kg-dry	1	9/14/2012 7:49:00 PM
Surr: o-Terphenyl	114	50-150		%REC	1	9/14/2012 7:49:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	72.5	12.9		mg/Kg-dry	1	9/17/2012 5:12:00 PM
Surr: 4-Bromofluorobenzene	91.5	50-150		%REC	1	9/17/2012 5:12:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.55		mg/Kg-dry	1	9/14/2012 2:59:34 PM
Lead	6.64	2.55		mg/Kg-dry	1	9/14/2012 2:59:34 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	30.0	27.2		µg/Kg-dry	1	9/14/2012 6:55:00 PM
Surr: 1,2-Dichloroethane-d4	93.6	71.5-112		%REC	1	9/14/2012 6:55:00 PM
Surr: 4-Bromofluorobenzene	150	75.7-122	SMI	%REC	1	9/14/2012 6:55:00 PM
Surr: Dibromofluoromethane	89.3	64.3-124		%REC	1	9/14/2012 6:55:00 PM
Surr: Toluene-d8	103	74.9-120		%REC	1	9/14/2012 6:55:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 10:00:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-013
Client Sample ID: CS09-12/9/10-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	17.9		mg/Kg-dry	1	9/15/2012 3:15:00 AM
Lube Oil	64.0	59.7		mg/Kg-dry	1	9/15/2012 3:15:00 AM
Surr: o-Terphenyl	95.8	50-150		%REC	1	9/15/2012 3:15:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	2760	62.2	A	mg/Kg-dry	5	9/15/2012 3:00:00 AM
Surr: 4-Bromofluorobenzene	207	50-150	S	%REC	5	9/15/2012 3:00:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.30		mg/Kg-dry	1	9/14/2012 3:04:06 PM
Lead	ND	2.30		mg/Kg-dry	1	9/14/2012 3:04:06 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	27.3		µg/Kg-dry	1	9/14/2012 7:22:00 PM
Surr: 1,2-Dichloroethane-d4	97.0	71.5-112		%REC	1	9/14/2012 7:22:00 PM
Surr: 4-Bromofluorobenzene	360	75.7-122	SEMI	%REC	1	9/14/2012 7:22:00 PM
Surr: Dibromofluoromethane	93.5	64.3-124		%REC	1	9/14/2012 7:22:00 PM
Surr: Toluene-d8	121	74.9-120	SMI	%REC	1	9/14/2012 7:22:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT:	Maul Foster & Alongi	**Collection Date:**	9/10/2012 2:35:00 PM
Project:	Palouse / 0477.01.05		
Lab ID:	1209081-014		
Client Sample ID:	PTS02-12/9/10	**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP 8		**SW6010C**				Analyst: **CT**
Lead, TCLP	ND	0.1000		mg/L	1	9/17/2012 10:29:24 AM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 9:30:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209081-015
Client Sample ID: CS07-12/9/10-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	18.4		mg/Kg-dry	1	9/14/2012 8:12:00 PM
Lube Oil	ND	61.4		mg/Kg-dry	1	9/14/2012 8:12:00 PM
Surr: o-Terphenyl	82.8	50-150		%REC	1	9/14/2012 8:12:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	16.1	12.0		mg/Kg-dry	1	9/17/2012 5:36:00 PM
Surr: 4-Bromofluorobenzene	85.8	50-150		%REC	1	9/17/2012 5:36:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.36		mg/Kg-dry	1	9/14/2012 3:08:38 PM
Lead	81.1	2.36		mg/Kg-dry	1	9/14/2012 3:08:38 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	18.8		µg/Kg-dry	1	9/17/2012 2:03:00 PM
Surr: 1,2-Dichloroethane-d4	94.7	71.5-112		%REC	1	9/17/2012 2:03:00 PM
Surr: 4-Bromofluorobenzene	89.4	75.7-122		%REC	1	9/17/2012 2:03:00 PM
Surr: Dibromofluoromethane	92.5	64.3-124		%REC	1	9/17/2012 2:03:00 PM
Surr: Toluene-d8	97.9	74.9-120		%REC	1	9/17/2012 2:03:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/10/2012 2:05:00 PM
Project: Palouse / 0477.01.05
Lab ID: 1209081-016
Client Sample ID: CS14-12/9/10-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	927	16.7	A4	mg/Kg-dry	1	9/15/2012 4:43:00 AM
Lube Oil	248	55.8	A2	mg/Kg-dry	1	9/15/2012 4:43:00 AM
Surr: o-Terphenyl	147	50-150		%REC	1	9/15/2012 4:43:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	66.6	15.1		mg/Kg-dry	1	9/17/2012 6:00:00 PM
Surr: 4-Bromofluorobenzene	89.3	50-150		%REC	1	9/17/2012 6:00:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.06		mg/Kg-dry	1	9/14/2012 2:00:19 PM
Lead	170	2.06		mg/Kg-dry	1	9/14/2012 2:00:19 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	29.7	22.0		µg/Kg-dry	1	9/14/2012 1:26:00 PM
Surr: 1,2-Dichloroethane-d4	101	71.5-112		%REC	1	9/14/2012 1:26:00 PM
Surr: 4-Bromofluorobenzene	168	75.7-122	S	%REC	1	9/14/2012 1:26:00 PM
Surr: Dibromofluoromethane	92.8	64.3-124		%REC	1	9/14/2012 1:26:00 PM
Surr: Toluene-d8	106	74.9-120		%REC	1	9/14/2012 1:26:00 PM

QC SUMMARY REPORT

WO#: **1209081**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 6010_S**

Sample ID: **ICV** SampType: **ICV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6217**
Client ID: **ICV** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79782**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101	2.00	100.0	0	101	90	110				
Lead	103	2.00	100.0	0	103	90	110				

Sample ID: **MBLK-3515** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/14/2012** RunNo: **6217**
Client ID: **PBS** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79784**

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-3515** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/14/2012** RunNo: **6217**
Client ID: **LCSS** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79785**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	98.2	2.00	100.0	0	98.2	85.1	107				
Lead	101	2.00	100.0	0	101	84.9	109				

Sample ID: **1209081-004ADUP** SampType: **DUP** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/14/2012** RunNo: **6217**
Client ID: **CS13-12/9/10-4.0-DU** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79787**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	8.71	3.23						7.446	15.6	20	
Lead	292	3.23						294.8	1.05	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

19-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: 6010_S**

Sample ID: **1209081-004AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/14/2012** RunNo: **6217**

Client ID: **CS13-12/9/10-4.0-DU** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	166	3.23	161.5	7.446	98.0	86.1	109				
Lead	466	3.23	161.5	294.8	106	84.9	109				

Sample ID: **1209081-004AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/14/2012** RunNo: **6217**

Client ID: **CS13-12/9/10-4.0-DU** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79789**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	159	3.23	161.5	7.446	93.6	86.1	109	165.7	4.37	20	
Lead	458	3.23	161.5	294.8	101	84.9	109	466.3	1.89	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6217**

Client ID: **CCV** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79792**

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	105	2.00	100.0	0	105	90	110				

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6217**

Client ID: **CCV** Batch ID: **3515** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/14/2012** SeqNo: **79800**

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	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

19-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode: 6010_S**

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6217**
Client ID: **CCV**	Batch ID: **3515**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/14/2012**	SeqNo: **79804**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	103	2.00	100.0	0	103	90	110				
Lead	103	2.00	100.0	0	103	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 6010_W**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6226**
Client ID: **ICV**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead, TCLP	1.017	0.0200	1.000	0	102	90	110				

Sample ID: **MBLK-3526**	SampType: **MBLK**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **PBW**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead, TCLP	ND	0.0200									

Sample ID: **LCS-3526**	SampType: **LCS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **LCSW**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead, TCLP	1.042	0.0200	1.000	0	104	93.1	112				

Sample ID: **1209081-001ADUP**	SampType: **DUP**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **PTS04-12/9/11**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79880**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead, TCLP	ND	0.1000						0	0	20	

Sample ID: **1209081-001AMS**	SampType: **MS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **PTS04-12/9/11**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79881**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead, TCLP	5.065	0.1000	5.000	0	101	91.9	112				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 6010_W**

Sample ID: **1209081-001AMSD**	SampType: **MSD**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **PTS04-12/9/11**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79882**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead, TCLP	5.270	0.1000	5.000	0	105	91.9	112	5.065	3.97	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6226**
Client ID: **CCV**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead, TCLP	1.053	0.0200	1.000	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **CCV-3521** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6212**
Client ID: **CCV** Batch ID: **3521** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	61.4	10.0	60.00	0	102	80	120				

Sample ID: **LCS-3521** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/14/2012** RunNo: **6212**
Client ID: **LCSS** Batch ID: **3521** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79713**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	58.0	10.0	60.00	0	96.7	74.3	136				

Sample ID: **LCSD-3521** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/14/2012** RunNo: **6212**
Client ID: **LCSS02** Batch ID: **3521** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79714**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	55.4	10.0	60.00	0	92.3	74.3	136	58.04	4.69	20	

Sample ID: **MB** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6212**
Client ID: **PBS** Batch ID: **3521** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	92.9		100.0		92.9	71.5	112				
Surr: 4-Bromofluorobenzene	85.2		100.0		85.2	75.7	122				
Surr: Dibromofluoromethane	96.4		100.0		96.4	64.3	124				
Surr: Toluene-d8	105		100.0		105	74.9	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **CCV-3523** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6219**
Client ID: **CCV** Batch ID: **3523** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79813**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	61.4	10.0	60.00	0	102	80	120				

Sample ID: **LCS-3523** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/14/2012** RunNo: **6219**
Client ID: **LCSS** Batch ID: **3523** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	58.0	10.0	60.00	0	96.7	74.3	136				

Sample ID: **LCSD-3523** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/14/2012** RunNo: **6219**
Client ID: **LCSS02** Batch ID: **3523** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79815**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	55.4	10.0	60.00	0	92.3	74.3	136	58.04	4.69	20	

Sample ID: **MB** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6219**
Client ID: **PBS** Batch ID: **3523** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/14/2012** SeqNo: **79816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	92.9		100.0		92.9	71.5	112				
Surr: 4-Bromofluorobenzene	85.2		100.0		85.2	75.7	122				
Surr: Dibromofluoromethane	96.4		100.0		96.4	64.3	124				
Surr: Toluene-d8	105		100.0		105	74.9	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **MB** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6235**
Client ID: **PBS** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	96.8		100.0		96.8	71.5	112				
Surr: 4-Bromofluorobenzene	91.1		100.0		91.1	75.7	122				
Surr: Dibromofluoromethane	93.5		100.0		93.5	64.3	124				
Surr: Toluene-d8	98.1		100.0		98.1	74.9	120				

Sample ID: **CCV-3535** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6235**
Client ID: **CCV** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	49.0	10.0	60.00	0	81.8	80	120				

Sample ID: **LCS-3535** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/17/2012** RunNo: **6235**
Client ID: **LCSS** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80012**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	50.1	10.0	60.00	0	83.5	74.3	136				

Sample ID: **LCSD-3535** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/17/2012** RunNo: **6235**
Client ID: **LCSS02** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.8	10.0	60.00	0	99.7	74.3	136	50.08	17.7	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

19-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **MB-3520** SampType: **MBLK** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/14/2012** RunNo: **6232**

Client ID: **PBS** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/14/2012** SeqNo: **79956**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	28.5		33.30		85.5	50	150				

Sample ID: **LCS-3520** SampType: **LCS** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/14/2012** RunNo: **6232**

Client ID: **LCSS** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/14/2012** SeqNo: **79957**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	186	15.0	166.5	0	112	76.3	125				
Lube Oil	188	50.0	166.5	0	113	69.9	127				

Sample ID: **1209081-004ADUP** SampType: **DUP** TestCode: **NWTPHDX_S** Units: **mg/Kg-dry** Prep Date: **9/14/2012** RunNo: **6232**

Client ID: **CS13-12/9/10-4.0-DU** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/14/2012** SeqNo: **79967**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	3840	24.2						5225	30.5	20	RMI
Lube Oil	159	80.8						178.5	11.3	20	

Sample ID: **1209081-005ADUP** SampType: **DUP** TestCode: **NWTPHDX_S** Units: **mg/Kg-dry** Prep Date: **9/14/2012** RunNo: **6232**

Client ID: **CS13-12/9/10-4.0** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/18/2012** SeqNo: **80266**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1180	21.3						962.7	20.3	20	R
Lube Oil	ND	70.8						70.98	200	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

19-Sep-12

Specialty Analytical

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: RunNo: **6232**

Client ID: **CCV** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/19/2012** SeqNo: **80267**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1030	15.0	1009	0	102	85	115				
Lube Oil	492	50.0	514.3	0	95.6	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209081**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_SA**

Sample ID: **MB-3524**	SampType: **MBLK**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/14/2012**	RunNo: **6227**
Client ID: **PBS**	Batch ID: **3524**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/14/2012**	SeqNo: **79891**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	3.91		5.000		78.2	50	150				

Sample ID: **LCS-3524**	SampType: **LCS**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/14/2012**	RunNo: **6227**
Client ID: **LCSS**	Batch ID: **3524**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/14/2012**	SeqNo: **79892**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	51.0	2.50	50.00	0	102	53.5	121				

Sample ID: **1209061-002BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_S**	Units: **mg/Kg-dry**	Prep Date: **9/14/2012**	RunNo: **6227**
Client ID: **ZZZZZZ**	Batch ID: **3524**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/14/2012**	SeqNo: **79895**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	12.3	6.29						8.011	42.0	20	RF

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6227**
Client ID: **CCV**	Batch ID: **3524**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/17/2012**	SeqNo: **80136**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	142	2.50	150.0	0	94.6	80	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Conner Lamb
Company: MFA
Address: 400 East Mill Plain Blvd., Ste 400
Vancouver, WA 98660
Phone: 971.544.2139 Fax:
Project No. 0477.01.05 Project Name: Palouse
Project Site Location OR: WA: ✓ Other:
Invoice To: P.O. No.:

Collected By:
Signature:
Printed: David Knutson

Signature:
Printed:

Turn Around Time
☐ Normal 5-7 Business Days
☑ Rush
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209081
Shipped Via: UPS
Air Bill No.:
Temperature On Receipt °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: 6010 Lead ASPb	NWTPH GX/DX	TCLP Lead	8260 Benz	Comments	Lab I.D.
9/11/12	1450	PTS04-12/9/11					X			
9/10/12	0920	CS06-12/9/10-8.0			X	X		X		
9/10/12	0945	CS08-12/9/10-4.0			X	X		X		
9/10/12	1355	CS13-12/9/10-4.0-DUP			X	X		X		
9/10/12	1345	CS13-12/9/10-4.0			X	X		X		
9/10/12	0905	CS05-12/9/10-8.0			X	X		X		
9/10/12	1010	CS10-12/9/10-4.0			X	X		X		
9/10/12	1500	PTS03-12/9/10					X			
9/10/12	1100	CS11-12/9/10-8.0			X	X		X		
9/10/12	0845	CS03-12/9/10-8.0			X	X		X		
9/10/12	1140	CS12-12/9/10-4.0			X	X		X		
9/10/12	0850	CS04-12/9/10-8.0			X	X		X		

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
D. Knutson	9/11/12	4:00pm				
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Zachary LeClear — Date: 9-13-12 — Time: 5:30 pm

Copies: White-Original Yellow-Project File Pink-Customer Copy

CHAIN OF CUSTODY RECORD

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Connor Lamb
Company: MFA
Address: 400 EAST Mill Plain Blvd. ~~98660~~
Vancouver, WA 98660
Phone: 971.544.2139 Fax:
Project No. 0477.01.05 Project Name: Palouse
Project Site Location OR ___ WA ✓ Other ___
Invoice To ___ P.O. No. ___

Collected By:
Signature: [signature]
Printed: david Knutson

Signature:
Printed:

Turn Around Time
☐ Normal 5-7 Business Days
☑ Rush ___
Specify

Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209081
Shipped Via: UPS
Air Bill No.
Temperature On Receipt ___ °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	6010 ASPb	NWTPH Gx/Dx	8260 Benze	TCLP Lead						Comments	Lab I.D.
9/10/12	1000	CS09-12/9/10-8.0			X	X	X								
9/10/12	1435	PTS02-12/9/10						X							
9/10/12	0930	CS07-12/9/10-4.0			X	X	X								
9/10/12	1405	CS14-12/9/10-4.0			X	X	X								

Relinquished By: dKnutson Company: MFA	Date 9/11/12	Time 4:00 pm	Received By: Company:	Relinquished By: Company:	Date	Time
Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt. Samples held beyond 60 days subject to storage fee(s)				Received For Lab By: [signature]	Date 9-13-12	Time 5:30pm

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

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

September 19, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958
RE: Palouse / 0477.01.05

Dear Connor Lamb: Order No.: 1209088

Specialty Analytical received 5 sample(s) on 9/14/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT:	Maul Foster & Alongi	**Collection Date:**	9/13/2012 12:20:00 PM
Project:	Palouse / 0477.01.05		
Lab ID:	1209088-001		
Client Sample ID:	PTS05-12/9/13	**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS		**SW6010C**				Analyst: **CT**
Lead,TCLP	ND	0.1000		mg/L	1	9/17/2012 10:33:57 AM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/13/2012 11:00:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209088-002
Client Sample ID: CS17-12/9/13-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	751	19.8	A1,L	mg/Kg-dry	1	9/18/2012 9:25:00 PM
Lube Oil	1460	65.9	A2	mg/Kg-dry	1	9/18/2012 9:25:00 PM
Surr: o-Terphenyl	99.6	50-150		%REC	1	9/18/2012 9:25:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	7810	66.5		mg/Kg-dry	5	9/17/2012 10:54:00 AM
Surr: 4-Bromofluorobenzene	971	50-150	SMI	%REC	5	9/17/2012 10:54:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.35		mg/Kg-dry	1	9/17/2012 11:06:02 AM
Lead	10.7	2.35		mg/Kg-dry	1	9/17/2012 11:06:02 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	19.6		µg/Kg-dry	1	9/17/2012 12:16:00 PM
Surr: 1,2-Dichloroethane-d4	94.1	71.5-112		%REC	1	9/17/2012 12:16:00 PM
Surr: 4-Bromofluorobenzene	1060	75.7-122	SEMI	%REC	1	9/17/2012 12:16:00 PM
Surr: Dibromofluoromethane	83.2	64.3-124		%REC	1	9/17/2012 12:16:00 PM
Surr: Toluene-d8	266	74.9-120	SEMI	%REC	1	9/17/2012 12:16:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/13/2012 10:05:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209088-003
Client Sample ID: CS16-12/9/13-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	21.6	16.2		mg/Kg-dry	1	9/18/2012 9:48:00 PM
Lube Oil	136	53.8		mg/Kg-dry	1	9/18/2012 9:48:00 PM
Surr: o-Terphenyl	81.7	50-150		%REC	1	9/18/2012 9:48:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	98.9	13.7		mg/Kg-dry	1	9/17/2012 12:08:00 PM
Surr: 4-Bromofluorobenzene	102	50-150		%REC	1	9/17/2012 12:08:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	2.74	1.86		mg/Kg-dry	1	9/17/2012 11:24:01 AM
Lead	63.5	1.86		mg/Kg-dry	1	9/17/2012 11:24:01 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	25.7		µg/Kg-dry	1	9/17/2012 12:42:00 PM
Surr: 1,2-Dichloroethane-d4	101	71.5-112		%REC	1	9/17/2012 12:42:00 PM
Surr: 4-Bromofluorobenzene	95.2	75.7-122		%REC	1	9/17/2012 12:42:00 PM
Surr: Dibromofluoromethane	95.5	64.3-124		%REC	1	9/17/2012 12:42:00 PM
Surr: Toluene-d8	95.9	74.9-120		%REC	1	9/17/2012 12:42:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/13/2012 10:00:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209088-004
Client Sample ID: CS15-12/9/13-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	18.7		mg/Kg-dry	1	9/18/2012 8:41:00 PM
Lube Oil	ND	62.2		mg/Kg-dry	1	9/18/2012 8:41:00 PM
Surr: o-Terphenyl	81.2	50-150		%REC	1	9/18/2012 8:41:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	42.9	18.9		mg/Kg-dry	1	9/17/2012 12:32:00 PM
Surr: 4-Bromofluorobenzene	90.1	50-150		%REC	1	9/17/2012 12:32:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	2.23	2.18		mg/Kg-dry	1	9/17/2012 11:28:29 AM
Lead	25.9	2.18		mg/Kg-dry	1	9/17/2012 11:28:29 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	54.5		µg/Kg-dry	1	9/17/2012 1:09:00 PM
Surr: 1,2-Dichloroethane-d4	102	71.5-112		%REC	1	9/17/2012 1:09:00 PM
Surr: 4-Bromofluorobenzene	90.1	75.7-122		%REC	1	9/17/2012 1:09:00 PM
Surr: Dibromofluoromethane	96.1	64.3-124		%REC	1	9/17/2012 1:09:00 PM
Surr: Toluene-d8	95.4	74.9-120		%REC	1	9/17/2012 1:09:00 PM

Specialty Analytical

Date Reported: 19-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/13/2012 12:15:00 PM
Project: Palouse / 0477.01.05
Lab ID: 1209088-005
Client Sample ID: CS18-12/9/10-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	162	21.0		mg/Kg-dry	1	9/18/2012 9:03:00 PM
Lube Oil	182	70.0		mg/Kg-dry	1	9/18/2012 9:03:00 PM
Surr: o-Terphenyl	93.9	50-150		%REC	1	9/18/2012 9:03:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	2080	165		mg/Kg-dry	10	9/17/2012 3:13:00 PM
Surr: 4-Bromofluorobenzene	203	50-150	SMI	%REC	10	9/17/2012 3:13:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.41		mg/Kg-dry	1	9/17/2012 11:32:59 AM
Lead	18.6	2.41		mg/Kg-dry	1	9/17/2012 11:32:59 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	17.1		µg/Kg-dry	1	9/17/2012 1:36:00 PM
Surr: 1,2-Dichloroethane-d4	88.3	71.5-112		%REC	1	9/17/2012 1:36:00 PM
Surr: 4-Bromofluorobenzene	259	75.7-122	SEMI	%REC	1	9/17/2012 1:36:00 PM
Surr: Dibromofluoromethane	81.7	64.3-124		%REC	1	9/17/2012 1:36:00 PM
Surr: Toluene-d8	112	74.9-120		%REC	1	9/17/2012 1:36:00 PM

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6230**
Client ID: **ICV**	Batch ID: **3525**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/17/2012**	SeqNo: **79927**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	98.9	2.00	100.0	0	98.9	90	110				
Lead	102	2.00	100.0	0	102	90	110				

Sample ID: **MBLK-3525**	SampType: **MBLK**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/17/2012**	RunNo: **6230**
Client ID: **PBS**	Batch ID: **3525**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/17/2012**	SeqNo: **79929**

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-3525**	SampType: **LCS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/17/2012**	RunNo: **6230**
Client ID: **LCSS**	Batch ID: **3525**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/17/2012**	SeqNo: **79930**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101	2.00	100.0	0	101	85.1	107				
Lead	105	2.00	100.0	0	105	84.9	109				

Sample ID: **1209088-002ADUP**	SampType: **DUP**	TestCode: **6010_S**	Units: **mg/Kg-dry**	Prep Date: **9/17/2012**	RunNo: **6230**
Client ID: **CS17-12/9/13-4.0**	Batch ID: **3525**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/17/2012**	SeqNo: **79932**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.35						0	0	20	
Lead	11.6	2.35						10.67	8.14	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **1209088-002AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/17/2012** RunNo: **6230**
Client ID: **CS17-12/9/13-4.0** Batch ID: **3525** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/17/2012** SeqNo: **79933**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	113	2.35	117.7	0	96.3	86.1	109				
Lead	120	2.35	117.7	10.67	93.1	84.9	109				

Sample ID: **1209088-002AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/17/2012** RunNo: **6230**
Client ID: **CS17-12/9/13-4.0** Batch ID: **3525** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/17/2012** SeqNo: **79934**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	115	2.35	117.7	0	98.1	86.1	109	113.3	1.85	20	
Lead	122	2.35	117.7	10.67	94.7	84.9	109	120.3	1.55	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6230**
Client ID: **CCV** Batch ID: **3525** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/17/2012** SeqNo: **79938**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101	2.00	100.0	0	101	90	110				
Lead	103	2.00	100.0	0	103	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_W**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6226**
Client ID: **ICV**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.017	0.0200	1.000	0	102	90	110				

Sample ID: **MBLK-3526**	SampType: **MBLK**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **PBW**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.0200									

Sample ID: **LCS-3526**	SampType: **LCS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **LCSW**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79878**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.042	0.0200	1.000	0	104	93.1	112				

Sample ID: **1209081-001ADUP**	SampType: **DUP**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **ZZZZZZ**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79880**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.1000						0	0	20	

Sample ID: **1209081-001AMS**	SampType: **MS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **ZZZZZZ**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79881**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.065	0.1000	5.000	0	101	91.9	112				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_W**

Sample ID: **1209081-001AMSD**	SampType: **MSD**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/17/2012**	RunNo: **6226**
Client ID: **ZZZZZZ**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79882**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.270	0.1000	5.000	0	105	91.9	112	5.065	3.97	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6226**
Client ID: **CCV**	Batch ID: **3526**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/17/2012**	SeqNo: **79886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.053	0.0200	1.000	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **MB** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6235**
Client ID: **PBS** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80005**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	96.8		100.0		96.8	71.5	112				
Surr: 4-Bromofluorobenzene	91.1		100.0		91.1	75.7	122				
Surr: Dibromofluoromethane	93.5		100.0		93.5	64.3	124				
Surr: Toluene-d8	98.1		100.0		98.1	74.9	120				

Sample ID: **CCV-3535** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6235**
Client ID: **CCV** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80011**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	49.0	10.0	60.00	0	81.8	80	120				

Sample ID: **LCS-3535** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/17/2012** RunNo: **6235**
Client ID: **LCSS** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80012**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	50.1	10.0	60.00	0	83.5	74.3	136				

Sample ID: **LCSD-3535** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/17/2012** RunNo: **6235**
Client ID: **LCSS02** Batch ID: **3535** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.8	10.0	60.00	0	99.7	74.3	136	50.08	17.7	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **MB-3520** SampType: **MBLK** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/14/2012** RunNo: **6232**
Client ID: **PBS** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/14/2012** SeqNo: **79956**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	28.5		33.30		85.5	50	150				

Sample ID: **LCS-3520** SampType: **LCS** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/14/2012** RunNo: **6232**
Client ID: **LCSS** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/14/2012** SeqNo: **79957**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	186	15.0	166.5	0	112	76.3	125				
Lube Oil	188	50.0	166.5	0	113	69.9	127				

Sample ID: **1209081-004ADUP** SampType: **DUP** TestCode: **NWTPHDX_S** Units: **mg/Kg-dry** Prep Date: **9/14/2012** RunNo: **6232**
Client ID: **ZZZZZZ** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/14/2012** SeqNo: **79967**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	3840	24.2						5225	30.5	20	RMI
Lube Oil	159	80.8						178.5	11.3	20	

Sample ID: **1209081-005ADUP** SampType: **DUP** TestCode: **NWTPHDX_S** Units: **mg/Kg-dry** Prep Date: **9/14/2012** RunNo: **6232**
Client ID: **ZZZZZZ** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/18/2012** SeqNo: **80266**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1180	21.3						962.7	20.3	20	R
Lube Oil	ND	70.8						70.98	200	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: RunNo: **6232**

Client ID: **CCV** Batch ID: **3520** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/19/2012** SeqNo: **80267**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1030	15.0	1009	0	102	85	115				
Lube Oil	492	50.0	514.3	0	95.6	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_SA**

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6245**
Client ID: **CCV**	Batch ID: **3532**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/17/2012**	SeqNo: **80169**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	118	2.50	125.0	0	94.5	80	120				

Sample ID: **MB-3532**	SampType: **MBLK**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/17/2012**	RunNo: **6245**
Client ID: **PBS**	Batch ID: **3532**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/17/2012**	SeqNo: **80170**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	2.70		5.000		53.9	50	150				

Sample ID: **1209088-002BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_S**	Units: **mg/Kg-dry**	Prep Date: **9/17/2012**	RunNo: **6245**
Client ID: **CS17-12/9/13-4.0**	Batch ID: **3532**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/17/2012**	SeqNo: **80172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	7780	66.6						7805	0.317	20	

Sample ID: **LCS-3532**	SampType: **LCS**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/17/2012**	RunNo: **6245**
Client ID: **LCSS**	Batch ID: **3532**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/17/2012**	SeqNo: **80176**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	55.4	2.50	50.00	0	111	53.5	121				

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6245**
Client ID: **CCV**	Batch ID: **3532**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/17/2012**	SeqNo: **80177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209088**

Specialty Analytical

19-Sep-12

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_SA**

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: RunNo: **6245**

Client ID: **CCV** Batch ID: **3532** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	157	2.50	150.0	0	104	80	120				

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: RunNo: **6245**

Client ID: **CCV** Batch ID: **3532** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/17/2012** SeqNo: **80179**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	142	2.50	150.0	0	94.6	80	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Page ___ of ___

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Connor Lamb
Company: MFA
Address: 400 E. Mill Plain, Ste. 400
Vancouver, WA 98660
Phone: 971.544.2139 Fax:
Project No. 0477.01.05 Project Name: Palouse
Project Site Location OR ___ WA ✓ Other ___
Invoice To ___ P.O. No. ___

Collected By:
Signature: [signature]
Printed: d.Knutson

Signature ___
Printed ___

Turn Around Time
☐ Normal 5-7 Business Days
☑ Rush ___
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209088
Shipped Via: UPS
Air Bill No. ___
Temperature On Receipt ___ °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: NWTPH Gx/Dx	6010 As,Pb	8260 Benz	TCLP Lead	Comments	Lab I.D.
~~PTS05~~										
9/13/12	1220	PTS05-12/9/13						X	rush	
9/13/12	1100	CS17-12/9/13-4.0			X	X	X		rush	
9/13/12	1005	CS16-12/9/13-4.0			X	X	X			
9/13/12	1000	CS15-12/9/13-4.0			X	X	X			
9/13/12	1215	CS18-12/9/13-8.0			X	X	X			

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
d.Knutson	9/13/12	1320	[signature]	[signature]	9/14/12	1439
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: [signature] Date 9-14-12 Time 1939

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

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

September 20, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958
RE: Palouse / 0477.01.05

Dear Connor Lamb: Order No.: 1209093

Specialty Analytical received 4 sample(s) on 9/18/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 20-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/17/2012 9:00:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209093-001
Client Sample ID: CS19-12/9/17-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	19.2		mg/Kg-dry	1	9/19/2012 9:59:00 AM
Lube Oil	ND	63.9		mg/Kg-dry	1	9/19/2012 9:59:00 AM
Surr: o-Terphenyl	85.6	50-150		%REC	1	9/19/2012 9:59:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	14.7		mg/Kg-dry	1	9/20/2012 10:04:00 AM
Surr: 4-Bromofluorobenzene	94.7	50-150		%REC	1	9/20/2012 10:04:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.41		mg/Kg-dry	1	9/19/2012 1:04:47 PM
Lead	23.5	2.41		mg/Kg-dry	1	9/19/2012 1:04:47 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	9.56		µg/Kg-dry	1	9/18/2012 2:15:00 PM
Surr: 1,2-Dichloroethane-d4	104	71.5-112		%REC	1	9/18/2012 2:15:00 PM
Surr: 4-Bromofluorobenzene	88.1	75.7-122		%REC	1	9/18/2012 2:15:00 PM
Surr: Dibromofluoromethane	97.0	64.3-124		%REC	1	9/18/2012 2:15:00 PM
Surr: Toluene-d8	96.8	74.9-120		%REC	1	9/18/2012 2:15:00 PM

Specialty Analytical

Date Reported: 20-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/17/2012 9:15:00 AM
Project: Palouse / 0477.01.05
Lab ID: 1209093-002
Client Sample ID: CS23-12/9/17-8.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	20.5		mg/Kg-dry	1	9/19/2012 10:43:00 AM
Lube Oil	ND	68.3		mg/Kg-dry	1	9/19/2012 10:43:00 AM
Surr: o-Terphenyl	82.5	50-150		%REC	1	9/19/2012 10:43:00 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	39.5	19.2	A	mg/Kg-dry	1	9/20/2012 10:52:00 AM
Surr: 4-Bromofluorobenzene	93.4	50-150		%REC	1	9/20/2012 10:52:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.63		mg/Kg-dry	1	9/19/2012 1:27:11 PM
Lead	2.82	2.63		mg/Kg-dry	1	9/19/2012 1:27:11 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	9.28		µg/Kg-dry	1	9/18/2012 2:41:00 PM
Surr: 1,2-Dichloroethane-d4	104	71.5-112		%REC	1	9/18/2012 2:41:00 PM
Surr: 4-Bromofluorobenzene	91.4	75.7-122		%REC	1	9/18/2012 2:41:00 PM
Surr: Dibromofluoromethane	97.4	64.3-124		%REC	1	9/18/2012 2:41:00 PM
Surr: Toluene-d8	94.7	74.9-120		%REC	1	9/18/2012 2:41:00 PM

Specialty Analytical

Date Reported: 20-Sep-12

CLIENT:	Maul Foster & Alongi	**Collection Date:**	9/17/2012 12:30:00 PM
Project:	Palouse / 0477.01.05		
Lab ID:	1209093-003		
Client Sample ID:	PTS06-12/9/17	**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS		**SW6010C**				Analyst: **CT**
Lead,TCLP	ND	0.1000		mg/L	1	9/19/2012 10:52:21 AM

Specialty Analytical

Date Reported: 20-Sep-12

CLIENT:	Maul Foster & Alongi	**Collection Date:**	9/17/2012 12:45:00 PM
Project:	Palouse / 0477.01.05		
Lab ID:	1209093-004		
Client Sample ID:	PTS07-12/9/17	**Matrix:**	SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS		**SW6010C**				Analyst: **CT**
Lead,TCLP	16.73	0.1000		mg/L	1	9/19/2012 11:14:57 AM

QC SUMMARY REPORT

WO#: **1209093**

Specialty Analytical

20-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6264**
Client ID: **ICV**	Batch ID: **3543**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/19/2012**	SeqNo: **80382**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101	2.00	100.0	0	101	90	110				
Lead	102	2.00	100.0	0	102	90	110				

Sample ID: **MBLK-3543**	SampType: **MBLK**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/19/2012**	RunNo: **6264**
Client ID: **PBS**	Batch ID: **3543**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/19/2012**	SeqNo: **80383**

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-3543**	SampType: **LCS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/19/2012**	RunNo: **6264**
Client ID: **LCSS**	Batch ID: **3543**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/19/2012**	SeqNo: **80384**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	92.5	2.00	100.0	0	92.5	85.1	107				
Lead	97.0	2.00	100.0	0	97.0	84.9	109				

Sample ID: **1209093-001ADUP**	SampType: **DUP**	TestCode: **6010_S**	Units: **mg/Kg-dry**	Prep Date: **9/19/2012**	RunNo: **6264**
Client ID: **CS19-12/9/17-4.0**	Batch ID: **3543**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/19/2012**	SeqNo: **80386**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.41						0	0	20	
Lead	24.1	2.41						23.53	2.33	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209093**

Specialty Analytical

20-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **1209093-001AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/19/2012** RunNo: **6264**
Client ID: **CS19-12/9/17-4.0** Batch ID: **3543** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/19/2012** SeqNo: **80387**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	131	2.51	125.3	0	105	86.1	109				
Lead	143	2.51	125.3	23.53	95.4	84.9	109				

Sample ID: **1209093-001AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/19/2012** RunNo: **6264**
Client ID: **CS19-12/9/17-4.0** Batch ID: **3543** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/19/2012** SeqNo: **80388**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	130	2.51	125.3	0	104	86.1	109	131.1	0.960	20	
Lead	143	2.51	125.3	23.53	95.3	84.9	109	143.0	0.088	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6264**
Client ID: **CCV** Batch ID: **3543** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/19/2012** SeqNo: **80391**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	98.6	2.00	100.0	0	98.6	90	110				
Lead	99.6	2.00	100.0	0	99.6	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209093**

Specialty Analytical

20-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_W**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6258**
Client ID: **ICV**	Batch ID: **3544**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/19/2012**	SeqNo: **80324**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.015	0.0200	1.000	0	102	90	110				

Sample ID: **MBLK-3544**	SampType: **MBLK**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/19/2012**	RunNo: **6258**
Client ID: **PBW**	Batch ID: **3544**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/19/2012**	SeqNo: **80325**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.0200									

Sample ID: **1209093-003ADUP**	SampType: **DUP**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/19/2012**	RunNo: **6258**
Client ID: **PTS06-12/9/17**	Batch ID: **3544**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/19/2012**	SeqNo: **80328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.1000						0	0	20	

Sample ID: **1209093-003AMS**	SampType: **MS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/19/2012**	RunNo: **6258**
Client ID: **PTS06-12/9/17**	Batch ID: **3544**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/19/2012**	SeqNo: **80329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.350	0.1000	5.000	0.0925	105	91.9	112				

Sample ID: **1209093-003AMSD**	SampType: **MSD**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/19/2012**	RunNo: **6258**
Client ID: **PTS06-12/9/17**	Batch ID: **3544**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/19/2012**	SeqNo: **80330**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.225	0.1000	5.000	0.0925	103	91.9	112	5.350	2.36	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209093**

Specialty Analytical

20-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_W**

Sample ID: **LCS-3544**	SampType: **LCS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **9/19/2012**	RunNo: **6258**
Client ID: **LCSW**	Batch ID: **3544**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/19/2012**	SeqNo: **80333**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	0.9447	0.0200	1.000	0	94.5	93.1	112				

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6258**
Client ID: **CCV**	Batch ID: **3544**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **9/19/2012**	SeqNo: **80334**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.028	0.0200	1.000	0	103	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209093**

Specialty Analytical

20-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **CCV-3540** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6250**
Client ID: **CCV** Batch ID: **3540** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/18/2012** SeqNo: **80243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	56.4	10.0	60.00	0	94.1	80	120				

Sample ID: **mb** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6250**
Client ID: **PBS** Batch ID: **3540** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/18/2012** SeqNo: **80244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	104		100.0		104	71.5	112				
Surr: 4-Bromofluorobenzene	92.9		100.0		92.9	75.7	122				
Surr: Dibromofluoromethane	94.3		100.0		94.3	64.3	124				
Surr: Toluene-d8	94.5		100.0		94.5	74.9	120				

Sample ID: **LCS-3540** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/18/2012** RunNo: **6250**
Client ID: **LCSS** Batch ID: **3540** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/18/2012** SeqNo: **80245**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	61.6	10.0	60.00	0	103	74.3	136				

Sample ID: **LCSD-3540** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/18/2012** RunNo: **6250**
Client ID: **LCSS02** Batch ID: **3540** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/18/2012** SeqNo: **80246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	63.7	10.0	60.00	0	106	74.3	136	61.61	3.27	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209093**

Specialty Analytical

20-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **MB-3541** SampType: **MBLK** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/18/2012** RunNo: **6265**
Client ID: **PBS** Batch ID: **3541** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/19/2012** SeqNo: **80393**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	32.7		33.30		98.3	50	150				

Sample ID: **LCS-3541** SampType: **LCS** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/18/2012** RunNo: **6265**
Client ID: **LCSS** Batch ID: **3541** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/19/2012** SeqNo: **80394**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	184	15.0	166.5	0	110	76.3	125				
Lube Oil	192	50.0	166.5	0	115	69.9	127				

Sample ID: **1209093-001ADUP** SampType: **DUP** TestCode: **NWTPHDX_S** Units: **mg/Kg-dry** Prep Date: **9/18/2012** RunNo: **6265**
Client ID: **CS19-12/9/17-4.0** Batch ID: **3541** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/19/2012** SeqNo: **80396**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	19.2						0	0	20	
Lube Oil	ND	63.9						0	0	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: RunNo: **6265**
Client ID: **CCV** Batch ID: **3541** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/19/2012** SeqNo: **80400**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1020	15.0	1009	0	101	85	115				
Lube Oil	510	50.0	514.3	0	99.1	85	115				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209093**

Specialty Analytical

20-Sep-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_SA**

Sample ID: **MB-3550**	SampType: **MBLK**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/18/2012**	RunNo: **6279**
Client ID: **PBS**	Batch ID: **3550**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/20/2012**	SeqNo: **80681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	3.67		5.000		73.5	50	150				

Sample ID: **LCS-3550**	SampType: **LCS**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/18/2012**	RunNo: **6279**
Client ID: **LCSS**	Batch ID: **3550**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/20/2012**	SeqNo: **80682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	57.1	2.50	50.00	0	114	53.5	121				

Sample ID: **1209093-001BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_S**	Units: **mg/Kg-dry**	Prep Date: **9/18/2012**	RunNo: **6279**
Client ID: **CS19-12/9/17-4.0**	Batch ID: **3550**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/20/2012**	SeqNo: **80684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	16.8	14.7						13.89	19.2	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6279**
Client ID: **CCV**	Batch ID: **3550**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/20/2012**	SeqNo: **80686**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	138	2.50	150.0	0	92.3	80	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Connor Lamb
Company: MFA
Address: 400 E. Mill Plain, ste. 400
Vancouver, WA 98660
Phone: 971.544.2139 Fax:
Project No. 0477.01.05 Project Name: Palouse
Project Site Location OR ____ WA ✓ Other ____
Invoice To ____ P.O. No. ____

Collected By:
Signature:
Printed: d. Knutson

Signature:
Printed:

Turn Around Time
☐ Normal 5-7 Business Days
☑ Rush see comments
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209093
Shipped Via UPS
Air Bill No. 1Z845EA1 0148181618
Temperature On Receipt 4 °C
Specialty Analytical Containers? (Y) / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: NWTPH Gx/Dx	Analyses: 6010 As Pb	Analyses: 8260 Benzene	Analyses: TCLP Lead	Comments	Lab I.D.
9/17/12	0900	~~CS19~~ CS19-12/9/17-4.0			X	X	X		rush	
9/17/12	0915	CS23-12/9/17-8.0			X	X	X			
9/17/12	1230	PTS06-12/9/17						X	rush	
9/17/12	1245	PTS07-12/9/17						X	rush	

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
d. Knutson	9/17/12	1700				
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Cindy Hillyard — Date: 9/18/12 — Time: 10:30

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

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

September 26, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958

RE: Palouse

Dear Connor Lamb: Order No.: 1209133

Specialty Analytical received 3 sample(s) on 9/24/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 26-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/17/2012 3:45:00 PM
Project: Palouse
Lab ID: 1209133-001
Client Sample ID: CS24-12/9/17-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	64.6	17.8		mg/Kg-dry	1	9/25/2012 12:44:00 PM
Lube Oil	63.6	59.2		mg/Kg-dry	1	9/25/2012 12:44:00 PM
Surr: o-Terphenyl	106	50-150		%REC	1	9/25/2012 12:44:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	11.9		mg/Kg-dry	1	9/25/2012 11:15:00 AM
Surr: 4-Bromofluorobenzene	84.2	50-150		%REC	1	9/25/2012 11:15:00 AM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.28		mg/Kg-dry	1	9/25/2012 10:39:37 AM
Lead	4.90	2.28		mg/Kg-dry	1	9/25/2012 10:39:37 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	17.0		µg/Kg-dry	1	9/24/2012 4:53:00 PM
Surr: 1,2-Dichloroethane-d4	97.0	71.5-112		%REC	1	9/24/2012 4:53:00 PM
Surr: 4-Bromofluorobenzene	109	75.7-122		%REC	1	9/24/2012 4:53:00 PM
Surr: Dibromofluoromethane	92.4	64.3-124		%REC	1	9/24/2012 4:53:00 PM
Surr: Toluene-d8	101	74.9-120		%REC	1	9/24/2012 4:53:00 PM

Specialty Analytical

Date Reported: 26-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/19/2012 6:00:00 PM
Project: Palouse
Lab ID: 1209133-002
Client Sample ID: CS29-12/9/19-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	19.9		mg/Kg-dry	1	9/25/2012 1:06:00 PM
Lube Oil	ND	66.4		mg/Kg-dry	1	9/25/2012 1:06:00 PM
Surr: o-Terphenyl	89.6	50-150		%REC	1	9/25/2012 1:06:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	24.2		mg/Kg-dry	1	9/24/2012 9:50:00 PM
Surr: 4-Bromofluorobenzene	83.2	50-150		%REC	1	9/24/2012 9:50:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.33		mg/Kg-dry	1	9/25/2012 10:44:06 AM
Lead	3.74	2.33		mg/Kg-dry	1	9/25/2012 10:44:06 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	32.4		µg/Kg-dry	1	9/24/2012 5:20:00 PM
Surr: 1,2-Dichloroethane-d4	105	71.5-112		%REC	1	9/24/2012 5:20:00 PM
Surr: 4-Bromofluorobenzene	91.1	75.7-122		%REC	1	9/24/2012 5:20:00 PM
Surr: Dibromofluoromethane	102	64.3-124		%REC	1	9/24/2012 5:20:00 PM
Surr: Toluene-d8	95.3	74.9-120		%REC	1	9/24/2012 5:20:00 PM

Specialty Analytical

Date Reported: 26-Sep-12

CLIENT: Maul Foster & Alongi
Collection Date: 9/19/2012 6:25:00 PM
Project: Palouse
Lab ID: 1209133-003
Client Sample ID: CS30-12/9/19-9.5
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	407	20.0		mg/Kg-dry	1	9/25/2012 1:28:00 PM
Lube Oil	ND	66.7		mg/Kg-dry	1	9/25/2012 1:28:00 PM
Surr: o-Terphenyl	112	50-150		%REC	1	9/25/2012 1:28:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	2370	138	A	mg/Kg-dry	10	9/24/2012 11:09:00 PM
Surr: 4-Bromofluorobenzene	120	50-150		%REC	10	9/24/2012 11:09:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.34		mg/Kg-dry	1	9/25/2012 10:48:36 AM
Lead	ND	2.34		mg/Kg-dry	1	9/25/2012 10:48:36 AM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ep**
Benzene	ND	25.2		µg/Kg-dry	1	9/24/2012 5:47:00 PM
Surr: 1,2-Dichloroethane-d4	97.3	71.5-112		%REC	1	9/24/2012 5:47:00 PM
Surr: 4-Bromofluorobenzene	513	75.7-122	SMI	%REC	1	9/24/2012 5:47:00 PM
Surr: Dibromofluoromethane	91.2	64.3-124		%REC	1	9/24/2012 5:47:00 PM
Surr: Toluene-d8	147	74.9-120	S	%REC	1	9/24/2012 5:47:00 PM

QC SUMMARY REPORT

WO#: **1209133**

Specialty Analytical

26-Sep-12

Client: Maul Foster & Alongi
Project: Palouse **TestCode: 6010_S**

Sample ID: **ICV** SampType: **ICV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6325**
Client ID: **ICV** Batch ID: **3568** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/25/2012** SeqNo: **81150**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	99.7	2.00	100.0	0	99.7	90	110				
Lead	98.8	2.00	100.0	0	98.8	90	110				

Sample ID: **MBLK-3568** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/25/2012** RunNo: **6325**
Client ID: **PBS** Batch ID: **3568** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/25/2012** SeqNo: **81151**

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-3568** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/25/2012** RunNo: **6325**
Client ID: **LCSS** Batch ID: **3568** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/25/2012** SeqNo: **81152**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	93.9	2.00	100.0	0	93.9	85.1	107				
Lead	95.4	2.00	100.0	0	95.4	84.9	109				

Sample ID: **1209132-001ADUP** SampType: **DUP** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/25/2012** RunNo: **6325**
Client ID: **ZZZZZZ** Batch ID: **3568** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/25/2012** SeqNo: **81154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	1.92						0	0	20	
Lead	ND	1.92						0	0	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209133**

Specialty Analytical

26-Sep-12

Client: Maul Foster & Alongi
Project: Palouse **TestCode:** **6010_S**

Sample ID: **1209132-001AMS**	SampType: **MS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/25/2012**	RunNo: **6325**
Client ID: **ZZZZZZ**	Batch ID: **3568**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/25/2012**	SeqNo: **81155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	89.7	1.92	96.15	0	93.3	86.1	109				
Lead	90.6	1.92	96.15	0	94.2	84.9	109				

Sample ID: **1209132-001AMSD**	SampType: **MSD**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/25/2012**	RunNo: **6325**
Client ID: **ZZZZZZ**	Batch ID: **3568**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/25/2012**	SeqNo: **81156**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	92.5	1.92	96.15	0	96.2	86.1	109	89.71	3.06	20	
Lead	95.0	1.92	96.15	0	98.8	84.9	109	90.62	4.69	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6325**
Client ID: **CCV**	Batch ID: **3568**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/25/2012**	SeqNo: **81160**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	94.0	2.00	100.0	0	94.0	90	110				
Lead	95.3	2.00	100.0	0	95.3	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209133**

Specialty Analytical

26-Sep-12

Client: Maul Foster & Alongi
Project: Palouse **TestCode:** **8260_5035**

Sample ID: **CCV-3564** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6319**
Client ID: **CCV** Batch ID: **3564** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/24/2012** SeqNo: **81091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	56.0	10.0	60.00	0	93.4	80	120				

Sample ID: **LCS-3564** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/24/2012** RunNo: **6319**
Client ID: **LCSS** Batch ID: **3564** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/24/2012** SeqNo: **81092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	62.6	10.0	60.00	0	104	74.3	136				

Sample ID: **LCSD-3564** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: **9/24/2012** RunNo: **6319**
Client ID: **LCSS02** Batch ID: **3564** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/24/2012** SeqNo: **81093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	63.8	10.0	60.00	0	106	74.3	136	62.64	1.76	20	

Sample ID: **MB** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6319**
Client ID: **PBS** Batch ID: **3564** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/24/2012** SeqNo: **81094**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	106		100.0		106	71.5	112				
Surr: 4-Bromofluorobenzene	90.6		100.0		90.6	75.7	122				
Surr: Dibromofluoromethane	103		100.0		103	64.3	124				
Surr: Toluene-d8	97.1		100.0		97.1	74.9	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209133**

Specialty Analytical

26-Sep-12

Client: Maul Foster & Alongi

Project: Palouse **TestCode:** **NWTPHDX_S**

Sample ID: **MB-3565** SampType: **MBLK** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/24/2012** RunNo: **6332**

Client ID: **PBS** Batch ID: **3565** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/25/2012** SeqNo: **81212**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	34.1		33.30		102	50	150				

Sample ID: **LCS-3565** SampType: **LCS** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: **9/24/2012** RunNo: **6332**

Client ID: **LCSS** Batch ID: **3565** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/25/2012** SeqNo: **81213**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	174	15.0	166.5	0	105	76.3	125				
Lube Oil	182	50.0	166.5	0	109	69.9	127				

Sample ID: **1209133-003ADUP** SampType: **DUP** TestCode: **NWTPHDX_S** Units: **mg/Kg-dry** Prep Date: **9/24/2012** RunNo: **6332**

Client ID: **CS30-12/9/19-9.5** Batch ID: **3565** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/25/2012** SeqNo: **81217**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	444	20.0						406.7	8.75	20	
Lube Oil	ND	66.7						0	0	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHDX_S** Units: **mg/Kg** Prep Date: RunNo: **6332**

Client ID: **CCV** Batch ID: **3565** TestNo: **NWTPH-Dx** **SW3545A** Analysis Date: **9/25/2012** SeqNo: **81218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1400	15.0	1346	0	104	85	115				
Lube Oil	674	50.0	685.7	0	98.3	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209133**

Specialty Analytical

26-Sep-12

Client: Maul Foster & Alongi
Project: Palouse **TestCode:** **NWTPHGX_SA**

Sample ID: **MB-3571**	SampType: **MBLK**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/24/2012**	RunNo: **6328**
Client ID: **PBS**	Batch ID: **3571**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/24/2012**	SeqNo: **81177**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	3.62		5.000		72.5	50	150				

Sample ID: **LCS-3571**	SampType: **LCS**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **9/24/2012**	RunNo: **6328**
Client ID: **LCSS**	Batch ID: **3571**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/24/2012**	SeqNo: **81178**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	48.1	2.50	50.00	0	96.2	53.5	121				

Sample ID: **1209133-001BDUP**	SampType: **DUP**	TestCode: **NWTPHGX_S**	Units: **mg/Kg-dry**	Prep Date: **9/24/2012**	RunNo: **6328**
Client ID: **CS24-12/9/17-4.0**	Batch ID: **3571**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/25/2012**	SeqNo: **81185**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	12.0						0	0	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6328**
Client ID: **CCV**	Batch ID: **3571**	TestNo: **NWTPH-Gx**	**SW5035A**	Analysis Date: **9/25/2012**	SeqNo: **81186**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	140	2.50	150.0	0	93.4	80	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Page ___ of ___

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Connor Lamb
Company: MFA
Address: 400 E. Mill Plain, Ste. 400
Vancouver, WA 98660
Phone: 971.544.2139 Fax:
Project No. 0477.01.05 Project Name: Palouse
Project Site Location OR ___ WA ✓ Other ___
Invoice To ___ P.O. No. ___

Collected By:
Signature: [signature]
Printed: d. Knutson

Signature: ___
Printed: ___

Turn Around Time
☐ Normal 5-7 Business Days
☐ Rush ___
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209133
Shipped Via: UPS
Air Bill No. ___
Temperature On Receipt 9 °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: NWTPH dx/gx/dx	Analyses: 6010 As Pb	Analyses: 8260 Benzene	Analyses: TCP Lead	Comments	Lab I.D.
9/17/12	1545	CS24-12/9/17-4.0			X	X	X			
9/19/12	1800	CS29-12/9/19-4.0			X	X	X			
9/19/12	1820	CS30-12/9/19-9.5			X	X	X			

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
d. Knutson	9/20/12	1600				
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Nikki Rappes — Date: 9/24/12 — Time: 1300

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

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

October 01, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958
RE: Palouse / 0477.01.05

Dear Connor Lamb: Order No.: 1209157

Specialty Analytical received 4 sample(s) on 9/27/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 01-Oct-12

CLIENT: Maul Foster & Alongi
Project: Palouse / 0477.01.05

Lab Order: 1209157

Lab ID: 1209157-001
Collection Date: 9/24/2012 1:00:00 PM
Client Sample ID: CS25-12/9/24-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	47.7	19.5		mg/Kg-dry	1	9/27/2012 6:45:00 PM
Lube Oil	237	65.0		mg/Kg-dry	1	9/27/2012 6:45:00 PM
Surr: o-Terphenyl	103	50-150		%REC	1	9/27/2012 6:45:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	6.19		mg/Kg-dry	1	9/28/2012 12:38:00 PM
Surr: 4-Bromofluorobenzene	84.9	50-150		%REC	1	9/28/2012 12:38:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.37		mg/Kg-dry	1	9/27/2012 3:32:56 PM
Lead	15.7	2.37		mg/Kg-dry	1	9/27/2012 3:32:56 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ajr**
Benzene	ND	9.00		µg/Kg-dry	1	9/28/2012 5:10:00 PM
Surr: 1,2-Dichloroethane-d4	113	71.5-112	S	%REC	1	9/28/2012 5:10:00 PM
Surr: 4-Bromofluorobenzene	79.8	75.7-122		%REC	1	9/28/2012 5:10:00 PM
Surr: Dibromofluoromethane	105	64.3-124		%REC	1	9/28/2012 5:10:00 PM
Surr: Toluene-d8	103	74.9-120		%REC	1	9/28/2012 5:10:00 PM

Specialty Analytical

Date Reported: 01-Oct-12

CLIENT: Maul Foster & Alongi
Project: Palouse / 0477.01.05

Lab Order: 1209157

Lab ID: 1209157-002
Client Sample ID: CS26-12/9/24-4.0

Collection Date: 9/24/2012 1:15:00 PM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	18.9		mg/Kg-dry	1	9/27/2012 7:08:00 PM
Lube Oil	ND	63.0		mg/Kg-dry	1	9/27/2012 7:08:00 PM
Surr: o-Terphenyl	109	50-150		%REC	1	9/27/2012 7:08:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	5.97		mg/Kg-dry	1	9/28/2012 1:02:00 PM
Surr: 4-Bromofluorobenzene	86.7	50-150		%REC	1	9/28/2012 1:02:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.42		mg/Kg-dry	1	9/27/2012 3:37:26 PM
Lead	7.15	2.42		mg/Kg-dry	1	9/27/2012 3:37:26 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ajr**
Benzene	ND	11.6		µg/Kg-dry	1	9/28/2012 5:37:00 PM
Surr: 1,2-Dichloroethane-d4	110	71.5-112		%REC	1	9/28/2012 5:37:00 PM
Surr: 4-Bromofluorobenzene	88.8	75.7-122		%REC	1	9/28/2012 5:37:00 PM
Surr: Dibromofluoromethane	104	64.3-124		%REC	1	9/28/2012 5:37:00 PM
Surr: Toluene-d8	95.7	74.9-120		%REC	1	9/28/2012 5:37:00 PM

Specialty Analytical

Date Reported: 01-Oct-12

CLIENT: Maul Foster & Alongi
Project: Palouse / 0477.01.05

Lab Order: 1209157

Lab ID: 1209157-003
Collection Date: 9/24/2012 1:30:00 PM
Client Sample ID: CS27-12/9/24-4.0
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	41.2	21.7		mg/Kg-dry	1	9/27/2012 8:14:00 PM
Lube Oil	123	72.3	A2	mg/Kg-dry	1	9/27/2012 8:14:00 PM
Surr: o-Terphenyl	113	50-150		%REC	1	9/27/2012 8:14:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	82.1	8.36		mg/Kg-dry	1	9/28/2012 1:26:00 PM
Surr: 4-Bromofluorobenzene	94.6	50-150		%REC	1	9/28/2012 1:26:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.78		mg/Kg-dry	1	9/27/2012 4:05:02 PM
Lead	1810	2.78		mg/Kg-dry	1	9/27/2012 4:05:02 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ajr**
Benzene	195	13.2		µg/Kg-dry	1	9/28/2012 6:04:00 PM
Surr: 1,2-Dichloroethane-d4	116	71.5-112	S	%REC	1	9/28/2012 6:04:00 PM
Surr: 4-Bromofluorobenzene	92.5	75.7-122		%REC	1	9/28/2012 6:04:00 PM
Surr: Dibromofluoromethane	100	64.3-124		%REC	1	9/28/2012 6:04:00 PM
Surr: Toluene-d8	96.2	74.9-120		%REC	1	9/28/2012 6:04:00 PM

Specialty Analytical

Date Reported: 01-Oct-12

CLIENT: Maul Foster & Alongi
Project: Palouse / 0477.01.05

Lab Order: 1209157

Lab ID: 1209157-004
Client Sample ID: CS28-12/9/24-9.5

Collection Date: 9/24/2012 1:40:00 PM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	19.9		mg/Kg-dry	1	9/27/2012 6:02:00 PM
Lube Oil	ND	66.3		mg/Kg-dry	1	9/27/2012 6:02:00 PM
Surr: o-Terphenyl	99.2	50-150		%REC	1	9/27/2012 6:02:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	5.44		mg/Kg-dry	1	9/28/2012 1:49:00 PM
Surr: 4-Bromofluorobenzene	83.5	50-150		%REC	1	9/28/2012 1:49:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.65		mg/Kg-dry	1	9/27/2012 4:09:32 PM
Lead	ND	2.65		mg/Kg-dry	1	9/27/2012 4:09:32 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ajr**
Benzene	ND	9.07		µg/Kg-dry	1	9/28/2012 6:31:00 PM
Surr: 1,2-Dichloroethane-d4	92.3	71.5-112		%REC	1	9/28/2012 6:31:00 PM
Surr: 4-Bromofluorobenzene	86.6	75.7-122		%REC	1	9/28/2012 6:31:00 PM
Surr: Dibromofluoromethane	96.3	64.3-124		%REC	1	9/28/2012 6:31:00 PM
Surr: Toluene-d8	98.5	74.9-120		%REC	1	9/28/2012 6:31:00 PM

QC SUMMARY REPORT

WO#: **1209157**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6374**
Client ID: **ICV**	Batch ID: **3590**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/27/2012**	SeqNo: **81651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	99.0	2.00	100.0	0	99.0	90	110				
Lead	102	2.00	100.0	0	102	90	110				

Sample ID: **MBLK-3590**	SampType: **MBLK**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/27/2012**	RunNo: **6374**
Client ID: **PBS**	Batch ID: **3590**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/27/2012**	SeqNo: **81652**

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-3590**	SampType: **LCS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **9/27/2012**	RunNo: **6374**
Client ID: **LCSS**	Batch ID: **3590**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/27/2012**	SeqNo: **81653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101	2.00	100.0	0	101	85.1	107				
Lead	106	2.00	100.0	0	106	84.9	109				

Sample ID: **1209160-001ADUP**	SampType: **DUP**	TestCode: **6010_S**	Units: **mg/Kg-dry**	Prep Date: **9/27/2012**	RunNo: **6374**
Client ID: **ZZZZZZ**	Batch ID: **3590**	TestNo: **SW6010C**	**SW3050B**	Analysis Date: **9/27/2012**	SeqNo: **81655**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.26						0	0	20	
Lead	4.06	2.26						3.048	28.6	20	RF

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209157**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **1209160-001AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/27/2012** RunNo: **6374**
Client ID: **ZZZZZZ** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81656**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	115	2.39	119.4	0.643	95.4	86.1	109				
Lead	115	2.39	119.4	3.048	94.1	84.9	109				

Sample ID: **1209160-001AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/27/2012** RunNo: **6374**
Client ID: **ZZZZZZ** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	116	2.39	119.4	0.643	96.8	86.1	109	114.5	1.51	20	
Lead	117	2.39	119.4	3.048	95.8	84.9	109	115.4	1.73	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6374**
Client ID: **CCV** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81660**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	94.3	2.00	100.0	0	94.3	90	110				
Lead	97.3	2.00	100.0	0	97.3	90	110				

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6374**
Client ID: **CCV** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81669**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	102	2.00	100.0	0	102	90	110				
Lead	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209157**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **8260_5035**

Sample ID: **CCV-3608** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **CCV** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.1	10.0	60.00	0	98.6	80	120				

Sample ID: **LCS-3608** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **LCSS** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81875**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	62.9	10.0	60.00	0	105	74.3	136				

Sample ID: **LCSD-3608** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **LCSS02** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	60.1	10.0	60.00	0	100	74.3	136	62.94	4.60	20	

Sample ID: **MBLK-3608** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **PBS** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	97.8		100.0		97.8	71.5	112				
Surr: 4-Bromofluorobenzene	88.5		100.0		88.5	75.7	122				
Surr: Dibromofluoromethane	99.7		100.0		99.7	64.3	124				
Surr: Toluene-d8	100		100.0		100	74.9	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209157**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **MB-3589**	SampType: **MBLK**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **9/27/2012**	RunNo: **6373**
Client ID: **PBS**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	37.9		33.30		114	50	150				

Sample ID: **LCS-3589**	SampType: **LCS**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **9/27/2012**	RunNo: **6373**
Client ID: **LCSS**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	199	15.0	166.5	0	120	76.3	125				
Lube Oil	191	50.0	166.5	0	115	69.9	127				

Sample ID: **1209157-002ADUP**	SampType: **DUP**	TestCode: **NWTPHDX_S**	Units: **mg/Kg-dry**	Prep Date: **9/27/2012**	RunNo: **6373**
Client ID: **CS26-12/9/24-4.0**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81648**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	18.9						0	0	20	
Lube Oil	ND	63.0						0	0	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6373**
Client ID: **CCV**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81650**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1470	15.0	1346	0	109	85	115				
Lube Oil	712	50.0	685.7	0	104	85	115				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209157**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_SA**

Sample ID: **MB-3604** SampType: **MBLK** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: **9/28/2012** RunNo: **6387**
Client ID: **PBS** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81785**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	3.60		5.000		72.0	50	150				

Sample ID: **LCS-3604** SampType: **LCS** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: **9/28/2012** RunNo: **6387**
Client ID: **LCSS** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	49.1	2.50	50.00	0	98.1	53.5	121				

Sample ID: **1209157-004BDUP** SampType: **DUP** TestCode: **NWTPHGX_S** Units: **mg/Kg-dry** Prep Date: **9/28/2012** RunNo: **6387**
Client ID: **CS28-12/9/24-9.5** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81791**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.44						0	0	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: RunNo: **6387**
Client ID: **CCV** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	141	2.50	150.0	0	94.1	80	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Page ___ of ___

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Conor Lamb
Company: MFA
Address: 400 E. Mill Plain, ste. 400
Vancouver, WA 98660
Phone: 971.544.2139 Fax:
Project No. 0477.01.05 Project Name: Palouse
Project Site Location OR ___ WA ✓ Other ___
Invoice To ___ P.O. No. ___

Collected By: d. Knutson C. LAMB
Signature
Printed

Signature
Printed

Turn Around Time
☐ Normal 5-7 Business Days
☒ Rush ___
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209157
Shipped Via FEDEX
Air Bill No.
Temperature On Receipt ___ °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: NWTPH Gx/Dx	Analyses: 6010 ASPH	Analyses: 8260 Benz	Analyses: TCLP Lead	Comments	Lab I.D.
9/24/2012	1300	CS25-12/9/24-4.0	SOIL	6	X	X	X		RUSH (24)	
	1315	CS26-12/9/24-4.0			X	X	X			
	1330	CS27-12/9/24-4.0			X	X	X			
	1340	CS28-12/9/24-9.5			X	X	X			

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
d. Knutson C. LAMB						
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Nikki Bippes Date: 9/27/12 Time: 0931

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

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

October 01, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958
RE: Palouse / 0477.01.05

Dear Connor Lamb: Order No.: 1209160

Specialty Analytical received 1 sample(s) on 9/27/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 01-Oct-12

CLIENT: Maul Foster & Alongi
Project: Palouse / 0477.01.05

Lab Order: 1209160

Lab ID: 1209160-001
Client Sample ID: CS31-12/9/26-4.0

Collection Date: 9/26/2012 10:10:27 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **kbh**
Diesel	ND	18.6		mg/Kg-dry	1	9/27/2012 6:24:00 PM
Lube Oil	ND	62.1		mg/Kg-dry	1	9/27/2012 6:24:00 PM
Surr: o-Terphenyl	97.3	50-150		%REC	1	9/27/2012 6:24:00 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **kbh**
Gasoline	ND	5.65		mg/Kg-dry	1	9/28/2012 2:37:00 PM
Surr: 4-Bromofluorobenzene	84.8	50-150		%REC	1	9/28/2012 2:37:00 PM
ICP METALS- TOTAL RECOVERABLE		**SW6010C**				Analyst: **CT**
Arsenic	ND	2.26		mg/Kg-dry	1	9/27/2012 3:12:50 PM
Lead	3.05	2.26		mg/Kg-dry	1	9/27/2012 3:12:50 PM
VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260B**				Analyst: **ajr**
Benzene	ND	10.6		µg/Kg-dry	1	9/28/2012 6:57:00 PM
Surr: 1,2-Dichloroethane-d4	98.1	71.5-112		%REC	1	9/28/2012 6:57:00 PM
Surr: 4-Bromofluorobenzene	84.6	75.7-122		%REC	1	9/28/2012 6:57:00 PM
Surr: Dibromofluoromethane	99.5	64.3-124		%REC	1	9/28/2012 6:57:00 PM
Surr: Toluene-d8	98.7	74.9-120		%REC	1	9/28/2012 6:57:00 PM

QC SUMMARY REPORT

WO#: **1209160**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **ICV** SampType: **ICV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6374**
Client ID: **ICV** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	99.0	2.00	100.0	0	99.0	90	110				
Lead	102	2.00	100.0	0	102	90	110				

Sample ID: **MBLK-3590** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/27/2012** RunNo: **6374**
Client ID: **PBS** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81652**

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-3590** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/27/2012** RunNo: **6374**
Client ID: **LCSS** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101	2.00	100.0	0	101	85.1	107				
Lead	106	2.00	100.0	0	106	84.9	109				

Sample ID: **1209160-001ADUP** SampType: **DUP** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/27/2012** RunNo: **6374**
Client ID: **CS31-12/9/26-4.0** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81655**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.26						0	0	20	
Lead	4.06	2.26						3.048	28.6	20	RF

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209160**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_S**

Sample ID: **1209160-001AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/27/2012** RunNo: **6374**
Client ID: **CS31-12/9/26-4.0** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81656**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	115	2.39	119.4	0.643	95.4	86.1	109				
Lead	115	2.39	119.4	3.048	94.1	84.9	109				

Sample ID: **1209160-001AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg-dry** Prep Date: **9/27/2012** RunNo: **6374**
Client ID: **CS31-12/9/26-4.0** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81657**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	116	2.39	119.4	0.643	96.8	86.1	109	114.5	1.51	20	
Lead	117	2.39	119.4	3.048	95.8	84.9	109	115.4	1.73	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6374**
Client ID: **CCV** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81660**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	94.3	2.00	100.0	0	94.3	90	110				
Lead	97.3	2.00	100.0	0	97.3	90	110				

Sample ID: **CCV** SampType: **CCV** TestCode: **6010_S** Units: **mg/Kg** Prep Date: RunNo: **6374**
Client ID: **CCV** Batch ID: **3590** TestNo: **SW6010C** **SW3050B** Analysis Date: **9/27/2012** SeqNo: **81669**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	102	2.00	100.0	0	102	90	110				
Lead	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209160**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode: 8260_5035**

Sample ID: **CCV-3608** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **CCV** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	59.1	10.0	60.00	0	98.6	80	120				

Sample ID: **LCS-3608** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **LCSS** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81875**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	62.9	10.0	60.00	0	105	74.3	136				

Sample ID: **LCSD-3608** SampType: **LCSD** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **LCSS02** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	60.1	10.0	60.00	0	100	74.3	136	62.94	4.60	20	

Sample ID: **MBLK-3608** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **6394**
Client ID: **PBS** Batch ID: **3608** TestNo: **SW8260B** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81877**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	97.8		100.0		97.8	71.5	112				
Surr: 4-Bromofluorobenzene	88.5		100.0		88.5	75.7	122				
Surr: Dibromofluoromethane	99.7		100.0		99.7	64.3	124				
Surr: Toluene-d8	100		100.0		100	74.9	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209160**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHDX_S**

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **6373**
Client ID: **CCV**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81641**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1110	15.0	1009	0	110	85	115				
Lube Oil	559	50.0	514.3	0	109	85	115				

Sample ID: **MB-3589**	SampType: **MBLK**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **9/27/2012**	RunNo: **6373**
Client ID: **PBS**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81642**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	37.9		33.30		114	50	150				

Sample ID: **LCS-3589**	SampType: **LCS**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **9/27/2012**	RunNo: **6373**
Client ID: **LCSS**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	199	15.0	166.5	0	120	76.3	125				
Lube Oil	191	50.0	166.5	0	115	69.9	127				

Sample ID: **1209157-002ADUP**	SampType: **DUP**	TestCode: **NWTPHDX_S**	Units: **mg/Kg-dry**	Prep Date: **9/27/2012**	RunNo: **6373**
Client ID: **ZZZZZZ**	Batch ID: **3589**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **9/27/2012**	SeqNo: **81648**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	18.9						0	0	20	
Lube Oil	ND	63.0						0	0	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1209160**

Specialty Analytical

01-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **NWTPHGX_SA**

Sample ID: **MB-3604** SampType: **MBLK** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: **9/28/2012** RunNo: **6387**
Client ID: **PBS** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81785**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	3.60		5.000		72.0	50	150				

Sample ID: **LCS-3604** SampType: **LCS** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: **9/28/2012** RunNo: **6387**
Client ID: **LCSS** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	49.1	2.50	50.00	0	98.1	53.5	121				

Sample ID: **1209157-004BDUP** SampType: **DUP** TestCode: **NWTPHGX_S** Units: **mg/Kg-dry** Prep Date: **9/28/2012** RunNo: **6387**
Client ID: **ZZZZZZ** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81791**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	5.44						0	0	20	

Sample ID: **CCV** SampType: **CCV** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: RunNo: **6387**
Client ID: **CCV** Batch ID: **3604** TestNo: **NWTPH-Gx** **SW5035A** Analysis Date: **9/28/2012** SeqNo: **81793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	141	2.50	150.0	0	94.1	80	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
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Page ___ of ___

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: CONNOR LAMB
Company: MFA
Address: 2001 NW 19TH AVE, SUITE 200
PORTLAND, OR 97209
Phone: (360) 977-8050 Fax:
Project No: 0477.01.05 Project Name: PALOUSE
Project Site Location OR ___ WA X Other ___
Invoice To ___ P.O. No. ___

Collected By:
Signature:
Printed: CONNOR LAMB

Signature:
Printed:

Turn Around Time
☐ Normal 5-7 Business Days
☐ Rush ___
Specify
Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1209160
Shipped Via FEDEX
Air Bill No ___
Temperature On Receipt ___ °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample ID	Matrix	No. of Containers	Analyses: NWTPH-Gx, Dx	Analyses: CDID As, Pb	Analyses: USEPA 8260/8021	Comments	Lab ID
9/26/12	10:10	CS31-12/9/26-4.0	SOIL	6	X	X	X		

Relinquished By	Date	Time	Received By	Relinquished By	Date	Time
C. LAMB	9/26/12	14:00				
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Nikki Bippes
Date: 9/27/12 Time: 0932

Copies: White-Original Yellow-Project File Pink-Customer Copy

Specialty Analytical

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

October 04, 2012

Connor Lamb
Maul Foster & Alongi
400 E. Mill Plain Blvd.
Suite 400
Vancouver, Washington 98660

TEL: (360) 694-2691
FAX (360) 906-1958
RE: Palouse / 0477.01.05

Dear Connor Lamb: Order No.: 1210033

Specialty Analytical received 2 sample(s) on 10/3/2012 for the analyses presented in the following report.

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

Specialty Analytical

Date Reported: 04-Oct-12

CLIENT: Maul Foster & Alongi
Project: Palouse / 0477.01.05

Lab Order: 1210033

Lab ID: 1210033-001 **Collection Date:** 10/3/2012 8:30:00 AM
Client Sample ID: TS01 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS		**SW6010C**				Analyst: **CT**
Lead,TCLP	ND	0.1000		mg/L	1	10/4/2012 10:09:11 AM

Lab ID: 1210033-002 **Collection Date:** 10/3/2012 8:40:00 AM
Client Sample ID: TS02 **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TCLP METALS		**SW6010C**				Analyst: **CT**
Lead,TCLP	ND	0.1000		mg/L	1	10/4/2012 10:27:11 AM

QC SUMMARY REPORT

WO#: **1210033**

Specialty Analytical

04-Oct-12

Client: Maul Foster & Alongi
Project: Palouse / 0477.01.05 **TestCode:** **6010_W**

Sample ID: **ICV**	SampType: **ICV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6451**
Client ID: **ICV**	Batch ID: **3633**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **10/4/2012**	SeqNo: **82529**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.037	0.0200	1.000	0	104	90	110				

Sample ID: **MBLK-3633**	SampType: **MBLK**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **10/4/2012**	RunNo: **6451**
Client ID: **PBW**	Batch ID: **3633**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **10/4/2012**	SeqNo: **82530**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.0200									

Sample ID: **LCS-3633**	SampType: **LCS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **10/4/2012**	RunNo: **6451**
Client ID: **LCSW**	Batch ID: **3633**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **10/4/2012**	SeqNo: **82531**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.072	0.0200	1.000	0	107	93.1	112				

Sample ID: **1210033-001ADUP**	SampType: **DUP**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **10/4/2012**	RunNo: **6451**
Client ID: **TS01**	Batch ID: **3633**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **10/4/2012**	SeqNo: **82533**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	ND	0.1000						0	0	20	

Sample ID: **1210033-001AMS**	SampType: **MS**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **10/4/2012**	RunNo: **6451**
Client ID: **TS01**	Batch ID: **3633**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **10/4/2012**	SeqNo: **82534**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.345	0.1000	5.000	0	107	91.9	112				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210033**

Specialty Analytical

04-Oct-12

Client: Maul Foster & Alongi

Project: Palouse / 0477.01.05 **TestCode:** **6010_W**

Sample ID: **1210033-001AMSD**	SampType: **MSD**	TestCode: **6010_W**	Units: **mg/L**	Prep Date: **10/4/2012**	RunNo: **6451**
Client ID: **TS01**	Batch ID: **3633**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **10/4/2012**	SeqNo: **82535**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	5.485	0.1000	5.000	0	110	91.9	112	5.345	2.59	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **6010_W**	Units: **mg/L**	Prep Date:	RunNo: **6451**
Client ID: **CCV**	Batch ID: **3633**	TestNo: **SW6010C**	**SW3010A**	Analysis Date: **10/4/2012**	SeqNo: **82540**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead,TCLP	1.073	0.0200	1.000	0	107	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

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

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.

CHAIN OF CUSTODY RECORD

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: Connor Lamb
Company: MFA
Address:

Phone: (360) 977-8056 Fax:
Project No. 0477.01.06 Project Name: Palouse
Project Site Location OR ____ WA X Other ____
Invoice To ____ P.O. No. ____

Collected By:
Signature:
Printed: Connor Lamb

Signature:
Printed:

Turn Around Time

☐ Normal 5-7 Business Days
☒ Rush 10/4/2012 PM(ASAP)
Specify

Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No. 1210033
Shipped Via Client
Air Bill No. —

Temperature On Receipt 4 °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	Analyses: TCLP Pb	Comments	Lab I.D.
10/3/12	8:30	TS01	SOIL	1	X	COMPOSITE	
10/3/12	8:40	TS02	"	1	X	COMPOSITE	

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time
C. LAMB	10/3	14:45				
Company: MFA			Company:	Company:		

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Received For Lab By: Nikki Bypes
Date: 10/3/12
Time: 1445

Copies: White-Original Yellow-Project File Pink-Customer Copy

DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. 0477.01.05 | SEPTEMBER 14, 2012 | CITY OF PALOUSE

This report reviews the analytical results for soil collected by the Maul Foster & Alongi, Inc. project team on the former Palouse Producers property. The samples were collected in September 2012.

Specialty Analytical (SA) performed the analyses. SA report numbers 1209043, 1209081, 1209088, 1209093, 1209133, 1209157, 1209160, and 1210033 were reviewed. The analyses performed are listed below.

Analysis	Reference
Total metals	USEPA SW6020C
Diesel and lube oil	NWTPH-Dx
Gasoline	NWTPH-Gx
Benzene	SW8260B
TCLP metals	SW6010C
Polycyclic aromatic hydrocarbons	SW8270D
PCBs	SW8082A

NWTPH = Northwest Total Petroleum Hydrocarbons.
PCB = polychlorinated biphenyl.
TCLP = toxicity characteristic leaching procedure.
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 and method-specific guidelines (SA, 2010; 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 methods).

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

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

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. All laboratory method blanks met acceptance criteria.

Trip Blanks

Trip blanks were not required for this sampling event.

Equipment Rinsate Blanks

Equipment rinsate blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance on individual samples.

The reviewer took no action based on surrogate outliers or surrogate percent recoveries that were outside acceptance limits because of matrix interferences.

The laboratory appropriately documented and qualified surrogate outliers. Associated batch quality assurance and quality control (QA/QC) for samples with surrogate outliers were within acceptance limits. All remaining surrogate recoveries were within acceptance limits.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

MS/MSD results are used to evaluate laboratory precision and accuracy. All MS/MSD samples were extracted and analyzed at the required frequency. The MSD associated with the PCB analyses performed on September 9, 2012, exceeded acceptance criteria for percent recovery and for relative percent difference (RPD). No actions were taken, as the laboratory qualified the exceedances as a result of matrix interference. All other recoveries were within acceptance limits for percent recovery and RPDs.

LABORATORY DUPLICATE RESULTS

Duplicate results are used to evaluate laboratory precision. Duplicate samples were extracted and analyzed at the required frequency. The duplicates associated with the gasoline analyses performed on September 10 and 14, 2012, and the diesel analyses performed on September 18 and 19, 2012, slightly exceeded RPD criteria. No actions were taken, as all other

associated batch QA/QC were within acceptance limits or because the sample result was at or near the reporting limit. No actions were taken for RPD exceedances caused by results at or near the method reporting limit. All other duplicate RPDs were within acceptance limits.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

An LCS/LCSD is spiked with target analytes to provide information on laboratory precision and accuracy. The LCS/LCSD samples were extracted and analyzed at the required frequency. All LCS/LCSD analytes were within acceptance limits for percent recovery.

FIELD DUPLICATE SAMPLE

A field duplicate sample is collected at the same place and time as the primary sample in order to evaluate sampling and laboratory analysis precision. The field duplicate RPD exceeded criteria for gasoline, diesel, and lube oil. No actions were taken, as soil matrices can be highly variable and RPDs for arsenic, lead, and benzene met criteria.

REPORTING LIMITS

SA used routine reporting limits for non-detect results, except for samples requiring dilutions because of high analyte concentrations and/or matrix interferences.

DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies. None were found.

SA. 2010. Quality Assurance Manual. Specialty Analytical, Inc. Clackamas, Oregon.

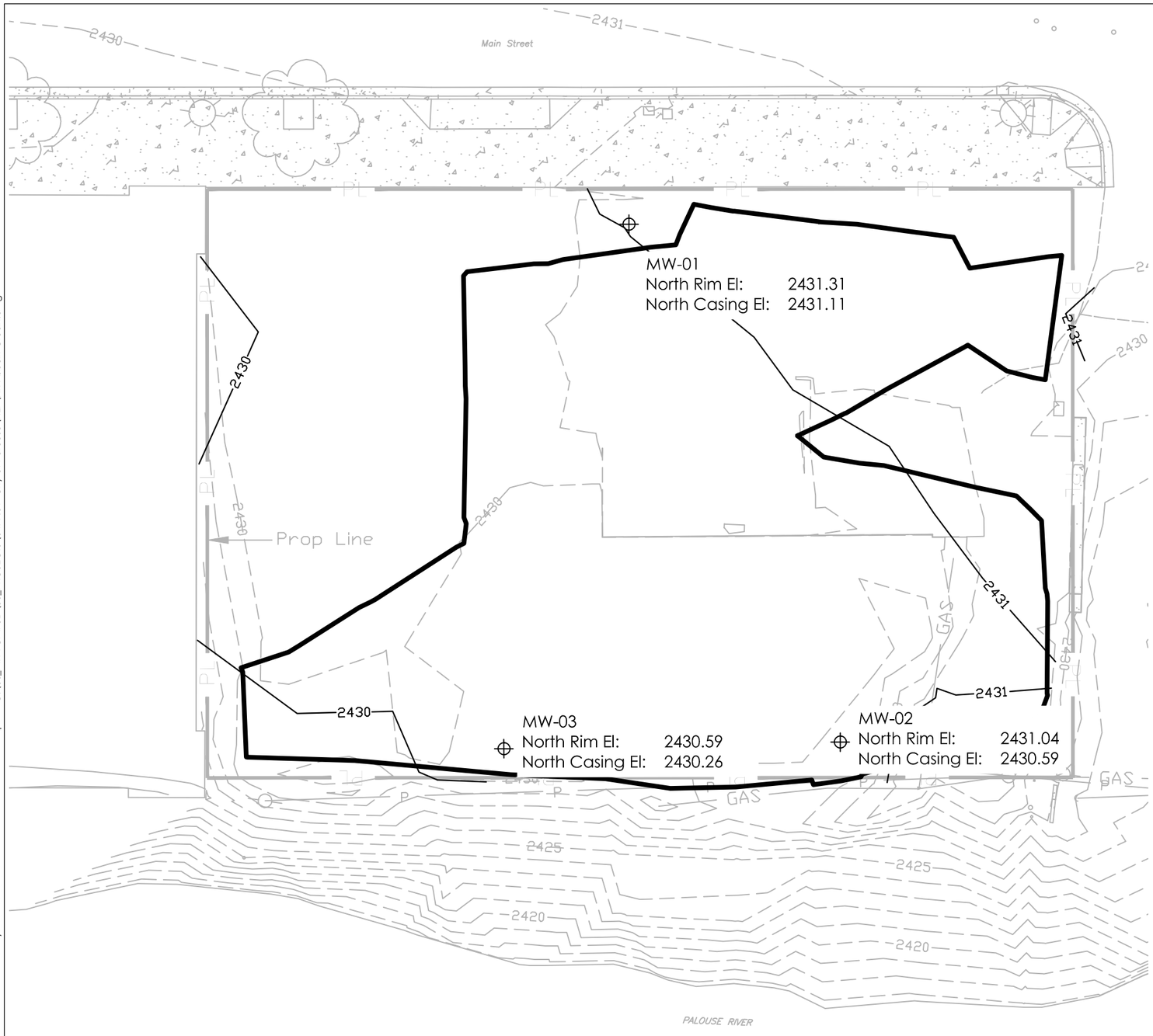
USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. EPA-530/SW-846. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. September (revision 6, February 2007).

USEPA. 2008. USEPA contract laboratory program, national functional guidelines for organics data review. EPA 540/R-08/01. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. June.

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.

APPENDIX D

AS-BUILT



EXISTING CONTOUR

ASBUILT CONTOUR

EXISTING EDGE OF CURB

EXCAVATION EXTENT

EXISTING RETAINING WALL

EXISTING OVERHEAD POWER

MONITORING WELL

PROPERTY LINE

0 20' 40'

NOTE: BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALE ACCORDINGLY.

MFA JOB #:	0477.01.06
ISSUE DATE:	12/##/2012
CHECKED:	E. Bakkom
DRAWN:	C. Lamb

MAUL FOSTER ALONGI
400 E Mill Plain Blvd., Suite 400
Vancouver, WA 98660
360.694.2691 (p) 360.906.1958 (f)
www.maulfoster.com

Asbuilt: Remedial Action--Soil Removal
Palouse Producers Property
City of Palouse
Palouse, Washington

Asbuilt
C1.0

APPENDIX E

CLEAN SOIL STATEMENT

Washington State Department of Transportation
Paula J. Hammond, P.E.
Secretary of Transportation

Environmental and Engineering
State Material Laboratory
PO Box 47365
Olympia, WA 98504-7365
360-709-5400
Fax: 360-709-5588
TTY: 1-800-833-6388
www.wsdot.wa.gov

May 18, 2010

Calvin Matson
Action Materials
P.O. Box 19425
Spokane, WA 99219
(509) 710-5420

Re: Preliminary Source Evaluation, ASA2010034

Dear Mr. Matson:

This letter is to inform you that preliminary testing for Mineral Aggregate, Rip Rap, Quarry Spalls and Rock for Rock Wall applications has been completed on the sample taken from the site designated as PS-C-281, also known as Grove Road Pit in Spokane County, Washington. The sample tested passed the requirements for various Mineral Aggregate, Rip Rap and Quarry Spalls applications as indicated in Section 9-03 and Section 9-13 of the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction (2010). The enclosed Aggregate Source Approval (ASA) Report lists specific approved uses for the aggregate from this site.

The enclosed Aggregate Source Approval (ASA) Report lists specific approved uses for the aggregate from this site. The Aggregate Source Approval database is available on the Internet at: http://www.wsdot.wa.gov/biz/mats/asa/asaSearch.cfm

The reports and all backup data will remain on file at the WSDOT Materials Laboratory. If there are any questions concerning this matter, please contact Maha Ablson at (360) 709-5444.

Sincerely,

Rob Molohon
State Materials Documentation Engineer

RM: mea
Enclosure

cc via e-mail: K. Williams – Construction Materials Engineer
B. Briggs – Assistant Construction Materials Engineer – Admin
M. Polodna – Structural Materials Engineer
K. Littleton – Eastern Region Materials Engineer
C. Matson – Action Materials (calvin@actionmaterials.net)

Washington State Department of Transportation

WSDOT MATERIALS LAB 05/18/2010

Aggregate Source Approval Report

Owner: Gillingham Sand & Gravel Co.
Lessee:
Located in: SW1/4SE1/4 Section 16 T24N R42E

Aggregate Source: PS-C-281
Known as: Grove Rd. Pit
County: Spokane

Remarks:
Material tested for Absorption for Riprap & Quarry Spalls didn't meet the spec. 05/17/2010 (MEA)

Pit Run Materials:
Prior to incorporating any of the following into a job, Gradation and Sand Equivalent tests shall be performed to determine if the material does in fact meet specification for the intended use:

Backfill for Rock Wall	Backfill for Sand Drains	Bedding Material for Rigid Pipe
Bedding Material for Thermoplastic Pipe	Blending Sand	Foundation Material for Classes A, B or C
Gravel Backfill for Drains and Drywells	Gravel Backfill for Foundation Class B	Gravel Backfill for Pipe Zone Bedding
Gravel Backfill for Walls	Gravel Borrow	Sand Drainage Blanket
Select or Common Borrow		

No Preliminary Tests are required to be performed by the State Materials Lab

Gravel Base: Test Date: 05/22/2006 Expiration Date: 05/22/2011
Drainage: Free R Value: 76 Swell Pressure: 0.3

Currently approved as a source of aggregate for:
Bank Run Gravel for Trench Bkfl
Gravel Base
Acceptance tests need to be performed as necessary

Mineral Agg. and Surfacing: Test Date: 05/17/2010 Expiration Date: 05/17/2015
Absorption: 3.38 Apparent Sp. G.: 2.861 Bulk Sp. G. (SSD): 2.697 Bulk Sp. G.: 2.609
Deg: 48 LA: 21

Currently approved as a source of aggregate for:

ATB	Ballast	BST Crushed Cover Stone
BST Crushed Screenings	Crushed Surfacing Base Course	Crushed Surfacing Key Stone
Crushed Surfacing Top Course	Gravel Backfill for Foundation Class A	HMA Other Courses
HMA Wearing Course	Maintenance Rock	Permeable Ballast

Acceptance tests need to be performed as necessary.

Portland Cement Concrete Aggregates: Test Date: Expiration Date:

ASR - 14 Day :	ASR - One Year:	CCA Absorption:	CCA Sp.G:
FCA Absorption:	FCA Organics:	FCA Sp. G:	LA:
Mortar Strength:	Petrographic Analysis:		

Contact the Regional Materials Office to request PRELIMINARY SAMPLES be acquired. Evaluation and approval of this site as a source of AGGREGATES for PCC is required prior to use.

Riprap and Quarry Spalls: Test Date: 05/17/2010 Expiration Date: 05/17/2011
Absorption: 3.38 Apparent Sp. G.: 2.861 Bulk Sp. G. (SSD): 2.697 Bulk Sp. G.: 2.609
Deg: 48 LA: 21

Currently approved as a source of aggregate for:
Quarry Spalls RipRap Stone for Gabion Cribbing

Distribution: Physical Testing_____ Project Engineer_____ Region Operations_____ Region Materials_____

Aggregate Source Approval System

Palouse River Rock LLC.
397-3556 595-3368
1754 Long Hollow Road
Colfax, WA 99111

September 5, 2012

To Whom It May Concern

Palouse River Rock guarantees the products sold for the Palouse Brown Field Restoration Project are native of pit # QSP-189 and are contaminate free.

Sincerely,

Justin Morgan

Palouse River Rock, LLC
509-595-3368 fax
509-397-3556 office

APPENDIX F

GROUNDWATER SAMPLING, BORING LOGS, AND MONITORING WELL CONSTRUCTION DETAILS

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0477.01.06 T02	**MW-01**	**1 of 1**

Project Name	**City of Palouse- Palouse Producers**	TOC Elevation (feet)	
Project Location	**335 Main Street East, Palouse, Washington**	Surface Elevation (feet)	
Start/End Date	**10/30/2012 to 10/30/2012**	Northing	
Driller/Equipment	**Cascade Drilling, LP/AMS Power Probe 9600**	Easting	
Geologist/Engineer	**Christina Johnson**	Hole Depth	**15.1-feet**
Sample Method	**Macrocore**	Outer Hole Diam	**3.25-inch**

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			**60%**	**GP**					*0 to 0.5 feet: GRAVELLY SAND with SILT (SM); brown; 20% fines; 50% sand, fine to coarse, medium dense; 30% gravel, fine, angular; moist.*
2									*0.5 to 5.0 feet: SILT (ML); gray; 100% fines, nonplastic; slight petroleum hydrocarbon-like odor; moist.*
3									
4									*@ 3.5 to 4.0 feet: Trace organics and white sand-size clasts.*
5			**100%**	**GP**					*@ 5.0 feet: 1-inch lense of 90% gravel, includes vesicles.*
6									*5.0 to 14.0 feet: SILT (ML); gray; 100% fines, nonplastic, firm; trace basalt clasts with decomposed rind, sand; slight petroleum hydrocarbon-like odor; medium stiff, moist.*
7									
8									
9									*@ 8.5 feet: Brownish gray; stiff; wet.*
10			**100%**	**GP**					*@ 10 feet: Red brown.*
11									
12									*Borehole Completion Details* *0.0 to 15.0 feet bgs: 3.25-inch borehole.* *0.0 to 1.0 feet bgs: Concrete.* *1.0 to 3.9 feet bgs: Bentonite chips hydrated with potable water.* *3.9 to 15.1 feet bgs: Filter pack 10/20 sand*
13									
14									*14.0 to 15.0 feet: SANDY SILT (ML); 70% fines, low plasticity; 20% sand, fine to coarse, angular-subrounded; 10% gravel, fine, round-subround; moist.*
15									

Total depth: 15.1 feet below ground surface.

Well Completion Details
0.0 to 1.0 feet bgs: Flush monument.
0.3 to 4.9 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, blank riser.
4.9 to 14.9 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, 0.010-inch machine slotted, pre-pack well screen.
14.9 to 15.1 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, end cap.

NOTES: *1) Drill casing with expendable point advanced to 15.1 feet bgs.*

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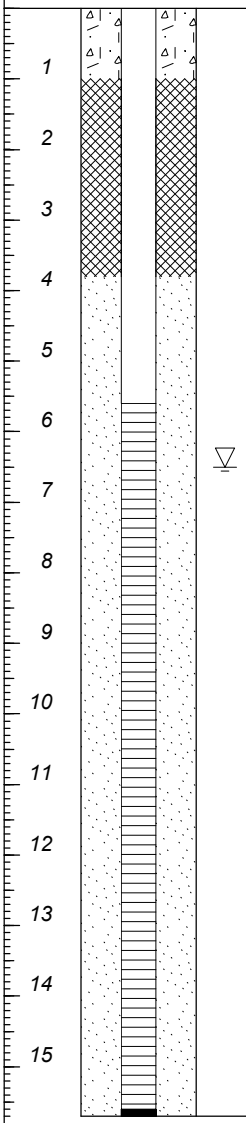
Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0477.01.06 T02	**MW-02**	**1 of 1**

Project Name	***City of Palouse- Palouse Producers***	*TOC Elevation (feet)*	
Project Location	***335 Main Street East, Palouse, Washington***	*Surface Elevation (feet)*	
Start/End Date	***10/30/2012 to 10/30/2012***	*Northing*	
Driller/Equipment	***Cascade Drilling, LP/AMS Power Probe 9600***	*Easting*	
Geologist/Engineer	***Christina Johnson***	*Hole Depth*	***15.7-feet***
Sample Method	***Macrocore***	*Outer Hole Diam*	***3.25-inch***



Depth (feet, BGS)	Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column
1		**50%**	**GP**				
2							
3							
4							
5		**75%**	**GP**				
6							
7							
8							
9							
10		**75%**	**GP**				
11							
12							
13							
14							
15							

0.0 to 10.0 feet: GRAVELLY SILTY SAND (SW); brown; 30% fines; 35% sand, fine to coarse, round to subangular; 35% gravel, fine to coarse, round to subangular; moist.

@ 0.5 feet: Geotextile liner.

@ 7.5 feet: Wet; driller notes casing is wet.

@ 9.7 feet: 3-inch lense of brown sandy silt.

10.0 to 15.0 feet: SILTY SAND (SM); gray with brown mottling; 40% fines, nonplastic; 60% sand, fine; trace rootlets; increase brown mottling to depth; slight petroleum hydrocarbon-like odor; moist.

Borehole Completion Details
0.0 to 15.7 feet bgs: 3.25-inch borehole.
0.0 to 1.0 feet bgs: Concrete.
1.0 to 4.0 feet bgs: Bentonite chips hydrated with potable water.
4.0 to 15.7 feet bgs: Filter pack 10/20 sand.

@ 14.5 feet: brown.

Total Depth: 15.7 feet below ground surface.

Well Completion Details
0.0 to 1.0 feet bgs: Flush monument.
0.45 to 5.5 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, blank riser.
5.5 to 15.5 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, 0.010-inch machine slotted, pre-pack well screen.
15.5 to 15.7 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, end cap.

NOTES: *1) Drill casing with expendable point advanced to 15.7 feet bgs.*

▽ ***Water level at 6.5 feet bgs.***

Maul Foster & Alongi, Inc.

Geologic Borehole Log/Well Construction

Project Number	Well Number	Sheet
0477.01.06 T02	**MW-03**	**1 of 1**

Project Name	**City of Palouse- Palouse Producers**	TOC Elevation (feet)	
Project Location	**335 Main Street East, Palouse, Washington**	Surface Elevation (feet)	
Start/End Date	**10/30/2012 to 10/30/2012**	Northing	
Driller/Equipment	**Cascade Drilling, LP/AMS Power Probe 9600**	Easting	
Geologist/Engineer	**Christina Johnson**	Hole Depth	**15.0-feet**
Sample Method	**Macrocore**	Outer Hole Diam	**3.25-inch**

Depth (feet, BGS)	Well Details	Sample Data: Interval	Percent Recovery	Collection Method	Number	Name (Type)	Blows/6"	Lithologic Column	Soil Description
1			**50%**	**GP**					*0.0 to 5.5 feet: GRAVELLY SILTY SAND (SW); brown; 30% fines; 35% sand, fine to coarse, round to subangular; 35% gravel, fine to coarse, round to subangular; trace rootlets; soft; strong petroleum hydrocarbon-like odor; moist.*
2									
3									
4									
5			**100%**	**GP**					
6									*5.5 to 7.0 feet: SILT (ML); dark gray; 100% fines, nonplastic, soft; medium, subround; trace rootlets and medium, subround sand; soft; sheen on core, strong petroleum hydrocarbon-like odor; moist.*
7	▽								*@ 6.5 feet: Wet.*
8									*7.0 to 10.0 feet: SANDY SILT (ML); gray; 60% fines, nonplastic; 40% sand, fine; soft; strong petroleum hydrocarbon-like odor, sheen on core; medium stiff; wet.*
9									*@ 9.0 feet: Stiff.*
10			**100%**	**GP**					*10.0 to 15.0 feet: SILTY SAND (SM); blue gray ; 30% fines, nonplastic; 70% sand, fine; occasional mottling with brown sand; very strong petroleum hydrocarbon-like odor, sheen on core; wet.*
11									
12									
13									
14									
15									*@ 14.8 feet: Sand is medium.*

Total Depth: 15.0 feet below ground surface

Borehole Completion Details

0.0 to 15.0 feet bgs: 3.25-inch borehole.
0.0 to 1.0 feet bgs: Concrete.
1.0 to 3.0 feet bgs: Bentonite chips hydrated with potable water.
4.0 to 14.5 feet bgs: Filter pack 10/20 sand.
14.5 to 15.0 feet bgs: Sluff.

Well Completion Details

0.0 to 1.0 feet bgs: Flush monument.
0.4 to 4.2 feet bgs: 2-inch diameter, PVC Schedule 40, flush-threaded, blank riser.
4.2 to 14.2 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, 0.010-inch machine slotted, pre-pack well screen.
14.2 to 14.5 feet bgs: 2-inch diameter, PVC, Schedule 40, flush-threaded, end cap.

NOTES:

▽ ***Water level at 6.5 feet bgs.***

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