



MEMORANDUM

DATE: March 23, 2021

TO: Anthony Chavez
Western Region Environmental Cleanup
Oregon Department of Environmental Quality
165 E. 7th Avenue, Ste 100
Eugene, Oregon

FROM: Chris Sheridan, R.G.

PROJECT: 24159.000

REGARDING: Methane Assessment Workplan 1 – Lots No. 1 through 64
Mill Pond Crossing Development
1701 Chapel Drive
Philomath, Oregon 97370

PBS Engineering and Environmental Inc. (PBS) is pleased to provide this work plan to Oregon Department of Environmental Quality (DEQ). The purpose of this work plan is to present the methods for assessing methane conditions near existing residential structures at the Mill Pond Crossing Development site in Philomath, Oregon (the site; Figures 1 and 2). This investigation addresses conditions beneath lots no. 1 through 64 as shown on Figure 2.

BACKGROUND

The site is currently under development as Millpond Crossing, a future residential affordable housing development. The site (Figures 1 and 2) is a former lumber mill which included two large ponds that encompassed much of the site. Based on previous investigations¹, the ponds were filled – the eastern log pond being filled primarily with silty- and clayey-sand and gravel with wood debris and organic material to depths as great as 15 feet below ground surface (bgs). The western log pond was reportedly filled with silty sand with wood debris and organic material overlying a low plastic clay. In the western pond, the contact between the fill material and clay reportedly ranges from 4.5 to 12 feet bgs. The fill in both ponds typically is water-bearing.

The fill material is believed to be the source of elevated methane concentrations that have been observed in the subsurface. In June 2020, Aerotech Environmental Consulting (AEC) measured methane in thirteen borings (SG-1 through SG-13) and concentrations ranging from zero to 12.9% by volume were detected at the site. The measurements were made using a LANDTEC GEM 5000 gas meter and the mean concentration was 3.83% by volume. Borings were generally advanced to depths of 4 to 5 feet, with one boring advanced to 10-feet (SG-1) and one boring advanced to 6 feet (SG-2). In general, the elevated concentrations were detected at depths of 4 to 5 feet below ground surface (bgs)² and equivalent to the depth of organic materials that have been observed within the former ponds. The June 2020 Aerotech report is attached.

¹ Aerotech Environmental Consulting Inc., 2020. *Landfill Gas Survey, Philomath Mill Site, 1701 Chapel Drive, Philomath, Oregon 98442*. June 10, 2020

² Aerotech Environmental Consulting Inc., 2020. *Landfill Gas Survey, Philomath Mill Site, 1701 Chapel Drive, Philomath, Oregon 98442*. June 10, 2020.

RECENT ACTIVITIES

A brief summary of recent activities have been conducted since Aerotech's June 2020 investigation is provided below. A more complete report will be forthcoming.

Soil sampling. From October 22 through 23, 3030, PBS conducted soil sampling at several locations in the former mill processing area using both Incremental Sampling Methodology (ISM) and discrete sampling methods.

- ISM sampling. ISM samples were collected for three decision units (DU-1 through DU-3). Decision unit DU-1 and DU-2 were collected in the vicinity of the two former incinerators located in the north and south, respectively, of the processing area. Samples were analyzed for total petroleum hydrocarbons as diesel and oil (TPH-d/o), volatile organic compounds (VOCs), RCRA 8 metals, and dioxins/furans. Decision unit DU-3 was collected in the vicinity of the former log chain area and was analyzed for TPH-d/o, VOCs, and RCRA 8 metals. While several analytes were detected, no concentrations exceeded relevant DEQ risk-based concentrations. A concentration of selenium was slightly higher than DEQ background metal concentrations in DU-2. Results are shown in the attached Tables 1 and 2, and laboratory reports are attached.
- Discrete sampling. Five discrete soil samples (Ditch-1 through Ditch-5) were collected in the former drainage ditches in the vicinity of the former mill processing area. The samples were analyzed for TPH-d/o, RCRA 8 metals, and/or VOCs. While several analytes were detected, no concentrations exceeded relevant DEQ risk-based concentrations. Concentrations of chromium in samples Ditch-4 and -5 were slightly higher than DEQ background metal concentrations in DU-2. Results are shown in the attached Tables 1 and 2, and laboratory reports are attached.

The details, methods, and results of the sampling will be included in a subsequent report.

Suspect underground tank. On October 30, 2020, Pacific Geophysics of Portland, Oregon conducted a geophysical survey of area of the suspect underground tank in the southern portion of the site. Results showed a large anomaly that appeared to be an underground tank. The geophysical report is attached. Subsequent excavation of the area on December 17, 2020 discovered that the anomaly was not a tank and instead a buried large, open section of corrugated pipe. The pipe was removed from the excavation and the adjacent soil was field screened using visual/olfactory observation and a photoionization detector (PID); no evidence of soil contamination was observed and the excavation was backfilled

Site excavation and backfilling. In preparation for site development, organics in the western portion of the site have been largely excavated to an average depth of 5 feet bgs, with the exception of future backyard areas for residential units which adjoin a proposed stormwater swale which has been excavated to approximately 4 to 5 feet. This includes the excavation and removal of approximately 26,300 cubic yards (CYs) of soil and organic material beneath each of the proposed residences. Excavation down to the native clay occurred in areas of future residential structures. The specific areas where excavation has occurred are:

- Lots 1-22: Removal of 8,300 CYs (900 feet long by 50 feet wide);
- Lots 32-38: Removal of 2,700 CYs (300 feet long by 50 feet wide);
- Lots 41-62: Removal of 8,300 CYs (900 feet long by 50 feet wide); and
- South 16th Street: Removal of 7,000 CYs (1,050 feet long by 36 feet wide).

Excavated material was stockpiled on-site. Excavated areas were filled with approximately 44,184 tons (36,820 CYs) of ¾-inch minus rock which was subsequently compacted to 95% compaction. Tickets for the rock import are attached.

To date, the removal has occurred primarily in the western portion of the site, however, similar excavation to native clay (approximately 4-7 feet bgs) is slated to occur beneath future buildings and roads for the remainder of the site to the east.. Existing organic material will remain in future backyards since no structures are anticipated in these areas.

Crawlspace and garage methane screening. On February 3, 2021, PBS measured ambient air in crawlspaces and garages of nine existing residences (lots 32-38 and lot 11) using a Landtec GEM portable gas monitor calibrated prior to use. Garage measurements were made in both ambient air, and immediately adjacent to any cracks observed in the floor slab. No methane concentrations were detected to a level of 0.1 percent by volume. Field sheets are attached.

PROPOSED SCOPE OF WORK

The proposed scope of work for this initial subsurface methane assessment is presented below. The investigation will be completed in the portion of the site with completed plats (lots no. 1 through 64) as shown on Figure 2.

Preparatory activities. Prior to mobilizing to the site, PBS will prepare a health and safety plan (HASP) which will be maintained onsite throughout all site work. Additionally, both public and private locates will be conducted to identify any underground utilities. Lastly, PBS will procure and coordinate the work with relevant subcontractors.

Groundwater sampling. Consistent with Aerotech's 2019 proposal, groundwater in the vicinity of the former log chain area, and fueling area will be sampled. Methodology will be consistent with the DEQ-approved Aerotech workplan. Locations will also be consistent with the approved workplan with the exception of one sample location near a suspect underground tank, which will not be collected because it was determined that no underground tank was present.

Temporary methane points. PBS and the selected drilling contractor will mobilize to the site to install up to fourteen temporary methane monitoring points at key locations. A conceptual schematic of the probe is included as Figure 3. This includes near existing occupied residences in the western portion of the site to assess the potential for methane generation/accumulation as well as along the northeaster perimeter of the site to confirm the absence of off-site methane migration. Locations (see Figure 2) will target areas where maximum methane concentrations have been observed (the southwest quadrant of the site), and will be dispersed to adequately characterize soil gas conditions in the existing housing development.

The points will be installed by advancing boreholes using 1.5-inch casing advanced using a direct push drilling rig and Geoprobe Systems® post-run tooling (PRT) system equipped with expendable vapor points. The PRT system allows the Teflon sample tubing to be inserted through the rods and locked into an O-ring fitting to provide a seal from atmospheric conditions. The drill casing with PRT and point/tubing will be advanced to the desired depth retracted from the borehole. After casing removal, the borehole will be surface sealed with hydrated bentonite from approximately 0 to 1-foot bgs. The remaining borehole wall will be allowed to fill the borehole around the tubing. Tubing extending from the surface will be equipped with a shut-off valve for multiple readings.

Prior to the installation of each point, the thickness and depth of the log pond fill will be evaluated by an exploratory boring to be advanced in the vicinity of the proposed monitoring point. To confirm thickness, the

exploratory borings will be advanced to at least 2 feet beyond the observed bottom of organic fill. Once thickness is determined, a second boring will be advanced three feet from the exploratory location to the determined target depth. The monitoring point will be placed at a minimum of a 5-foot depth, or halfway between the top and bottom of the fill, whichever is deeper. If groundwater is encountered, the point will be installed above the groundwater depth. If the depth of maximum detected methane concentrations in a boring deviates from these physical parameters, the maximum detected concentration will act as the guiding parameter for selecting the point depth. Prior to installing the PRT fittings, downhole gas readings will be monitored using a Landtec GEM 2000-Plus field device to measure peak and steady-state methane, oxygen, carbon dioxide, barometric pressure, and static pressure. Additionally, 'empirical evidence' of methane generation such as odor, surface bubbling, stressed vegetation, and/or temperature changes will be noted. The proposed point locations are shown on Figure 2.

Temporary methane point monitoring. After installation, the points will be purged and monitored using a Landtec GEM 2000-Plus field device to measure peak and static methane, oxygen, carbon dioxide, barometric pressure, and downhole pressure. Purging of the point tubing will be conducted using the LANDTEC GEM 2000 to assure the readings are representative of subsurface soil-gas concentrations and other subsurface conditions. Each point will be purged of approximately 2 pore volumes unless methane concentrations reach steady-state before 2 volumes are purged. In every circumstance, at least 1 complete volume will be purged. Specific purge times will be based on the depth of the PRT probe and tubing diameter. These times will be calculated after the points are installed.

The points will remain in the ground and will be monitored on a weekly basis for up to 4 weeks after installation. Results will be communicated to the Department of Environmental Quality (DEQ) by electronic mail after each monitoring event.

Point abandonment. The points will be retained for future use until DEQ and other stakeholders agree abandonment is warranted. If any void space remains it will be filled with granular bentonite and hydrated in place. The surface of each point will be matched to its surroundings.

FUTURE ACTIVITIES.

The following future activities are expected:

Phase II Work Plan. In addition to the above activities, PBS will prepare a Phase II Work Plan to describe proposed site-wide activities. The future workplan will include a detailed description of the proposed scope, methods, and approach for assessment of the remaining portions the site for methane, including the installation of permanent monitoring points if required. Additionally, a confined space inventory of the site will be conducted.

Future Mitigation Systems. Within every existing and every future residence, each crawlspace will include one 220 cubic foot per minute (CFM) fan running continuously for a total of 302,400 CFM of air removed daily, averaging 4-8 air exchanges an hour, which significantly exceeds the LA Code of one air exchange per hour (the applicable guidance as no Oregon guidance is available). Crawlspace fans will be Durablow® Crawlspace Ventilation fans, model M2D. Fan cut sheets are attached. Garages will also be vented using single 110 CFM WhisperCeling® DC™ fans running continuously for 158,000 CFM daily or 2-3 air exchanges an hour. A cut sheet for the fan model is attached. Methane alarms will also be placed in every crawlspace and garage. Each garage and crawlspace also include methane alarms. Alarms will consist of Kidde KN-COEG-3 carbon monoxide and explosive gas alarms that include a metal oxide sensor to detect methane or propane.

Additionally, any existing onsite utilities will be retrofitted with trench dams and appropriate sealing; particular attention will be paid to sealing electrical conduits to prevent the migration of methane to electrical connections at residences. All underground electrical conduits will be sealed wherever they enter any above-, or below-ground feature or possible zone of methane accumulation (e.g., vaults, junction boxes, circuit breaker boxes, light poles, etc. Any electrical conduit leaving the property will also be sealed to prevent off-site migration. Future utilities will include sealing and trench dams as part of the original installation.

Vapor membranes will be installed beneath future garage slabs as an added level of protection, though the recent methane monitoring in existing crawlspaces and garages showed no detections of methane. Membranes will consist of a 60-millimeter HDPE geomembrane or equivalent.

Attachments:

Table 1 – Summary of Detected Soil Analytical Results – TPH, VOCs, and Metals

Table 2 – Summary of Detected Soil Analytical Results – Dioxins and Furans

Figure 1 – Site Location Map

Figure 2 – Site Plan with Completed Plats

Figure 3 – Conceptual Schematic – Methane Probe

Attachment 1 – Aerotech Environmental Consulting Inc., 2020. *Landfill Gas Survey, Philomath Mill Site, 1701 Chapel Drive, Philomath, Oregon 98442.* June 10, 2020.

Attachment 2 – Laboratory Report

Attachment 3 – Geophysical Report

Attachment 4 – Waste tickets

Attachment 5 – Crawlspace and Garage Screening Field Sheets

Attachment 6 – Cut Sheet: WhisperCeiling DC ventilation fan

Table 1. Summary of Detected Soil Analytical Results - TPH, VOCs, and Metals

Mill Pond Crossing
1701 Chapel Drive
Philomath, Oregon

Sample ID	Sample Date	Depth Collected (feet bgs)	TPH	VOCs		Detected Metals					
			Heavy Oil	2-Methylnaphthalene	Naphthalene	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium
mg/kg											
Ditch-1	10/22/2020	1.5	61.8	ND	ND	3.03	290	ND	56.6	5.43	ND
Ditch-2	10/22/2020	1.5	375	0.0269	0.0269	4.49	83.2	0.369	38.3	26.7	ND
Ditch-3	10/22/2020	1.5	ND	--	--	4.64	219	ND	45.1	14.3	ND
Ditch-4	10/22/2020	1.5	63.4	--	--	4.33	242	ND	115	8.52	ND
Ditch-5	10/22/2020	1.5	ND	--	--	3.24	262	ND	124	7.86	ND
DU-1--After Processing	10/23/2020	1 to 5	--	--	--	9.16	450	ND	90.2	16.3	ND
DU-2--After Processing	10/23/2020	1 to 5	--	--	--	4.06	318	ND	86.1	9.01	1.14
DU-3--After Processing	10/22/2020	1 to 5	343	--	--	--	--	--	--	--	--
Oregon DEQ RBC ¹ - Soil Ingestion, Dermal Contact, and Inhalation	Residential		1,200	NS	5.3	0.43	15,000	78	120,000	400	NS
	Construction Worker		9,700	NS	580	15	69,000	350	530,000	800	NS
Oregon DEQ RBC ¹ - Leaching to Groundwater	Residential		9,500	NS	0.077	*	*	*	*	30	NS
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air	Residential		>Max	NS	6.4	NV	NV	NV	NV	NV	NS
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings	Residential		>Max	NS	6.4	NV	NV	NV	NV	NV	NS
DEQ Regional Default Background Concentrations for Metals (South Willamette)			NS	NS	NS	18	730	1.6	100	28	0.68

Notes:

See laboratory report for full list of analytes and method reporting limits.

Bold: Indicates an exceedance of the regional background concentrations and/or Method A Soil Cleanup Levels for Unrestricted Land Use.

Metal concentrations are initially screened against regional background levels, then RBCs.

--: analyte not tested

bgs: below ground surface

mg/kg: milligrams per kilogram

DEQ: Department of Environmental Quality

ND: compound not detectable above method reporting limits

NS: screening level not set for this compound.

NV: This chemical is considered "nonvolatile" for purposes of the exposure calculations.

RBCs: risk-based concentration

TPH: total petroleum hydrocarbons

>Max: calculated value is greater than 1,000,000 mg/kg, substance does not pose a risk

¹Oregon Risk-Based Decision-Making for the Remediation of Petroleum-Contaminated Sites, Oregon DEQ Sept. 2003, Revised RBCs May 2018

Table 2: Summary of Soil Analytical Results - Dioxins/Furans

Mill Pond Crossing
1701 Chapel Drive
Philomath, Oregon

COMPOUND	TEF	DU-1-After Processing	DU-2-After Processing	Calculation Sample 1	Calculation Sample 2
		pg/g			
Dioxins					
		Result	Result	Result	Result
2,3,7,8-TCDD	1	<0.166	<0.194	<0.166	<0.194
1,2,3,7,8-PeCDD	1	0.582	<0.168	0.582	<0.168
1,2,3,4,7,8-HxCDD	0.1	1.47	<0.211	0.147	<0.211
1,2,3,6,7,8-HxCDD	0.1	3.43	<0.201	0.343	<0.201
1,2,3,7,8,9-HxCDD	0.1	2.36	<0.209	0.236	<0.209
1,2,3,4,6,7,8-HpCDD	0.01	97.4	2.46	0.974	0.0246
1,2,3,4,6,7,8,9-OCDD	0.0003	1120	22.2	0.336	0.00666
Total PeCDD		3.76	0.171	3.76	0.171
Total HxCDD		23.9	0.711	0	0.711
Total HpCDD		176	4.4	176	4.40
Furans					
2,3,7,8-TCDF	0.1	0.347	<0.268	0.0347	<0.268
1,2,3,7,8-PeCDF	0.03	0.364	0.176	0.01092	0.00528
2,3,4,7,8-PeCDF	0.3	0.490	<0.163	0.147	<0.163
1,2,3,4,7,8-HxCDF	0.1	0.939	0.243	0.0939	0.0243
1,2,3,6,7,8-HxCDF	0.1	0.631	<0.179	0.0631	<0.179
2,3,4,6,7,8-HxCDF	0.1	0.809	<0.179	0.0809	<0.179
1,2,3,7,8,9-HxCDF	0.1	0.489	<0.279	0.0489	<0.279
1,2,3,4,6,7,8-HpCDF	0.01	14.8	0.880	0.148	0.0088
1,2,3,4,7,8,9-HpCDF	0.01	0.766	<0.389	0.00766	<0.389
1,2,3,4,6,7,8,9-OCDF	0.0003	25.6	<0.544	0.00768	<0.544
Total TCDF		1.78	<0.268	1.78	<0.268
Total PeCDF		8.23	0.909	8.23	0.909
Total HxCDF		21.8	1.49	21.8	1.49
Total HpCDF		42.2	1.89	42.2	1.89
TEQ WHO2005 ND=0 with EMPCs				3.26	0.0696
TEQ WHO2005 ND=0.5 with EMPCs				3.35	0.35
Oregon DEQ RBC ¹ - Soil Ingestions, Dermal Contact, and Inhalation	2,3,7,8-TCDD (dioxin) equivalents**	Residential	47		
		Occupational	16		
		Construction Worker	170		

Notes:

¹Calculation of the Total 2378-TCDD TEF was calculated by the laboratory using ITE Factors.

Italicized values represent results where individual compounds were not detected above detection limits.

Laboratory results using EPA Method 1613. Values in nanograms per liter (ng/L).

TEF - Toxic Equivalency Factor. One-half the detection limit used for non detected compounds in TEQ calculation (non-detects indicated by *italics*).

¹Oregon Risk-Based Concentrations for Individual Chemicals, Oregon DEQ Sept. 2003, Revised RBCs May 2018

**Compounds in this category are considered in aggregate as a chemical class and should be evaluated as single substances.

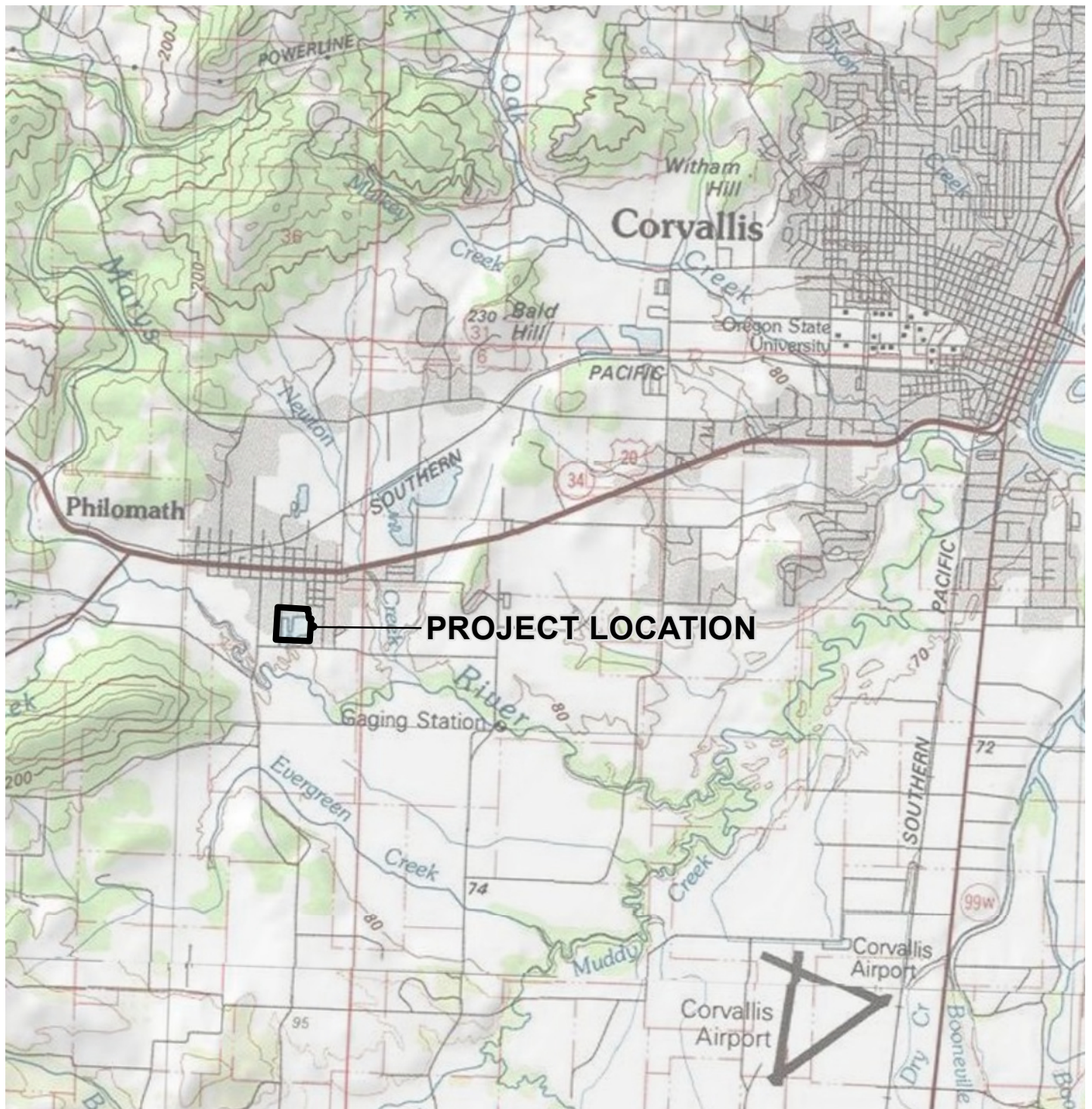
Dioxins

2378-TCDD - 2,3,7,8-tetrachlorodibenzo-p-dioxin
12378-PeCDD - 1,2,3,7,8-pentachlorodibenzo-p-dioxin
123789-HxCDD - 1,2,3,7,8,9-hexachlorodibenzo-p-dioxin
123478-HxCDD - 1,2,3,4,7,8-hexachlorodibenzo-p-dioxin
123678-HxCDD - 1,2,3,6,7,8-hexachlorodibenzo-p-dioxin
1234678-HpCDD - 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin
OCDD - 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin

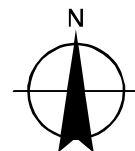
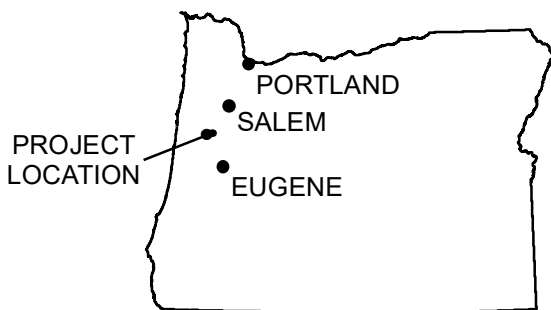
Furans

2378-TCDF - 2,3,7,8-tetrachlorodibenzofuran
12378-PeCDF - 1,2,3,7,8-pentachlorodibenzofuran
23478-PeCDF - 2,3,4,7,8-pentachlorodibenzofuran
123678-HxCDF - 1,2,3,6,7,8-hexachlorodibenzofuran
123789-HxCDF - 1,2,3,7,8,9-hexachlorodibenzofuran
123478-HxCDF - 1,2,3,4,7,8-hexachlorodibenzofuran
234678-HxCDF - 2,3,4,6,7,8-hexachlorodibenzofuran
1234678-HpCDF - 1,2,3,4,6,7,8-heptachlorodibenzofuran
1234789-HpCDF - 1,2,3,4,7,8,9-heptachlorodibenzofuran
OCDF - 1,2,3,4,6,7,8,9-octachlorodibenzofuran

\\pbsenv\lan\Projects\24000\24100-24199\24159 Mill Pond\GIS\Fig1_SiteVicinity.mxd



SOURCES: USGS NATIONAL MAP
PROJECTION: NAD 2011 OREGON STATEWIDE LAMBERT INTL FT



SCALE: 1" = 1 mile



PREPARED FOR: MILLPOND CROSSING, LLC



SITE VICINITY

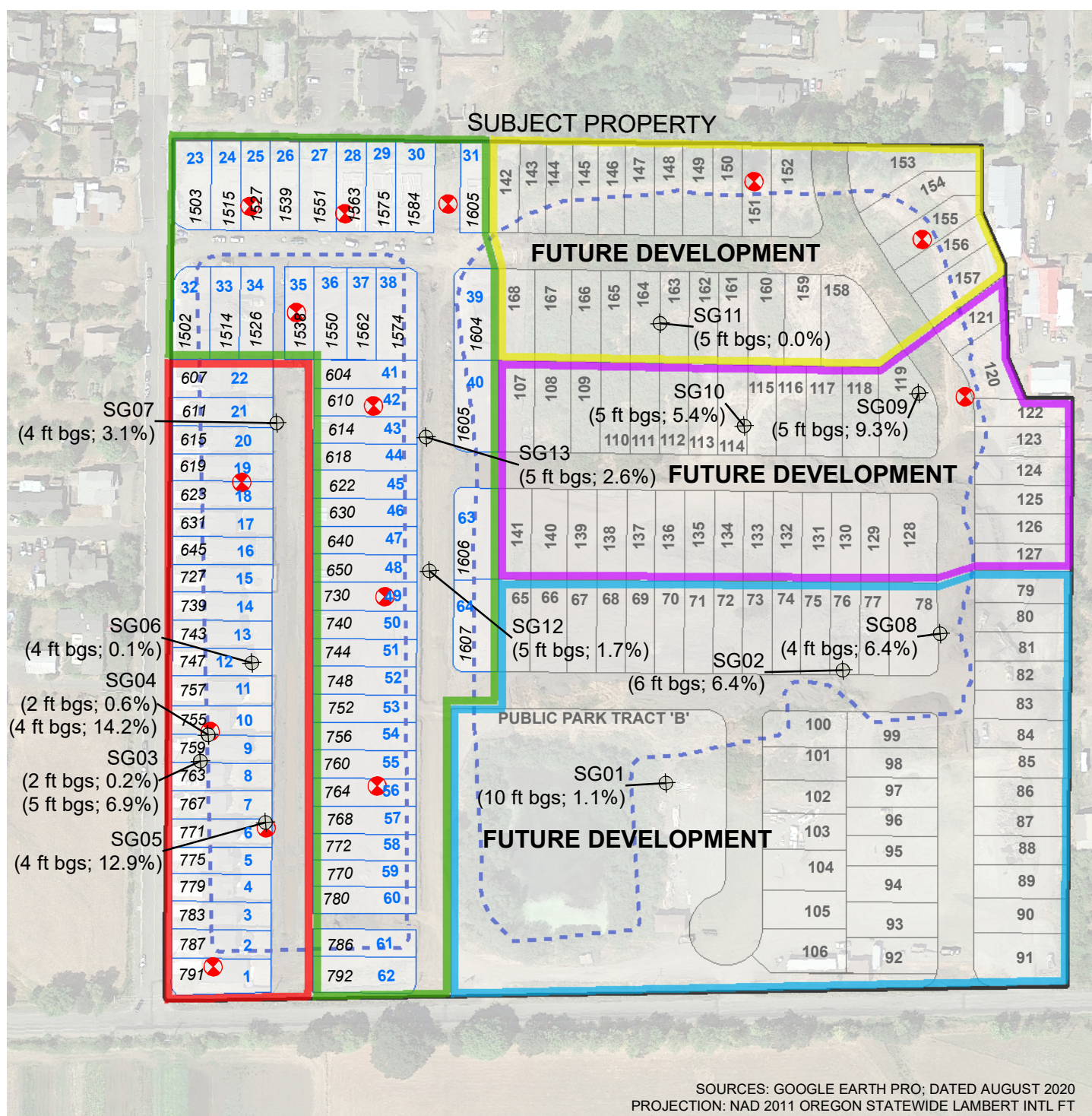
1701 CHAPEL DRIVE
PHILOMATH, OREGON

MAR 2021
24159.000

FIGURE

1

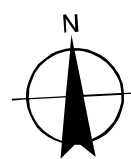
L:\Projects\24000\24100-24199\24159 Mill Pond GIS\Fig2 CompletedPlots.mxd



SOURCES: GOOGLE EARTH PRO; DATED AUGUST 2020
 PROJECTION: NAD 2011 OREGON STATEWIDE LAMBERT INTL FT

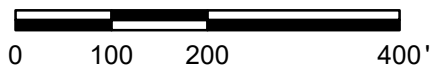
LEGEND

- ⊕ Aerotech Soil Boring Location (2020), with Depth and Methane Concentration (%)
- ⊗ Methane Monitoring Location
- Plat of Completed House with *House Number* and **Lot Number**
- Future Development Plat with Lot Number
- ⋯ Historical Log Pond Filled with Clay and Organic Material



Map Rotation:
3° West

SCALE: 1" = 200'



PREPARED FOR: MILLPOND CROSSING, LLC



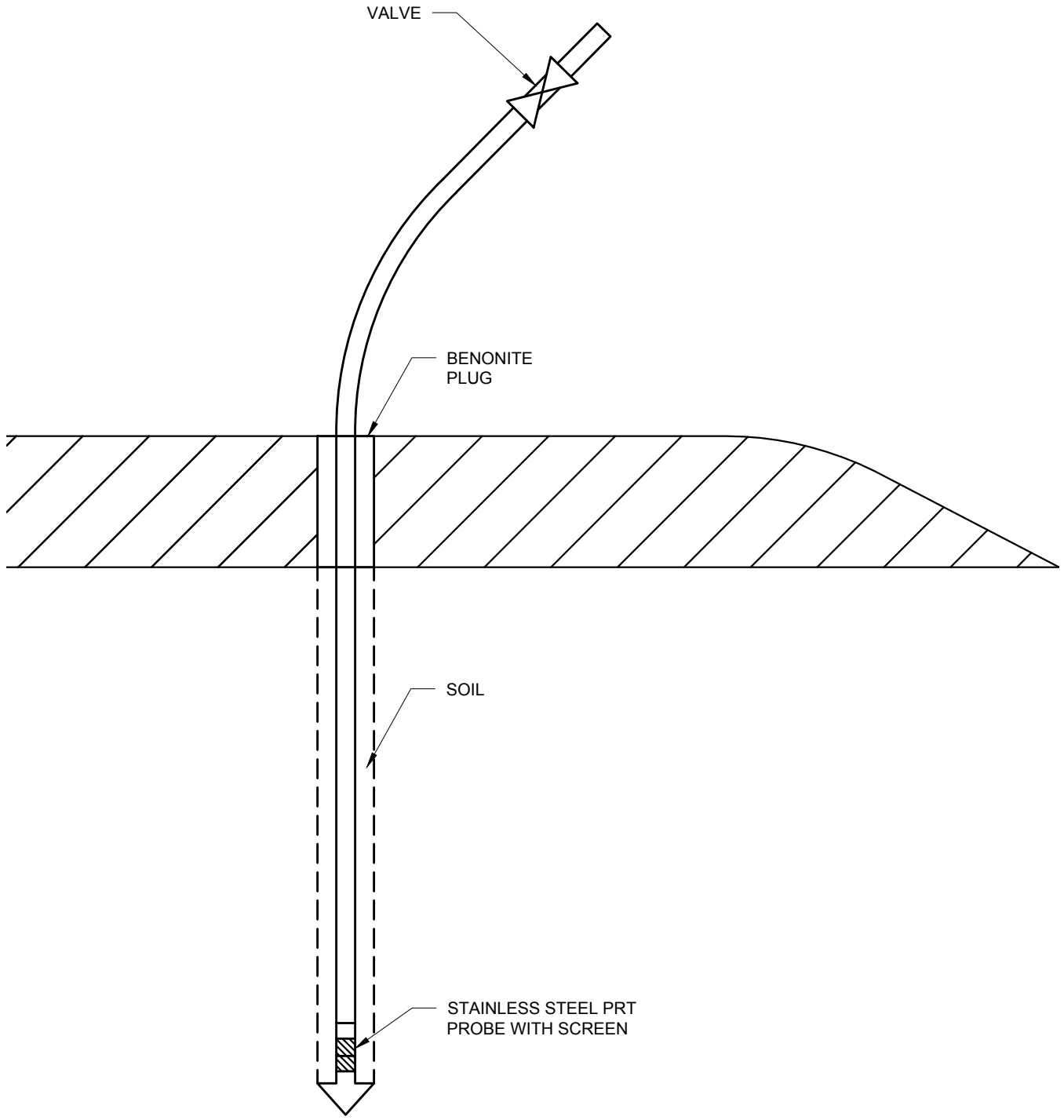
SITE PLAN WITH COMPLETED PLATS

1701 CHAPEL DRIVE
 PHILOMATH, OREGON

MAR 2021
 24159.000

FIGURE

2



PREPARED FOR: MILL POND CROSSING LLC



CONCEPTUAL SCHEMATIC - METHANE PROBE

1701 CHAPEL DRIVE
PHILOMATH, OREGON

MAR 2021
24159.000

FIGURE

3

LANDFILL GAS SURVEY

Performed at:
Philomath Mill Site
1701 Chapel Drive
Philomath, Oregon 98442

AEROTECH
Environmental Consulting Inc.

June 10, 2020

Anchorage Seattle Portland

Cost-effective environmental solutions
for the western United States and Alaska

www.AerotechEnvironmental.com

LANDFILL GAS SURVEY

Performed at:

Philomath Mill Site
1701 Chapel Drive
Philomath, Oregon 98442

June 10, 2020

Performed by:

AEROTECH Environmental Consulting Inc.

13925 Interurban Avenue South, Suite No. 210

Seattle, Washington 98168

Fax 206 402 3872

866 800 4030

www.AerotechEnvironmental.com

LANDFILL GAS SURVEY

Client: **Mr. LEVI MILLER**

Address: 1701 Chapel Drive
Philomath, Oregon 97370

Point of Contact: Levi Miller
541-390-6977

Property: **PHILOMATH MILL SITE**
1701 Chapel Drive
Philomath, Oregon

County: Benton County, Oregon

Parcel Number: 12612D000600A2

Commercial Activity: None; former lumber mill

Report Date: June 10, 2020

EXECUTIVE SUMMARY

This *Landfill Gas Survey* was conducted at the Property located at 1701 Chapel Drive in Philomath, Oregon, formerly occupied by the *Hoban Lumber Company* as a sawmill and wood processing facility (Property).

The survey was performed as part of environmental assessment activities recommended by the State of Oregon Department of Environmental Quality (“DEQ”).

Previous environmental assessment activities had identified the presence of contaminants in concentrations above Risk Based Concentrations (“RBCs”) in Property soil, prompting the Site to be listed in the Environmental Cleanup Site Information database on October 22, 2018. Based on the presence of contaminants in Property soil and the historic use of the Property as a sawmill and lumber processing plant, the DEQ has recommended further investigation of contaminants potentially released to the Property, including an assessment of the former Log Ponds for the presence of methane (“CH₄”) and carbon dioxide (“CO₂”), Landfill Gas (“LFG”) within soil.

The LFG survey scope of work was initially presented by Aerotech in the *Proposed Work Plan for Supplemental Site Characterization* submitted to the DEQ on October 25, 2019. The proposed LFG survey was approved by the DEQ by electronic correspondence on April 13, 2020. The DEQ also recommended additional survey locations to those initially proposed by Aerotech in the October 25, 2019 Work Plan.

Aerotech oversaw the advancement of thirteen (13) soil borings on June 1, 2020. A total of fifteen (15) landfill gas readings were read by a Landtec-branded GEM 5000 instrument which analyzes subsurface gases brought into the device via an polyethylene tubing and an internal pump. The GEM 5000 samples and analyzes the methane, carbon dioxide and oxygen content of landfill gas with options for additional analysis, including, oxygen, hydrogen sulfide and carbon monoxide. Each reading was collected after a fresh air calibration of the device.

The results are summarized in **Table 1**.

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INTRODUCTION

Mr. Levi Miller engaged Aerotech Environmental Consulting, Inc. (“Aerotech”) of Seattle, Washington to survey for the presence of Landfill Gas within the subsurface at the subject Property located at 1701 Chapel Drive, in Philomath, Oregon (“Property”). The purpose of this *Landfill Gas Survey* is additionally assess for subsurface impacts potentially caused by the historic use of the Property as a sawmill and lumber processing facility per the *Proposed Work Plan for Supplemental Site Characterization Work Plan* submitted to the State of Oregon Department of Department of Environmental Quality (“DEQ”), October 24, 2019.

SECTION I. SITE DESCRIPTION

Property Description:

The subject Site is a square-shaped approximately 29.5-acre Parcel of commercial land located in Philomath, Oregon, formerly occupied by the *Hoban Lumber Company* as a sawmill and lumber processing facility (Property; **Figures 1** through **3**).

The Property was formerly agricultural land first developed by the *Hoban Lumber Company* in the 1950’s. The initial development included two log ponds, mill operations buildings, and a refueling area. The log ponds consisted of an elongated pond on the western portion of the Property and a larger area pond on the northeast portion of the Property. The mill operations were located in the southeast portion of the Property. Mill operations have included sawmills, wood-waste burners, fire protection equipment, lumber and log loading equipment, and fueling facilities.

Stormwater drains generally north to south, and during mill operations, stormwater was reportedly directed into ditches and waterways along 15th Street and Chapel Drive.

Dismantling of the mill structures began in in 1998 and were completed by 2000. Currently the Property consists of two vacant steel buildings and the concrete pads of former mill operations buildings. The two log ponds have been reportedly filled with wood waste. Aerotech noted the presence of an approximately 30-foot deep groundwater monitoring well in the southern portion of the Property.

Previously Identified Contaminants of Concern:

Phase I Environmental Site Assessment

A *Phase I Environmental Site Assessment*, (“ESA”) for which the Property was the subject of, was completed May 14, 2018 by Aerotech. The May 14, 2018 Phase I ESA identified Contaminants of Concern potentially present within Property subsurface as compounds related to the historic activities performed in the following areas:

Former Log Ponds:

The two log ponds, estimated to have a depth of twelve feet, were reportedly filled with wood waste and debris during the decommissioning of the lumber mill. Contaminants of concern in the area of the filled log ponds include total petroleum hydrocarbons (TPH) as diesel and oil and Resource Conservation and Recovery Act (“RCRA”) listed metals, which include Arsenic, Barium, Chromium, Cadmium, Lead, Mercury, Selenium, and Silver.

Drainage Ditches:

A series of drainage ditches ran through the Property and discharged into swales located along 15th Street and Chapel Drive. In 1990, the DEQ issued a *Notice of Non-Compliance* with regard to the Property for allowing “water polluted from the mill to run into the drainage ditches.” Contaminants of Concern included petroleum hydrocarbons, Pentachlorophenol (“PCP”); metals; chlorinated Volatile Organic Compounds (cVOCs); Polychlorinated Biphenyls (“PCBs”); and pesticides and herbicides.

Truck Refueling Area:

The truck refueling area was located adjoining the steel building presently located along Chapel Drive. Further investigation in this area should include a survey for abandoned underground storage tanks (“USTs”) and a subsurface assessment for petroleum hydrocarbons.

Log Loading Area (Mill B):

Former employees reported that the log loading area known as Mill B leaked hydraulic fluid during mill operations. Aerotech recommended that investigation in this area should include an assessment for the presence of TPH as oil.

Phase II Limited & Targeted Subsurface Investigation

To assess for the presence of the Contaminants of Concern listed above, Aerotech oversaw the advancement of twenty-three (23) soil borings on May 21 and 22, 2018. Lithologic conditions indicate that in the area of the former mill operations, coarse-grained sediments are present to no deeper than four (4) feet below ground surface where they are underlain by clay-rich sediments. The log ponds consist of fill materials, dominantly wood debris and organic material. The fill material functions as a water-bearing zone that is non-contiguous with the remainder of the Property and is underlain by unsaturated native clay-rich sediments.

Laboratory analytical results of soil and water samples collected during the May 21 and 22, 2018 assessment activities were compared to the generic (not Site-specific) Risk Based Concentrations (“RBCs”) as presented in Appendix A of the September 22, 2003 DEQ publication entitled *Risk-Based Decision Making for the Remediation of Contaminated Sites* (“RBDM Guidance”).

Two soil samples contained detections of diesel and/or oil above the RBC for dermal contact in soil: 1) a soil sample collected from the shallow coarse-grained upper sediments in Soil Boring B6 in the area identified as formerly containing drainage ditches; and 2) a soil sample collected from the base of a former log pond in Soil Boring B19. Based on these results, Aerotech recommended additional vertical and lateral delineation for the presence of diesel and oil in these

locations in order to assess the most effective means of achieving remedial compliance with the DEQ.

Additional Subsurface Investigation

On June 22, 2018, direct push soil borings were advanced at eight (8) locations: four (4) soil borings were advanced in locations surrounding previous Soil Boring B6 and four (4) soil borings were advanced in locations surrounding previous Soil Boring B19. Depth discrete soil samples were collected from each of the soil borings and analyzed for total petroleum hydrocarbons (“TPH”) as diesel and oil by DEQ Method NWTPH-Dx/Extended using a mobile laboratory.

None of the soil samples analyzed during the June 22, 2018 additional subsurface investigation contain detectable concentrations of diesel or oil. The soil samples were collected from laterally discrete and depth discrete locations in relation to soil samples collected during a May 21 and 22, 2018 subsurface investigation. Laboratory analytical results from the prior investigation confirmed the presence of soil impacts with TPH concentrations above DEQ RBCs for dermal contact in Soil Borings B6 and B19.

Based on the results of the June 22, 2018 investigation, TPH impacts to soil above DEQ RBCs in the location of Soil Boring B6 are limited to an area of 10 feet north, 10 feet south, 5 feet east, and 5 feet west of previous Soil Boring B6 and at depths shallower than 4 feet (below ground surface (“bgs”). TPH impacts to soil above DEQ RBCs in the location of Soil Boring B19 is limited to an area of 10 feet east, 10 feet west, 5 feet north, and 5 feet south of previous Soil Boring B19. Laboratory results from the May 21 and 22, 2018 and the June 22, 2018 investigations indicate that soil above 8 feet bgs and below 11.5 feet bgs does not contain detectable concentrations of TPH as diesel and oil in the location of previous Soil Boring B19.

In order to comply with DEQ regulations regarding the presence of TPH impacted soil in concentrations above DEQ RBCs, Aerotech recommended removal and regulated disposal of the all soil in areas and depths described above.

VOLUNTARY CLEANUP PROGRAM

Based on the presence of contaminants in concentrations above RBCs in Property soil, the Site was listed in the Environmental Cleanup Site Information database as maintained by the DEQ on October 22, 2018. Further investigation of contaminants potentially released to the Property subsurface from activities performed during sawmill and lumber processing was requested by DEQ as previous assessment work was deemed insufficient. Specifically, the DEQ requested additional investigation of the following to be presented in a Work Plan.

- Assess shallow soil in the areas of the former waste-wood burners (also known as “Wigwam Burners”) for the presence of dioxins and semi-volatile organic compounds (“SVOCs”), and metals.
- Assess the former log ponds for the presence of methane and carbon dioxide (“CO²”) in soil vapor in order to examine the potential for vapor intrusion.

- Document the use of Ground Penetrating Radar to assess for the presence of USTs.
- Re-examine the truck refueling area; assess deeper soil and groundwater for the presence of petroleum hydrocarbons.
- Assess soil and groundwater in any areas potentially containing oil-driven log chain equipment; assess for polycyclic aromatic hydrocarbons (“PAHs”) and diesel/oil.
- Collect shallow soil samples from the ditch along Chapel Drive, assess soil for diesel/oil and metals.

Work Plan

On October 25, 2019, Aerotech submitted *Proposed Work Plan for Supplemental Site Characterization* to the DEQ, which proposed the advancement of at least 20 subsurface soil borings utilizing direct-push or hand auger drilling technology in the localities historical research has shown to be locations of waste-wood burners, fueling operations, drainage ditches, and log chain equipment. Additionally, Aerotech proposed the measurement of methane and carbon dioxide (“Landfill Gas”, “LFG”) from at least seven (7) to temporarily installed subsurface vapor points within the former log ponds. Lastly, Aerotech proposes to oversee a methodical scan for USTs in the mill operations area by ground penetrating radar (“GPR”).

The October 25, 2019 Work Plan was approved by the DEQ by electronic correspondence on April 13, 2020. The approval correspondence included additional recommendations to the Scope of Work.

LFG Survey

The assessment activities documented in this report only include the LFG Survey work. The remaining subsurface assessment work will be addressed at an addition date and documented in a separate report.

SECTION II. FIELD WORK

Notifications – “Public Utilities:

Due to the age and nature of the Site, a “public” utilities notification was performed prior to the start of work. Aerotech requested the notification on May 26, 2020 and was issued ticket number 201385553 by the Utilities Underground Location Center (“UULC”).

According to the UULC the utilities in the vicinity of the Site that required notification included:

Company	Marking Concerns	Customer Service	Repair
BENTON COUNTRY PUBLIC WORKS	(541)766-6821	(541)766-6821	(541)766-6821
COMCAST CABLE COMM MNGMT, LLC	(801)364-1063	(866)873-9735	(503)617-1212
CITY OF PHILOMATH	(541)929-3579	(541)929-3579	(541)929-3579
NW NATURAL	(503)220-2415	(503)220-2415	(800)882-3377
PACIFIC POWER	(503)255-4634	(888)221-7070	(888)221-7070
PIONEER TEL COMPANY	(503)255-4634	(253)502-8344	(253)502-8344

Site Activities:

Thirteen (13) soil borings were completed during the Landfill Gas Survey, performed on June 1, 2020, under contract with Aerotech. No unusual or unforeseen circumstances occurred during the Site activities.

The subsurface borings were advanced by equipment owned by and operated by Drillers from Standard Environmental Probe (“SEP”) of Tumwater, Washington. The on Site drilling equipment was operated by personnel employed by SEP, supervised by Mr. Chris Ross.

Soil Borings:

Direct push soil borings were advanced at thirteen (13) locations on Site within the area of the former Log Ponds as per the October 25, 2019 Work Plan and the April 13, 2020 electronic correspondence.

Landfill Gas Assessment:

A total of thirteen (13) landfill gas readings were read by a Landtec-branded GEM 5000 instrument which analyzes subsurface gases brought into the device via an polyethylene tubing and an internal pump. The GEM 5000 samples and analyzes the methane, carbon dioxide and oxygen content of landfill gas with options for additional analysis, including, oxygen, hydrogen sulfide and carbon monoxide. Each reading was collected after a fresh air calibration of the device. Readings were collected by Aerotech on June 1, 2020.

SECTION III.

SURVEY RESULTS

Landfill gas (LFG), which consists of approximately 50 percent methane, 50 percent carbon dioxide, and trace amounts of other organic compounds, is a natural byproduct produced by the decomposition of organic material in landfill sites.

In order to assess for the presence of Landfill Gas within the subsurface of the former area of the Log Ponds, Aerotech collected 13 subsurface gas readings from 13 soil borings on June 1, 2020. The results are summarized in **Table 1**.

ENCLOSURES

- Table and Figures
- Photographs

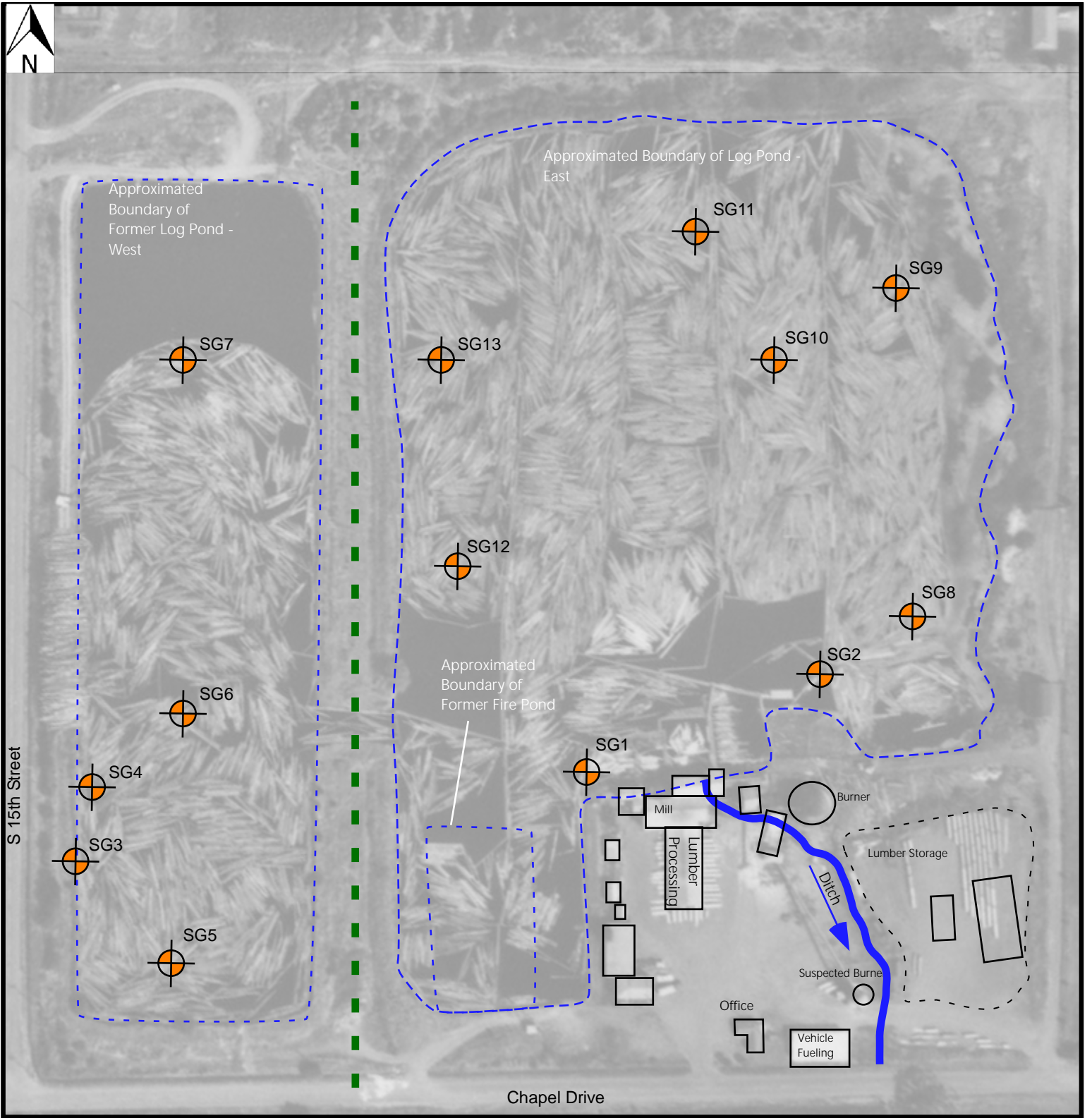
- Table and Figures

TABLE 1
LANDFILL GAS RESULTS
Philomath Mill Site
1701 Chapel Drive
Philomath, Oregon

Aerotech Environmental Consulting, Inc. - Landfill Gas Survey, June 9, 2020

Soil Boring ID	Location		Boring Depth	Survey Date	Methane (CH ₄)	Carbon Dioxide (CO ₂)	Oxygen (O ₂)	Hydrogen Sulfide (H ₂ S)	Carbon Monoxide (CO)
	Latitude	Longitude							
SG1	44.533230°	-123.362365°	10	6/1/2020	1.1	20.5	6.0	0	16
SG2	44.533641°	-123.361424°	6	6/1/2020	6.4	9.7	16.0	0	17
SG3	44.533342°	-123.364808°	2	6/1/2020	0.2	4.0	15.9	0	8
			5	6/1/2020	6.9	9.7	16.0	0	22
SG4	44.533440°	-123.364766°	2	6/1/2020	0.6	10.3	17.3	0	26
			4	6/1/2020	14.2	25.1	10.9	0	24
SG5	44.533108°	-123.364472°	4	6/1/2020	12.9	28.0	1.3	0	17
SG6	44.533708°	-123.364530°	4	6/1/2020	0.1	23.3	2.7	0	3
SG7	44.534609°	-123.364377°	4	6/1/2020	3.1	7.3	13.0	0	16
SG8	44.533772°	-123.360909°	4	6/1/2020	6.4	9.3	11.7	0	20
SG9	44.534678°	-123.360999°	5	6/1/2020	9.3	6.6	14.9	0	2
SG10	44.534567°	-123.361920°	5	6/1/2020	5.4	4.8	17.8	0	27
SG11	44.534957°	-123.362352°	5	6/1/2020	0	7.3	13.7	0	1
SG12	44.534042°	-123.363587°	5	6/1/2020	1.7	2.2	20.0	0	6
SG13	44.534545°	-123.363592°	5	6/1/2020	2.6	6.0	16.6	0	9

Mean	4.73	11.61	12.92	0.00	14.27
Median	3.10	9.30	14.90	0.00	16.00



EXPLANATION



Landfill Gas Survey Point



Subsurface Sanitary Sewer Line



SCALE (feet)



LANDFILL GAS SURVEY
POINT LOCATIONS -
Superimposed on Historical
Map

Philomath Mill
1701 Chapel Drive
Philomath, Oregon

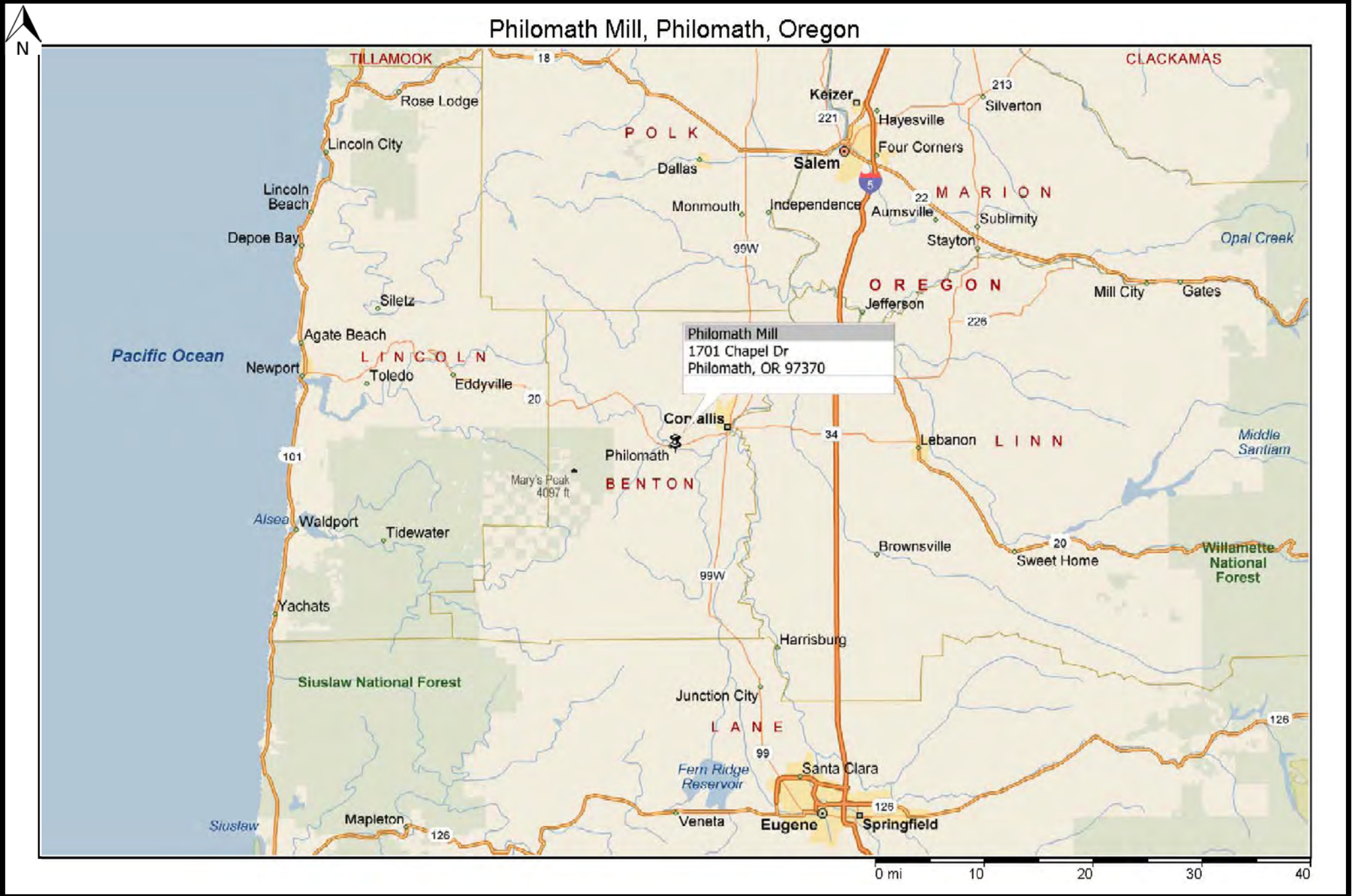
Date: 06/03/20

By: Simon Payne

Figure:

1

Philomath Mill, Philomath, Oregon



Philomath Mill
1701 Chapel Dr
Philomath, OR 97370

0 mi 10 20 30 40

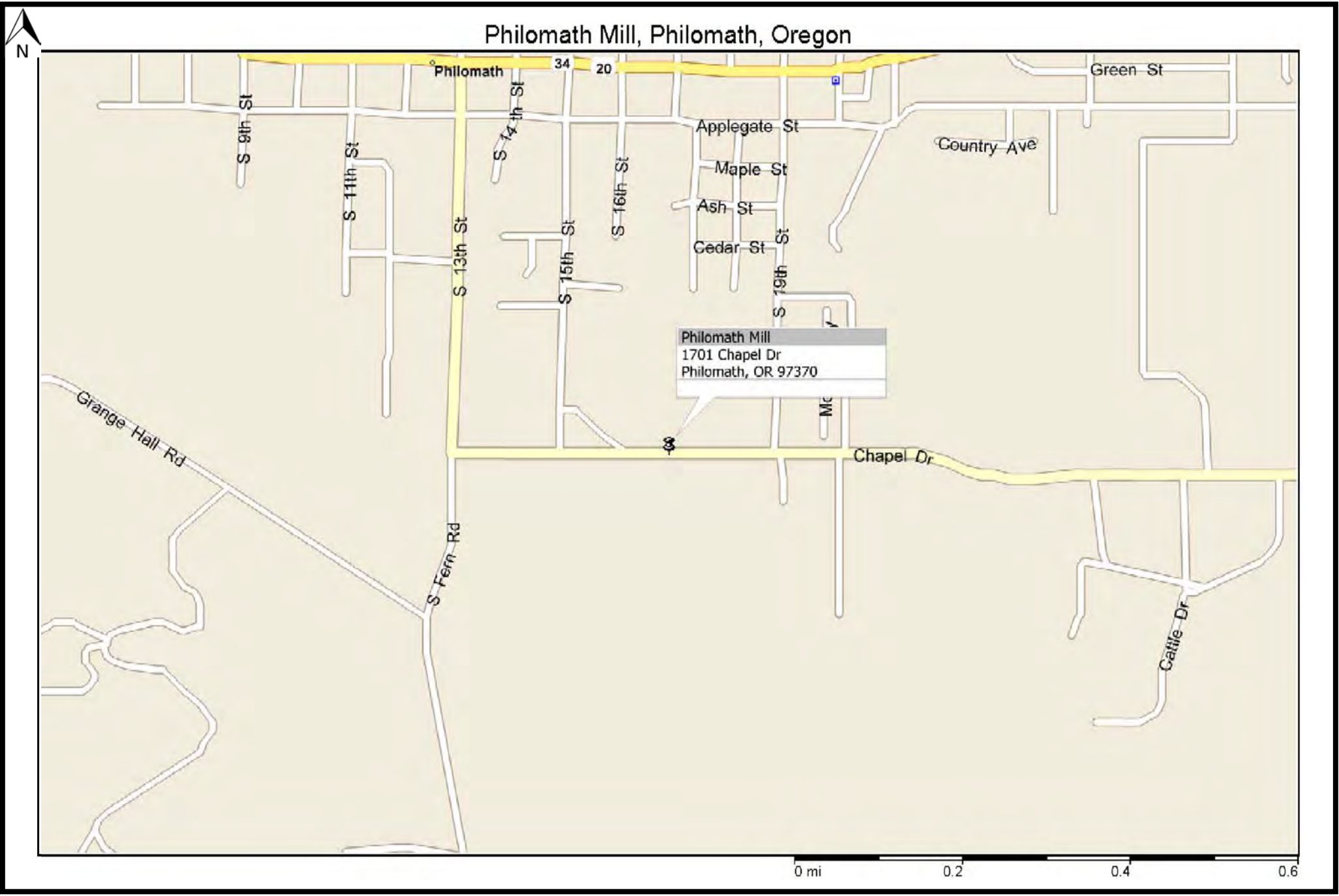


REGIONAL MAP

Philomath Mill
1701 Chapel Drive
Philomath, Oregon

Date: 06/05/18
By: Nick Gerkin
Figure: 1

Philomath Mill, Philomath, Oregon



NEIGHBORHOOD MAP

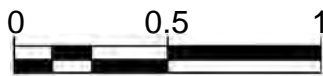
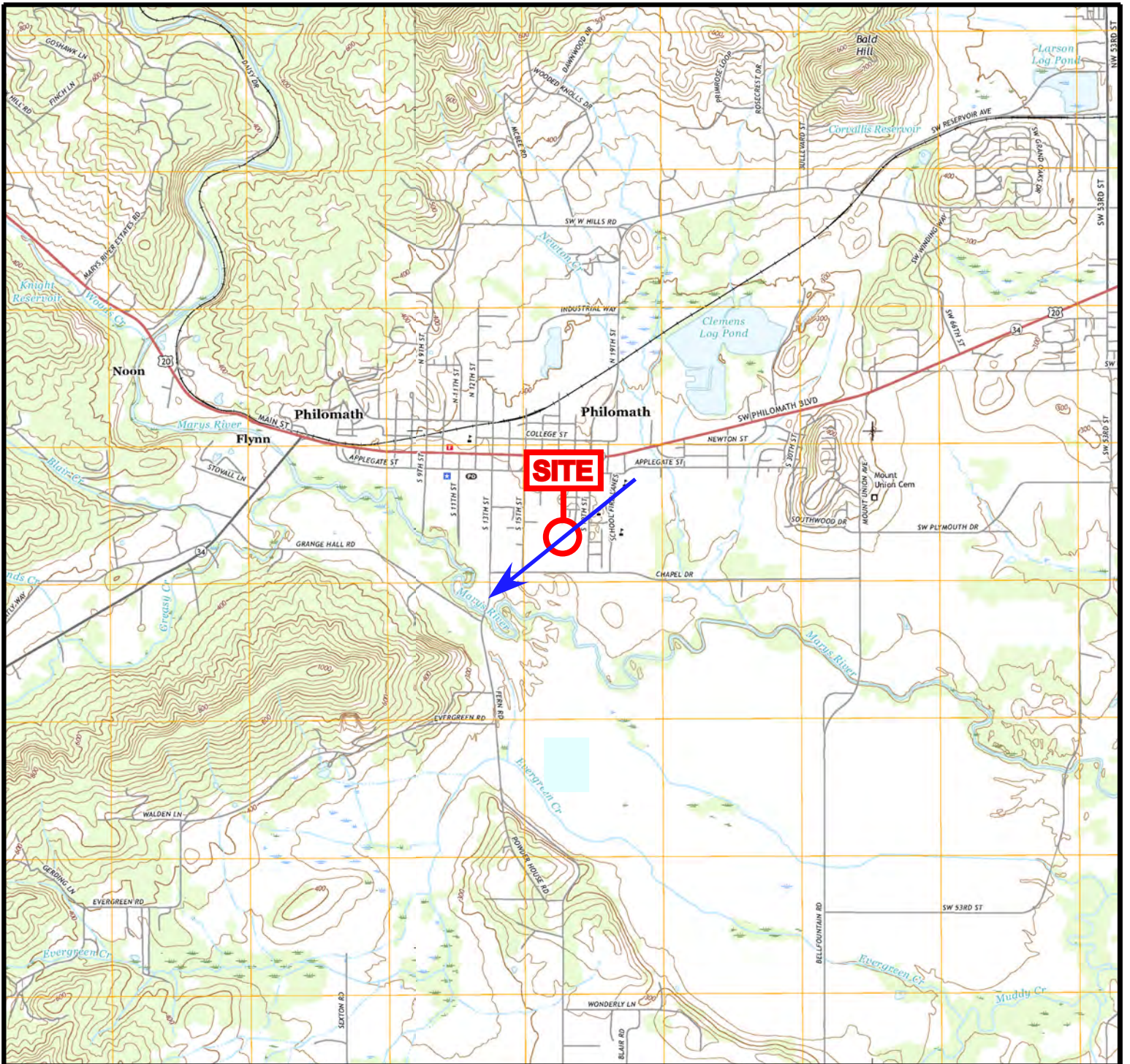
Philomath Mill
1701 Chapel Drive
Philomath, Oregon

Date: 06/05/18

By: Nick Gerkin

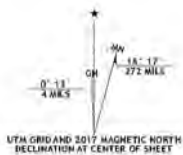
Figure:

2



SCALE (mile)

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988



Inferred Groundwater
Flow Direction



- Photographs



Looking southeast; advancing Soil Boring SG5 by direct push.



Collecting Landfill Gas reading through polyethylene tubing inserted into a sealed borehole.



Landfill Gas reading; GEM 5000 instrument



Performance of Landfill Gas survey through borehole sealed at surface.



Looking south-southeast toward the southeast corner of property; eastern former Log Pond in foreground.



Looking east from west side of property; western former Log Pond in foreground.



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Thursday, November 5, 2020

Chris Sheridan
PBS Engineering and Environmental
4412 SW Corbett Ave
Portland, OR 97239

RE: A0J0826 - Millpond Crossing-RSM - 24159.000

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A0J0826, which was received by the laboratory on 10/23/2020 at 5:06:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.9 degC	Cooler #2	4.0 degC
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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

PBS Engineering and Environmental

4412 SW Corbett Ave
Portland, OR 97239

Project: **Millpond Crossing-RSM**

Project Number: **24159.000**
Project Manager: **Chris Sheridan**

Report ID:
A0J0826 - 11 05 20 1258

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DU-3--As Received	A0J0826-01	Soil	10/22/20 11:50	10/23/20 17:06
DU-3--After Processing	A0J0826-02	Soil	10/22/20 11:50	10/23/20 17:06
Ditch-1	A0J0826-03	Soil	10/22/20 15:30	10/23/20 17:06
Ditch-2	A0J0826-04	Soil	10/22/20 15:40	10/23/20 17:06
Ditch-3	A0J0826-05	Soil	10/22/20 15:50	10/23/20 17:06
Ditch-4	A0J0826-06	Soil	10/22/20 16:00	10/23/20 17:06
Ditch-5	A0J0826-07	Soil	10/22/20 16:10	10/23/20 17:06
DU-1--As Received	A0J0826-08	Soil	10/23/20 11:00	10/23/20 17:06
DU-1--After Processing	A0J0826-09	Soil	10/23/20 11:00	10/23/20 17:06
DU-2--As Received	A0J0826-10	Soil	10/23/20 13:15	10/23/20 17:06
DU-2--After Processing	A0J0826-11	Soil	10/23/20 13:15	10/23/20 17:06

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Lisa Domenighini, Client Services Manager



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6700 S.W. Sandburg Street
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4412 SW Corbett Ave
Portland, OR 97239

Project: Millpond Crossing-RSM

Project Number: 24159.000

Project Manager: Chris Sheridan

Report ID:

A0J0826 - 11 05 20 1258

ANALYTICAL CASE NARRATIVE

Work Order: A0J0826

Subcontract

This report is not complete without the attached subcontract laboratory report for Dioxin/Furans from Cape Fear.

Apex Laboratories

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-3--After Processing (A0J0826-02)				Matrix: Soil		Batch: 0101024		
Diesel	ND	---	25.0	mg/kg dry	1	10/29/20 22:29	NWTPH-Dx	
Oil	343	---	50.0	mg/kg dry	1	10/29/20 22:29	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 81 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>10/29/20 22:29</i>	<i>NWTPH-Dx</i>
Ditch-1 (A0J0826-03)				Matrix: Soil		Batch: 0100935		
Diesel	ND	---	27.0	mg/kg dry	1	10/28/20 00:32	NWTPH-Dx	
Oil	61.8	---	54.0	mg/kg dry	1	10/28/20 00:32	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>10/28/20 00:32</i>	<i>NWTPH-Dx</i>
Ditch-2 (A0J0826-04)				Matrix: Soil		Batch: 0100935		
Diesel	ND	---	125	mg/kg dry	5	10/28/20 00:54	NWTPH-Dx	
Oil	375	---	250	mg/kg dry	5	10/28/20 00:54	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 86 %</i>		<i>Limits: 50-150 %</i>		<i>5</i>	<i>10/28/20 00:54</i>	<i>NWTPH-Dx</i>
Ditch-3 (A0J0826-05)				Matrix: Soil		Batch: 0100935		
Diesel	ND	---	29.0	mg/kg dry	1	10/28/20 01:39	NWTPH-Dx	
Oil	ND	---	58.1	mg/kg dry	1	10/28/20 01:39	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>10/28/20 01:39</i>	<i>NWTPH-Dx</i>
Ditch-4 (A0J0826-06)				Matrix: Soil		Batch: 0100935		
Diesel	ND	---	27.7	mg/kg dry	1	10/28/20 02:02	NWTPH-Dx	
Oil	63.4	---	55.4	mg/kg dry	1	10/28/20 02:02	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>10/28/20 02:02</i>	<i>NWTPH-Dx</i>
Ditch-5 (A0J0826-07)				Matrix: Soil		Batch: 0100935		
Diesel	ND	---	27.1	mg/kg dry	1	10/28/20 02:25	NWTPH-Dx	
Oil	ND	---	54.1	mg/kg dry	1	10/28/20 02:25	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 66 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>10/28/20 02:25</i>	<i>NWTPH-Dx</i>

Apex Laboratories

Lisa Domenighini, Client Services Manager

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-1--After Processing (A0J0826-09)				Matrix: Soil		Batch: 0100929		R-04
Acenaphthene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Acenaphthylene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Anthracene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Benz(a)anthracene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Benzo(a)pyrene	ND	---	0.408	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Benzo(b)fluoranthene	ND	---	0.408	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Benzo(k)fluoranthene	ND	---	0.408	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Benzo(g,h,i)perylene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Chrysene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Dibenz(a,h)anthracene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Fluoranthene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Fluorene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
1-Methylnaphthalene	ND	---	0.543	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2-Methylnaphthalene	ND	---	0.543	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Naphthalene	ND	---	0.543	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Phenanthrene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Pyrene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Carbazole	ND	---	0.408	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Dibenzofuran	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2-Chlorophenol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
4-Chloro-3-methylphenol	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,4-Dichlorophenol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,4-Dimethylphenol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,4-Dinitrophenol	ND	---	6.80	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	---	6.80	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2-Methylphenol	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
3+4-Methylphenol(s)	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2-Nitrophenol	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
4-Nitrophenol	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Pentachlorophenol (PCP)	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Phenol	ND	---	0.543	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,4,5-Trichlorophenol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Nitrobenzene	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,4,6-Trichlorophenol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	---	4.08	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Butyl benzyl phthalate	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-1--After Processing (A0J0826-09)				Matrix: Soil		Batch: 0100929		R-04
Diethylphthalate	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Dimethylphthalate	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Di-n-butylphthalate	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Di-n-octyl phthalate	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
N-Nitrosodimethylamine	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
N-Nitrosodiphenylamine	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Hexachlorobenzene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Hexachlorobutadiene	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Hexachlorocyclopentadiene	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Hexachloroethane	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2-Chloronaphthalene	ND	---	0.272	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
1,2,4-Trichlorobenzene	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
4-Bromophenyl phenyl ether	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Aniline	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
4-Chloroaniline	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2-Nitroaniline	ND	---	5.43	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
3-Nitroaniline	ND	---	5.43	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
4-Nitroaniline	ND	---	5.43	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,4-Dinitrotoluene	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
2,6-Dinitrotoluene	ND	---	2.72	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Benzoic acid	ND	---	33.9	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Benzyl alcohol	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Isophorone	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Azobenzene (1,2-DPH)	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	---	6.80	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
3,3'-Dichlorobenzidine	ND	---	5.43	mg/kg dry	40	10/27/20 18:14	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	---	6.80	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
1,3-Dinitrobenzene	ND	---	6.80	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
1,4-Dinitrobenzene	ND	---	6.80	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
Pyridine	ND	---	1.36	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
1,2-Dichlorobenzene	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
1,3-Dichlorobenzene	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	
1,4-Dichlorobenzene	ND	---	0.680	mg/kg dry	40	10/27/20 18:14	EPA 8270E	

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental 4412 SW Corbett Ave Portland, OR 97239	Project: Millpond Crossing-RSM Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-1--After Processing (A0J0826-09)			Matrix: Soil			Batch: 0100929		R-04
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 32 %</i>	<i>Limits: 37-122 %</i>	40		10/27/20 18:14	EPA 8270E	S-05
<i>2-Fluorobiphenyl (Surr)</i>		49 %	44-120 %	40		10/27/20 18:14	EPA 8270E	S-05
<i>Phenol-d6 (Surr)</i>		21 %	33-122 %	40		10/27/20 18:14	EPA 8270E	S-05
<i>p-Terphenyl-d14 (Surr)</i>		55 %	54-127 %	40		10/27/20 18:14	EPA 8270E	S-05
<i>2-Fluorophenol (Surr)</i>		18 %	35-120 %	40		10/27/20 18:14	EPA 8270E	S-05
<i>2,4,6-Tribromophenol (Surr)</i>		153 %	39-132 %	40		10/27/20 18:14	EPA 8270E	S-05
DU-2--After Processing (A0J0826-11RE2)			Matrix: Soil			Batch: 0100994		
Acenaphthene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Acenaphthylene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Anthracene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Benz(a)anthracene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Benzo(a)pyrene	ND	---	0.0163	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Benzo(b)fluoranthene	ND	---	0.0163	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Benzo(k)fluoranthene	ND	---	0.0163	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Benzo(g,h,i)perylene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Chrysene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Dibenz(a,h)anthracene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Fluoranthene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Fluorene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
1-Methylnaphthalene	ND	---	0.0217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2-Methylnaphthalene	0.0269	---	0.0217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Naphthalene	0.0269	---	0.0217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Phenanthrene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Pyrene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Carbazole	ND	---	0.0163	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Dibenzofuran	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2-Chlorophenol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
4-Chloro-3-methylphenol	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2,4-Dichlorophenol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2,4-Dimethylphenol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2,4-Dinitrophenol	ND	---	0.272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
4,6-Dinitro-2-methylphenol	ND	---	0.272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
2-Methylphenol	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
3+4-Methylphenol(s)	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2-Nitrophenol	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
4-Nitrophenol	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-2--After Processing (A0J0826-11RE2)				Matrix: Soil		Batch: 0100994		
Pentachlorophenol (PCP)	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
Phenol	ND	---	0.0217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
2,3,5,6-Tetrachlorophenol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
2,4,5-Trichlorophenol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
Nitrobenzene	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2,4,6-Trichlorophenol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	---	0.163	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Butyl benzyl phthalate	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Diethylphthalate	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Dimethylphthalate	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Di-n-butylphthalate	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Di-n-octyl phthalate	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
N-Nitrosodimethylamine	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
N-Nitroso-di-n-propylamine	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
N-Nitrosodiphenylamine	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Hexachlorobenzene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Hexachlorobutadiene	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Hexachlorocyclopentadiene	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Hexachloroethane	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2-Chloronaphthalene	ND	---	0.0109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
1,2,4-Trichlorobenzene	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
4-Bromophenyl phenyl ether	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Aniline	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
4-Chloroaniline	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
2-Nitroaniline	ND	---	0.217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
3-Nitroaniline	ND	---	0.217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
4-Nitroaniline	ND	---	0.217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
2,4-Dinitrotoluene	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
2,6-Dinitrotoluene	ND	---	0.109	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Benzoic acid	ND	---	1.36	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42
Benzyl alcohol	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Isophorone	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Azobenzene (1,2-DPH)	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	---	0.272	mg/kg dry	4	10/29/20 14:21	EPA 8270E	

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental 4412 SW Corbett Ave Portland, OR 97239	Project: Millpond Crossing-RSM Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
DU-2--After Processing (A0J0826-11RE2)			Matrix: Soil		Batch: 0100994				
3,3'-Dichlorobenzidine	ND	---	0.217	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42, Q-52	
1,2-Dinitrobenzene	ND	---	0.272	mg/kg dry	4	10/29/20 14:21	EPA 8270E		
1,3-Dinitrobenzene	ND	---	0.272	mg/kg dry	4	10/29/20 14:21	EPA 8270E		
1,4-Dinitrobenzene	ND	---	0.272	mg/kg dry	4	10/29/20 14:21	EPA 8270E		
Pyridine	ND	---	0.0542	mg/kg dry	4	10/29/20 14:21	EPA 8270E	Q-42	
1,2-Dichlorobenzene	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E		
1,3-Dichlorobenzene	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E		
1,4-Dichlorobenzene	ND	---	0.0272	mg/kg dry	4	10/29/20 14:21	EPA 8270E		
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 64 %</i>		<i>Limits: 37-122 %</i>		<i>4</i>	<i>10/29/20 14:21</i>	<i>EPA 8270E</i>	
<i>2-Fluorobiphenyl (Surr)</i>		<i>82 %</i>		<i>44-120 %</i>		<i>4</i>	<i>10/29/20 14:21</i>	<i>EPA 8270E</i>	
<i>Phenol-d6 (Surr)</i>		<i>45 %</i>		<i>33-122 %</i>		<i>4</i>	<i>10/29/20 14:21</i>	<i>EPA 8270E</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>88 %</i>		<i>54-127 %</i>		<i>4</i>	<i>10/29/20 14:21</i>	<i>EPA 8270E</i>	
<i>2-Fluorophenol (Surr)</i>		<i>36 %</i>		<i>35-120 %</i>		<i>4</i>	<i>10/29/20 14:21</i>	<i>EPA 8270E</i>	
<i>2,4,6-Tribromophenol (Surr)</i>		<i>38 %</i>		<i>39-132 %</i>		<i>4</i>	<i>10/29/20 14:21</i>	<i>EPA 8270E</i>	<i>Q-41, S-03</i>



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Ditch-1 (A0J0826-03) Matrix: Soil								
Batch: 0100878								
Arsenic	3.03	---	1.43	mg/kg dry	10	10/27/20 17:30	EPA 6020A	
Barium	290	---	1.43	mg/kg dry	10	10/27/20 17:30	EPA 6020A	
Cadmium	ND	---	0.286	mg/kg dry	10	10/27/20 17:30	EPA 6020A	
Chromium	56.6	---	1.43	mg/kg dry	10	10/27/20 17:30	EPA 6020A	
Lead	5.43	---	0.286	mg/kg dry	10	10/27/20 17:30	EPA 6020A	
Mercury	ND	---	0.114	mg/kg dry	10	10/27/20 17:30	EPA 6020A	
Selenium	ND	---	1.43	mg/kg dry	10	10/27/20 17:30	EPA 6020A	
Silver	ND	---	0.286	mg/kg dry	10	10/27/20 17:30	EPA 6020A	

Ditch-2 (A0J0826-04) Matrix: Soil								
Batch: 0100878								
Arsenic	4.49	---	1.26	mg/kg dry	10	10/27/20 17:33	EPA 6020A	
Barium	83.2	---	1.26	mg/kg dry	10	10/27/20 17:33	EPA 6020A	
Cadmium	0.369	---	0.253	mg/kg dry	10	10/27/20 17:33	EPA 6020A	
Chromium	38.3	---	1.26	mg/kg dry	10	10/27/20 17:33	EPA 6020A	
Lead	26.7	---	0.253	mg/kg dry	10	10/27/20 17:33	EPA 6020A	
Mercury	ND	---	0.101	mg/kg dry	10	10/27/20 17:33	EPA 6020A	
Selenium	ND	---	1.26	mg/kg dry	10	10/27/20 17:33	EPA 6020A	
Silver	ND	---	0.253	mg/kg dry	10	10/27/20 17:33	EPA 6020A	

Ditch-3 (A0J0826-05) Matrix: Soil								
Batch: 0100878								
Arsenic	4.64	---	1.55	mg/kg dry	10	10/27/20 17:45	EPA 6020A	
Barium	219	---	1.55	mg/kg dry	10	10/27/20 17:45	EPA 6020A	
Cadmium	ND	---	0.309	mg/kg dry	10	10/27/20 17:45	EPA 6020A	
Chromium	45.1	---	1.55	mg/kg dry	10	10/27/20 17:45	EPA 6020A	
Lead	14.3	---	0.309	mg/kg dry	10	10/27/20 17:45	EPA 6020A	
Mercury	ND	---	0.124	mg/kg dry	10	10/27/20 17:45	EPA 6020A	
Selenium	ND	---	1.55	mg/kg dry	10	10/27/20 17:45	EPA 6020A	
Silver	ND	---	0.309	mg/kg dry	10	10/27/20 17:45	EPA 6020A	

Ditch-4 (A0J0826-06) Matrix: Soil								
Batch: 0100878								
Arsenic	4.33	---	1.48	mg/kg dry	10	10/27/20 17:49	EPA 6020A	
Barium	242	---	1.48	mg/kg dry	10	10/27/20 17:49	EPA 6020A	
Cadmium	ND	---	0.296	mg/kg dry	10	10/27/20 17:49	EPA 6020A	

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PBS Engineering and Environmental 4412 SW Corbett Ave Portland, OR 97239	Project: Millpond Crossing-RSM Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
Ditch-4 (A0J0826-06)		Matrix: Soil							
Chromium	115	---	1.48	mg/kg dry	10	10/27/20 17:49	EPA 6020A		
Lead	8.52	---	0.296	mg/kg dry	10	10/27/20 17:49	EPA 6020A		
Mercury	ND	---	0.118	mg/kg dry	10	10/27/20 17:49	EPA 6020A		
Selenium	ND	---	1.48	mg/kg dry	10	10/27/20 17:49	EPA 6020A		
Silver	ND	---	0.296	mg/kg dry	10	10/27/20 17:49	EPA 6020A		
Ditch-5 (A0J0826-07)		Matrix: Soil							
Batch: 0100878									
Arsenic	3.24	---	1.42	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
Barium	262	---	1.42	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
Cadmium	ND	---	0.284	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
Chromium	124	---	1.42	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
Lead	7.86	---	0.284	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
Mercury	ND	---	0.113	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
Selenium	ND	---	1.42	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
Silver	ND	---	0.284	mg/kg dry	10	10/27/20 17:56	EPA 6020A		
DU-1--After Processing (A0J0826-09)		Matrix: Soil							
Batch: 0101027									
Arsenic	9.16	---	1.07	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
Barium	450	---	1.07	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
Cadmium	ND	---	0.214	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
Chromium	90.2	---	1.07	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
Lead	16.3	---	0.214	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
Mercury	ND	---	0.0855	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
Selenium	ND	---	1.07	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
Silver	ND	---	0.214	mg/kg dry	10	10/29/20 18:33	EPA 6020A		
DU-2--After Processing (A0J0826-11)		Matrix: Soil							
Batch: 0101027									
Arsenic	4.06	---	1.05	mg/kg dry	10	10/29/20 18:37	EPA 6020A		
Barium	318	---	1.05	mg/kg dry	10	10/29/20 18:37	EPA 6020A		
Cadmium	ND	---	0.211	mg/kg dry	10	10/29/20 18:37	EPA 6020A		
Chromium	86.1	---	1.05	mg/kg dry	10	10/29/20 18:37	EPA 6020A		
Lead	9.01	---	0.211	mg/kg dry	10	10/29/20 18:37	EPA 6020A		
Mercury	ND	---	0.0843	mg/kg dry	10	10/29/20 18:37	EPA 6020A		
Selenium	1.14	---	1.05	mg/kg dry	10	10/29/20 18:37	EPA 6020A		

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PBS Engineering and Environmental 4412 SW Corbett Ave Portland, OR 97239	Project: Millpond Crossing-RSM Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-2--After Processing (A0J0826-11)				Matrix: Soil				
Silver	ND	---	0.211	mg/kg dry	10	10/29/20 18:37	EPA 6020A	

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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-3--After Processing (A0J0826-02)				Matrix: Soil		Batch: 0100953		
% Solids	96.4	---	1.00	%	1	10/29/20 08:26	EPA 8000D	
Ditch-1 (A0J0826-03)				Matrix: Soil		Batch: 0100916		
% Solids	71.1	---	1.00	%	1	10/28/20 08:26	EPA 8000D	
Ditch-2 (A0J0826-04)				Matrix: Soil		Batch: 0100916		
% Solids	79.9	---	1.00	%	1	10/28/20 08:26	EPA 8000D	
Ditch-3 (A0J0826-05)				Matrix: Soil		Batch: 0100916		
% Solids	67.7	---	1.00	%	1	10/28/20 08:26	EPA 8000D	
Ditch-4 (A0J0826-06)				Matrix: Soil		Batch: 0100916		
% Solids	67.0	---	1.00	%	1	10/28/20 08:26	EPA 8000D	
Ditch-5 (A0J0826-07)				Matrix: Soil		Batch: 0100916		
% Solids	71.6	---	1.00	%	1	10/28/20 08:26	EPA 8000D	
DU-1--After Processing (A0J0826-09)				Matrix: Soil		Batch: 0100953		
% Solids	97.8	---	1.00	%	1	10/29/20 08:26	EPA 8000D	
DU-2--After Processing (A0J0826-11)				Matrix: Soil		Batch: 0100953		
% Solids	96.9	---	1.00	%	1	10/29/20 08:26	EPA 8000D	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100935 - EPA 3546 (Fuels)						Soil						
Blank (0100935-BLK1)			Prepared: 10/27/20 12:40 Analyzed: 10/27/20 23:46									
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
Mineral Oil	ND	---	36.4	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (0100935-BS1)						Prepared: 10/27/20 12:40 Analyzed: 10/28/20 00:09						
NWTPH-Dx												
Diesel	111	---	20.0	mg/kg wet	1	125	---	89	73 - 115%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Batch 0101024 - EPA 3546 (Fuels)						Soil						
Blank (0101024-BLK1)			Prepared: 10/29/20 12:42 Analyzed: 10/29/20 21:45									
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (0101024-BS1)						Prepared: 10/29/20 12:42 Analyzed: 10/29/20 22:07						
NWTPH-Dx												
Diesel	118	---	25.0	mg/kg wet	1	125	---	95	73 - 115%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (0101024-DUP1)						Prepared: 10/29/20 12:42 Analyzed: 10/29/20 22:51						
QC Source Sample: DU-3--After Processing (A0J0826-02)												
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	333	---	50.0	mg/kg dry	1	---	343	---	---	3	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 76 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100929 - EPA 3546						Soil						
Blank (0100929-BLK1)		Prepared: 10/27/20 11:37 Analyzed: 10/27/20 15:51										
EPA 8270E												
Acenaphthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	B-02
Acenaphthylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	B-02
Benzo(b)fluoranthene	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	B-02
Naphthalene	0.0143	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	B
Phenanthrene	0.00291	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	B
Pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
2-Chlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
2-Methylphenol	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
2-Nitrophenol	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	
4-Nitrophenol	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	
Phenol	ND	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100929 - EPA 3546						Soil						
Blank (0100929-BLK1)	Prepared: 10/27/20 11:37 Analyzed: 10/27/20 15:51											
2,3,5,6-Tetrachlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Nitrobenzene	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Bis(2-ethylhexyl)phthalate	ND	---	0.0375	mg/kg wet	1	---	---	---	---	---	---	---
Butyl benzyl phthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Diethylphthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Dimethylphthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Di-n-butylphthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Di-n-octyl phthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
N-Nitrosodimethylamine	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
N-Nitroso-di-n-propylamine	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
N-Nitrosodiphenylamine	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Bis(2-Chloroethoxy) methane	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Bis(2-Chloroethyl) ether	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
2,2'-Oxybis(1-Chloropropane)	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Hexachlorobenzene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Hexachlorobutadiene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Hexachlorocyclopentadiene	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Hexachloroethane	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
2-Chloronaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
1,2,4-Trichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
4-Bromophenyl phenyl ether	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
4-Chlorophenyl phenyl ether	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Aniline	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
4-Chloroaniline	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
2-Nitroaniline	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	---
3-Nitroaniline	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	---
4-Nitroaniline	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	---
2,4-Dinitrotoluene	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
2,6-Dinitrotoluene	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Benzoic acid	ND	---	0.312	mg/kg wet	1	---	---	---	---	---	---	---
Benzyl alcohol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Isophorone	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100929 - EPA 3546						Soil						
Blank (0100929-BLK1)			Prepared: 10/27/20 11:37			Analyzed: 10/27/20 15:51						
Azobenzene (1,2-DPH)	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 72 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 1x</i>					
<i>2-Fluorobiphenyl (Surr)</i>			<i>79 %</i>		<i>44-120 %</i>		<i>"</i>					
<i>Phenol-d6 (Surr)</i>			<i>73 %</i>		<i>33-122 %</i>		<i>"</i>					
<i>p-Terphenyl-d14 (Surr)</i>			<i>91 %</i>		<i>54-127 %</i>		<i>"</i>					
<i>2-Fluorophenol (Surr)</i>			<i>70 %</i>		<i>35-120 %</i>		<i>"</i>					
<i>2,4,6-Tribromophenol (Surr)</i>			<i>79 %</i>		<i>39-132 %</i>		<i>"</i>					

LCS (0100929-BS1)						Prepared: 10/27/20 11:37						Analyzed: 10/27/20 16:26						Q-18
EPA 8270E																		
Acenaphthene	0.444	---	0.00534	mg/kg wet	2	0.533	---	83	40 - 123%	---	---	B-02						
Acenaphthylene	0.482	---	0.00534	mg/kg wet	2	0.533	---	90	32 - 132%	---	---							
Anthracene	0.464	---	0.00534	mg/kg wet	2	0.533	---	87	47 - 123%	---	---							
Benz(a)anthracene	0.472	---	0.00534	mg/kg wet	2	0.533	---	88	49 - 126%	---	---							
Benzo(a)pyrene	0.488	---	0.00800	mg/kg wet	2	0.533	---	92	45 - 129%	---	---	B-02						
Benzo(b)fluoranthene	0.487	---	0.00800	mg/kg wet	2	0.533	---	91	45 - 132%	---	---							
Benzo(k)fluoranthene	0.456	---	0.00800	mg/kg wet	2	0.533	---	86	47 - 132%	---	---							
Benzo(g,h,i)perylene	0.505	---	0.00534	mg/kg wet	2	0.533	---	95	43 - 134%	---	---							
Chrysene	0.468	---	0.00534	mg/kg wet	2	0.533	---	88	50 - 124%	---	---							
Dibenz(a,h)anthracene	0.491	---	0.00534	mg/kg wet	2	0.533	---	92	45 - 134%	---	---							
Fluoranthene	0.505	---	0.00534	mg/kg wet	2	0.533	---	95	50 - 127%	---	---							
Fluorene	0.458	---	0.00534	mg/kg wet	2	0.533	---	86	43 - 125%	---	---							
Indeno(1,2,3-cd)pyrene	0.458	---	0.00534	mg/kg wet	2	0.533	---	86	45 - 133%	---	---							
1-Methylnaphthalene	0.469	---	0.0107	mg/kg wet	2	0.533	---	88	40 - 120%	---	---							
2-Methylnaphthalene	0.479	---	0.0107	mg/kg wet	2	0.533	---	90	38 - 122%	---	---	B-02						

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100929 - EPA 3546						Soil						
LCS (0100929-BS1)	Prepared: 10/27/20 11:37					Analyzed: 10/27/20 16:26					Q-18	
Naphthalene	0.435	---	0.0107	mg/kg wet	2	0.533	---	81	35 - 123%	---	---	B
Phenanthrene	0.440	---	0.00534	mg/kg wet	2	0.533	---	83	50 - 121%	---	---	B
Pyrene	0.488	---	0.00534	mg/kg wet	2	0.533	---	92	47 - 127%	---	---	
Carbazole	0.479	---	0.00800	mg/kg wet	2	0.533	---	90	50 - 123%	---	---	
Dibenzofuran	0.450	---	0.00534	mg/kg wet	2	0.533	---	84	44 - 120%	---	---	
2-Chlorophenol	0.453	---	0.0266	mg/kg wet	2	0.533	---	85	34 - 121%	---	---	
4-Chloro-3-methylphenol	0.482	---	0.0534	mg/kg wet	2	0.533	---	90	45 - 122%	---	---	
2,4-Dichlorophenol	0.539	---	0.0266	mg/kg wet	2	0.533	---	101	40 - 122%	---	---	
2,4-Dimethylphenol	0.490	---	0.0266	mg/kg wet	2	0.533	---	92	30 - 127%	---	---	
2,4-Dinitrophenol	0.676	---	0.133	mg/kg wet	2	0.533	---	127	10 - 137%	---	---	
4,6-Dinitro-2-methylphenol	0.684	---	0.133	mg/kg wet	2	0.533	---	128	29 - 132%	---	---	Q-41
2-Methylphenol	0.458	---	0.0133	mg/kg wet	2	0.533	---	86	32 - 122%	---	---	
3+4-Methylphenol(s)	0.477	---	0.0133	mg/kg wet	2	0.533	---	89	34 - 120%	---	---	
2-Nitrophenol	0.493	---	0.0534	mg/kg wet	2	0.533	---	93	36 - 123%	---	---	
4-Nitrophenol	0.513	---	0.0534	mg/kg wet	2	0.533	---	96	30 - 132%	---	---	
Pentachlorophenol (PCP)	0.555	---	0.0534	mg/kg wet	2	0.533	---	104	25 - 133%	---	---	
Phenol	0.440	---	0.0107	mg/kg wet	2	0.533	---	83	34 - 121%	---	---	
2,3,4,6-Tetrachlorophenol	0.572	---	0.0266	mg/kg wet	2	0.533	---	107	44 - 125%	---	---	
2,3,5,6-Tetrachlorophenol	0.606	---	0.0266	mg/kg wet	2	0.533	---	114	40 - 120%	---	---	Q-41
2,4,5-Trichlorophenol	0.550	---	0.0266	mg/kg wet	2	0.533	---	103	41 - 124%	---	---	
Nitrobenzene	0.400	---	0.0534	mg/kg wet	2	0.533	---	75	34 - 122%	---	---	
2,4,6-Trichlorophenol	0.511	---	0.0266	mg/kg wet	2	0.533	---	96	39 - 126%	---	---	
Bis(2-ethylhexyl)phthalate	0.441	---	0.0800	mg/kg wet	2	0.533	---	83	51 - 133%	---	---	
Butyl benzyl phthalate	0.450	---	0.0534	mg/kg wet	2	0.533	---	84	48 - 132%	---	---	
Diethylphthalate	0.470	---	0.0534	mg/kg wet	2	0.533	---	88	50 - 124%	---	---	
Dimethylphthalate	0.489	---	0.0534	mg/kg wet	2	0.533	---	92	48 - 124%	---	---	
Di-n-butylphthalate	0.468	---	0.0534	mg/kg wet	2	0.533	---	88	51 - 128%	---	---	
Di-n-octyl phthalate	0.444	---	0.0534	mg/kg wet	2	0.533	---	83	45 - 140%	---	---	
N-Nitrosodimethylamine	0.278	---	0.0133	mg/kg wet	2	0.533	---	52	23 - 120%	---	---	Q-31
N-Nitroso-di-n-propylamine	0.391	---	0.0133	mg/kg wet	2	0.533	---	73	36 - 120%	---	---	Q-31
N-Nitrosodiphenylamine	0.454	---	0.0133	mg/kg wet	2	0.533	---	85	38 - 127%	---	---	
Bis(2-Chloroethoxy) methane	0.372	---	0.0133	mg/kg wet	2	0.533	---	70	36 - 121%	---	---	
Bis(2-Chloroethyl) ether	0.361	---	0.0133	mg/kg wet	2	0.533	---	68	31 - 120%	---	---	
2,2'-Oxybis(1-Chloropropane)	0.288	---	0.0133	mg/kg wet	2	0.533	---	54	33 - 131%	---	---	Q-31

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100929 - EPA 3546						Soil						
LCS (0100929-BS1)	Prepared: 10/27/20 11:37 Analyzed: 10/27/20 16:26					Q-18						
Hexachlorobenzene	0.510	---	0.00534	mg/kg wet	2	0.533	---	96	45 - 122%	---	---	
Hexachlorobutadiene	0.514	---	0.0133	mg/kg wet	2	0.533	---	96	32 - 123%	---	---	
Hexachlorocyclopentadiene	0.585	---	0.0266	mg/kg wet	2	0.533	---	110	10 - 140%	---	---	Q-41
Hexachloroethane	0.395	---	0.0133	mg/kg wet	2	0.533	---	74	28 - 120%	---	---	
2-Chloronaphthalene	0.433	---	0.00534	mg/kg wet	2	0.533	---	81	41 - 120%	---	---	
1,2,4-Trichlorobenzene	0.468	---	0.0133	mg/kg wet	2	0.533	---	88	34 - 120%	---	---	
4-Bromophenyl phenyl ether	0.498	---	0.0133	mg/kg wet	2	0.533	---	93	46 - 124%	---	---	
4-Chlorophenyl phenyl ether	0.485	---	0.0133	mg/kg wet	2	0.533	---	91	45 - 121%	---	---	
Aniline	0.335	---	0.0266	mg/kg wet	2	0.533	---	63	10 - 120%	---	---	
4-Chloroaniline	0.383	---	0.0133	mg/kg wet	2	0.533	---	72	17 - 120%	---	---	
2-Nitroaniline	0.477	---	0.107	mg/kg wet	2	0.533	---	89	44 - 127%	---	---	
3-Nitroaniline	0.450	---	0.107	mg/kg wet	2	0.533	---	84	33 - 120%	---	---	
4-Nitroaniline	0.460	---	0.107	mg/kg wet	2	0.533	---	86	70 - 138%	---	---	
2,4-Dinitrotoluene	0.515	---	0.0534	mg/kg wet	2	0.533	---	97	48 - 126%	---	---	
2,6-Dinitrotoluene	0.490	---	0.0534	mg/kg wet	2	0.533	---	92	46 - 124%	---	---	
Benzoic acid	0.699	---	0.666	mg/kg wet	2	1.07	---	65	10 - 140%	---	---	Q-31
Benzyl alcohol	0.490	---	0.0266	mg/kg wet	2	0.533	---	92	29 - 122%	---	---	
Isophorone	0.399	---	0.0133	mg/kg wet	2	0.533	---	75	30 - 122%	---	---	
Azobenzene (1,2-DPH)	0.341	---	0.0133	mg/kg wet	2	0.533	---	64	39 - 125%	---	---	Q-31
Bis(2-Ethylhexyl) adipate	0.417	---	0.133	mg/kg wet	2	0.533	---	78	61 - 121%	---	---	Q-31
3,3'-Dichlorobenzidine	1.30	---	0.107	mg/kg wet	2	1.07	---	121	22 - 121%	---	---	
1,2-Dinitrobenzene	0.519	---	0.133	mg/kg wet	2	0.533	---	97	44 - 120%	---	---	
1,3-Dinitrobenzene	0.527	---	0.133	mg/kg wet	2	0.533	---	99	43 - 127%	---	---	
1,4-Dinitrobenzene	0.550	---	0.133	mg/kg wet	2	0.533	---	103	37 - 132%	---	---	
Pyridine	0.168	---	0.0266	mg/kg wet	2	0.533	---	32	10 - 120%	---	---	Q-31
1,2-Dichlorobenzene	0.419	---	0.0133	mg/kg wet	2	0.533	---	79	33 - 120%	---	---	
1,3-Dichlorobenzene	0.404	---	0.0133	mg/kg wet	2	0.533	---	76	30 - 120%	---	---	
1,4-Dichlorobenzene	0.408	---	0.0133	mg/kg wet	2	0.533	---	76	31 - 120%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 76 %</i>			<i>Limits: 37-122 %</i>		<i>Dilution: 2x</i>				
<i>2-Fluorobiphenyl (Surr)</i>			<i>79 %</i>			<i>44-120 %</i>		<i>"</i>				
<i>Phenol-d6 (Surr)</i>			<i>75 %</i>			<i>33-122 %</i>		<i>"</i>				
<i>p-Terphenyl-d14 (Surr)</i>			<i>90 %</i>			<i>54-127 %</i>		<i>"</i>				
<i>2-Fluorophenol (Surr)</i>			<i>71 %</i>			<i>35-120 %</i>		<i>"</i>				
<i>2,4,6-Tribromophenol (Surr)</i>			<i>107 %</i>			<i>39-132 %</i>		<i>"</i>				Q-41

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Lisa Domenighini, Client Services Manager



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ORELAP ID: OR100062

PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100929 - EPA 3546							Soil					

Apex Laboratories

Lisa Domenighini, Client Services Manager

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546						Soil						
Blank (0100994-BLK1)		Prepared: 10/29/20 06:55 Analyzed: 10/29/20 13:09										
EPA 8270E												
Acenaphthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Acenaphthylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Benz(a)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Benzo(a)pyrene	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	---
Benzo(b)fluoranthene	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	---
Benzo(k)fluoranthene	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	---
Benzo(g,h,i)perylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Chrysene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Dibenz(a,h)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Fluorene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Indeno(1,2,3-cd)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
1-Methylnaphthalene	ND	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	---
2-Methylnaphthalene	ND	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	---
Naphthalene	ND	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	---
Phenanthrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Carbazole	ND	---	0.00375	mg/kg wet	1	---	---	---	---	---	---	---
Dibenzofuran	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
2-Chlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
4-Chloro-3-methylphenol	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
2,4-Dichlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
2,4-Dimethylphenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
2,4-Dinitrophenol	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	---
4,6-Dinitro-2-methylphenol	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	---
2-Methylphenol	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
3+4-Methylphenol(s)	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
2-Nitrophenol	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
4-Nitrophenol	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Pentachlorophenol (PCP)	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Phenol	ND	---	0.00500	mg/kg wet	1	---	---	---	---	---	---	---
2,3,4,6-Tetrachlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546						Soil						
Blank (0100994-BLK1)	Prepared: 10/29/20 06:55 Analyzed: 10/29/20 13:09											
2,3,5,6-Tetrachlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
2,4,5-Trichlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Nitrobenzene	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Bis(2-ethylhexyl)phthalate	ND	---	0.0375	mg/kg wet	1	---	---	---	---	---	---	---
Butyl benzyl phthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Diethylphthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Dimethylphthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Di-n-butylphthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Di-n-octyl phthalate	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
N-Nitrosodimethylamine	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
N-Nitroso-di-n-propylamine	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
N-Nitrosodiphenylamine	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Bis(2-Chloroethoxy) methane	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Bis(2-Chloroethyl) ether	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
2,2'-Oxybis(1-Chloropropane)	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Hexachlorobenzene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
Hexachlorobutadiene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Hexachlorocyclopentadiene	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Hexachloroethane	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
2-Chloronaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	---
1,2,4-Trichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
4-Bromophenyl phenyl ether	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
4-Chlorophenyl phenyl ether	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
Aniline	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
4-Chloroaniline	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---
2-Nitroaniline	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	---
3-Nitroaniline	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	---
4-Nitroaniline	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	---
2,4-Dinitrotoluene	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
2,6-Dinitrotoluene	ND	---	0.0250	mg/kg wet	1	---	---	---	---	---	---	---
Benzoic acid	ND	---	0.312	mg/kg wet	1	---	---	---	---	---	---	---
Benzyl alcohol	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	---
Isophorone	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	---

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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546						Soil						
Blank (0100994-BLK1)			Prepared: 10/29/20 06:55			Analyzed: 10/29/20 13:09						
Azobenzene (1,2-DPH)	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	---	0.0500	mg/kg wet	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	0.0625	mg/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	---	0.0125	mg/kg wet	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.00625	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 83 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 1x</i>					
<i>2-Fluorobiphenyl (Surr)</i>			<i>83 %</i>		<i>44-120 %</i>		<i>"</i>					
<i>Phenol-d6 (Surr)</i>			<i>84 %</i>		<i>33-122 %</i>		<i>"</i>					
<i>p-Terphenyl-d14 (Surr)</i>			<i>104 %</i>		<i>54-127 %</i>		<i>"</i>					
<i>2-Fluorophenol (Surr)</i>			<i>77 %</i>		<i>35-120 %</i>		<i>"</i>					
<i>2,4,6-Tribromophenol (Surr)</i>			<i>96 %</i>		<i>39-132 %</i>		<i>"</i>					

LCS (0100994-BS1)			Prepared: 10/29/20 06:55			Analyzed: 10/29/20 13:45						
EPA 8270E												
Acenaphthene	0.473	---	0.00534	mg/kg wet	2	0.533	---	89	40 - 123%	---	---	
Acenaphthylene	0.511	---	0.00534	mg/kg wet	2	0.533	---	96	32 - 132%	---	---	
Anthracene	0.482	---	0.00534	mg/kg wet	2	0.533	---	90	47 - 123%	---	---	
Benz(a)anthracene	0.486	---	0.00534	mg/kg wet	2	0.533	---	91	49 - 126%	---	---	
Benzo(a)pyrene	0.499	---	0.00800	mg/kg wet	2	0.533	---	94	45 - 129%	---	---	
Benzo(b)fluoranthene	0.502	---	0.00800	mg/kg wet	2	0.533	---	94	45 - 132%	---	---	
Benzo(k)fluoranthene	0.476	---	0.00800	mg/kg wet	2	0.533	---	89	47 - 132%	---	---	
Benzo(g,h,i)perylene	0.532	---	0.00534	mg/kg wet	2	0.533	---	100	43 - 134%	---	---	
Chrysene	0.481	---	0.00534	mg/kg wet	2	0.533	---	90	50 - 124%	---	---	
Dibenz(a,h)anthracene	0.508	---	0.00534	mg/kg wet	2	0.533	---	95	45 - 134%	---	---	
Fluoranthene	0.526	---	0.00534	mg/kg wet	2	0.533	---	99	50 - 127%	---	---	
Fluorene	0.491	---	0.00534	mg/kg wet	2	0.533	---	92	43 - 125%	---	---	
Indeno(1,2,3-cd)pyrene	0.476	---	0.00534	mg/kg wet	2	0.533	---	89	45 - 133%	---	---	
1-Methylnaphthalene	0.518	---	0.0107	mg/kg wet	2	0.533	---	97	40 - 120%	---	---	
2-Methylnaphthalene	0.522	---	0.0107	mg/kg wet	2	0.533	---	98	38 - 122%	---	---	

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546						Soil						
LCS (0100994-BS1)	Prepared: 10/29/20 06:55					Analyzed: 10/29/20 13:45						
Naphthalene	0.450	---	0.0107	mg/kg wet	2	0.533	---	84	35 - 123%	---	---	
Phenanthrene	0.461	---	0.00534	mg/kg wet	2	0.533	---	86	50 - 121%	---	---	
Pyrene	0.512	---	0.00534	mg/kg wet	2	0.533	---	96	47 - 127%	---	---	
Carbazole	0.468	---	0.00800	mg/kg wet	2	0.533	---	88	50 - 123%	---	---	
Dibenzofuran	0.477	---	0.00534	mg/kg wet	2	0.533	---	89	44 - 120%	---	---	
2-Chlorophenol	0.485	---	0.0266	mg/kg wet	2	0.533	---	91	34 - 121%	---	---	
4-Chloro-3-methylphenol	0.548	---	0.0534	mg/kg wet	2	0.533	---	103	45 - 122%	---	---	
2,4-Dichlorophenol	0.593	---	0.0266	mg/kg wet	2	0.533	---	111	40 - 122%	---	---	Q-41
2,4-Dimethylphenol	0.537	---	0.0266	mg/kg wet	2	0.533	---	101	30 - 127%	---	---	
2,4-Dinitrophenol	0.738	---	0.133	mg/kg wet	2	0.533	---	138	10 - 137%	---	---	Q-29, Q-41
4,6-Dinitro-2-methylphenol	0.716	---	0.133	mg/kg wet	2	0.533	---	134	29 - 132%	---	---	Q-29, Q-41
2-Methylphenol	0.507	---	0.0133	mg/kg wet	2	0.533	---	95	32 - 122%	---	---	
3+4-Methylphenol(s)	0.539	---	0.0133	mg/kg wet	2	0.533	---	101	34 - 120%	---	---	
2-Nitrophenol	0.515	---	0.0534	mg/kg wet	2	0.533	---	97	36 - 123%	---	---	
4-Nitrophenol	0.543	---	0.0534	mg/kg wet	2	0.533	---	102	30 - 132%	---	---	
Pentachlorophenol (PCP)	0.583	---	0.0534	mg/kg wet	2	0.533	---	109	25 - 133%	---	---	
Phenol	0.482	---	0.0107	mg/kg wet	2	0.533	---	90	34 - 121%	---	---	
2,3,4,6-Tetrachlorophenol	0.606	---	0.0266	mg/kg wet	2	0.533	---	114	44 - 125%	---	---	
2,3,5,6-Tetrachlorophenol	0.642	---	0.0266	mg/kg wet	2	0.533	---	120	40 - 120%	---	---	Q-41
2,4,5-Trichlorophenol	0.594	---	0.0266	mg/kg wet	2	0.533	---	111	41 - 124%	---	---	
Nitrobenzene	0.445	---	0.0534	mg/kg wet	2	0.533	---	83	34 - 122%	---	---	
2,4,6-Trichlorophenol	0.556	---	0.0266	mg/kg wet	2	0.533	---	104	39 - 126%	---	---	
Bis(2-ethylhexyl)phthalate	0.459	---	0.0800	mg/kg wet	2	0.533	---	86	51 - 133%	---	---	
Butyl benzyl phthalate	0.469	---	0.0534	mg/kg wet	2	0.533	---	88	48 - 132%	---	---	
Diethylphthalate	0.498	---	0.0534	mg/kg wet	2	0.533	---	93	50 - 124%	---	---	
Dimethylphthalate	0.524	---	0.0534	mg/kg wet	2	0.533	---	98	48 - 124%	---	---	
Di-n-butylphthalate	0.488	---	0.0534	mg/kg wet	2	0.533	---	92	51 - 128%	---	---	
Di-n-octyl phthalate	0.450	---	0.0534	mg/kg wet	2	0.533	---	84	45 - 140%	---	---	
N-Nitrosodimethylamine	0.298	---	0.0133	mg/kg wet	2	0.533	---	56	23 - 120%	---	---	Q-31
N-Nitroso-di-n-propylamine	0.436	---	0.0133	mg/kg wet	2	0.533	---	82	36 - 120%	---	---	Q-31
N-Nitrosodiphenylamine	0.473	---	0.0133	mg/kg wet	2	0.533	---	89	38 - 127%	---	---	
Bis(2-Chloroethoxy) methane	0.413	---	0.0133	mg/kg wet	2	0.533	---	77	36 - 121%	---	---	
Bis(2-Chloroethyl) ether	0.389	---	0.0133	mg/kg wet	2	0.533	---	73	31 - 120%	---	---	
2,2'-Oxybis(1-Chloropropane)	0.311	---	0.0133	mg/kg wet	2	0.533	---	58	33 - 131%	---	---	Q-31

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental
4412 SW Corbett Ave
Portland, OR 97239

Project: **Millpond Crossing-RSM**
Project Number: **24159.000**
Project Manager: **Chris Sheridan**

Report ID:
A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546						Soil						
LCS (0100994-BS1)			Prepared: 10/29/20 06:55		Analyzed: 10/29/20 13:45							
Hexachlorobenzene	0.539	---	0.00534	mg/kg wet	2	0.533	---	101	45 - 122%	---	---	
Hexachlorobutadiene	0.535	---	0.0133	mg/kg wet	2	0.533	---	100	32 - 123%	---	---	
Hexachlorocyclopentadiene	0.621	---	0.0266	mg/kg wet	2	0.533	---	116	10 - 140%	---	---	Q-41
Hexachloroethane	0.423	---	0.0133	mg/kg wet	2	0.533	---	79	28 - 120%	---	---	
2-Chloronaphthalene	0.456	---	0.00534	mg/kg wet	2	0.533	---	85	41 - 120%	---	---	
1,2,4-Trichlorobenzene	0.495	---	0.0133	mg/kg wet	2	0.533	---	93	34 - 120%	---	---	
4-Bromophenyl phenyl ether	0.528	---	0.0133	mg/kg wet	2	0.533	---	99	46 - 124%	---	---	
4-Chlorophenyl phenyl ether	0.523	---	0.0133	mg/kg wet	2	0.533	---	98	45 - 121%	---	---	
Aniline	0.367	---	0.0266	mg/kg wet	2	0.533	---	69	10 - 120%	---	---	
4-Chloroaniline	0.410	---	0.0133	mg/kg wet	2	0.533	---	77	17 - 120%	---	---	
2-Nitroaniline	0.490	---	0.107	mg/kg wet	2	0.533	---	92	44 - 127%	---	---	
3-Nitroaniline	0.438	---	0.107	mg/kg wet	2	0.533	---	82	33 - 120%	---	---	
4-Nitroaniline	0.411	---	0.107	mg/kg wet	2	0.533	---	77	70 - 138%	---	---	
2,4-Dinitrotoluene	0.537	---	0.0534	mg/kg wet	2	0.533	---	101	48 - 126%	---	---	
2,6-Dinitrotoluene	0.510	---	0.0534	mg/kg wet	2	0.533	---	96	46 - 124%	---	---	
Benzoic acid	0.793	---	0.666	mg/kg wet	2	1.07	---	74	10 - 140%	---	---	Q-31
Benzyl alcohol	0.550	---	0.0266	mg/kg wet	2	0.533	---	103	29 - 122%	---	---	
Isophorone	0.445	---	0.0133	mg/kg wet	2	0.533	---	83	30 - 122%	---	---	
Azobenzene (1,2-DPH)	0.356	---	0.0133	mg/kg wet	2	0.533	---	67	39 - 125%	---	---	Q-31
Bis(2-Ethylhexyl) adipate	0.429	---	0.133	mg/kg wet	2	0.533	---	80	61 - 121%	---	---	
3,3'-Dichlorobenzidine	1.24	---	0.107	mg/kg wet	2	1.07	---	117	22 - 121%	---	---	
1,2-Dinitrobenzene	0.536	---	0.133	mg/kg wet	2	0.533	---	101	44 - 120%	---	---	
1,3-Dinitrobenzene	0.543	---	0.133	mg/kg wet	2	0.533	---	102	43 - 127%	---	---	
1,4-Dinitrobenzene	0.584	---	0.133	mg/kg wet	2	0.533	---	109	37 - 132%	---	---	Q-41
Pyridine	0.195	---	0.0266	mg/kg wet	2	0.533	---	37	10 - 120%	---	---	Q-31
1,2-Dichlorobenzene	0.445	---	0.0133	mg/kg wet	2	0.533	---	84	33 - 120%	---	---	
1,3-Dichlorobenzene	0.434	---	0.0133	mg/kg wet	2	0.533	---	81	30 - 120%	---	---	
1,4-Dichlorobenzene	0.438	---	0.0133	mg/kg wet	2	0.533	---	82	31 - 120%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 2x</i>						
<i>2-Fluorobiphenyl (Surr)</i>		<i>93 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>88 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>105 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>80 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>122 %</i>		<i>39-132 %</i>		<i>"</i>		<i>Q-41</i>				

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC % REC	RPD RPD	Notes
Batch 0100994 - EPA 3546						Soil				
Duplicate (0100994-DUP1)						Prepared: 10/29/20 06:55 Analyzed: 10/29/20 14:57				
QC Source Sample: DU-2--After Processing (A0J0826-11RE2)										
EPA 8270E										
Acenaphthene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Acenaphthylene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Anthracene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Benz(a)anthracene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Benzo(a)pyrene	ND	---	0.0162	mg/kg dry	4	---	0.00987	---	***	30% Q-05
Benzo(b)fluoranthene	ND	---	0.0162	mg/kg dry	4	---	0.00869	---	***	30% Q-05
Benzo(k)fluoranthene	ND	---	0.0162	mg/kg dry	4	---	ND	---	---	30%
Benzo(g,h,i)perylene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Chrysene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Dibenz(a,h)anthracene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Fluoranthene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Fluorene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
Indeno(1,2,3-cd)pyrene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
1-Methylnaphthalene	ND	---	0.0215	mg/kg dry	4	---	0.0197	---	***	30%
2-Methylnaphthalene	0.0253	---	0.0215	mg/kg dry	4	---	0.0269	---	6	30%
Naphthalene	0.0257	---	0.0215	mg/kg dry	4	---	0.0269	---	5	30%
Phenanthrene	ND	---	0.0108	mg/kg dry	4	---	0.00927	---	***	30%
Pyrene	ND	---	0.0108	mg/kg dry	4	---	0.00581	---	***	30% Q-05
Carbazole	ND	---	0.0162	mg/kg dry	4	---	ND	---	---	30%
Dibenzofuran	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	30%
2-Chlorophenol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	30%
4-Chloro-3-methylphenol	ND	---	0.108	mg/kg dry	4	---	ND	---	---	30%
2,4-Dichlorophenol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	30%
2,4-Dimethylphenol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	30%
2,4-Dinitrophenol	ND	---	0.269	mg/kg dry	4	---	ND	---	---	30%
4,6-Dinitro-2-methylphenol	ND	---	0.269	mg/kg dry	4	---	ND	---	---	30%
2-Methylphenol	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	30%
3+4-Methylphenol(s)	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	30%
2-Nitrophenol	ND	---	0.108	mg/kg dry	4	---	ND	---	---	30%
4-Nitrophenol	ND	---	0.108	mg/kg dry	4	---	ND	---	---	30%
Pentachlorophenol (PCP)	ND	---	0.108	mg/kg dry	4	---	ND	---	---	30%

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546												
Soil												
Duplicate (0100994-DUP1)			Prepared: 10/29/20 06:55 Analyzed: 10/29/20 14:57									
QC Source Sample: DU-2--After Processing (A0J0826-11RE2)												
Phenol	ND	---	0.0215	mg/kg dry	4	---	ND	---	---	---	30%	
2,3,4,6-Tetrachlorophenol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	---	30%	
Nitrobenzene	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	---	0.162	mg/kg dry	4	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	
Diethylphthalate	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	
Dimethylphthalate	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
2,2'-Oxybis(1-Chloropropane)	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	---	30%	
Hexachloroethane	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	---	0.0108	mg/kg dry	4	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
Aniline	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	---	30%	
4-Chloroaniline	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	---	30%	
2-Nitroaniline	ND	---	0.215	mg/kg dry	4	---	ND	---	---	---	30%	
3-Nitroaniline	ND	---	0.215	mg/kg dry	4	---	ND	---	---	---	30%	
4-Nitroaniline	ND	---	0.215	mg/kg dry	4	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	---	0.108	mg/kg dry	4	---	ND	---	---	---	30%	

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC % REC	RPD RPD	Notes
Batch 0100994 - EPA 3546						Soil				
Duplicate (0100994-DUP1)		Prepared: 10/29/20 06:55 Analyzed: 10/29/20 14:57								
QC Source Sample: DU-2--After Processing (A0J0826-11RE2)										
Benzoic acid	ND	---	1.35	mg/kg dry	4	---	ND	---	---	30%
Benzyl alcohol	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	30%
Isophorone	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	30%
Azobenzene (1,2-DPH)	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	30%
Bis(2-Ethylhexyl) adipate	ND	---	0.269	mg/kg dry	4	---	ND	---	---	30%
3,3'-Dichlorobenzidine	ND	---	0.215	mg/kg dry	4	---	ND	---	---	30% Q-52
1,2-Dinitrobenzene	ND	---	0.269	mg/kg dry	4	---	ND	---	---	30%
1,3-Dinitrobenzene	ND	---	0.269	mg/kg dry	4	---	ND	---	---	30%
1,4-Dinitrobenzene	ND	---	0.269	mg/kg dry	4	---	ND	---	---	30%
Pyridine	ND	---	0.0537	mg/kg dry	4	---	ND	---	---	30%
1,2-Dichlorobenzene	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	30%
1,3-Dichlorobenzene	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	30%
1,4-Dichlorobenzene	ND	---	0.0269	mg/kg dry	4	---	ND	---	---	30%
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 59 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 4x</i>				
<i>2-Fluorobiphenyl (Surr)</i>		<i>75 %</i>		<i>44-120 %</i>		<i>"</i>				
<i>Phenol-d6 (Surr)</i>		<i>45 %</i>		<i>33-122 %</i>		<i>"</i>				
<i>p-Terphenyl-d14 (Surr)</i>		<i>82 %</i>		<i>54-127 %</i>		<i>"</i>				
<i>2-Fluorophenol (Surr)</i>		<i>36 %</i>		<i>35-120 %</i>		<i>"</i>				
<i>2,4,6-Tribromophenol (Surr)</i>		<i>42 %</i>		<i>39-132 %</i>		<i>"</i>				

Q-41

Matrix Spike (0100994-MS1)	Prepared: 10/29/20 06:55 Analyzed: 10/29/20 15:33									
-----------------------------------	---	--	--	--	--	--	--	--	--	--

QC Source Sample: DU-2--After Processing (A0J0826-11RE2)										
EPA 8270E										
Acenaphthene	0.378	---	0.0108	mg/kg dry	4	0.539	ND	70	40 - 123%	---
Acenaphthylene	0.402	---	0.0108	mg/kg dry	4	0.539	ND	75	32 - 132%	---
Anthracene	0.386	---	0.0108	mg/kg dry	4	0.539	ND	72	47 - 123%	---
Benz(a)anthracene	0.374	---	0.0108	mg/kg dry	4	0.539	ND	69	49 - 126%	---
Benzo(a)pyrene	0.383	---	0.0162	mg/kg dry	4	0.539	0.00987	69	45 - 129%	---
Benzo(b)fluoranthene	0.402	---	0.0162	mg/kg dry	4	0.539	0.00869	73	45 - 132%	---
Benzo(k)fluoranthene	0.352	---	0.0162	mg/kg dry	4	0.539	ND	65	47 - 132%	---
Benzo(g,h,i)perylene	0.354	---	0.0108	mg/kg dry	4	0.539	ND	66	43 - 134%	---
Chrysene	0.375	---	0.0108	mg/kg dry	4	0.539	ND	70	50 - 124%	---
Dibenz(a,h)anthracene	0.329	---	0.0108	mg/kg dry	4	0.539	ND	61	45 - 134%	---

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546												
Soil												
Matrix Spike (0100994-MS1)			Prepared: 10/29/20 06:55 Analyzed: 10/29/20 15:33									
QC Source Sample: DU-2--After Processing (A0J0826-11RE2)												
Fluoranthene	0.424	---	0.0108	mg/kg dry	4	0.539	ND	79	50 - 127%	---	---	
Fluorene	0.383	---	0.0108	mg/kg dry	4	0.539	ND	71	43 - 125%	---	---	
Indeno(1,2,3-cd)pyrene	0.314	---	0.0108	mg/kg dry	4	0.539	ND	58	45 - 133%	---	---	
1-Methylnaphthalene	0.403	---	0.0215	mg/kg dry	4	0.539	0.0197	71	40 - 120%	---	---	
2-Methylnaphthalene	0.418	---	0.0215	mg/kg dry	4	0.539	0.0269	73	38 - 122%	---	---	
Naphthalene	0.376	---	0.0215	mg/kg dry	4	0.539	0.0269	65	35 - 123%	---	---	
Phenanthrene	0.380	---	0.0108	mg/kg dry	4	0.539	0.00927	69	50 - 121%	---	---	
Pyrene	0.402	---	0.0108	mg/kg dry	4	0.539	0.00581	74	47 - 127%	---	---	
Carbazole	0.385	---	0.0162	mg/kg dry	4	0.539	ND	71	50 - 123%	---	---	
Dibenzofuran	0.372	---	0.0108	mg/kg dry	4	0.539	ND	69	44 - 120%	---	---	
2-Chlorophenol	0.277	---	0.0537	mg/kg dry	4	0.539	ND	51	34 - 121%	---	---	
4-Chloro-3-methylphenol	0.316	---	0.108	mg/kg dry	4	0.539	ND	59	45 - 122%	---	---	
2,4-Dichlorophenol	0.306	---	0.0537	mg/kg dry	4	0.539	ND	57	40 - 122%	---	---	Q-41
2,4-Dimethylphenol	0.357	---	0.0537	mg/kg dry	4	0.539	ND	66	30 - 127%	---	---	
2,4-Dinitrophenol	ND	---	0.269	mg/kg dry	4	0.539	ND		10 - 137%	---	---	Q-01, Q-41
4,6-Dinitro-2-methylphenol	ND	---	0.269	mg/kg dry	4	0.539	ND		29 - 132%	---	---	Q-01, Q-41
2-Methylphenol	0.312	---	0.0269	mg/kg dry	4	0.539	ND	58	32 - 122%	---	---	
3+4-Methylphenol(s)	0.282	---	0.0269	mg/kg dry	4	0.539	ND	52	34 - 120%	---	---	
2-Nitrophenol	0.154	---	0.108	mg/kg dry	4	0.539	ND	29	36 - 123%	---	---	Q-01
4-Nitrophenol	ND	---	0.108	mg/kg dry	4	0.539	ND	18	30 - 132%	---	---	Q-01
Pentachlorophenol (PCP)	ND	---	0.108	mg/kg dry	4	0.539	ND	13	25 - 133%	---	---	Q-01
Phenol	0.224	---	0.0215	mg/kg dry	4	0.539	ND	42	34 - 121%	---	---	
2,3,4,6-Tetrachlorophenol	0.123	---	0.0537	mg/kg dry	4	0.539	ND	23	44 - 125%	---	---	Q-01
2,3,5,6-Tetrachlorophenol	0.0985	---	0.0537	mg/kg dry	4	0.539	ND	18	40 - 120%	---	---	Q-01, Q-41
2,4,5-Trichlorophenol	0.188	---	0.0537	mg/kg dry	4	0.539	ND	35	41 - 124%	---	---	Q-01
Nitrobenzene	0.306	---	0.108	mg/kg dry	4	0.539	ND	57	34 - 122%	---	---	
2,4,6-Trichlorophenol	0.214	---	0.0537	mg/kg dry	4	0.539	ND	40	39 - 126%	---	---	
Bis(2-ethylhexyl)phthalate	0.408	---	0.162	mg/kg dry	4	0.539	ND	76	51 - 133%	---	---	
Butyl benzyl phthalate	0.396	---	0.108	mg/kg dry	4	0.539	ND	74	48 - 132%	---	---	
Diethylphthalate	0.312	---	0.108	mg/kg dry	4	0.539	ND	58	50 - 124%	---	---	
Dimethylphthalate	0.311	---	0.108	mg/kg dry	4	0.539	ND	58	48 - 124%	---	---	
Di-n-butylphthalate	0.378	---	0.108	mg/kg dry	4	0.539	ND	70	51 - 128%	---	---	
Di-n-octyl phthalate	0.434	---	0.108	mg/kg dry	4	0.539	ND	81	45 - 140%	---	---	

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546												
Soil												
Matrix Spike (0100994-MS1)			Prepared: 10/29/20 06:55 Analyzed: 10/29/20 15:33									
QC Source Sample: DU-2--After Processing (A0J0826-11RE2)												
N-Nitrosodimethylamine	0.0941	---	0.0269	mg/kg dry	4	0.539	ND	17	23 - 120%	---	---	Q-01, Q-31
N-Nitroso-di-n-propylamine	0.218	---	0.0269	mg/kg dry	4	0.539	ND	40	36 - 120%	---	---	Q-31
N-Nitrosodiphenylamine	0.374	---	0.0269	mg/kg dry	4	0.539	ND	69	38 - 127%	---	---	
Bis(2-Chloroethoxy) methane	0.300	---	0.0269	mg/kg dry	4	0.539	ND	56	36 - 121%	---	---	
Bis(2-Chloroethyl) ether	0.281	---	0.0269	mg/kg dry	4	0.539	ND	52	31 - 120%	---	---	
2,2'-Oxybis(1-Chloropropane)	0.227	---	0.0269	mg/kg dry	4	0.539	ND	42	33 - 131%	---	---	Q-31
Hexachlorobenzene	0.429	---	0.0108	mg/kg dry	4	0.539	ND	80	45 - 122%	---	---	
Hexachlorobutadiene	0.435	---	0.0269	mg/kg dry	4	0.539	ND	81	32 - 123%	---	---	
Hexachlorocyclopentadiene	0.491	---	0.0537	mg/kg dry	4	0.539	ND	91	10 - 140%	---	---	Q-41
Hexachloroethane	0.360	---	0.0269	mg/kg dry	4	0.539	ND	67	28 - 120%	---	---	
2-Chloronaphthalene	0.362	---	0.0108	mg/kg dry	4	0.539	ND	67	41 - 120%	---	---	
1,2,4-Trichlorobenzene	0.399	---	0.0269	mg/kg dry	4	0.539	ND	74	34 - 120%	---	---	
4-Bromophenyl phenyl ether	0.428	---	0.0269	mg/kg dry	4	0.539	ND	79	46 - 124%	---	---	
4-Chlorophenyl phenyl ether	0.403	---	0.0269	mg/kg dry	4	0.539	ND	75	45 - 121%	---	---	
Aniline	ND	---	0.0537	mg/kg dry	4	0.539	ND		10 - 120%	---	---	Q-01
4-Chloroaniline	0.0289	---	0.0269	mg/kg dry	4	0.539	ND	5	17 - 120%	---	---	Q-01
2-Nitroaniline	0.339	---	0.215	mg/kg dry	4	0.539	ND	63	44 - 127%	---	---	
3-Nitroaniline	ND	---	0.215	mg/kg dry	4	0.539	ND	35	33 - 120%	---	---	
4-Nitroaniline	ND	---	0.215	mg/kg dry	4	0.539	ND	31	70 - 138%	---	---	Q-01
2,4-Dinitrotoluene	0.334	---	0.108	mg/kg dry	4	0.539	ND	62	48 - 126%	---	---	
2,6-Dinitrotoluene	0.386	---	0.108	mg/kg dry	4	0.539	ND	72	46 - 124%	---	---	
Benzoic acid	ND	---	1.35	mg/kg dry	4	1.08	ND		10 - 140%	---	---	Q-01, Q-31
Benzyl alcohol	0.280	---	0.0537	mg/kg dry	4	0.539	ND	52	29 - 122%	---	---	
Isophorone	0.224	---	0.0269	mg/kg dry	4	0.539	ND	42	30 - 122%	---	---	
Azobenzene (1,2-DPH)	0.281	---	0.0269	mg/kg dry	4	0.539	ND	52	39 - 125%	---	---	Q-31
Bis(2-Ethylhexyl) adipate	0.367	---	0.269	mg/kg dry	4	0.539	ND	68	61 - 121%	---	---	
3,3'-Dichlorobenzidine	0.223	---	0.215	mg/kg dry	4	1.08	ND	21	22 - 121%	---	---	Q-01
1,2-Dinitrobenzene	0.390	---	0.269	mg/kg dry	4	0.539	ND	72	44 - 120%	---	---	
1,3-Dinitrobenzene	0.350	---	0.269	mg/kg dry	4	0.539	ND	65	43 - 127%	---	---	
1,4-Dinitrobenzene	0.376	---	0.269	mg/kg dry	4	0.539	ND	70	37 - 132%	---	---	Q-41
Pyridine	ND	---	0.0537	mg/kg dry	4	0.539	ND		10 - 120%	---	---	Q-01, Q-31
1,2-Dichlorobenzene	0.342	---	0.0269	mg/kg dry	4	0.539	ND	63	33 - 120%	---	---	
1,3-Dichlorobenzene	0.336	---	0.0269	mg/kg dry	4	0.539	ND	62	30 - 120%	---	---	

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Lisa Domenighini, Client Services Manager



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6700 S.W. Sandburg Street
 Tigard, OR 97223
 503-718-2323
 ORELAP ID: OR100062

PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100994 - EPA 3546						Soil						
Matrix Spike (0100994-MS1)			Prepared: 10/29/20 06:55 Analyzed: 10/29/20 15:33									
QC Source Sample: DU-2--After Processing (A0J0826-11RE2)												
1,4-Dichlorobenzene	0.339	---	0.0269	mg/kg dry	4	0.539	ND	63	31 - 120%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 60 %</i>				<i>Dilution: 4x</i>					
<i>2-Fluorobiphenyl (Surr)</i>			<i>73 %</i>				<i>"</i>					
<i>Phenol-d6 (Surr)</i>			<i>42 %</i>				<i>"</i>					
<i>p-Terphenyl-d14 (Surr)</i>			<i>81 %</i>				<i>"</i>					
<i>2-Fluorophenol (Surr)</i>			<i>35 %</i>				<i>"</i>					
<i>2,4,6-Tribromophenol (Surr)</i>			<i>52 %</i>				<i>"</i>					Q-41

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100878 - EPA 3051A						Soil						
Blank (0100878-BLK1)			Prepared: 10/26/20 11:03 Analyzed: 10/27/20 16:39									
<u>EPA 6020A</u>												
Arsenic	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Barium	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Cadmium	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	---
Chromium	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Lead	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	---
Mercury	ND	---	0.0769	mg/kg wet	10	---	---	---	---	---	---	---
Selenium	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Silver	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	---
<hr/>												
LCS (0100878-BS1)			Prepared: 10/26/20 11:03 Analyzed: 10/27/20 16:43									
<u>EPA 6020A</u>												
Arsenic	51.4	---	1.00	mg/kg wet	10	50.0	---	103	80 - 120%	---	---	---
Barium	53.4	---	1.00	mg/kg wet	10	50.0	---	107	80 - 120%	---	---	---
Cadmium	50.4	---	0.200	mg/kg wet	10	50.0	---	101	80 - 120%	---	---	---
Chromium	49.4	---	1.00	mg/kg wet	10	50.0	---	99	80 - 120%	---	---	---
Lead	53.1	---	0.200	mg/kg wet	10	50.0	---	106	80 - 120%	---	---	---
Mercury	1.00	---	0.0800	mg/kg wet	10	1.00	---	100	80 - 120%	---	---	---
Selenium	24.7	---	1.00	mg/kg wet	10	25.0	---	99	80 - 120%	---	---	---
Silver	24.0	---	0.200	mg/kg wet	10	25.0	---	96	80 - 120%	---	---	---

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0101027 - EPA 3051A												
Soil												
Blank (0101027-BLK1)												
Prepared: 10/29/20 12:44 Analyzed: 10/29/20 18:12												
<u>EPA 6020A</u>												
Arsenic	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Barium	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Cadmium	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	---
Chromium	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Lead	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	---
Mercury	ND	---	0.0769	mg/kg wet	10	---	---	---	---	---	---	---
Selenium	ND	---	0.962	mg/kg wet	10	---	---	---	---	---	---	---
Silver	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	---
LCS (0101027-BS1)												
Prepared: 10/29/20 12:44 Analyzed: 10/29/20 18:21												
<u>EPA 6020A</u>												
Arsenic	50.6	---	1.00	mg/kg wet	10	50.0	---	101	80 - 120%	---	---	---
Barium	50.8	---	1.00	mg/kg wet	10	50.0	---	102	80 - 120%	---	---	---
Cadmium	50.3	---	0.200	mg/kg wet	10	50.0	---	101	80 - 120%	---	---	---
Chromium	49.1	---	1.00	mg/kg wet	10	50.0	---	98	80 - 120%	---	---	---
Lead	48.9	---	0.200	mg/kg wet	10	50.0	---	98	80 - 120%	---	---	---
Mercury	0.949	---	0.0800	mg/kg wet	10	1.00	---	95	80 - 120%	---	---	---
Selenium	24.2	---	1.00	mg/kg wet	10	25.0	---	97	80 - 120%	---	---	---
Silver	23.2	---	0.200	mg/kg wet	10	25.0	---	93	80 - 120%	---	---	---
Duplicate (0101027-DUP1)												
Prepared: 10/29/20 12:44 Analyzed: 10/29/20 18:41												
<u>QC Source Sample: DU-2--After Processing (A0J0826-11)</u>												
<u>EPA 6020A</u>												
Arsenic	4.76	---	1.10	mg/kg dry	10	---	4.06	---	---	16	20%	---
Barium	317	---	1.10	mg/kg dry	10	---	318	---	---	0.4	20%	---
Cadmium	ND	---	0.219	mg/kg dry	10	---	0.183	---	---	***	20%	---
Chromium	84.6	---	1.10	mg/kg dry	10	---	86.1	---	---	2	20%	---
Lead	8.14	---	0.219	mg/kg dry	10	---	9.01	---	---	10	20%	---
Mercury	ND	---	0.0877	mg/kg dry	10	---	ND	---	---	---	20%	---
Selenium	1.12	---	1.10	mg/kg dry	10	---	1.14	---	---	2	20%	---
Silver	ND	---	0.219	mg/kg dry	10	---	ND	---	---	---	20%	---
Matrix Spike (0101027-MS1)												
Prepared: 10/29/20 12:44 Analyzed: 10/29/20 18:53												

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PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0101027 - EPA 3051A						Soil						
Matrix Spike (0101027-MS1)			Prepared: 10/29/20 12:44 Analyzed: 10/29/20 18:53									
QC Source Sample: DU-2--After Processing (A0J0826-11)												
EPA 6020A												
Arsenic	56.9	---	1.10	mg/kg dry	10	55.0	4.06	96	75 - 125%	---	---	
Barium	375	---	1.10	mg/kg dry	10	55.0	318	103	75 - 125%	---	---	
Cadmium	56.4	---	0.220	mg/kg dry	10	55.0	0.183	102	75 - 125%	---	---	
Chromium	143	---	1.10	mg/kg dry	10	55.0	86.1	104	75 - 125%	---	---	
Lead	59.1	---	0.220	mg/kg dry	10	55.0	9.01	91	75 - 125%	---	---	
Mercury	1.01	---	0.0880	mg/kg dry	10	1.10	ND	92	75 - 125%	---	---	
Selenium	26.9	---	1.10	mg/kg dry	10	27.5	1.14	94	75 - 125%	---	---	
Silver	25.3	---	0.220	mg/kg dry	10	27.5	ND	92	75 - 125%	---	---	



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Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100916 - Total Solids (Dry Weight)						Soil						
Duplicate (0100916-DUP4)		Prepared: 10/27/20 09:03 Analyzed: 10/28/20 08:26										
QC Source Sample: Ditch-1 (A0J0826-03)												
EPA 8000D												
% Solids	74.4	---	1.00	%	1	---	71.1	---	---	5	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager



Apex Laboratories, LLC

6700 S.W. Sandburg Street
 Tigard, OR 97223
 503-718-2323
 ORELAP ID: OR100062

PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100953 - Total Solids (Dry Weight)						Soil						
Duplicate (0100953-DUP1)		Prepared: 10/28/20 08:30 Analyzed: 10/29/20 08:26										
QC Source Sample: DU-3--After Processing (A0J0826-02)												
EPA 8000D												
% Solids	96.4	---	1.00	%	1	---	96.4	---	---	0.03	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental 4412 SW Corbett Ave Portland, OR 97239	Project: Millpond Crossing-RSM Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 0100935</u>							
A0J0826-03	Soil	NWTPH-Dx	10/22/20 15:30	10/27/20 12:40	10.42g/5mL	10g/5mL	0.96
A0J0826-04	Soil	NWTPH-Dx	10/22/20 15:40	10/27/20 12:40	10.03g/5mL	10g/5mL	1.00
A0J0826-05	Soil	NWTPH-Dx	10/22/20 15:50	10/27/20 12:40	10.18g/5mL	10g/5mL	0.98
A0J0826-06	Soil	NWTPH-Dx	10/22/20 16:00	10/27/20 12:40	10.77g/5mL	10g/5mL	0.93
A0J0826-07	Soil	NWTPH-Dx	10/22/20 16:10	10/27/20 12:40	10.32g/5mL	10g/5mL	0.97
<u>Batch: 0101024</u>							
A0J0826-02	Soil	NWTPH-Dx	10/22/20 11:50	10/29/20 12:42	10.47g/5mL	10g/5mL	0.96

Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 0100929</u>							
A0J0826-09	Soil	EPA 8270E	10/23/20 11:00	10/27/20 11:58	15.05g/5mL	15g/2mL	2.49
<u>Batch: 0100994</u>							
A0J0826-11RE2	Soil	EPA 8270E	10/23/20 13:15	10/29/20 06:55	15.2g/2mL	15g/2mL	0.99

Total Metals by EPA 6020A (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 0100878</u>							
A0J0826-03	Soil	EPA 6020A	10/22/20 15:30	10/26/20 11:03	0.492g/50mL	0.5g/50mL	1.02
A0J0826-04	Soil	EPA 6020A	10/22/20 15:40	10/26/20 11:03	0.495g/50mL	0.5g/50mL	1.01
A0J0826-05	Soil	EPA 6020A	10/22/20 15:50	10/26/20 11:03	0.478g/50mL	0.5g/50mL	1.05
A0J0826-06	Soil	EPA 6020A	10/22/20 16:00	10/26/20 11:03	0.504g/50mL	0.5g/50mL	0.99
A0J0826-07	Soil	EPA 6020A	10/22/20 16:10	10/26/20 11:03	0.492g/50mL	0.5g/50mL	1.02
<u>Batch: 0101027</u>							
A0J0826-09	Soil	EPA 6020A	10/23/20 11:00	10/29/20 12:44	0.478g/50mL	0.5g/50mL	1.05
A0J0826-11	Soil	EPA 6020A	10/23/20 13:15	10/29/20 12:44	0.49g/50mL	0.5g/50mL	1.02

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
------------	--------	--------	---------	----------	----------------------	-----------------------	----------------

Apex Laboratories

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Lisa Domenighini, Client Services Manager



Apex Laboratories, LLC

6700 S.W. Sandburg Street
 Tigard, OR 97223
 503-718-2323
 ORELAP ID: OR100062

PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 0100916							
A0J0826-03	Soil	EPA 8000D	10/22/20 15:30	10/27/20 09:03			NA
A0J0826-04	Soil	EPA 8000D	10/22/20 15:40	10/27/20 09:03			NA
A0J0826-05	Soil	EPA 8000D	10/22/20 15:50	10/27/20 09:03			NA
A0J0826-06	Soil	EPA 8000D	10/22/20 16:00	10/27/20 09:03			NA
A0J0826-07	Soil	EPA 8000D	10/22/20 16:10	10/27/20 09:03			NA
Batch: 0100953							
A0J0826-02	Soil	EPA 8000D	10/22/20 11:50	10/28/20 08:30			NA
A0J0826-09	Soil	EPA 8000D	10/23/20 11:00	10/28/20 08:30			NA
A0J0826-11	Soil	EPA 8000D	10/23/20 13:15	10/28/20 08:30			NA

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Lisa Domenighini, Client Services Manager



<u>PBS Engineering and Environmental</u> 4412 SW Corbett Ave Portland, OR 97239	Project: <u>Millpond Crossing-RSM</u> Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-18** Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- R-04** Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-03** Reextraction and analysis, or analysis of laboratory duplicate, confirms surrogate failure due to sample matrix effect.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported.
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis. The Result Basis is listed following the units as "dry", "wet", or "" (blank) designation.
 - "dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
 - "wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
 - "" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).
-For Blank hits falling between 1/2 the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

Apex Laboratories

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Lisa Domenighini, Client Services Manager



PBS Engineering and Environmental	Project: Millpond Crossing-RSM	
4412 SW Corbett Ave	Project Number: 24159.000	Report ID:
Portland, OR 97239	Project Manager: Chris Sheridan	A0J0826 - 11 05 20 1258

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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Lisa Domenighini, Client Services Manager



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

<u>PBS Engineering and Environmental</u> 4412 SW Corbett Ave Portland, OR 97239	Project: <u>Millpond Crossing-RSM</u> Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation)
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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PBS Engineering and Environmental Project: **Millpond Crossing-RSM**
 4412 SW Corbett Ave Project Number: **24159.000**
 Portland, OR 97239 Project Manager: **Chris Sheridan** Report ID: **A0J0826 - 11 05 20 1258**

APEX LABS 6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323
CHAIN OF CUSTODY Lab # ADD 0826 coc 1 of 1
 Company: **PBS** Project Mgr: **Chris Sheridan** Project Name: **Mill Pond Crossing** Project #: **24159.000**
 Address: _____ Phone: _____ Email: _____ PO # _____
 Sampled by: **S. Eckes**
 Site Location: **OR WA CA**
 AK ID _____

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	ANALYSIS REQUEST		Archive
						Priority Metals (13)	Dioxins	
DU-3		10/22	150	soil	1	X		
Ditch-1		1530			3			
Ditch-2		1540						
Ditch-3		1550						
Ditch-4		1600						
Ditch-5		1610						
DU-1		10/23	1100		1		X	X
DU-2		10/23	1315		1		X	X

SPECIAL INSTRUCTIONS:
 # may analyze "ditch" samples for VOCs/SVOCs

Normal Turn Around Time (TAT) = 10 Business Days
 TAT Requested (circle): 1 Day 2 Day **3 Day** 4 DAY 5 DAY Other: _____

RELINQUISHED BY: Signature: _____ Date: _____
 Printed Name: **S. Eckes** Company: **PBS**

RECEIVED BY: Signature: _____ Date: _____
 Printed Name: **Janna Gaddy** Company: _____

RELINQUISHED BY: Signature: _____ Date: _____
 Printed Name: _____ Company: _____

RECEIVED BY: Signature: _____ Date: _____
 Printed Name: _____ Company: _____

Lisa Domenighini



PBS Engineering and Environmental 4412 SW Corbett Ave Portland, OR 97239	Project: Millpond Crossing-RSM Project Number: 24159.000 Project Manager: Chris Sheridan	Report ID: A0J0826 - 11 05 20 1258
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APEX LABS COOLER RECEIPT FORM

Client: PBS Element WO#: A0 J0826

Project/Project #: mill pond crossing / 24159.000

Delivery Info:
Date/time received: 10-23-20 @ 17:00 By: TRH
Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 10-23-20 @ 17:00 By: TRH
Chain of Custody included? Yes No Custody seals? Yes No
Signed/dated by client? Yes No
Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>1.9</u>	<u>4.0</u>					
Received on ice? (Y/N)	<u>Y</u>	<u>Y</u>					
Temp. blanks? (Y/N)	<u>N</u>	<u>N</u>					
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>pool</u>					
Condition:	<u>good</u>	<u>good</u>					

Cooler out of temp? (Y/N) Possible reason why: _____
If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA
Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 10-23-20 @ 17:29 By: AKK
All samples intact? Yes No Comments: _____
Bottle labels/COCs agree? Yes No Comments: fall 10/23/20
reads 1600. Ditch-5 T on 1/2 VOAs
COC/container discrepancies form initiated? Yes No
Containers/volumes received appropriate for analysis? Yes No Comments: _____
Do VOA vials have visible headspace? Yes No NA
Comments: _____
Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
Comments: _____

Additional information:

Labeled by: AKK Witness: WPL Cooler Inspected by: AKK See Project Contact Form: Y

November 12, 2020

Ms. Lisa Domenighini
Apex Laboratories
6700 SW Sandburg Street
Portland, Oregon 97223

Re: 2018 DXN & PCB IDIQ
Work Order: 17316
SDG: A0J0826

Dear Ms. Domenighini:

Cape Fear Analytical LLC (CFA) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 30, 2020. This original data report has been prepared and reviewed in accordance with CFA's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at 910-795-0421.

Sincerely,



Cynde Larkins
Project Manager

Enclosures

EJ

SUBCONTRACT ORDER

Apex Laboratories

A0J0826

CFA WO#17316

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Lisa Domenighini

RECEIVING LABORATORY:

Cape Fear Analytical, LLC
3306 Kitty Hawk Rd Suite 120
Wilmington, NC 28405
Phone : (910) 795-0421
Fax: -

Sample Name: DU-1--After Processing **Soil** **Sampled: 10/23/20 11:00** (A0J0826-09)


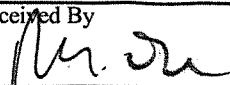
Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB) <i>Containers Supplied:</i> (B)4 oz Glass Jar	11/12/20 17:00	04/21/21 11:00	

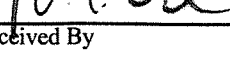
Sample Name: DU-2--After Processing **Soil** **Sampled: 10/23/20 13:15** (A0J0826-11)

Analysis	Due	Expires	Comments
1613B Dioxins and Furans (SUB) <i>Containers Supplied:</i> (B)4 oz Glass Jar	11/12/20 17:00	04/21/21 13:15	

10 day TAT

temp. = 1.3°C

Released By:  Date: 10-28-20 Fed Ex (Shipper) Received By:  Date: 11/30/20 10:00

Released By: Fed Ex (Shipper) Received By:  Date: 11/30/20 10:00

High Resolution Dioxins and Furans Analysis

Case Narrative

**HDOX Case Narrative
Apex Laboratories (APEX)
SDG A0J0826
Work Order 17316**

Method/Analysis Information

Product: Dioxins/Furans by EPA Method 1613B in Solids
Analytical Method: EPA Method 1613B
Extraction Method: SW846 3540C
Analytical Batch Number: 45199
Clean Up Batch Number: 45198
Extraction Batch Number: 45197

Sample Analysis

Samples were received at 1.3°C. (17316001,17316002). The following samples were analyzed using the analytical protocol as established in EPA Method 1613B:

Sample ID	Client ID
12027838	Method Blank (MB)
12027839	Laboratory Control Sample (LCS)
12027840	Laboratory Control Sample Duplicate (LCSD)
17316001	DU-1--After Processing
17316002	DU-2--After Processing

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by Cape Fear Analytical LLC (CFA) as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with CF-OA-E-002 REV# 18.

Raw data reports are processed and reviewed by the analyst using the TargetLynx software package.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (CCV) met the acceptance criteria.

Quality Control (QC) Information

Certification Statement

The test results presented in this document are certified to meet all requirements of the 2009 TNI Standard.

Method Blank (MB) Statement

The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery

The LCSD spike recoveries met the acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement

The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation

A matrix spike and matrix spike duplicate analysis was not required for this SDG.

Technical Information

Receipt Temperature

Samples were received within temperature requirements.

Holding Time Specifications

CFA assigns holding times based on the associated methodology, which assigns the date and time from sample collection. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis

Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Nonconformance (NCR) Documentation

A NCR was not required for this SDG.

Manual Integrations

Certain standards and QC samples required manual integrations to correctly position the baseline as set in the calibration standard injections. Where manual integrations were performed, copies of all manual integration peak profiles are included in the raw data section of this fraction. Manual integrations were required for data files in this SDG.

Sample Preparation

No difficulties were encountered during sample preparation.

System Configuration

This analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
HRP750_2	Primary Dioxin Analysis	Dioxin Analysis	DB-5MS	60m x 0.25mm, 0.25um

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Sample Data Summary

Cape Fear Analytical, LLC

3306 Kitty Hawk Road Suite 120, Wilmington, NC 28405 - (910) 795-0421 - www.capefearanalytical.com

Qualifier Definition Report for

APEX001 Apex Laboratories

Client SDG: A0J0826 CFA Work Order: 17316


The Qualifiers in this report are defined as follows:

- * A quality control analyte recovery is outside of specified acceptance criteria
- ** Analyte is a surrogate compound
- B The target analyte was detected in the associated blank.
- J Value is estimated
- K Estimated Maximum Possible Concentration
- U Analyte was analyzed for, but not detected above the specified detection limit.
- DL Indicates that sample is diluted.
- RA Indicates that sample is re-analyzed without re-extraction.
- RE Indicates that sample is re-extracted.

Review/Validation

Cape Fear Analytical requires all analytical data to be verified by a qualified data reviewer.

The following data validator verified the information presented in this case narrative:

Signature: 

Name: Erin Suhrie

Date: 12 NOV 2020

Title: Data Validator

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 17316001	Date Collected: 10/23/2020 11:00	Matrix: SOIL
Client Sample: 1613B Soil	Date Received: 10/30/2020 10:00	%Moisture: 3.5
Client ID: DU-1--After Processing		Prep Basis: Dry Weight
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/07/2020 02:42	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A_2-8		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 11.04 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	0.166	pg/g	0.166	0.939
40321-76-4	1,2,3,7,8-PeCDD	JK	0.582	pg/g	0.381	4.69
39227-28-6	1,2,3,4,7,8-HxCDD	J	1.47	pg/g	0.437	4.69
57653-85-7	1,2,3,6,7,8-HxCDD	J	3.43	pg/g	0.411	4.69
19408-74-3	1,2,3,7,8,9-HxCDD	J	2.36	pg/g	0.430	4.69
35822-46-9	1,2,3,4,6,7,8-HpCDD		97.4	pg/g	1.09	4.69
3268-87-9	1,2,3,4,6,7,8,9-OCDD		1120	pg/g	1.50	9.39
51207-31-9	2,3,7,8-TCDF	JK	0.347	pg/g	0.304	0.939
57117-41-6	1,2,3,7,8-PeCDF	J	0.364	pg/g	0.208	4.69
57117-31-4	2,3,4,7,8-PeCDF	J	0.490	pg/g	0.199	4.69
70648-26-9	1,2,3,4,7,8-HxCDF	J	0.939	pg/g	0.317	4.69
57117-44-9	1,2,3,6,7,8-HxCDF	J	0.631	pg/g	0.317	4.69
60851-34-5	2,3,4,6,7,8-HxCDF	J	0.809	pg/g	0.332	4.69
72918-21-9	1,2,3,7,8,9-HxCDF	J	0.486	pg/g	0.471	4.69
67562-39-4	1,2,3,4,6,7,8-HpCDF		14.8	pg/g	0.334	4.69
55673-89-7	1,2,3,4,7,8,9-HpCDF	JK	0.766	pg/g	0.578	4.69
39001-02-0	1,2,3,4,6,7,8,9-OCDF		25.6	pg/g	0.770	9.39
41903-57-5	Total TeCDD	JK	1.27	pg/g	0.166	0.939
36088-22-9	Total PeCDD	JK	3.76	pg/g	0.381	4.69
34465-46-8	Total HxCDD	JK	23.9	pg/g	0.411	4.69
37871-00-4	Total HpCDD		176	pg/g	1.09	4.69
30402-14-3	Total TeCDF	JK	1.78	pg/g	0.304	0.939
30402-15-4	Total PeCDF	JK	8.23	pg/g	0.0781	4.69
55684-94-1	Total HxCDF	J	21.8	pg/g	0.317	4.69
38998-75-3	Total HpCDF	JK	42.2	pg/g	0.334	4.69
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		3.26	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		3.35	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		122	188	pg/g	65.1	(25%-164%)
13C-1,2,3,7,8-PeCDD		118	188	pg/g	62.9	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		113	188	pg/g	60.4	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		120	188	pg/g	63.7	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		122	188	pg/g	65.0	(23%-140%)
13C-OCDD		222	375	pg/g	59.2	(17%-157%)
13C-2,3,7,8-TCDF		125	188	pg/g	66.7	(24%-169%)
13C-1,2,3,7,8-PeCDF		113	188	pg/g	60.4	(24%-185%)
13C-2,3,4,7,8-PeCDF		114	188	pg/g	60.9	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		112	188	pg/g	59.9	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		113	188	pg/g	60.0	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		114	188	pg/g	60.6	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		112	188	pg/g	59.9	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 2 of 2

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 17316001	Date Collected: 10/23/2020 11:00	Matrix: SOIL
Client Sample: 1613B Soil	Date Received: 10/30/2020 10:00	%Moisture: 3.5
Client ID: DU-1--After Processing		Prep Basis: Dry Weight
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/07/2020 02:42	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A_2-8		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 11.04 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
Surrogate/Tracer recovery						
		Qual	Result	Nominal	Units	Recovery%
						Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			116	188	pg/g	61.8 (28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			114	188	pg/g	60.5 (26%-138%)
37Cl-2,3,7,8-TCDD			16.6	18.8	pg/g	88.2 (35%-197%)

Comments:

- J** Value is estimated
- K** Estimated Maximum Possible Concentration
- U** Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 17316002	Date Collected: 10/23/2020 13:15	Matrix: SOIL
Client Sample: 1613B Soil	Date Received: 10/30/2020 10:00	%Moisture: 32.3
Client ID: DU-2--After Processing		Prep Basis: Dry Weight
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/07/2020 03:30	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A_2-9		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 15.42 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	0.194	pg/g	0.194	0.958
40321-76-4	1,2,3,7,8-PeCDD	U	0.168	pg/g	0.168	4.79
39227-28-6	1,2,3,4,7,8-HxCDD	U	0.211	pg/g	0.211	4.79
57653-85-7	1,2,3,6,7,8-HxCDD	U	0.201	pg/g	0.201	4.79
19408-74-3	1,2,3,7,8,9-HxCDD	U	0.209	pg/g	0.209	4.79
35822-46-9	1,2,3,4,6,7,8-HpCDD	J	2.46	pg/g	0.506	4.79
3268-87-9	1,2,3,4,6,7,8,9-OCDD		22.2	pg/g	0.788	9.58
51207-31-9	2,3,7,8-TCDF	U	0.268	pg/g	0.268	0.958
57117-41-6	1,2,3,7,8-PeCDF	J	0.176	pg/g	0.169	4.79
57117-31-4	2,3,4,7,8-PeCDF	U	0.163	pg/g	0.163	4.79
70648-26-9	1,2,3,4,7,8-HxCDF	JK	0.243	pg/g	0.186	4.79
57117-44-9	1,2,3,6,7,8-HxCDF	U	0.179	pg/g	0.179	4.79
60851-34-5	2,3,4,6,7,8-HxCDF	U	0.179	pg/g	0.179	4.79
72918-21-9	1,2,3,7,8,9-HxCDF	U	0.276	pg/g	0.276	4.79
67562-39-4	1,2,3,4,6,7,8-HpCDF	BJ	0.880	pg/g	0.224	4.79
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	0.389	pg/g	0.389	4.79
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	0.544	pg/g	0.544	9.58
41903-57-5	Total TeCDD	U	0.194	pg/g	0.194	0.958
36088-22-9	Total PeCDD	JK	0.171	pg/g	0.168	4.79
34465-46-8	Total HxCDD	JK	0.711	pg/g	0.201	4.79
37871-00-4	Total HpCDD	J	4.40	pg/g	0.506	4.79
30402-14-3	Total TeCDF	U	0.268	pg/g	0.268	0.958
30402-15-4	Total PeCDF	BJK	0.909	pg/g	0.0941	4.79
55684-94-1	Total HxCDF	JK	1.49	pg/g	0.179	4.79
38998-75-3	Total HpCDF	BJ	1.89	pg/g	0.224	4.79
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.0697	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		0.353	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		108	192	pg/g	56.2	(25%-164%)
13C-1,2,3,7,8-PeCDD		134	192	pg/g	69.7	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		97.3	192	pg/g	50.8	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		108	192	pg/g	56.1	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		115	192	pg/g	60.0	(23%-140%)
13C-OCDD		184	383	pg/g	47.9	(17%-157%)
13C-2,3,7,8-TCDF		103	192	pg/g	53.9	(24%-169%)
13C-1,2,3,7,8-PeCDF		132	192	pg/g	68.7	(24%-185%)
13C-2,3,4,7,8-PeCDF		131	192	pg/g	68.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		98.2	192	pg/g	51.2	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		100	192	pg/g	52.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		104	192	pg/g	54.3	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		102	192	pg/g	53.4	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 17316002	Date Collected: 10/23/2020 13:15	Matrix: SOIL
Client Sample: 1613B Soil	Date Received: 10/30/2020 10:00	%Moisture: 32.3
Client ID: DU-2--After Processing		Prep Basis: Dry Weight
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/07/2020 03:30	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A_2-9		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 15.42 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
Surrogate/Tracer recovery						
		Qual	Result	Nominal	Units	Recovery%
						Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			112	192	pg/g	58.6 (28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			108	192	pg/g	56.4 (26%-138%)
37Cl-2,3,7,8-TCDD			16.5	19.2	pg/g	86.1 (35%-197%)

- Comments:**
- B** The target analyte was detected in the associated blank.
 - J** Value is estimated
 - K** Estimated Maximum Possible Concentration
 - U** Analyte was analyzed for, but not detected above the specified detection limit.

Quality Control Summary

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: A0J0826

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
12027839	LCS for batch 45197	13C-2,3,7,8-TCDD		77.8	(20%-175%)
		13C-1,2,3,7,8-PeCDD		86.6	(21%-227%)
		13C-1,2,3,4,7,8-HxCDD		73.2	(21%-193%)
		13C-1,2,3,6,7,8-HxCDD		83.6	(25%-163%)
		13C-1,2,3,4,6,7,8-HpCDD		87.1	(22%-166%)
		13C-OCDD		78.5	(13%-199%)
		13C-2,3,7,8-TCDF		81.0	(22%-152%)
		13C-1,2,3,7,8-PeCDF		87.9	(21%-192%)
		13C-2,3,4,7,8-PeCDF		86.5	(13%-328%)
		13C-1,2,3,4,7,8-HxCDF		77.4	(19%-202%)
		13C-1,2,3,6,7,8-HxCDF		78.7	(21%-159%)
		13C-2,3,4,6,7,8-HxCDF		79.5	(22%-176%)
		13C-1,2,3,7,8,9-HxCDF		80.4	(17%-205%)
		13C-1,2,3,4,6,7,8-HpCDF		84.4	(21%-158%)
		13C-1,2,3,4,7,8,9-HpCDF		83.7	(20%-186%)
		37Cl-2,3,7,8-TCDD		91.0	(31%-191%)
		12027840	LCSD for batch 45197	13C-2,3,7,8-TCDD	
13C-1,2,3,7,8-PeCDD				82.3	(21%-227%)
13C-1,2,3,4,7,8-HxCDD				66.5	(21%-193%)
13C-1,2,3,6,7,8-HxCDD				73.5	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD				79.9	(22%-166%)
13C-OCDD				72.3	(13%-199%)
13C-2,3,7,8-TCDF				77.2	(22%-152%)
13C-1,2,3,7,8-PeCDF				85.4	(21%-192%)
13C-2,3,4,7,8-PeCDF				83.8	(13%-328%)
13C-1,2,3,4,7,8-HxCDF				68.0	(19%-202%)
13C-1,2,3,6,7,8-HxCDF				71.7	(21%-159%)
13C-2,3,4,6,7,8-HxCDF				71.3	(22%-176%)
13C-1,2,3,7,8,9-HxCDF				71.4	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF				74.5	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF				79.1	(20%-186%)
37Cl-2,3,7,8-TCDD				93.9	(31%-191%)
12027838	MB for batch 45197			13C-2,3,7,8-TCDD	
		13C-1,2,3,7,8-PeCDD		61.3	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		56.1	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		61.8	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		66.3	(23%-140%)
		13C-OCDD		57.4	(17%-157%)
		13C-2,3,7,8-TCDF		60.7	(24%-169%)
		13C-1,2,3,7,8-PeCDF		63.0	(24%-185%)
		13C-2,3,4,7,8-PeCDF		62.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		56.5	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		60.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		61.8	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		59.2	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		65.4	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		64.7	(26%-138%)
		37Cl-2,3,7,8-TCDD		86.9	(35%-197%)
		17316001	DU-1--After Processing	13C-2,3,7,8-TCDD	

Hi-Res Dioxins/Furans
Surrogate Recovery Report

SDG Number: A0J0826

Matrix Type: SOLID

Sample ID	Client ID	Surrogate	QUAL	Recovery (%)	Acceptance Limits
17316001	DU-1--After Processing	13C-1,2,3,7,8-PeCDD		62.9	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		60.4	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		63.7	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		65.0	(23%-140%)
		13C-OCDD		59.2	(17%-157%)
		13C-2,3,7,8-TCDF		66.7	(24%-169%)
		13C-1,2,3,7,8-PeCDF		60.4	(24%-185%)
		13C-2,3,4,7,8-PeCDF		60.9	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		59.9	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		60.0	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		60.6	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		59.9	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		61.8	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		60.5	(26%-138%)
		37Cl-2,3,7,8-TCDD		88.2	(35%-197%)
17316002	DU-2--After Processing	13C-2,3,7,8-TCDD		56.2	(25%-164%)
		13C-1,2,3,7,8-PeCDD		69.7	(25%-181%)
		13C-1,2,3,4,7,8-HxCDD		50.8	(32%-141%)
		13C-1,2,3,6,7,8-HxCDD		56.1	(28%-130%)
		13C-1,2,3,4,6,7,8-HpCDD		60.0	(23%-140%)
		13C-OCDD		47.9	(17%-157%)
		13C-2,3,7,8-TCDF		53.9	(24%-169%)
		13C-1,2,3,7,8-PeCDF		68.7	(24%-185%)
		13C-2,3,4,7,8-PeCDF		68.2	(21%-178%)
		13C-1,2,3,4,7,8-HxCDF		51.2	(26%-152%)
		13C-1,2,3,6,7,8-HxCDF		52.2	(26%-123%)
		13C-2,3,4,6,7,8-HxCDF		54.3	(28%-136%)
		13C-1,2,3,7,8,9-HxCDF		53.4	(29%-147%)
		13C-1,2,3,4,6,7,8-HpCDF		58.6	(28%-143%)
		13C-1,2,3,4,7,8,9-HpCDF		56.4	(26%-138%)
37Cl-2,3,7,8-TCDD		86.1	(35%-197%)		

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

SDG Number: A0J0826

Sample Type: Laboratory Control Sample

Client ID: LCS for batch 45197

Matrix: SOIL

Lab Sample ID: 12027839

Instrument: HRP750

Analysis Date: 11/06/2020 09:30

Dilution: 1

Analyst: MLL

Prep Batch ID: 45197

Batch ID: 45199

CAS No.	Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits
1746-01-6	LCS 2,3,7,8-TCDD	20.0	20.9	104	67-158
40321-76-4	LCS 1,2,3,7,8-PeCDD	100	103	103	70-142
39227-28-6	LCS 1,2,3,4,7,8-HxCDD	100	105	105	70-164
57653-85-7	LCS 1,2,3,6,7,8-HxCDD	100	101	101	76-134
19408-74-3	LCS 1,2,3,7,8,9-HxCDD	100	106	106	64-162
35822-46-9	LCS 1,2,3,4,6,7,8-HpCDD	100	97.8	97.8	70-140
3268-87-9	LCS 1,2,3,4,6,7,8,9-OCDD	200	200	100	78-144
51207-31-9	LCS 2,3,7,8-TCDF	20.0	19.3	96.6	75-158
57117-41-6	LCS 1,2,3,7,8-PeCDF	100	102	102	80-134
57117-31-4	LCS 2,3,4,7,8-PeCDF	100	108	108	68-160
70648-26-9	LCS 1,2,3,4,7,8-HxCDF	100	99.5	99.5	72-134
57117-44-9	LCS 1,2,3,6,7,8-HxCDF	100	101	101	84-130
60851-34-5	LCS 2,3,4,6,7,8-HxCDF	100	99.1	99.1	70-156
72918-21-9	LCS 1,2,3,7,8,9-HxCDF	100	101	101	78-130
67562-39-4	LCS 1,2,3,4,6,7,8-HpCDF	100	101	101	82-122
55673-89-7	LCS 1,2,3,4,7,8,9-HpCDF	100	101	101	78-138
39001-02-0	LCS 1,2,3,4,6,7,8,9-OCDF	200	203	101	63-170

Hi-Res Dioxins/Furans
Quality Control Summary
Spike Recovery Report

SDG Number: A0J0826

Sample Type: Laboratory Control Sample Duplicate

Client ID: LCSD for batch 45197

Matrix: SOIL

Lab Sample ID: 12027840

Instrument: HRP750

Analysis Date: 11/06/2020 10:18

Dilution: 1

Analyst: MLL

Prep Batch ID: 45197

Batch ID: 45199

CAS No.	Parmname	Amount Added pg/g	Spike Conc. pg/g	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1746-01-6	LCSD 2,3,7,8-TCDD	20.0	21.3	106	67-158	1.93	0-20
40321-76-4	LCSD 1,2,3,7,8-PeCDD	100	107	107	70-142	3.84	0-20
39227-28-6	LCSD 1,2,3,4,7,8-HxCDD	100	102	102	70-164	2.44	0-20
57653-85-7	LCSD 1,2,3,6,7,8-HxCDD	100	103	103	76-134	2.50	0-20
19408-74-3	LCSD 1,2,3,7,8,9-HxCDD	100	107	107	64-162	0.779	0-20
35822-46-9	LCSD 1,2,3,4,6,7,8-HpCDD	100	97.4	97.4	70-140	0.375	0-20
3268-87-9	LCSD 1,2,3,4,6,7,8,9-OCDD	200	202	101	78-144	0.888	0-20
51207-31-9	LCSD 2,3,7,8-TCDF	20.0	20.0	100	75-158	3.46	0-20
57117-41-6	LCSD 1,2,3,7,8-PeCDF	100	101	101	80-134	0.872	0-20
57117-31-4	LCSD 2,3,4,7,8-PeCDF	100	108	108	68-160	0.348	0-20
70648-26-9	LCSD 1,2,3,4,7,8-HxCDF	100	102	102	72-134	2.38	0-20
57117-44-9	LCSD 1,2,3,6,7,8-HxCDF	100	99.9	99.9	84-130	1.12	0-20
60851-34-5	LCSD 2,3,4,6,7,8-HxCDF	100	100	100	70-156	0.924	0-20
72918-21-9	LCSD 1,2,3,7,8,9-HxCDF	100	104	104	78-130	3.38	0-20
67562-39-4	LCSD 1,2,3,4,6,7,8-HpCDF	100	102	102	82-122	1.63	0-20
55673-89-7	LCSD 1,2,3,4,7,8,9-HpCDF	100	97.5	97.5	78-138	3.83	0-20
39001-02-0	LCSD 1,2,3,4,6,7,8,9-OCDF	200	196	98	63-170	3.35	0-20

Method Blank Summary

Page 1 of 1

SDG Number: A0J0826
Client ID: MB for batch 45197
Lab Sample ID: 12027838
Column:

Client: APEX001
Instrument ID: HRP750
Prep Date: 02-NOV-20

Matrix: SOIL
Data File: A06NOV20A-4
Analyzed: 11/06/20 11:07

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 45197	12027839	A06NOV20A-2	11/06/20	0930
02 LCSD for batch 45197	12027840	A06NOV20A-3	11/06/20	1018
03 DU-1--After Processing	17316001	A06NOV20A_2-8	11/07/20	0242
04 DU-2--After Processing	17316002	A06NOV20A_2-9	11/07/20	0330

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 2

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 12027838		Matrix: SOIL
Client Sample: QC for batch 45197		
Client ID: MB for batch 45197		Prep Basis: As Received
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/06/2020 11:07	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A-4		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 10 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD	U	0.254	pg/g	0.254	1.00
40321-76-4	1,2,3,7,8-PeCDD	U	0.186	pg/g	0.186	5.00
39227-28-6	1,2,3,4,7,8-HxCDD	U	0.246	pg/g	0.246	5.00
57653-85-7	1,2,3,6,7,8-HxCDD	U	0.224	pg/g	0.224	5.00
19408-74-3	1,2,3,7,8,9-HxCDD	U	0.236	pg/g	0.236	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD	U	0.348	pg/g	0.348	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD	J	0.864	pg/g	0.686	10.0
51207-31-9	2,3,7,8-TCDF	U	0.248	pg/g	0.248	1.00
57117-41-6	1,2,3,7,8-PeCDF	U	0.152	pg/g	0.152	5.00
57117-31-4	2,3,4,7,8-PeCDF	U	0.148	pg/g	0.148	5.00
70648-26-9	1,2,3,4,7,8-HxCDF	U	0.184	pg/g	0.184	5.00
57117-44-9	1,2,3,6,7,8-HxCDF	U	0.190	pg/g	0.190	5.00
60851-34-5	2,3,4,6,7,8-HxCDF	U	0.196	pg/g	0.196	5.00
72918-21-9	1,2,3,7,8,9-HxCDF	U	0.300	pg/g	0.300	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF	JK	0.416	pg/g	0.196	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF	U	0.310	pg/g	0.310	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF	U	0.608	pg/g	0.608	10.0
41903-57-5	Total TeCDD	U	0.254	pg/g	0.254	1.00
36088-22-9	Total PeCDD	U	0.186	pg/g	0.186	5.00
34465-46-8	Total HxCDD	U	0.224	pg/g	0.224	5.00
37871-00-4	Total HpCDD	U	0.348	pg/g	0.348	5.00
30402-14-3	Total TeCDF	U	0.248	pg/g	0.248	1.00
30402-15-4	Total PeCDF	J	0.190	pg/g	0.120	5.00
55684-94-1	Total HxCDF	U	0.184	pg/g	0.184	5.00
38998-75-3	Total HpCDF	JK	0.416	pg/g	0.196	5.00
3333-30-2	TEQ WHO2005 ND=0 with EMPCs		0.00442	pg/g		
3333-30-3	TEQ WHO2005 ND=0.5 with EMPCs		0.343	pg/g		

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		119	200	pg/g	59.4	(25%-164%)
13C-1,2,3,7,8-PeCDD		123	200	pg/g	61.3	(25%-181%)
13C-1,2,3,4,7,8-HxCDD		112	200	pg/g	56.1	(32%-141%)
13C-1,2,3,6,7,8-HxCDD		124	200	pg/g	61.8	(28%-130%)
13C-1,2,3,4,6,7,8-HpCDD		133	200	pg/g	66.3	(23%-140%)
13C-OCDD		230	400	pg/g	57.4	(17%-157%)
13C-2,3,7,8-TCDF		121	200	pg/g	60.7	(24%-169%)
13C-1,2,3,7,8-PeCDF		126	200	pg/g	63.0	(24%-185%)
13C-2,3,4,7,8-PeCDF		124	200	pg/g	62.2	(21%-178%)
13C-1,2,3,4,7,8-HxCDF		113	200	pg/g	56.5	(26%-152%)
13C-1,2,3,6,7,8-HxCDF		120	200	pg/g	60.2	(26%-123%)
13C-2,3,4,6,7,8-HxCDF		124	200	pg/g	61.8	(28%-136%)
13C-1,2,3,7,8,9-HxCDF		118	200	pg/g	59.2	(29%-147%)

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 12027838		Matrix: SOIL
Client Sample: QC for batch 45197		
Client ID: MB for batch 45197		Prep Basis: As Received
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/06/2020 11:07	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A-4		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 10 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
Surrogate/Tracer recovery						
		Qual	Result	Nominal	Units	Recovery%
						Acceptable Limits
13C-1,2,3,4,6,7,8-HpCDF			131	200	pg/g	65.4 (28%-143%)
13C-1,2,3,4,7,8,9-HpCDF			129	200	pg/g	64.7 (26%-138%)
37Cl-2,3,7,8-TCDD			17.4	20.0	pg/g	86.9 (35%-197%)

Comments:
J Value is estimated
K Estimated Maximum Possible Concentration
U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 1

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 12027839		Matrix: SOIL
Client Sample: QC for batch 45197		
Client ID: LCS for batch 45197		Prep Basis: As Received
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/06/2020 09:30	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A-2		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 10 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		20.9	pg/g	0.234	1.00
40321-76-4	1,2,3,7,8-PeCDD		103	pg/g	0.380	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		105	pg/g	0.604	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		101	pg/g	0.602	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		106	pg/g	0.612	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		97.8	pg/g	0.628	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		200	pg/g	1.56	10.0
51207-31-9	2,3,7,8-TCDF		19.3	pg/g	0.322	1.00
57117-41-6	1,2,3,7,8-PeCDF		102	pg/g	0.420	5.00
57117-31-4	2,3,4,7,8-PeCDF		108	pg/g	0.400	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		99.5	pg/g	0.768	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		101	pg/g	0.764	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		99.1	pg/g	0.846	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		101	pg/g	1.26	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		101	pg/g	0.664	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		101	pg/g	1.10	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		203	pg/g	1.55	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		156	200	pg/g	77.8	(20%-175%)
13C-1,2,3,7,8-PeCDD		173	200	pg/g	86.6	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		146	200	pg/g	73.2	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		167	200	pg/g	83.6	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		174	200	pg/g	87.1	(22%-166%)
13C-OCDD		314	400	pg/g	78.5	(13%-199%)
13C-2,3,7,8-TCDF		162	200	pg/g	81.0	(22%-152%)
13C-1,2,3,7,8-PeCDF		176	200	pg/g	87.9	(21%-192%)
13C-2,3,4,7,8-PeCDF		173	200	pg/g	86.5	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		155	200	pg/g	77.4	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		157	200	pg/g	78.7	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		159	200	pg/g	79.5	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		161	200	pg/g	80.4	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		169	200	pg/g	84.4	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		167	200	pg/g	83.7	(20%-186%)
37Cl-2,3,7,8-TCDD		18.2	20.0	pg/g	91.0	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.

**Hi-Res Dioxins/Furans
Certificate of Analysis
Sample Summary**

Page 1 of 1

SDG Number: A0J0826	Client: APEX001	Project: APEX00217
Lab Sample ID: 12027840		Matrix: SOIL
Client Sample: QC for batch 45197		
Client ID: LCSD for batch 45197		Prep Basis: As Received
Batch ID: 45199	Method: EPA Method 1613B	
Run Date: 11/06/2020 10:18	Analyst: MLL	Instrument: HRP750
Data File: A06NOV20A-3		Dilution: 1
Prep Batch: 45197	Prep Method: SW846 3540C	
Prep Date: 02-NOV-20	Prep Aliquot: 10 g	

CAS No.	Parmname	Qual	Result	Units	EDL	PQL
1746-01-6	2,3,7,8-TCDD		21.3	pg/g	0.224	1.00
40321-76-4	1,2,3,7,8-PeCDD		107	pg/g	0.378	5.00
39227-28-6	1,2,3,4,7,8-HxCDD		102	pg/g	0.492	5.00
57653-85-7	1,2,3,6,7,8-HxCDD		103	pg/g	0.476	5.00
19408-74-3	1,2,3,7,8,9-HxCDD		107	pg/g	0.490	5.00
35822-46-9	1,2,3,4,6,7,8-HpCDD		97.4	pg/g	0.652	5.00
3268-87-9	1,2,3,4,6,7,8,9-OCDD		202	pg/g	1.20	10.0
51207-31-9	2,3,7,8-TCDF		20.0	pg/g	0.260	1.00
57117-41-6	1,2,3,7,8-PeCDF		101	pg/g	0.438	5.00
57117-31-4	2,3,4,7,8-PeCDF		108	pg/g	0.408	5.00
70648-26-9	1,2,3,4,7,8-HxCDF		102	pg/g	0.774	5.00
57117-44-9	1,2,3,6,7,8-HxCDF		99.9	pg/g	0.728	5.00
60851-34-5	2,3,4,6,7,8-HxCDF		100	pg/g	0.776	5.00
72918-21-9	1,2,3,7,8,9-HxCDF		104	pg/g	1.20	5.00
67562-39-4	1,2,3,4,6,7,8-HpCDF		102	pg/g	0.618	5.00
55673-89-7	1,2,3,4,7,8,9-HpCDF		97.5	pg/g	1.00	5.00
39001-02-0	1,2,3,4,6,7,8,9-OCDF		196	pg/g	1.36	10.0

Surrogate/Tracer recovery	Qual	Result	Nominal	Units	Recovery%	Acceptable Limits
13C-2,3,7,8-TCDD		149	200	pg/g	74.4	(20%-175%)
13C-1,2,3,7,8-PeCDD		165	200	pg/g	82.3	(21%-227%)
13C-1,2,3,4,7,8-HxCDD		133	200	pg/g	66.5	(21%-193%)
13C-1,2,3,6,7,8-HxCDD		147	200	pg/g	73.5	(25%-163%)
13C-1,2,3,4,6,7,8-HpCDD		160	200	pg/g	79.9	(22%-166%)
13C-OCDD		289	400	pg/g	72.3	(13%-199%)
13C-2,3,7,8-TCDF		154	200	pg/g	77.2	(22%-152%)
13C-1,2,3,7,8-PeCDF		171	200	pg/g	85.4	(21%-192%)
13C-2,3,4,7,8-PeCDF		168	200	pg/g	83.8	(13%-328%)
13C-1,2,3,4,7,8-HxCDF		136	200	pg/g	68.0	(19%-202%)
13C-1,2,3,6,7,8-HxCDF		143	200	pg/g	71.7	(21%-159%)
13C-2,3,4,6,7,8-HxCDF		143	200	pg/g	71.3	(22%-176%)
13C-1,2,3,7,8,9-HxCDF		143	200	pg/g	71.4	(17%-205%)
13C-1,2,3,4,6,7,8-HpCDF		149	200	pg/g	74.5	(21%-158%)
13C-1,2,3,4,7,8,9-HpCDF		158	200	pg/g	79.1	(20%-186%)
37Cl-2,3,7,8-TCDD		18.8	20.0	pg/g	93.9	(31%-191%)

Comments:

U Analyte was analyzed for, but not detected above the specified detection limit.



UST Survey 1701 Chapel Drive Philomath, Oregon

A geophysical survey was conducted across three areas of the property located at the address shown above, for PBS (Figure 1). A mill has operated at the site in the past. The scope of this survey was to detect possible underground storage tanks (USTs) across the three areas. No mill buildings remain except for a garage near Chapel Drive. No surface evidence of USTs, including fill ports and vent pipes was seen in the three areas.

Magnetic surveys were conducted across the three areas, where accessible, to detect ferrous objects that could be USTs. A Geometrics G858 cesium-vapor magnetometer was used to collect magnetic data. Data were collected along roughly parallel survey lines established using a measuring wheel and tapes. Survey data point locations were constrained using a Geode 2 sub-meter-accuracy GPS system. Figure 1 shows the coverage of the magnetic survey. Descriptions of each survey area, our results, and interpretation follow below.

Area 1:

This area measures 180 by 65 feet and is located near one of the two entrances to the facility, along a drainage ditch by Chapel Drive. The garage building is on the east corner of this area. Two temporary mobile office trailers were located on either side of this building. Other surface features included a large water tank, a flat-top trailer, a dumpster, and a large gate post.

Figure 2 shows the results of the magnetic survey across this area. Data were interpreted in the field and are shown in the figure as filled contours at a contour interval of 500 nT (nanoTesla). In the figure, magnetic anomalies higher in amplitude than the normal local magnetic background are shown in red and are usually found over areas where ferrous objects are located below the sensor, carried at a height of about 3 feet. USTs usually produce red-colored anomalies. Magnetic anomalies at or below the amplitude of the local magnetic field are shown in blue and are generally caused by ferrous objects located above the sensor. Buildings, fences, metal posts, and cars, usually produce magnetic lows. Depending on their size and orientation, large, buried objects may produce both positive (red) and negative (blue) anomalies.

The surface metallic features mentioned above created significant magnetic interference. Buried metallic objects of interest located near or under these objects may have been missed because of the magnetic noise produced by the surface objects.

A Schonstedt magnetic gradiometer and an Aqua-Tronics Tracer metal detector were used to locate and investigate the anomalies labeled in Figure 2. The Tracer is excellent at determining if a buried object is linear (a possible pipe) or 3D (a possible UST).

Magnetic anomaly marked A is located in the grassy and wet area behind the trailer. The survey did not cover the area with uneven terrain shown in the figure. The anomaly is interpreted to be caused by the trailer and a three-dimensional object that was detected with the Tracer at this location. A GSSI SIR2000 ground-penetrating radar (GPR) system connected to a 400-MHz antenna was used to investigate this object further. Due to the grassy surface cover and wet ground, radar data were of very poor quality. No recognizable reflections, including ones from USTs were seen in the data. The object or feature causing the anomaly could not be confirmed. The possibility of a septic tank cannot be ruled out.

Magnetic anomaly B is caused partly by the trailer. During the process of collecting radar data in this area reflections from a cylindrical object were seen near and under the trailer's hitch. This object is interpreted to be a UST measuring 5-6 feet in diameter and buried 3.7 feet below the surface. The south end of this tank is under the trailer and could not be located.

No 3D objects were detected in the location of the cluster of anomalies marked C with the Tracer. GPR was used to investigate the anomalies further. No suspicious objects were detected.



Area 2:

The survey was intended to cover the area around a possible water-well building (orange rectangle in Figure 1). Unfortunately, the terrain was overgrown and only the area east of the building was accessible. The magnetic survey covered an area measuring 25 by 40 feet. A metallic pipe was seen at the surface. The magnetic map produced by this survey is shown in Figure 3A. The pipe and the nearby building foundation created some magnetic interference. No suspicious anomalies from buried ferrous objects were detected.

Area 3:

The survey covered an area measuring 55 by 50 feet. Several concrete pieces containing rebar were seen along the south edge of the area. Other surface metallic objects included thick metal cables. The magnetic map produced by this survey is shown in Figure 3B. Several small magnetic anomalies were created by the surface objects. Anomaly D appears to be caused by a buried pipe. A small 3D object was detected while locating the pipe. Anomaly E is caused by surface metal.

Nikos Tzetos of Pacific Geophysics conducted the survey for Mr. Chris Sheridan of PBS on October 30, 2020. This letter report was written by Nikos Tzetos and emailed to Mr. Sheridan on November 11, 2020.

Limitations

The conclusions presented in this report were based upon widely accepted geophysical principles, methods, and equipment. This survey was conducted with limited knowledge of the site, the site history, and the subsurface conditions.

The goal of near-surface geophysics is to provide a rapid means of characterizing the subsurface using non-intrusive methods. Conclusions based upon these methods are generally reliable; however, due to the inherent ambiguity of the methods, no single interpretation of the data can be made. As an example, rocks and roots produce radar reflections that may appear the same as pipes and tanks.

Under reasonable conditions, geophysical surveys are good at detecting changes in the subsurface caused by man-made objects or changes in subsurface conditions, but they are poor at actually identifying those objects or subsurface conditions.

Objects of interest are not always detectable due to surface and subsurface conditions. The deeper an object is buried, the more difficult it is to detect, and the less accurately it can be located.

The only way to see an object is to physically expose it.

Nikos Tzetos
Pacific Geophysics

November 11, 2020



Appendix A. Geophysical Survey Methods

Magnetometer Surveys

Small disturbances in the Earth's local magnetic field are called "magnetic anomalies". These may be caused by naturally occurring features such as metallic mineral ore bodies, or from manmade features such as metal buildings, vehicles, fences, and underground storage tanks. The magnetometer only detects changes produced by ferrous objects. Aluminum and brass are non-ferrous metals and cannot be detected using a magnetometer.

A magnetometer is an electronic instrument designed to detect small changes in the Earth's local magnetic field. Over the years different technologies have been used in magnetometers. The Geometrics G-858 Portable Cesium Magnetometer used to collect magnetic data for Pacific Geophysics uses one of the most recent methods to detect magnetic anomalies. A detailed discussion describing the method this unit uses is available at Geometrics.com.

This magnetometer enables the operator to collect data rapidly and continuously rather than the older instruments that collected data at discreet points only. The G-858 is carried by hand across the site. The sensor is carried at waist level. Typically, individual data points collected at normal walking speed are about 6" apart along survey lines usually 5 feet apart, depending on the dimensions of the target objects.

It is critical to know the exact location of each data point so that if an anomaly is detected it can be accurately plotted on a magnetic contour map. At most small sites, data are collected along straight, parallel survey lines set up on the site before the data collection stage begins. For very large, complex sites, the G-858 can be connected to a Global Positioning System (GPS) antenna which allows the operator to collect accurately located data without establishing a survey grid. With GPS, data are collected and positioned wherever the operator walks. A limitation using GPS is that the GPS antenna must have line of sight with the GPS satellites. Data can be mislocated if the GPS antenna is under trees or near tall buildings.

Data are stored in the unit's memory for later downloading and processing. A magnetic contour map of the data is plotted in the field. Geographical features are plotted on the map. Magnetic anomalies appearing to be caused by objects of interest are then investigated on the site using several small hand-held metal detectors. If an object appears to be a possible object of interest, it may be investigated with GPR.

Magnetic contour maps may be printed in color in order to highlight anomalies caused by ferrous objects located under the magnetic sensor. Usually, ferrous objects situated below the sensor produce magnetic "highs" and anomalies located above the sensor produce magnetic "lows". Magnetic highs are of interest to the operator since most objects of interest are located underground.

Depending on the orientation, shape and mass of a metallic object, a high/low pair of magnetic anomalies may be present. In the northern hemisphere the magnetic low is located north of the object and the magnetic high toward the south. The object producing the anomaly is located part way between the high and the low anomalies.

Magnetometer surveys have limitations. Magnetometers only detect objects made of ferrous (iron-containing) metal. Large ferrous objects (buildings, cars, fences, etc.) within several feet of the magnetometer create interference that may hide the anomaly produced by a nearby object of interest.

Ground Penetrating Radar

A Geophysical Survey Systems, Inc. (GSSI) SIR-2000 GPR system coupled to GSSI antennas of various central frequencies is used to obtain the radar data for our surveys.

GPR antennas both transmit and receive electromagnetic energy. EM energy is transmitted into the material the antenna passes over. A portion of that energy is reflected back to the antenna and amplified. Reflections are displayed in real-time in a continuous cross section. Reflections are produced where there is a sufficient electrical contrast between two materials. Changes in the electrical properties (namely the dielectric constant) that produce radar reflections are caused by changes in the moisture content, porosity, mineralogy, and texture of the material. Metallic objects of interest exhibit a strong electrical contrast with the surrounding material and thus produce relatively strong reflections. Non-metallic objects of interest (septic tanks, cesspools, dry wells, and PVC and clay tile pipes) are not always good reflectors.



Radar data are ambiguous. It can be difficult to distinguish the reflection produced by an object of interest from the reflection caused by some natural feature. Rocks or tree roots have reflections that appear similar to reflections from pipes. In concrete investigations reflections produced by metal rebar look exactly like those from electrical conduit or post-tension cables. Objects with too small an electrical contrast may produce no reflections at all and may be missed. Target objects buried below objects with contrasting properties that also produce reflections may be missed (e.g. USTs below roots, concrete pieces, pipes, or rocks). If an object of interest like a UST is buried below the depth of penetration of the radar signal, it will be missed.

In addition to interpreting ambiguous data, radar has several limitations that cannot be controlled by the operator. The radar signal is severely attenuated by electrically conductive material, including wet, clay-rich soil and reinforced concrete. The quality of the data is affected by the surface conditions over which the antenna is pulled. Ideally the antenna should rest firmly on a smooth surface. Rough terrain and tall grass reduce the quality of radar data.

It is the job of an experienced interpreter to examine the GPR profiles and deduce if reflections are from objects of interest. A GPR interpreter cannot see underground but can only interpret reflections based on experience.

The only way to truly identify an object is to excavate.

Hand-held Metal detectors

Two small, non-recording metal detectors are used to locate suspect magnetic anomalies detected using the G-858 Magnetometer in order to determine the likely cause of the anomaly. First, the magnetic contour map and a Schonstedt Magnetic Gradiometer are used to locate the center of the magnetic anomalies.

Once the anomaly is located an Aqua-Tronics Tracer is used to determine if the object producing the anomaly is a possible object of interest. Most anomalies are at least in part produced by features observed on the ground surface.

Schonstedt Magnetic Gradiometer: This magnetometer has two magnetic sensors separated vertically by 10". The magnetic field surrounding a ferrous object is strongest near the object and decreases rapidly as the distance increases. If the magnitude measured by the sensor located in the tip of the Schonstedt is very high, and the magnetic field measured by the sensor located farther up the shaft of the Schonstedt is low, there is a large vertical magnetic gradient and the instrument responds with a loud whistle indicating the object is near the surface. If there is a small difference in the magnitudes measured by the two sensors, the object is deeper. The instrument responds with a softer tone. A discussion of this instrument is available at Schonstedt.com.

Aqua-Tronics A-6 Tracer: The Aqua-Tronics A-6 Tracer uses a different method of detecting metallic objects. This instrument measures the electrical conductivity of a metal object. It is capable of detecting any electrically conductive metal, including non-ferrous aluminum and brass. The Tracer is capable of detecting three-dimensional objects as well as pipes.

The Tracer consists of a transmitter coil and a receiver coil. In the absence of any electrically conductive material in the vicinity of the Tracer, the electromagnetic field around each coil is balanced.

Basically, the electromagnetic field produced by the transmitter induces an electric current into the area surrounding the instrument. Nearby conductive objects distort the EM field. The balance between the two coils is disturbed and the instrument produces an audible tone and meter indication.

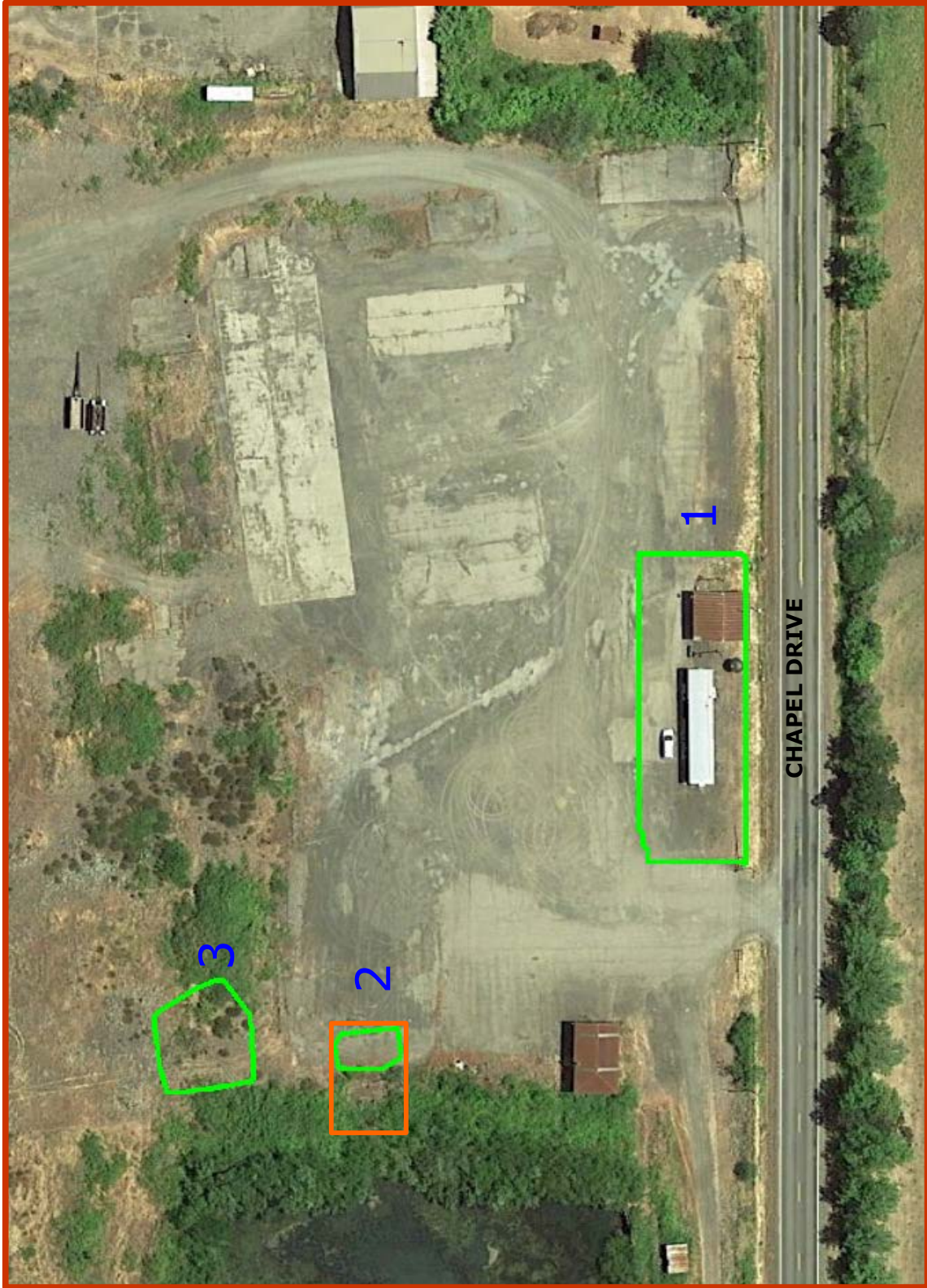
Radio Detection RD8000 PDL pipe and cable detector: This instrument may be used to detect buried, conductive pipes and utilities. It consists of a transmitter and a receiver and can be used in two configurations.

The transmitter may be used to directly apply a small electrical current to exposed, electrically conductive pipes and utilities. The RD receiver is then able to "trace" the underground portion of the pipe or utility, under some conditions for several hundred feet. The transmitter can also induce an electrical current into buried pipes and utilities where direct contact is not available.



The receiver can also be used alone. It has the capability to locate pipes and utilities by detecting the very small electrical currents induced into the features by nearby AM/FM radio stations.

The receiver also has an AC power function that may be used to detect underground power lines.



FIGURE

1

Survey Location and Areas

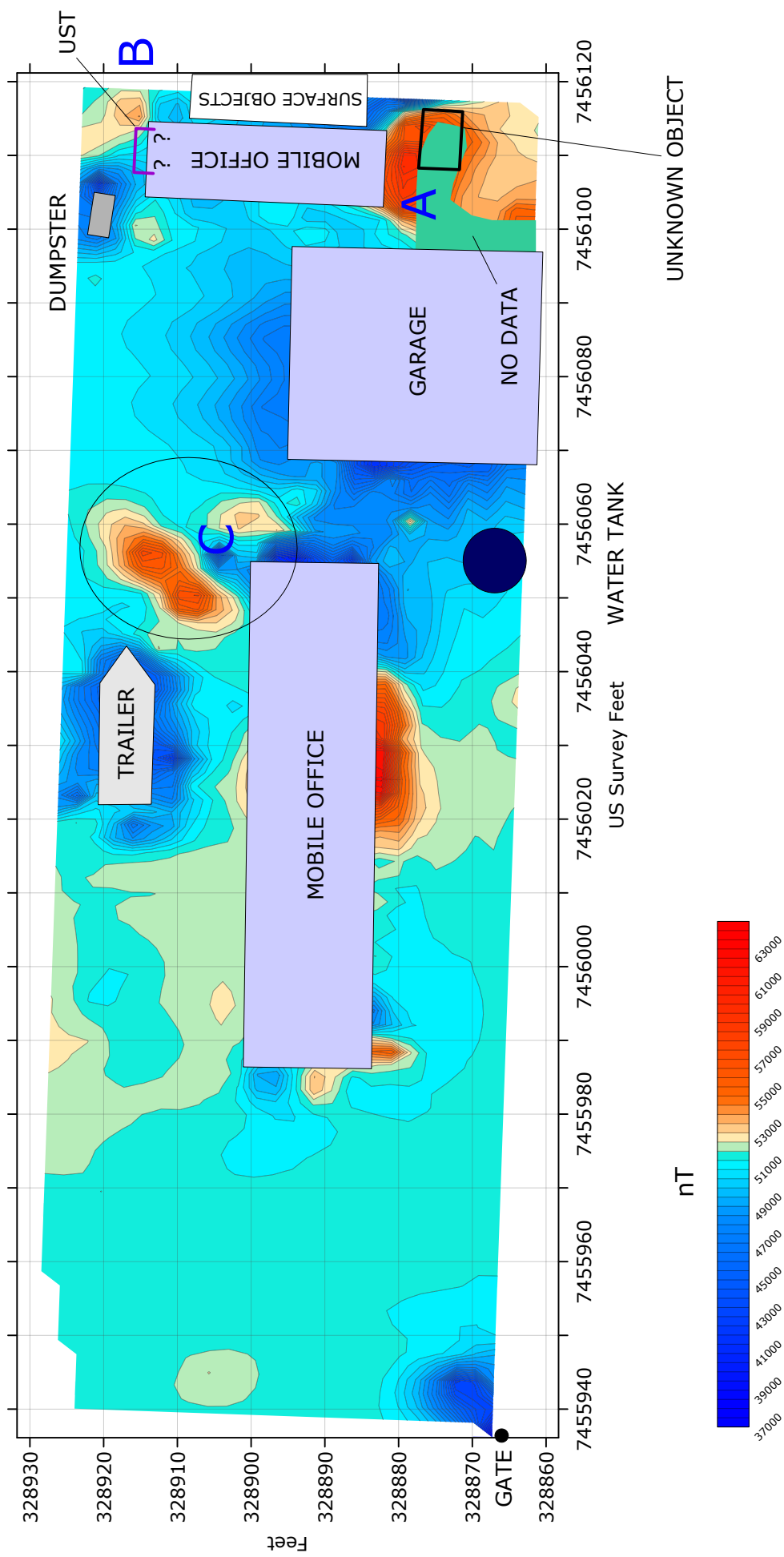
Project:
200924

UST Survey
1701 Chapel Drive
Philomath, Oregon

Drawn by : NT

Prepared for: PBS Environmental
Base Photo from Google Earth

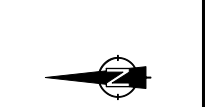




Coord. System: Oregon State Plane (Survey feet) Contour Interval: 500 nT

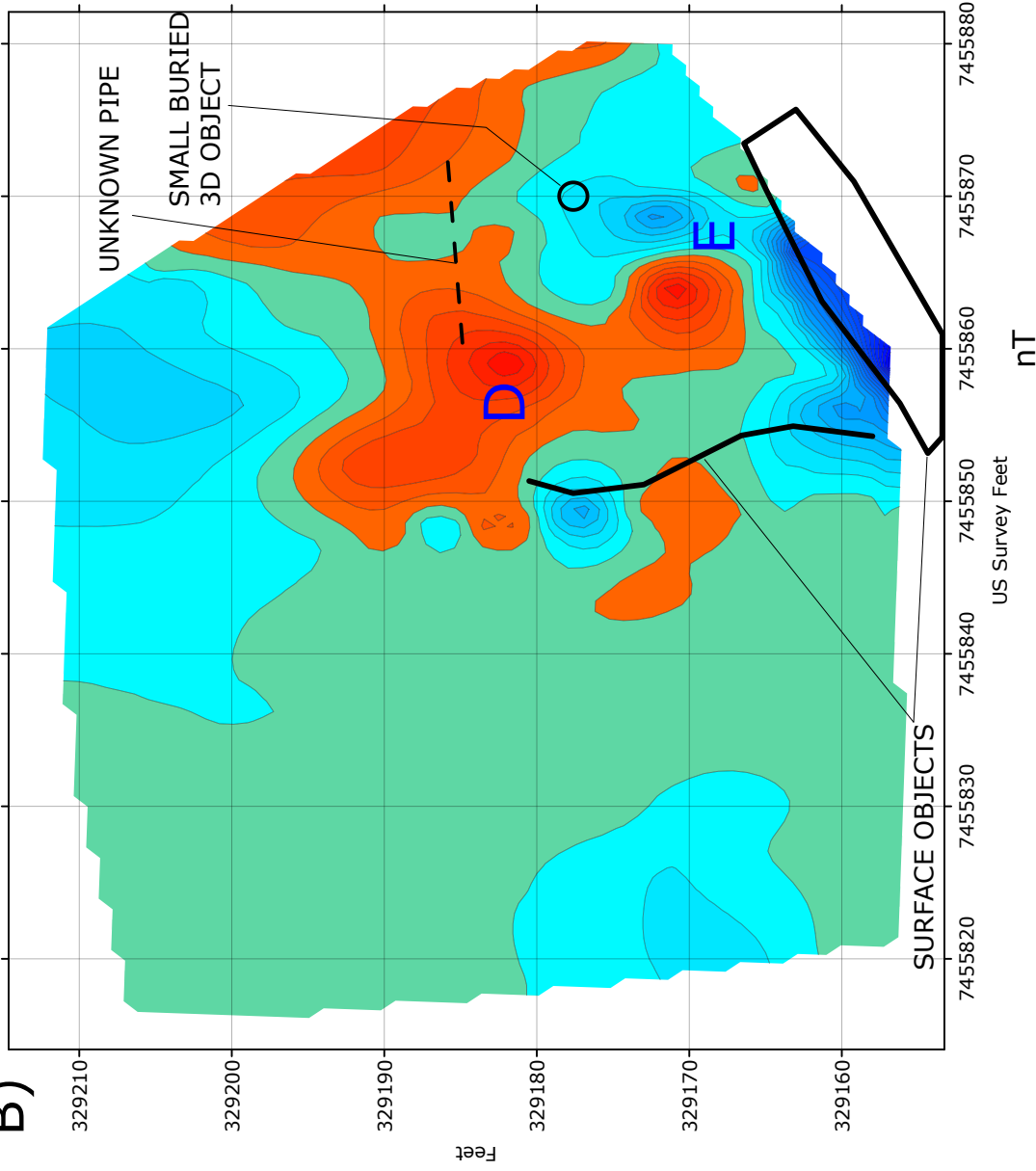
Magnetic Contour Map-Area 1	
Project:	UST Survey 1701 Chapel Drive Philomath, Oregon
200924	
Drawn by :	NT
Prepared for:	PBS Environmental
Survey Date:	October 30, 2020

FIGURE 2

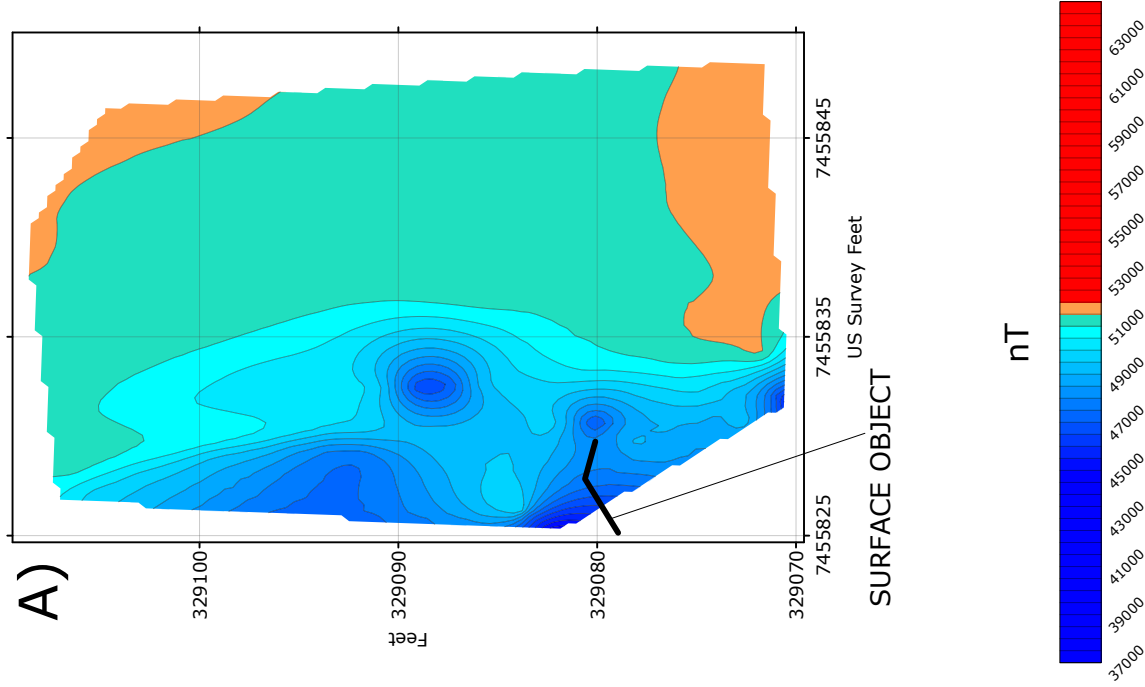


PACIFIC
GEOPHYSICS

B)



A)



Coord. System: Oregon State Plane (Survey feet) Contour Interval: 500 nT

FIGURE 3

Project: 200924	UST Survey 1701 Chapel Drive Philomath, Oregon	
	Drawn by : NT	Prepared for: PBS Environmental
		Survey Date: October 30, 2020



Invoice

Miller Timber Services, Inc.
 dba Miller Timber Logging
 24745 Alsea Hwy
 PO Box 638
 Philomath, OR 97370
 (541) 929-2840

Invoice Number: 0009822-IN

Invoice Date: 1/31/2020

Salesperson:

Tax Schedule: NONTAX

Millpond Crossing LLC
 P O Box 1059
 Philomath, OR 97370

Customer Number: 01-MILPOND

Customer P.O.: Rock Hauling

Ship VIA:

Terms: No Terms

Contact:

Item Code	Description	UM	Quantity	Price	Amount
MTS ROCK HAULS	ROCK HAULING				472.50
	01/02/2020 - 5.25 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				625.02
	Cost of Rock - 6 loads				
MTS ROCK HAULS	ROCK HAULING				225.00
	01/03/2020 - 2.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				314.42
	Cost of Rock - 3 loads				
MTS ROCK HAULS	ROCK HAULING				810.00
	01/07/2020 - 9 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,276.60
	Cost of Rock - 14 loads				
MTS ROCK HAULS	ROCK HAULING				832.50
	01/08/2020 - 9.25 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,108.62
	Cost of Rock - 13 loads				
MTS ROCK HAULS	ROCK HAULING				990.00
	01/09/2020 - 11 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,372.32
	Cost of Rock - 18 loads				
MTS ROCK HAULS	ROCK HAULING				427.50
	01/10/2020 - 4.75 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				500.00
	01/10/2020 - 5 hrs @ \$100/hr. (Dump truck with trailer).				
MTS ROCK HAULS	ROCK HAULING				1,691.77
	Cost of Rock - 14 loads				
MTS ROCK HAULS	ROCK HAULING				1,050.00
	01/13/2020 - 10.5 hrs @ \$100/hr. (Dump truck with trailer).				
MTS ROCK HAULS	ROCK HAULING				1,958.44
	Cost of Rock - 10 loads				
MTS ROCK HAULS	ROCK HAULING				1,075.00
	01/14/2020 - 10.75 hrs @ \$100/hr. (Dump truck with trailer).				
MTS ROCK HAULS	ROCK HAULING				2,377.24
	Cost of Rock - 12 loads				
MTS ROCK HAULS	ROCK HAULING				425.00
	01/15/2020 - 4.25 hrs @ \$100/hr. (Dump truck with trailer).				
MTS ROCK HAULS	ROCK HAULING				562.50
	01/15/2020 - 6.25 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,256.82

Continued

Invoice

Miller Timber Services, Inc.
 dba Miller Timber Logging
 24745 Alsea Hwy
 PO Box 638
 Philomath, OR 97370
 (541) 929-2840

Invoice Number: 0009822-IN

Invoice Date: 1/31/2020

Salesperson:

Tax Schedule: NONTAX

Millpond Crossing LLC
 P O Box 1059
 Philomath, OR 97370

Customer Number: 01-MILPOND

Customer P.O.: Rock Hauling

Ship VIA:

Terms: No Terms

Contact:

Item Code	Description	UM	Quantity	Price	Amount
	Cost of Rock - 13 loads				
MTS ROCK HAULS	ROCK HAULING				945.00
	01/16/2020 - 10.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,522.48
	Cost of Rock - 18 loads				
MTS ROCK HAULS	ROCK HAULING				877.50
	01/17/2020 - 9.75 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,555.70
	Cost of Rock - 18 loads				
MTS ROCK HAULS	ROCK HAULING				900.00
	01/22/2020 - 10 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,089.24
	Cost of Rock - 11 loads				
MTS ROCK HAULS	ROCK HAULING				945.00
	01/23/2020 - 10.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				808.38
	Cost of Rock - 8 loads				
MTS ROCK HAULS	ROCK HAULING				765.00
	01/24/2020 - 8.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,188.82
	Cost of Rock - 11 loads				
MTS ROCK HAULS	ROCK HAULING				1,125.00
	01/27/2020 - 12.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				844.22
	Cost of Rock - 9 loads				
MTS ROCK HAULS	ROCK HAULING				855.00
	01/28/2020 - 9.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,359.00
	Cost of Rock - 13 loads				
MTS ROCK HAULS	ROCK HAULING				945.00
	01/29/2020 - 10.5 hrs @ \$90/hr				
MTS ROCK HAULS	ROCK HAULING				1,359.78
	Cost of Rock - 13 loads				
MTS ROCK HAULS	ROCK HAULING				855.00
	01/31/2020 - 9.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				935.65
	Cost of Rock - 9 loads				

Net Invoice:	38,227.02
Freight:	0.00
Sales Tax:	0.00
Invoice Total:	38,227.02

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

COPY

MTS Pays all Invoice

29050.00.00 INVOICE 1000672

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370

MTS-shop
177.57

MPC
22,644.52

7503500.40
Dept
MS-Rec 61500.40.00



Invoice Date: 01/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
01/02/2020	307187	RICKARD PIT- 3/4	10.86	Tons	8.50	\$92.31
01/02/2020	307194	RICKARD PIT- 3/4	11.74	Tons	8.50	\$99.79
01/02/2020	307201	RICKARD PIT- 3/4	13.21	Tons	8.50	\$112.29
01/02/2020	307207	RICKARD PIT- 3/4	13.17	Tons	8.50	\$111.95
01/02/2020	307212	RICKARD PIT- 3/4	12.29	Tons	8.50	\$104.47
01/02/2020	307215	RICKARD PIT- 3/4	12.26	Tons	8.50	\$104.21
	6 Item/s	(No Code)	73.53	Tons		\$625.02
01/03/2020	307256	RICKARD PIT- 3/4	12.89	Tons	8.50	\$109.57
01/03/2020	307262	RICKARD PIT- 3/4	11.94	Tons	8.50	\$101.49
01/03/2020	307267	RICKARD PIT- 3/4	12.16	Tons	8.50	\$103.36
01/07/2020	307352	RICKARD PIT- 6 JR	13.44	Tons	6.75	\$90.72
01/07/2020	307358	RICKARD PIT- 6 JR	13.28	Tons	6.75	\$89.64
01/07/2020	307364	RICKARD PIT- 6 JR	11.81	Tons	6.75	\$79.72
01/07/2020	307366	RICKARD PIT- 6 JR	12.71	Tons	6.75	\$85.79
01/07/2020	307371	RICKARD PIT- 6 JR	12.12	Tons	6.75	\$81.81
01/07/2020	307375	RICKARD PIT- 6 JR	12.14	Tons	6.75	\$81.95
01/07/2020	307378	RICKARD PIT- 6 JR	11.96	Tons	6.75	\$80.73
01/07/2020	307380	RICKARD PIT- 6 JR	12.96	Tons	6.75	\$87.48
01/07/2020	307384	RICKARD PIT- 6 JR	12.91	Tons	6.75	\$87.14
01/07/2020	307389	RICKARD PIT- 3/8-0 REJECT	12.47	Tons	7.00	\$87.29
01/07/2020	307394	RICKARD PIT- 3/4	13.35	Tons	8.50	\$113.48
01/07/2020	307398	RICKARD PIT- 3/4	11.50	Tons	8.50	\$97.75
01/07/2020	307402	RICKARD PIT- 3/4	11.91	Tons	8.50	\$101.24
01/07/2020	307410	RICKARD PIT- 3/4	13.16	Tons	8.50	\$111.86
01/08/2020	307419	RICKARD PIT- PR	13.13	Tons	5.75	\$75.50
01/08/2020	307422	RICKARD PIT- PR	12.15	Tons	5.75	\$69.86
01/08/2020	307424	RICKARD PIT- PR	13.05	Tons	5.75	\$75.04
01/08/2020	307429	RICKARD PIT- PR	13.37	Tons	5.75	\$76.88
01/08/2020	307440	RICKARD PIT- 3/4	12.89	Tons	8.50	\$109.57
01/08/2020	307444	RICKARD PIT- 3/4	12.70	Tons	8.50	\$107.95
01/08/2020	307449	RICKARD PIT- 3/4	13.25	Tons	8.50	\$112.63
01/08/2020	307453	RICKARD PIT- PR	13.58	Tons	5.75	\$78.09
01/08/2020	307461	RICKARD PIT- 3/4	13.47	Tons	8.50	\$114.50
01/08/2020	307467	RICKARD PIT- PR	12.69	Tons	5.75	\$72.97
01/08/2020	307475	RICKARD PIT- PR	12.91	Tons	5.75	\$74.23
01/08/2020	307481	RICKARD PIT- PR	12.17	Tons	5.75	\$69.98
01/08/2020	307486	RICKARD PIT- PR	12.42	Tons	5.75	\$71.42
01/09/2020	307491	RICKARD PIT- PR	13.93	Tons	5.75	\$80.10
01/09/2020	307495	RICKARD PIT- PR	12.73	Tons	5.75	\$73.20

6 loads

3 loads

14 loads

13 loads

314.48

1276.60

1108.68

COPY

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000672

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 01/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
01/09/2020	307502	RICKARD PIT- PR	12.72	Tons	5.75	\$73.14
01/09/2020	307505	RICKARD PIT- PR	12.97	Tons	5.75	\$74.58
01/09/2020	307515	RICKARD PIT- PR	12.72	Tons	5.75	\$73.14
01/09/2020	307517	RICKARD PIT- PR	13.13	Tons	5.75	\$75.50
01/09/2020	307519	RICKARD PIT- PR	12.65	Tons	5.75	\$72.74
01/09/2020	307521	RICKARD PIT- PR	13.21	Tons	5.75	\$75.96
01/09/2020	307527	RICKARD PIT- PR	12.70	Tons	5.75	\$73.03
01/09/2020	307528	RICKARD PIT- PR	13.00	Tons	5.75	\$74.75
01/09/2020	307530	RICKARD PIT- PR	12.91	Tons	5.75	\$74.23
01/09/2020	307533	RICKARD PIT- PR	12.85	Tons	5.75	\$73.89
01/09/2020	307538	RICKARD PIT- PR	12.65	Tons	5.75	\$72.74
01/09/2020	307542	RICKARD PIT- PR	12.60	Tons	5.75	\$72.45
01/09/2020	307547	RICKARD PIT- PR	12.86	Tons	5.75	\$73.95
01/09/2020	312552	RICKARD PIT- PR	12.74	Tons	5.75	\$73.26
01/09/2020	312557	RICKARD PIT- PR	13.13	Tons	5.75	\$75.50
01/09/2020	312560	RICKARD PIT- 3/4	12.96	Tons	8.50	\$110.16
01/10/2020	312565	RICKARD PIT- 3/4	13.38	Tons	8.50	\$113.73
01/10/2020	312566	RICKARD PIT- 3/4	13.19	Tons	8.50	\$112.12
01/10/2020	312568	RICKARD PIT- 3/4	13.16	Tons	8.50	\$111.86
01/10/2020	312569	RICKARD PIT- 3/4	13.04	Tons	8.50	\$110.84
01/10/2020	312570	RICKARD PIT- 3/4	12.66	Tons	8.50	\$107.61
01/10/2020	312571	RICKARD PIT- 3/4	10.95	Tons	8.50	\$93.08
01/10/2020	312577	RICKARD PIT- PR	12.41	Tons	5.75	\$71.36
01/10/2020	312578	RICKARD PIT- PR	10.37	Tons	5.75	\$59.63
01/10/2020	312588	RICKARD PIT- 3/4	12.25	Tons	8.50	\$104.13
01/10/2020	312589	RICKARD PIT- 3/4	10.22	Tons	8.50	\$86.87
01/10/2020	312592	RICKARD PIT- 3/4	23.02	Tons	8.50	\$195.67
01/10/2020	312598	RICKARD PIT- 3/4	23.68	Tons	8.50	\$201.28
01/10/2020	312606	RICKARD PIT- PR	22.72	Tons	5.75	\$130.64
01/10/2020	312612	RICKARD PIT- 3/4	22.70	Tons	8.50	\$192.95
01/13/2020	312622	RICKARD PIT- 3/4	24.75	Tons	8.50	\$210.38
01/13/2020	312628	RICKARD PIT- 3/4	23.43	Tons	8.50	\$199.16
01/13/2020	312633	RICKARD PIT- 3/4	28.31	Tons	8.50	\$240.64
01/13/2020	312640	RICKARD PIT- 3/4	22.50	Tons	8.50	\$191.25
01/13/2020	312646	RICKARD PIT- 3/4	22.91	Tons	8.50	\$194.74
01/13/2020	312657	RICKARD PIT- 6 JR	23.16	Tons	6.75	\$156.33
01/13/2020	312662	RICKARD PIT- 1 1/2	21.86	Tons	8.50	\$185.81
01/13/2020	312664	RICKARD PIT- 1 1/2	22.25	Tons	8.50	\$189.13
01/13/2020	312672	RICKARD PIT- 3/4	22.88	Tons	8.50	\$194.48

18 loads
1372.32

14 loads
11691.77

10 loads
1958.44

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000672

Telephone: (541) 382-8182
FAX: (541) 306-2144



Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370

Invoice Date: 01/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
01/13/2020	312677	RICKARD PIT- 3/4	23.12	Tons	8.50	\$196.52
01/14/2020	312680	RICKARD PIT- 3/4	23.36	Tons	8.50	\$198.56
01/14/2020	312684	RICKARD PIT- 3/4	23.49	Tons	8.50	\$199.67
01/14/2020	312688	RICKARD PIT- 3/4	23.35	Tons	8.50	\$198.48
01/14/2020	312691	RICKARD PIT- 3/4	23.60	Tons	8.50	\$200.60
01/14/2020	312695	RICKARD PIT- 3/4	23.37	Tons	8.50	\$198.65
01/14/2020	312698	RICKARD PIT- 3/4	22.93	Tons	8.50	\$194.91
01/14/2020	312703	RICKARD PIT- 3/4	23.63	Tons	8.50	\$200.86
01/14/2020	312707	RICKARD PIT- 3/4	22.87	Tons	8.50	\$194.40
01/14/2020	312714	RICKARD PIT- 3/4	23.31	Tons	8.50	\$198.14
01/14/2020	312718	RICKARD PIT- 3/4	23.25	Tons	8.50	\$197.63
01/14/2020	312723	RICKARD PIT- 3/4	23.07	Tons	8.50	\$196.10
01/14/2020	312724	RICKARD PIT- 3/4	23.44	Tons	8.50	\$199.24
01/15/2020	312730	RICKARD PIT- 6 JR	23.98	Tons	6.75	\$161.87
01/15/2020	312741	RICKARD PIT- 6 JR	23.74	Tons	6.75	\$160.25
01/15/2020	312747	RICKARD PIT- 6 JR	12.60	Tons	6.75	\$85.05
01/15/2020	312748	RICKARD PIT- 6 JR	12.34	Tons	6.75	\$83.30
01/15/2020	312749	RICKARD PIT- 6 JR	12.68	Tons	6.75	\$85.59
01/15/2020	312751	RICKARD PIT- 6 JR	12.66	Tons	6.75	\$85.46
01/15/2020	312757	RICKARD PIT- 6 JR	12.24	Tons	6.75	\$82.62
01/15/2020	312760	RICKARD PIT- 6 JR	12.90	Tons	6.75	\$87.08
01/15/2020	312765	RICKARD PIT- 6 JR	12.54	Tons	6.75	\$84.65
01/15/2020	312766	RICKARD PIT- 6 JR	13.25	Tons	6.75	\$89.44
01/15/2020	312767	RICKARD PIT- 6 JR	12.96	Tons	6.75	\$87.48
01/15/2020	312769	RICKARD PIT- 6 JR	12.08	Tons	6.75	\$81.54
01/15/2020	312770	RICKARD PIT- 6 JR	12.22	Tons	6.75	\$82.49
01/16/2020	312772	RICKARD PIT- 6 JR	13.10	Tons	6.75	\$88.43
01/16/2020	312774	RICKARD PIT- 6 JR	13.35	Tons	6.75	\$90.11
01/16/2020	312775	RICKARD PIT- 6 JR	12.48	Tons	6.75	\$84.24
01/16/2020	312778	RICKARD PIT- 6 JR	12.46	Tons	6.75	\$84.11
01/16/2020	312780	RICKARD PIT- 6 JR	12.44	Tons	6.75	\$83.97
01/16/2020	312786	RICKARD PIT- 6 JR	12.13	Tons	6.75	\$81.88
01/16/2020	312789	RICKARD PIT- 6 JR	12.46	Tons	6.75	\$84.11
01/16/2020	312791	RICKARD PIT- 6 JR	12.33	Tons	6.75	\$83.23
01/16/2020	312795	RICKARD PIT- 6 JR	12.87	Tons	6.75	\$86.87
01/16/2020	312799	RICKARD PIT- 6 JR	12.68	Tons	6.75	\$85.59
01/16/2020	312801	RICKARD PIT- 6 JR	12.14	Tons	6.75	\$81.95
01/16/2020	312804	RICKARD PIT- 6 JR	12.83	Tons	6.75	\$86.60
01/16/2020	312806	RICKARD PIT- 6 JR	12.78	Tons	6.75	\$86.27

12 loads
2377.24

13 loads
12510.72

18 loads
523.42

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000672

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 01/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
01/16/2020	312809	RICKARD PIT- 6 JR	12.44	Tons	6.75	\$83.97
01/16/2020	312813	RICKARD PIT- 6 JR	12.15	Tons	6.75	\$82.01
01/16/2020	312818	RICKARD PIT- 6 JR	12.25	Tons	6.75	\$82.69
01/16/2020	312819	RICKARD PIT- 6 JR	12.55	Tons	6.75	\$84.71
01/16/2020	312822	RICKARD PIT- 6 JR	12.11	Tons	6.75	\$81.74
01/17/2020	312827	RICKARD PIT- 6 JR	13.76	Tons	6.75	\$88.83
01/17/2020	312828	RICKARD PIT- 6 JR	13.41	Tons	6.75	\$90.52
01/17/2020	312830	RICKARD PIT- 6 JR	12.92	Tons	6.75	\$87.21
01/17/2020	312831	RICKARD PIT- 6 JR	13.51	Tons	6.75	\$91.19
01/17/2020	312833	RICKARD PIT- 6 JR	12.45	Tons	6.75	\$84.04
01/17/2020	312836	RICKARD PIT- 6 JR	12.47	Tons	6.75	\$84.17
01/17/2020	312838	RICKARD PIT- 6 JR	13.22	Tons	6.75	\$89.24
01/17/2020	312843	RICKARD PIT- 6 JR	13.05	Tons	6.75	\$88.09
01/17/2020	312845	RICKARD PIT- 6 JR	12.51	Tons	6.75	\$84.44
01/17/2020	312849	RICKARD PIT- 6 JR	12.88	Tons	6.75	\$86.94
01/17/2020	312851	RICKARD PIT- 6 JR	12.94	Tons	6.75	\$87.35
01/17/2020	312855	RICKARD PIT- 6 JR	12.32	Tons	6.75	\$83.16
01/17/2020	312857	RICKARD PIT- 6 JR	12.88	Tons	6.75	\$86.94
01/17/2020	312859	RICKARD PIT- 6 JR	12.98	Tons	6.75	\$87.62
01/17/2020	312860	RICKARD PIT- 6 JR	12.86	Tons	6.75	\$86.81
01/17/2020	312862	RICKARD PIT- 6 JR	12.22	Tons	6.75	\$82.49
01/17/2020	312866	RICKARD PIT- 6 JR	12.40	Tons	6.75	\$83.70
01/17/2020	312871	RICKARD PIT- 6 JR	12.29	Tons	6.75	\$82.96
01/22/2020	312982	RICKARD PIT- 6 JR	12.82	Tons	6.75	\$86.54
01/22/2020	312986	RICKARD PIT- 6 JR	11.80	Tons	6.75	\$79.65
01/22/2020	312991	RICKARD PIT- 6 JR	11.90	Tons	6.75	\$80.33
01/22/2020	312995	RICKARD PIT- 6 JR	12.91	Tons	6.75	\$87.14
01/22/2020	313005	RICKARD PIT- 3/4	12.94	Tons	8.50	\$109.99
01/22/2020	313009	RICKARD PIT- 3/4	12.68	Tons	8.50	\$107.78
01/22/2020	313014	RICKARD PIT- 3/4	12.67	Tons	8.50	\$107.70
01/22/2020	313035	RICKARD PIT- 3/4	12.91	Tons	8.50	\$109.74
01/22/2020	313043	RICKARD PIT- 3/4	12.60	Tons	8.50	\$107.10
01/22/2020	313051	RICKARD PIT- 3/4	12.52	Tons	8.50	\$106.42
01/22/2020	313053	RICKARD PIT- 3/4	12.57	Tons	8.50	\$106.85
01/23/2020	313061	RICKARD PIT- 6 JR	13.17	Tons	6.75	\$88.90
01/23/2020	313066	RICKARD PIT- 3/4	12.45	Tons	8.50	\$105.83
01/23/2020	313067	RICKARD PIT- 3/4	12.19	Tons	8.50	\$103.62
01/23/2020	313074	RICKARD PIT- 3/4	12.51	Tons	8.50	\$106.34
01/23/2020	313083	RICKARD PIT- 3/4	12.88	Tons	8.50	\$109.48

18 loads

1555.70

11 loads

1089.24

808.38

8 loads

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000672

Telephone: (541) 382-8182
FAX: (541) 306-2144



Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370

Invoice Date: 01/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
01/23/2020	313089	RICKARD PIT- 3/4	12.49	Tons	8.50	\$106.17
01/23/2020	313132	RICKARD PIT- 6 JR	11.70	Tons	6.75	\$78.98
01/23/2020	313155	RICKARD PIT- 3/4	12.83	Tons	8.50	\$109.06
01/24/2020	313177	RICKARD PIT- 3/4	13.40	Tons	8.50	\$113.90
01/24/2020	313182	RICKARD PIT- 3/4	12.52	Tons	8.50	\$106.42
01/24/2020	313191	RICKARD PIT- 3/4	12.68	Tons	8.50	\$107.78
01/24/2020	313197	RICKARD PIT- 3/4	12.46	Tons	8.50	\$105.91
01/24/2020	313201	RICKARD PIT- 3/4	12.72	Tons	8.50	\$108.12
01/24/2020	313214	RICKARD PIT- 3/4	12.53	Tons	8.50	\$106.51
01/24/2020	313227	RICKARD PIT- 3/4	12.62	Tons	8.50	\$107.27
01/24/2020	313232	RICKARD PIT- 3/4	12.95	Tons	8.50	\$110.08
01/24/2020	313237	RICKARD PIT- 3/4	12.80	Tons	8.50	\$108.80
01/24/2020	313243	RICKARD PIT- 3/4	12.64	Tons	8.50	\$107.44
01/24/2020	313245	RICKARD PIT- 3/4	12.54	Tons	8.50	\$106.59
01/27/2020	313259	RICKARD PIT- 3/4	13.55	Tons	8.50	\$115.18
01/27/2020	313263	RICKARD PIT- 3/4	13.52	Tons	8.50	\$114.92
01/27/2020	313287	RICKARD PIT- 6 JR	12.15	Tons	6.75	\$82.01
01/27/2020	313292	RICKARD PIT- 6 JR	11.83	Tons	6.75	\$79.85
01/27/2020	313297	RICKARD PIT- 6 JR	11.98	Tons	6.75	\$80.87
01/27/2020	313317	RICKARD PIT- 6 JR	12.45	Tons	6.75	\$84.04
01/27/2020	313328	RICKARD PIT- 6 JR	11.49	Tons	6.75	\$77.56
01/27/2020	313358	RICKARD PIT- 3/4	12.53	Tons	8.50	\$106.51
01/27/2020	313370	RICKARD PIT- 3/4	12.15	Tons	8.50	\$103.28
01/28/2020	313371	RICKARD PIT- 3/4	11.74	Tons	8.50	\$99.79
01/28/2020	313376	RICKARD PIT- 3/4	12.46	Tons	8.50	\$105.91
01/28/2020	313383	RICKARD PIT- 3/4	11.87	Tons	8.50	\$100.90
01/28/2020	313387	RICKARD PIT- 3/4	11.78	Tons	8.50	\$100.13
01/28/2020	313392	RICKARD PIT- 3/4	12.43	Tons	8.50	\$105.66
01/28/2020	313398	RICKARD PIT- 3/4	12.52	Tons	8.50	\$106.42
01/28/2020	313413	RICKARD PIT- 3/4	12.68	Tons	8.50	\$107.78
01/28/2020	313418	RICKARD PIT- 3/4	12.48	Tons	8.50	\$106.08
01/28/2020	313422	RICKARD PIT- 3/4	12.45	Tons	8.50	\$105.83
01/28/2020	313429	RICKARD PIT- 3/4	12.66	Tons	8.50	\$107.61
01/28/2020	313440	RICKARD PIT- 3/4	11.41	Tons	8.50	\$96.99
01/28/2020	313446	RICKARD PIT- 3/4	11.67	Tons	8.50	\$99.20
01/28/2020	313448	RICKARD PIT- 3/4	12.48	Tons	8.50	\$106.08
01/28/2020	313452	RICKARD PIT- 3/4	12.66	Tons	8.50	\$107.61
01/29/2020	313458	RICKARD PIT- 3/4	11.71	Tons	8.50	\$99.54
01/29/2020	313462	RICKARD PIT- 3/4	12.01	Tons	8.50	\$102.09

11 loads
\$1187.82

9 loads
\$400.00

13 loads
1357.00

Shop Rock + MTS*

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000672

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 01/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
01/29/2020	313485	RICKARD PIT- 3/4	11.57	Tons	8.50	\$98.35
01/29/2020	313492	RICKARD PIT- 3/4	11.58	Tons	8.50	\$98.43
01/29/2020	313501	RICKARD PIT- 3/4	12.53	Tons	8.50	\$106.51
01/29/2020	313510	RICKARD PIT- 3/4	12.21	Tons	8.50	\$103.79
01/29/2020	313519	RICKARD PIT- 3/4	12.55	Tons	8.50	\$106.68
01/29/2020	313526	RICKARD PIT- 3/4	12.23	Tons	8.50	\$103.96
01/29/2020	313537	RICKARD PIT- 3/4	12.56	Tons	8.50	\$106.76
01/29/2020	313544	RICKARD PIT- 3/4	12.06	Tons	8.50	\$102.51
01/29/2020	313555	RICKARD PIT- 3/4	12.72	Tons	8.50	\$108.12
01/29/2020	313560	RICKARD PIT- 3/4	13.06	Tons	8.50	\$111.01
01/29/2020	313567	RICKARD PIT- 3/4	13.18	Tons	8.50	\$112.03
01/31/2020	313631	RICKARD PIT- 3/4	12.57	Tons	8.50	\$106.85
01/31/2020	313635	RICKARD PIT- 3/4	12.00	Tons	8.50	\$102.00
01/31/2020	313639	RICKARD PIT- 3/4	12.85	Tons	8.50	\$109.23
01/31/2020	313641	RICKARD PIT- 3/4	12.31	Tons	8.50	\$104.64
01/31/2020	313645	RICKARD PIT- 3/4	12.87	Tons	8.50	\$109.40
01/31/2020	313651	RICKARD PIT- 3/4	12.17	Tons	8.50	\$103.45
01/31/2020	313652	RICKARD PIT- 3/4	12.49	Tons	8.50	\$106.17
01/31/2020	313655	RICKARD PIT- 3/4	12.87	Tons	8.50	\$109.40
01/31/2020	313668	RICKARD PIT- 6 JR	12.52	Tons	6.75	\$84.51
	208 Item/s	(MILLPONDMI) MILLPOND/MILLER TIMBER	2,917.71	Tons		\$22,116.49
01/24/2020	313250	RICKARD PIT- 3/4	9.48	Tons	8.50	\$80.58
	1 Item/s	(SHOPMILLER) SHOP/MILLER TIMBER	9.48	Tons		\$80.58

1310ads
1359.78
910ads
935.65

Charge Summary

Charges	\$22,822.09
Freight	\$0.00
Other	\$0.00
Sales Tax	\$0.00
Grand Total	\$22,822.09

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000719

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



*Spotted
for Billing
TO
Alexandra
A
Check*

Invoice Date: 02/29/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
02/27/2020	314996	RICKARD PIT- 3/4	3.39	Tons	8.50	\$28.82
02/28/2020	314999	RICKARD PIT- 3/4	3.60	Tons	8.50	\$30.60
	2 Item/s	(No Code)	6.99	Tons		\$59.42
02/27/2020	314978	RICKARD PIT- 3/4	3.56	Tons	8.50	\$30.26
02/27/2020	314985	RICKARD PIT- 3/4	3.66	Tons	8.50	\$31.11
02/27/2020	314989	RICKARD PIT- 3/4	3.56	Tons	8.50	\$30.26
02/27/2020	314991	RICKARD PIT- 3/4	3.66	Tons	8.50	\$31.11
02/27/2020	314992	RICKARD PIT- 3/4	4.13	Tons	8.50	\$35.11
	5 Item/s	(ALEXANDERR) ALEXANDER RD. MILLER TIMBER	18.57	Tons		\$157.85
02/03/2020	313683	RICKARD PIT- 6 JR	14.30	Tons	6.75	\$96.53
02/03/2020	313687	RICKARD PIT- 6 JR	14.19	Tons	6.75	\$95.78
02/03/2020	313688	RICKARD PIT- 6 JR	14.30	Tons	6.75	\$96.53
02/03/2020	313693	RICKARD PIT- 6 JR	13.80	Tons	6.75	\$93.15
02/03/2020	313694	RICKARD PIT- 6 JR	14.03	Tons	6.75	\$94.70
02/03/2020	313698	RICKARD PIT- 6 JR	13.85	Tons	6.75	\$93.49
02/03/2020	313699	RICKARD PIT- 6 JR	13.42	Tons	6.75	\$90.59
02/03/2020	313702	RICKARD PIT- 3/4	14.19	Tons	8.50	\$120.62
02/03/2020	313704	RICKARD PIT- 6 JR	13.37	Tons	6.75	\$90.25
02/03/2020	313708	RICKARD PIT- 6 JR	12.95	Tons	6.75	\$87.41
02/03/2020	313710	RICKARD PIT- 6 JR	13.50	Tons	6.75	\$91.13
02/03/2020	313715	RICKARD PIT- 3/4	13.65	Tons	8.50	\$116.03
02/03/2020	313716	RICKARD PIT- 3/4	13.79	Tons	8.50	\$117.22
02/03/2020	313721	RICKARD PIT- 3/4	13.72	Tons	8.50	\$116.62
02/03/2020	313722	RICKARD PIT- 3/4	13.76	Tons	8.50	\$116.96
02/03/2020	313724	RICKARD PIT- 3/4	14.78	Tons	8.50	\$125.63
02/03/2020	313725	RICKARD PIT- 3/4	13.90	Tons	8.50	\$118.15
02/03/2020	313730	RICKARD PIT- 3/4	13.42	Tons	8.50	\$114.07
02/03/2020	313731	RICKARD PIT- 3/4	13.28	Tons	8.50	\$112.88
02/03/2020	313733	RICKARD PIT- 3/4	13.77	Tons	8.50	\$117.05
02/03/2020	313734	RICKARD PIT- 3/4	13.73	Tons	8.50	\$116.71
02/03/2020	313738	RICKARD PIT- 3/4	14.86	Tons	8.50	\$126.31
02/03/2020	313740	RICKARD PIT- 3/4	14.01	Tons	8.50	\$119.09
02/03/2020	313748	RICKARD PIT- 6 JR	13.30	Tons	6.75	\$89.78
02/03/2020	313749	RICKARD PIT- 6 JR	14.00	Tons	6.75	\$94.50
02/03/2020	313758	RICKARD PIT- 3/4	14.05	Tons	8.50	\$119.43
02/03/2020	313759	RICKARD PIT- 3/4	14.12	Tons	8.50	\$120.02
02/03/2020	313765	RICKARD PIT- 3/4	13.35	Tons	8.50	\$113.48
02/03/2020	313766	RICKARD PIT- 3/4	13.99	Tons	8.50	\$118.92

*pickup of
Trailer
Alexander
Rd*

*Expenses
Job*

*All
Rd -
Miller
Amit*

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000719

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 02/29/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
02/03/2020	313770	RICKARD PIT- 3/4	13.71	Tons	8.50	\$116.54
02/03/2020	313772	RICKARD PIT- 3/4	13.73	Tons	8.50	\$116.71
02/03/2020	313774	RICKARD PIT- 3/4	13.58	Tons	8.50	\$115.43
02/03/2020	313775	RICKARD PIT- 3/4	14.42	Tons	8.50	\$122.57
02/03/2020	313776	RICKARD PIT- 3/4	13.69	Tons	8.50	\$116.37
02/03/2020	313777	RICKARD PIT- 3/4	13.81	Tons	8.50	\$117.39
02/04/2020	313784	RICKARD PIT- 3/4	14.44	Tons	8.50	\$122.74
02/04/2020	313788	RICKARD PIT- 3/4	14.40	Tons	8.50	\$122.40
02/04/2020	313790	RICKARD PIT- 3/4	14.20	Tons	8.50	\$120.70
02/04/2020	313792	RICKARD PIT- 6 JR	14.46	Tons	6.75	\$97.61
02/04/2020	313795	RICKARD PIT- 3/4	14.30	Tons	8.50	\$121.55
02/04/2020	313797	RICKARD PIT- 6 JR	14.44	Tons	6.75	\$97.47
02/04/2020	313801	RICKARD PIT- 6 JR	13.79	Tons	6.75	\$93.08
02/04/2020	313802	RICKARD PIT- 6 JR	13.95	Tons	6.75	\$94.16
02/04/2020	313806	RICKARD PIT- 6 JR	14.06	Tons	6.75	\$94.91
02/04/2020	313807	RICKARD PIT- 6 JR	13.63	Tons	6.75	\$92.00
02/04/2020	313809	RICKARD PIT- 6 JR	14.38	Tons	6.75	\$97.07
02/04/2020	313816	RICKARD PIT- 6 JR	14.26	Tons	6.75	\$96.26
02/04/2020	313819	RICKARD PIT- 3/4	14.72	Tons	8.50	\$125.12
02/04/2020	313822	RICKARD PIT- 3/4	13.97	Tons	8.50	\$118.75
02/04/2020	313825	RICKARD PIT- 3/4	13.86	Tons	8.50	\$117.81
02/04/2020	313826	RICKARD PIT- 3/4	14.08	Tons	8.50	\$119.68
02/04/2020	313828	RICKARD PIT- 3/4	14.11	Tons	8.50	\$119.94
02/04/2020	313833	RICKARD PIT- 3/4	14.14	Tons	8.50	\$120.19
02/04/2020	313835	RICKARD PIT- 3/4	14.00	Tons	8.50	\$119.00
02/04/2020	313839	RICKARD PIT- 3/4	14.51	Tons	8.50	\$123.34
02/04/2020	313840	RICKARD PIT- 3/4	14.63	Tons	8.50	\$124.36
02/04/2020	313845	RICKARD PIT- 3/4	13.72	Tons	8.50	\$116.62
02/04/2020	313846	RICKARD PIT- 3/4	13.19	Tons	8.50	\$112.12
02/04/2020	313849	RICKARD PIT- 3/4	13.72	Tons	8.50	\$116.62
02/04/2020	313851	RICKARD PIT- 3/4	13.95	Tons	8.50	\$118.58
02/04/2020	313853	RICKARD PIT- 3/4	13.53	Tons	8.50	\$115.01
02/04/2020	313855	RICKARD PIT- 3/4	15.12	Tons	8.50	\$128.52
02/04/2020	313857	RICKARD PIT- 3/4	13.59	Tons	8.50	\$115.52
02/04/2020	313859	RICKARD PIT- 3/4	14.20	Tons	8.50	\$120.70
02/04/2020	313862	RICKARD PIT- 3/4	13.97	Tons	8.50	\$118.75
02/05/2020	313867	RICKARD PIT- 3/4	13.38	Tons	8.50	\$113.73
02/05/2020	313870	RICKARD PIT- 3/4	13.79	Tons	8.50	\$117.22
02/05/2020	313875	RICKARD PIT- 3/4	13.70	Tons	8.50	\$116.45

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000719

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 02/29/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
02/05/2020	313880	RICKARD PIT- 3/4	14.47	Tons	8.50	\$123.00
02/05/2020	313885	RICKARD PIT- 3/4	13.56	Tons	8.50	\$115.26
02/05/2020	313890	RICKARD PIT- 3/4	13.74	Tons	8.50	\$116.79
02/05/2020	313896	RICKARD PIT- 3/4	14.42	Tons	8.50	\$122.57
02/05/2020	313902	RICKARD PIT- 3/4	13.85	Tons	8.50	\$117.73
02/05/2020	313905	RICKARD PIT- 3/4	14.14	Tons	8.50	\$120.19
02/05/2020	313913	RICKARD PIT- 3/4	14.07	Tons	8.50	\$119.60
02/05/2020	313918	RICKARD PIT- 3/4	14.44	Tons	8.50	\$122.74
02/05/2020	313920	RICKARD PIT- 3/4	14.01	Tons	8.50	\$119.09
02/05/2020	313922	RICKARD PIT- 3/4	13.95	Tons	8.50	\$118.58
02/05/2020	313925	RICKARD PIT- 3/4	13.75	Tons	8.50	\$116.88
02/05/2020	313926	RICKARD PIT- 3/4	14.22	Tons	8.50	\$120.87
02/06/2020	313929	RICKARD PIT- 3/4	14.25	Tons	8.50	\$121.13
02/06/2020	313932	RICKARD PIT- 3/4	14.48	Tons	8.50	\$123.08
02/06/2020	313935	RICKARD PIT- 3/4	13.78	Tons	8.50	\$117.13
02/06/2020	313937	RICKARD PIT- 3/4	14.48	Tons	8.50	\$123.08
02/06/2020	313939	RICKARD PIT- 3/4	14.17	Tons	8.50	\$120.45
02/06/2020	313942	RICKARD PIT- 3/4	14.21	Tons	8.50	\$120.79
02/07/2020	313986	RICKARD PIT- 3/8-0 REJECT	14.74	Tons	7.00	\$103.18
02/07/2020	313989	RICKARD PIT- 3/8-0 REJECT	14.66	Tons	7.00	\$102.62
02/07/2020	313992	RICKARD PIT- 3/8-0 REJECT	14.93	Tons	7.00	\$104.51
02/07/2020	313996	RICKARD PIT- 3/8-0 REJECT	14.28	Tons	7.00	\$99.96
02/10/2020	314005	RICKARD PIT- 3/4	14.39	Tons	8.50	\$122.32
02/10/2020	314023	RICKARD PIT- 3/4	13.99	Tons	8.50	\$118.92
02/10/2020	314028	RICKARD PIT- 3/4	13.56	Tons	8.50	\$115.26
02/10/2020	314034	RICKARD PIT- 3/8-0 REJECT	13.30	Tons	7.00	\$93.10
02/10/2020	314040	RICKARD PIT- 3/4	14.92	Tons	8.50	\$126.82
02/10/2020	314043	RICKARD PIT- 3/4	13.68	Tons	8.50	\$116.28
02/10/2020	314049	RICKARD PIT- 3/4	14.09	Tons	8.50	\$119.77
02/17/2020	314457	RICKARD PIT- 3/8-0 REJECT	13.78	Tons	7.00	\$96.46
02/17/2020	314463	RICKARD PIT- 3/8-0 REJECT	13.30	Tons	7.00	\$93.10
02/17/2020	314469	RICKARD PIT- 3/8-0 REJECT	14.00	Tons	7.00	\$98.00
02/17/2020	314472	RICKARD PIT- 3/8-0 REJECT	13.79	Tons	7.00	\$96.53
02/17/2020	314473	RICKARD PIT- 3/8-0 REJECT	13.49	Tons	7.00	\$94.43
02/18/2020	314482	RICKARD PIT- 3/8-0 REJECT	15.56	Tons	7.00	\$108.92
02/18/2020	314488	RICKARD PIT- 3/8-0 REJECT	14.15	Tons	7.00	\$99.05
02/18/2020	314494	RICKARD PIT- 3/8-0 REJECT	14.29	Tons	7.00	\$100.03
02/18/2020	314506	RICKARD PIT- 3/8-0 REJECT	13.99	Tons	7.00	\$97.93
02/18/2020	314515	RICKARD PIT- 3/8-0 REJECT	14.14	Tons	7.00	\$98.98

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000719

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 02/29/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
02/18/2020	314522	RICKARD PIT- 3/8-0 REJECT	15.20	Tons	7.00	\$106.40
02/19/2020	314589	RICKARD PIT- 3/8-0 REJECT	14.68	Tons	7.00	\$102.76
02/21/2020	314735	RICKARD PIT- 3/8-0 REJECT	14.04	Tons	7.00	\$98.28
02/21/2020	314737	RICKARD PIT- 3/8-0 REJECT	14.33	Tons	7.00	\$100.31
02/21/2020	314739	RICKARD PIT- 3/8-0 REJECT	13.84	Tons	7.00	\$96.88
02/21/2020	314743	RICKARD PIT- 3/8-0 REJECT	13.94	Tons	7.00	\$97.58
02/24/2020	314776	RICKARD PIT- 3/8-0 REJECT	13.77	Tons	7.00	\$96.39
02/24/2020	314778	RICKARD PIT- 3/8-0 REJECT	14.15	Tons	7.00	\$99.05
02/24/2020	314779	RICKARD PIT- 3/8-0 REJECT	14.11	Tons	7.00	\$98.77
02/24/2020	314781	RICKARD PIT- 3/8-0 REJECT	14.21	Tons	7.00	\$99.47
02/24/2020	314784	RICKARD PIT- 3/8-0 REJECT	14.43	Tons	7.00	\$101.01
02/24/2020	314786	RICKARD PIT- 3/8-0 REJECT	13.70	Tons	7.00	\$95.90
02/24/2020	314788	RICKARD PIT- 3/8-0 REJECT	14.04	Tons	7.00	\$98.28
02/24/2020	314790	RICKARD PIT- 3/8-0 REJECT	14.36	Tons	7.00	\$100.52
02/24/2020	314794	RICKARD PIT- 3/8-0 REJECT	13.88	Tons	7.00	\$97.16
02/24/2020	314796	RICKARD PIT- 3/8-0 REJECT	14.07	Tons	7.00	\$98.49
02/24/2020	314800	RICKARD PIT- 3/8-0 REJECT	13.61	Tons	7.00	\$95.27
02/24/2020	314803	RICKARD PIT- 3/8-0 REJECT	14.17	Tons	7.00	\$99.19
02/24/2020	314807	RICKARD PIT- 3/8-0 REJECT	14.14	Tons	7.00	\$98.98
02/25/2020	314820	RICKARD PIT- 3/4	14.90	Tons	8.50	\$126.65
02/26/2020	314914	RICKARD PIT- 3/4	13.96	Tons	8.50	\$118.66
02/26/2020	314916	RICKARD PIT- 3/4	14.12	Tons	8.50	\$120.02
02/26/2020	314922	RICKARD PIT- 3/4	14.99	Tons	8.50	\$127.42
02/26/2020	314926	RICKARD PIT- 3/4	14.04	Tons	8.50	\$119.34
02/26/2020	314934	RICKARD PIT- 3/4	13.70	Tons	8.50	\$116.45
02/27/2020	314970	RICKARD PIT- 3/4	13.11	Tons	8.50	\$111.44
02/27/2020	314973	RICKARD PIT- 3/4	13.46	Tons	8.50	\$114.41
02/27/2020	314976	RICKARD PIT- 3/4	14.03	Tons	8.50	\$119.26
02/27/2020	314980	RICKARD PIT- 3/4	13.45	Tons	8.50	\$114.33
02/28/2020	315003	RICKARD PIT- 3/4	14.11	Tons	8.50	\$119.94
02/28/2020	315005	RICKARD PIT- 3/4	14.83	Tons	8.50	\$126.06
02/28/2020	315008	RICKARD PIT- 3/4	14.63	Tons	8.50	\$124.36
02/28/2020	315011	RICKARD PIT- 3/4	14.30	Tons	8.50	\$121.55
02/28/2020	315014	RICKARD PIT- 3/4	13.39	Tons	8.50	\$113.82
02/28/2020	315015	RICKARD PIT- 3/4	14.42	Tons	8.50	\$122.57
02/28/2020	315017	RICKARD PIT- 3/4	14.08	Tons	8.50	\$119.68
02/28/2020	315020	RICKARD PIT- 3/4	13.27	Tons	8.50	\$112.80
	144 Item/s	(MILLPOND MI) MILLPOND/MILLER TIMBER	2,020.99	Tons		\$15,970.60

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000719

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 02/29/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
			Charge Summary			
				Charges		\$16,187.87
				Freight		\$0.00
				Other		\$0.00
				Sales Tax		\$0.00
			Grand Total		\$16,187.87	

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370

MPC
33590.40



Invoice Date: 03/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
03/02/2020	315039	RICKARD PIT- 3/8-0 REJECT	14.16	Tons	6.50	\$92.04
03/02/2020	315044	RICKARD PIT- 3/4	14.19	Tons	8.75	\$124.16
03/02/2020	315045	RICKARD PIT- 3/4	13.93	Tons	8.75	\$121.89
03/02/2020	315047	RICKARD PIT- 3/4	14.45	Tons	8.75	\$126.44
03/02/2020	315049	RICKARD PIT- 3/4	13.46	Tons	8.75	\$117.78
03/02/2020	315051	RICKARD PIT- 3/4	14.10	Tons	8.75	\$123.38
03/02/2020	315052	RICKARD PIT- 3/4	13.70	Tons	8.75	\$119.88
03/02/2020	315053	RICKARD PIT- 3/4	13.81	Tons	8.75	\$120.84
03/02/2020	315057	RICKARD PIT- 3/4	13.68	Tons	8.75	\$119.70
03/02/2020	315059	RICKARD PIT- 3/4	14.07	Tons	8.75	\$123.11
03/02/2020	315060	RICKARD PIT- 3/4	13.96	Tons	8.75	\$122.15
03/02/2020	315061	RICKARD PIT- 3/4	13.68	Tons	8.75	\$119.70
03/02/2020	315062	RICKARD PIT- 3/4	13.40	Tons	8.75	\$117.25
03/02/2020	315064	RICKARD PIT- 3/4	13.70	Tons	8.75	\$119.88
03/02/2020	315065	RICKARD PIT- 3/4	13.33	Tons	8.75	\$116.64
03/02/2020	315067	RICKARD PIT- 3/4	13.51	Tons	8.75	\$118.21
03/02/2020	315071	RICKARD PIT- 3/4	13.88	Tons	8.75	\$121.45
03/02/2020	315072	RICKARD PIT- 3/4	14.46	Tons	8.75	\$126.53
03/02/2020	315074	RICKARD PIT- 3/4	13.57	Tons	8.75	\$118.74
03/02/2020	315077	RICKARD PIT- 3/4	14.18	Tons	8.75	\$124.08
03/02/2020	315078	RICKARD PIT- 3/4	13.76	Tons	8.75	\$120.40
03/02/2020	315080	RICKARD PIT- 3/4	14.05	Tons	8.75	\$122.94
03/02/2020	315081	RICKARD PIT- 3/4	14.04	Tons	8.75	\$122.85
03/02/2020	315082	RICKARD PIT- 3/4	13.92	Tons	8.75	\$121.80
03/02/2020	315084	RICKARD PIT- 3/4	13.19	Tons	8.75	\$115.41
03/03/2020	315087	RICKARD PIT- 3/4	14.31	Tons	8.75	\$125.21
03/03/2020	315089	RICKARD PIT- 3/4	13.81	Tons	8.75	\$120.84
03/03/2020	315090	RICKARD PIT- 3/4	15.43	Tons	8.75	\$135.01
03/03/2020	315094	RICKARD PIT- 3/4	14.05	Tons	8.75	\$122.94
03/03/2020	315095	RICKARD PIT- 3/4	15.27	Tons	8.75	\$133.61
03/03/2020	315099	RICKARD PIT- 3/4	13.63	Tons	8.75	\$119.26
03/03/2020	315100	RICKARD PIT- 3/4	14.84	Tons	8.75	\$129.85
03/03/2020	315105	RICKARD PIT- 3/4	14.14	Tons	8.75	\$123.73
03/03/2020	315106	RICKARD PIT- 3/4	14.98	Tons	8.75	\$131.08
03/03/2020	315108	RICKARD PIT- 3/4	14.07	Tons	8.75	\$123.11
03/03/2020	315110	RICKARD PIT- 3/4	15.08	Tons	8.75	\$131.95
03/03/2020	315111	RICKARD PIT- 3/4	14.48	Tons	8.75	\$126.70
03/03/2020	315114	RICKARD PIT- 3/4	15.53	Tons	8.75	\$135.89
03/03/2020	315115	RICKARD PIT- 3/4	14.16	Tons	8.75	\$123.90

2.5 loads

COPY

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 03/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
03/03/2020	315117	RICKARD PIT- 3/4	14.05	Tons	8.75	\$122.94
03/03/2020	315119	RICKARD PIT- 3/4	14.64	Tons	8.75	\$128.10
03/03/2020	315120	RICKARD PIT- 3/4	14.28	Tons	8.75	\$124.95
03/03/2020	315122	RICKARD PIT- 3/4	14.51	Tons	8.75	\$126.96
03/03/2020	315123	RICKARD PIT- 3/4	15.07	Tons	8.75	\$131.86
03/03/2020	315125	RICKARD PIT- 3/4	15.59	Tons	8.75	\$136.41
03/03/2020	315126	RICKARD PIT- 3/4	15.13	Tons	8.75	\$132.39
03/03/2020	315128	RICKARD PIT- 3/4	13.58	Tons	8.75	\$118.83
03/03/2020	315130	RICKARD PIT- 3/4	13.91	Tons	8.75	\$121.71
03/03/2020	315131	RICKARD PIT- 3/4	13.45	Tons	8.75	\$117.69
03/03/2020	315132	RICKARD PIT- 3/4	14.84	Tons	8.75	\$129.85
03/03/2020	315134	RICKARD PIT- 3/4	15.34	Tons	8.75	\$134.23
03/03/2020	315135	RICKARD PIT- 3/4	14.64	Tons	8.75	\$128.10
03/03/2020	315136	RICKARD PIT- 3/4	14.10	Tons	8.75	\$123.38
03/03/2020	315137	RICKARD PIT- 3/4	14.32	Tons	8.75	\$125.30
03/03/2020	315138	RICKARD PIT- 3/4	14.85	Tons	8.75	\$129.94
03/03/2020	315139	RICKARD PIT- 3/4	15.65	Tons	8.75	\$136.94
03/03/2020	315141	RICKARD PIT- 3/4	14.34	Tons	8.75	\$125.48
03/03/2020	315143	RICKARD PIT- 3/4	13.39	Tons	8.75	\$117.16
03/03/2020	315144	RICKARD PIT- 3/4	14.60	Tons	8.75	\$127.75
03/03/2020	315145	RICKARD PIT- 3/4	14.70	Tons	8.75	\$128.63
03/03/2020	315148	RICKARD PIT- 3/4	15.32	Tons	8.75	\$134.05
03/03/2020	315149	RICKARD PIT- 3/4	13.87	Tons	8.75	\$121.36
03/03/2020	315152	RICKARD PIT- 3/4	14.11	Tons	8.75	\$123.46
03/03/2020	315153	RICKARD PIT- 3/4	14.10	Tons	8.75	\$123.38
03/03/2020	315154	RICKARD PIT- 3/4	15.06	Tons	8.75	\$131.78
03/03/2020	315156	RICKARD PIT- 3/4	15.64	Tons	8.75	\$136.85
03/03/2020	315157	RICKARD PIT- 3/4	14.02	Tons	8.75	\$122.68
03/03/2020	315160	RICKARD PIT- 3/4	14.33	Tons	8.75	\$125.39
03/03/2020	315161	RICKARD PIT- 3/4	13.75	Tons	8.75	\$120.31
03/03/2020	315162	RICKARD PIT- 3/4	14.67	Tons	8.75	\$128.36
03/03/2020	315163	RICKARD PIT- 3/4	15.19	Tons	8.75	\$132.91
03/03/2020	315166	RICKARD PIT- 3/4	13.60	Tons	8.75	\$119.00
03/03/2020	315169	RICKARD PIT- 3/4	14.88	Tons	8.75	\$130.20
03/03/2020	315170	RICKARD PIT- 3/4	14.15	Tons	8.75	\$123.81
03/03/2020	315171	RICKARD PIT- 3/4	14.04	Tons	8.75	\$122.85
03/03/2020	315174	RICKARD PIT- 3/4	14.17	Tons	8.75	\$123.99
03/03/2020	315175	RICKARD PIT- 3/4	15.19	Tons	8.75	\$132.91
03/03/2020	315176	RICKARD PIT- 3/4	14.68	Tons	8.75	\$128.45



4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

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Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 03/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
03/03/2020	315177	RICKARD PIT- 3/4	14.09	Tons	8.75	\$123.29
03/03/2020	315178	RICKARD PIT- 3/4	14.85	Tons	8.75	\$129.94
03/03/2020	315179	RICKARD PIT- 3/4	14.14	Tons	8.75	\$123.73
03/03/2020	315180	RICKARD PIT- 3/4	15.02	Tons	8.75	\$131.43
03/04/2020	315182	RICKARD PIT- 3/4	14.27	Tons	8.75	\$124.86
03/04/2020	315183	RICKARD PIT- 3/4	13.97	Tons	8.75	\$122.24
03/04/2020	315187	RICKARD PIT- 3/4	15.05	Tons	8.75	\$131.69
03/04/2020	315189	RICKARD PIT- 3/4	14.32	Tons	8.75	\$125.30
03/04/2020	315190	RICKARD PIT- 3/4	14.36	Tons	8.75	\$125.65
03/04/2020	315192	RICKARD PIT- 3/4	14.10	Tons	8.75	\$123.38
03/04/2020	315195	RICKARD PIT- 3/4	14.32	Tons	8.75	\$125.30
03/04/2020	315197	RICKARD PIT- 3/4	14.33	Tons	8.75	\$125.39
03/04/2020	315200	RICKARD PIT- 3/4	14.10	Tons	8.75	\$123.38
03/04/2020	315201	RICKARD PIT- 3/4	14.02	Tons	8.75	\$122.68
03/04/2020	315203	RICKARD PIT- 3/4	14.50	Tons	8.75	\$126.88
03/04/2020	315204	RICKARD PIT- 3/4	13.93	Tons	8.75	\$121.89
03/04/2020	315209	RICKARD PIT- 3/4	14.18	Tons	8.75	\$124.08
03/04/2020	315210	RICKARD PIT- 3/4	13.62	Tons	8.75	\$119.18
03/04/2020	315213	RICKARD PIT- 3/4	13.62	Tons	8.75	\$119.18
03/04/2020	315215	RICKARD PIT- 3/4	13.53	Tons	8.75	\$118.39
03/04/2020	315217	RICKARD PIT- 3/4	13.46	Tons	8.75	\$117.78
03/04/2020	315218	RICKARD PIT- 3/4	13.24	Tons	8.75	\$115.85
03/04/2020	315220	RICKARD PIT- 3/4	13.86	Tons	8.75	\$121.28
03/04/2020	315221	RICKARD PIT- 3/4	12.36	Tons	8.75	\$108.15
03/04/2020	315224	RICKARD PIT- 3/4	13.73	Tons	8.75	\$120.14
03/04/2020	315225	RICKARD PIT- 3/4	14.07	Tons	8.75	\$123.11
03/04/2020	315227	RICKARD PIT- 3/4	13.84	Tons	8.75	\$121.10
03/04/2020	315229	RICKARD PIT- 3/4	14.04	Tons	8.75	\$122.85
03/04/2020	315230	RICKARD PIT- 3/4	13.37	Tons	8.75	\$116.99
03/04/2020	315231	RICKARD PIT- 3/4	12.59	Tons	8.75	\$110.16
03/04/2020	315234	RICKARD PIT- 3/4	14.32	Tons	8.75	\$125.30
03/04/2020	315235	RICKARD PIT- 3/4	14.62	Tons	8.75	\$127.93
03/04/2020	315236	RICKARD PIT- 3/4	14.24	Tons	8.75	\$124.60
03/04/2020	315238	RICKARD PIT- 3/4	14.18	Tons	8.75	\$124.08
03/04/2020	315241	RICKARD PIT- 3/4	13.34	Tons	8.75	\$116.73
03/05/2020	315249	RICKARD PIT- 3/4	14.19	Tons	8.75	\$124.16
03/05/2020	315254	RICKARD PIT- 3/4	15.85	Tons	8.75	\$138.69
03/05/2020	315258	RICKARD PIT- 3/4	16.07	Tons	8.75	\$140.61
03/05/2020	315263	RICKARD PIT- 3/4	14.32	Tons	8.75	\$125.30

57 weeks

31

COPY

4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 03/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
03/05/2020	315266	RICKARD PIT- 3/4	13.94	Tons	8.75	\$121.98
03/05/2020	315270	RICKARD PIT- 3/4	14.07	Tons	8.75	\$123.11
03/05/2020	315274	RICKARD PIT- 3/4	14.12	Tons	8.75	\$123.55
03/05/2020	315279	RICKARD PIT- 3/4	14.40	Tons	8.75	\$126.00
03/05/2020	315282	RICKARD PIT- 3/4	14.35	Tons	8.75	\$125.56
03/05/2020	315285	RICKARD PIT- 3/4	14.11	Tons	8.75	\$123.46
03/05/2020	315287	RICKARD PIT- 3/4	14.29	Tons	8.75	\$125.04
03/05/2020	315289	RICKARD PIT- 3/4	13.49	Tons	8.75	\$118.04
03/05/2020	315290	RICKARD PIT- 3/4	14.29	Tons	8.75	\$125.04
03/05/2020	315294	RICKARD PIT- 3/4	14.00	Tons	8.75	\$122.50
03/05/2020	315297	RICKARD PIT- 3/4	14.07	Tons	8.75	\$123.11
03/05/2020	315298	RICKARD PIT- 3/4	14.17	Tons	8.75	\$123.99
03/05/2020	315301	RICKARD PIT- 3/4	14.02	Tons	8.75	\$122.68
03/05/2020	315305	RICKARD PIT- 3/4	14.26	Tons	8.75	\$124.78
03/05/2020	315311	RICKARD PIT- 3/4	13.34	Tons	8.75	\$116.73
03/05/2020	315315	RICKARD PIT- 3/4	13.39	Tons	8.75	\$117.16
03/05/2020	315319	RICKARD PIT- 3/4	13.57	Tons	8.75	\$118.74
03/06/2020	315322	RICKARD PIT- 3/4	14.30	Tons	8.75	\$125.13
03/06/2020	315326	RICKARD PIT- 3/4	14.51	Tons	8.75	\$126.96
03/06/2020	315328	RICKARD PIT- 3/4	14.32	Tons	8.75	\$125.30
03/06/2020	315329	RICKARD PIT- 3/4	13.71	Tons	8.75	\$119.96
03/06/2020	315332	RICKARD PIT- 3/8-0 REJECT	13.70	Tons	6.50	\$89.05
03/06/2020	315334	RICKARD PIT- 3/8-0 REJECT	14.16	Tons	6.50	\$92.04
03/06/2020	315343	RICKARD PIT- 3/8-0 REJECT	14.30	Tons	6.50	\$92.95
03/06/2020	315347	RICKARD PIT- 3/8-0 REJECT	13.55	Tons	6.50	\$88.08
03/06/2020	315353	RICKARD PIT- 3/8-0 REJECT	14.16	Tons	6.50	\$92.04
03/10/2020	315422	RICKARD PIT- 3/4	12.92	Tons	8.75	\$113.05
03/10/2020	315425	RICKARD PIT- 3/4	13.89	Tons	8.75	\$121.54
03/17/2020	315655	RICKARD PIT- 3/4	13.10	Tons	8.75	\$114.63
03/17/2020	315660	RICKARD PIT- 3/4	13.70	Tons	8.75	\$119.88
03/18/2020	315747	RICKARD PIT- 3/4	12.33	Tons	8.75	\$107.89
03/18/2020	315750	RICKARD PIT- 3/4	12.95	Tons	8.75	\$113.31
03/18/2020	315754	RICKARD PIT- 3/4	12.83	Tons	8.75	\$112.26
03/19/2020	315817	RICKARD PIT- 3/4	14.00	Tons	8.75	\$122.50
03/19/2020	315824	RICKARD PIT- 3/4	14.47	Tons	8.75	\$126.61
03/19/2020	315833	RICKARD PIT- 3/4	13.75	Tons	8.75	\$120.31
03/19/2020	315841	RICKARD PIT- 3/4	14.79	Tons	8.75	\$129.41
03/19/2020	315851	RICKARD PIT- 3/4	13.73	Tons	8.75	\$120.14
03/19/2020	315859	RICKARD PIT- 3/4	13.92	Tons	8.75	\$121.80

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4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 03/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
03/20/2020	315898	RICKARD PIT- 3/4	13.62	Tons	8.75	\$119.18
03/20/2020	315901	RICKARD PIT- 3/4	13.72	Tons	8.75	\$120.05
03/20/2020	315903	RICKARD PIT- 1 1/2	14.44	Tons	8.75	\$126.35
03/20/2020	315917	RICKARD PIT- 1 1/2	13.76	Tons	8.75	\$120.40
03/20/2020	315926	RICKARD PIT- 3/4	14.14	Tons	8.75	\$123.73
03/20/2020	315935	RICKARD PIT- 3/4	13.71	Tons	8.75	\$119.96
03/23/2020	316227	RICKARD PIT- 3/4	13.07	Tons	8.75	\$114.36
03/23/2020	316235	RICKARD PIT- 3/4	12.24	Tons	8.75	\$107.10
03/23/2020	316241	RICKARD PIT- 3/4	13.54	Tons	8.75	\$118.48
03/23/2020	316247	RICKARD PIT- 3/4	13.70	Tons	8.75	\$119.88
03/23/2020	316251	RICKARD PIT- 3/4	12.82	Tons	8.75	\$112.18
03/23/2020	316257	RICKARD PIT- 3/4	13.76	Tons	8.75	\$120.40
03/23/2020	316265	RICKARD PIT- 3/4	13.06	Tons	8.75	\$114.28
03/23/2020	316273	RICKARD PIT- 3/4	12.30	Tons	8.75	\$107.63
03/23/2020	316275	RICKARD PIT- 3/4	13.10	Tons	8.75	\$114.63
03/23/2020	316280	RICKARD PIT- 3/4	13.18	Tons	8.75	\$115.33
03/23/2020	316287	RICKARD PIT- 3/4	13.30	Tons	8.75	\$116.38
03/23/2020	316293	RICKARD PIT- 3/4	12.71	Tons	8.75	\$111.21
03/23/2020	316299	RICKARD PIT- 3/4	13.13	Tons	8.75	\$114.89
03/23/2020	316302	RICKARD PIT- 3/4	13.06	Tons	8.75	\$114.28
03/23/2020	316304	RICKARD PIT- 3/4	13.07	Tons	8.75	\$114.36
03/23/2020	316305	RICKARD PIT- 3/4	13.24	Tons	8.75	\$115.85
03/24/2020	316312	RICKARD PIT- 3/4	13.66	Tons	8.75	\$119.53
03/24/2020	316319	RICKARD PIT- 3/4	13.42	Tons	8.75	\$117.43
03/24/2020	316329	RICKARD PIT- 3/4	13.28	Tons	8.75	\$116.20
03/24/2020	316332	RICKARD PIT- 3/4	13.49	Tons	8.75	\$118.04
03/24/2020	316340	RICKARD PIT- 3/4	13.44	Tons	8.75	\$117.60
03/24/2020	316346	RICKARD PIT- 3/4	13.21	Tons	8.75	\$115.59
03/24/2020	316354	RICKARD PIT- 3/4	13.42	Tons	8.75	\$117.43
03/24/2020	316363	RICKARD PIT- 3/4	13.42	Tons	8.75	\$117.43
03/24/2020	316368	RICKARD PIT- 3/4	13.38	Tons	8.75	\$117.08
03/24/2020	316373	RICKARD PIT- 3/4	12.60	Tons	8.75	\$110.25
03/24/2020	316382	RICKARD PIT- 3/4	13.56	Tons	8.75	\$118.65
03/24/2020	316385	RICKARD PIT- 3/4	12.95	Tons	8.75	\$113.31
03/24/2020	316391	RICKARD PIT- 3/4	13.02	Tons	8.75	\$113.93
03/24/2020	316398	RICKARD PIT- 3/4	13.27	Tons	8.75	\$116.11
03/24/2020	316405	RICKARD PIT- 3/4	13.59	Tons	8.75	\$118.91
03/24/2020	316409	RICKARD PIT- 3/4	12.61	Tons	8.75	\$110.34
03/24/2020	316412	RICKARD PIT- 3/4	13.57	Tons	8.75	\$118.74



4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 03/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
03/24/2020	316414	RICKARD PIT- 3/4	13.28	Tons	8.75	\$116.20
03/25/2020	316421	RICKARD PIT- 3/4	14.08	Tons	8.75	\$123.20
03/25/2020	316430	RICKARD PIT- 3/4	13.53	Tons	8.75	\$118.39
03/25/2020	316437	RICKARD PIT- 3/4	12.57	Tons	8.75	\$109.99
03/25/2020	316440	RICKARD PIT- 3/4	13.19	Tons	8.75	\$115.41
03/25/2020	316445	RICKARD PIT- 3/4	12.99	Tons	8.75	\$113.66
03/25/2020	316454	RICKARD PIT- 3/4	12.65	Tons	8.75	\$110.69
03/25/2020	316459	RICKARD PIT- 3/4	13.45	Tons	8.75	\$117.69
03/25/2020	316464	RICKARD PIT- 3/4	13.72	Tons	8.75	\$120.05
03/25/2020	316471	RICKARD PIT- 3/4	13.13	Tons	8.75	\$114.89
03/25/2020	316478	RICKARD PIT- 3/4	12.98	Tons	8.75	\$113.58
03/25/2020	316488	RICKARD PIT- 3/4	13.49	Tons	8.75	\$118.04
03/25/2020	316497	RICKARD PIT- 3/4	14.32	Tons	8.75	\$125.30
03/25/2020	316503	RICKARD PIT- 3/4	13.56	Tons	8.75	\$118.65
03/25/2020	316511	RICKARD PIT- 3/4	12.79	Tons	8.75	\$111.91
03/25/2020	316515	RICKARD PIT- 3/4	13.04	Tons	8.75	\$114.10
03/25/2020	316521	RICKARD PIT- 3/4	12.80	Tons	8.75	\$112.00
03/25/2020	316527	RICKARD PIT- 3/4	14.04	Tons	8.75	\$122.85
03/25/2020	316528	RICKARD PIT- 3/4	13.24	Tons	8.75	\$115.85
03/26/2020	316536	RICKARD PIT- 3/4	13.98	Tons	8.75	\$122.33
03/26/2020	316545	RICKARD PIT- 3/4	13.34	Tons	8.75	\$116.73
03/26/2020	316551	RICKARD PIT- 3/4	13.58	Tons	8.75	\$118.83
03/26/2020	316560	RICKARD PIT- 3/4	13.82	Tons	8.75	\$120.93
03/26/2020	316570	RICKARD PIT- 3/4	13.14	Tons	8.75	\$114.98
03/26/2020	316579	RICKARD PIT- 3/4	12.99	Tons	8.75	\$113.66
03/26/2020	316588	RICKARD PIT- 3/4	13.03	Tons	8.75	\$114.01
03/26/2020	316600	RICKARD PIT- 3/4	12.72	Tons	8.75	\$111.30
03/26/2020	316611	RICKARD PIT- 3/4	13.88	Tons	8.75	\$121.45
03/26/2020	316622	RICKARD PIT- 3/4	13.07	Tons	8.75	\$114.36
03/26/2020	316632	RICKARD PIT- 3/4	13.75	Tons	8.75	\$120.31
03/26/2020	316638	RICKARD PIT- 3/4	13.67	Tons	8.75	\$119.61
03/26/2020	316648	RICKARD PIT- 3/4	13.84	Tons	8.75	\$121.10
03/26/2020	316654	RICKARD PIT- 3/4	13.14	Tons	8.75	\$114.98
03/26/2020	316657	RICKARD PIT- 3/4	13.55	Tons	8.75	\$118.56
03/26/2020	316660	RICKARD PIT- 3/4	13.62	Tons	8.75	\$119.18
03/26/2020	316664	RICKARD PIT- 3/4	13.26	Tons	8.75	\$116.03
03/27/2020	316669	RICKARD PIT- 3/4	13.27	Tons	8.75	\$116.11
03/27/2020	316671	RICKARD PIT- 3/4	13.13	Tons	8.75	\$114.89
03/27/2020	316672	RICKARD PIT- 3/4	13.85	Tons	8.75	\$121.19

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4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

Telephone: (541) 382-8182
FAX: (541) 306-2144

Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370



Invoice Date: 03/31/2020

Account: MILLERTIMB

Terms: Net 10th of the Month

Date	Ticket	Description	Quantity	Units	Rate	Total
03/27/2020	316673	RICKARD PIT- 3/4	12.66	Tons	8.75	\$110.78
03/27/2020	316674	RICKARD PIT- 3/4	13.25	Tons	8.75	\$115.94
03/27/2020	316677	RICKARD PIT- 3/4	13.73	Tons	8.75	\$120.14
03/27/2020	316678	RICKARD PIT- 3/4	13.70	Tons	8.75	\$119.88
03/27/2020	316679	RICKARD PIT- 3/4	13.13	Tons	8.75	\$114.89
03/27/2020	316682	RICKARD PIT- 3/4	13.76	Tons	8.75	\$120.40
03/27/2020	316684	RICKARD PIT- 3/4	13.62	Tons	8.75	\$119.18
03/27/2020	316687	RICKARD PIT- 3/4	13.74	Tons	8.75	\$120.23
03/27/2020	316689	RICKARD PIT- 3/4	13.88	Tons	8.75	\$121.45
03/27/2020	316692	RICKARD PIT- 3/4	13.69	Tons	8.75	\$119.79
03/27/2020	316695	RICKARD PIT- 3/4	13.51	Tons	8.75	\$118.21
03/27/2020	316698	RICKARD PIT- 3/4	13.59	Tons	8.75	\$118.91
03/27/2020	316699	RICKARD PIT- 3/4	13.80	Tons	8.75	\$120.75
03/27/2020	316700	RICKARD PIT- 3/4	13.86	Tons	8.75	\$121.28
03/27/2020	316701	RICKARD PIT- 3/4	13.29	Tons	8.75	\$116.29
03/30/2020	316706	RICKARD PIT- 3/4	13.26	Tons	8.75	\$116.03
03/30/2020	316711	RICKARD PIT- 3/4	13.29	Tons	8.75	\$116.29
03/30/2020	316716	RICKARD PIT- 3/4	12.87	Tons	8.75	\$112.61
03/30/2020	316721	RICKARD PIT- 3/4	12.64	Tons	8.75	\$110.60
03/30/2020	316727	RICKARD PIT- 3/4	12.67	Tons	8.75	\$110.86
03/30/2020	316731	RICKARD PIT- 3/4	13.90	Tons	8.75	\$121.63
03/30/2020	316739	RICKARD PIT- 3/4	13.32	Tons	8.75	\$116.55
03/30/2020	316744	RICKARD PIT- 3/4	13.44	Tons	8.75	\$117.60
03/30/2020	316751	RICKARD PIT- 3/4	13.48	Tons	8.75	\$117.95
03/30/2020	316760	RICKARD PIT- 3/4	13.65	Tons	8.75	\$119.44
03/30/2020	316765	RICKARD PIT- 3/4	13.59	Tons	8.75	\$118.91
03/30/2020	316772	RICKARD PIT- 3/4	13.95	Tons	8.75	\$122.06
03/30/2020	316778	RICKARD PIT- 3/4	13.46	Tons	8.75	\$117.78
03/30/2020	316787	RICKARD PIT- 3/4	16.17	Tons	8.75	\$141.49
03/30/2020	316790	RICKARD PIT- 3/4	18.52	Tons	8.75	\$162.05
03/30/2020	316791	RICKARD PIT- 3/4	16.44	Tons	8.75	\$143.85
03/31/2020	316801	RICKARD PIT- 3/4	13.76	Tons	8.75	\$120.40
03/31/2020	316810	RICKARD PIT- 3/4	13.04	Tons	8.75	\$114.10
03/31/2020	316815	RICKARD PIT- 3/4	13.45	Tons	8.75	\$117.69
03/31/2020	316829	RICKARD PIT- 3/4	13.37	Tons	8.75	\$116.99
03/31/2020	316836	RICKARD PIT- 3/4	13.51	Tons	8.75	\$118.21
03/31/2020	316862	RICKARD PIT- 3/4	12.82	Tons	8.75	\$112.18
03/31/2020	316869	RICKARD PIT- 3/4	13.36	Tons	8.75	\$116.90
03/31/2020	316874	RICKARD PIT- 3/4	12.97	Tons	8.75	\$113.49

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4-R EQUIPMENT, LLC.

PO BOX 7527
BEND, OR 97708

INVOICE 1000777

Telephone: (541) 382-8182
FAX: (541) 306-2144



Bill To: MILLER TIMBER SERVICES, INC.
PO BOX 638
PHILOMATH, OR 97370

Terms: Net 10th of the Month

Invoice Date: 03/31/2020

Account: MILLERTIMB

Date	Ticket	Description	Quantity	Units	Rate	Total
03/31/2020	316877	RICKARD PIT- 3/4	12.63	Tons	8.75	\$110.51
03/31/2020	316885	RICKARD PIT- 3/4	13.40	Tons	8.75	\$117.25
03/31/2020	316891	RICKARD PIT- 3/4	13.11	Tons	8.75	\$114.71
03/31/2020	316897	RICKARD PIT- 3/4	13.48	Tons	8.75	\$117.95
03/31/2020	316902	RICKARD PIT- 3/4	13.40	Tons	8.75	\$117.25
03/31/2020	316904	RICKARD PIT- 3/4	13.58	Tons	8.75	\$118.83
	279 Item/s	(MILLPONDMI) MILLPOND/MILLER TIMBER	3,860.47	Tons		\$33,590.40
			13.11	Tons	8.75	\$114.71
03/10/2020	315429	RICKARD PIT- 3/4	13.11	Tons		\$114.71
	1 Item/s	(SHOPMILLER) SHOP/MILLER TIMBER				
Charge Summary						
Charges						\$33,705.11
Freight						\$0.00
Other						\$0.00
Sales Tax						\$0.00
Grand Total						\$33,705.11

COPY

Invoice

Miller Timber Services, Inc.
24745 Alsea Hwy
PO Box 638
Philomath, OR 97370
(541) 929-2840

Invoice Number: 0010241-IN

Invoice Date: 5/31/2020

Salesperson:

Tax Schedule: NONTAX

MPC Builders, LLC
P O Box 1059
Philomath, OR 97370

Customer Number: 01-MPCBLDR

Customer P.O.: Rock Hauling

Ship VIA:

Terms: No Terms

Contact:

Item Code	Description	UM	Quantity	Price	Amount
MTS ROCK HAULS	ROCK HAULING				700.00
	05/01/2020 Hauling rock to building site - Truck and trailer 7 hrs @ \$100.00				
MTS ROCK HAULS	ROCK HAULING				775.00
	05/04/2020 Hauling rock to building site - Truck and trailer 7.75 hrs @ \$100/hr.				
MTS ROCK HAULS	ROCK HAULING				1,000.00
	05/05/2020 Hauling rock to building site - Truck and trailer 10 hrs @ \$100/hr.				
MTS ROCK HAULS	ROCK HAULING				1,000.00
	05/06/2020 Hauling rock to building site - Truck and trailer 10hrs @ \$100/hr.				
MTS ROCK HAULS	ROCK HAULING				920.00
	05/07/2020 Hauling rock to building site - Truck and trailer 2 loads 2 hrs @ \$100/hr. Truck 11 loads 8 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				1,000.00
	05/08/2020 Hauling rock to building site - Truck and trailer 10 hrs @ \$100/hr.				
MTS ROCK HAULS	ROCK HAULING				852.50
	05/11/2020 Hauling rock to building site - Truck and trailer 2 hrs @ \$100/hr. Truck 7.25 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				900.00
	05/12/2020 Hauling rock/dirt to building site 10 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				900.00
	05/13/2020 Hauling rock/dirt to bulding site 10 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				855.00
	05/14/2020 Hauling rock to building site 9.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				855.00
	05/15/2020 Hauling rock/dirt to building site 9.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				855.00
	05/18/2020 Hauling rock/dirt to building site 9.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				877.50
	05/19/2020 Hauling rock/dirt to building site 9.75 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				832.50
	05/20/2020 Hauling rock/dirt to building site 9.25 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				765.00
	05/21/2020 Hauling rock/dirt to building site 8.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				765.00
	05/22/2020 Hauling rock/dirt to building site 8.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				855.00
	05/26/2020 Hauling rock/dirt to building site 9.5 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				877.50
	05/27/2020 Hauling rock to building site 9.75 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				810.00
	05/28/2020 Hauling rock to building site 9 hrs @ \$90/hr.				

Continued

Invoice

Miller Timber Services, Inc
 24745 Alsea Hwy
 PO Box 638
 Philomath, OR 97370
 (541) 929-2840

Invoice Number: 0010241-IN

Invoice Date: 5/31/2020

Salesperson:

Tax Schedule: NONTAX

MPC Builders, LLC
 P O Box 1059
 Philomath, OR 97370

Customer Number: 01-MPCBLDR

Customer P.O.: Rock Hauling

Ship VIA:

Terms: No Terms

Contact:

Item Code	Description	UM	Quantity	Price	Amount
MTS ROCK HAULS	ROCK HAULING				742.50
	05/29/2020 Hauling rock to building site 8.25 hrs @ \$90/hr.				
MTS ROCK HAULS	ROCK HAULING				15,390.59
	Cost of rock				

3700 Tons
3761 Tons
1758 Tons

Net invoice:	32,528.09
Freight:	0.00
Sales Tax:	0.00
Invoice Total:	32,528.09

Invoice

Miller Timber Services, Inc.
24745 Alsea Hwy
PO Box 638
Philomath, OR 97370
(541) 929-2840

Invoice Number: 0010356-IN

Invoice Date: 6/30/2020

Salesperson:

Tax Schedule: NONTAX

MPC Builders, LLC
P O Box 1059
Philomath, OR 97370

Customer Number: 01-MPCBLDR

Customer P.O.: Rock Hauling

Ship VIA:

Terms: No Terms

Contact:

Item Code	Description	UM	Quantity	Price	Amount
MTS ROCK HAULS	ROCK HAULING				855.00
	06/01/2020 Hauling rock to building site - 9.5 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				742.50
	06/02/2020 Hauling rock to building site - 8.25 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				810.00
	06/03/2020 Hauling rock to building site - 9 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				855.00
	06/04/2020 Hauling rock to building site - 9.5 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				810.00
	06/05/2020 Hauling rock to building site - 9 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				720.00
	06/08/2020 Hauling rock to building site - 8 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				675.00
	06/09/2020 Hauling rock to building site - 7.5 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				855.00
	06/10/2020 Hauling rock to building site - 9.5 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				900.00
	06/11/2020 Hauling rock to building site - 10 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				585.00
	06/12/2020 Hauling rock to building site - 6.5 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				855.00
	06/15/2020 Hauling rock to building site - 9.5 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				877.50
	06/16/2020 Hauling rock to building site - 9.75 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				855.00
	06/17/2020 Hauling rock to building site - 9.5 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				877.50
	06/18/2020 Hauling rock to building site - 9.75 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				697.50
	06/19/2020 Hauling rock to building site - 7.75 hrs @ \$90.00				
MTS ROCK HAULS	ROCK HAULING				23,867.00
	Cost of Rock				

2727 TONS

Net Invoice:	35,837.00
Freight:	0.00
Sales Tax:	0.00
Invoice Total:	35,837.00

crawlspace

120 seconds/location

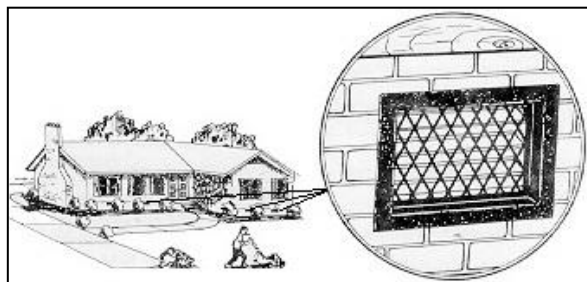
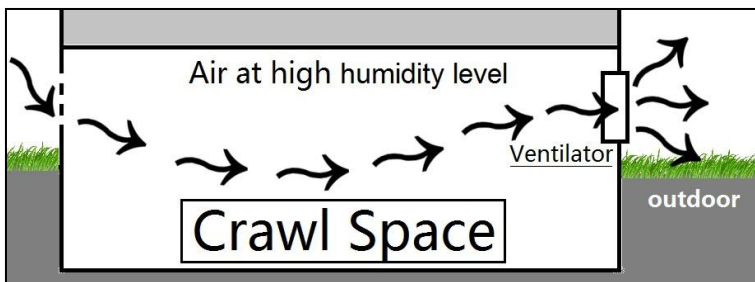
Monitoring Point	Date	Time	Methane	Carbon Dioxide	Oxygen	Balance/ Peak Methane		Baro Pressure	Static Pressure
			%	%	%	%		" Hg	
Lot 33	B1-A	2/3/21	1120	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 34	B2-A		1115	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 35	B3-A		1107	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 36	B4-A		1058	0.0	0.0	20.8	79.2 0.0	29.72	0.0
Lot 37	B5-A		1052	0.0	0.0	20.8	79.2 0.0	29.72	0.0
Lot 38	B6-A		1142 1052	0.0	0.0	20.8	79.2 0.0	29.72	0.0
Lot 39	B7-A		1044	0.0	0.0	20.8	79.2 0.0	29.72	0.0
Lot 31	B8-A		1042	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 30	B9-A		1035	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 29	B10-A		1027	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 28	B11-A		1020	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 27	B12-A		1014	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 26	B13-A		1005	0.0	0.0	20.9	79.1 0.0	29.72	0.0
Lot 25	B14-A		957	0.0	0.0	20.8	79.2 0.0	29.72	0.0
Lot 24	B15-A		950	0.0	0.0	20.8	79.2 0.0	29.72	0.0
Lot 23	B16-A		938	0.0	0.0	20.6	79.4 0.0	29.72	0.0
	B1-B								
	B2-B								
	B3-B								
	B4-B								
	B5-B								
	B6-B								

home inspection skipped

751 S 15th St
Lot 11

1128 0.0 0.0 20.9 79.1 | 0.0 29.72 0.0

**READ OWNERS INSTRUCTIONS CAREFULLY BEFORE INSTALLATION.
PLEASE REMAIN THESE INSTRUCTIONS. DO NOT THROW AWAY.**



DESCRIPTION

Our DURABLOW Crawl Space Ventilator Fan Kits are designed to enhance the circulation of outdoor air underneath homes & corridors. In order to prevent the rotting of support columns, joists, floors & beam supports, to lower the humidity level in Crawl Spaces is very necessary & important. In addition, humidity helps in fungus growth, and attract termite nesting & breeding here which is harmful for wooden structure buildings / houses.

All Ventilator models are equipped with a built-in thermostat which prevents the fan operation if temperature is below 35°F (approx. 0°C). Advanced models (M1D, M2D, M2D- S430) are equipped with a de-humidistat which activates the ventilator fan when the relative humidity rises above the pre-set “trigger point %”.

SPECIFICATION

<p>MODEL: <u>M1</u> Air Flow : 110 CFM, Rating : 120 Volts ~ 50/60 Hz, 0.30 Amps MAX. Thermostat : On at 50°F, Off at 35°F Size : 14 3/8” x 6 7/8” x 2”</p>	<p>MODEL: <u>M1D</u> Air Flow : 110 CFM, Rating : 120 Volts ~ 50/60 Hz, 0.30 Amps MAX. Thermostat : On at 50°F, Off at 35°F De-humidistat : 20% - 80% RH Range Size : 18” x 9” x 2”</p>	<p>MODEL: <u>M2D, & M2D-S430</u> Air Flow : 220 CFM Rating : 120 Volts ~ 50/60 Hz 0.60 Amps MAX. Thermostat: On at 50°F, Off at 35°F De-humidistat : 20% - 80% RH Range Size : 18” x 9” x 2”</p>
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GENERAL INFORMATION

All DURABLOW Crawl Space Ventilators are passed factory functional & HIPOT (flashing test) tested. Fan should operate smoothly. The wiring harness / assembly should be secured. If any damages on packing box or item, notify the freight carrier or distributor immediately to file a damage claim / proof. Please email us if you need any assistance. Email: info@payandpack.com

HOW TO CHOOSE YOUR CRAWL SPACE VENTILATOR

Calculate the cubical space of your crawl space with the formula **LENGTH x WIDTH x HEIGHT** (by feet). In order to fully ventilate the air of the crawl space in 15 minutes (best effect in practices), divide the cubical space number by 15 to get the minimum required air-flow CFM (models with higher CFM are always recommended).

EXAMPLE: 25' x 30' x 3.5' of the crawl space = 2,625 cuft., then, divided by 15 = 175 CFM. So that, at least, two M1 or M1D ventilators (110 x 2 > 175), or one M2D ventilator (220 > 175) are required.

DURABLOW® CRAWL SPACE VENTILATOR MANUAL (M1, M1D, M2D, M2D-S430)



The DURABLOW Crawl Space Ventilator must be installed by a qualified technician with this instructions / manual. Improper installation can cause a hazardous danger such as fire, electric shock or personal injury or death.

Please contact with DURABLOW (info@payandpack.com) if any questions in installation. Keep the power source disconnected before & during the installation and maintenance.

CAUTION: For general home ventilation use ONLY. Not for industrial or exhausting hazardous gases use.

WARNING: To avoid the danger of fire or electric shock, do NOT use with any solid-state speed control device.

★ 4 EVA pads are included in box to reduce vibration and noise. Apply on 4 sides of front panel before mounting.

TOOLS & SKILLS

- a. 5/16" Nut Runner or Flat Head Screw Driver.
- b. Drill with 5/16" Masonry Bit if mounting on brick or foundation block.
- c. Model M1 must be hard wired. Grounding Outlet within 6 feet of Ventilator location (M1D, M2D, M2D-S430).

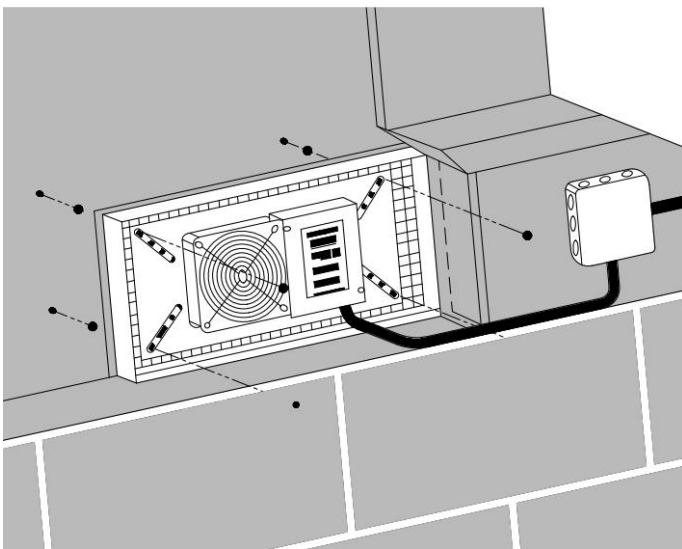
INSTALLATION

LOCATION - Install this Ventilator from inside of the crawl space, behind existing foundation ventilation openings.

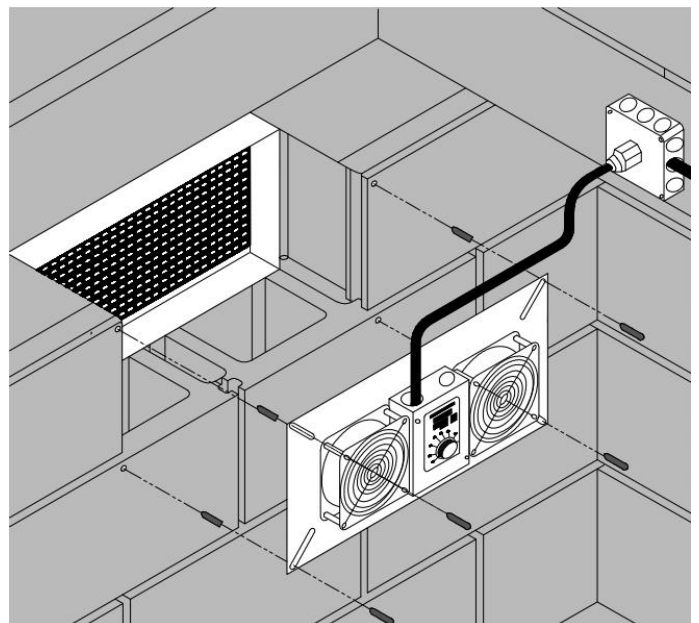
NOTE: To make sure pushing the air out of the Crawl Space, the ventilator must be installed with the electrical control box and motor being seen from the inside of the crawl space. (see diagram below).

1. Remove the existing doors / covers on ventilation openings around the perimeter of the crawl space.
2. Position the Crawl Space Ventilator over the ventilation opening.
3. (a) If installing on foundation block or brick, mark location of mounting holes in the four corners of the metal panel plate and drill 5/16" holes with masonry drill bit. Insert wall anchors into openings and secure Crawl Space Ventilator to the wall with four screws. (b) If installing on a wood wall, rim joist or mesh panel on crawl space vent openings, secure your ventilator with screws, washers and nuts in the four corners of the ventilator metal panel plate.

INSTALLING MODEL M1

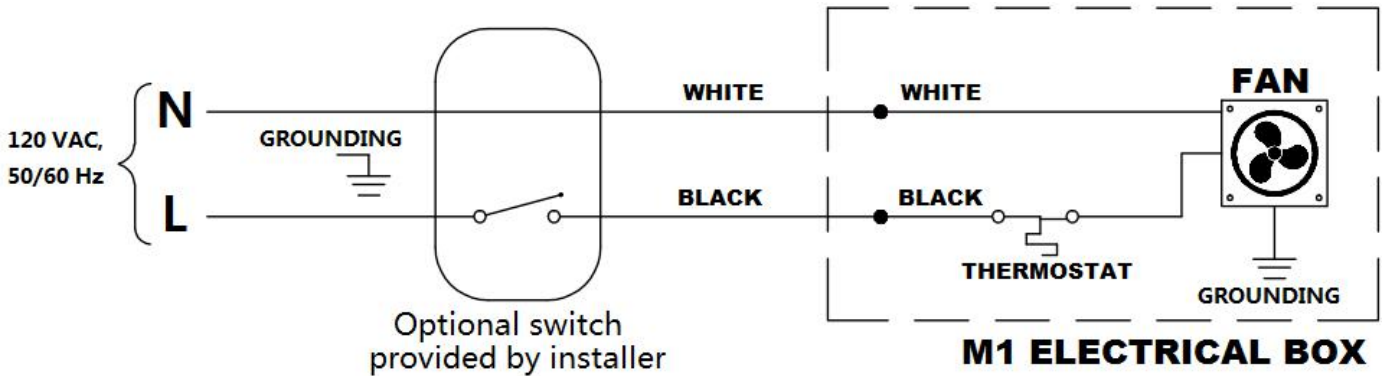


INSTALLING MODEL M1D, M2D, & M2D-S430 (it is model M2D shown below)

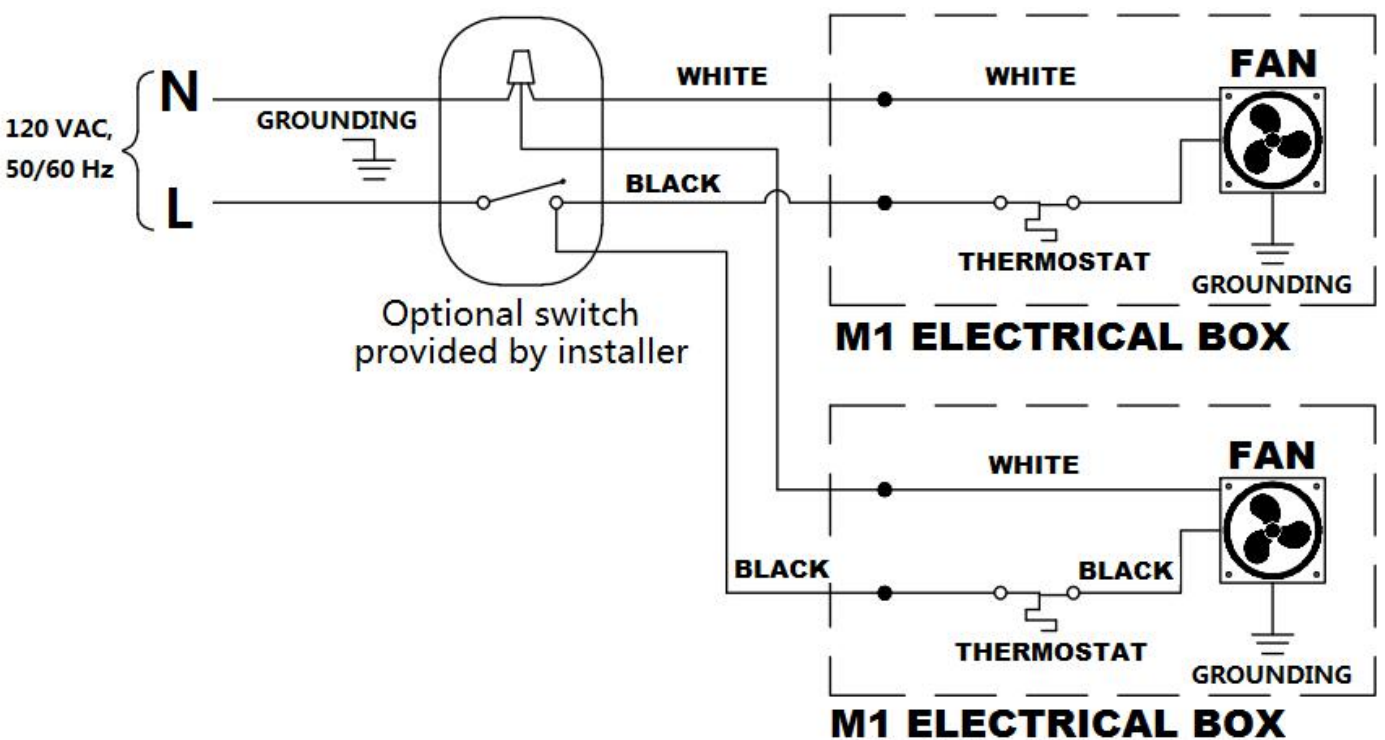


WIRING

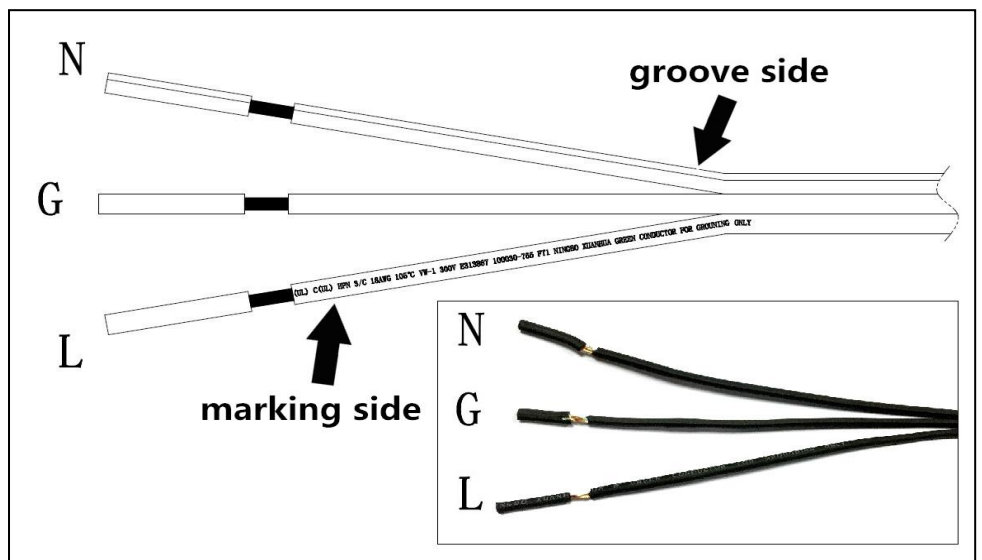
(a) WIRING A SINGLE MODEL M1



(b) WIRING MULTIPLE MODEL M1

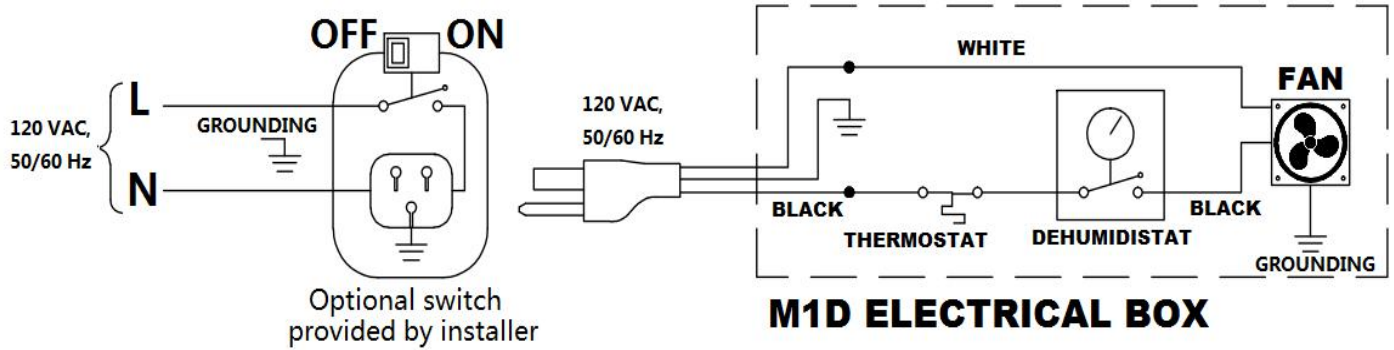


Identify the wires:
 (N) Neutral wire
 (G) Grounding / Earth wire
 (L) Live wire

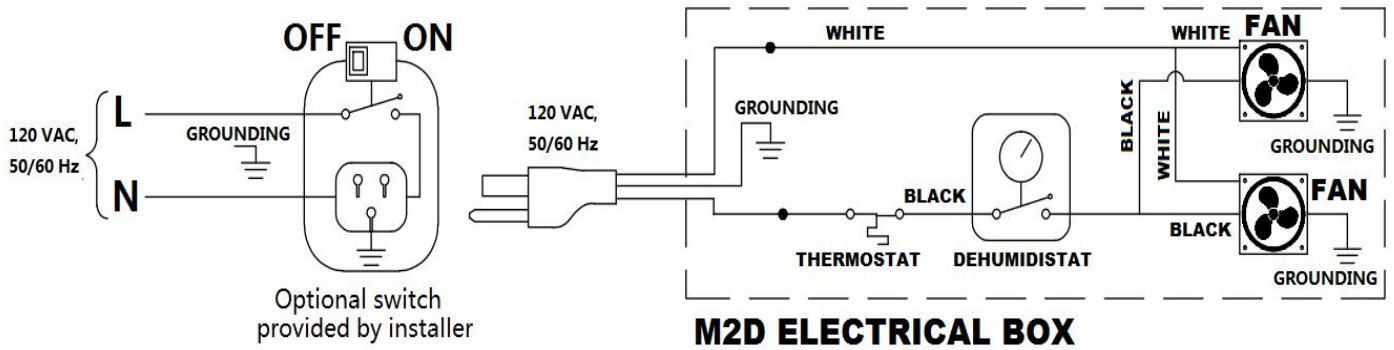


DURABLOW® CRAWL SPACE VENTILATOR MANUAL (M1, M1D, M2D, M2D-S430)

(c) MODEL M1D INTERNAL WIRING



(d) MODEL M2D, & M2D-S430 INTERNAL WIRING



WARRANTY & CUSTOMER SERVICE

WARRANTY

“DURABLOW LIMITED ONE YEAR WARRANTY”

M1, M1D, M2D: Real 304 Stainless Steel Housing & Panel, UL listed Fan, Thermostat, Dehumidistat, Power Cord.

M2D-S430: Real 304 Stainless Steel Housing & Panel, UL listed Fan, Thermostat, Dehumidistat, Power Cord.

DURABLOW warrants to the original purchaser of this product that the product will be free from the defects of faulty materials or assembling for a period of ONE year from the date of original purchase.

Remedies under this warranty are limited to replacing or refunding, at DURABLOW's options.

If DURABLOW requires the defects which are within the above stated warranty period, they should be returned to DURABLOW appointed address, & return shipping prepaid by customers (return shipping will be refunded).

CUSTOMER SERVICE

(a) AMAZON and EBAY customers:

For better understanding the order & buyers' details, please send email to the original seller from the original marketplace platform. EXAMPLE: If you buy from eBay, please send email to the seller on eBay.

(b) Aliexpress, WISH.com, Newegg, Sears...other marketplaces' customers:

Please send email to info@payandpack.com with your Buyer ID, Order ID, Product ID, Date of Purchase...etc. for faster assistance.

www.PayandPack.com

Using Tips / Notice:

For crawl space ventilators (with dehumidistat) models: M1D, M2D, M2D-S430, MDT2P.

CRAWL SPACE VENTILATOR FUNCTION EXPLANATION:

Example 1: Room humidity level **80%**, outside humidity **65%**, which means the lowest room humidity level can reach is 65% (ideally). If you turn the knob on the ventilator fan to set **70%**, the blower is ON, and will be OFF when the room humidity goes down to 70% or lower.

Example 2: Room humidity level **80%**, outside humidity **65%**, which means the lowest room humidity level can reach is 65% (ideally). If you turn the knob on the ventilator fan to set **50%**, the blower is ON, and will **NOT** be OFF because 50% can not be reached since this ventilator fan is not a dehumidifier but a ventilation blower (pushing humid air out, and pulling dry air in).

Example 3: Room humidity level **80%**, outside humidity **90%**, which means the room humidity level (in crawl space) is even lower than outside's. Therefore, the ventilator fan is not suitable for this circumstance. (Please do NOT use ventilator fan, otherwise, room humidity will increase from 80% to 90%). To lower the room humidity, you need a real DEHUMIDIFIER machine in the crawl space.

CONCLUSIONS:

1. Ventilator fan will run all the time if you set a very low humidity level which can never be reached.
2. Ventilator fan will stop running when room humidity equals or below the **SET** humidity.
3. Ventilator fan will be OFF if you set a high humidity level, due to point 2.

Hope this helps. Have a good day!

Any questions, please email to info@payandpack.com or go to www.payandpack.com.

Regards.

Durablow® x PayandPack store

Specification Submittal Data / Panasonic Precision Spot Ventilation Fan

Description:

Ventilating fan shall be Low Noise ceiling mount type rated for continuous run. Fan shall be ENERGY STAR® rated and certified by the Home Ventilation Institute (HVI). Evaluated by Underwriters Laboratories and conform to both UL and cUL safety standards.

Motor/Blower:

- Enclosed brushless ECM motor technology rated for continuous run.
- Fan ventilation rates shall be manually adjustable for 110-130-150 CFM.
- Power rating shall be 120 volts and 60 Hz.
- Fan shall be UL and cUL listed for tub/shower enclosure when GFCI protected.
- Motor equipped with thermal-cutoff fuse.
- Removable with permanently lubricated plug-in motor.

Housing:

- 26 gauge Zinc-Aluminum-Magnesium (ZAM) housing.
- Integrated 6" duct adapter.
- Built-in damper reduces back drafting and helps with blower door testing.
- Built-in metal flange provides blocking for penetrations through drywall as an Air Barrier, and assists with the decrease in leakage in the Building Envelope during blower door testing.
- Articulating and expandable installation bracket up to 24".

Ceiling Radiation Damper:

- WhisperCeiling® DC™ is UL listed for use with the Panasonic Ceiling Radiation Damper (Model #: PC-RD05C5, sold separately).

Grille:

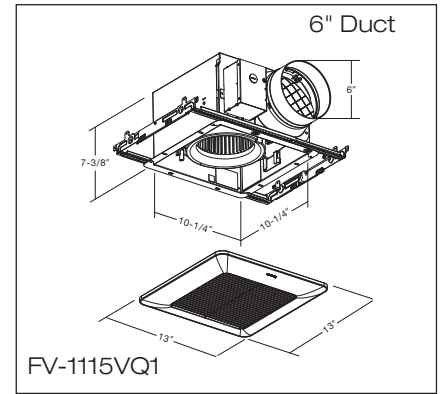
- Attractive design using Poly Pro material.
- Attaches directly to housing with torsion springs.

Warranty:

- ECM Motor: 6 Years from original purchase date.
- ALL Parts: 3 Years from original purchase date.

Architectural Specifications:

Ventilation fan shall be UL and cUL listed for ceiling mount and tub/shower enclosure when GFCI protected. Fan shall also be ENERGY STAR® certified, with a built-in speed selector. Choose from 110-130-150 CFM and no more than <0.3/<0.3/<0.3 sone as certified by the Home Ventilating Institute (HVI) at 0.1 static pressure in inches water gauge (w.g.) with no less than 110-131-152 CFM and no more than <0.3/0.5/0.7 sone as certified by HVI at 0.25 w.g. Power Consumption shall be no greater than 6.8/9.0/11.8 watts at 0.1 w.g. and 12.1/15.7/20.2 watts at 0.25 w.g., with efficiency of no less than 16.4/14.7/12.9 CFM/watt at 0.1 w.g. and 9.2/8.5/7.6 CFM/watt at 0.25 w.g. The motor shall be totally enclosed

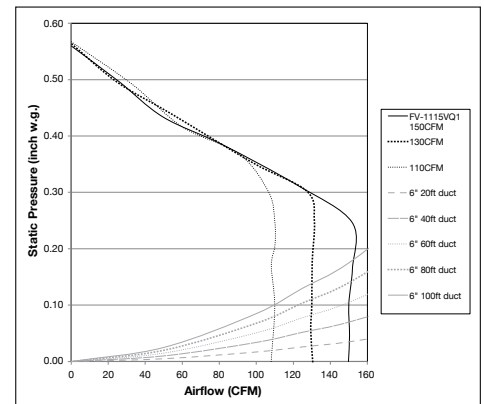


with a brushless ECM motor engineered to run continuously. ECM motor speed shall automatically increase when the fan senses static pressure to maintain selected CFM. Power rating shall be 120V/60Hz. Duct diameter shall be no less than 6". Fan can be used to comply with ASHRAE 62.2, LEED, ENERGY STAR® IAP, EarthCraft, CA Title 24 and WA state code.

Specifications: WhisperCeiling DC FV-1115VQ1		6"		6"		6"	
Ventilation Fan Characteristics (HVI Certified Data)	Static Pressure in inches w.g.	0.1	0.25	0.1	0.25	0.1	0.25
	Air Volume (CFM)	150	152	130	131	110	110
	Noise (sones)	<0.3	0.7	<0.3	0.5	<0.3	<0.3
	Power Consumption (watts)	11.8	20.2	9.0	15.7	6.8	12.1
	Energy Efficiency (CFM/Watt)	12.9	7.6	14.7	8.5	16.4	9.2
	Speed (RPM)	698	925	671	918	636	900
	Current (amps)	0.19	0.31	0.16	0.25	0.12	0.20
	MAX. Current (amps)	0.31					
	Power Rating (V/Hz)	120/60					
	ENERGY STAR rated	Yes					

0.25=Installed Performance

Performance Curve 6" Duct



For complete Installation Instructions visit us.panasonic.com/ventfans

Model	Quantity	Comments	Project:
			Location:
			Architect:
			Engineer:
			Contractor:
			Submitted by:
			Date:

Panasonic Eco Solutions North America
Eco Products Division
Two Riverfront Plaza
Newark, NJ 07102



ECM Motor Technology

When the fan senses static pressure, its speed is automatically increased to ensure that the desired CFM is not compromised, which allows the fan to perform as rated.

us.panasonic.com/ventfans

