Stantec Consulting Services Inc.
601 SW Second Avenue, Suite 1400
Portland OR 97204-3128

February 14, 2025

Kevin Dana
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232

Reference: Rock Creek Reconnaissance Report

Oregon Plastic Tubing Facility
6401 and 6402 South Miller Road, Hubbard, Oregon
ECSI Site #6521, LUST #03-22-0412

Dear Mr. Dana,

Stantec Consulting Services Inc. (Stantec) has prepared this letter report documenting reconnaissance activities completed along Rock Creek adjacent to the Oregon Plastic Tubing and Pacific Corrugated Facility in Hubbard, Oregon (the Subject Property). The work described herein was completed behalf of Prinsco Water Management Solutions (Prinsco) pursuant to a no further action (NFA) determination from the Oregon Department of Environmental Quality (DEQ) as described in the correspondence included as **Attachment A**. All work was completed in general accordance with Stantec's October 24, 2024 *Rock Creek Reconnaissance Work Plan* and DEQ's November 21, 2024 Work Plan approval and request for soil sample collection (also included as **Attachment A**).

Site Description

The Subject Property consists of 61.31 acres occupied by an office/shop building, pipe manufacturing building and canopied shed with open-air pipe storage in the eastern and south-central portions of the Property. A hazelnut orchard is located on the north-western portion of the Property. Access to the Subject Property is from South Miller Road, which bisects the northern and southern portions of the Subject Property (**Figures 1 through 3**). A summary of environmental investigations completed at the Subject Property is included in Stantec's June 7, 2023 *Additional Assessment and Well Installation Report, Oregon Plastic Tubing and Pacific Corrugated Facility, 6401 and 6402 South Miller Road, Hubbard, Oregon*.

Rock Creek is a tributary of the Pudding River and ultimately drains to the Willamette River near Molalla River State Park east of Wilsonville. The eastern boundary of the Subject Property is adjacent to Rock Creek (**Figure 2**) approximately 4 river miles upstream from the confluence with the Pudding River. Rock Creek is identified by the National Wetlands Inventory as a Palustrine system, Forested class, Broad-Leafed Deciduous subclass with a Temporary Flooded water regime and is classified as Essential Salmonid Habitat by the Oregon Department of Fish and Wildlife (**Attachment B**).

Reference: Rock Creek Reconnaissance Report

Photographs collected during the reconnaissance are included as **Attachment C**.

Work Completed

Rock Creek reconnaissance was completed on December 12, 2024 and attended by the following:

- Robert McAlister with Stantec;
- Jim Loberg, Prinsco's West Coast Regional Manager of Operations; and
- Kevin Dana, Sarah Miller and Deb Goldberg from the Oregon DEQ.

The project team initially accessed the western riverbank of Rock Creek approximately 1,000-feet upstream from the Miller Road Bridge by crossing through a moderately dense cottonwood- and blackberry-dominant floodplain. At this location, Rock Creek was approximately 25- to 30-feet wide filling the main Creek channel to an approximate water depth between five- and eight-feet. Recent rainstorms resulted in high stream flow at the time of reconnaissance. No impacts (petroleum sheen, olfactory evidence and/or distressed vegetation) were observed upstream of the Miller Road bridge, although streambank geometry and dense vegetation hindered full observation of the Creek in this area.

Following upstream reconnaissance, Rock Creek was then accessed near the Miller Road Bridge. No impacts were observed to the Creek or riverbanks were observed in this location. At the direction of DEQ, Stantec collected a near-surface soil sample identified as "Transect-1" in the location indicated on **Figure 2**, approximately 75 feet downhill from the location of groundwater monitoring well MW-2 and 10 feet from the western bank of Rock Creek. Depth of the soil sample was 0.25 feet below ground surface. The soil sample was submitted to Apex Laboratories in Tigard, Oregon for analysis of:

- Total Petroleum Hydrocarbons, quantified as gasoline by Northwest Method NWTPH-Gx;
- Total Petroleum Hydrocarbons, quantified as diesel and oil by Northwest Method NWTPH-Dx;
- Benzene, toluene, ethylbenzene and total xylenes (collectively BTEX) by Environmental Protection Agency (EPA) Method 8260D; and
- Total lead by EPA Method 6020B.

Analytical results from this soil sample did not indicate the presence of petroleum hydrocarbons or associated BTEX compounds above laboratory reporting limits. Total lead was detected at a concentration of 17.4 milligrams per kilogram (mg/kg), approximately half the applicable background concentration of 28 mg/kg for the South Willamette Valley. **Table 1** contains cumulative analytical results for all soil samples collected at the Property to date.

An attempt was made at accessing the downstream portion of Rock Creek from the northeastern boundary of the Subject Property; however, the vegetation was too dense to access the Creek and a determination was made by DEQ that it was unnecessary to complete reconnaissance in this area.

The Apex Labs analytical report is included as **Attachment D**.

Reference: **Rock Creek Reconnaissance Report**

Conclusions

No apparent impacts from the petroleum release were observed in Rock Creek or adjacent riverbank portions of the Subject Property. Further, laboratory analytical data from the soil sample collected on the riverbank did not contain detectable concentrations of petroleum or BTEX indicative of contamination sourced from the former leaking underground storage tank.

Upon concurrence from DEQ to move forward with the NFA determination, Stantec will prepare an Easement & Equitable Servitudes (EES) and Contaminated Media Management Plan (CMMP) for the Property.

Thank you,

Stantec Consulting Services Inc.

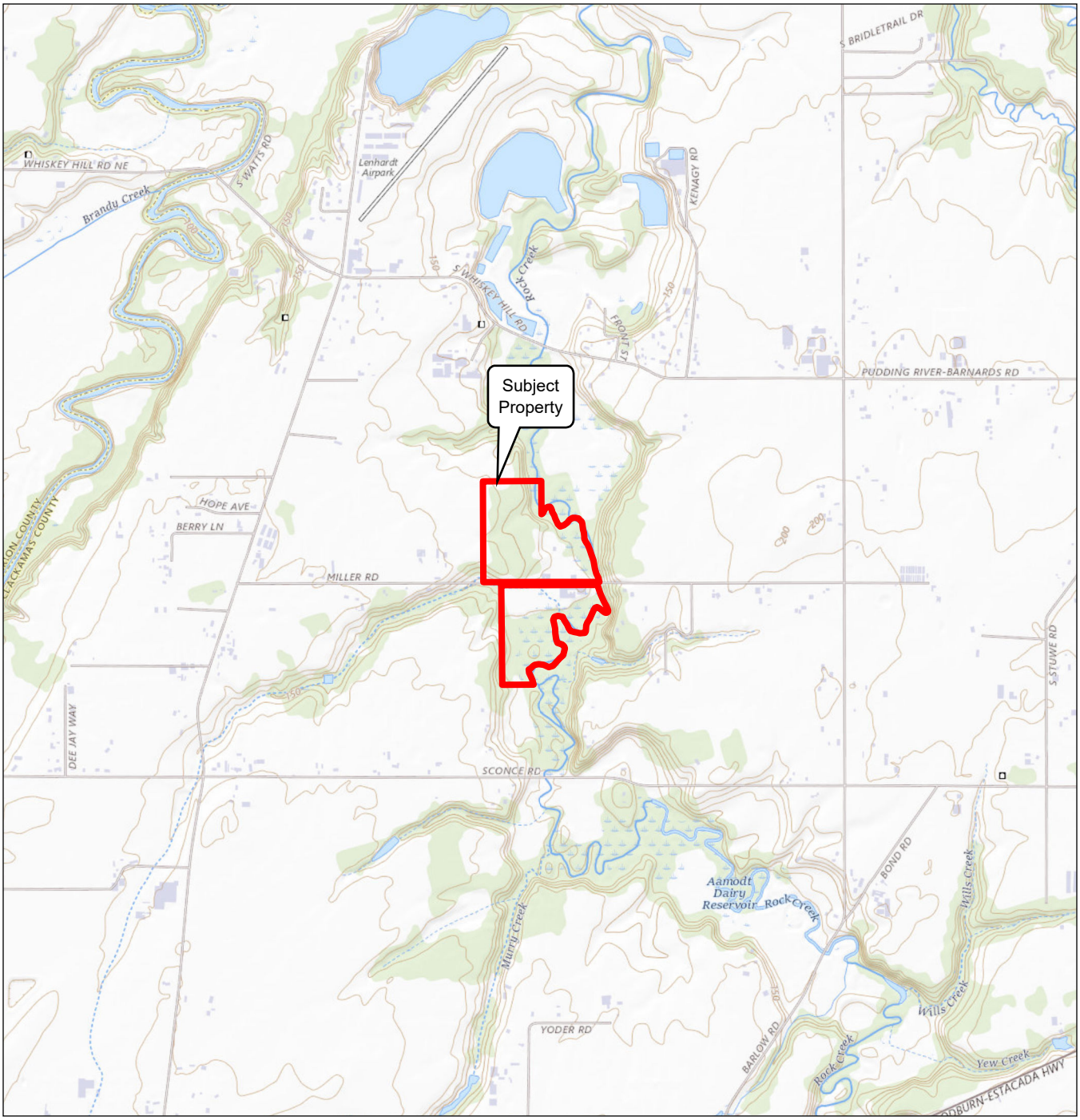
Robert McAlister RG
Associate Geologist
Phone: (503) 220-5458
Mobile: (714) 686-4435
bob.mcalister@stantec.com

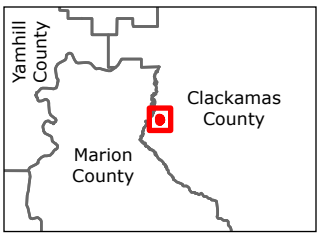
Eric Stommes
Senior Associate, Environmental Scientist
Phone: (763) 479-5142
Mobile: (612) 709-7198
Eric.stommes@stantec.com

Attachments:

Figure 1 – Site Location Map
Figure 2 – Site Detail Map
Figure 3 – Site Plan
Table 1 – Soil Sample Analytical Results
Attachment A – DEQ Correspondence
Attachment B – National Wetland Inventory
Attachment C – Photographic Log
Attachment D – Laboratory Analytical Report

FIGURES





Legend

Subject Property

0 1,000 2,000 Feet

(At original document size of 8.5x11)
1:24,000

N

Stantec

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: USGS, Clackamas County Parcels
3. Background: USGS 7.5 Minute Quadrangle

Project Location
6401 and 6402 South Miller Road, Hubbard, OR

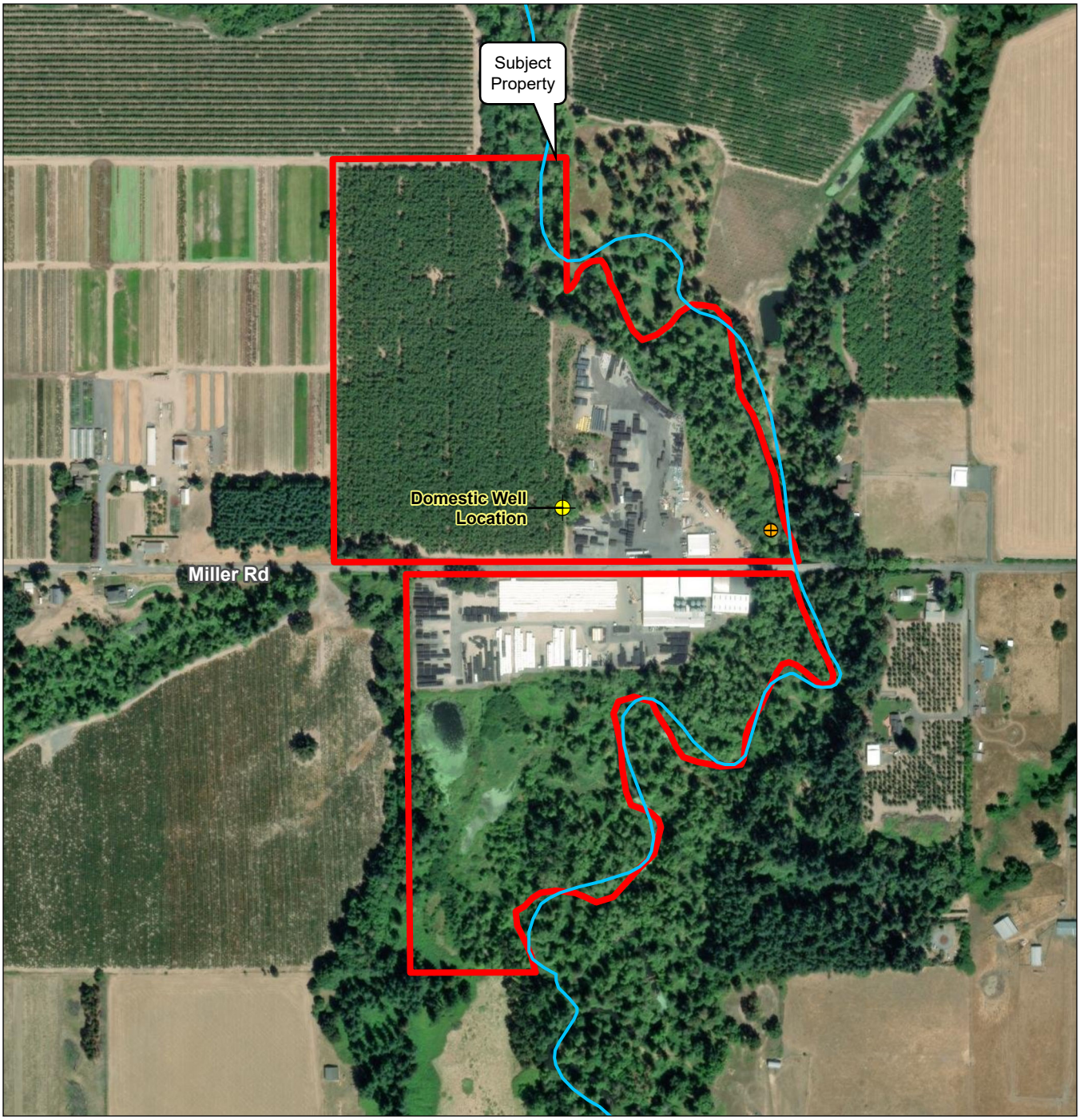
Prepared by BS on 2023-06-02
TR by RWM on 2020-05-23
IR by ES on 2020-05-23

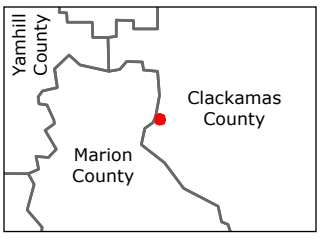
Client/Project 227704604
Oregon Plastic Tubing and Pacific Corrugated Company Additional Assessment Report

Figure No.
1

Title
Site Location Map

V:\227\active\227704604\03_data\gis_cad\gis\pro\Phase1\Phase1.aprx Revised: 2023-06-02 By: bschafermeyer





Legend

- Subject Property
- Rock Creek
- Domestic Well Location
- December 2024 Surface Soil Sample Location

0 250 500 Feet

(At original document size of 8.5x11)
1:6,000

N

Notes

1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: USGS, Clackamas County Parcels
3. Background: USGS 7.5 Minute Quadrangle

Stantec

Project Location
6401 and 6402 South Miller Road,
Hubbard, OR

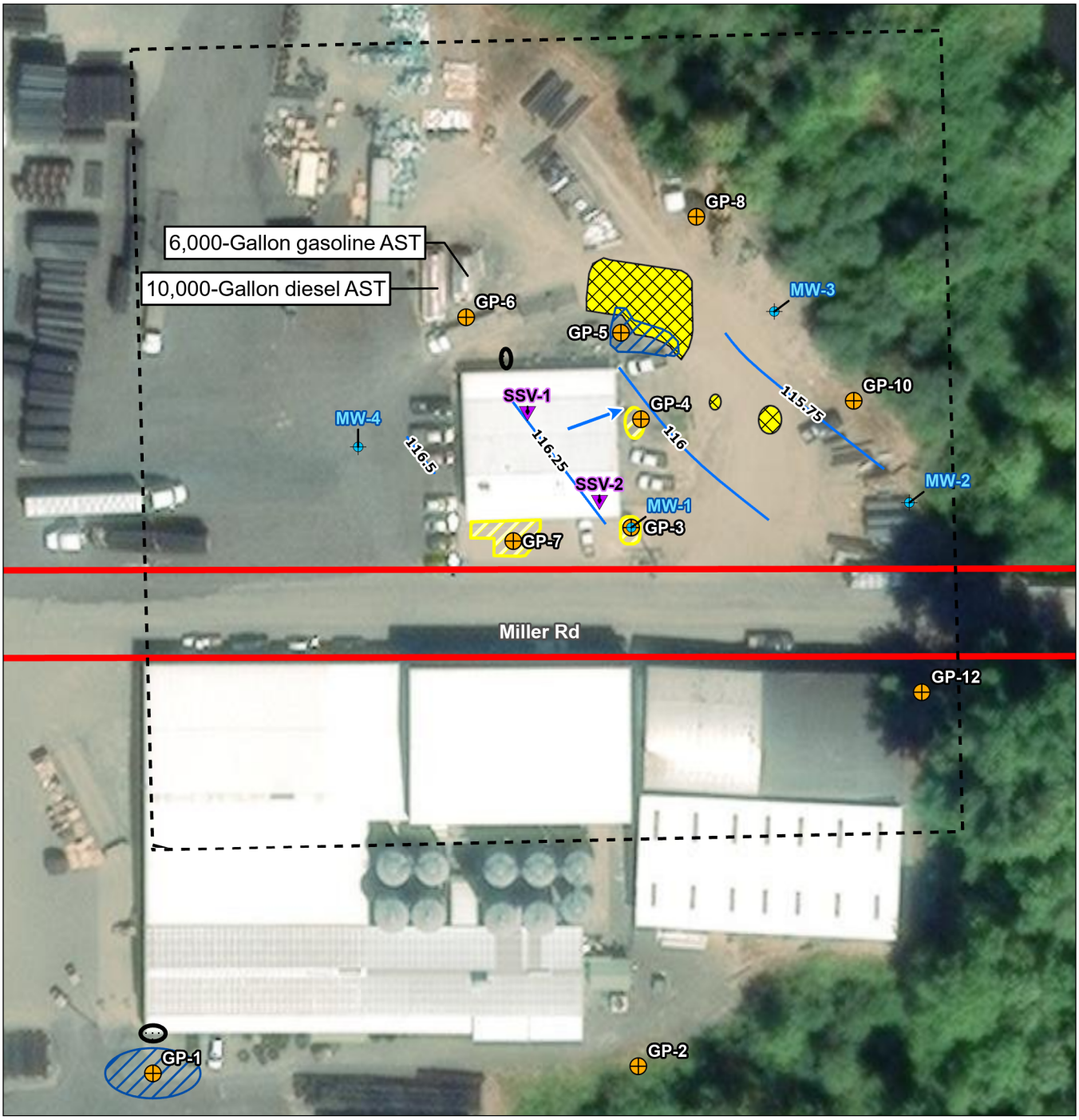
Prepared by BS on 2025-01-06
TR by RWM on 2020-05-23
IR by ES on 2020-05-23

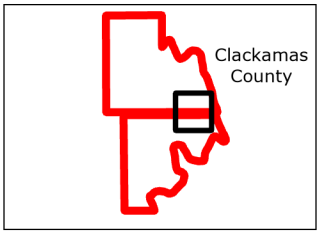
Client/Project 227704604
Oregon Plastic Tubing and
Pacific Corrugated Company
Additional Assessment Report

Figure No.
2

Title
Site Detail Map

V:\227\active\227704604\03_data\gis_cad\gis\pro\Phase1\Phase1.aprx Revised: 2025-01-06 By: bschafermeyer





Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: USGS, Clackamas County Parcels
3. Background: ESRI World Imagery

Legend
- Subject Property
- Backfilled Excavations
  - Ferric
  - Non-Ferric
- Locality of Facility
- Drain Field
- Septic Tank
- Groundwater Flow
- Groundwater Contour (ft)
- Groundwater Monitoring Well Locations
- Soil Vapor Sample Locations
- Borehole Locations

0 35 70 Feet
(At original document size of 8.5x11)
1:840

N

Stantec

Project Location
6401 and 6402 South Miller Road,
Hubbard, OR

Prepared by BS on 2024-10-24
TR by RWM on 2020-05-23
IR by ES on 2020-05-23

Client/Project 227704604
Oregon Plastic Tubing and
Pacific Corrugated Company
Additional Assessment Report

Figure No.
3

Title
Site Plan

TABLE

TABLE 1
Soil Sample Analytical Results - Petroleum Hydrocarbons and Volatile Organic Compounds
Oregon Plastic Tubing and Pacific Corrugated Facility
6401 and 6402 South Miller Road, Hubbard, Oregon

Sample ID	Date Sampled	NWTPH-Gx (Gasoline)	NWTPH-Dx (Diesel)	NWTPH-Dx (Motor Oil)	Lead	Acetone	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Benzene	Toluene	Ethylbenzene	Total Xylenes	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenene	n-Propylbenzene	p-Isopropyltoluene	Isopropylbenzene	4-Methyl- 2-pentanone (MIBK)	Naphthalene
Soil Borings and Well Installation																					
GP-3-7'-8' (Completed as MW-1)	4/27/2022	**2.97 J**	**2.26 J**	4.07 U	--	**0.167**	**0.018**	**0.0578**	**0.0172**	**0.0250**	**0.00642 J**	**0.0125**	**0.159**	0.00901 U	0.00494 U	0.00335 U	**0.00530 J**	0.00437 U	**0.00285 J**	0.00391 U	0.00837 U
GP-4-0.5'-1.5'	4/27/2022	1.66 U	**166**	**856**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GP-4-9'-10'	4/27/2022	1.56 U	1.67 U	4.19 U	--	**0.0828 J**	0.00291 U	0.00291 U	0.00368 U	**0.00101 J**	0.00239 U	0.00136 U	0.00162 U	0.00966 U	0.00530 U	**0.00359**	0.00175 U	0.00469 U	0.000782 U	0.00419 U	0.00898 U
GP-6-0.5'-1.5'	4/27/2022	1.49 U	**1.81 J**	4.09 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GP-6-9'-10'	4/27/2022	1.72 U	1.74 U	4.35 U	--	0.0741 U	0.00321 U	0.00321 U	0.00406 U	0.000948 U	0.00264 U	0.00150 U	0.00179 U	0.0107 U	0.00585 U	0.00396 U	0.00193 U	0.00518 U	0.000863 U	0.00463 U	0.00990 U
GP-7-8'-9'	4/27/2022	**9,930**	**1,370**	21.7 U	--	0.706 U	**44.9**	**241**	**80.9**	**4.54**	**38.7**	**46.9**	**154**	**28.5**	**10.9**	0.0378 U	**48.5**	**15.6**	**15.6**	**20.2**	**34.5**
GP-7-10'-11'	4/27/2022	**1,740**	**41.3**	4.48 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GP-7-14'-15'	4/27/2022	**3,760**	**374**	**7.05 J**	--	1.54 U	**31.9**	**126**	**32.7**	**35.9**	**306**	**91.1**	**435**	**20.9**	**5.51**	**0.325**	**23.6**	**2.95**	**14.7**	**4.66**	**42.2**
GP-8-14'-15'	4/20/2023	**1.68 J**	1.82 U	4.55 U	--	0.0647 U	0.00280 U	0.00280 U	0.00354 U	0.000827 U	**0.0114**	0.00131 U	**0.00402 J**	0.00930 U	0.00510 U	0.00345 U	0.00168 U	0.00452 U	0.000753 U	0.00404 U	0.00864 U
GP-9-14'-15' (Completed as MW-3)	4/20/2023	1.25 U	**1.67 J**	4.08 U	--	0.0539 U	0.00233 U	0.00233 U	0.00295 U	0.000689 U	**0.00680 J**	0.00109 U	**0.00242 J**	0.00775 U	0.00425 U	0.00288 U	0.00140 U	0.00376 U	0.000627 U	0.00337 U	**0.00242 J**
GP-10-14'-15'	4/20/2023	1.36 U	1.69 U	4.24 U	--	0.0584 U	0.00253 U	0.00253 U	0.00320 U	0.000748 U	**0.0133**	0.00118 U	**0.00375 J**	0.00840 U	0.00461 U	0.00312 U	0.00152 U	0.00408 U	0.000680 U	0.00365 U	0.00781 U
GP-11-14'-15' (Completed as MW-2)	4/20/2023	1.32 U	1.67 U	4.18 U	--	0.0566 U	0.00245 U	0.00245 U	0.00310 U	**0.00106 J**	**0.0462**	**0.00537**	**0.0261**	0.00815 U	0.00447 U	0.00303 U	0.00147 U	0.00396 U	**0.00172 J**	0.00354 U	0.00757 U
GP-12-14'-15'	4/20/2023	1.33 U	1.70 U	4.26 U	--	0.0571 U	0.00247 U	0.00247 U	0.00313 U	0.000730 U	**0.0111**	**0.00360 J**	**0.00330 J**	0.00821 U	0.00450 U	0.00305 U	0.00149 U	0.00399 U	0.000664 U	0.00356 U	0.00763 U
MW-4-14'-15'	4/20/2023	1.45 U	**2.77 J**	4.39 U	--	0.0623 U	0.00270 U	0.00270 U	0.00342 U	0.000798 U	**0.00938**	0.00126 U	**0.00273 J**	0.00897 U	0.00492 U	0.00333 U	0.00162 U	0.00435 U	0.000726 U	0.00389 U	0.00833 U
Rock Creek Reconnaissance and Surface Soil Sampling																					
Transect-1	12/12/2024	8.18 U	26.8 U	53.5 U	**17.4**	--	--	--	--	0.0164 U	0.0818 U	0.0409 U	0.123 U	--	--	--	--	--	--	--	--
Background Levels of Metals in Soils (Portland Basin)		NA	NA	NA	79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Construction Worker Direct Contact RBC		9,700	4,600	NA	800	NA	NA	2,900	>S	380	>S	1,700	>S	NA	NA	NA	NA	NA	>S	NA	580
Occupational Volatilization to Outdoor Air RBC		69,000	>Max	NA	NV	NA	NA	>S	>S	50	>S	160	>S	NA	NA	NA	NA	NA	>S	NA	83
Occupational Leaching to Groundwater RBC		130	>Max	NA	30	NA	NA	48	53	0.10	490	0.9	100	NA	NA	NA	NA	NA	>S	NA	0.34

Notes:
All results expressed as milligrams per kilogram
Volatile organic compound results not included in this table were non-detect for all samples analyzed
bold = indicates concentrations detected above method reporting limits
-- = Not analyzed
highlighted yellow = indicates concentration exceeds one or more potentially applicable RBCs
>Max = Substance is deemed not to pose a risk at any concentration
NV = This chemical is considered nonvolatile for purposes of the exposure calculation
NA = Not Available, no screening value is listed for this analyte.
>S = This soil RBC exceeds the limit of three-phase partitioning. Soil concentrations in excess of Csat indicate that free product might be present.

J = The result is an estimated value
U = Not detected, the associated value is the method detection limit

Background Levels of Metals in Spoils, Oregon DEQ January 2018
RBCs = Oregon DEQ Risk-Based Concentrations, April 2023 revision

APPENDIX A – DEQ CORRESPONDANCE

McAlister, Robert

From: DANA Kevin * DEQ <Kevin.DANA@deq.oregon.gov>
Sent: Wednesday, June 5, 2024 11:02 AM
To: McAlister, Robert
Cc: DANA Kevin * DEQ
Subject: Conditional NFA Proposal and Data Gap at Oregon Plastic Tubing
Attachments: 6521 Oregon Explorer Map.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Bob,

I've nearly finished writing the Staff Closure Memorandum for the Oregon Plastic Tubing & Pacific Corrugated Plastics site in rural Clackamas County. It looks like the primary human health concern is direct contact with shallow groundwater in the former tank excavation pits adjacent to the office and shop building by construction and excavation workers, as concentrations of gasoline and benzene in the groundwater exceed construction worker direct contact RBCs. To address this concern, DEQ will require that an Easement & Equitable Servitudes (EES) be recorded on the property deed requiring that a Contaminated Media Management Plan (CMMP) be approved by DEQ prior to conducting any subsurface construction work around the office and shop building.

In writing the Staff Closure Memo, I've also identified a data gap that needs to be addressed. Rock Creek, which borders the site to the east, is listed as Essential Salmonid Habitat and is bordered by wetlands, as shown on the attached map. Shallow groundwater samples from MW-2 and MW-3, adjacent to the wetlands, showed up to 699 parts per billion (ppb) diesel, 843 ppb heavy oils, and 18.5 ppb dissolved lead. The diesel and lead concentrations exceed DEQ's ecological risk-based concentrations (RBCs) for freshwater environments. The downgradient extent of the shallow groundwater contamination has not been determined, so it is not known if the contamination is actually impacting Rock Creek.

An evaluation of the potential risks to Rock Creek is needed, given the shallow groundwater contamination and the apparent significance of the ecological habitat in and around the creek. DEQ is open to your suggestions as to what the evaluation should entail. It may involve additional sampling to determine the extent of the contamination, or it may be as simple as documenting that there are no visual indications of an actual impact to the creek (oily seeps, distressed vegetation, etc.).

Please let me know your thoughts. DEQ looks forward to addressing the potential ecological concerns and wrapping up work at this site.

Kevin Dana
Cleanup Project Manager
Oregon DEQ | Northwest Region Office
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100
503-229-5369
Kevin.Dana@deq.oregon.gov

McAlister, Robert

From: DANA Kevin * DEQ <Kevin.DANA@deq.oregon.gov>
Sent: Thursday, November 21, 2024 9:47 AM
To: McAlister, Robert
Cc: pat.whitmore@prinsco.com; jiml@prinsco.com; jaime.sanchez@prinsco.com; Stommes, Eric
Subject: RE: Conditional NFA Proposal and Data Gap at Oregon Plastic Tubing

Hi Bob,

Your Reconnaissance Work Plan for Rock Creek looks good. It's about what we (at DEQ) were anticipating. My only request is that you collect a handful of subsurface soil samples (with a hand augur or maybe just a shovel) to look for visual and/or olfactory evidence of subsurface petroleum contamination along the creek bank.

We at DEQ would also like to participate in the reconnaissance. It would be me and one or two other people. Tuesday afternoon next week or any time on Wednesday the 27th would work for us if you're ready to go that fast. I think Tuesday, December 3 would also work, but I would need to confirm.

Let me know how your schedule looks, or if there would be any concerns with DEQ visiting the site. I'm assuming it would only take an hour or two.

Thanks!

Kevin Dana
Cleanup Project Manager
Oregon DEQ | Northwest Region Office
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100
503-229-5369
Kevin.Dana@deq.oregon.gov

From: McAlister, Robert <Bob.McAlister@stantec.com>
Sent: Tuesday, November 12, 2024 9:43 AM
To: DANA Kevin * DEQ <Kevin.DANA@deq.oregon.gov>
Cc: pat.whitmore@prinsco.com; jiml@prinsco.com; jaime.sanchez@prinsco.com; Stommes, Eric <eric.stommes@stantec.com>
Subject: Conditional NFA Proposal and Data Gap at Oregon Plastic Tubing

Hi Kevin, I have attached our work plan for assessing Rock Creek for ecological risk.

If the work plan is acceptable to DEQ, please provide concurrence and Stantec will compete the work and provide a written report of any findings (or lack thereof). Please reach out to me with any questions or concerns.

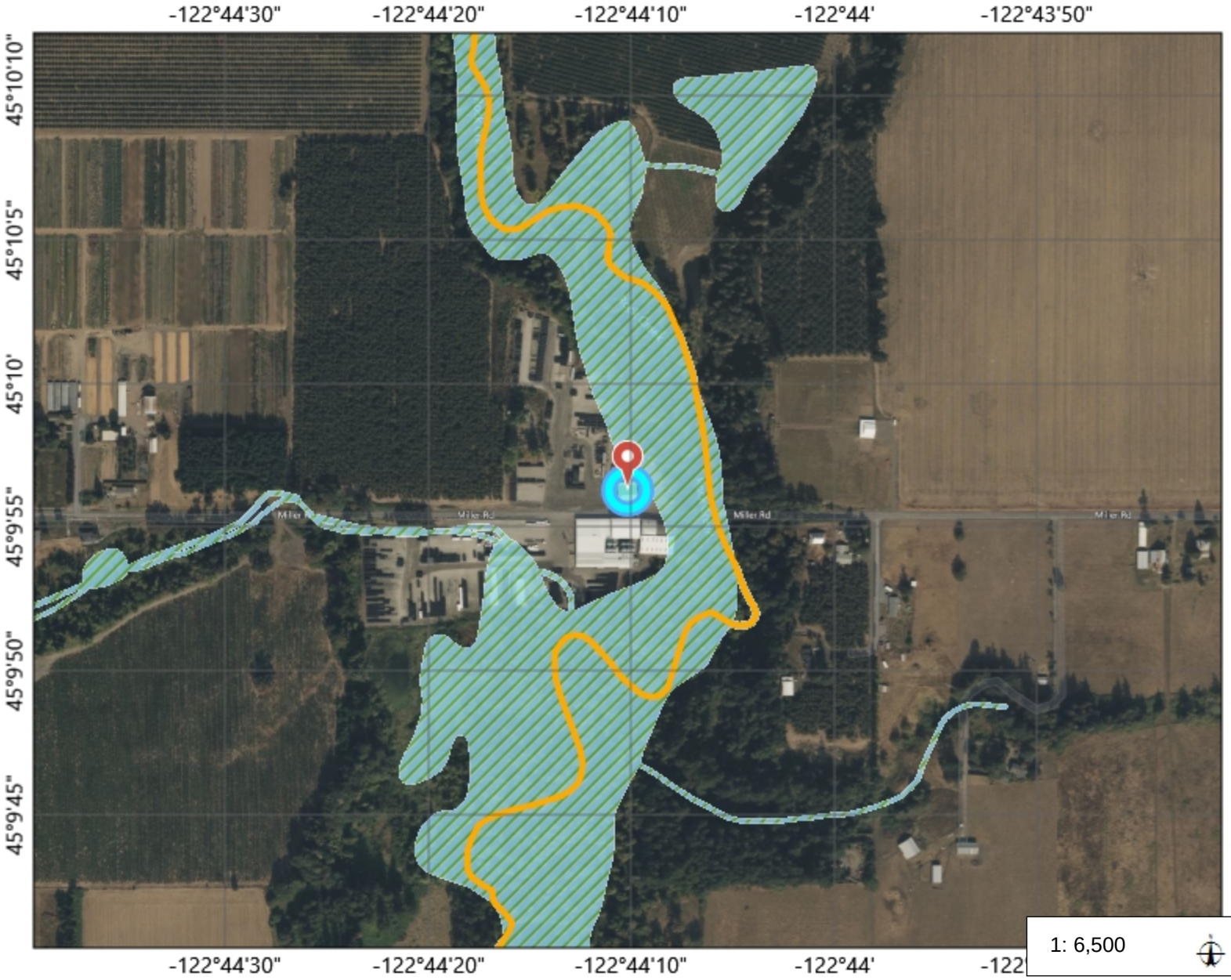
Bob McAlister RG *(he/him)*
Associate Geologist

Mobile: 714 686-4435
Bob.McAlister@stantec.com

Stantec
601 SW Second Avenue Suite 1400
Portland OR 97204-3128

APPENDIX B – NATIONAL WETLAND INVENTORY

Oregon Plastic Tubing & Pacific Corrugated



Legend

- County Boundaries (2015)
- Essential Salmonid Habitat
- National Wetland Inventory (2020)
- Dark Gray Canvas Reference
- Dark Gray Canvas Base

1: 6,500

Notes

0.2 0 0.10 0.2 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output for reference only from: Oregon Explorer Map Viewer

Data layers that appear on this map may or may not be accurate, current, or reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Oregon Plastic Tubing NWI figure

October 23, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

APPENDIX C – PHOTOGRAPHIC LOG

Stantec

Photographic Log

Client:	**Prinsco Water Management Solutions**	**Project:**	**Rock Creek Reconnaissance**
Site Name:	**Oregon Plastic Tubing and Pacific Corrugated Facility**	**Site Location:**	**6401 and 6402 South Miller Road, Hubbard, Oregon**

Photograph ID: 1	
Photo Location: Southeastern portion of Subject Property adjacent to Rock Creek	
Direction: East	
Survey Date: 12/12/2024	
Comments: Condition of Rock Creek upstream of Subject Property.	

Photograph ID: 2	
Photo Location: Southeastern portion of Subject Property adjacent to Rock Creek	
Direction: East	
Survey Date: 12/12/2024	
Comments: Floodpain conditions west of Rock Creek.	

Client:	**Prinsco Water Management Solutions**	**Project:**	**Rock Creek Reconnaissance**
Site Name:	**Oregon Plastic Tubing and Pacific Corrugated Facility**	**Site Location:**	**6401 and 6402 South Miller Road, Hubbard, Oregon**

Photograph ID: 3	
Photo Location: Central Eastern portion of Subject Property. Photo taken from Miller Road bridge.	
Direction: East	
Survey Date: 12/12/2024	
Comments: Rock Creek upstream of Miller Road Bridge.	

Photograph ID: 4	
Photo Location: Central Eastern portion of Subject Property. Photo taken from Miller Road bridge.	
Direction: Northeast	
Survey Date: 12/12/2024	
Comments: Rock Creek downstream of Miller Road Bridge.	

Stantec

Photographic Log

Client:	**Prinsco Water Management Solutions**	**Project:**	**Rock Creek Reconnaissance**
Site Name:	**Oregon Plastic Tubing and Pacific Corrugated Facility**	**Site Location:**	**6401 and 6402 South Miller Road, Hubbard, Oregon**

Photograph ID: 5

Photo Location:
Location of riverbank near-surface soil sample (see Figure 2).

Direction:
West

Survey Date:
12/12/2024

Comments:
Near-surface soil sample "Transect-1" collected near base of cottonwood tree down stream of Miller Road bridge.

APPENDIX D – LABORATORY ANALYTICAL REPORT

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

ANALYTICAL REPORT

Friday, December 27, 2024

Bob McAlister
Stantec Portland
601 SW 2nd Ave Suite 1400
Portland, OR 97204

RE: A4L1226 - Hubbard, OR - 227704604

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 A4L1226, which was received by the laboratory on 12/12/2024 at 2:20:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@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
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 1.3 degC

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

Philip Nerenberg

Philip Nerenberg, Lab Director

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

ANALYTICAL REPORT

Stantec Portland	Project: **Hubbard, OR**	
601 SW 2nd Ave Suite 1400	Project Number: **227704604**	**Report ID:**
Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Transect-1	**A4L1226-01**	**Soil**	**12/12/24 10:30**	**12/12/24 14:20**

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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601 SW 2nd Ave Suite 1400	Project Number: **227704604**	**Report ID:**
Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

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
Transect-1 (A4L1226-01)				**Matrix: Soil**		**Batch: 24L0649**		
Diesel	ND	---	26.8	mg/kg dry	1	12/18/24 13:06	NWTPH-Dx	
Oil	ND	---	53.5	mg/kg dry	1	12/18/24 13:06	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 75 %*		*Limits: 50-150 %*	*1*	*12/18/24 13:06*	*NWTPH-Dx*	

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Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Transect-1 (A4L1226-01)				**Matrix: Soil**		**Batch: 24L0496**		
Gasoline Range Organics	ND	---	8.18	mg/kg dry	50	12/13/24 18:11	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*104 %*	*Limits:* *50-150 %*	*1*	*12/13/24 18:11*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*109 %*	*50-150 %*	*1*	*12/13/24 18:11*	*NWTPH-Gx (MS)*	

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601 SW 2nd Ave Suite 1400	Project Number: **227704604**	**Report ID:**
Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Transect-1 (A4L1226-01)				**Matrix: Soil**		**Batch: 24L0496**		
Benzene	ND	---	16.4	ug/kg dry	50	12/13/24 18:11	5035A/8260D	
Toluene	ND	---	81.8	ug/kg dry	50	12/13/24 18:11	5035A/8260D	
Ethylbenzene	ND	---	40.9	ug/kg dry	50	12/13/24 18:11	5035A/8260D	
Xylenes, total	ND	---	123	ug/kg dry	50	12/13/24 18:11	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*	*Limits: 80-120 %*	*1*	*12/13/24 18:11*	*5035A/8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*12/13/24 18:11*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*12/13/24 18:11*	*5035A/8260D*	

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Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Transect-1 (A4L1226-01)				**Matrix: Soil**				
Batch: 24L0929								
Lead	**17.4**	---	0.320	mg/kg dry	10	12/26/24 21:46	EPA 6020B	

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Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Transect-1 (A4L1226-01)				**Matrix: Soil**		**Batch: 24L0493**		
% Solids	**68.0**	---	1.00	%	1	12/16/24 05:05	EPA 8000D	

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601 SW 2nd Ave Suite 1400	Project Number: **227704604**	**Report ID:**
Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

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 24L0649 - EPA 3546 (Fuels)								Soil				
Blank (24L0649-BLK1)			Prepared: 12/18/24 03:56 Analyzed: 12/18/24 08:51									
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 82 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (24L0649-BS1)			Prepared: 12/18/24 03:56 Analyzed: 12/18/24 09:12									
NWTPH-Dx												
Diesel	118	---	20.0	mg/kg wet	1	125	---	94	38-132%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (24L0649-DUP1)			Prepared: 12/18/24 03:56 Analyzed: 12/18/24 09:54									
QC Source Sample: Non-SDG (A4L1362-02)												
Diesel	**47000**	---	464	mg/kg dry	20	---	42700	---	---	10	30%	
Oil	ND	---	929	mg/kg dry	20	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*			*Dilution: 20x*					*S-01*
Duplicate (24L0649-DUP2)			Prepared: 12/18/24 06:49 Analyzed: 12/18/24 12:43									
QC Source Sample: Non-SDG (A4L0976-11RE1)												
Diesel	ND	---	1770	mg/kg wet	100	---	ND	---	---	---	30%	
Oil	**20100**	---	3540	mg/kg wet	100	---	21400	---	---	6	30%	
Surr: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*			*Dilution: 100x*					*S-01*

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ANALYTICAL REPORT

Stantec Portland	Project: Hubbard, OR	
601 SW 2nd Ave Suite 1400	Project Number: 227704604	Report ID:
Portland, OR 97204	Project Manager: Bob McAlister	A4L1226 - 12 27 24 1553

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0496 - EPA 5035A												Soil
Blank (24L0496-BLK1)			Prepared: 12/13/24 09:00		Analyzed: 12/13/24 11:49							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	5.00	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 98 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*108 %*		*50-150 %*			*"*					
LCS (24L0496-BS2)			Prepared: 12/13/24 09:00		Analyzed: 12/13/24 11:21							
NWTPH-Gx (MS)												
Gasoline Range Organics	28.9	---	5.00	mg/kg wet	50	25.0	---	116	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 99 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*107 %*		*50-150 %*			*"*					
Duplicate (24L0496-DUP1)			Prepared: 12/12/24 09:30		Analyzed: 12/13/24 12:43							
QC Source Sample: Non-SDG (A4L1179-01)												
Gasoline Range Organics	ND	---	5.06	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 99 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*108 %*		*50-150 %*			*"*					

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Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0496 - EPA 5035A							**Soil**					
Blank (24L0496-BLK1)			Prepared: 12/13/24 09:00 Analyzed: 12/13/24 11:49									
5035A/8260D												
Benzene	ND	---	10.0	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	50.0	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	25.0	ug/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	75.0	ug/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*97 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*79-120 %*			*"*				
LCS (24L0496-BS1)			Prepared: 12/13/24 09:00 Analyzed: 12/13/24 10:54									
5035A/8260D												
Benzene	1090	---	10.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
Toluene	1050	---	50.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Ethylbenzene	1140	---	25.0	ug/kg wet	50	1000	---	114	80-120%	---	---	
Xylenes, total	3430	---	75.0	ug/kg wet	50	3000	---	114	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*94 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*79-120 %*			*"*				
Duplicate (24L0496-DUP1)			Prepared: 12/12/24 09:30 Analyzed: 12/13/24 12:43									
QC Source Sample: Non-SDG (A4L1179-01)												
Benzene	ND	---	10.1	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	50.6	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	25.3	ug/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	75.9	ug/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*95 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*79-120 %*			*"*				
Matrix Spike (24L0496-MS1)			Prepared: 12/11/24 12:45 Analyzed: 12/13/24 19:05									
QC Source Sample: Non-SDG (A4L1173-06)												
5035A/8260D												
Benzene	1310	---	11.7	ug/kg dry	50	1170	ND	111	77-121%	---	---	

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ANALYTICAL REPORT

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601 SW 2nd Ave Suite 1400	Project Number: **227704604**	**Report ID:**
Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0496 - EPA 5035A							**Soil**					
Matrix Spike (24L0496-MS1)			Prepared: 12/11/24 12:45 Analyzed: 12/13/24 19:05									
QC Source Sample: Non-SDG (A4L1173-06)												
Toluene	1210	---	58.6	ug/kg dry	50	1170	ND	103	77-121%	---	---	
Ethylbenzene	1310	---	29.3	ug/kg dry	50	1170	ND	112	76-122%	---	---	
Xylenes, total	3930	---	87.9	ug/kg dry	50	3520	ND	112	78-124%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 94 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*102 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*94 %*		*79-120 %*				*"*			

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ANALYTICAL REPORT

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Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 24L0929 - EPA 3051A							Soil					
Blank (24L0929-BLK1)			Prepared: 12/26/24 08:47		Analyzed: 12/26/24 19:19							
EPA 6020B												
Lead	ND	---	0.200	mg/kg wet	10	---	---	---	---	---	---	
LCS (24L0929-BS1)			Prepared: 12/26/24 08:47		Analyzed: 12/26/24 19:40							
EPA 6020B												
Lead	51.2	---	0.200	mg/kg wet	10	50.0	---	102	80-120%	---	---	
Duplicate (24L0929-DUP1)			Prepared: 12/26/24 08:47		Analyzed: 12/26/24 19:51							
QC Source Sample: Non-SDG (A4L1221-02)												
Lead	**9.88**	---	0.213	mg/kg dry	10	---	10.1	---	---	2	20%	PRO
Matrix Spike (24L0929-MS1)			Prepared: 12/26/24 08:47		Analyzed: 12/26/24 19:56							
QC Source Sample: Non-SDG (A4L1221-02)												
EPA 6020B												
Lead	59.5	---	0.208	mg/kg dry	10	52.1	10.1	95	75-125%	---	---	PRO

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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 24L0493 - Dry Weight Prep (EPA 8000D)							**Soil**					
Duplicate (24L0493-DUP1)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							
QC Source Sample: Non-SDG (A4L1137-01)												
% Solids	**75.3**	---	1.00	%	1	---	74.5	---	---	1	10%	
Duplicate (24L0493-DUP2)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							
QC Source Sample: Non-SDG (A4L1137-02)												
% Solids	**81.5**	---	1.00	%	1	---	80.7	---	---	1	10%	
Duplicate (24L0493-DUP3)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							
QC Source Sample: Non-SDG (A4L1137-03)												
% Solids	**83.6**	---	1.00	%	1	---	84.0	---	---	0.5	10%	
Duplicate (24L0493-DUP4)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							
QC Source Sample: Non-SDG (A4L1137-04)												
% Solids	**88.1**	---	1.00	%	1	---	88.3	---	---	0.2	10%	
Duplicate (24L0493-DUP5)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							
QC Source Sample: Non-SDG (A4L1137-05)												
% Solids	**84.4**	---	1.00	%	1	---	83.8	---	---	0.8	10%	
Duplicate (24L0493-DUP6)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							
QC Source Sample: Non-SDG (A4L1137-07)												
% Solids	**87.5**	---	1.00	%	1	---	89.8	---	---	3	10%	
Duplicate (24L0493-DUP7)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							
QC Source Sample: Non-SDG (A4L1137-08)												
% Solids	**91.0**	---	1.00	%	1	---	91.6	---	---	0.6	10%	
Duplicate (24L0493-DUP8)			Prepared: 12/13/24 08:40		Analyzed: 12/16/24 05:05							**CONT**
QC Source Sample: Non-SDG (A4L1137-10)												
% Solids	**86.0**	---	1.00	%	1	---	84.2	---	---	2	10%	

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ANALYTICAL REPORT

Stantec Portland	Project: Hubbard, OR	
601 SW 2nd Ave Suite 1400	Project Number: 227704604	Report ID:
Portland, OR 97204	Project Manager: Bob McAlister	A4L1226 - 12 27 24 1553

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 24L0493 - Dry Weight Prep (EPA 8000D)								Soil				
Duplicate (24L0493-DUP9)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1146-01)												
% Solids	**77.2**	---	1.00	%	1	---	77.1	---	---	0.1	10%	
Duplicate (24L0493-DUPA)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1146-02)												
% Solids	**76.9**	---	1.00	%	1	---	76.3	---	---	0.7	10%	
Duplicate (24L0493-DUPB)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1146-03)												
% Solids	**77.5**	---	1.00	%	1	---	76.9	---	---	0.7	10%	
Duplicate (24L0493-DUPC)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1146-04)												
% Solids	**76.5**	---	1.00	%	1	---	75.6	---	---	1	10%	
Duplicate (24L0493-DUPD)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1173-01)												
% Solids	**93.3**	---	1.00	%	1	---	93.1	---	---	0.2	10%	
Duplicate (24L0493-DUPE)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1173-02)												
% Solids	**83.8**	---	1.00	%	1	---	85.9	---	---	3	10%	
Duplicate (24L0493-DUPF)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1173-03)												
% Solids	**83.6**	---	1.00	%	1	---	83.6	---	---	0.04	10%	
Duplicate (24L0493-DUPG)			Prepared: 12/13/24 08:40			Analyzed: 12/16/24 05:05						
QC Source Sample: Non-SDG (A4L1173-04)												
% Solids	**81.6**	---	1.00	%	1	---	81.6	---	---	0.02	10%	

Apex Laboratories

Philip Nerenberg, Lab Director

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

ANALYTICAL REPORT

Stantec Portland	Project: **Hubbard, OR**	
601 SW 2nd Ave Suite 1400	Project Number: **227704604**	**Report ID:**
Portland, OR 97204	Project Manager: **Bob McAlister**	**A4L1226 - 12 27 24 1553**

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

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

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABORATORIES

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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
Batch: 24L0649							
A4L1226-01	Soil	NWTPH-Dx	12/12/24 10:30	12/18/24 06:49	11g/5mL	10g/5mL	0.91

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24L0496							
A4L1226-01	Soil	NWTPH-Gx (MS)	12/12/24 10:30	12/12/24 10:30	6.32g/5mL	5g/5mL	0.79

BTEX Compounds by EPA 8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24L0496							
A4L1226-01	Soil	5035A/8260D	12/12/24 10:30	12/12/24 10:30	6.32g/5mL	5g/5mL	0.79

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24L0929							
A4L1226-01	Soil	EPA 6020B	12/12/24 10:30	12/26/24 08:47	0.46g/50mL	0.5g/50mL	1.09

Percent Dry Weight

Prep: Dry Weight Prep (EPA 8000D)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 24L0493							
A4L1226-01	Soil	EPA 8000D	12/12/24 10:30	12/13/24 08:40	1g	1g	1.00

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Philip Nerenberg

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QUALIFIER DEFINITIONS

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

Apex Laboratories

CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
PRO	Sample has undergone sample processing prior to extraction and analysis.
S-01	Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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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)

Validated 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'.

Results for Volatiles analyses on soils and sediments that are reported on a “dry weight” basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an “As Received” basis do not have the WMS correction applied, as dry weight was not performed.

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) may not be 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).

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Philip Nerenberg, Lab Director

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ 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.
-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, if results are not reported to the MDL.

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.

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Decanted Samples:

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

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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

All reported analytes are included in Apex Laboratories' current ORELAP scope.

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Philip Nerenberg

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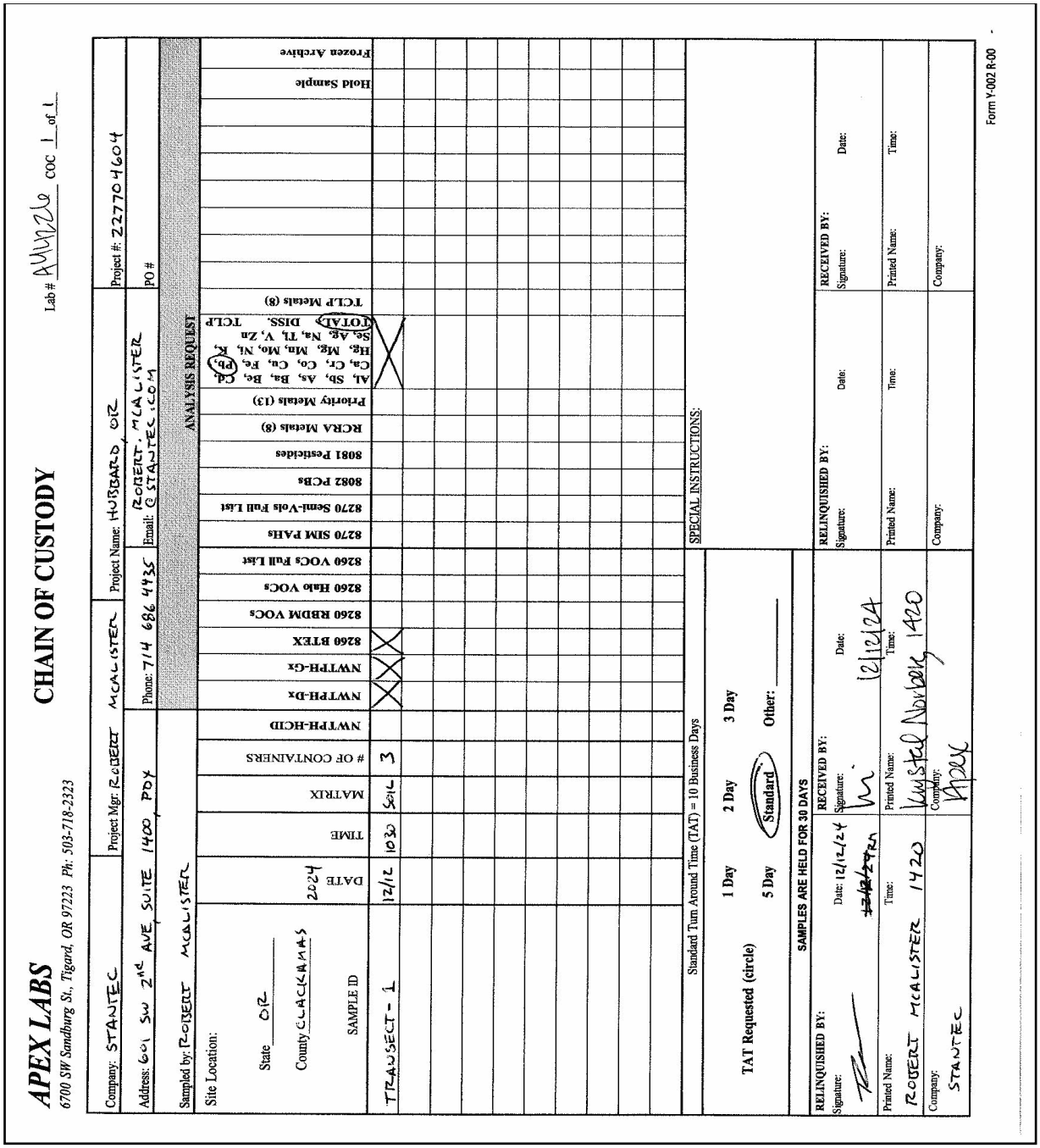

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4L1226 COC 1 of 1

Company: STANTEC | Project Mgr: ROBERT MCALISTER | Project Name: HUBBARD OR | Project #: 227704604
Address: 601 SW 2ND AVE, SUITE 1400, PDX | Phone: 714 686 4935 | Email: ROBERT.MCALISTER@STANTEC.COM | PO #
Sampled by: ROBERT MCALISTER

Site Location: State OR County CLACKAMAS

SAMPLE ID	DATE 2024	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, (Pb), Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn (TOTAL) DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
TRANSECT-1	12/12	1030	SOIL	3		X	X	X										X			

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 12/12/24	Date: 12/12/24	Date:	Date:
Time: 1420	Time: 1420	Time:	Time:
Printed Name: ROBERT MCALISTER	Printed Name: Kirstal Norberg	Printed Name:	Printed Name:
Company: STANTEC	Company: Apex	Company:	Company:

Form Y-002 R-00

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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APEX LABS COOLER RECEIPT FORM

Client: Stantec Element WO#: A4L1226

Project/Project #: Hubbard, OR / 227704 6004

Delivery Info:

Date/time received: 12/12/24 @ 1420 By: KN

Delivered by: Apex__Client_X_ESS__FedEx__UPS__Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes _____ No _√_

Cooler Inspection Date/time inspected: 12/12/24 @ 1420 By: KN

Chain of Custody included? Yes _√_ No _____

Signed/dated by client? Yes _√_ No _____

Contains USDA Reg. Soils? Yes _____ No _√_ Unsure (email RegSoils) _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.3						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	In						

Cooler out of temp? (Y/(N)) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/(No)

Out of temperature samples form initiated? Yes/(No)

Sample Inspection: Date/time inspected: 12/12/24 @ 1753 By: AAW

All samples intact? Yes _X_ No ___ Comments: _____

Bottle labels/COCs agree? Yes _X_ No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No _X_

Containers/volumes received appropriate for analysis? Yes _X_ No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No ___ NA _X_

Comments _____

Water samples: pH checked: Yes___No___NA _X_ pH appropriate? Yes___No___NA _X_ pH ID:_____

Comments: _____

Labeled by: AAW Witness: KN Cooler Inspected by: AAW

Form Y-003 R-02

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