



00455227202300040780580580

I, Steve Druckenmiller, County Clerk for Linn County, Oregon, certify that the instrument identified herein was recorded in the Clerk records.

Steve Druckenmiller - County Clerk



Space above this line for Recorder's use.

After recording, return to:

Grantee

Oregon DEQ
4026 Fairview Industrial Dr. SE
Salem, OR 97302
Attention: Nancy Sawka

Grantor

Will Payne
Sierra Cascade Forest Products, LLC
PO Box 2404
Santa Rosa, CA 95405

EASEMENT AND EQUITABLE SERVITUDES

This grant of Easement and acceptance of Equitable Servitudes ("EES") is made on 03-10, 2023 between Sierra Cascade Forest Products, LLC ("**Grantor**") and the State of Oregon, acting by and through the Oregon Department of Environmental Quality ("DEQ" or "**Grantee**").

RECITALS

A. Grantor is the owner of certain real property located at 40919 16th Street, Lyons, Oregon on Linn County Map and Tax Lots 09S02E19D000902, 09S02E20C001201 and 09S02E20C001300 (the "**Property**") the location of which is more particularly described in Exhibit A to this EES. The Property is referenced under the name Shaniko Lumber, ECSI #2387 in the files of DEQ's Environmental Cleanup Program Western Region office located at 4026 Fairview Industrial Dr. SE, Salem, Oregon, and telephone 503-378-8240. Interested parties may contact the Western Region office to review a detailed description of the risks from contamination remaining at the Property and described in the September 2022 *Remedial Action Report* prepared by PBS Engineering and Environmental, Inc.

B. In September 2021, the Director of the Oregon Department of Environmental Quality or delegate specified a remedial action for the Property in the Scope of Work for a Perspective Purchaser Agreement - Order on Consent (DEQ No. 20-12) for the Property. The Order on Consent was recorded with the Property with the Linn County Clerk on October 14, 2021. The remedial action requires the following conditions through this EES: 1) except for the existing water supply well, groundwater use from beneath the Property is prohibited on tax lot 902, 2) a contaminated media management plan (CMMP) has been prepared and must be implemented during any excavation, construction, development and/or subsurface work on the Property and 3) annual sampling of the existing water supply well is required.

C. This EES is intended to further the implementation of the selected remedial action and protect human health and the environment.

D. Nothing in this Easement and Equitable Servitude constitutes an admission by Grantor of any liability for the contamination described in the Easement and Equitable Servitude.

1. DEFINITIONS

- 1.1 "Beneficial use" has the meaning set forth in OAR 340-122-0115.
- 1.2 "DEQ" means the Oregon Department of Environmental Quality, and its employees, agents, and authorized representatives. "DEQ" also means any successor or assign of DEQ under the laws of Oregon, including but not limited to any entity or instrumentality of the State of Oregon authorized to perform any of the functions or to exercise any of the powers currently performed or exercised by DEQ.
- 1.3 "Owner" means any person or entity, including Grantor, who at any time owns, occupies, or acquires any right, title, or interest in or to any portion of the Property or a vendee's interest of record to any portion of the Property, including any successor, heir, assign or holder of title or a vendee's interest of record to any portion of the Property, but excluding any entity or person who holds such interest solely for the security for the payment of an obligation and does not possess or control use of the Property.
- 1.4 "Remedial Action" has the meaning set forth in ORS 465.200 and OAR 340-122-0115.

2. GENERAL DECLARATION

2.1 Grantor, in consideration of Grantee's issuance of Certification of Completion on the Order on Consent, grants to DEQ an Easement for access and accepts the Equitable Servitudes described in this instrument and, in so doing, declares that the Property is now subject to and must in future be conveyed, transferred, leased, encumbered, occupied, built upon, or otherwise used or improved, in whole or in part, subject to this EES.

2.2 Each condition and restriction set forth in this EES touches and concerns the Property and the equitable servitudes granted in Section 3 and easement granted in Section 4 below, runs with the land for all purposes, is binding upon all current and future owners of the Property as set forth in this EES, and inures to the benefit of the State of Oregon. Grantor further conveys to DEQ the perpetual right to enforce the conditions and restrictions set forth in this EES.

3. EQUITABLE SERVITUDES (REQUIRED ACTIONS AND RESTRICTIONS ON USE)

3.1. **Groundwater Use Restriction.** Except for the existing water well (Linn 1542), the Owner may not extract through wells or by other means or use the groundwater on Map and Tax Lot 09S02E19D000902 at the Property for consumption or other beneficial use without prior written approval by DEQ. This prohibition does not apply to extraction of groundwater associated with groundwater treatment or monitoring activities approved by DEQ or to temporary dewatering activities related to construction, development, or the installation of sewer or utilities at the Property. Owner must conduct a waste determination on any groundwater that is

extracted during such monitoring, treatment, or dewatering activities and handle, store and manage wastewater according to applicable laws.

3.2 **Contaminated Media Management Plan.** The Owner must implement or have implemented the November 2022 CMMP prepared by PBS Engineering and Environmental, Inc. prior to conducting or having any subsurface work or development conducted on the Property. The Owner should notify DEQ at least 14 days prior to starting any development or subsurface activities and provide written plans for DEQ review. Construction and excavation workers working on the Property should be provided and familiar with the CMMP. A copy of the CMMP is in Exhibit B.

3.3 **Water Supply Well Sampling.** The Owner must have the existing water supply well (Linn 1542) sampled on an annual basis and in accordance with the schedule, procedures, laboratory analyses and reporting requirements describe in the September 23, 2022, *Drinking Water Well Sampling and Analysis Plan*, prepared by PBS Engineering and Environmental. A copy of the plan is in Exhibit C.

3.4 **Use of Property.** Owner may not occupy or allow other parties to occupy the Property unless the controls listed in this Section 3 are maintained.

4. EASEMENT (RIGHT OF ENTRY)

During reasonable hours and subject to reasonable security requirements, DEQ may enter upon and inspect any portion of the Property to determine whether the requirements of this EES have been or are being complied with. Except when necessary to address an imminent threat to human health or the environment, DEQ will use its best efforts to notify the Owner 72 hours before DEQ entry to the Property. DEQ may enter upon the Property at any time to abate, mitigate, or cure at the expense of the Owner the violation of any condition or restriction contained in this EES, provided DEQ first gives written notice of the violation to Owner describing what is necessary to correct the violation and Owner fails to cure the violation within the time specified in such notice. Any such entry by DEQ to evaluate compliance or to abate, mitigate, or cure a violation may not be deemed a trespass.

5. RELEASE OF RESTRICTIONS

5.1. Owner may request release of any or all of the conditions or restrictions contained in this EES by submitting such request to the DEQ in writing with evidence that the conditions or restrictions are no longer necessary to protect human health and the environment. The decision to release any or all of the conditions or restrictions in this EES will be within the sole discretion of DEQ.

5.2. Upon a determination pursuant to Subsection 5.1, DEQ will, as appropriate, execute and deliver to Owner a release of specific conditions or restrictions, or a release of this EES in its entirety.

6. GENERAL PROVISIONS

6.1. **Notice of Transfer/Change of Use.** Owner must notify DEQ within 10 days after the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of Owner's interest in or occupancy of the Property. Such notice must include the full name and address of the Party to whom Owner has transferred an interest or right of occupancy. In addition, Owner must notify DEQ a minimum of 10 days before the effective date of any change in use of the Property that might expose human or ecological receptors to hazardous substances. Such notice must include complete details of any planned development activities or change in use. Notwithstanding the foregoing, Owner may not commence any development inconsistent with the conditions or restrictions in Section 3 without prior written approval from DEQ as provided in Subsection 3 of this EES or removal of the condition or restriction as provided in Subsection 5.1. This subsection does not apply to the grant or conveyance of a security interest in the Property.

6.2. **Zoning Changes.** Owner must notify DEQ no less than 30 days before Owner's petitioning for or filing of any document initiating a rezoning of the Property that would change the base zone of the Property under the Linn County zoning code or any successor code. As of the date of this EES, the base zone of the Property is Industrial.

6.3. **Cost Recovery.** Owner will pay DEQ's costs for review and oversight of implementation of and compliance with the provisions in this EES, including but not limited to periodic review and tracking of actions required by this EES. This EES constitutes the binding agreement by the Owner to reimburse DEQ for all such eligible review and oversight costs. DEQ will establish a cost recovery account for tracking and invoicing DEQ project costs. DEQ will provide the Owner with a monthly statement and direct labor summary. DEQ costs will include direct and indirect costs. Direct costs include site-specific expenses and legal costs. Indirect costs are those general management and support costs of the State of Oregon and DEQ allocable to DEQ oversight of this EES and not charged as direct site-specific costs. Indirect charges are based on actual costs and are applied as a percentage of direct personal services costs.

6.4. **Reference in Deed.** A reference to this EES, including its location in the public records, must be recited in any deed conveying the Property or any portion of the Property. Each condition and restriction contained in this EES runs with the land so burdened until such time as the condition or restriction is removed by written certification from DEQ, recorded in the deed records of the County in which the Property is located, certifying that the condition or restriction is no longer required to protect human health or the environment.

6.5. **Effect of Recording.** Upon the recording of this EES, all future Owners are conclusively deemed to have consented and agreed to every condition and restriction contained in this EES, whether or not any reference to this EES is contained in an instrument by which such person or entity occupies or acquires an interest in the Property.

6.6. **Enforcement and Remedies.** Upon any violation of any condition or restriction contained in this EES, the State of Oregon, in addition to the remedies described in Section 4, may enforce this EES or seek available legal or equitable remedies to enforce this EES, including civil penalties as set forth in ORS 465.900.

6.7. **IN WITNESS WHEREOF** Grantor and Grantee have executed this Easement and Equitable Servitude as of the date and year first set forth above.

BY SIGNATURE BELOW, THE STATE OF OREGON APPROVES AND ACCEPTS THIS CONVEYANCE PURSUANT TO ORS 93.808.

GRANTOR: Sierra Cascade Forest Products, LLC

By: _____ Date: _____
Will Payne, Member

STATE OF OREGON)
) ss.
County of _____)

The foregoing instrument is acknowledged before me this _____ day of _____, 20__, by Will Payne as Member of Sierra Cascade Forest Products, on its behalf.

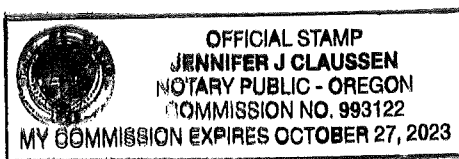
NOTARY PUBLIC FOR OREGON
My commission expires: _____

GRANTEE: State of Oregon, Department of Environmental Quality

By: Nancy A. Sawka Date: 12-20-2022
Nancy A. Sawka, Acting Cleanup Manager, Western Region

STATE OF OREGON)
) ss.
County of marion)

The foregoing instrument is acknowledged before me this 20th day of December, 2022, by Nancy A. Sawka as Acting Western Region Cleanup Manager of the Oregon Department of Environmental Quality, on its behalf.



Jennifer J. Clausen
NOTARY PUBLIC FOR OREGON
My commission expires: 10-27-2023

6.7. **IN WITNESS WHEREOF** Grantor and Grantee have executed this Easement and Equitable Servitude as of the date and year first set forth above.

BY SIGNATURE BELOW, THE STATE OF OREGON APPROVES AND ACCEPTS THIS CONVEYANCE PURSUANT TO ORS 93.808.

GRANTOR: Sierra Cascade Forest Products, LLC

By: Will Payne Date: 03-10-23
Will Payne, Member

STATE OF OREGON)
County of Linn) ss.

The foregoing instrument is acknowledged before me this _____ day of _____ by Will Payne as Member of Sierra Cascade Forest Products, on its behalf.

PLEASE SEE ATTACHED
NOTARY CERTIFICATE

NOTARY PUBLIC FOR OREGON

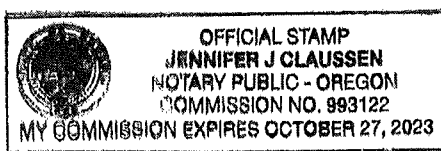
My commission expires: _____

GRANTEE: State of Oregon, Department of Environmental Quality

By: Nancy A. Sawka Date: 12-20-2022
Nancy A. Sawka, Acting Cleanup Manager, Western Region

STATE OF OREGON)
County of marion) ss.

The foregoing instrument is acknowledged before me this 20th day of December, 2022, by Nancy A. Sawka as Acting Western Region Cleanup Manager of the Oregon Department of Environmental Quality, on its behalf.



Jennifer J. Claussen
NOTARY PUBLIC FOR OREGON
My commission expires: 10-27-2023

EXHIBIT A

Legal Description of the Property

Property #1 Account# 4495 Map: 09S02E19D Tax Lot: 902

All of that portion of the following described tract lying South of the Southerly line of the Southern Pacific Railroad right of way; Beginning at the Southwest corner of the East half of the East half of the Southeast Quarter Section 19, Township 9 South of Range 2 East of the Willamette Meridian, Linn County, Oregon; thence East 15.75 chains; thence North 31.95 chains to the center of the County Road from Lyons to Rock Creek; thence South 88° West 5.75 chains; thence North 85° West along the center of said County Road 10.02 chains to a point due North of the point of beginning; thence South to the point of beginning.

Property #2 Account# 5484 Map: 09S02E20C Tax Lot: 1201

Beginning 379.5 feet East of the Southwest corner of Section 20, in Township 9 South, Range 2 East of the Willamette Meridian, Linn County, Oregon; thence East 662.5 feet to the Southwest corner of that tract of land conveyed to the Wren Lumber Company by deed recorded February 13, 1930 in Book 135, age 290 Deed Records; thence North 1212.5 feet to the South line of the Southern Pacific Railroad right of way; thence North 74° 45' West along said right of way to a point North of the point of beginning; thence South 1403 feet to the point of beginning.

Property #3 Account# 5492 & 926346 Map: 09S02E20C Tax Lot: 1300

Beginning at a point on the South line of and East 15.68 chains distant from the Southwest corner of Section 20, Township 9 South, Range 2 East of the Willamette Meridian, Linn County, Oregon; thence East 4.32 chains to the Southwest corner of the East half of the Southwest Quarter of said Section 20; thence North parallel with the West line of said Section, 31 chains to the Fox Valley County Road; thence Westerly along South line of said road, 10 feet; thence South parallel with the West line of said Section 170 feet; thence West 6 feet; thence South parallel with the West line of said Section 806 feet to the South line of the Southern Pacific Railroad right of way; thence North 74 3/4° West along the South line of said Railroad right of way 4.23 chains to a point 15.68 chains East of West line of said Section 20; thence South, parallel with the west line of Section 20, a distance of 1212.5 feet to the place of beginning.

SAVE AND EXCEPT therefrom the right of way the Southern Pacific Railroad Company

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

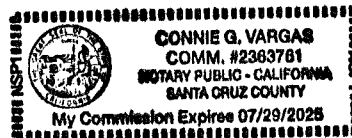
State of California
County of Santa Cruz)

On 03/10/2023 before me, Connie G Vargas, Notary Public
(insert name and title of the officer)

personally appeared William Payne,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.



Signature Connie G Vargas (Seal)

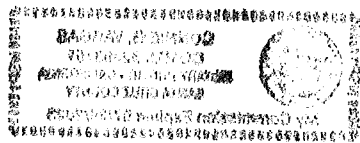


EXHIBIT B

Contaminated Media Management Plan

Contaminated Media Management Plan

Former Shaniko Lumber Property
40919 16th Street
Lyons, Oregon 97358
ECSI# 2387

Prepared for:
Sierra Cascade Forest Products
42565 Valley View Drive
Scio, Oregon 97374

November 2022
PBS Project 22925.001



4412 S CORBETT AVENUE
PORTLAND, OR 97239
503.248.1939 MAIN
866.727.0140 FAX
PBSUSA.COM

Table of Contents

1	INTRODUCTION	1
1.1	Purpose of Plan	1
1.2	Site Description	1
1.3	Project Background.....	1
1.4	Key Personnel.....	1
2	PREVIOUSLY IDENTIFIED ENVIRONMENTAL CONDITIONS	1
3	AREAS REQUIRING MANAGEMENT	3
3.1	Distribution of Contamination in Soil.....	3
3.1.1	AEI 1: Truck Shop and Former Diesel ASTs.....	3
3.1.2	AEI 2: Staining East of Finger Joint Building (Former Drum Storage Area).....	3
3.1.3	AEI 10: Former Cone Burner.....	4
3.2	Distribution of Contamination in Groundwater	4
3.3	Primary Contaminants of Interest.....	4
4	RISK SUMMARY	5
5	HEALTH AND SAFETY INFORMATION	5
6	SOIL MANAGEMENT	5
6.1	Field Screening for Contaminated Media	5
6.2	Soil Handling Procedures	6
6.3	Soil Sampling Procedures.....	7
6.3.1	Sample Frequency.....	7
6.3.2	Sample Collection and Handling	7
6.3.3	Sample Identification.....	8
6.3.4	Laboratory Analysis	8
6.3.5	Sample Delivery and Schedule	8
6.3.6	Sample Custody.....	9
6.3.7	Sample Containers and Coolers	9
6.4	Transportation and Disposal of Contaminated Soil.....	9
7	MANAGEMENT OF STORMWATER AND GROUNDWATER	9
8	FUGITIVE DUST AND DUST CONTROL	10
9	UST MANAGEMENT	11
10	PROJECT PROTOCOLS.....	11
10.1	Compliance with Applicable Environmental Laws and Regulations.....	11
10.2	Recordkeeping.....	11
10.3	Unforeseen Conditions.....	11
10.4	Hazardous Materials.....	11
11	ASSUMPTIONS AND LIMITATIONS.....	11

Supporting Data

FIGURES

- Figure 1. Vicinity Map
- Figure 2. Site Plan
- Figure 3. Detailed Site Plan
- Figure 4. AEI 1 Truck Shop and Diesel AST Area
- Figure 5. AEI 2 Stained Soil Area
- Figure 6. AEI 10 Former Cone Burner

APPENDICES

Appendix A: Previous Soil Analytical Information – Soil Analytical Tables

- Table 1. Summary of Soil Analytical Results – TPH and Metals
- Table 2. Summary of Soil Analytical Results – VOCs
- Table 3. Summary of Soil Analytical Results – PAHs and Pentachlorophenol
- Table 4. Summary of Soil Analytical Results – PCBs and Formaldehyde
- Table 5. Summary of Soil Analytical Results – Pesticides and Herbicides
- Table 6A. Summary of Soil Sample Analytical Results – Dioxins/Furans (ND = 0)
- Table 6B. Summary of Soil Sample Analytical Results – Dioxins/Furans (ND = 0.5 EDL by TEF)
- Table 6C. Summary of Soil Sample Analytical Results – Dioxins/Furans (ND = EDL by TEF)
- Table 7. Summary of Sediment Analytical Results – TPH and Metals
- Table 8. Summary of Sediment Analytical Results – PCBs and Formaldehyde
- Table 9. Summary of Sediment Analytical Results – PAHs

Appendix B: Previous Groundwater Analytical Information – Groundwater Analytical Tables

- Table 10. Summary of Groundwater Analytical Results – TPH and VOCs
- Table 11. Summary of Groundwater Analytical Results – PAHs and Pentachlorophenol
- Table 12. Summary of Groundwater Analytical Results – PCBs and Formaldehyde

Appendix C: Previous Soil and Groundwater Analytical Information – Laboratory Reports

- January 2021 Site Assessment Reports
- May 2021 Additional Site Assessment Reports
- June 2022 Remedial Action Reports

1 INTRODUCTION

1.1 Purpose of Plan

PBS Engineering and Environmental Inc. (PBS) has completed this Contaminated Media Management Plan (CMMP or Plan) to facilitate proper management of potentially impacted media that may be encountered during redevelopment of the former Shaniko Lumber Property in Lyons, Oregon (Site).

1.2 Site Description

The Site is currently owned by Sierra Cascade Forest Products (SCFP) and consists of three parcels of land comprising 37 acres, 19.87 acres, and 8 acres, or approximately 65 acres in total. The Site is distributed across parts of Section 19 and 20 of Township 9 South, Range 2 East of the Willamette Base and Meridian (Figure 1). The address associated with the property is 40919 16th Street, Lyons, Oregon. The Site is bounded to the north by railroad tracks which also offer access to the property via crossings on 18th Street and 21st Street (Figure 2).

The Site is approximately 700 feet above mean sea level, and it is located approximately 0.5 mile to the south of the westward-flowing Santiam River. The western one-third and southern one-half of the property are generally vacant and heavily vegetated, with two ponds, standing water, and dug channels present on the west side. The remaining area, primarily in the north-central and northeastern portion of the property, was developed for wood products manufacturing (Figure 3).

1.3 Project Background

SCFP will be redeveloping the property for its use manufacturing decorative wood products. SCFP initially plans to occupy the large manufacturing building on the property's east side, however other buildings will be used for storage of manufacturing supplies and finished products. This plan is intended to communicate the risk to construction and excavation workers, and provide recommendations for how to screen, handle, and dispose of contaminated media that may be encountered during the planned redevelopment activities.

1.4 Key Personnel

Key personnel for the project are identified in the following table.

Key Personnel		
Company	Name and Title	Contact Information
Property Owner Sierra Cascade Forest Products	Adam Burton Operations Manager	Cell: 716.374.2996
Construction Manager TBD	TBD	Office: Cell:
General Contractor (GC) TBD	TBD	Office:
Environmental Consultant (EC) PBS Engineering and Environmental Inc.	Bret Waldron, RG Senior Geologist	Office: 503.935.5514

2 PREVIOUSLY IDENTIFIED ENVIRONMENTAL CONDITIONS

Previous investigations were completed to characterize known or suspected contamination at the site; however, the following section describes findings relevant to contamination known to still be present on the property that may be encountered during construction and excavation activities. Tables presenting results for

all site samples (Tables 1 through 9) and laboratory reports (Appendix C) are provided as attachments to assist in future waste permitting, as needed.

PBS completed several environmental scopes of work at the site between 2019 and 2022 focusing on evaluation and investigation of potential Areas of Interest (AOI) across the site. In 2021, following completion of site assessment activities related to obtaining a Prospective Purchaser Agreement (PPA) for the site, PBS oversaw remedial activities in the following AOI:

- Area of Environmental Interest (AEI) 2: Stained Surface Soil East of Finger Joint Building (former drum storage area). PBS oversaw removal of the upper 6 inches of soil contaminated with polychlorinated biphenyls (PCBs) and petroleum hydrocarbons in an area measuring 30 by 70 feet (Figure 5). Confirmation samples indicated that there is no residual risk to occupational, construction, or excavation workers; however, one sample, COMP-10, exceeded clean fill criteria, indicating that it cannot be transported off site for unrestricted use.
- AEI 15: Mounded Soil and Debris Pile. Following removal of the pile to Visqueen sheeting and over excavation to approximately 4 to 6 inches below ground surface (bgs), a four-point composite sample (COMP-7) was collected from the excavation base. The sample confirmed contamination had been sufficiently excavated and the pile could be disposed as nonhazardous waste at a licensed Subtitle D landfill. PBS concluded that excavation conducted in this area was successful in removing all residual contaminated soil. Soil requiring management is no longer present in this area.

As well, PBS completed multiple assessment activities in AEI 1, located on the northwest corner of the site, related to residual soil and groundwater contamination present in this area resulting from historic releases from former aboveground fueling tanks. PBS noted the following conditions in this AEI area:

- Petroleum-containing soil (PCS) was present at depths as shallow as 1 foot bgs to approximately 14 feet bgs. Petroleum impacts in soil dissipated quickly given the shallow seasonal groundwater table, where groundwater was observed at approximately 1 foot bgs in January, and at approximately 6 to 8 feet bgs in May. Soil samples collected from the areas and depths of the highest contamination, as indicated by field screening, yielded sample concentrations of diesel-range total petroleum hydrocarbons (TPH) ranging from 2,240 milligrams per kilogram (mg/kg) to 6,990 mg/kg, which exceeded construction worker Risk Based Concentrations (RBCs) for direct contact. This area is located on the north side of the former aboveground storage tank (AST) containment basin and south of the truck shop.
- Dissolved diesel-range impacts range from 14,400 micrograms per liter (µg/L) to 59,700 µg/L in the area between the AST containment area and the truck shop. These concentrations exceeded the solubility limit for diesel in groundwater. A petroleum sheen was observed on groundwater; however, free product was not observed in any of the borings or test pits.
- Soil and groundwater impacts dissipated quickly and do not extend as far north as boring B3, centrally located inside the truck shop. The network of test pits and borings delineated the soil and groundwater plume in this area, and impacts are localized and are not migrating off site.
- Concentrations were below applicable occupational RBCs, indicating that a protective soil cap was unnecessary. The lateral extent of the contaminated soil and groundwater is primarily located on the north side of the former diesel-fuel ASTs.

Dioxins at the Property:

- Low concentrations of dioxins were observed across the property. These were specifically sampled for at the stained soil area (AEI 2), former cone burner (AEI 10), and mounded soil and debris area

(AEI 15). According to DEQ, the resulting concentrations are similar to those collected from other sites in the area and are not indicative of a release of dioxins on the property due to the site's previous use. The concentrations are below RBCs protective of human health and do not pose a risk to the environment; however, the concentrations exceeded clean fill criteria and the soil from these areas are not suitable for transportation off site for unrestricted use.

3 AREAS REQUIRING MANAGEMENT

Areas that will require contaminated media management include the AEI 1: Truck Shop and Former Diesel ASTs, AEI 2: Staining East of the Finger Joint Building (former drum storage), and AEI 10: Former Cone Burner.

Contaminated soil in these areas can be left in place and does not pose a risk to current or future occupational workers. If intrusive activities occur in these areas and soil is generated that cannot be managed in place, the soil management strategies for the various contaminated areas differ.

Contaminated soil in the AEI 1 area should be disposed of off site and disposed as solid waste at a Subtitle D landfill. Disposal of soil generated from the AEI 2 or AEI 10 areas may go to a Subtitle D landfill or as an alternative soil from these two areas may be further characterized to determine the appropriate disposal option.

Excavation activities in the AEI 1 area may require dewatering during the wet winter months. PBS recommends completing intrusive excavation activities during the drier summer months, if possible, to avoid perched groundwater conditions and the need for dewatering. If dewatering is necessary, water should be containerized and sampled to determine the appropriate disposal method. Containerization and sampling procedures are described in section 7.

Soil outside of the known areas of contamination should be evaluated in accordance with current Department of Environmental Quality (DEQ) Clean Fill Determination recommendations to determine if the soil meets clean fill criteria or must be managed and disposed as solid waste. Sampling procedures are described in section 6.3.

3.1 Distribution of Contamination in Soil

Contamination in soil is described as soil that will require special handling if removed from the Site, i.e., soil where contaminants exceed DEQ clean fill screening criteria. There are three general areas of the site where soil management should be considered (see Figure 3).

3.1.1 AEI 1: Truck Shop and Former Diesel ASTs

PCS in shallow soil (depths of 0 to 14 feet bgs) is present in the AEI 1: Truck Shop and Former Diesel ASTs area (see Figure 4). Most of the contaminated soil is concentrated between the former diesel AST containment basin and the truck shop building, where concentrations range from non-detect up to 10,300 mg/kg for diesel-range TPH. The lateral extent of PCS was delineated to approximately 35 feet north and 25 feet east, 10 feet south, and 20 feet west of the diesel saddle's exterior containment walls, amounting to an area of approximately 4,800 square feet. PCS may be left in place; however, if disturbed PCS may pose a risk to construction and excavation workers and will require proper handling and disposal in accordance with the procedures presented in section 6.

3.1.2 AEI 2: Staining East of Finger Joint Building (Former Drum Storage Area)

Previous remedial soil removal actions succeeded in removing contaminated soil that exceeded applicable RBCs south of the Finger Joint Building (see Figure 5). The remaining soil does not pose any risk to

occupational, construction, or excavation workers; however, residual oil-range TPH exceeded clean fill criteria (see sample COMP-10 in Appendix A Table 1). Soil from this area may be left in place, or managed on site; however, it may not meet clean fill criteria and if removed from the site will require proper handling and disposal in accordance with the procedures presented in section 6.

3.1.3 AEI 10: Former Cone Burner

Dioxins were identified in soil at the former wigwam-style cone burner area during the 2021 site assessment (see Figure 6). The calculated maximum possible concentration was 2.3 mg/kg, (see sample COMP-1 on Appendix A Tables 6A through 6C). DEQ determined that these are like other sites in the area, and that the source of the dioxins could not be differentiated from the background concentrations. As detected dioxin concentrations were determined to be consistent with background levels, management of soil from this area on site is not required; however, soil from this area should not be reused off site as it does not meet clean fill criteria.

3.2 Distribution of Contamination in Groundwater

Petroleum-contaminated groundwater is present in the AEI1: Truck Shop and Former Diesel ASTs area where concentrations of diesel-range TPH range from non-detect up to 59,700 µg/L between the former ASTs and the truck shop (see sample TP30-GW on Appendix B Table 10). The plume has been delineated to approximately 35 feet north, 25 feet east, 35 feet south, and 35 feet west of the diesel saddle's exterior containment walls, which amounts to an area of approximately 7,450 square feet (see Figure 4). The contaminated plume appears to be localized and not migrating off site. Depth to groundwater changes seasonally, and during the wet winter months may be encountered as shallow as 1 foot bgs, around 5.5 to 9 feet bgs in the late spring, and potentially deeper during the dry summer months. There are not any other known areas of groundwater contamination.

3.3 Primary Contaminants of Interest

The primary contaminants of interest remaining at the Site are summarized in the table below. Appendix A provides data tables for soil from historical reports summarizing detections. Appendix B provides data tables for groundwater from historical reports summarizing detections. Appendix C provides the associated analytical laboratory reports. These are estimates only and intended for planning purposes. Actual volumes, depths, and area may differ during construction.

Compound	Soil	Groundwater
	Concentration Range	Concentration Range
Diesel- and oil- range hydrocarbons	ND to 10,200 mg/kg	ND to 59,700 µg/L
VOCs	ND to 12.1 mg/kg	ND to 195 µg/L
PAHs	ND to 20.7 mg/kg	ND to 112 µg/L
Lead	<3.76 to 4.31 mg/kg	ND to 33.9 µg/L
Dioxins	0.17 to 2.3 mg/kg	NA

µg/L = micrograms per liter

mg/kg = milligrams per kilogram

NA = not analyzed

ND = non-detect

PAH = polycyclic aromatic hydrocarbon

VOC = volatile organic compound

4 RISK SUMMARY

Based on our current understanding, the contaminants of potential concern (COPCs) in soil and groundwater for the Site include all of those mentioned in section 3, but primarily focus on diesel-range TPH at the AEI 1: Truck Shop and Former Diesel ASTs, where concentrations for direct contact exceed the RBCs for construction workers.

Risk to future construction workers can be managed by avoiding intrusive construction work in that area, or by avoiding direct contact with contaminated soil by using mechanical excavation equipment instead of hand tools, or by using proper personal protective equipment (PPE) and following the handling and disposal procedures presented in section 6.

5 HEALTH AND SAFETY INFORMATION

All workers should be advised of the potential for contamination to be present at the property. As stated above, except for diesel-range TPH in the AEI 1 area, concentrations of COPCs were below levels protective of construction workers. Standard construction PPE and health and safety protocols should be implemented for worker exposure when handling soil or groundwater. If unanticipated contamination is identified or Site conditions change, this section will be revised to reflect the change in conditions.

All employers at the Site are required to develop and manage their own corporate safety program for their workers. This program must be compliant with regulations governed by Oregon Occupational Safety and Health Administration (OSHA), which generally follows federal OSHA requirements.

6 SOIL MANAGEMENT

This CMMP addresses evaluating and handling contaminated soil that may be encountered during future site development activities in a manner that protects the environment and ensures proper off-site disposal of impacted media.

As discussed in section 5, soil contamination may be encountered on the Site. If unanticipated or suspect contaminated soil, groundwater, containers, or other unusual findings are encountered during earthwork, the environmental consultant (EC) will immediately be notified to perform a field inspection, screening, and appropriate sampling to determine proper disposition of the materials. Based on the type and concentrations of contamination, contaminated soil removal may need to be handled in accordance with Oregon Administrative Rule 340-093-040, or as hazardous waste in accordance with the Resource Conservation and Recovery Act (RCRA). Contaminated soil must be transported to a DEQ landfill authorized to accept the material if it is not considered acceptable as clean fill. Section 6.3 describes the soil sampling procedures necessary to ensure proper off-site disposal.

6.1 Field Screening for Contaminated Media

PCS may exhibit gray or blue discoloration, a characteristic odor, and/or may have a petroleum sheen when moist. Solvent-contaminated soil may exhibit a sweet, ether-like odor. Soil solely contaminated with heavy metals may not exhibit signs of contamination but building materials such as brick or painted scrap metal are common indicators that elevated concentrations of metals may be present. Screening is the responsibility of all individuals completing work activities. Workers should be instructed to continuously screen during work activities.

The following continuous field screening methods will be used by the general contractor (GC) and its subcontractors to assess the potential for disturbed soils to be impacted:

- Visual observation for indications of stained soil, buried objects, or other humanmade products
- Olfactory observation for unusual odors emanating from recently exposed soils

Additional field screening of soil following excavation can be conducted using the following methods:

- A photoionization detector to screen soils for volatile organic compounds (VOCs)
- A sheen test to evaluate soils for the presence of petroleum hydrocarbons

If field screening methods identify potentially contaminated soil, site activities around suspect soil should be halted to allow an environmental professional to determine the nature of contamination.

Buried objects such as drums, septic tanks, drywells, and underground storage tanks (USTs) may be encountered during construction activities. If an unexpected object is encountered, proper decommissioning and disposal required by DEQ must be followed. An environmental professional may be contacted to conduct the screening, if needed.

6.2 Soil Handling Procedures

Site monitoring is the responsibility of individuals completing work activities during invasive actions that disturb soil. The following procedures are recommended for such activities in areas identified as having residual impacts. This section assumes that the material can be managed as nonhazardous waste. If this is not the case, this section must be revised to include additional soil handling protocols.

- The GC will determine appropriate soil disposal facilities for media known or assumed to be contaminated.
- The area will be secured for safety and to control sediment and surface water runoff, and to minimize entry or collection of water in excavations. Appropriate construction best management practices (BMPs) should be used including, but not limited to, use of silt fences and appropriate site grading and sloping.
- Contaminated areas will be excavated in a manner that prevents commingling of contaminated and uncontaminated soil.
- If contaminated soil is stockpiled on site, the GC will ensure that a berm (e.g., straw bale underlying a plastic barrier) is constructed on all sides so that it adequately isolates the soil and prevents erosion or stormwater runoff and can be readily expanded. The GC shall provide enough 6-mil plastic sheeting to place beneath the soil pile and cover it nightly with plastic.
- Stockpiled soil will be analyzed to determine the potential for COPCs to be present. Section 6.3 describes soil sampling procedures and frequency. Additional analyses may be necessary if unexpected conditions are encountered.
- If contaminated soil is directly loaded into trucks and transported directly to a disposal site, the GC will ensure that a valid permit has been obtained from the disposal facility prior to direct loading.
- Contaminated soil will be loaded into trucks or approved containers in a manner that prevents dust, spilling, or tracking of the soil into uncontaminated areas.
- The GC will construct a decontamination area, if necessary, for cleaning excavation equipment used to handle contaminated media.

- Loose material on trucks will be swept off or otherwise removed before the trucks leave the loading area. Contaminated material collected in the loading areas will be placed into the trucks or back into the excavation for future loading.
- Every effort will be made to load trucks on paved surfaces, and those surfaces will be swept at the conclusion of each day's loading activities. The sweepings will be placed back in the impacted soil area for removal during the next round of truck loading.
- Trucks will be covered prior to leaving the loading area.
- Loose construction material brought onto the Site, such as gravel, sand, and topsoil, shall not be stockpiled in an area of known contamination. Clean material placed on these areas may become contaminated if mixed with underlying soil and would then not be suitable for use at the Site.

Additionally, if unanticipated contaminated media is encountered, PBS recommends that an environmental professional be contacted to assist in screening, characterizing, handling, and disposing of the material.

6.3 Soil Sampling Procedures

Soil suspected of having contamination may require sampling and laboratory analysis before it can be removed for off-site disposal. The GC should coordinate with the EC to ensure the soil is characterized and managed properly. Suspect contaminated material not related to previously identified areas that is slated for off-site disposal will be sampled.

6.3.1 Sample Frequency

The DEQ Clean Fill Determination guidance suggests a sampling frequency of 1 sample per 100 cubic yards; however, this frequency can often be reduced if the material is relatively homogeneous. The specific sampling frequency will be determined by the EC and GC based on discussions with the receiving facility and nature of stockpiled soil. For large volumes of soil, incremental sampling methodology (ISM) sampling may be more appropriate.

6.3.2 Sample Collection and Handling

Samples will be collected in accordance with the following guidelines:

- The sampler will wear a clean pair of disposable nitrile gloves each time a new sample is collected.
- Composite soil samples will consist of three representative subsamples homogenized then placed into clean containers provided by the laboratory. If ISM sampling is used, a 50-point composite sample will be collected to be processed by the laboratory using ISM protocols.
- It is likely that hand tools (trowel, shovel) or a backhoe bucket will be used to obtain representative soil sample material. If possible, the bucket of the backhoe shall be decontaminated prior to sample collection; however, this is not always feasible. Hand tools will be decontaminated with detergent and water rinse prior to each use between composite samples. Sampling from a backhoe bucket will entail scraping a clean surface before collecting the sample using hand tools and collecting the sample from the middle of the bucket, away from the bottom and sides, to avoid any potential residual cross-contamination from the bucket.
- Custody procedures will ensure that accurate and complete records of sample collection, transfer between personnel, shipment, and receiving by the laboratory are generated and retained.

6.3.3 Sample Identification

At the time of collection, a unique identification number will be assigned to all composite samples and a complete label attached to each sample container. All sample identification numbers and depths will be keyed to the sample location and type and recorded in a field notebook. Each sample for the life of the project must have a unique sample name.

Sample labels will be completed and attached to the jars in the field to prevent misidentification. All sample labels will include the following information:

- Project name or number
- Sample identification
- Sample collection date and time

The sample identification is unique to a particular sample and the format must be consistently used for all samples collected at the site. The sample identification typically includes the sample location and the collection depth. The sample location is the soil boring or stockpile number or otherwise designated sample location. Standard abbreviations for sample location types are:

- Date (YEARMMDD)-LOCATION (Contaminated Stockpile [CSP])-Number
- Example: 20220701-CSP-1
- Date (YEARMMDD)-LOCATION (Soil boring [SB])-Number-Depth (feet)
- Example: 20220701-SB-1-3

6.3.4 Laboratory Analysis

Based on historical site operations and soil contaminants of concern, the following laboratory analyses may be performed for disposal characterization if unanticipated contaminated soil is encountered:

- Gasoline-range hydrocarbons by Northwest Method Total Petroleum Hydrocarbons, gasoline extended (NWTPH-Gx)
- Diesel- and oil-range hydrocarbons by Northwest Method Total Petroleum Hydrocarbons, diesel extended (NWTPH-Dx)
- VOCs by Environmental Protection Agency (EPA) method 8260D
- RCRA eight metals by EPA method 6010, with potential follow-up Toxicity Characteristic Leaching Procedure (TCLP) analysis depending on the initial concentrations
- PAHs by EPA method 8270 SIM
- PCBs by EPA method 8081

Analytical results will be provided to the receiving facility for acceptance of the material.

The receiving facility may require additional analysis prior to accepting soil for disposal. The GC is responsible for coordinating with the EC and disposal facility regarding additional analytical requirements.

6.3.5 Sample Delivery and Schedule

Samples will be stored on ice in a cooler. The GC project manager will coordinate with an Oregon-certified laboratory to minimize sample transport and holding time to ensure that all shipments are received by laboratory personnel within an appropriate timeframe suitable for the analysis requested.

6.3.6 Sample Custody

The chain-of-custody (COC) protocol establishes each sample or group of samples, the possessor of the samples, and the date and time of possession be documented beginning with sample collection and ending with sample disposal. Under no circumstance is there to be a break in this chain of custody. A COC form will be completed by staff members for each sample or group of samples submitted to the laboratory and will remain with samples until receipt by the laboratory.

6.3.7 Sample Containers and Coolers

The laboratory will provide containers for sampling. Staff members responsible for sampling will inspect all containers and coolers prior to use. Sample containers will be kept away from fuels and solvents. Container type and volume, preservation, and holding time requirements for each sample analysis will be in accordance with analytical method requirements.

6.4 Transportation and Disposal of Contaminated Soil

Contaminated soil that cannot be reused on site must be tested to meet requirements for disposal at a Subtitle D landfill. If testing confirms that soil is an RCRA (hazardous) waste requiring disposal at a Subtitle C landfill, this section must be revised. Existing data from historical Site sampling activities may be sufficient for initial permitting of PCS, with the suitability of this data determined by the receiving facility.

The GC and its subcontractors will comply with all applicable federal, state, and local laws, codes, and ordinances that govern or regulate contaminated soil transportation. Prior to transportation, the GC will ensure that all required permits are obtained. Drivers hauling contaminated soil will have in their possession all applicable state and local vehicle insurance requirements, valid driver's license, copies of waste disposal permit(s), and vehicle registration and license. Drivers of haul vehicles shall be informed of the following:

- The nature of the material being hauled
- The required route to and from disposal site(s)
- The applicable city street regulations and requirements, and Oregon Department of Transportation (ODOT) codes, regulations, and requirements
- The legal maximum load limits per vehicle

Trucks will not be allowed off site if free liquids (including water) are draining from the load. It may be necessary to line trucks or require dewatering of soil before transporting off site. Trucks used for the transportation of contaminated soil must be substance-compatible; licensed; insured against spill accidents; and permitted pursuant to federal, state, and local statutes, rules, regulations, and ordinances. Weigh tickets from any local scale and disposal facility should be retained by the GC and provided to the EC and owner for future reporting.

7 MANAGEMENT OF STORMWATER AND GROUNDWATER

Stormwater is a water source expected to encounter contaminated soil during construction activities in the known contaminated areas. Also, contaminated groundwater is anticipated to be encountered in the AEI 1 area. If excavation dewatering is required and discharge of water to a municipal sanitary system is proposed, the governing municipality or disposal agent may require permitting, treatment, and characterization of the water prior to discharge. The analyses required will be determined by the governing municipal agency or disposal agent during the permitting process.

If stormwater or groundwater are encountered within an excavation and dewatering activities are required, the following will be conducted:

- **Contain and Analyze.** Water will be pumped into an appropriate container (temporary tank) and samples collected following de-sedimentation treatment. The samples will be analyzed to confirm that the water meets applicable disposal requirements. The entity (e.g., publicly operated treatment works) generating the permit for disposal of the containerized water will specify the disposal and analytical requirements. The sediments resulting from the de-sedimentation treatment may be contaminated and may require proper sampling and disposal.
- **Halt Work.** If significant contaminant indicators are observed in water in an area where contaminants were not previously found and characterized, Site work will be halted while analytical testing is conducted to determine options for treatment, disposal, and health and safety requirements. Such indicators could include the presence of free phase liquids, odors, or extreme discoloration of groundwater.
- **Disposal.** Water confirmed as contaminated through sampling and analysis must be disposed of in accordance with applicable regulations. Options for disposal include contacting a vendor to collect the water and transport it to a licensed disposal or recycling facility; obtaining a National Pollutant Discharge Elimination System (NPDES) permit from DEQ to allow discharge to the storm sewer; or obtaining a permit from the local municipality to allow discharge to the municipal sanitary sewer. If collected water does not contain contaminants at concentrations above disposal permit screening values, allowable discharge to the municipal storm sewer or other appropriate disposal procedure should be pursued, which may require pretreatment prior to disposal.

If construction activities disturb 1 or more acres, and discharge to surface waters or conveyance systems leading to surface waters of the state occur, the legally authorized representative for construction activities must register for coverage under an NPDES 1200-C General Stormwater Discharge Permit (1200-C Permit). Construction activities include clearing, grading, excavation, materials or equipment staging, and stockpiling. Applicants must submit complete applications to DEQ at least 30 calendar days before commencing any land disturbance activities, unless otherwise approved by DEQ. It is the GC's responsibility to ensure that proper permitting occurs.

In some jurisdictions, construction activities that disturb less than 1 acre are automatically covered under the 1200-CN Permit. It is the GC's responsibility to ensure that proper permitting occurs. While an application to DEQ and permit fees are not required to obtain coverage under the 1200-CN Permit, owners and operators of automatically-covered construction activities must comply with performance requirements and other terms of the 1200-CN Permit.

Runoff from construction activities must be controlled. Construction-related runoff may include sediment, suspended solids, colloidal suspensions, and site contaminants in soil or water. Sediment and suspended solids can readily be controlled and minimized using standard BMPs. If maintenance of the BMPs is lacking, or if care is not used when removing these BMPs after the Site is finished with construction, then any retained pollutants may still be released into the environment. It will be up to the professional judgment of the GC to choose and implement effective BMPs for the Site to control runoff.

8 FUGITIVE DUST AND DUST CONTROL

Dust control measures should be prepared and implemented in accordance with applicable city and county grading and excavation permit requirements.

9 UST MANAGEMENT

If site activities confirm the presence of a previously unidentified UST, a licensed tank decommissioning contractor must be engaged to ensure proper decommissioning of the UST(s). Characterization and disposal of any contaminated media encountered around the UST(s) during decommissioning will be managed by the tank decommissioning contractor.

10 PROJECT PROTOCOLS

10.1 Compliance with Applicable Environmental Laws and Regulations

The GC and its subcontractors shall comply with all applicable state and federal environmental laws. In addition, the Site owner shall ensure that on-site workers have been trained on the contents of this plan. Management and handling of contaminated media shall be conducted in accordance with Oregon Revised Statutes (ORS), Chapter 459, Solid Waste Management (ORS 459.005 through 459.997).

10.2 Recordkeeping

Disposal tickets for impacted media, largely expected to be soil or landfill debris at this site, must be maintained by the disposal contractor and provided to the owner promptly upon receipt from the receiving facility.

10.3 Unforeseen Conditions

If USTs, buried drums, or other unforeseen conditions that could pose an environmental concern are encountered at the Site, the GC should immediately notify the owner and the EC for further direction.

10.4 Hazardous Materials

This CMMP does not apply to the use or encountering unanticipated hazardous materials, such as asbestos, or stored wood preservatives like formaldehyde and pentachlorophenol (PCP). A separate handling and management plan shall be developed to cover these scenarios, if applicable.

The GC and its subcontractors shall properly handle, store, use, and dispose of hazardous materials brought onto the Site in accordance with all applicable environmental laws. In the event of a spill or release of hazardous material brought onto the Site, the procedures as set forth in their corporate safety program, or other management plan concerning hazardous materials encountered during construction, shall be followed.

11 ASSUMPTIONS AND LIMITATIONS

PBS has prepared this plan for use by Sierra Cascade Forest Products and its contractors during earth-disturbing activities at the Site relying on information known and available at the time the Plan was developed. If new information is determined prior to or during the construction period, the Plan should be updated to reflect that information.

This CMMP provides the project team with guidance for the appropriate handling and management of potentially contaminated media and is intended to be used as a general overview document for contractors and the project team during the earthwork portions of the project. Contractors are required to comply with applicable rules and regulations when handling contaminated media regardless of whether it is addressed in this CMMP.

The contractor is responsible for notifying subcontractors of pertinent environmental conditions. Each contractor and subcontractor are responsible for the safety of their employees, including compliance with applicable OSHA regulations and compliance with all specifications in the technical specification's manual for the project.

Figures

Figure 1. Vicinity Map

Figure 2. Site Plan

Figure 3. Detailed Site Plan

Figure 4. AEI 1 Truck Shop and Diesel AST Area

Figure 5. AEI 2 Stained Soil Area

Figure 6. AEI 10 Former Cone Burner

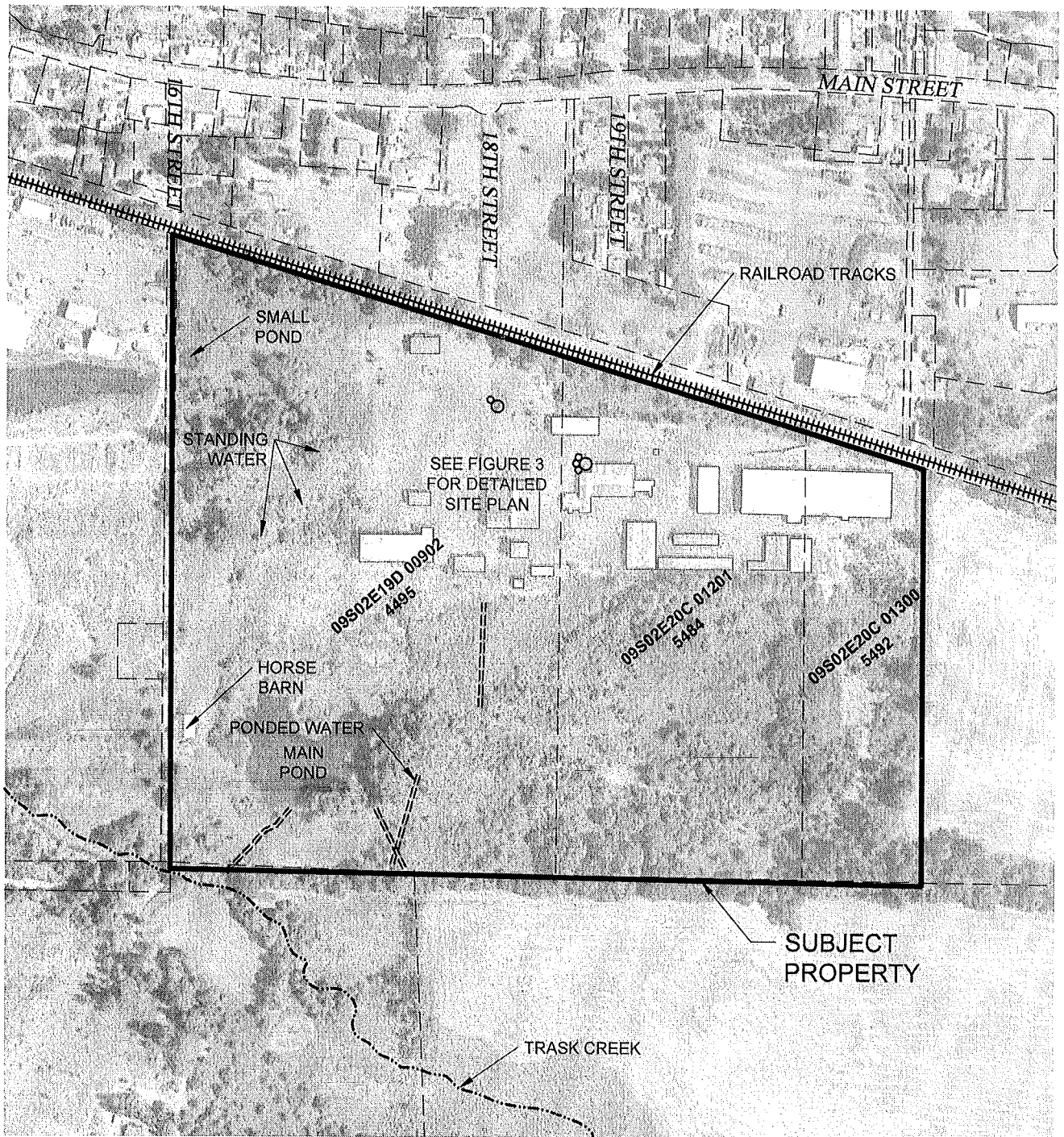
A map of the state of Oregon with several locations marked. Portland is at the top. Eugene is on the left. Lyons is in the center, with an arrow pointing to it from the word "SITE". Salem is marked with an asterisk and is located between Eugene and Lyons.



40919 16TH STREET
LYONS, OREGON

FIGURE

1



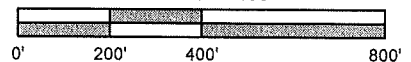
SOURCE: © 2017 GOOGLE EARTH PRO

LEGEND

- ==== DUG CHANNEL
- ⊗ POLE-MOUNTED TRANSFORMER
- TAX LOT BOUNDARY



Scale 1" = 400'



PREPARED FOR: SIERRA CASCADE FOREST PRODUCTS



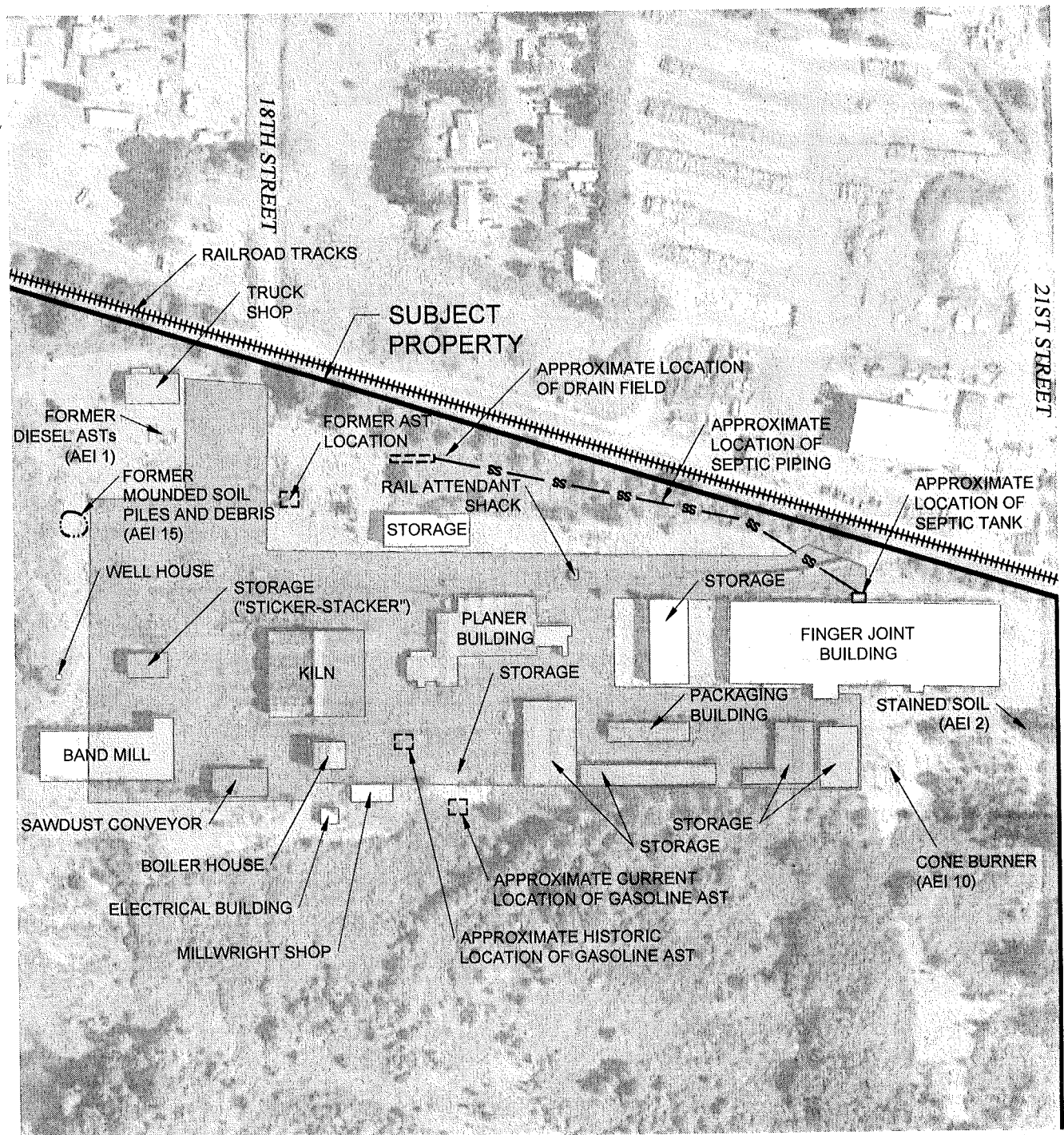
SITE PLAN
40919 16TH STREET
LYONS, OREGON

NOV 2022
22925.001

FIGURE

2

Filename L:\Projects\200022500-22925.001_Fig_2-7.dwg Layout Tab FIG 3 User: Kaue Breyman CAD Plot Date/Time: 10/28/2021 2:55:57 PM



SOURCE: © 2017 GOOGLE EARTH PRO

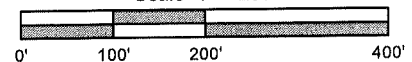
LEGEND



PAVED SURFACE



Scale 1" = 200'



PREPARED FOR: SIERRA CASCADE FOREST PRODUCTS



DETAILED SITE PLAN

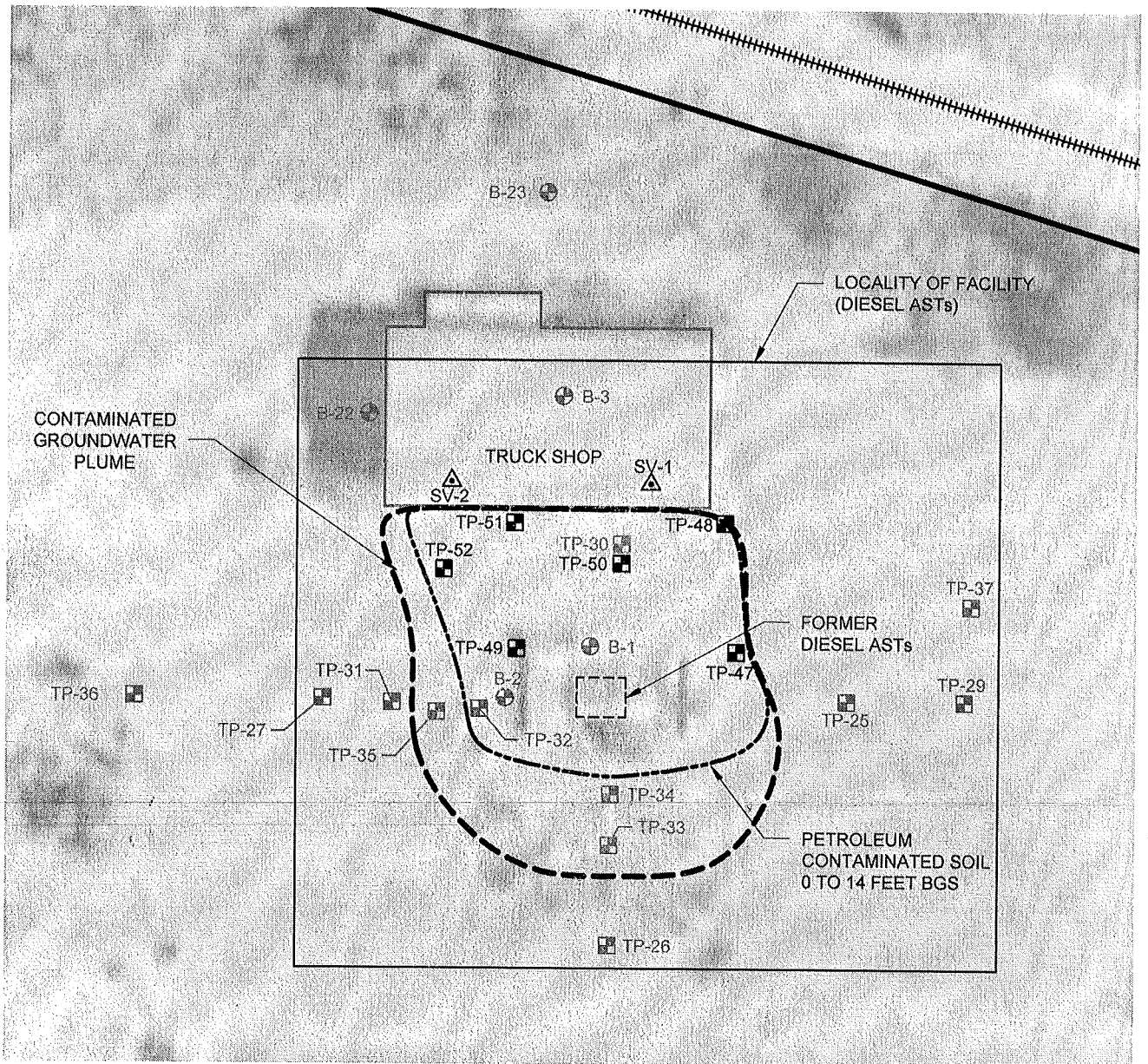
40919 16TH STREET
LYONS, OREGON

NOV 2022
22925.001

FIGURE

3

Filepath: \\posanr-jar\\Projects\\2000-22925\\22925_Lyras\\Lyras_Plan\\environmental\\001_Fig_2-7.dwg User: Yuhang Ewyman CAD File Date/Time: 7/12/2022 11:59:20 AM Layout Tab: FIG 6



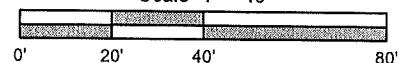
SOURCE: © 2017 GOOGLE EARTH PRO

LEGEND

- ⊕ B-1 PREVIOUS DIRECT-PUSH BORINGS
- ⊙ COMP-1 PREVIOUS COMPOSITE SOIL SAMPLES
- TP-1 PREVIOUS TEST PIT
- TP-1 TEST PIT (JUNE 2022)
- △ SSV-1 SUB-SLAB VAPOR SAMPLE (JUNE 2022)
- LOCALITY OF FACILITY



Scale 1" = 40'



PREPARED FOR: SIERRA CASCADE FOREST PRODUCTS



AEI 1 TRUCK SHOP AND DIESEL AST AREA

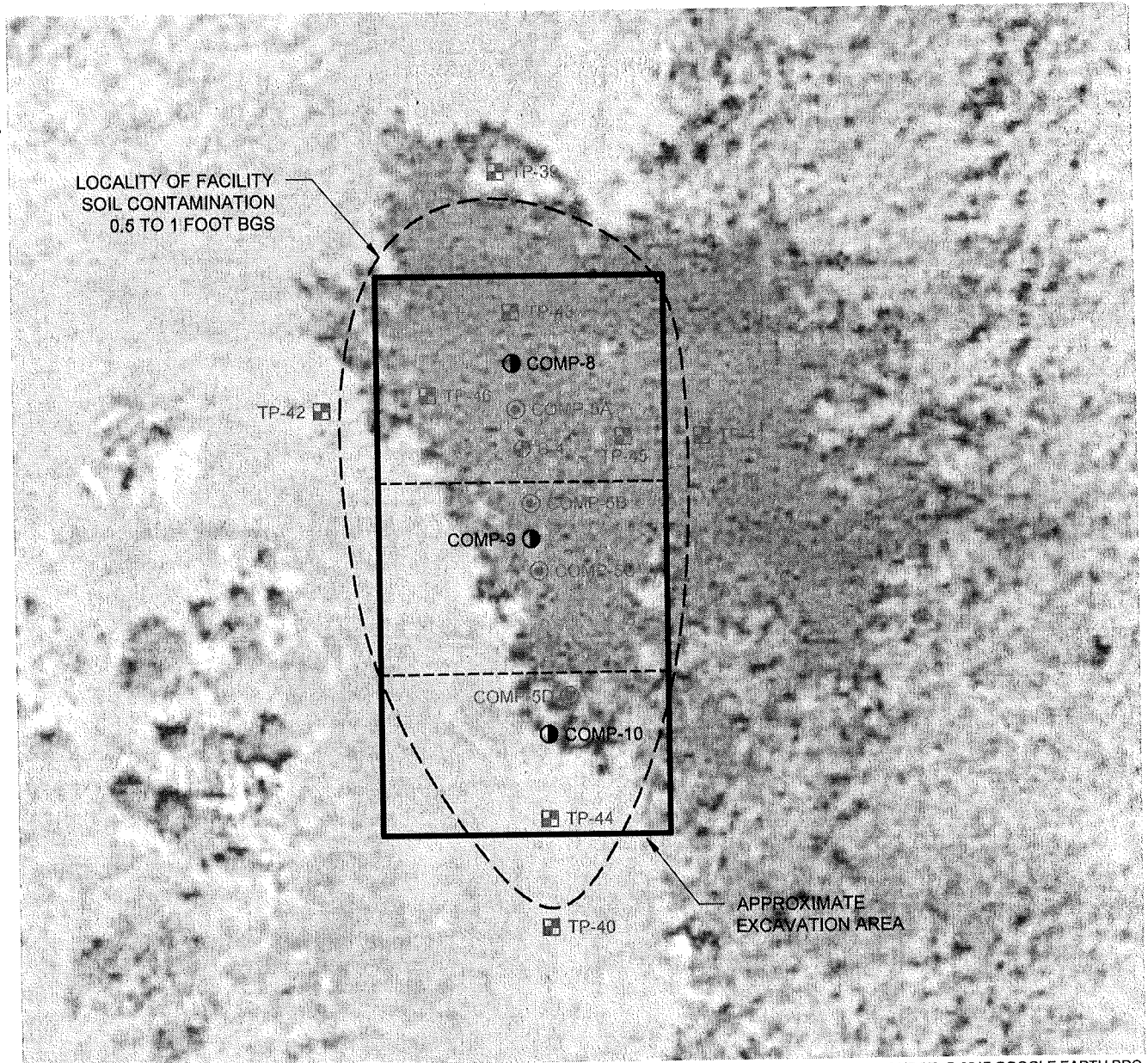
40919 16TH STREET
LYONS, OREGON

NOV 2022
22925.001

FIGURE

4

File Name: L:\projects\22925\00-22925\00-22925\001_Fig_3-7.dwg User: Kane Breyman CAD Plot Date/Time: 10/14/2022 11:53:12 PM Layout Tab: FIG. 7



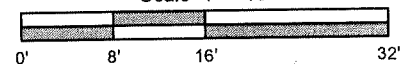
SOURCE: © 2017 GOOGLE EARTH PRO

LEGEND

- B-1 PREVIOUS DIRECT-PUSH BORINGS
- COMP-1 PREVIOUS COMPOSITE SOIL SAMPLES
- TP-1 PREVIOUS TEST PIT
- COMP-1 CONFIRMATION COMPOSITE SAMPLE
- CONFIRMATION COMPOSITE SOIL SAMPLING AREAS



Scale 1" = 16'



PREPARED FOR: SIERRA CASCADE FOREST PRODUCTS



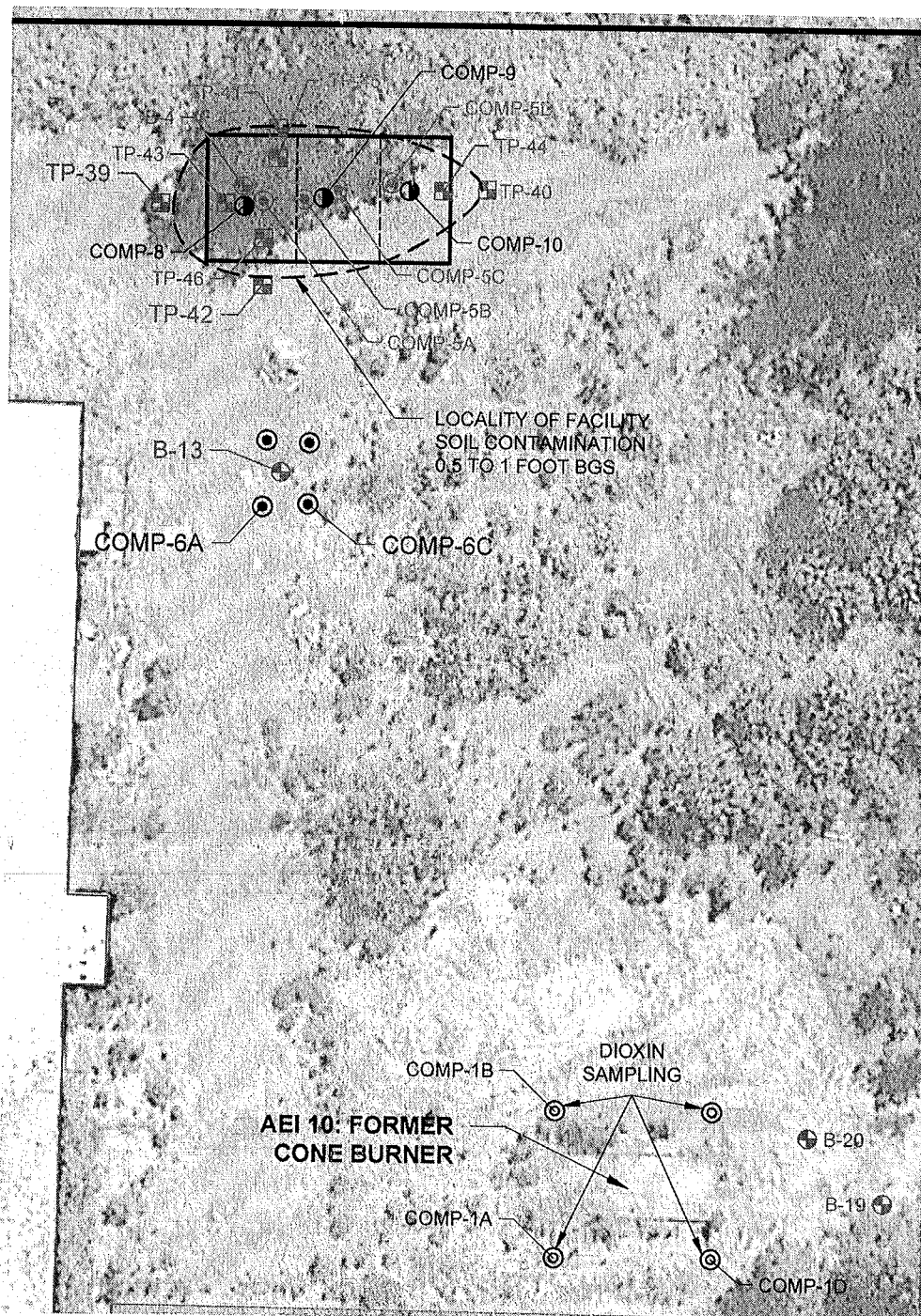
AEI 2 STAINED SOIL AREA

40919 16TH STREET
LYONS, OREGON

NOV 2022
22925.001

FIGURE

5



1 EAST AREA DETAIL
SCALE: 1" = 40'-0"



LEGEND

-  B-1 PREVIOUS DIRECT-PUSH BORINGS
 COMP-1 PREVIOUS COMPOSITE SOIL SAMPLES
 TP-1 PREVIOUS TEST PITs
 COMP-1 CONFIRMATION COMPOSITE SAMPLE

PREPARED FOR: SIERRA CASCADE FOREST PRODUCTS



AEI 10 FORMER CONE BURNER

40919 16TH STREET
LYONS, OREGON

NOV 2022
22925.001

FIGURE

6

Appendix A

Previous Soil Analytical Information – Soil Analytical Tables

Table 1. Summary of Soil Analytical Results – TPH and Metals

Table 2. Summary of Soil Analytical Results – VOCs

Table 3. Summary of Soil Analytical Results – PAHs and Pentachlorophenol

Table 4. Summary of Soil Analytical Results – PCBs and Formaldehyde

Table 5. Summary of Soil Analytical Results – Pesticides and Herbicides

Table 6A. Summary of Soil Sample Analytical Results – Dioxins/Furans (ND = 0)

Table 6B. Summary of Soil Sample Analytical Results – Dioxins/Furans (ND = 0.5 EDL by TEF)

Table 6C. Summary of Soil Sample Analytical Results – Dioxins/Furans (ND = EDL by TEF)

Table 7. Summary of Sediment Analytical Results – TPH and Metals

Table 8. Summary of Sediment Analytical Results – PCBs and Formaldehyde

Table 9. Summary of Sediment Analytical Results – PAHs

Table 1. Summary of Soil Analytical Results - TPH and Metals
Former Shaniko Mill
40919 16th Street, Lyons, Oregon

Sample ID	Location	Sample Date	Depth (feet bgs)	TPH			Metals (detections only)										
				Gasoline	Diesel	Heavy Oil	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver				
January 2021 Site Assessment																	
mg/kg																	
B1-2.5	AEI 1	1/4/2021	2.5	--	496	< 15.0	6.49	262	< 1.50	37.0	8.23	0.0659	< 0.751				
B2-3	AEI 1	1/5/2021	3.0	--	2,240	66	5.82	274	< 1.6	32.4	8.3	< 0.0639	< 0.798				
B3-1	AEI 1	1/4/2021	1.0	6.02	< 6.38	24.4	4.24	178	< 1.59	22.0	5.92	< 0.0638	< 0.797				
B4-1	AEI 2	1/5/2021	1.0	< 3.09	177 ^a	954 ^a	3.77	287	5.62	79.3	386	1.75	6.21				
B4-5	AEI 2	1/5/2021	5.0	< 4.5	32.6	179	5.77	178	< 1.39	38.6	12.4	< 0.0554	< 0.693				
B5-1	AEI 3	1/6/2021	1.0	< 4.97	--	--	3.92	134	< 1.47	23.8	5.38	< 0.0589	< 0.736				
B6-1	AEI 3	1/4/2021	1.0	< 4.19	--	--	2.83	63.9	< 1.14	15.8	3.87	< 0.0457	< 0.572				
B7-1	AEI 4	1/6/2021	1.0	< 3.15	< 4.47	< 11.2	3.99	60.2	< 1.12	18.0	4.90	< 0.0447	< 0.559				
B8-1	AEI 5	1/4/2021	1.0	< 4.91	< 5.86	< 14.5	6.84	137	< 1.46	40.1	7.70	< 0.0586	< 0.732				
B9-1	AEI 6	1/6/2021	1.0	--	< 5.91	< 14.8	6.45	201	< 1.48	31.0	7.03	< 0.0591	< 0.738				
B10-5	AEI 9	1/7/2021	5.0	< 4.44	< 5.50	< 13.7	4.96	271	< 1.37	21.9	4.57	< 0.0550	< 0.687				
B11-2	AEI 9	1/6/2021	2.0	< 3.65	< 4.84	< 12.1	3.59	105	< 1.21	15.9	4.06	0.0530	< 0.606				
B12-5	AEI 9	1/6/2021	5.0	< 3.60	< 4.87	< 12.2	4.32	174	< 1.22	25.1	4.95	< 0.0487	< 0.608				
B13-1	AEI 12	1/5/2021	1.0	--	6.71	40.9	4.31	133	< 1.21	25.3	7.24	0.785	< 0.607				
B14-1	AEI 12	1/7/2021	1.0	--	< 6.83	< 17.1	8.71	123	< 1.71	29.9	5.96	< 0.0683	< 0.854				
B15-1	AEI 12	1/5/2021	1.0	--	< 5.72	< 14.3	5.27	485	< 1.43	31.1	28.1	< 0.0572	< 0.715				
B16-1	AEI 13	1/7/2021	1.0	--	< 94.6	940 ^a	2.34	81.2	< 1.18	14.7	13.7	0.0563	< 0.591				
B17-1	AEI 13	1/7/2021	1.0	--	12.1	90.7	3.86	208	< 1.42	23.5	7.74	< 0.0568	< 0.710				
B18-1	AEI 13	1/7/2021	1.0	--	7.20	30.8	4.10	247	< 1.61	23.0	6.81	< 0.0644	< 0.805				
B19-1	AEI 13	1/6/2021	1.0	< 3.58	< 4.84	< 12.1	2.74	78.5	< 1.21	16.1	5.95	< 0.0484	< 0.604				
B20-1	AEI 10	1/6/2021	1.0	< 4.98	< 5.80	< 14.5	8.71	160	< 1.45	40.3	8.84	< 0.0580	< 0.725				
B21-1	AEI 8	1/6/2021	1.0	< 4.28	< 5.36	< 13.4	5.09	166	< 1.34	46.3	8.75	< 0.0536	< 0.670				
B22-1	AEI 1	1/4/2021	1.0	--	< 7.23	21.3	4.64	208	< 1.81	29.0	8.50	< 0.0723	< 0.904				
B23-1	AEI 1	1/4/2021	1.0	--	< 4.66	36.1	2.67	121	< 1.16	11.2	5.63	< 0.0466	< 0.582				
B24-1	AEI 8	1/7/2021	1.0	8.41	< 5.72	< 14.3	3.34	155	< 1.43	28.3	6.95	< 0.0572	< 0.715				
COMP1	AEI 10	1/7/2021	1.0	< 4.11	< 5.28	< 13.2	6.51	143	< 1.32	26.6	9.58	< 0.0528	< 0.660				
COMP2	AEI 14	1/7/2021	1.0	--	--	--	--	--	--	--	--	--	--				
COMP3	AEI 14	1/7/2021	1.0	--	--	--	--	--	--	--	--	--	--				
COMP4	AEI 15	1/5/2021	1.0	--	--	--	3.7	42	0.61	16	22	< 0.029	< 2.1				

Sample ID	Location	Sample Date	Depth (feet bgs)	TPH			Metals (detections only)						
				Gasoline	Diesel	Heavy Oil	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver
mg/kg													
May 2021 Site Assessment													
TP25-1	AEI 1	5/3/2021	1.0	--	< 3.07	12.8	--	--	--	--	--	--	--
TP28-1	AEI 1	5/3/2021	1.0	--	--	< 5.99	< 15.0	--	--	--	--	--	--
TP30-5	AEI 1	5/3/2021	5.0	--	6,990	81.9	--	--	--	--	--	--	--
TP34-1	AEI 1	5/4/2021	1.0	--	4.14	32.6	--	--	--	--	--	--	--
TP35-1	AEI 1	5/4/2021	1.0	--	< 5.89	< 14.7	--	--	--	--	--	--	--
TP38-3	AEI 9	5/4/2021	3.0	--	< 6.14	< 15.4	6.10	272	0.140	33.5	8.98	0.0738	< 0.768
TP43-1	AEI 2	5/5/2021	1.0	--	2.33	7.73	--	--	0.137	--	18.2	0.0256	< 0.588
TP44-1	AEI 2	5/5/2021	1.0	--	3.67	19.5	--	--	0.152	--	10.5	0.0359	< 0.712
TP45-1	AEI 2	5/5/2021	1.0	--	12.8	87.4	--	--	0.218	--	15.5	0.0314	< 0.665
TP46-1	AEI 2	5/5/2021	1.0	--	< 2.21	< 5.54	--	--	< 1.66	--	8.92	< 0.0665	< 0.0832
COMP-6	AEI 12	5/4/2021	1.0	--	--	--	--	--	--	--	--	0.0238	--
COMP-7	AEI 15	5/4/2021	1.0	--	--	--	--	--	0.12	--	--	--	--
June 2022 AEI 1 Truck Shop Area Focused Assessment													
TP47-3	AEI 1	6/6/2022	3.0	--	6,750	< 593	--	--	--	--	--	--	--
TP48-2	AEI 1	6/7/2022	2.0	--	329	92.3	--	--	--	--	--	--	--
TP49-2	AEI 1	6/7/2022	2.0	--	--	< 30.6	< 61.2	--	--	--	--	--	--
TP50-2	AEI 1	6/7/2022	2.0	--	3,490	< 110	--	--	--	--	--	--	--
TP51-2	AEI 1	6/7/2022	2.0	--	10,300	< 1,250	--	--	--	--	--	--	--
TP52-2	AEI 1	6/7/2022	2.0	--	< 29.1	< 58.3	--	--	--	--	--	--	--

				TPH		Metals (detections only)								
Sample ID	Location	Sample Date	Depth (feet bgs)	Gasoline	Diesel	Heavy Oil	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver	
June 2022 AEI 2 Stained Soil Area Post Remediation Confirmation Samples														
COMP-8	AEI 2	6/6/2022	1.0	--	< 25.0	354	--	--	< 0.229	--	4.31	< 0.0916	< 0.229	
COMP-9	AEI 2	6/6/2022	1.0	--	< 25.0	672	--	--	< 0.239	--	3.76	< 0.0958	< 0.239	
COMP-10	AEI 2	6/6/2022	1.0	--	< 25.0	2,050 J	--	--	< 0.232	--	3.82	< 0.0926	< 0.232	
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation				20,000	14,000		1.9	220,000	1,100	>MAX	800	350	5,800	
				9,700	4,600		15	69,000	350	530,000	800	110	1,800	
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air				>MAX	>MAX		420	>MAX	9,700	>MAX	800	2,900	49,000	
				69,000	>MAX		NV	NV	NV	NV	NV	NV	NV	NV
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings				>MAX	>MAX		NV	NV	NV	NV	NV	NV	NV	
				>MAX	>MAX		NV	NV	NV	NV	NV	NV	NV	NV
Oregon DEQ RBC ¹ - Leaching to Groundwater				130	>MAX		*	*	*	*	30	*	*	
DEQ Clean Fill Screening Levels ²				31	1,100		19	630	0.54	200	34	0.24	0.17	
				120	260		18	110	32	NS	120	34	560	
Oregon DEQ Eco Risk ³ - Direct Toxicity				120	260		6.8	330	140	NS	1,700	0.05	NS	
Oregon DEQ Eco Risk ³ - Ground Feeding				T&E	5,000	6,000	15	720	0.29	23	11	0.013	2.6	
					Non-T&E	5,000	6,000	32	1,200	1.6	73	23	0.13	26
				Mammals	T&E	5,000	6,000	19	1,800	0.27	34	56	1.7	14
					Non-T&E	5,000	6,000	31	8,700	4.0	1,600	170	17	140
Oregon DEQ Eco Risk ³ - Top Consumers				T&E	5,000	6,000	100	630	1.3	170	83	0.058	13	
					Non-T&E	5,000	6,000	1,000	13,000	7.7	560	160	0.58	130
				Mammals	T&E	5,000	6,000	170	9,100	84	180	460	26	990
					Non-T&E	5,000	6,000	290	44,000	1,700	10,000	1,600	130	10,000

See laboratory report for full list of analytes.

mg/kg: milligrams per kilogram

bgs: below ground surface

<: not detected above the laboratory reporting limit

TPH: total petroleum hydrocarbons

AEI: Area of Environmental Interest (See Fig. 4 for locations)

--: analyte not tested

J: value is estimated

> Cat: Soil RBC exceeds the limit of three phase equilibrium partitioning.

Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded.

>MAX: The RBC for this pathway is greater than 1,000,000 mg/kg. This substance is not deemed to pose a risk in this scenario.

NS: not set for this analyte

*: Leaching to groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed.

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

²Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.

³Oregon DEQ Conducting Ecological Risk Assessments, September 2020, Table 1a.

*The concentration at this location is below clean fill criteria, however is considered above background concentrations in an area where ecological pathways are complete. The value therefore is considered an exceedance.

Table 2. Summary of Soil Analytical Results - VOCs
Former Shaniko Mill
40919 16th Street, Lyons, Oregon

40919 16th Street, Lyons, Oregon

Sample ID	Location	Sample Date	Depth (feet bgs)	VOCs (detections only)										Toluene	tert-Butylbenzene	sec-Butylbenzene	p-Isopropyltoluene	n-Propylbenzene	n-Butylbenzene	Naphthalene	4-Methyl-2-Pentanone	Isopropylbenzene	Ethylbenzene	Benzene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2,3-Trimethylbenzene	Xylenes		
				mg/kg																										
January 2021 Site Assessment																														
B1-2.5	AE1	1/4/2021	2.5	5.24	< 0.0104	< 0.0104	< 0.00207	< 0.00518	1.07	< 0.0518	< 0.0259	1.87	1.95	< 0.0104	2.32	0.0526	< 0.0104	< 0.0135												
B2-3	AE1	1/5/2021	3.0	0.477	0.693	0.39	< 0.00459	0.0255	0.102	< 0.0115	1.23	0.636	0.172	0.337	0.484	< 0.023	< 0.023	0.116												
B3-1	AE1	1/4/2021	1.0	< 0.0111	< 0.0111	< 0.0111	< 0.00223	< 0.00557	0.0124	< 0.0557	< 0.0278	< 0.0278	< 0.0111	< 0.0111	< 0.0278	< 0.0111	< 0.0111	0.0159												
B4-1	AE2	1/5/2021	1.0	< 0.00615	< 0.00615	< 0.00615	0.00188	0.0962	< 0.00307	< 0.037	< 0.0154	< 0.0154	< 0.00615	< 0.00615	< 0.0154	< 0.00615	< 0.00615	0.533												
May 2021 Additional Site Assessment																														
TP30-5	AE1	5/3/2021	5.0	12.1	< 0.00707	< 0.00707	< 0.00141	0.00509	1.53	1.04	11.2	3.86	5.81	< 0.00707	5.02	0.109	< 0.00707	< 0.00919												
TP38-3	AE1	5/4/2021	3.0	< 0.0109	0.00424	< 0.0109	< 0.00218	< 0.00544	< 0.00544	< 0.00544	< 0.0272	< 0.0272	< 0.0109	< 0.0109	< 0.0272	< 0.0109	< 0.0109	0.00270												
June 2022 AE1 Truck Shop Area Focused Assessment																														
TP47-3	AE1	6/6/2022	3.0	--	< 0.364	< 0.364	< 0.0729	< 0.182	1.69	< 3.64	5.90	2.76	3.59	< 0.364	3.24	< 0.364	< 0.364	< 0.182												
TP48-2	AE1	6/7/2022	2.0	--	< 0.0832	< 0.0832	< 0.0166	< 0.0416	0.134	< 0.832	0.177	0.187	0.290	< 0.0832	0.211	< 0.0832	< 0.0832	< 0.0416												
TP49-2	AE1	6/7/2022	2.0	--	< 0.0896	< 0.0896	< 0.0179	< 0.0448	< 0.0896	< 0.896	< 0.179	< 0.0896	< 0.0448	< 0.0896	< 0.0896	< 0.0896	< 0.0896	< 0.0448												
TP50-2	AE1	6/7/2022	2.0	--	0.746	0.383	< 0.0661	< 0.165	2.14	< 3.30	< 1.35	2.93	4.04	< 0.330	4.06	< 0.330	< 0.330	0.928												
TP51-2	AE1	6/7/2022	2.0	--	< 0.419	< 0.419	< 0.0838	< 0.210	4.53	< 0.419	8.95	6.93	8.34	< 0.419	9.16	< 0.419	< 0.419	< 0.210												
TP52-2	AE1	6/7/2022	2.0	--	< 0.0905	< 0.0905	< 0.0181	< 0.0452	< 0.0905	< 0.905	< 0.181	< 0.0905	< 0.0452	< 0.0905	< 0.0905	< 0.0905	< 0.0905	< 0.0452												
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation	Occupational			NS	6,900	6,900	37	150	57,000	NS	23	NS	NS	NS	NS	NS	NS	88,000	25,000											
	Construction Worker			NS	2,900	2,900	380	1,700	27,000	NS	580	NS	NS	NS	NS	NS	NS	28,000	20,000											
	Excavation Worker			NS	81,000	81,000	11,000	49,000	750,000	NS	16,000	NS	NS	NS	NS	NS	NS	770,000	560,000											
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air	Occupational			NS	> Csat	> Csat	50	160	> Csat	NS	83	NS	NS	NS	NS	NS	NS	> Csat	> Csat											
	Occupational			NS	> Csat	> Csat	2.1	17	> Csat	NS	83	NS	NS	NS	NS	NS	NS	> Csat	> Csat											
	Occupational			NS	> Csat	> Csat	0.10	0.90	> Csat	NS	0.34	NS	NS	NS	NS	NS	NS	490	100											
Oregon DEQ RBC ¹ - Leaching to Groundwater	Occupational			NS	48.0	53.0	0.10	0.90	> Csat	NS	0.34	NS	NS	NS	NS	NS	NS	490	100											
	Occupational			NS	10	11	0.023	0.22	96	NS	0.077	190	72	NS	NS	NS	NS	23	1.4											
	Occupational			NS	NS	NS	NS	NS	NS	NS	1.0	NS	NS	NS	NS	NS	NS	200	100											
Oregon DEQ Eco Risk ² - Direct Toxicity	Plants			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
	Invertebrates			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
	Birds			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
Oregon DEQ Eco Risk ² - Ground Feeding	Non-T&E			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
	T&E			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
	Non-T&E			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
Oregon DEQ Eco Risk ² - Top Consumers	Non-T&E			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
	T&E			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
	Non-T&E			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS											
EPA Regional Screening Level (HQ) = 0.1, Target Risk 10 ⁻⁶	Indoor Worker			224	NS	NS	NS	NS	NS	NS	NS	11,700	2,710	NS	NS	NS	NS	NS	NS											
	Outdoor Worker			227	NS	NS	NS	NS	NS	NS	NS	6,490	2,700	NS	NS	NS	NS	NS	NS											
	Indoor Worker			227	NS	NS	NS	NS	NS	NS	NS	11,700	2,710	NS	NS	NS	NS	NS	NS											

See laboratory report for full list of analytes.

mg/kg: milligrams per kilogram

bgs: below ground surface

<: not detected above the laboratory reporting limit

—: analyte not tested

>Csat: soil RBC exceeds the limit of three phase equilibrium partitioning

AEI: Area of Environmental Interest (See Figure 4 for locations)

>MAX: The RBC for this pathway is greater than 1,000,000 mg/kg. This substance is not deemed to pose a risk in this scenario.

NS: not set for this analyte

Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded. US Environmental Protection Agency (EPA) regional screening levels (RSL) are provided when RBCs are not set. RSL values assume a hazard quotient (HQ) of 0.1, target risk 10^{-6} .

VOCs: volatile organic compounds

*: Leaching-to-groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed.

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

²Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.

³Oregon DEQ Conducting Ecological Risk Assessments, September 2020, Table 1a.

Table 3. Summary of Soil Analytical Results - PAHs and Pentachlorophenol

Former Shaniko Mill
40919 16th Street, Lyons, Oregon

40919 16th Street, Lyons, Oregon															PAHs (detections only)										Pentachlorophenol (PCP)
Sample ID	Location	Sample Date	Depth (feet bgs)	1-Methylnaphthalene	2-Methylnaphthalene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenzofuran	Fluoranthene	Indeno(1,2,3-cd)pyren	Naphthalene	Phenanthrene	Pyrene								
mg/kg																									
January 2021 Site Assessment																									
B1-2.5	AE1 1	1/4/2021	2.5	0.915	1.17	0.173	< 0.00901	< 0.00901	< 0.00901	< 0.00901	< 0.00901	--	0.293	< 0.00901	0.0988	0.445	0.0759	--							
B2-3	AE1 1	1/5/2021	3.0	1.74	1.98	< 0.00958	< 0.00958	< 0.00958	< 0.00958	< 0.00958	< 0.00958	--	0.232	< 0.00958	0.394	0.45	0.0168	--							
B3-1	AE1 1	1/4/2021	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--							
B4-1	AE1 2	1/5/2021	1.0	< 0.0222	< 0.0222	< 0.00666	< 0.00666	0.00749	< 0.00666	0.00787	< 0.00666	--	0.00702	< 0.00666	< 0.0222	< 0.00666	0.023	--							
B13-1	AE1 12	1/5/2021	1.0	< 0.0243	< 0.0243	< 0.00729	< 0.00729	< 0.00729	< 0.00729	< 0.00729	< 0.00729	--	< 0.00729	< 0.00729	< 0.0243	< 0.00729	< 0.00729	< 0.809							
B14-1	AE1 12	1/7/2021	1.0	< 0.0341	< 0.0341	< 0.0102	< 0.0102	< 0.0102	< 0.0102	< 0.0102	< 0.0102	--	< 0.0102	< 0.0102	< 0.0341	< 0.0102	< 0.102	< 1.14							
B15-1	AE1 12	1/5/2021	1.0	< 0.0286	< 0.0286	< 0.00858	< 0.00858	< 0.00858	< 0.00858	< 0.00858	< 0.00858	--	< 0.00858	< 0.00858	< 0.0286	< 0.00858	< 0.00858	< 0.476							
B16-1	AE1 13	1/7/2021	1.0	< 0.118	< 0.118	< 0.0355	< 0.0355	< 0.0355	< 0.0355	< 0.0355	< 0.0355	--	< 0.0355	< 0.0355	< 0.118	< 0.0355	< 0.0355	< 3.94							
B17-1	AE1 13	1/7/2021	1.0	< 0.0284	< 0.0284	< 0.00852	0.0131	0.0237	0.0236	0.0311	0.0233	--	0.0216	< 0.00852	0.0284	< 0.0284	0.0158	< 0.946							
B18-1	AE1 13	1/7/2021	1.0	< 0.0322	< 0.0322	< 0.00967	< 0.00967	< 0.00967	< 0.00967	< 0.00967	< 0.00967	--	< 0.00967	< 0.00967	< 0.0322	< 0.00967	< 0.00967	< 1.07							
B19-1	AE1 10	1/6/2021	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.403							
B20-1	AE1 10	1/6/2021	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.483							
COMP1	AE1 2	1/7/2021	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.44							
May 2021 Additional Site Assessment																									
TP30-5	AE1 1	5/3/2021	5.0	12.7	16.3	0.286	0.00586	< 0.00703	< 0.00703	< 0.00703	0.0163	--	0.131	2.74	< 0.00703	3.94	4.28	0.554							

Table 3. Summary of Soil Analytical Results - PAHs and Pentachlorophenol

Former Shaniko Mill
40919 16th Street, Lyons, Oregon

Sample ID	Location	Sample Date	Depth (feet Bgs)	PAHs (detections only)															Pentachlorophenol (PCP)	
				1-Methylnaphthalene	2-Methylnaphthalene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenzofuran	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene			
				mg/kg																
June 2022 AEI 1 Truck Shop Area Focused Assessment																				
TP47-3	AEI 1	6/6/2022	3.0	14.6	20.7	< 0.642	< 0.146	< 0.146	< 0.146	< 0.146	< 0.146	< 0.146	2.33	0.173	4.73	< 0.146	5.14	6.76	0.940	--
TP48-2	AEI 1	6/7/2022	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP49-2	AEI 1	6/7/2022	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP50-2	AEI 1	6/7/2022	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TP51-2	AEI 1	6/7/2022	2.0	11.5	16.8	< 0.529	< 0.151	< 0.151	< 0.151	< 0.151	< 0.151	< 0.151	1.99	< 0.151	3.88	< 0.151	3.22	4.76	0.626	--
TP52-2	AEI 1	6/7/2022	2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation	Occupational - Construction Worker	Excavation Worker		NS	NS	350,000	21	21	21	NS	2,100	NS	30,000	47,000	21	23	NS	23,000	4.0	
				NS	NS	110,000	170	17	170	NS	17,000	NS	10,000	14,000	170	34	NS	7,500	34	
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air	Occupational	Occupational		NS	NS	>Max	4,800	490	4,900	NS	490,000	NS	280,000	390,000	4,900	16,000	NS	210,000	960	
				NS	NS	>Max	>Csat	NV	NV	NS	NS	NV	NS	>Max	NV	83	NS	>Max	NV	
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings	Occupational	Occupational		NS	NS	>Max	>Csat	NV	NV	NV	NV	NS	NS	NV	>Max	83	NS	>Max	NV	
				NS	NS	>Csat	>Csat	>Csat	>Csat	NS	>Csat	>Csat	>Csat	>Csat	>Csat	0.34	NS	>Csat	0.17	
Oregon DEQ RBC ¹ - Leaching to Groundwater	Occupational	Occupational		NS	NS	>Csat	>Csat	>Csat	>Csat	>Csat	>Csat	NS	>Csat	>Csat	>Csat	>Csat	>Csat	>Csat	0.066	
				0.36	11	6.8	0.73	0.11	1.1	25	3.1	0.002	10	3.7	1.1	0.077	5.5	10	NS	5.0
Oregon DEQ Eco Risk ² - Direct Toxicity	Plants	Invertebrates		NS	NS	6.8	18	NS	18	NS	NS	NS	6.1	NS	NS	NS	1.0	NS	31	
				NS	NS	NS	NS	NS	NS	NS	NS	NS	10	3.7	NS	NS	5.5	10	31	
Oregon DEQ Eco Risk ³ - Ground Feeding	Birds	Non-T&E		NS	NS	NS	0.73	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.4	NS	3.6	
				NS	NS	NS	7.3	NS	NS	NS	NS	NS	NS	NS	NS	34	NS	330	3.6	
Oregon DEQ Eco Risk ³ - Top Consumers	Mammals	Non-T&E		NS	NS	210	34	62	44	25	3.1	NS	22	250	71	9.6	11	23	0.81	
				NS	NS	2100	34	190	440	250	31	NS	220	510	710	27	110	230	8.1	
Oregon DEQ Eco Risk ³ - Top Consumers	Birds	Non-T&E		NS	NS	NS	6.4	NS	NS	NS	NS	NS	NS	NS	NS	78	NS	160	1.7	
				NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	780	NS	1,600	37		
Oregon DEQ Eco Risk ³ - Top Consumers	Mammals	Non-T&E		NS	NS	38,000	110	3,400	2,400	3,600	110	NS	3,900	50,000	4,600	5,800	1,900	3,100	17	
				NS	NS	49,000	1,100	11,000	24,000	36,000	1,100	NS	39,000	100,000	46,000	16,000	19,000	31,000	85	
EPA Regional Screening Level (HQ = 0.1, Target Risk 10 ⁻⁵)	Indoor Worker	Outdoor Worker		NS	49,000	380,000	1,100	11,000	24,000	36,000	1,100	NS	39,000	100,000	46,000	16,000	19,000	31,000	85	
				226	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	

See laboratory report for full list of analytes.

mg/kg: milligram per kilogram

bgs: below ground surface

<: not detected above the laboratory reporting limit

AEI: Area of Environmental Interest (See Figure 4 for locations)

PAHs: polycyclic aromatic hydrocarbons

--: analyte not tested

> Csat: Soil RBC exceeds the limit of three phase equilibrium partitioning.

Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded. US Environmental Protection Agency (EPA) regional screening levels (RSL) are provided when RBCs are not set. RSL values assume a hazard quotient (HQ) of 0.1, target risk 10⁻⁶.

*MAX: The RBC for this pathway is greater than 1,000,000 mg/kg. This substance is not deemed to pose a risk in this scenario.

NS: not set for this analyte

NV: compound not volatile so pathway is not valid

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

²Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.

³Oregon DEQ Conducting Ecological Risk Assessments, September 2020, Table 1a.

⁴United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) - Generic Tables.

See laboratory report for full list of analytes.
mg/kg: milligrams per kilogram
bg: below ground surface
-<: not detected above the laboratory reporting limit
TPH: total petroleum hydrocarbons
PAHs: polycyclic aromatic hydrocarbons
--: analyte not tested
>Cst: Soil RBC exceeds the limit of three phase equilibrium partitioning.
AEI: Area of Environmental Interest (See Figure 4 for locations)

Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded.
>MAX: The RBC for this pathway is greater than 1,000,000 mg/kg. This substance is not deemed to pose a risk in this scenario.
NS: not set for this analyte
NV: compound not volatile so pathway is not valid
*: Leaching-to-groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be conducted.
¹Oregon Risk-Based Decision-Making for the Remediation of Petroleum-Contaminated Sites, Oregon DEQ Sept. 2003, Revised RBCs May 2018
²Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.
³Oregon DEQ Conducting Ecological Risk Assessments, September 2020, Table 1a.

Table 5. Summary of Soil Analytical Results - Pesticides and Herbicides

Former Shaniko Mill

40919 16th Street, Lyons, Oregon

Sample ID	Sample Date	Depth Collected (feet bgs)	All Chlorinated Pesticides	All Organophosphorus Pesticides	All Chlorinated Herbicides
COMP 2	1/7/2021	1	ND	ND	ND
COMP 3		1	ND	ND	ND

mg/kg: milligrams per kilogram

ND: analyte not detected

Table 6A: Summary of Soil Sample Analytical Results - Dioxins/Furans (ND = 0)
Former Shaniko Mill
40919 16th Street, Lyons, Oregon

		January 2021 Site Assessment				May 2021 Additional Site Assessment				
COMPOUND	TEF	COMP 1	COMP 4	Calculation COMP 1	Calculation COMP 4	COMP 5	COMP 7	Calculation COMP 5	Calculation COMP 7	
		Result	Result	Result	Result	Result	Result	Result	Result	
		pg/g								
Dioxins	2,3,7,8-TCDD	1 U 0.91	U 0.39	0	0	U 0.28	U 0.27	0	0	
	1,2,3,7,8-PeCDF	1 U 0.70	U 0.41	0	0	U 0.25	1.2	0	1.2	
	1,2,3,4,7,8-HxCDF	0.1 U 0.41	2.4	0	0.24	0.40	1.9	0.04	0.19	
	1,2,3,6,7,8-HxCDD	0.1 U 0.40	5.2	0	0.52	0.45	4.3	0.045	0.43	
	1,2,3,7,8,9-HxCDD	0.1 U 0.38	5.0	0	0.5	U 0.22	3.8	0	0.38	
	1,2,3,4,6,7,8-HpCDD	0.01 11	92	0.11	0.92	3.0 J	74 J	0.03	0.74	
	1,2,3,4,6,7,8,9-OCDD	0.0003 99	710	0.030	0.27	18 J	620 J	0.0054	0.186	
	Furans									
	2,3,7,8-TCDF	0.1 U 0.56	1.1	0	0.11	U 0.18	0.63	0	0.063	
	1,2,3,7,8-PeCDF	0.03 U 0.62	1.4	0	0.042	U 0.20	0.66	0	0.0198	
TEQ WHO2005 ND=0 with EMPCs	2,3,4,7,8-PeCDF	0.3 U 0.64	2.4	0	0.72	U 0.20	0.60	0	0.18	
	1,2,3,4,7,8-HxCDF	0.1 U 0.46	2.8	0	0.28	1.4	1.5	0.14	0.15	
	1,2,3,6,7,8-HxCDF	0.1 U 0.43	2.4	0	0.24	0.73	1.7	0.073	0.17	
	2,3,4,6,7,8-HxCDF	0.1 U 0.38	2.5	0	0.25	U 0.32	1.8	0	0.18	
	1,2,3,7,8,9-HxCDF	0.1 U 0.39	U 0.27	0	0	U 0.34	0.88	0	0.088	
	1,2,3,4,6,7,8-HpCDF	0.01 2.5	23	0.025	0.23	25 J	16 J	0.25	0.16	
	1,2,3,4,7,8,9-HpCDF	0.01 U 0.35	1.5	0	0.015	U 0.48	1.3	0	0.013	
	1,2,3,4,6,7,8,9-OCDF	0.0003 6.5	32	0.0020	0.0096	26	41	0.0078	0.0123	
	Oregon DEQ RC ² - Occupational								16	
	Ingestion, Dermal Contact, and Inhalation (dioxin) equivalents**	Construction Worker								170
Groundwater	Oregon DEQ RC ² - Leaching to Groundwater	Excavation Worker								4,800
	DEQ Clean Fill Screening Level ³	Occupational								31,000
	Oregon DEQ Eco Risk ⁴ - Direct Toxicity	Plants								0.29
		Invertebrates								NS
		Birds								5,000,000
		Non-T&E								0.52
	Oregon DEQ Eco Risk ⁴ - Ground Feeding	Non-T&E								5.2
		Mammals								0.037
		Non-T&E								0.25
		T&E								5.2
Oregon DEQ Eco Risk ⁴ - Top Consumers		Non-T&E								52
		T&E								0.057
		Mammals								0.38
		Non-T&E								
		T&E								
		Non-T&E								
		T&E								
		Non-T&E								
		T&E								
		Non-T&E								

Notes:
 Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RC value, the respective cleanup value is also bolded.
 U: italicized values represent results where individual compounds were not detected above estimated detection limits.
 EMPC: Estimated maximum possible concentration
 J: Value is estimated
 ND: Non-detect
 TEF: Toxic Equivalency Factor. Zero used for non detected compounds in TEQ calculation (non-detects indicated by italics).
 TEQ: Toxic Equivalency Quotient
 WHO: World Health Organization
 Calculation of the Total 2,3,7,8-TCDD TEQ was calculated by the laboratory using ITE Factors.
 Oregon Risk-Based Concentrations for Individual Chemicals, Oregon DEQ Sept. 2003, Revised RCs May 2018
 Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.
 Oregon DEQ Conducting Ecological Risk Assessments, September 2020, Table 1a.
 *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-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-HpCDF - 1,2,3,4,7,8-hexachlorodibenzofuran
 234678-HpCDF - 2,3,4,6,7,8-hexachlorodibenzofuran
 1234789-HpCDF - 1,2,3,4,7,8,9-heptachlorodibenzofuran
 OCDF - 1,2,3,4,6,7,8,9-octachlorodibenzofuran

Table 6B: Summary of Soil Sample Analytical Results - Dioxins/Furans (ND = 0.5 EDL by TEF)

Former Shaniko Mill
40919 16th Street, Lyons, Oregon

		January 2021 Site Assessment				May 2021 Additional Site Assessment				
COMPOUND	TEF	COMP 1	COMP 4	Calculation COMP 1	Calculation COMP 4	COMP 5	COMP 7	Calculation COMP 5	Calculation COMP 7	
		Result	Result	Result	Result	Result	Result	Result	Result	
Dioxins	1	0.91	U	0.39	0.46	U	0.28	U	0.14	
	1	0.70	U	0.41	0.35	U	0.25	U	0.13	
	0.1	0.41	U	2.4	0.021	0.24	0.40	1.9	0.04	
	0.1	0.40	U	5.2	0.02	0.52	0.45	4.3	0.045	
	0.1	0.38	U	5.0	0.019	0.5	0.22	3.8	0.071	
	0.01	11	92	0.11	0.92	3.0	74	0.03	0.74	
	0.0003	99	710	0.030	0.21	18	620	0.0054	0.19	
	0.1	0.56	1.1	0.028	0.11	U	0.18	0.63	0.063	
	0.03	0.62	1.4	0.0093	0.042	U	0.20	0.66	0.020	
	0.3	0.64	2.4	0.096	0.72	U	0.20	0.60	0.03	
Furans	0.1	0.46	2.8	0.023	0.28	1.4	1.5	0.14	0.15	
	0.1	0.43	2.4	0.022	0.24	0.73	1.7	0.073	0.17	
	0.1	0.38	2.5	0.019	0.25	U	0.32	0.016	0.18	
	0.1	0.39	0.27	0.020	0.014	U	0.34	0.088	0.017	
	0.01	2.5	23	0.025	0.23	25	16	0.25	0.16	
	0.01	0.35	1.5	0.0078	0.015	U	0.48	1.3	0.0024	
	0.0003	6.5	32	0.0020	0.0096	26	41	0.0078	0.012	
	TEQ WHO2005 ND=0.5 EDL with EMPCs									
	Oregon DEQ RBC ¹ -		Occupational		1.2		4.7		16	
	Ingestion, Dermal		Construction Worker		0.042		0.11		U	
Contact and Inhalation (dioxin)		Excavation Worker		0.096		0.72		U		
Oregon DEQ RBC ² -		Occupational		0.023		0.28		1.4		
Leaching to Groundwater		Occupational		0.022		0.24		0.73		
DEQ Clean Fill Screening Level ³		Occupational		0.020		0.014		U		
Oregon DEQ Eco Risk ⁴ - Direct Toxicity		Plants		0.025		0.23		25		
		Invertebrates		0.0078		0.015		U		
		Birds		0.0020		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		
		Non-T&E		0.0096		0.0096		26		

Table 6C: Summary of Soil Sample Analytical Results - Dioxins/Furans (ND = EDL by TEF)
Former Shaniko Mill
40919 16th Street, Lyons, Oregon

COMPOUND	TEF	January 2021 Site Assessment				May 2021 Additional Site Assessment			
		COMP 1	COMP 4	Calculation	COMP 1	COMP 4	Calculation	COMP 5	COMP 7
Dioxins	2,3,7,8-TCDD	Result 1 U 0.91	Result U 0.39	Result 0.91	Result U 0.28	Result U 0.25	Result 0.28	Result U 0.27	Result 0.27
	1,2,3,7,8-PeCDD	1 U 0.70	U 0.41	0.7	U 0.41	U 0.25	0.25	1.2	1.2
	1,2,3,4,7,8-HxCDD	0.1 U 0.41	2.4	0.047	0.24	0.40	0.04	0.19	0.19
	1,2,3,6,7,8-HxCDD	0.1 U 0.40	5.2	0.04	0.52	0.45	0.045	0.43	0.43
	1,2,3,7,8,9-HxCDD	0.1 U 0.38	5.0	0.038	0.5	U 0.22	0.022	0.38	0.38
	1,2,3,4,6,7,8-HpCDD	0.01	92	0.11	0.92	3.0 J	0.03	0.74	0.74
	1,2,3,4,6,7,8,9-OCDD	0.0003	99	0.030	0.21	18 J	0.0054	0.19	0.19
	Furans								
	2,3,7,8-TCDF	0.1 U 0.56	1.1	0.056	0.11	U 0.18	0.078	0.063	0.063
	1,2,3,7,8-PeCDF	0.03 U 0.62	1.4	0.019	0.042	U 0.20	0.006	0.020	0.020
Furans	2,3,4,7,8-PeCDF	0.3 U 0.64	2.4	0.19	0.72	U 0.20	0.06	0.18	0.18
	1,2,3,4,7,8-HxCDF	0.1 U 0.46	2.8	0.046	0.28	1.4	0.14	0.15	0.15
	1,2,3,6,7,8-HxCDF	0.1 U 0.43	2.4	0.043	0.24	0.73	0.073	0.17	0.17
	2,3,4,6,7,8-HxCDF	0.1 U 0.38	2.5	0.038	0.25	U 0.32	0.032	0.18	0.18
	1,2,3,7,8,9-HxCDF	0.1 U 0.39	U 0.27	0.039	0.027	U 0.34	0.034	0.088	0.088
	1,2,3,4,6,7,8-HpCDF	0.01	2.5	0.025	0.23	25 J	0.25	0.16	0.16
	1,2,3,4,7,8,9-HpCDF	0.01 U 0.35	1.5	0.0035	0.015	U 0.48	0.0048	0.013	0.013
	1,2,3,4,6,7,8,9-OCDF	0.0003	6.5	0.0020	0.0096	26	0.0078	0.012	0.012
	TEQ WHO2005 ND=EDL with EMPs			2.3	5.1		1.3	4.4	4.4
	Oregon DEQ RBC -	Occupational				16			
Furans	Ingestion, Dermal	Construction Worker				170			
	Contact, and Inhalation	Excavation Worker				4,800			
	Oregon DEQ RBC -								
	Leaching to	Occupational				31,000			
	Groundwater								
	DEQ Clean Fill Screening Level ³								
	Oregon DEQ Eco Risk ⁴ - Direct Toxicity	Plants				NS			
		Invertebrates				5,000,000			
		Birds	T&E			0.52			
		Mammals	Non-T&E			5.2			
Furans	Oregon DEQ Eco Risk ⁴ - Ground Feeding					0.037			
			T&E			0.25			
			Non-T&E			5.2			
			T&E			52			
			Non-T&E			0.057			
			T&E			0.38			
			Non-T&E						
			T&E						
			Non-T&E						
			T&E						

Notes:
Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded.
U Initialized values represent results where individual compounds were not detected above estimated detection limits.
 Laboratory results using EPA Method 1631. Values in picograms per gram (pg/g).
 EMPs: Estimated maximum possible concentration
 J: Value is estimated
 ND: Non-detect
 TEF: Toxic Equivalency Factor. The estimated detection limit (EDL) used for non detected compounds in TEQ calculation (non-detects indicated by *italics*).
 TEQ: Toxic Equivalency Quotient
 WHO: World Health Organization
 Calculation of the Total 2,3,7,8-TCDD TEF was calculated by the laboratory using ITE Factors.
 Oregon Risk-Based Concentrations for Individual Chemicals, Oregon DEQ Sept. 2003, Revised RBCs May 2018
 Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.
 Oregon DEQ Conducting Ecological Risk Assessments, September 2020, Table 1a.
 **Compounds in this category are considered in aggregate as a chemical class and should be evaluated as single substances.

Dioxins
 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
 1234789-HpCDF - 1,2,3,4,7,8,9-heptachlorodibenzofuran
 OCDF - 1,2,3,4,6,7,8,9-octachlorodibenzofuran

Furans
 2378-TCDD - 2,3,7,8-tetrachlorodibenzo-p-dioxin
 12378-PeCDD - 1,2,3,7,8-pentachlorodibenzo-p-dioxin
 23478-PeCDD - 2,3,4,7,8-pentachlorodibenzo-p-dioxin
 123678-HxCDD - 1,2,3,6,7,8-hexachlorodibenzo-p-dioxin
 123789-HxCDD - 1,2,3,7,8,9-hexachlorodibenzo-p-dioxin
 123478-HxCDD - 1,2,3,4,7,8-hexachlorodibenzo-p-dioxin
 1234789-HpCDD - 1,2,3,4,7,8,9-heptachlorodibenzo-p-dioxin
 OCDD - 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin

Table 7. Summary of Sediment Analytical Results - TPH and Metals

**Former Shaniko Mill
40919 16th Street, Lyons, Oregon**

40515 16th Street, Lyons, Oregon

				TPH		Metals (detections only)								
Sample ID	Location	Sample Date	Depth (feet bgs)	Gasoline	Diesel	Heavy Oil	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver	
mg/kg														
SED1-COMP	AEI 7	1/7/2021	1.0	< 6.51	< 7.20	< 18.0	4.17	203 J	< 1.80	21.8 J	8.11	< 0.0720	< 0.900	
SED2-COMP	AEI 7	1/7/2021	1.0	< 4.20	< 5.36	< 13.4	1.80	58.2	< 1.34	10.5	13.6	< 0.0536	< 0.670	
SED3-COMP	AEI 8	1/7/2021	1.0	< 8.65	< 8.92	26.1	4.79	357	< 2.23	36.8	16.3	< 0.0892	< 1.11	
SED4-COMP	AEI 8	1/7/2021	1.0	< 5.85	< 6.68	< 16.7	3.45	221	< 1.67	25.0	9.51	< 0.0668	< 0.835	
SED5-COMP	AEI 7	1/7/2021	1.0	< 6.55	< 7.24	< 18.1	2.72	142 J	< 1.81	11.3 J	5.81	< 0.0724	< 0.905	
SED-6	AEI 1	5/4/2021	1.0	—	22.7	138	—	—	—	—	—	—	—	
SED-7	AEI 1	5/4/2021	1.0	—	17.4	125	—	—	—	—	—	—	—	
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation				20,000	14,000		1.9	220,000	1,100	>MAX	800	350	5,800	
				9,700	4,600		15	69,000	350	530,000	800	110	1,800	1,800
				>MAX	>MAX	>MAX	420	>MAX	9,700	>MAX	800	2,900	49,000	49,000
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air				69,000	>MAX	>MAX	NV	NV	NV	NV	NV	NV	NV	
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings				>MAX	>MAX	>MAX	NV	NV	NV	NV	NV	NV	NV	
Oregon DEQ RBC ¹ - Leaching to Groundwater				130	>MAX	>MAX	*	*	*	*	30	*	*	
DEQ Clean Fill Screening Levels ²				31	1,100	1,100	19	630	0.54	200	34	0.24	0.17	
Oregon DEQ Eco Risk ³ - Sediment				NS	NS	NS	6	NS	0.6	37	35	0.2	4.5	
Freshwater														

See laboratory report for full list of analytes.

mg/kg: milligrams per kilogram

bgs: below ground surface

<: not detected above the laboratory reporting limit

TPH: total petroleum hydrocarbons

VOCs: volatile organic compounds

AEI: Area of Environmental Interest (See Fig. 4 for locations)

—: analyte not tested

J: value is estimated

> Cat: Soil RBC exceeds the limit of three phase equilibrium partitioning.

Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded.

>MAX: The RBC for this pathway is greater than 1,000,000 mg/kg. This substance is not deemed to pose a risk in this scenario.

NS: not set for this analyte

*: Leaching to groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed.

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

²Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.

³Oregon DEQ Guidance for Ecological Risk Assessment Levels I, II, III, IV, April 1998, rev. December 2001, Table 2.

*The concentration at this location is below clean fill criteria, however is considered above background concentrations in an area where ecological pathways are complete.

The value therefore is considered an exceedance.

Table 8. Summary of Sediment Analytical Results - PCBs and Formaldehyde

**Former Shaniko Mill
40919 16th Street, Lyons, Oregon**

Sample ID	Location	Sample Date	Depth (feet bgs)	PCBs							Total PCBs (Sum of detected arclores)
				Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	
SED1-COMP	AEI 7	1/7/2021	1.0	< 0.0612	< 0.0612	< 0.0612	< 0.0612	< 0.0306	< 0.0306	< 0.0306	< 0.0612
SED2-COMP	AEI 7	1/7/2021	1.0	< 0.0456	< 0.0456	< 0.0456	< 0.0456	< 0.0228	< 0.0228	< 0.0228	< 0.0456
SED3-COMP	AEI 8	1/7/2021	1.0	< 0.0758	< 0.0758	< 0.0758	< 0.0758	< 0.0379	< 0.0379	< 0.0379	< 0.0758
SED5-COMP	AEI 7	1/7/2021	1.0	< 0.0615	< 0.0615	< 0.0615	< 0.0615	< 0.0308	< 0.0308	< 0.0308	< 0.0615
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation				Occupational							0.59
				Construction Worker							4.9
				Excavation Worker							140
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air				Occupational							>Csat
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings				Occupational							>Csat
Oregon DEQ RBC ¹ - Leaching to Groundwater				Occupational							1.1
DEQ Clean Fill Screening Levels ²											0.23
Oregon DEQ Eco Risk ³ - Sediment				Freshwater	NS	NS	NS	0.021	0.007	NS	0.034

See laboratory report for full list of analytes.
mg/kg: milligrams per kilogram
bgs: below ground surface
<: not detected above the laboratory reporting limit
TPH: total petroleum hydrocarbons
PAHs: polycyclic aromatic hydrocarbons
—: analyte not tested
>Csat: Soil RBC exceeds the limit of three phase equilibrium partitioning.
AEI: Area of Environmental Interest (See Figure 4 for locations)

Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded.
NS: not set for this analyte
NV: compound not volatile so pathway is not valid
*: Leaching-to-groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed.
¹Oregon Risk-Based Decision-Making for the Remediation of Petroleum-Contaminated Sites, Oregon DEQ Sept. 2003, Revised RBCs May 2018.
²Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.
³Oregon DEQ Guidance for Ecological Risk Assessment: Levels I, II, III, IV, April 1998, rev. December 2001, Table 2.

Table 9. Summary of Sediment Analytical Results - PAHs

Former Shaniko Mill
40919 16th Street, Lyons, Oregon

				PAHs (detections only)														
Sample ID	Location	Sample Date	Depth (feet bgs)	Anthracene	Acenaphthylene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	2-Methylnaphthalene	Benzo(g,h,i)perylene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
				mg/kg														
May 2021 Additional Site Assessment																		
SED-6	AEI 1	5/4/2021	1.0	< 0.0144	< 0.0144	< 0.0144	< 0.0144	< 0.0144	< 0.0144	< 0.0144	< 0.0144	0.0118	0.00846	0.00784	< 0.0144	0.0252	0.0130	0.0126
SED-7	AEI 1	5/4/2021	1.0	0.00498	0.00513	0.00552	0.00922	0.0238	0.00746	0.0195	0.00523	0.00858	0.0235	0.0127	0.0229	0.0189	0.0138	0.0138
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation				350,000	NS	21	2.1	21	210	2,100	2.1	NS	NS	30,000	21	23	NS	23,000
Occupational Construction Worker				110,000	NS	170	17	170	1,700	17,000	17	NS	NS	10,000	170	580	NS	7,500
Excavation Worker				>Max	NS	4,800	490	4,900	49,000	490,000	490	NS	NS	280,000	4,900	16,000	NS	210,000
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air				>Max	NS	>Csat	NV	NV	NV	NV	NV	NS	NS	NV	NV	83	NS	>Max
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings				>Max	NS	>Csat	NV	NV	NV	NV	NV	NS	NS	NV	NV	83	NS	>Max
Oregon DEQ RBC ¹ - Leaching to Groundwater				>Csat	NS	>Csat	>Csat	>Csat	>Csat	>Csat	>Csat	NS	NS	>Csat	>Csat	0.34	NS	>Csat
DEQ Clean Fill Screening Levels ²				6.8	120	0.73	0.11	1.1	11	3.1	0.11	11	25	10	1.1	0.077	5.5	10
EPA Regional Screening Level (HQ = 0.1, Target Risk 10 ⁻⁶) ³				NS	NS	NS	NS	NS	NS	NS	NS	226	NS	NS	NS	NS	NS	NS
Oregon DEQ Eco Risk ⁴ - Sediment				57	160	32	32	NS	27	57	33	NS	300	111	17	176	42	53

Bold text, if present, indicates an exceedance of one or more of the cleanup levels. Values less than the regional background concentrations for metals or less than clean fill values are not bolded. In instances where a concentration exceeds clean fill criteria and a RBC value, the respective cleanup value is also bolded. US Environmental Protection Agency (EPA) regional screening levels (RSL) are provided when RBCs are not set. RSL values assume a hazard quotient (HQ) of 0.1, target risk 10⁻⁶.

>MAX: The RBC for this pathway is greater than 1,000,000 mg/kg. This substance is not deemed to pose a risk in this scenario.

NS: not set for this analyte

NV: compound not volatile so pathway is not valid

*: Leaching-to-groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed.

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

²Oregon Department of Environmental Quality (DEQ) Clean fill screening levels for organics and other selected constituents.

³United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) - Generic Tables

⁴Oregon DEQ Guidance for Ecological Risk Assessment Levels I, II, III, IV, April 1998, rev. December 2001, Table 2.

See laboratory report for full list of analytes.

mg/kg: milligrams per kilogram

bgs: below ground surface

<: not detected above the laboratory reporting limit

AEI: Area of Environmental Interest (See Figure 4 for locations)

TPH: total petroleum hydrocarbons

PAHs: polycyclic aromatic hydrocarbons

-: analyte not tested

> Csat: Soil RBC exceeds the limit of three phase equilibrium partitioning.

Appendix B

Previous Groundwater Analytical Information – Groundwater Analytical Tables

Table 10. Summary of Groundwater Analytical Results – TPH and VOCs

Table 11. Summary of Groundwater Analytical Results – PAHs and Pentachlorophenol

Table 12. Summary of Groundwater Analytical Results – PCBs and Formaldehyde

Table 10. Summary of Groundwater Analytical Results - TPH and VOCs
Former Shaniko Mill
40919 16th Street, Lyons, Oregon

40519 16th Street, Lyons, Oregon

Sample ID	Location	Sample Date	Depth to Water (feet bgs)	TPH			VOCs (detections only)								Metals (detections only)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				Gasoline	Diesel	Heavy Oil	1,2,3-Trimethylbenzene	Isopropylbenzene	Naphthalene	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloroform	Arsenic	Barium	Barium, Dissolved	Chloride	Chromium	Iron	Lead	Sodium	Sulfate	Zinc																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
January 2021 Site Assessment																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
B1-GW	AE1 1	1/4/2021	1.6	—	14,400	< 250	68.3	18.0	6.29	10.1	23.8	16.2	< 1.00	< 5.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

See Laboratory report for full list of analytes.
 µg/L: micrograms per liter
 bgs: below ground surface
 —: analyte not tested
 <S: not detected above the laboratory reporting limit
 >S: the groundwater RBC exceeds the solubility limit

Notes:
 Bold text: If present, indicates an exceedance of one or more of the cleanup levels.
 AE1: Area of Environmental Interest (See Figure 4 for locations)
 J: value is estimated
 NS: not set for this analyte
 NV: this chemical is considered nonvolatile for purposes of the exposure calculations
 TPH: total petroleum hydrocarbons

Additional Information:
 VOCs: volatile organic compounds
 I italicized text indicates that the sample is a duplicate of the sample of the same name
 Oregon Risk-Based Decision-Making for the Remediation of Petroleum-Contaminated Sites, Oregon DEQ Sept. 2003, Revised RBCs May 2018.

Table 11. Summary of Groundwater Analytical Results - PAHs and Pentachlorophenol
Former Shaniko Mill
40919 16th Street, Lyons, Oregon

Sample ID	Location	Sample Date	Depth to Water (feet bgs)	PAHs (detections only)								Pentachlorophenol (PCP)	
				1-Methylnaphthalene	2-Methylnaphthalene	Anthracene	Acenaphthene	Chrysene	Fluoranthene	Naphthalene	Phenanthrene		Pyrene
January 2021 Site Assessment													
B1-GW	AE1 1	1/4/2021	1.6	93.7	112	< 0.0500	11.3	0.0949	0.674	23.8	7.90	4.55	--
B3-GW	AE1 1	1/4/2021	0.7	--	--	--	--	--	--	--	< 5.00	--	--
B4-GW	AE1 2	1/5/2021	2.1	< 0.250	< 0.250	< 0.0500	< 0.0500	< 0.0500	< 0.100	< 0.0500	< 0.250	< 0.0500	--
B6-GW	AE1 3	1/4/2021	1.7	--	--	--	--	--	--	--	--	--	--
B5-GW	AE1 3	1/6/2021	2.8	--	--	--	--	--	--	--	--	--	--
B7-GW	AE1 4	1/6/2021	2.2	--	--	--	--	--	--	--	--	--	--
B8-GW	AE1 5	1/4/2021	1.8	--	--	--	--	--	--	--	--	--	--
B9-GW	AE1 6	1/6/2021	1.0	--	--	--	--	--	--	--	--	--	--
B10-GW	AE1 9	1/7/2021	2.3	--	--	--	--	--	--	--	--	--	--
B10-GW DUP	AE1 9	1/7/2021	2.3	--	--	--	--	--	--	--	--	--	--
B11-GW	AE1 9	1/6/2021	2.3	--	--	--	--	--	--	--	--	--	--
B12-GW	AE1 9	1/6/2021	1.1	< 0.250	< 0.250	< 0.0500	< 0.0500	< 0.0500	< 0.100	< 0.0500	< 0.250	< 0.0500	< 10.0
B14-GW	AE1 12	1/7/2021	1.1	< 0.500	< 0.500	< 0.100	< 0.100	< 0.100	< 0.200	< 0.100	< 0.500	< 0.100	< 10.0
B15-GW	AE1 12	1/5/2021	2.1	< 0.250	< 0.250	< 0.0500	< 0.0500	< 0.0500	< 0.100	< 0.0500	< 0.250	< 0.0500	< 10.0
B16-GW	AE1 13	1/7/2021	0.5	< 0.250	< 0.250	< 0.0500	< 0.0500	< 0.0500	< 0.100	< 0.0500	< 0.250	< 0.0500	< 10.0
B20-GW	AE1 13	1/6/2021	1.0	--	--	--	--	--	--	--	--	--	< 10.4
B23-GW	AE1 1	1/4/2021	1.8	< 0.250	< 0.250	< 0.0500	< 0.0500	< 0.0500	< 0.100	< 0.0500	< 0.250	< 0.0500	--
B24-GW	AE1 8	1/7/2021	0.8	--	--	--	--	--	--	--	--	--	--
May 2021 Additional Site Assessment													
TP30-GW	AE11	5/3/2021	8.0	156	187	2.79	12.6	0.148	1.17	27.5	82.2	4.78	--
TP38-GW	AE19	5/5/2021	7.5	< 0.0687	< 0.0674	0.0196 J	< 0.0500	< 0.0500	< 0.100	0.0169	< 0.250	< 0.050 J	--
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation from Tapwater				NS	NS	>S	2,500	NV	>S	1,300	0.72	NS	>S
Oregon DEQ RBC ¹ - Volatilization to Outdoor Air				NS	NS	>S	>S	NV	NV	>S	16,000	NS	NV
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings				NS	NS	>S	>S	NV	NV	>S	11,000	NS	NV
Oregon DEQ RBC ¹ - GW in Excavation				NS	NS	>S	>S	>S	>S	>S	500	NS	>S
Oregon DEQ RBC ¹ - Construction & Excavation Worker				NS	NS	>S	>S	>S	>S	>S	500	NS	>S

See laboratory report for full list of analytes.

µg/L: micrograms per liter

bgs: below ground surface

--: analyte not tested

<: not detected above the laboratory reporting limit

>S: the groundwater RBC exceeds the solubility limit

AE1: Area of Environmental Interest (See Figure 4 for locations)

Bold text: If present, indicates an exceedance of one or more of the cleanup levels.

NS: not set for this analyte

NV: this chemical is considered nonviable for purposes of the exposure calculations

PAHs: polycyclic aromatic hydrocarbons

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

Table 12. Summary of Groundwater Analytical Results - PCBs and Formaldehyde
Former Shaniko Mill
40919 16th Street, Lyons, Oregon

Sample ID	Sample Date	Depth to Water (feet bgs)	All PCBs	Formaldehyde
			µg/L	
B4-GW	1/5/2021	2.1	ND	--
B15-GW	1/5/2021	2.1	--	< 40
Oregon DEQ RBC ¹ - Ingestion, Dermal Contact, & Inhalation from Tapwater		Occupational	0.028	1.0
Oregon DEQ RBC ¹ - Volatization to Outdoor Air		Occupational	>S	8,500,000
Oregon DEQ RBC ¹ - Vapor Intrusion into Buildings		Occupational	>S	8,500,000
Oregon DEQ RBC ¹ - GW in Excavation		Construction & Excavation Worker	30	1,300

µg/L: micrograms per liter

bgs: below ground surface

--: analyte not tested

>S: the groundwater RBC exceeds the solubility limit

ND: analyte not detected

PCBs: polychlorinated biphenyls

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

Appendix C

Previous Soil and Groundwater Analytical Information – Laboratory Reports

January 2021 Site Assessment Reports

May 2021 Additional Site Assessment Reports

June 2022 Remedial Action Reports

**HARD COPIES NOT INCLUDED
SEE DIGITAL COPY FOR LABORATORY REPORTS**

EXHIBIT C

Drinking Water Well Sampling and Analysis Plan





September 23, 2022

Nancy Sawka, RG
Oregon Department of Environmental Quality
4026 Fairview Industrial Drive SE
Salem, Oregon 97302

Via email: sawka.nancy@deq.state.or.us

Regarding: Drinking Water Well Sampling and Analysis Plan
Former Shaniko Lumber Property
40919 16th Street
Lyons, Oregon
ECIS# 2387
PBS Project 22925.001, Phase 0004, Task 006

Dear Ms. Sawka:

PBS Engineering and Environmental Inc. (PBS) has prepared this workplan on behalf of Sierra Cascade Forest Products (SCFP) to the Oregon Department of Environmental Quality (DEQ) for completing annual water well testing at the former Shaniko Lumber Property in Lyons, Oregon (Site). This workplan presents the procedures that will be followed, analyses that will be completed, and the anticipated schedule. The scope of work presented herein is intended to satisfy the requirements established in the Prospective Purchaser Agreement (PPA) Scope of Work (SOW) document completed by DEQ dated September 22, 2021.

BACKGROUND

SCFP intends to use the Site for manufacturing seasonal forest products. SCFP initially expects approximately 50 employees but has plans in the future to potentially expand on-site operations. A water well (LINN1542) is located on the site, and SCFP intends to repair the water well and use it for drinking water and restroom facilities. Consumption from the well is not anticipated to exceed the 5,000 gallons per day (gpd) exempt water use criteria for commercial and industrial properties. If greater than 5,000 gpd is anticipated, SCFP will procure water from another source or will apply for a water right permit and certificate.

The well requires a new pump and filtration equipment to make it operable. Once the well has been repaired, it will be sampled to confirm the water meets applicable Oregon Health Authority (OHA) requirements and is absent of contaminants of concern, as defined by DEQ, to ensure the water is safe for human consumption.

WELL SAMPLING PROCEDURES

Water samples will be collected from a sampling port installed at the well head, following filtration. If the well head is not accessible, the sample will be collected from a non-swivel faucet commonly used for drinking water. The sampler will remove any screens, aerators, or other attachments and clean the tap with alcohol or a sanitizing wipe prior to sampling.

The tap will be allowed to run for three to five minutes before sampling at the well head to obtain fresh water from the formation. The well pump will typically turn on once the pressure vessel float valve reaches a certain level

to begin pumping fresh formation water into the well system. A temperature change may also accommodate fresh water depending on the season and external air temperature. If a sample is being collected from a faucet located away from the well head, additional purging will be completed until fresh formation water is being discharged at the sample point.

Prior to sample collection, the sampler will don new nitrile disposable gloves. For sampling, the tap may be turned down to reduce flow rate to allow for sample collection and minimize spillage. The sampler will collect samples into laboratory-provided bottles and glassware, being careful not to touch the lip or inside of the bottle to the sampling tap. The sampler will also be careful not to spill or overtop the bottles to not discard any sample preservative that may be in the container.

For fecal coliform, the sampler will fill the sample bottle past the 100-milliliter (mL) fill line but not past 120 mL. If there are no fill lines, at least 1-inch of headspace will be left in the bottle.

For volatile organic compounds (VOCs), samples will be collected into 40-mL volatile organic analysis (VOA) vials with no headspace to eliminate the loss of volatiles.

SAMPLING ANALYSIS

Per OHA Well Testing and Regulations, water samples will be analyzed for the following:

- Total Coliform Bacteria (E coli)
- Arsenic
- Nitrate

Additionally, per DEQ site requirements, water samples will also be analyzed for the following:

- Diesel- and residual-range hydrocarbons by Northwest Method Total Petroleum Hydrocarbons (NWTPH-Dx)
- VOCs by Environmental Protection Agency (EPA) Method 8260
- Polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270 SIM

All samples will be collected in laboratory-supplied containers and labeled with the well ID, date, and time of collection. Samples will be placed on ice in a cooler and transported to an analytical testing laboratory within 24 hours, with chain-of-custody documentation. Analyses will be conducted under normal turnaround time.

SAMPLING SCHEDULE

Per DEQ and OHA requirements, the water well will be sampled annually.

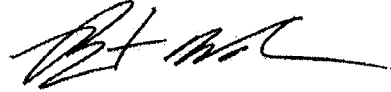
REPORTING REQUIREMENTS

Upon receiving final laboratory analytical testing reports, PBS will prepare an electronic copy of its report that will include a description of field activities, a table of analytical results, figures, and the laboratory report. A copy of the test results will be mailed to the OHA Drinking Water Program and DEQ.

APPROVAL

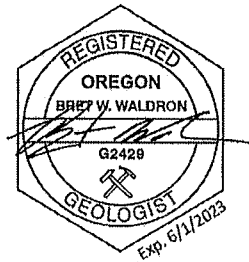
Please feel free to contact me at 503.935.5514 or bret.waldron@pbsusa.com with any questions or comments.

Sincerely,



Digitally signed by Bret Waldron
Date: 2022.09.23 15:57:01 -07'00'

Bret Waldron, RG
Senior Geologist



cc: Will Payne and Chris Sevilla – Sierra Cascade Forest Products

Attachment(s):

Well Log

Figure 1: Vicinity Map

Figure 2: Site Plan

Figure 3: Detailed Site Plan

BW:tl

RECEIVED

LINN
1542

9/26/1992

STATE OF OREGON

WATER WELL REPORT

(as required by ORS 537.765)

JUN 18 1992

(START CARD) # 43731

(1) OWNER:

Well Number 92-21
 Name BURKLAND WESTGULF LUMBER INC.
 Address 5255 Chicago Street
 City Turner State OR Zip 97392

(2) TYPE OF WORK:

☒ New Well ☐ Deepen ☐ Recondition ☐ Abandon

(3) DRILL METHOD:

☒ Rotary Air ☐ Rotary Mud ☐ Cable
☐ Other

(4) PROPOSED USE:

☐ Domestic ☐ Community ☐ Industrial ☒ Irrigation
☐ Thermal ☐ Injection ☐ Other

(5) BORE HOLE CONSTRUCTION:

Special Construction approval ☐ Yes ☒ No Depth of Completed Well 135 ft.
 Explosives used ☐ Yes ☒ No Type _____ Amount _____

HOLE			SEAL			Amount sacks or pounds
Diameter	From	To	Material	From	To	
10"	0	23	Cement grt.	0	23	17 sacks
6"	23	140				

How was seal placed: Method ☐ A ☐ B ☒ C ☐ D ☐ E
☐ Other

Backfill placed from 135 ft. to 140 ft. Material Native slough

Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing: 6"	+1	100	250	☒	☐	☒	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
Liner: 5"	75	135	160	☐	☒	☒	☐
				☐	☐	☐	☐

Final location of shoe(s) 5 5/8" I. D. shoe at 100 feet

(7) PERFORATIONS/SCREENS:

☒ Perforations Method PVC skillsaw, & rotary
☐ Screens Type SDR 26 Material PVC & steel

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
85	97	1/4"	240	1 1/2"		☒	☐
95	135	1/8"	120	6"	5 1/4"	☐	☒

(8) WELL TESTS: Minimum testing time is 1 hour

☐ Pump ☐ Bailer ☒ Air ☐ Flowing
☐ Artesian

Yield gal/min	Drawdown	Drill stem at	Time
			1 hr.
50	40 feet	130 feet	2 hrs.

Temperature of Water 49° Depth Artesian Flow Found _____

Was a water analysis done? ☐ Yes By whom _____

Did any strata contain water not suitable for intended use? ☐ Too little

☐ Salty ☐ Muddy ☐ Odor ☐ Colored ☐ Other _____

Depth of strata: _____

(9) LOCATION OF WELL by legal description:

Township 9 N or S Range 2 E or W. WM.
 Section 19 SE 1/4 SE 1/4
 Tax Lot _____ Lot _____ Block _____ Subdivision _____
 Street Address of Well (or nearest address) 18th & Main Street
Lyons, OR. 97358

(10) STATIC WATER LEVEL:

70 ft. below land surface. Date 6/12/92
 Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:

Depth at which water was first found 42'

From	To	Estimated Flow Rate	SWL
40	44	10	42'
88	95	15	70'
107	130	40	70'

(12) WELL LOG:

Ground elevation 725

Material	From	To	SWL
Gravel boulders clay fill	0	3	
Clay & cobbles sandy	3	5	
Boulders gravel & sand br.	5	8	
Gravel cobbles loosely cemented	8	11	
Gravel & sand w/cobbles	11	15	
Sand br. w/gravel	15	18	
Clay brown w/cobbles	18	29	
Gravel cobbles loosely cemented	29	33	
Boulders cobbles & gravel	33	36	
Cobbles gravel sandy losly cem.	36	44	42'
Clay brown w/claystone brown	44	53	
Clay blue firm w/boulders	53	55	
Clay blue firm w/gravel & bould.	55	78	
Clay sandy black w/gravel sm.	78	82	
Claystone gray w/gravel	82	88	
Gravel med. w/sand blk. med-coa.	88	95	70
Clay gray sandy w/gravel loose	95	98	
Claystone blue sandy w/boulders			
gravel & cobbles	98	102	
Gravel & sand loosely cemented	102	105	
Clay gray wstreaks of claystone	105	107	
Gravel cobbles & boulders loos-	107	115	70'

Date started 6/10/92 Completed 6/12/92

(unbonded) Water Well Constructor Certification:

I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon well construction standards. Materials used and information reported above are true to my best knowledge and belief.

Signed _____ WWC Number _____
 Date _____

(bonded) Water Well Constructor Certification:

I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon well construction standards. This report is true to the best of my knowledge and belief.

Signed Mack Drilling Co. WWC Number 1394
 Date 6/15/92

ORIGINAL & FIRST COPY - WATER RESOURCES DEPARTMENT

SECOND COPY - CONSTRUCTOR

THIRD COPY - CUSTOMER

9809C 10/91

