Krazan &ASSOCIATES, INC.

GEOTECHNICAL ENGINEERING • ENVIRONMENTAL ENGINEERING
CONSTRUCTION TESTING & INSPECTION

Soil Management Plan
(SMP)

For
Les Schwab – Yakima West New Construction
Project Number: 064-22024
Construction General (Building) Permit #B231037

Prepared For
Les Schwab Tire Centers
20900 Cooley Road
Bend, OR 97701
(541) 416-5342

Owner/Developer	**Contractor**
Les Schwab	TBD

Project Site Location
6809 West Nob Hill Boulevard
Yakima, Washington 98908

Soil Management Plan- Prepared By
Krazan & Associates of Washington, Inc. dba Krazan & Associates, Inc.
825 Center Street, Ste A
Tacoma, Washington
(253) 939-2500

SMP - Preparation Date
April 2nd, 2024

Approximate Project Construction Dates
January 2024 – Anticipated Commencement
September 2024 – Approximate Completion

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April 2, 2024 Project No. 064-22024

SOIL MANAGEMENT PLAN
Les Schwab – Yakima West
6809 W Nob Hill Boulevard
Yakima, Washington 98908

1.0 INTRODUCTION

On behalf of Les Schwab Tire Centers, Krazan & Associates of Washington, Inc. dba Krazan and Associates, Inc. (Krazan) has prepared this Soil Management Plan (SMP) to provide specific requirements for remediation of soils exhibiting elevated concentrations of arsenic (As) and lead (Pb) in the soils at the referenced property (subject site) located at 6809 West Nob Hill Boulevard, Yakima, Washington (see Figure 1).

1.1 Site Location and Description

The subject site currently consists of the southwest portion of Yakima County parcel number (APN) 18132914416, and contains 1.5-acres of relatively flat vacant grassland. No structures or hard surfaces currently exist on-site. The property is bordered by vacant grassland and Congdon Residential apartment housing to the north, West Nob Hill Boulevard to the south, West Valley Church to the west, and vacant grassland to the east. See Figures 1 and 2 for Vicinity and Site Maps.

Krazan understands that the planned development of the site will primarily focus on the construction of a new Les Schwab Tire Center facility, associated parking areas, additions and improvements of access points, and supporting infrastructure (Figure 5).

The subject site is currently mapped by the Washington State Department of Ecology's (WDOE) publication *Model Remedies for Cleanup of Former Orchard Properties in Central and Eastern Washington, Sampling and Cleaning Up Arsenic- and Lead-Contaminated Soils* (Former Orchards Guidance), published by the Toxics Cleanup Program in July 2021. The interactive Dirt Alert web application designates the subject site as lying within the footprint of a former orchard that was active during the era when lead arsenate was used as a pesticide and therefore, there is a high probability this location has elevated concentrations of lead and arsenic in the surface soils. Les Schwab Tire Centers requested this SMP to provide soil management procedures to the grading contractor during the

construction phase of the project. Additional site background information, regarding recent site characterization soil sampling, is summarized below.

1.2 Purpose

The objective of this SMP is to provide guidance for chosen remedial action and to mitigate exposure pathways of arsenic concentrations present in the soil matrices at the subject site, consistent with the Former Orchards Guidance. The goal of remedial actions is to prevent human exposure to soil exceeding the Washington State Model Toxics Control Act (MTCA) Method A cleanup levels (CULs) for arsenic and lead at the subject site.

2.0 CHARACTERIZATION SOIL SAMPLING

2.1 Initial Determination Sampling – December 2021

Review of historical assessor records, business directories, and aerial photographs indicate that the subject site was used for agricultural purposes from at least 1938 thru 2019. The site was reportedly used as an apple orchard from 1938 thru 1996, then utilized for alfalfa production from 1996 thru 2019. Based on the documented environmental issues on adjacent properties and the similar historical land uses, six (6) shallow near-surface soil samples were collected for analysis of arsenic, lead, and dichlorodiphenyldichloroethylene (DDE) at various locations throughout the subject site as part of an initial determination and Phase I environmental site assessment (ESA, Krazan 2022). Soil sample analytical results revealed elevated concentrations of arsenic and lead above MTCA Method A soil cleanup levels for all six samples. DDE concentrations did not exceed the MTCA Method B soil cleanup level for direct contact.

2.2 Site Characterization Sampling Report – January 2023

Subsequent to the sampling associated with the Phase I ESA, Krazan conducted a site characterization (Krazan 2023), which included ten (10) additional soil samples for analysis of arsenic and lead collected from 0-6 inches below ground surface (bgs), based off of sampling minimums provided in Table 3 of the Former Orchards Guidance. All ten samples were above MTCA Method A cleanup levels for both lead and arsenic. Laboratory results identified average concentrations of arsenic at 47.96 milligrams per kilogram (mg/kg) and lead at 588.60 mg/kg, above regulatory limits of 20.0 mg/kg and 250 mg/kg respectively. See Appendix A for the Site Characterization Sampling Report, dated January 3, 2023.

The Former Orchards Guidance provides model remedies to address arsenic and lead contamination in soils. The guidance provides both permanent and non-permanent remedies, allowing property owners to

address contamination and meet overall project goals. The options for model remedies and the remedy chosen are discussed below.

3.0 MODEL REMEDY ACTION OPTIONS

3.1 Model Remedy Options

The Former Orchards Guidance provides the following remedial options for sites with average arsenic concentrations exceeding 30 mg/kg of arsenic and/or exceeding 350 mg/kg of lead:

- **Option 1: Excavation and Removal**
  - A permanent remedy involving the excavation and disposal of on-site contaminated soils including compliance sampling of excavated areas.

- **Option 2: Capping in Place**
  - A non-permanent remedy that involves covering contaminated soils with a marker material, soil cap, hard cap, or a combination of the two, and requires ongoing institutional controls and monitoring.

- **Option 3: Consolidate and Cap**
  - A non-permanent remedy involving the excavation and consolidation of contaminated soils into a designated area of the property and then placing that area under a hard or soft cap.

At of the writing of this SMP, the chosen method has been determined to be Option 2: Cap in Place only, utilizing both hard and soft (soil) methods, per the WDOE's Former Orchards Guidance.

It is important to note that, if applicable, all excavated contaminated soils need sampling and analysis conducted, regardless of model remedy, if removed for disposal. If applicable, all imported soils for use on the site will need compliance sampling and analysis to confirm that they are beneath MTCA Method A cleanup levels, both when imported and following placement.

3.2 Selected Subject Site Model Remedy

Following the review of the options and cost benefit evaluation for implementation of each option, Les Schwab Tire Centers and its design team, Cushing Terrell, have elected to use the Cap in Place remediation options, utilizing a mix of hard and soft (soil) caps based on current and future use (Figure 4). Detailed procedures for the remediation option are presented in Section 6.0.

4.0 POLLUTION PREVENTION CONTROLS

Notification of this SMP to personnel whose duties have the potential to disturb on-site soils is the best way to prevent inadvertent worker exposure, destruction of protective barriers, or offsite migration of impacted soils. According to the Former Orchards Guidance, the following pollution prevention controls should be implemented for all remedy options.

4.1 Fugitive Dust Control

During excavation and grading operations on the subject site, dust control measures are required to prevent migration of contaminated soils and potential contamination of adjacent or vicinity properties. Dust control can be achieved by using water to wet the soils to limit entrainment in the air. The implementation of the dust control measures should be the responsibility of the project general contractor, earthwork contractor(s), or other contractor as directed by Les Schwab Tire Centers or Cushing Terrell. Dust control measures may not be necessary if grading or other earthwork occurs during wet months; however, if visible dust is present, dust control measures must be implemented. Dust control measure should be incorporated and defined in applicable permits as specified under local and state regulations. In Yakima County, fugitive dust associated with construction projects is regulated by the Yakima Regional Clean Air Agency under the authority of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations.

4.2 Erosion Control

Erosion control measure should be installed if contractors plan to store soil until it can be removed, mixed, consolidated, or worked in general. Where applicable, stockpiles should be covered to prevent runoff and erosion control devices installed to keep soils and water from leaving the subject site. The earthwork contractor, or other contractor as directed by Les Schwab Tire Centers or Cushing Terrell, should be responsible for implementing erosion control measures. Erosion control measures should be defined in the grading permit and should follow the recommendations as outlines in the subject site-specific stormwater pollution and prevention plan (SWPPP).

4.3 Stormwater Control

A construction stormwater general permit (CSWGP) will be required for the subject site due to soils on-site that are being disturbed are over one (1) acre in size. The CSWGP should be procured prior to implementing the selected cleanup action for the subject site. Procedures follow the recommendations as outlines in the subject site-specific SWPPP.

5.0 WORKER PROTECTIONS

The earthwork contractor or general contractor will need a plan in place to protect workers from arsenic- and lead-contaminated soils on the subject site that meet the Washington State Department of Labor and Industries Division of Occupational Safety and Health (L&I) requirements under WAC Chapter 296-848.

In accordance with the requirements of the L&I regulation WAC 296-843, a site-specific health and safety plan will be prepared under a separate cover prior to the commencement of site work. Policies and procedures should follow the recommendations as outlined in Section 5.1 of Krazan's site-specific Operations and Maintenance Plan for Management of Arsenic & Lead Contaminated Soils (O&M Plan), dated January 22nd, 2024.

Notification of this SMP and the O&M Plan to personnel whose duties have the potential to disturb on-site soils is the best way to prevent inadvertent worker exposure, destruction of protective barriers, or offsite migration of impacted soils.

6.0 REMEDIATION AREAS AND PROCEDURES

The following sections present requirements for the Cap in Place remedy per the Former Orchards Guidance. Table 1 summarizes the chosen remedial option in terms of permanence, criteria for use at the subject site, and compliance requirements.

Table 1
Remedial Option Summary

Remedy	Permanency	Areas for Subject Site Use	Compliance Requirements
Cap in Place	Non-permanent	All areas exhibiting concentrations of arsenic and lead above cleanup levels after earthwork and grading have occurred are to be covered by either or combination of: • (hard) structures, pavement, and impermeable coverings. • (soft) soils, rock/gravel, sand, organic materials, and permeable coverings.	1. Voluntary Cleanup Program (VCP) Admission; see Appendix B for VCP supporting documentation. 2. Environmental Covenant designation. 3. Monitoring and maintenance of cap in place materials. Inspection of cap at least once every year, preferably semi-annually. Maintenance may include replenishing of (soft) cap materials and/or repair of (hard) cap surfaces.

6.1 Excavation Areas and Grading Procedures

Construction grade will consist of establishing the elevation upon which to place permanent features, including lot base, subgrade for building footings, etc. This task is considered gross site grading. Site buildings are designed to be slab-on-grade. The earthwork contractor shall follow the project SWPPP including handling soils with sufficient moisture to prevent airborne dust and shall follow WDOE guidance for working in former orchard soils when completing handwork. To the extent feasible, the contractor will minimize the handling of site soils during gross grading. Mixing of soils during gross grading is not a concern for this project.

Some materials may be found to be unsuitable for compaction beneath site structures or other features and can only be used beneath non-structural features, such as landscape or sod areas. Also, any installation or maintenance to subsurface water lines, stormwater, or other applicable utility at the site, by maintenance or other workers/contractors, may result in excess soils that require offsite disposal. Should export be determined to be necessary, the steps identified in Section 7.2 shall be followed. To the extents feasible, all gross grading of contaminated soils should be completed prior to application of final cover. Segregation of residual onsite soils from imported clean soils, if applicable, will be required to be documented by the contractor throughout the project.

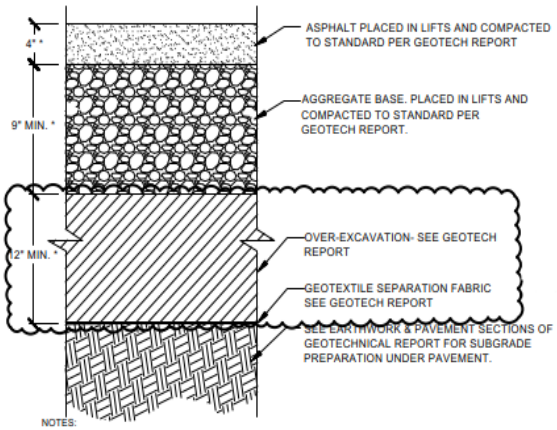
6.2 Capping in Place

As indicated in Figure 4, the subject site area will utilize the cap in place remedy including a combination of both hard and soft (soil) cap methods. According to the Former Orchards Guidance, Type 1 (soft/soil) capping methods may be used only when average concentrations of arsenic are <100 mg/kg and lead are <500 mg/kg or when maximum concentrations of arsenic are <200 mg/kg and lead are <1,000 mg/kg. Type 2 (hard) capping methods may be used an any level of contamination. The subject site characterization sampling results, see Appendix A, fall below the maximum concentrations of arsenic and lead and therefore Type 1 and Type 2 soft (soil) caps can be utilized in the landscaping areas of the subject site in conjunction with Type 2 (hard) caps on the remaining majority of the subject site.

Soil and Landscaping Soft Caps: Soil caps must meet MTCA cleanup standards for arsenic and lead. Up to 6 inches of landscaping materials can be used to provide the soil cap; however, 4 inches of mechanically-compacted gravel is also acceptable. Soft cap Materials must meet state cleanup levels for arsenic and lead, otherwise, recontamination of the property could occur. Per Cushing Terrell's *L100 and C400 Landscaping and Subgrade Site Plans*, all soft cap landscaping areas will utilize imported soils ranging from depths of 6 inches to 18 inches depending on landscape type area, overlaying a 9-inch compacted aggregate base.

Geotextile: A bright color geotextile, often orange, should be utilized in order to warn future property users and to provide and indicator of soft cap erosional processes. The geotextile product should be non-biodegradable, of sufficient thickness and durability for soil conditions to remain intact, and permeable enough to allow water to pass through while limiting upward movement of contamination. If a minimum of 18 inches of clean soil/material is used as a cap, marker material is not necessary.

Hard Caps: Buildings, pavements, and other associated structures or infrastructure are considered Type 2 hard caps. The hard cap must be at least 3 inches thick. Per Cushing Terrell's *C100 and C400 Construction and Subgrade Site Plans*, all hard cap concrete and asphalt areas will utilize compacted imported soils ranging the depth of 25 inches below final ground surface in asphalted areas, see *Detail 1*, to 27 inches below final ground surface in concrete paved areas, see *Detail 2*, with a 9-inch compacted aggregate base followed by either 4 inches of compacted asphalt or 6 inches of poured concrete.



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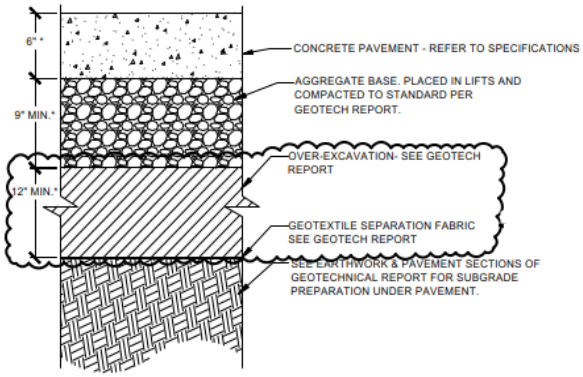

2 HEAVY DUTY CONCRETE PAVEMENT

As part of documenting the cap in place process, Form 5 from the Former Orchards Guidance document should be completed as a record of capping procedures and methods, including type of cap utilized, cap depth, and of geotextile use and overlap for the informational purposes of future property owners. Form 5 has been included in the Regulatory Guidance Forms as part of Appendix D.

6.3 Protective Barrier Inspection Procedure

To maintain the subject site hard and soft cap areas and prevent future exposure, regular inspection procedures must be performed to ensure the protective barriers remain intact for the duration of the site's current operations. The following contains protective barrier summary information and suggested inspection schedule, procedures, and associated responses that may be useful in assuring that protective barriers remain effective.

The largest portion of arsenic and lead-containing soils designated over MTCA Method A CULs on site will be covered with impermeable, hard cap, surfaces such as the building footprint, asphalt parking area, accesses, easements, and concrete ancillary features underlain by compacted gravel. The next largest portion of the subject site will be covered with permeable surfaces consisting of geotextile type fabric overlain by 12 inches to 18 inches of clean soil and stone mulch landscaping, used near parking areas and near the sloped property perimeter. Grass areas will be constructed with a minimum of 6 inches of clean soil overlain with 2-inches of grass or rock mulch landscaping material (totaling 8 inches).

6.3.1 Inspection Schedule

Protective barriers should ideally be visually inspected semi-annually and at least annually, preferably in the spring to verify that damage has not occurred during the winter and in the fall to assure that barriers are in good condition before winter storms commence. See Appendix C for the standard Semi-Annual Protective Barrier Inspection Form.

6.3.2 Impermeable Asphalt and Concrete Surfaces (Hard Cap)

Inspections of asphalt and concrete surfaces should be conducted to detect any signs of significant damage, such as cracks, voids, gouges, or other breaches that may lead to exposure to impacted soils.

- Minor surface imperfections, defined as routine surface cracking that does not penetrate the depth of the asphalt or concrete, does not require repair.
- Moderate surface imperfections, defined as visual exposure to underlying clean crushed gravel or soil, should be repaired before the following winter season.
- Significant surface imperfections, defined as exposure of the underlying soil below the underlying crushed gravel or soil, should be repaired as soon as feasible.

6.3.3 Permeable Engineered Landscaping Areas (Soft Cap)

Permeable surfaces at the site are comprised of landscaping areas with rock and geotextile coverings and grassy or other vegetated areas. This section contains suggested inspection procedures for the protective

barriers and associated responses of engineered landscaping areas. Near-surface (less than 4-inches deep) landscaping can be replaced as needed, while planting at depths greater than 4-inches should be maintained as originally placed. If replacement of deeper planting is necessary, the work procedures outlined in Section 5.0 should be followed. Hand cultivation is recommended for landscape areas, and activities such as rototilling or soil relocation that disturb materials at depths greater than 4-inches are prohibited.

Inspect permeable features for damage to overlying sod, bark, or rock, and underlying geotextile or clean soil materials. Inspect the landscaped area for indications of damaged sod materials or areas with dying vegetation. Inspect the overlying gravel and rock areas for indications of uneven distribution or material migration/erosion that could potentially result in exposure of underlying materials. Classify damage, if identified, as minor, moderate, or significant using the following descriptions.

- Minor damage has less than 10 percent overall or less than 25-square feet in a localized area, provided the exposure to underlying soils is not present.
- Moderate damage lies between 10 and 20 percent overall or between 25 and 100-square feet in a localized area, or result in less than 10 percent overall or less than 25-square feet of exposure to the native soils underlying the 4-inches of topsoil.
- Significant damage has more than 20 percent overall or more than 100-square feet in a localized area, or results in more than 10 percent overall or more than 25-square feet of exposure to the native soils underlying the 4-inches of topsoil.

Damage, if present, should be repaired in conformance with the original construction detail and consistent with the following:

- Minor & Moderate damage should be replaced or repaired before the following winter season.
- Significant damage should be repaired as soon as feasible.

7.0 COMPLIANCE REQUIREMENTS

7.1 Compliance Sampling Procedures

Compliance sampling is not inherently required for the cap in place remedy option that has been chosen for the subject site which is treated as a single decision unit; however, composite sampling will be required of any on-site stockpiled imported soils that will be used. The number of composite samples required for on-site stockpiled imported soils is provided in Table 11 of the Former Orchards Guidance. Current estimations of 12 inches of import soil over the approximately 1.5-acre subject site constitutes a potential total of six (6) composite samples for the site. According to the Former Orchards Guidance, each

composite sample must consist of six subsamples mixed using the procedures outlined in the following paragraphs and be collected from approximately, equally-divided segments of the stockpile.

Composite soil samples will be collected using stainless steel tooling and each sample interval will be homogenized in stainless steel containers. Following mixing, the samples will be placed in clean glass sample containers provided by the accredited laboratory. Sample containers will then be placed in an iced cooler for transportation to the laboratory. The sampling instrument will be wiped between samples with a clean moist cloth and Alconox® (rinsate) wash solution to decontaminate the tool and minimize the potential cross contamination of subsequent samples. Data pertinent to each sample (e.g., date, sample number, material description, and material category) will be recorded on a chain-of-custody form. Soil samples will be submitted for laboratory analysis for arsenic and lead by EPA method 6020B.

7.2 Exporting On-Site Soil

If exporting of on-site soil from grading or any installation or maintenance to subsurface water lines, stormwater, or other applicable utility at the site, is determined to be necessary by the site earthwork or general contractor, soil analysis pursuant to methods in Section 7.1 must be followed. The earthwork or general contractor will need to confirm a landfill facility prior to exporting any soils, procure waste manifests with the facility, and soils must be delivered to an approved landfill facility conforming to WAC 173-303 and Yakima Health District regulations. Additional analytical testing, outside of compliance sampling per Former Orchards Guidance, may be required by the landfill facility including Toxicity Characteristic Leaching Procedure (TCLP) analysis.

7.3 Importing Soil

According to Former Orchards Guidance, any soil imported to the subject site, including when creating a soil cap or for landscaping use, must be sampled and analyzed to ensure it meets MTCA CULs. A total of three (3) composite samples consisting of three subsamples is required for each stockpile of imported soil. The samples will be collected and homogenized using procedures outlined in Section 7.1.

7.4 Monitoring and Maintenance Plans

The cap in place remedial option requires periodic monitoring and essential work practices as described in the Operations and Maintenance Plans (O&M Plan). Caps must be inspected, preferably semi-annually, but at least once every year. The cost of regular inspections and potential repairs should be factored into the O&M Plan. Maintenance may include replenishing soil (soft) cap areas or direct material repair of hard cap areas. Policies and procedures should follow the recommendations as outlined in Section 5.1 and

Section 6 of Krazan's site-specific Operations and Maintenance Plan for Management of Arsenic & Lead Contaminated Soils (O&M Plan), dated January 22nd, 2024.

7.4.1 Voluntary Cleanup Program and Environmental Covenant

Institutional controls are required if contaminated soils remain on the property as part of the chosen remedy. For the purpose of this model remedy, institutional controls are required for any cleanup remedy that caps contaminated soil on your property. Institutional controls restrict activities in areas with remaining contamination and they inform future property owners about contamination left on the property. They may also provide direction for regular maintenance and inspection of capped areas. The traditional form of institutional control is an environmental covenant (EC), but they can include any instrument that effectively limits disturbing capped areas and notifies all future landowners of the conditions found on your property.

Since arsenic and lead contamination will be left beneath the cap in place remedy, an EC with associated land use restrictions will need to be drafted in collaboration with the Washington Department of Ecology (WDOE), as part of the Voluntary Cleanup Program (VCP). An EC is the most effective institutional control available for this model remedy. Environmental covenants are the preferred institutional control for commercial properties using a capping remedy. To guarantee the ongoing maintenance of the protective barriers at the site, this EC will be recorded at the local auditor's office upon finalization of the project. Applicable VCP documentation for the site is included in Appendix B.

7.5 Decontamination Procedures

Decontamination is performed as a quality assurance measure and a safety precaution. Proper decontamination procedures prevent cross contamination between samples and help to maintain a safe working environment. The purpose of decontamination is to remove contaminated materials from personal protective equipment, field equipment, and sampling equipment prior to their removal from the subject site.

Decontamination of field equipment will be performed prior to beginning fieldwork and collecting each soil sample. Sampling equipment will be cleaned using an Alconox® (rinsate) wash and potable water rinse between uses, as needed. In addition, disposable nitrile glove will be replaced as needed and between collection of each sample.

Decontamination of grading, excavation, and other heavy equipment involved in earthwork will take place before initial use of the equipment on the subject site and following completion of the subject site. Decontamination of equipment used will include removal of all debris, using shovels and stiff bristled

brushes/brooms to achieve a debris clean surface on the equipment. Decontamination of equipment should be documented prior to shipment off the subject site and at any time the equipment is transported either on or off site.

7.6 Reporting

Following the completion of sampling activities, a report will be prepared to summarized the results of analysis conducted. The report will include a summary of fieldwork performed, scaled figures depicting adjacent and vicinity properties in relation to the subject site, a summary of sampling locations, descriptions of sampling methods and procedures used, tables of analytical results and comparisons to their respective MTCA CULs, and a summary of waste disposal activities, if any were performed.

8.0 MODIFICATIONS TO THE SMP

The provisions of this SMP may need to be amended, although this is not anticipated. If a change to the SMP becomes necessary, the proposed SMP modifications will be prepared by the property owner's environmental consultant in conjunction with advisors from the Toxics Cleanup Program (TCP) at the WDOE.

9.0 LIMITATIONS

The services described in this SMP will be performed consistent with generally accepted professional consulting principles and best management practices. Opinions and recommendations contained in this SMP apply to conditions existing when services were outlined and are intended only for the client, purposes, locations, time frames, and project parameters indicated as of the writing of this SMP. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. Krazan does not warrant the accuracy of information supplied by others, or the use of segregated portions of this SMP.

10.0 CLOSURE

Krazan appreciates the opportunity to be of continued service to you on this project. Should you have any questions regarding this report or other environmental aspects of the project moving forward, please feel free to reach out to us at your earliest convenience.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Jessep Englert, G.I.T
Field Geologist/Environmental Professional
Krazan & Associates

REFERENCES CITED

Cushing Terrell – *Landscape L100 Site Plan*, August, 25th, 2023

Cushing Terrell – *Construction C100 Site Plan*, August, 25th, 2023

Cushing Terrell – *Subgrade Construction C400 Site Plan*, August, 25th, 2023

Krazan & Associates, Inc. - *Krazan Phase I Environmental Site Assessment – Limited Soil Sampling* – January 3rd, 2022

Krazan & Associates, Inc. - *Krazan Site Characterization Report – Letter Report for Soil Sampling* - January 3rd, 2023

Washington Administrative Code (WAC) Chapter 173-303*, Dangerous Waste Regulations*

Washington Administrative Code (WAC) Chapter 296-848*, Department of Labor and Industries, Arsenic*

Washington Administrative Code (WAC) Chapter 296-843*, Department of Labor and Industries – Hazardous Waste Operations*

Washington Administrative Code (WAC) Chapter 173-350*, Solid Waste Handling*

Washington Administrative Code (WAC) Chapter 173-340*, Model Toxics Control Act – MTCA Cleanup Regulation*

Washington Department of Ecology*, Toxics Cleanup Program – Central Regional Office*

Washington Department of Ecology, Toxics Cleanup Program - *Model Remedies for Cleanup of Former Orchard Properties in Central and Eastern Washington – Sampling and Cleaning Up Arsenic and Lead Contaminated Soils* - July 2021

Source: Google Maps

VICINITY MAP	Scale: NTS	Date: Dec. 2022	Krazan SITE DEVELOPMENT ENGINEERS *Offices Serving the Western United States*
Les Schwab Yakima **Arsenic & Lead Soil Sampling** **6809 W Nob Hill Blvd** **Yakima, WA**	**Modified By:** JDE		
	Project No. 064-22024	**Figure No.** 1	

Source: Google Maps

SITE MAP	Scale: NTS	Date: Dec. 2022	Krazan SITE DEVELOPMENT ENGINEERS *Offices Serving the Western United States*
Les Schwab Yakima **Arsenic & Lead Soil Sampling** **6809 W Nob Hill Blvd** **Yakima, WA**	**Modified By:** JJK		
	Project No. 064-21024	**Figure No.** 2	

Figure 3 - Site Plan

Reference:

Google Earth.

LSWA_21YAKWEST LANDSCAPE STAMPED, *Site Plan, Cushing Terrell, October 27, 2023*

Krazan		
Project: Les Schwab Yakima West, 6809 West Nob Hill Blvd, Yakima, WA		
Date: January 2024	Project Number: 064-22024	
Drawn By: JDE	Not to Scale	Figure 3 Barrier Overlay Map

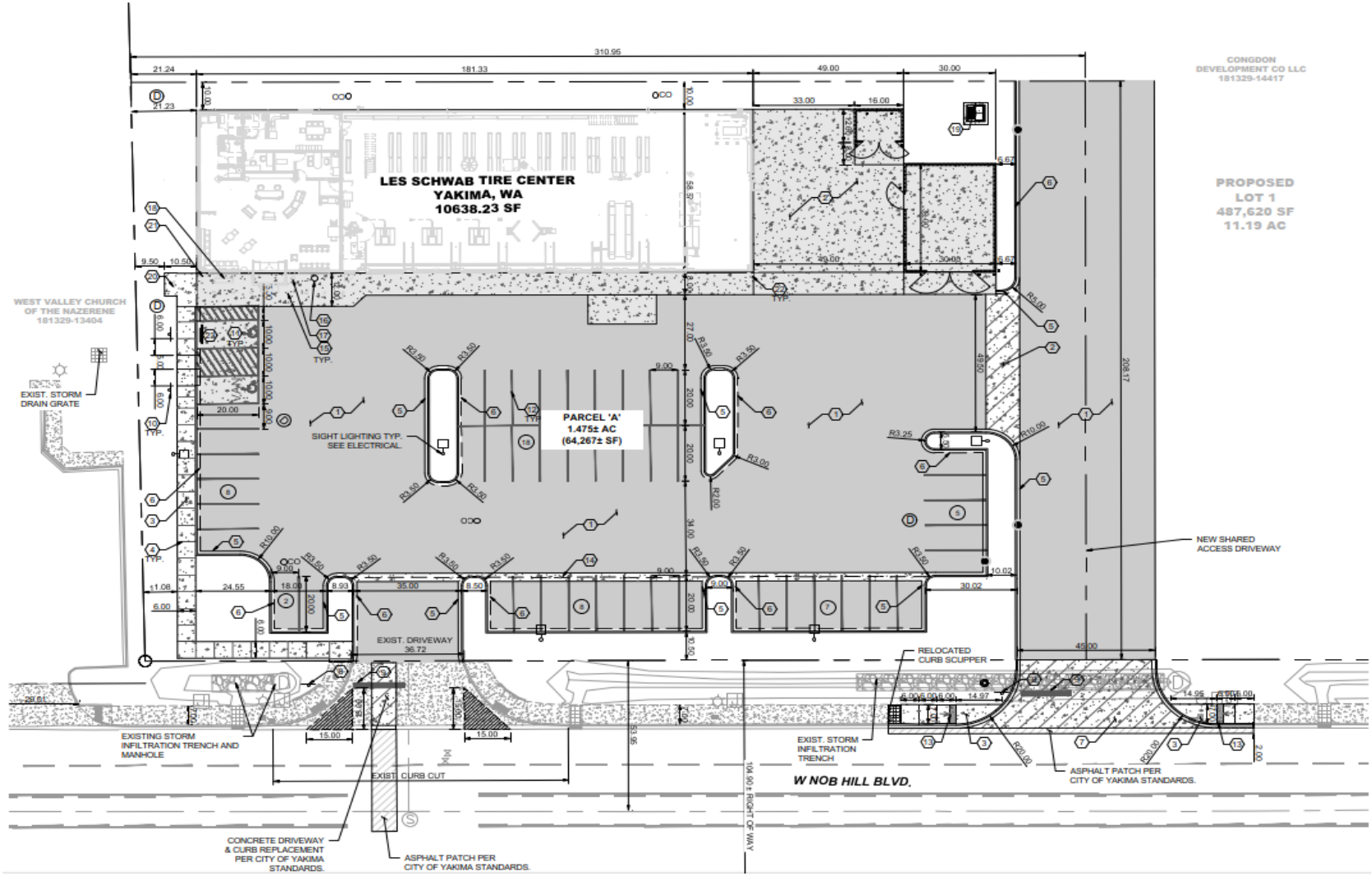

Figure 4 - Site Plan

Reference: Cushing Terrell - *Site Plan C100* - Otheim and Isackson, August, 25th 2023

Krazan		
Project: Les Schwab Yakima West, 6809 W Nob Hill Blvd, Yakima, WA		
Date: March 2023	Project Number: 064-22024	
Drawn By: JDE	Not to Scale	Figure 4: Site Plan

Sampling Site Plan

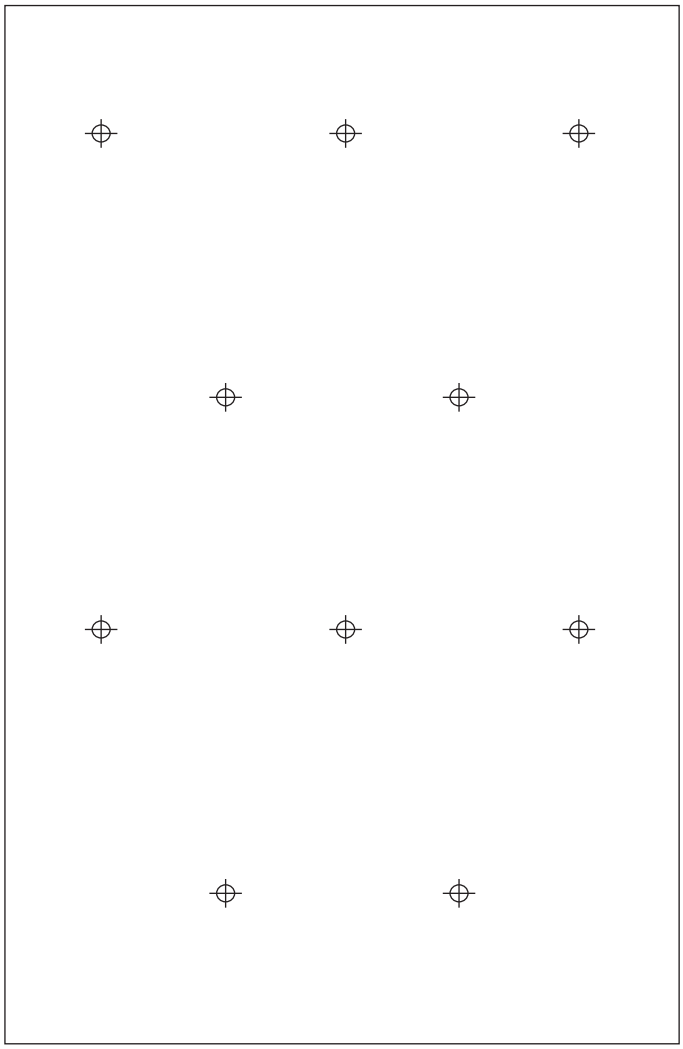

Figure 5 - Site Plan

Notes

160'

40'

= Proposed Soil Sample Location

Krazan & ASSOCIATES, INC.

Les Schwab Yakima West - 6809 W Nob Hill Blvd, Yakima, WA

Date: December 2022	Figure 5: Site Characterization Soil Sampling Site Plan	
Drawn By: JJK	Sample Locations	Project Number: 064-22024

Appendix A

January 03, 2023

KA Project No. 064-22024

Mr. David Gibson
Les Schwab Tire Centers
20900 Cooley Road
Bend, OR, 97701

Tel: (541) 416-5342
Email: david.r.gibson@lesschwab.com

RE: Letter Report for Soil Sampling
Les Schwab – Yakima West Arsenic & Lead Soil Sampling
6809 W Nob Hill Boulevard
Yakima, WA, 98908

Dear Mr. Gibson:

Krazan and Associates (Krazan) is providing this Letter Report in reference to limited sampling of soil at the above referenced address located in Yakima, Washington. Sample collection was conducted by Krazan representative Mr. Jessep Englert on December 02, 2022. This sampling was performed in accordance with federal, state, and local regulatory requirements, and was limited to the on-site footprint of the planned site located at 6809 W Nob Hill Blvd, Yakima, WA. Contaminants of concern (C.O.C) analysis and number of samples were based on the Model Remedies for Cleanup of Former Orchard Properties in Central/Eastern Washington, published by the Washington Department of Ecology.

1.0 ANALYTICAL RESULTS

1.1 Project Scope

Based on sampling requirements, ten (10) discrete soil samples were collected at evenly distributed locations throughout the on-site footprint area, in a pre-determined pattern for optimal characterization. See Sample Location Map following the text for soil sample locations.

1.2 Sampling Methodology

The samples were collected by carefully collecting discreet samples, at 6 inches (bgs), with a clean stainless-steel sampler. The samples were placed in clean glass sample containers provided by the accredited laboratory. Sample containers were then placed in an iced cooler for transportation to the laboratory. The sampling instrument was wiped between samples with a clean moist cloth and Alconox detergent solution to decontaminate the tool and minimize the potential cross contamination of subsequent samples. Data pertinent to each sample (e.g., date, sample number, material description, and material category) was recorded on a chain-of-custody form.

1.3 Laboratory Analysis

A total of ten (10) discrete soil samples were collected from the site and delivered to Libby Environmental Laboratory in Olympia, Washington, under chain-of-custody protocol for analysis. Libby Environmental Laboratory is a Washington State-accredited laboratory. As per *Model Remedies for Cleanup of Former Orchard Properties in Central/Eastern Washington* and client specifications, samples were run for Total Arsenic (As) and Total Lead (Pb) using (EPA 6010C Method). Laboratory analytical data reports and chain-of-custody forms, for all involved laboratories, are provided in Appendix A.

1.4 Laboratory Sample Results

Table 1 includes the sample number, sample location, sample description, and analyte concentrations.

Table 1 – Summary of Analytical Data

Sample Number	Sample Location	Sample Material Description	Arsenic	Lead
KA-01	46.586902, -120.601387	Discrete Soil	**54.4**	**768**
KA-02	46.586902, -120.600959	Discrete Soil	**32.1**	**420**
KA-03	46.586902, -120.600554	Discrete Soil	**40.6**	**417**
KA-04	46.586689, -120.601212	Discrete Soil	**53.8**	**589**
KA-05	46.586689, -120.600773	Discrete Soil	**39.3**	**542**
KA-06	46.586476, -120.601387	Discrete Soil	**54.5**	**494**
KA-07	46.586476, -120.600959	Discrete Soil	**34.1**	**431**
KA-08	46.586476, -120.600554	Discrete Soil	**54.6**	**643**
KA-09	46.586215, -120.601212	Discrete Soil	**54.0**	**697**
KA-10	46.586215, -120.600773	Discrete Soil	**62.2**	**885**
MTCA Method A Cleanup Limits	NA	Soil	20.0	250

All results displayed in milligrams per kilogram (mg/kg)

MTCA = Model Toxics Control Act

Bold = above MTCA Cleanup Limits

ND = Not Detected

1.5 Conclusion

The soil collected from the on-site sample locations at 6809 W Nob Hill Blvd, Yakima, WA, **did exceed** the Model Toxics Control Act (MTCA) Method A Cleanup Levels for unrestricted land uses for Arsenic and Lead. Based on laboratory control limits and data qualifiers, all samples have been validated.

LIMITATIONS

This survey and review of the subject property has been limited in scope to those areas defined by the client. This investigation is undertaken with the risk that visual observations and random sampling alone would not reveal the presence, full nature, and extent of Contaminants of Concern (COCs). Krazan makes no representation as to the COC content of materials not sampled or that were inaccessible to our inspector. The sample locations are approximate, and are based on field notes and diagrams of sample locations. The opinions presented herein apply to the site condition existing at the time of the investigation. Opinions and recommendations provided herein may not apply to future conditions that may exist at the site.

The findings presented in this report were based on field observations and sampling as defined by the client. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used. The information presented herein is based on professional interpretation using presently accepted methods with a degree of conservatism deemed proper as of the report date. We do not warrant that future technical developments cannot supersede such data.

This report is provided for the exclusive use of the client noted on the cover page and is subject to the terms and conditions in the applicable contract between the client and Krazan. The client is the only party to whom Krazan has explained the risks involved and has been involved in the shaping of the scope of services needed to satisfactorily manage those risks, if any, from the client's point of view. Any third-party use of this report, including use by the Client's lender, prospective purchaser, or lessee, will be subject to the terms and conditions governing the contractual work between the Client and Krazan. The unauthorized use of, reliance on, or release of the information contained in this report is strictly prohibited and will be without risk or liability to Krazan.

Laboratory analysis was conducted by a laboratory, or laboratories, accredited under the guidance of the EPA and the Washington State Department of Ecology. The results of the analyses are accurate only to the degree of care exercised by the independent laboratories and the representative nature of the samples obtained.

Krazan appreciates the opportunity to provide you with this information and trusts that you will find it useful. If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at (253) 939-2500.

Respectfully submitted,
KRAZAN & ASSOCIATES, INC.

Jessep Englert, G.I.T
Field Geologist
Krazan & Associates

Attachments:

Les Schwab Yakima West A&L

6809 W Nob Hill Blvd

N46.5876°

Legend

- Soil Sample Locations

KA-01
KA-02
KA-03
KA-04
KA-05
KA-06
KA-07
KA-08
KA-09
KA-10

W Nob Hill Blvd
W Nob Hill Blvd
W Nob Hill Blvd

N

200 ft

Google Earth

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

3322 South Bay Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 12/2/22 Page: of

Client: Krazan & Associates
Project Manager: Jessep Englert
Address: 625 Center St, Ste A
Project Name: Les Schwab Yakima West
City: Tacoma State: WA Zip: 98409
Location: 6809 W. Nob Hill Blvd City, State: Yakima, WA
Phone: 253-939-2500 Fax:
Collector: Jessep Englert Date of Collection: 12/2/22
Client Project # 06422624
Email: jessepenglert@krazan.com

	Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	PCE & Daughter Prod.	NWTPH-Gx	BTEX (8260) / (8021)	NWTPH-HCID	NWTPH-Dx / Dx	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	c PAH 8270	PAH 8270	Semi Vol 8270	Total Lead	Total Arsenic	Field Notes
1	KA-01	3&1	12:57	Soil	Jar												X	X		EDOC or equivalent
2	KA-02	"	13:02	"	"												X	X		
3	KA-03	"	13:12	"	"												X	X		
4	KA-04	"	13:16	"	"												X	X		
5	KA-05	"	13:21	"	"												X	X		
6	KA-06	"	13:25	"	"												X	X		
7	KA-07	"	13:28	"	"												✓	X		
8	KA-08	"	13:31	"	"												X	X		
9	KA-09	"	13:36	"	"												X	X		
10	KA-10	"	13:41	"	"												X	X		
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time	Received by:	Date / Time
Jessep Englert	12/2/22 13:15		12/5/22 927
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt

Good Condition?	(Y) N
Cooler Temp.	°C
Sample Temp.	°C
Total Number of Containers	10

Remarks:

TAT: 24HR 48HR (5-DAY)

LEGAL ACTION CLAUSE: *In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a court of law.*

Distribution: White - Lab, Yellow - Originator

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

LES SCHWAB YAKIMA WEST PROJECT
Krazan & Associates
Libby Project # L22L017
Date Received 12/5/2022
Time Received 9:27 AM

Received By RJK

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody is complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☑ Hand Delivered	☐ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☑ Yes	☐ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☑ Yes	☐ No	☐ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☑ No	☐ N/A
6. Was an attempt made to cool the samples?	☑ Yes	☐ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	0.7 °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	3.8 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☐ Yes	☐ No	☑ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

Analytical Resources, LLC
Analytical Chemists and Consultants

30 December 2022

Emily Bushlen
Libby Environmental
3322 South Bay Road NE
Olympia, WA 98506

RE: Les Schwab Yakima West (L22L017)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
22L0127	N/A

Shelly Fishel Digitally signed by Shelly Fishel
Date: 2022.12.30 13:21:23 -08'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

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

Shelly Fishel, Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-012

Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

SUBCONTRACT ORDER L22L017

22L0127

Sending Laboratory:

Libby Environmental, Inc.
3322 South Bay Road NE
Olympia, WA 98506
Phone: 360-352-2110
Fax: 360-352-4154

Project Manager: Emily Bushlen
LibbyEnv@gmail.com

Subcontracted Laboratory:

Analytical Resources, Inc.
4611 South 134th Place
Seattle, WA 98109
Phone: (206) 695-6210
Fax:

Requested Turnaround (TAT) STD

Project: Les Schwab Yakima West

Analysis	Comments
Client Sample ID: KA-01 ***Soil Sampled: 12/02/2022 12:57***	Lab ID: L22L017-01
Metals SUB Pb	6010 please
Metals SUB As	6010 please
Containers Supplied:	
Client Sample ID: KA-02 ***Soil Sampled: 12/02/2022 13:02***	Lab ID: L22L017-02
Metals SUB As	6010 please
Metals SUB Pb	6010 please
Containers Supplied:	
Client Sample ID: KA-03 ***Soil Sampled: 12/02/2022 13:12***	Lab ID: L22L017-03
Metals SUB As	6010 please
Metals SUB Pb	6010 please
Containers Supplied:	
Client Sample ID: KA-04 ***Soil Sampled: 12/02/2022 13:16***	Lab ID: L22L017-04
Metals SUB As	6010 please
Metals SUB Pb	6010 please
Containers Supplied:	
Client Sample ID: KA-05 ***Soil Sampled: 12/02/2022 13:21***	Lab ID: L22L017-05
Metals SUB Pb	6010 please
Metals SUB As	6010 please
Containers Supplied:	
Client Sample ID: KA-06 ***Soil Sampled: 12/02/2022 13:25***	Lab ID: L22L017-06

Released By — Date: 12.5.22

Received By — Date: 12/06/22 12:05

Libby Environmental, Inc.
3322 South Bay Road NE • Olympia, WA 98506-2957

22L0127

SUBCONTRACT ORDER L22L017 (Continued)

Project: Les Schwab Yakima West

Analysis	Comments
Client Sample ID: KA-06 ***Soil Sampled: 12/02/2022 13:25***	Lab ID: L22L017-06
Metals SUB Pb	6010 please
Metals SUB As	6010 please
Containers Supplied:	
Client Sample ID: KA-07 ***Soil Sampled: 12/02/2022 13:28***	Lab ID: L22L017-07
Metals SUB As	6010 please
Metals SUB Pb	6010 please
Containers Supplied:	
Client Sample ID: KA-08 ***Soil Sampled: 12/02/2022 13:31***	Lab ID: L22L017-08
Metals SUB As	6010 please
Metals SUB Pb	6010 please
Containers Supplied:	
Client Sample ID: KA-09 ***Soil Sampled: 12/02/2022 13:36***	Lab ID: L22L017-09
Metals SUB As	6010 please
Metals SUB Pb	6010 please
Containers Supplied:	
Client Sample ID: KA-10 ***Soil Sampled: 12/02/2022 13:41***	Lab ID: L22L017-10
Metals SUB Pb	6010 please
Metals SUB As	6010 please
Containers Supplied:	

Released By	Date	Received By	Date
	12.5.22	Phillip	12/06/22 12:05

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
KA-01	22L0127-01	Solid	02-Dec-2022 12:57	06-Dec-2022 12:05
KA-02	22L0127-02	Solid	02-Dec-2022 13:02	06-Dec-2022 12:05
KA-03	22L0127-03	Solid	02-Dec-2022 13:12	06-Dec-2022 12:05
KA-04	22L0127-04	Solid	02-Dec-2022 13:16	06-Dec-2022 12:05
KA-05	22L0127-05	Solid	02-Dec-2022 13:21	06-Dec-2022 12:05
KA-06	22L0127-06	Solid	02-Dec-2022 13:25	06-Dec-2022 12:05
KA-07	22L0127-07	Solid	02-Dec-2022 13:28	06-Dec-2022 12:05
KA-08	22L0127-08	Solid	02-Dec-2022 13:31	06-Dec-2022 12:05
KA-09	22L0127-09	Solid	02-Dec-2022 13:36	06-Dec-2022 12:05
KA-10	22L0127-10	Solid	02-Dec-2022 13:41	06-Dec-2022 12:05

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

Work Order Case Narrative

Client: Libby Environmental
Project: Les Schwab Yakima West
Project Number: L22L017
Work Order: 22L0127

Sample receipt

Sample(s) as listed on the preceding page were received 06-Dec-2022 12:05 under ARI work order 22L0127. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Metals - EPA Method 6010D

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: libby Project Name: L22L017

COC No(s): _____ NA Delivered by: Fed-Ex UPS Courier Hand Delivered Other: PIB

Assigned ARI Job No: 22L0127 Tracking No: 12 7YA 311 03 9228 6052 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 12:05 11.9 _____ _____ _____ _____ _____ _____

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90970B

Cooler Accepted by: PIB Date: 12/06/22 Time: 12:05

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	(Bubble Wrap) Wet Ice (Gel Packs) Baggies Foam Block Paper Other: _____		
Was sufficient ice used (if appropriate)?	NA	YES	(NO)
How were bottles sealed in plastic bags?	(Individually)	Grouped	Not
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)	_____	

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: [signature] Date: 12/6/22 Time: 14:14 Labels checked by: PIB

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-01

22L0127-01 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 12:57
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 17:57

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-01 A 01
Preparation Batch: BKL0372 — Sample Size: 1.021 g (wet) — Dry Weight:0.76 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 74.92

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.601	6.54	54.4	mg/kg	
Lead	7439-92-1	2	0.314	2.61	768	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-02

22L0127-02 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:02
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:19

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-02 A 01
Preparation Batch: BKL0372 — Sample Size: 1.024 g (wet) — Dry Weight:0.84 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 81.65

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.550	5.98	32.1	mg/kg	
Lead	7439-92-1	2	0.287	2.39	420	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-03

22L0127-03 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:12
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:22

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-03 A 01
Preparation Batch: BKL0372 — Sample Size: 1.034 g (wet) — Dry Weight:0.87 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 84.14

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.529	5.75	40.6	mg/kg	
Lead	7439-92-1	2	0.276	2.30	417	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-04

22L0127-04 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:16
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:25

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-04 A 01
Preparation Batch: BKL0372 — Sample Size: 1.045 g (wet) — Dry Weight:0.86 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 81.89

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.538	5.84	53.8	mg/kg	
Lead	7439-92-1	2	0.280	2.34	589	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-05

22L0127-05 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:21
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:28

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-05 A 01
Preparation Batch: BKL0372 — Sample Size: 1.013 g (wet) — Dry Weight:0.89 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 87.93

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.516	5.61	39.3	mg/kg	
Lead	7439-92-1	2	0.269	2.25	542	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-06

22L0127-06 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:25
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:31

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-06 A 01
Preparation Batch: BKL0372 — Sample Size: 1.003 g (wet) — Dry Weight:0.83 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 82.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.556	6.04	54.5	mg/kg	
Lead	7439-92-1	2	0.290	2.42	494	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-07

22L0127-07 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:28
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:34

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-07 A 01
Preparation Batch: BKL0372 — Sample Size: 1.003 g (wet) — Dry Weight:0.85 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 85.03

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.539	5.86	34.1	mg/kg	
Lead	7439-92-1	2	0.281	2.35	431	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-08

22L0127-08 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:31
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:37

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-08 A 01
Preparation Batch: BKL0372 — Sample Size: 1 g (wet) — Dry Weight:0.83 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 82.94

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.555	6.03	54.6	mg/kg	
Lead	7439-92-1	2	0.289	2.41	643	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-09

22L0127-09 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:36
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:40

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-09 A 01
Preparation Batch: BKL0372 — Sample Size: 1.005 g (wet) — Dry Weight:0.84 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 83.78

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.546	5.94	54.0	mg/kg	
Lead	7439-92-1	2	0.285	2.38	697	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

KA-10

22L0127-10 (Solid)

Metals and Metallic Compounds

Method: EPA 6010D — Sampled: 12/02/2022 13:41
Instrument: ICP3 Analyst: SKD — Analyzed: 12/28/2022 18:43

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: SWC EPA 3050B — Extract ID: 22L0127-10 A 01
Preparation Batch: BKL0372 — Sample Size: 1.013 g (wet) — Dry Weight:0.81 g
Prepared: 12/14/2022 — Final Volume: 50 mL — % Solids: 80.26

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Arsenic	7440-38-2	2	0.566	6.15	62.2	mg/kg	
Lead	7439-92-1	2	0.295	2.46	885	mg/kg	

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BKL0372 - EPA 6010D

Instrument: ICP3 Analyst: SKD

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKL0372-BLK1)				Prepared: 14-Dec-2022 Analyzed: 28-Dec-2022 17:11							
Arsenic	ND	0.460	5.00	mg/kg							U
Lead	ND	0.240	2.00	mg/kg							U
LCS (BKL0372-BS1)				Prepared: 14-Dec-2022 Analyzed: 28-Dec-2022 17:14							
Arsenic	211	0.460	5.00	mg/kg	200		106	80-120			
Lead	209	0.240	2.00	mg/kg	200		105	80-120			

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

Certified Analyses included in this Report

Analyte	Certifications
EPA 6010D in Solid	
Arsenic	NELAP,WADOE,DoD-ELAP,ADEC
Lead	NELAP,WADOE,DoD-ELAP,ADEC

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	02/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023
WADOE	WA Dept of Ecology	C558	06/30/2023
WA-DW	Ecology - Drinking Water	C558	06/30/2023

Libby Environmental	Project: Les Schwab Yakima West	
3322 South Bay Road NE	Project Number: L22L017	**Reported:**
Olympia WA, 98506	Project Manager: Emily Bushlen	30-Dec-2022 13:08

Notes and Definitions

D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Appendix B

Voluntary Cleanup Program Agreement

Washington State Department of Ecology - Toxics Cleanup Program

For completion by Ecology only

Facility/Site Name: Les Schwab Yakima West

Facility/Site No.: 100000290

VCP Project No.: CE0553

Instructions

Submit this Agreement (original) to Ecology as part of your Application. Before submitting, enter the Customer's name and the Site's address on the first page, and sign the Agreement on the third page. If your Application is accepted, then Ecology will do the following: 1) identify the Site and VCP project in the box below; 2) sign the Agreement; and 3) send you a copy of the completed Agreement.

This document constitutes an Agreement between the Washington State Department of Ecology (Ecology) and SFP-E, LLC (Customer) to provide informal site-specific technical consultations under the Voluntary Cleanup Program (VCP) for the Site identified below and associated with the following address:

6905 West Nob Hill Blvd, Yakima, WA, 98908

The purpose of this Agreement is to facilitate independent remedial action at the Site. Ecology is entering into this Agreement under the authority of the Model Toxics Control Act (MTCA), chapter 70A.305 RCW, and its implementing regulations, chapter 173-340 WAC. If a term in this Agreement is defined in MTCA or chapter 173-340 WAC, then that definition shall govern.

Services Provided by Ecology

Upon request, Ecology agrees to provide the Customer informal site-specific technical consultations on the independent remedial actions proposed for or performed at the Site consistent with WAC 173-340-515(5). Those consultations may include assistance in identifying applicable regulatory requirements and opinions on whether the remedial actions proposed for or conducted at the Site meet those requirements.

Ecology may use any appropriate resource to provide the Customer with the requested consultative services. Those resources may include, but shall not be limited to, those of Ecology and the Office of the Attorney General. However, Ecology shall not use independent contractors unless the Customer provides Ecology with prior written authorization.

In accordance with RCW 70A.305.170, any opinions provided by Ecology under this Agreement are advisory only and not binding on Ecology. Ecology, the state, and officers and employees of the state are immune from all liability. Furthermore, no cause of action of any nature may arise from any act or omission in providing, or failing to provide, informal advice and assistance under the VCP.

Payment for Services by Customer

The Customer agrees to pay all costs incurred by Ecology in providing the informal site-specific technical consultations requested by the Customer consistent with WAC 173-340-515(6) and 173-340-550(6). Those costs may include the costs incurred by attorneys or independent contractors used by Ecology to provide the requested consultative services. Ecology's hourly costs shall be determined based on the method in WAC 173-340-550(2).

Ecology shall mail the Customer a monthly itemized statement of costs (invoice) by the tenth day of each month (invoice date) that there is a balance on the account. The invoice shall include a summary of the costs incurred, payments received, identity of staff involved, and amount of time staff spent on the project.

The Customer shall pay the required amount by the due date, which shall be thirty (30) calendar days after the invoice date. If payment has not been received by the due date, then Ecology shall withhold any requested opinions and notify the Customer by certified mail that the debt is past due.

If payment has not been received within sixty (60) calendar days of the invoice date, then Ecology shall stop all work under the Agreement and may, as appropriate, assign the debt to a collection agency under chapter 19.16 RCW. The Customer agrees to pay the collection agency fee incurred by Ecology in the course of debt collection.

Reservation of Rights / No Settlement

This Agreement does not constitute a settlement of liability to the state under MTCA. This Agreement also does not protect a liable person from contribution claims by third parties for matters addressed by the Agreement. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70A.305.040(4). Ecology's signature on this Agreement in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority.

Ecology reserves all rights under MTCA, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

Effective Date, Modifications, and Severability

The effective date of this Agreement shall be the date on which this Agreement is signed by the Toxics Cleanup Program's Section Manager or delegated representative. This Agreement may be amended by mutual agreement of Ecology and the Customer. Amendments shall be in writing and shall be effective when signed by the Toxics Cleanup Program's Section Manager or delegated representative. If any provision of this Agreement proves to be void, it shall in no way invalidate any other provision of this Agreement.

Termination of Agreement

Either party may terminate this Agreement without cause by sending written notice by email or U.S. mail to the other party. The effective date of termination shall be the date Ecology sends notice to the Customer or the date Ecology receives notice from the Customer, whichever occurs first. Unless otherwise directed, issuance of a No Further Action opinion, either for the Site as a whole or for a portion of the real property located within the Site, shall constitute notice of termination by Ecology.

Under this Agreement, the Customer is only responsible for costs incurred by Ecology before the effective date of termination. However, termination of this Agreement shall not affect any right Ecology may have to recover its costs under MTCA or any other provision of law.

Representations and Signatures

The undersigned representative of the Customer hereby certifies that he or she is fully authorized to enter into this Agreement and to execute and legally bind the Customer to comply with the Agreement.

Washington State Department of Ecology

Valerie Bound

Signature

Valerie Bound

Printed name

Section Manager, TCP

1/4/2024

Date

Customer signatory

DocuSigned by:
Dietrich Haar
29CEB553FAD84E1...

Signature

Dietrich Haar

Printed name of signatory

Vice President

Title of signatory

01/03/24

Date

If you need this publication in an alternative format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing impairment can call 711 for Washington Relay Service. Persons with a speech disability may call 877-833-6341.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Central Region Office
1250 West Alder St., Union Gap, WA 98903-0009 • 509-575-2490

January 8, 2024

Dietrich Haar
SFP-E, LLC
PO Box 5350
Bend, OR 97708

Re: Application Acceptance – Voluntary Cleanup Program

- **Site Name:** Les Schwab Yakima West
- **Site Address:** 6905 W. Nob Hill Blvd, Yakima
- **Facility/Site ID:** 100000290
- **Cleanup Site ID:** 16984
- **VCP Project No.:** CE0553

Dear Dietrich Haar:

The Department of Ecology (Ecology) accepted your application to the Standard process of the Voluntary Cleanup Program (VCP) for the Les Schwab Yakima West facility (Site). We applaud your initiative and welcome your interest in the VCP. This letter provides important information on how we will review your VCP cleanup project (project) at the Site.

Agreement

We completed and signed your Standard VCP agreement for the project on January 4, 2024. This date is the effective date of the agreement. A copy of your signed agreement is enclosed.

Identification Numbers

We have assigned a unique name and number to your Site. This information is listed on the first page of your Standard VCP agreement (enclosed). When contacting us, please reference this information to identify your project.

Communications

Unless otherwise requested, we will communicate directly with your project manager, George Bunting, as listed on your VCP application form. If you replace your project manager, or their contact information changes, please submit a completed change of contact form.[1]

[1] http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm

We have assigned the following site manager as our point of contact for your project:

Mary Monahan
Toxics Cleanup Program
Central Regional Office
Department of Ecology
1250 W. Alder Street
Union Gap, WA 98903
509-571-6661
Mary.Monahan@ecy.wa.gov

Request for Written Opinion

As your cleanup progresses, you may request a written opinion on your planned or completed remedial actions by submitting to Ecology:

- A completed request for opinion form.[2]
- Remedial action plans and/or reports.

Reporting Requirements

When requesting written opinions, you must comply with the following reporting requirements to avoid unnecessary delays in the VCP process:

- **Licensing.** You must submit documents containing geologic and hydrogeologic work and engineering work under the seal of an appropriately licensed professional, as required in chapters 18.220[3] and 18.43[4] RCW, respectively.
- **Data submittal**. You must submit environmental data to our Environmental Information Management (EIM) system.[5] The Toxics Cleanup Program Policy 840[6] describes data submittal requirements. Please visit the EIM Submit Data webpage for data submittal instructions.

Payment

We will send monthly invoices to the billing contact listed in your VCP application form. Payment is due within 30 calendar days from the date of each invoice. Our invoices include a summary of costs incurred, payments received, names of staff billing to the project, and the time spent on the project during the previous month.

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[2] https://apps.ecology.wa.gov/publications/SummaryPages/ecy070219.html
[3] https://apps.leg.wa.gov/RCW/default.aspx?cite=18.220
[4] https://apps.leg.wa.gov/RCW/default.aspx?cite=18.43
[5] https://ecology.wa.gov/eim
[6] https://apps.ecology.wa.gov/publications/SummaryPages/1609050.html

If you replace your billing contact, or their contact information changes, you must submit a completed change of contact form.

Site Listing Notice

We determined that your Site requires remedial action. Therefore, we added your Site to our Contaminated Sites List,[7] as required by the Model Toxics Control Act.[8] We appreciate your cooperation in planning or conducting remedial action at the Site. Moving forward with remedial action does not constitute an admission of guilt or liability. This early notice of site listing is required under WAC 173-340-310(6)(b).[9]

Contact Information

We are committed to working with you to reach the prompt and effective Site cleanup. If you have any questions, please contact Frosti Smith at vcp-cro@ecy.wa.gov , or call at 509-406-5157.

Sincerely,

Valerie Bound for

Frosti Smith
VCP Coordinator
Central Regional Office
Toxics Cleanup Program

Enclosure: Copy of signed VCP Agreement

By certified mail: 9589 0710 5270 0589 5641 36

cc: Jessep Englert, Krazan & Associates
Ron Isackson, Cushing Terrell
Gene Woodin, Congdon Development Co. LLC
Fiscal, VCP Fiscal Analyst
TCP, Operating Budget Analyst

[7] https://apps.ecology.wa.gov/cleanupsearch/reports/cleanup/contaminated
[8] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Rules-directing-our-cleanup-work/Model-Toxics-Control-Act
[9] https://app.leg.wa.gov/wac/default.aspx?cite=173-340-310

Appendix C

Semi-Annual Arsenic and Lead Contaminated Soil Capping Inspection

Inspector:_____ **Date:**_____

Twice each year (spring and fall) inspect the site and document the condition of protective barriers. The spring inspection should be completed after the snow has melted (usually March or April) to find any damage that occurred during the winter. The fall inspection should be completed prior to snow (usually September or early October) and to make sure all of the protective barriers are in good condition before winter. Take photographs of any areas of damage or concern.

Asphalt, Concrete, and Buildings: Inspect asphalt and concrete surfaces for cracks, voids, or other separations (surface imperfections) where you can see the material is cracked. Estimate the width and length of the largest crack you see and note in the comments. Place a check mark next to the most appropriate category:

_____**No Damage**
_____**Minor surface imperfections** – small surface cracking that does not penetrate the depth of the asphalt or concrete, does not require repair.
_____**Moderate surface imperfections** – a crack where you can see the crushed gravel or soil below the asphalt or concrete. This should be repaired before winter.
_____**Significant surface damage –** a crack or when a piece of asphalt or concrete is missing and you can see the soil below the crushed gravel. This should be repaired as soon as feasible (usually within a month).

Comments:_____

_____

Landscaping and Grass: Inspect landscaping and for damage to grass lawns or areas of crushed rock landscaping. Note all areas where the grass has worn or the crushed rock has moved and exposed geotextile fabric. Inspect stormwater features for any areas of standing water, dead grass, mud or exposed soil. Inspect the landscaped area for indications of damaged sod materials or areas with dying vegetation. Classify damage, if identified as minor, major or significant using the following guidance.

_____**No Damage**
_____**Minor damage** – less than 10 % overall or less than 25 square feet in a localized area, provided the exposure to underlying soils is not present.
_____**Major damage** – between 10 and 20 % overall or between 25 and 100 square feet in a localized area, or result in less than 10 percent overall or less than 25 square feet of soil is visible.
_____**Significant damage** – more than 20% overall or more than 100 square feet in a localized area, or result in more than 10 percent overall or more than 25 square feet of soil is visible.

Comments:_____

_____

Questions? Call Krazan & Associates, Inc. 253.939.2500
Email completed inspection form to: jessepenglert@krazan.com

Appendix D

Form 5: Capping in place

Reminder: Keep a copy of the completed forms to pass on to future property owners.

1. List the decision units and cap information for each one.

Decision unit	Type of cap	Cap depth	Geotextile used?

2. Prevent soils from escaping the site and plan for worker safety:

- ☐ Follow dust- and erosion-control practices
- ☐ Follow Department of Labor & Industries worker safety regulations

3. Record the soil source:

- ☐ Off-site soils —Supplier: _____

  Supplier phone: _____
- ☐ On-site soils

4. File the environmental covenant:

- ☐ Filed a deed notice with: _____ County

Recording number: _____

5. Compile the following attachments:

- ☐ Map showing areas with results above cleanup levels capped and any additional details about the cap a future property owner would need to know
- ☐ Maintenance and monitoring plan
- ☐ A copy of the environmental covenant

Form 9: Imported soils sampling

Reminder: Keep a copy of the completed forms to pass on to future property owners.

Shorter projects: For projects lasting less than six months, collect one data set from the imported soil source. This should include three composites, with six subsamples in each composite.

Longer projects: If the project lasts longer than six months, collect a new set of three composites, with six subsamples in each composite, every six months.

New soil source: If the soil source changes, then collect a new set of three composites, with six subsamples in each composite.

1. Once you have the results from your three composite samples, enter the arsenic and lead levels into the table below.

2. Attach a copy of the lab results and chain of custody.

Do not import soils from the supplier if any composite sample is > 20 ppm arsenic or > 250 ppm lead.

Soil supplier name: Phone: Sampled by:				Testing parameters (ppm)	
Sample no.	Date	Time	Notes	Arsenic	Lead
1					
2					
3					
1					
2					
3					

Sampling and Cleanup Checklist

Characterization sampling

Form 1: Characterization Sampling

- ☐ Appropriate number of samples per decision unit (0–6 inch depth)
- ☐ 25 percent of samples from 6–12 inches
- ☐ Sediment samples at two depth intervals (if applicable)

Form 2: Characterization Sampling Results

- ☐ Maximum arsenic ≤ 40 ppm and average arsenic ≤ 20 ppm (stop here)
- ☐ Maximum arsenic > 40 ppm or average arsenic > 20 ppm (continue below)

Cleanup and compliance sampling

1. Excavation and removal
   - ☐ **Form 3** with cleanup map
   - ☐ **Form 7** with sampling grid map
   - ☐ **Form 8** stockpile sampling (if applicable)
   - ☐ **Form 9** imported soils (if applicable)

2. Mixing
   - ☐ **Form 4** with cleanup map
   - ☐ Compliance sampling grid map

3. Capping in place
   - ☐ **Form 5**
   - ☐ Environmental covenant*

4. Consolidation and capping
   - ☐ **Form 6**
   - ☐ Environmental covenant*

Compliance sample depth should be at least 6 inches.

Take compliance samples every 6 inches throughout the mixing depth.

To be protective, cap depth should meet the guidelines in chapters 5 or 6. Ensure future owners know to maintain the remedy by providing them with the sample results and cleanup information.

**The environmental covenant should describe remaining contamination and how to inspect and maintain the remedy.*