OFF-PROPERTY HIGH-RESOLUTION SITE CHARACTERIZATION REPORT

FORMER TIGER OIL SITE 2312 WEST NOB HILL BOULEVARD YAKIMA, WASHINGTON ECOLOGY FACILITY SITE ID NO. 469/CLEANUP SITE NO. 4919



Prepared for CITY OF YAKIMA

March 23, 2022

Project No. 0818.02.01

Prepared by

Maul Foster & Alongi, Inc.

400 E Mill Plain Blvd., Suite 400, Vancouver WA 98660

OFF-PROPERTY HIGH-RESOLUTION SITE CHARACTERIZATION REPORT

FORMER TIGER OIL SITE 2312 WEST NOB HILL BOULEVARD, YAKIMA, WASHINGTON ECOLOGY FACILITY SITE ID NO. 469/CLEANUP SITE NO. 4919

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

MAUL FOSTER & ALONGI, INC.

Michael Murray, LHG, PE

Michael Murray LHG, PE

Principal Hydrogeologist

CONTENTS

TABLES	AND ILLUSTRATIONS	٧
ACRO	nyms and abbreviations	VI
1	INTRODUCTION 1.1 REGULATORY FRAMEWORK 1.2 PURPOSE AND OBJECTIVES 1.3 HRSC PROFILING TOOLS AND FOCUSED AREAS 1.4 HRSC TRIAD DATA COLLECTION	1 1 1 2
2	BACKGROUND AND PHYSICAL SETTING 2.1 SITE DESCRIPTION 2.2 SITE HISTORY 2.3 GEOLOGY AND HYDROGEOLOGY	3 3 3 5
3	HVOC DISSOLVED-PHASE PLUME CONCEPTUAL SITE MODEL 3.1 DETECTION OF AN HVOC DISSOLVED-PHASE PLUME 3.2 INFERRED UPGRADIENT HVOC DISSOLVED-PHASE GROUNDWATER PLUME	6 6 6
4	HIGH-RESOLUTION SITE CHARACTERIZATION 4.1 HRSC APPROACH 4.2 HRSC DIRECT-SENSING EQUIPMENT QUALITY ASSURANCE AND QUALITY CONTROL 4.3 EXTENT OF HVOC OFF-PROPERTY DISSOLVED-PHASE PLUME INVESTIGATION	6 7 9
5	HIGH-RESOLUTION SAMPLING AND ANALYSIS 5.1 HIGH-RESOLUTION SOIL SAMPLING 5.2 HIGH-RESOLUTION RECONNAISSANCE GROUNDWATER SAMPLING	10 10 13
6	HVOC OFF-PROPERTY DISSOLVED-PHASE PLUME ANALYSIS 6.1 HVOC OFF-PROPERTY DISSOLVED-PHASE PLUME DISTRIBUTION 6.2 POTENTIAL UPGRADIENT HVOC SOURCES	16 16 16
7	CONCLUSIONS AND RECOMMENDATIONS	17
LIMITA	TIONS	
TABLES		
FIGURE	<u>-</u> S	

APPENDIX A

COLUMBIA TECHNOLOGIES OFF-SITE HRSC REPORT

APPENDIX B

BORING LOGS

APPENDIX C

OFF-PROPERTY HRSC WATER FIELD SAMPLING DATA SHEETS

APPENDIX D

LABORATORY REPORT

APPENDIX E

CONTENTS (CONTINUED)

DATA VALIDATION MEMORANDUM

APPENDIX F
POTENTIAL UPGRADIENT HVOC SOURCES

TABLES AND ILLUSTRATIONS

FOLLOWING REPORT:

TABLES

- 2-1 SUMMARY OF MONITORING WELLS GROUNDWATER ANALYTICAL RESULTS
- 2-2 WATER LEVEL DATA
- 5-1 OFF-PROPERTY HRSC DISCRETE SOIL ANALYTICAL RESULTS
- 5-2 OFF-PROPERTY HRSC RECONNAISSANCE GROUNDWATER ANALYTICAL RESULTS

FIGURES

- 2-1 SITE LOCATION
- 2-2 SITE FEATURES
- 2-3 REMEDIAL ACTION ELEMENTS COMPLETED
- 2-4 GROUNDWATER MONITORING WELL NETWORK
- 2-5 PCE ISOCONCENTRATION CONTOURS HVOC RESULTS MAY 2021
- 2-6 GROUNDWATER POTENTIOMETRIC MAP—MAY 2021
- 4-1 OFF-PROPERTY HRSC —LOW-LEVEL MIHPT LOCATIONS
- 5-1 OFF-PROPERTY HVOCS HIGH-RESOLUTION DISCRETE SOIL ANALYTICAL RESULTS
- 5-2 OFF-PROPERTY HVOCS HIGH-RESOLUTION GROUNDWATER ANALYTICAL RESULTS
- 7-1 POTENTIAL UPGRADIENT HVOC SOURCES

ACRONYMS AND ABBREVIATIONS

3-D three-dimensional bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

the City City of Yakima, Washington Columbia Technologies Columbia Technologies LLC

CUL cleanup level
DCE dichloroethene
EC electrical conductivity

EPA U.S. Environmental Protection Agency

FID flame-ionization detector
HCID hydrocarbon identification
HPT hydraulic profiling tool

HRSC high-resolution site characterization
HVOC halogenated volatile organic compound

IHS indicator hazardous substance
LNAPL light non-aqueous phase liquid
MFA Maul Foster & Alongi, Inc.

MiHpt membrane interface probe-hydraulic profiling tool

MIP membrane interface probe
MTCA Model Toxics Control Act
New Tiger Tiger Oil Corporation

NWTPH Northwest Total Petroleum Hydrocarbons

OnSite Environmental, Inc.

PCE tetrachloroethene

PID photoionization detector

the Property 2312 West Nob Hill Boulevard, Yakima, Washington

QA/QC quality assurance and quality control

the Site Ecology Facility Site No. 469, Cleanup Site No. 4919

TCE trichloroethene

TPH total petroleum hydrocarbon

ug/L micrograms per liter
UST underground storage tank

VC vinyl chloride

VOC volatile organic compound WAC Washington Administrative Code

XSD halogen specific detector

On behalf of the City of Yakima (the City), Maul Foster & Alongi, Inc. (MFA) has prepared this off-property high-resolution site characterization (HRSC) report to present the results of an initial evaluation and determination of off-property halogenated volatile organic compounds (HVOCs) as associated with the former Tiger Oil facility, located at 2312 West Nob Hill Boulevard, Yakima, Washington (Washington State Department of Ecology [Ecology] Facility Site No. 469, Cleanup Site No. 4919). Throughout this report and consistent with Ecology's definition, the term "Property" is specific to the real property located at 2312 West Nob Hill Boulevard (tax assessor parcel number 18132642051), and "Site" is specific to where contamination resulting from former operations at the Tiger Oil facility has come to lie, irrespective of property boundaries. A retail gasoline station operated on the Property from 1978 until 2001; since that time, no commercial activities have taken place on the Property. Several fuel releases at the Property during active facility operations had resulted in adverse petroleum hydrocarbons impacts to soil and groundwater at the Property as well as to the adjoining parcels to the east, south, and southeast. Ongoing investigations, semi-annual groundwater monitoring events, and/or interim-remedial actions at the Site have been conducted under Amended Consent Decree No. 02-2-00956-22.

1.1 Regulatory Framework

This report presents an assessment of the nature of HVOC contamination at areas adjacent and inferred upgradient to the Site. The off-property HRSC was conducted in general accordance with HRSC guidance provided by the U.S. Environmental Protection Agency (EPA) CLU-IN Technology Innovation and Field Services Division and the Remediation and Technology Innovation Division (EPA, 2015, 2017). The subsurface investigation was conducted in general accordance with the Washington State Model Toxics Control Act (MTCA) (Revised Code of Washington 70.105D) and its implementing regulations (Washington Administrative Code 173-340-410).

1.2 Purpose and Objectives

The purpose of the HRSC is to evaluate and determine whether HVOCs are present in a dissolved-phase plume inferred upgradient to the west-northwest of the Site.

The approach utilizes multiple lines of evidence, including evaluation of previous data, use of HRSC techniques, and traditional laboratory analysis of discrete soil and reconnaissance groundwater samples.

1.3 HRSC Profiling Tools and Focused Areas

The EPA defines HRSC as "strategies and techniques using scale-appropriate measurement and sample density to define contaminant distributions, and the physical context in which they reside, with greater certainty, supporting faster and more effective site cleanup." HRSC enables detailed evaluation

of the heterogeneity of the subsurface and hydrogeologic conditions through real-time, rapid, and high-density data collection by various high-profiling tools. For the off-property HRSC, the membrane interface probe-hydraulic profiling tool (MiHpt) and hydraulic profiling tool (HPT) were used (refer to Section 4). The HRSC also focused on hydrogeologic variables such as contaminant distribution, transport, and fate. The MiHpt mapped the HVOC impacted groundwater and the subsurface conditions in three dimensions. The generated three-dimensional (3-D), high-resolution graphical profiles were then compared to corresponding high-resolution vertical soil and reconnaissance groundwater and quantitative laboratory analyses.

MFA subcontracted with Columbia Technologies, LLC (Columbia Technologies), of Rockville, Maryland, to perform the HRSC. The HRSC focused on the following areas:

- Evaluating the geologic heterogeneity, i.e., the stratigraphy and lithologies, of the subsurface conditions in conjunction with correlating contaminant data.
- Evaluating the potential presence of low level HVOCs, including tetrachloroethene (PCE) and its breakdown products, trichloroethene (TCE), 1-1-dichloroethene (DCE), cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride (VC).
- Evaluating the subsurface hydrostratigraphy in the survey area by measuring the variability and relative hydraulic conductivity of the soil.
- Evaluating the electrical conductivity of soil and groundwater in the survey area to obtain an understanding of contaminant pathways.

1.4 HRSC Triad Data Collection

The HRSC Triad data collection approach involves systematic planning, dynamic work strategies, and real-time measurements technologies. Key factors of this approach include the following:

- Uses direct-sensing technologies to provide a high density of discrete measurements to determine spatial and matrix distribution of contaminants
- Targets collaborative sample analysis, where applicable
- Uses collaborative data sets from multiple direct-sensing instruments
- Uses real-time data management and interpretation to build and update the Site's conceptual site model during the field effort
- Enables real-time communication strategies
- Gathers high volume of HRSC data to capture, process, and format for stakeholder decisionmaking in field decisions

2 BACKGROUND AND PHYSICAL SETTING

The background and physical setting information summarized below for the Property has been obtained from previous investigations and interim remedial action as well as from discussions with the City and Ecology.

2.1 Site Description

The Property's physical address is 2312 West Nob Hill Boulevard in Yakima, Washington (refer to Figure 2-1). The Property, a 0.52-acre, rectangular parcel (tax assessor parcel number 18132642051), is bordered by West Nob Hill Boulevard to the north, a Safeway Shopping Center parking lot to the east and southeast, the Xochimilco Mexican Restaurant to the east, the former One Love Smoke Shop to the south (now occupied by Barber HQ and 1 Up Games), and South 24th Avenue to the west (refer to Figure 2-2). The Property is currently vacant.

2.2 Site History

Until it was purchased by Tiger Oil Corporation (New Tiger) in 1987, the Property was operated by the Tiger Oil Company as a retail fuel station. New Tiger operated the Property as an Exxon-branded fuel station and convenience store from 1987 until 2001. All commercial operations ceased in 2001, and the Property has remained vacant since (TerraGraphics, 2013). The fuel station included four underground storage tanks (USTs) (one 20,000-gallon tank, two 10,000-gallon tanks, and one 8,000-gallon tank) and associated product lines. The system was used for bulk petroleum storage and distribution.

In April 1981, volatilization of petroleum products in a drainage improvement district storm drain line adjacent to the Property resulted in an explosion and triggered an investigation by the City and Ecology to test the Property's UST system (Ecology, 2014). During the investigation, it was determined that a leak in the product line of the UST system had impacted the surrounding soil and groundwater at the Property and adjoining properties. The leak in the UST line was determined to be the source of the petroleum products found in the nearby drainage improvement district line. Ecology issued a Notice of Violation and Enforcement Order No. DE 82-517 to Tiger Oil Company, requiring recovery of light non-aqueous phase liquid (LNAPL), i.e., free product, from the Site (Ecology, 2014).

It was estimated that approximately 20,000 gallons of petroleum-related product had been released from the Property's UST system in the early 1980s (Ecology, 2014). Several recovery wells had been installed by early 1983 at the Property and on adjacent parcels to the east and south. By March 1984, approximately 16,000 gallons of LNAPL had been extracted from the recovery wells (Kleinfelder, 1994).

In March 1990, Ecology issued EO No. DE 90-C140 to New Tiger and Federated Insurance, requiring site stabilization and a remedial investigation and feasibility study for the Site (Ecology, 2014). In 1991,

a site hazard assessment was conducted by Ecology, resulting in a hazard ranking of 1 (with 1 as the highest risk and 5 the lowest risk).

In August 1995, operation of soil vapor extraction (SVE) and groundwater extraction (GWE) systems began in order to collect LNAPL, impacted groundwater, and soil vapor on the Site, as well as to mitigate off-property migration of dissolved-phase gasoline-range total petroleum hydrocarbon (TPH) and LNAPL. However, the SVE and GWE systems were limited in scope and did not adequately target areas of LNAPL present on the Site. Ecology concluded that the SVE and GWE systems were not representative of final cleanup actions for the Site (Ecology, 2014).

In October 2004, New Tiger and Federated Insurance entered into a Consent Decree with Ecology, requiring implementation of Ecology's 2004 Amended Cleanup Action Plan. In December 2004, the USTs, their associated piping, and approximately 650 cubic yards of impacted soil around the UST system were removed from the Site. Two trenches were dug in the vicinity of the USTs to determine the amount of LNAPL, if present, at the top of the water table at the Site. LNAPL was encountered, and an additional SVE system was installed to treat the impacted soil vapor at the Site. Appreciable LNAPL was encountered at monitoring wells MW-7 (2.34 feet thick, located east of the Property, on the Xochimilco restaurant parking lot) and MW-11 (1.46 feet thick, located on the Property, southeast of the former USTs—refer to Figure 2-2) during groundwater monitoring conducted in June 2013 (TerraGraphics, 2013).

The City purchased the Property in 2014 and entered into an Amended Consent Decree with Ecology to implement an Amended Cleanup Action Plan at the Site (Ecology, 2014).

Figure 2-3 illustrates the remedial actions completed. A complete account of the previous environmental investigations and interim remedial actions conducted at the Site is provided in MFA's 2019 HRSC Report (MFA, 2019) and recent May 2021 Semiannual Groundwater Monitoring Report (MFA, 2021b).

2019 HVOCs

Beginning in November 2019, the analytical laboratory OnSite Environmental, Inc. (OnSite) reported presence of HVOCs, in addition to benzene, toluene, ethylbenzene, and xylenes (BTEX) in results from EPA Method 8260D analysis (MFA, 2020). Naphthalene and HVOCs, specifically PCE and VC, exceeded their respective MTCA Method A cleanup levels (CULs). Based on these new data findings, naphthalene, PCE, and VC are considered additional indicator hazardous substances (IHS) for the Site. An IHS is defined as a chemical exceeding the MTCA CUL at one or more locations.

Semiannual Groundwater Monitoring Event—May 2021

Groundwater monitoring has been conducted on a semiannual basis at the Site. Figure 2-4 presents the locations of the monitoring wells and the wells included in the semiannual monitoring network. Groundwater data from the May 2021 semiannual groundwater monitoring event were used in the off-property HRSC assessment. Findings related to HVOCs from the May 2021 event included the following:

- Of the 13 compliance monitoring wells sampled during the May 2021 monitoring event, eight wells had PCE detections above the MTCA Method A CUL. PCE exceedances were present across the Site and ranged from 11 micrograms per liter (ug/L) to 28 ug/L (refer to Table 2-1 and Figure 2-5). Two of these compliance monitoring wells, KMW-14 and MW-13, had detections of VC above its MTCA Method A CUL, at 0.63 ug/L and 0.98 ug/L, respectively (MFA, 2021).
- PCE exceedances observed during the May 2021 event are relatively consistent with the May and November 2020 analytical results (MFA, 2021a,b). The exceedances of PCE at the Site appear to reflect a northwest-to-southeast trend, mirroring the generally southeasterly groundwater flow direction at the Site. Breakdown products of PCE, including TCE, trans-1,2-DCE, and cis-1,2-DCE, were detected in monitoring wells across the Site (refer to Table2-1).
- Groundwater quality field parameters, geochemical data, and the presence of PCE breakdown products from TCE to VC suggest that PCE is undergoing reductive dechlorination (MFA, 2021a,b). The presence of methane in conjunction with these breakdown products, in particular VC, are exhibited primarily in the central to southeastern area of the Site (KMW-14, KMW-16, MW-13, and MWG-3; refer to Figure 2-5), which further indicate that successive step-down reductive dechlorination is occurring in these areas. In comparison, monitoring wells with PCE detections but no breakdown product detections appear to be in the northwestern to central area of the Site.

2.3 Geology and Hydrogeology

The Site and vicinity have been mapped as eolian (windblown sediment) deposits. These deposits, approximately 20 feet thick, are underlain by the Thorp gravel, a moderately to highly weathered sand and gravel deposit, which has been logged to a depth of approximately 135 feet below ground surface (bgs) (Kleinfelder, 1992). The Site is underlain by fill to approximately 9 to 12 feet bgs, and by sandy clay to silty gravel below the fill to about 16 feet bgs, where gravel is present.

The matrix of the unconfined shallow aquifer appears to be interbedded sands and silts, comprised of a mixture of fill and native soils. The depth to groundwater is variable at the Site, ranging approximately from 9 to 13 feet bgs, and is influenced by seasonal fluctuations in the groundwater table due to local irrigation practices. The annual irrigation schedule is from April through September, which appears to impact the groundwater table, causing it to rise between 2 to 4 feet during that general period (refer to Table 2-2).

The direction of groundwater flow at the Site, based on the consecutive quarterly and semiannual groundwater monitoring events completed from November 2015 through May 2021, is generally east-southeast. Figure 2-6 presents the groundwater potentiometric map drafted during the May 2021 semiannual groundwater event.

3 HVOC DISSOLVED-PHASE PLUME CONCEPTUAL SITE MODEL

The current conceptual site model for the HVOC dissolved-phase plume at the Site shows that the plume trends generally east and to the southeast of the Property (refer to Figure 2-5). The detections of PCE, and presence of its breakdown products TCE, cis-1,2-DCE, trans-1,2-DCE, and VC indicate that the plume is potentially mature, i.e., not recent solvents related spills and/or leakages.

3.1 Detection of an HVOC Dissolved-Phase Plume

HVOCs impacted groundwater was initially reported at the Site during the November 2019 semiannual monitoring event. Groundwater analytical results from subsequent events from May 2020 through May 2021 semiannual monitoring event confirmed the presence and exceedances of HVOCs (including PCE, TCE, and VC), at concentrations above their respective MTCA Method A CULs.

Findings from the four consecutive semiannual monitoring events indicated that PCE was detected at monitoring wells located in the upgradient background area (i.e., the northwest area) of the Site to the downgradient, southeast area of the Site (refer to Figure 2-5). The detections of PCE appeared to exhibit an apparent northwest-to-southeast trend, which mirrored the generally southeasterly groundwater flow direction at the Site. Groundwater quality field parameters (dissolved oxygen, oxygen-reduction-potential, and electrical conductivity) in conjunction with geochemical data (notably the terminal electron acceptors, i.e., dissolved oxygen, nitrate, sulfate, and their by-products such as ferrous iron, manganese, and methane), indicate that biodegradation activity of the HVOC dissolved-phase plume is ongoing at the Site.

3.2 Inferred Upgradient HVOC Dissolved-Phase Groundwater Plume

The apparent reductive dechlorination of PCE appears to indicate that the HVOC-impacted groundwater present at the Site likely is associated with historical release(s) and with operation(s) that utilized solvents containing PCE. Historically, the Site has operated only as a retail fuel station with a convenience store. The historical operations at the Site involved only petroleum fuel. Hence, it is unlikely that the HVOCs impacts originated from the Site. Additionally, the presence and confirmed detections of PCE in the northwest area of the Site further infers the likelihood that the source(s) of the HVOCs dissolved-phase groundwater plume is upgradient to the west-northwest of the Site.

4 HIGH-RESOLUTION SITE CHARACTERIZATION

The EPA defines HRSC as "strategies and techniques using scale-appropriate measurement and sample density to define contaminant distributions, and the physical context in which they reside, with

greater certainty, supporting faster and more effective site cleanup." HRSC enables detailed evaluation of the heterogeneity of the subsurface and hydrogeologic conditions at the Site through real-time, rapid, and high-density data collection by various high-profiling tools, including the MiHpt, HPT, and optical imaging profiler via ultraviolet fluorescence. HRSC also focus on hydrogeologic variables such as contaminant distribution, transport, and fate. The subsurface conditions are mapped in three dimensions using these high-profiling tools. The generated 3-D, high-resolution graphical profiles are then compared to corresponding high-resolution vertical soil and groundwater and quantitative laboratory analyses.

From May 10 through May 14, 2021, the off-property HRSC was conducted in general accordance with the methods and protocol described in the EPA's Strategic Environmental Research and Development Program: HRSC of chlorinated solvent (EPA, 2017) and the New Jersey EPA guidelines for investigations of a commingled plume via HRSC (New Jersey EPA, 2017). The investigation involved the EPA's Triad data collection HRSC approach as well as direct-sensing technologies using MiHpt and HPT to determine the spatial and matrix distribution of the contaminants of concern. High-resolution discrete soil and reconnaissance groundwater sampling and associated laboratory analysis was used to obtain qualitative data on the contaminants of concern. Real-time data analysis and interpretation of the underlying soils stratigraphy and subsurface hydrostratigraphy enabled a greater degree of identifying areas to target the high-resolution discrete sampling to investigate the inferred upgradient HVOCs dissolved-phase plume.

4.1 HRSC Approach

The HRSC was intended to determine whether an HVOCs dissolved-phase plume is present inferred upgradient to the west-northwest of the Site. The HRSC was conducted with a systematic approach using multiple lines of evidence and incorporating the Interstate Technology and Regulatory Council guidelines (Interstate Technology and Regulatory Council, 2009).

HRSC MiHpts and HPTs were coupled with direct-push drilling, using temporary soil borings, to enable collection of real-time physical and subsequent chemical data in the field. The profiling tools were modified for the collection of specific data relative to contaminant concentrations and the distribution of hydraulic conductivity.

For HVOCs HRSC, Columbia Technologies uses multiple sampling methods in a prescribed sequence. The HRSC began with the MiHpt with the three laboratory-grade chemical detectors on the membrane interface probe (MIP): a halogen specific detector (XSD), a flame-ionization detector (FID), and a photo ionization detector (PID). These three detectors on the MIP allowed for a comprehensive evaluation for HVOCs and BTEX including chlorinated ethenes such as PCE.

The XSD was developed to enable investigations of sensitive halogenated compounds such as PCE, TCE, and VC. The MIP-XSD provides high halogen selectivity and is an effective tool for identification and measurement of HVOCs in environments where a commingled plume, such as where petroleum hydrocarbons are present.

The MIP-PID responds to a wide range of volatile organic compounds (VOCs), including BTEX as well as chlorinated ethenes such as PCE. It also responds well to chlorobenzene and dichlorobenzenes (Columbia Technologies, 2021).

The MiHpt system was operated in low-level mode to detect dissolved HVOCs in groundwater upgradient of the Site.

The electrical conductivity (EC) probe, part of the HPT direct-sensing instrument, measures soil conductivity in milli-Siemens per meter. These data are used to characterize the Site's stratigraphy. The Ec probe sends a known current through the soil and measures the voltage that is used to calculate the conductivity.

The HPT measures changes in the required pore entry pressure of the stratum, correlating with media permeability and allowing for vertical profiling of hydrostratigraphic information. The HPT delivers water to the subsurface through the probe head. A transducer in the probe measures the required injection pressure and hydrostatic pressure.

The dissolved-phase plume and subsurface hydrostratigraphy are evaluated when the EC probe and HPT are used in tandem.

The locations of the Site's monitoring wells, geologic logs, and associated groundwater analytical results from previous groundwater monitoring events were uploaded into Columbia Technologies' SmartData Solutions, a real-time decision support system that integrates the results of recent groundwater analyses with the off-property HRSC field findings. Using real-time information, initial HPT results were evaluated to adjust the proposed locations of investigations, and depth of additional HPT soundings advanced to evaluate the potential presence of HVOCs impacted soil and groundwater at inferred upgradient locales to the Site. The compiled data from each day were reviewed daily so that the HRSC progress could be evaluated and real-time investigation decisions by Ecology, MFA, and Columbia Technologies could be based on the data being generated.

Multiple vertical profiles of the subsurface were conducted along multiple transects (refer to Figure 4-1) designated immediately adjacent and upgradient to the west-northwest of the Site on South 24th Avenue and at the intersection of South 24th Avenue and West Nob Hill Boulevard.

The 3-D data from the HPT and MiHpt were visualized via Columbia Technologies' environmental visualization software, analyzed, and evaluated to guide specific locations for collecting high-resolution discrete soil and reconnaissance groundwater samples for laboratory analysis. Cross sections of the Site were drafted using the 3-D high-resolution data. The Site's conceptual site model was refined with additional high-resolution data throughout the fieldwork.

During the investigation, the data generated by the HPT and MiHpt logs were used to define the areas of highest response at the Site. The highest response locations included locations where the XSD in conjunction with the FID and/or PID indicated HVOCs responses were selected for high-resolution discrete soil and/or reconnaissance groundwater sampling. The samples were collected at 1-foot intervals across the zones of highest response in order to profile the HVOCs' distribution in the soil. If the response profiles were very narrow, the sample interval was reduced to 6 inches.

MFA and Columbia Technologies conducted frequent online data reviews and discussions at each key decision point to ensure that the desired lines of evidence had been met and that the next steps in the work plan should be implemented.

HVOCs groundwater analytical results and the Site's groundwater elevations, inferred groundwater flow direction(s) from the May 2021 semiannual groundwater event, were reviewed and formed the basis of data analysis for conducting the off-property HRSC. Figures 2-5 and 2-6 present the estimated extents of the HVOCs dissolved-phase plume, groundwater elevations, and groundwater potentiometric map from the May 2021 semiannual groundwater event, respectively.

4.2 HRSC Direct-Sensing Equipment Quality Assurance and Quality Control

Columbia Technologies ensures the operations and quality assurance and quality control (QA/QC) of each direct-sensing instrument. Each of these instruments was operated in accordance with the manufacturer's standard operating procedures and the Standard Practice for Direct Push Technology for Volatile Contaminant Logging with the Membrane Interface Probe (ASTM D7352-07). Performance testing for each direct-sensing instrument was conducted on each system before and after each survey sounding. The reviews also evaluated each instrument system for potential anomalies during the system operations. Additional details on the QA/QC HPT are provided in Columbia Technologies' May 2021 HRSC Report (refer to Appendix A). Appendix A also provides the quality control procedures Columbia Technologies uses for direct-sensing technologies, including the MiHpt and HPT.

4.3 Extent of HVOC Off-Property Dissolved-Phase Plume Investigation

The horizontal and vertical extents of the dissolved-phase plume were investigated using the MiHpt. The MiHpt was also advanced along transects to define the extent of the dissolved-phase groundwater contamination and identify the transport pathways. The focus included gathering comprehensive data on the soil types and possible areas with higher or lower permeability to identify potential migration pathways for LNAPL and/or dissolved-phase petroleum hydrocarbons.

Figure 4-2 presents the locations for the low-level MiHpt soundings, which included the initial extent of the upgradient confirmed HVOCs dissolved-phase plume immediately to the west-northwest of the Site. Ten low-level MiHpt survey transects were conducted based on the compiled groundwater analytical results from the semiannual groundwater monitoring events. The MiHpt detector responses served to evaluate and confirm the presence of HVOCs immediately adjacent upgradient west-northwest of the Site and provide a baseline to interpret MiHpt response in potential areas of migration.

The MiHpt logs, provided in Columbia Technologies' May 2021 HRSC report (refer to Appendix A), and sampling locations were presented on an interactive Columbia Technologies website after each location was finished. Columbia Technologies manipulated the MiHpt surveys through its interactive graphical software to allow for multiple cross sections displaying the MiHpt responses upgradient of

the Site to illustrate confirmation of the presence of HVOCs dissolved-phase plume upgradient of the Site and to guide the high-resolution reconnaissance groundwater sampling decisions.

The selected high-resolution reconnaissance groundwater samples were submitted for laboratory analysis of VOCs. Due to environmental concerns regarding potential unknown petroleum hydrocarbons impacts from off-property, upgradient to the Site, the groundwater samples were also analyzed for hydrocarbons identification (HCID).

Additionally, selected groundwater samples were also analyzed for the following geochemical parameters to evaluate the potential biodegradation processes of the off-property HVOCs dissolved phase plume:

- Manganese (dissolved)
- Sulfate
- Methane

The following typical groundwater quality parameters were also monitored:

- Dissolved oxygen
- Oxygen reduction potential
- Electrical conductivity
- pH
- Temperature
- Turbidity

Appendix C provides the water field sampling data sheets, which recorded the above parameters for each high-resolution groundwater sampling activity where there was sufficient groundwater for monitoring activities.

5 HIGH-RESOLUTION SAMPLING AND ANALYSIS

5.1 High-Resolution Soil Sampling

Based on the findings from the ten low-level MiHpt surveys (OS-LLMIP01 through OS-LLMIP10 – refer to Figure 4-2), locations for high-resolution discrete soil sampling were targeted. The designated depth for high-resolution soil sampling at each boring was determined by the highest XSD signatures at each depth interval. Additionally, drilling refusal was encountered throughout the off-property subsurface investigation due to the presence of hard clay with sand and gravel at approximate depths ranging from 8.5 feet to 11.0 feet bgs. Macro-coring through these hard sections enabled the subsurface investigation to proceed to deeper depths to continue the low-level MiHpt surveys and target the potential HVOCs-impacted soil and/or groundwater.

High-resolution discrete soil cores were collected from five locations. The targeted sampling intervals were selected based on the XSD, FID, and PID results during the MiHpt surveys and/or field screening via a PID.

Using a direct-push drilling rig, the five selected locations for discrete soil sampling were continuously cored and logged for lithologic description and field screened with a PID. Additionally, visual and olfactory observations of the soil were recorded.

Selected soil samples from these five borings were containerized and submitted for laboratory analysis.

All direct-push drilling fieldwork activities, including samples collection, handling, and documentation, followed the procedures outlined in the HRSC Work Plan (MFA, 2018).

Five LLMIP borings (OS-LLMIP02, OS-LLMIP03, OS-LLMIP05, OS-LLMIP07, and OS-LLMIP09; refer to Figure 5-1 and Table 5-1) were advanced. The locations of the selected high-resolution discrete soil samples (refer to Figure 5-1) are as follows:

- OS-LLMIP02—located inferred upgradient and immediately northwest of the Site on the
 west side of West Nob Hill Boulevard at the intersection of West Nob Hill Boulevard and
 South 24th Avenue. The XSD responses, in combination with the FID and/or PID, were
 highest at approximately 7 feet bgs and 11 to 13 feet bgs. A high-resolution discrete soil sample
 was collected at 12.0 feet bgs (refer to Table 5-1).
- OS-LLMIP03—located inferred upgradient and immediately northwest of the Site on the north side of South 24th Avenue at the intersection of West Nob Hill Boulevard and South 24th Avenue. The XSD responses, in combination with the FID and/or PID, were highest at approximately 10 and 19 feet bgs. A high-resolution discrete soil sample was collected at 10.0 feet bgs (refer to Table 5-1).
- OS-LLMIP05—located inferred upgradient and immediately west of the Site on the west side of South 24th Avenue. The XSD responses, in combination with the FID and/or PID, were highest at approximately 7, 9, 16, and 18 feet bgs. A high-resolution discrete soil sample was collected at 18.0 feet bgs (refer to Table 5-1).
- OS-LLMIP07—located inferred upgradient and immediately west of the Site on the west side of South 24th Avenue. The XSD responses, in combination with the FID and/or PID, were highest at approximately 6, 8, and 9 feet bgs. A high-resolution discrete soil sample was collected at 9.0 feet bgs (refer to Table 5-1).
- OS-LLMIP09—located inferred upgradient and immediately west of the Site on the west side of South 24th Avenue. The XSD responses, in combination with the FID and/or PID, were highest at approximately 10 to 11 feet bgs. A high-resolution discrete soil sample was collected at 11.0 feet bgs (refer to Table 5-1).

The interval of the targeted high-resolution discrete soil samples ranged from 0.5 to 1 foot. Data logs and graphical presentations of all low-level MiHpt surveys (OS-LLMIP02, OS-LLMIP03, OS-LLMIP05, OS-LLMIP07, and OS-LLMIP09) conducted by Columbia Technologies are provided in

Appendix A. The graphical logs of these low-level MiHpt surveys present the subsurface stratigraphy at a high resolution. Boring logs for the five low-level MiHpt surveys are provided in Appendix B.

Borings were decommissioned with bentonite chips or with bentonite grout in accordance with Washington Administrative Code 173-160, Minimum Standards for Construction and Maintenance of Wells.

Investigation-derived waste included soil cuttings, purged groundwater, decontamination fluids, and sampling debris. The investigation-derived waste was stored in a designated area on the Property in drums approved by the Washington State Department of Transportation. The drums were labeled with their contents, the approximate volume of material, the date of collection, and the origin of the material. The drums will be disposed of at a regulated landfill pending characterization.

Under standard chain-of-custody procedures, the samples were submitted to OnSite of Seattle, Washington, for analysis. The samples were analyzed for IHS by the following analytical methods:

- VOC by EPA Method 8260D with EPA 5035 sample preparation
- HCID by the Northwest Total Petroleum Hydrocarbons (NWTPH) Method HCID
 - o A detected result of gasoline-range TPH during laboratory analysis by the HCID method was subsequently quantified by the NWTPH Method Gx
 - O A detected result of diesel-range TPH and/or lube oil-range TPH during laboratory analysis by the HCID method was subsequently quantified by the NWTPH Method Dx

All soil samples were submitted for standard turnaround times for the above-listed analytes.

5.1.1 High-Resolution Discrete Soil Analytical Results

The laboratory analytical report for the high-resolution discrete soil sampling is provided in Appendix D. Analytical data and the laboratory's internal QA/QC data were reviewed to assess whether they meet project-specific data quality objectives. This review was performed consistent with accepted EPA procedures for evaluating laboratory analytical data and appropriate laboratory and method-specific guidelines (EPA, 2004, 2008). A data validation memorandum summarizing data evaluation procedures, usability of data, and deviations from specific field and/or laboratory methods for the investigation data is presented in Appendix E. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

Table 5-1 summarizes the analytical results of the high-resolution discrete soil samples (collected from depths ranging from 9.0 to 18.0 feet bgs) submitted for analysis. The results indicate the following:

• Low concentrations of PCE (ranging from 0.0014 to 0.007 milligrams per kilogram) were detected in soil at three borings (OS-LLMIP05, OS-LLMIP07, and OS-LLMIP09) at depths ranging from 9 to 18 feet bgs. These PCE detections are below the MTCA Method A CUL (0.05 milligrams per kilogram).

- Breakdown products of PCE, such as TCE, 1-1-DCE, cis-1,2-DCE, trans-1,2-DCE, and VC, were not detected in all discrete soil samples submitted for laboratory analysis.
- The HCID analysis indicated no detections of gasoline-, diesel-, and lube oil-range TPHs.

5.2 High-Resolution Reconnaissance Groundwater Sampling

Based on the findings from the MiHpt surveys, locations for high-resolution reconnaissance groundwater sampling were targeted. The designated depth for high-resolution groundwater sampling at each boring was determined by the highest MiHpt signatures at each depth interval and the locales of interest to determine and verify the presence of an off-property HVOCs dissolved-phase plume. Samples were prepared, handled, and documented per the procedures outlined in the HRSC work plan (MFA, 2018).

Macro-coring was conducted at the LLMIP borings (OS-LLMIP02, OS-LLMIP03, OS-LLMIP05, OS-LLMIP07, and OS-LLMIP09; refer to Figure 5-2 and Table 5-2) to attain the deeper depths necessary for collecting reconnaissance groundwater samples. Drilling refusal was encountered at each of the five LLMIP boring locations. Macro-coring and temporary screen installation at these borings were as follows:

- OS-LLMIP02—Macro-core from 13.5 to 17.0 feet bgs. Temporary screen was installed from 13.0 to 18.0 feet bgs. A high-resolution reconnaissance groundwater sample was collected at 17.0 feet bgs.
- OS-LLMIP03—Macro-core from 11.9 to 16.0 feet bgs. Completed boring at 22.0 feet bgs. Temporary screen was installed from 18.0 to 22.0 feet bgs. A high-resolution reconnaissance groundwater sample was collected at 20.0 feet bgs.
- OS-LLMIP05—Macro-core from 15.0 to 18.0 feet bgs. Completed boring at 23.0 feet bgs. Temporary screen was installed from 18.0 to 22.0 feet bgs. A high-resolution reconnaissance groundwater sample was collected at 22.0 feet bgs.
- OS-LLMIP07—Macro-core from 11.0 to 21.5 feet bgs. Completed boring at 21.5 feet bgs. Temporary screen was installed from 11.5 to 21.5 feet bgs. A high-resolution reconnaissance groundwater sample was collected at 21.0 feet bgs.
- OS-LLMIP09—Completed boring at 19.0 feet bgs. Temporary screen was installed from 9.0 to 19.0 feet bgs. A high-resolution reconnaissance groundwater sample was collected at 19.0 feet bgs.

Data logs and graphical presentations of all low-level MiHpt surveys conducted by Columbia Technologies are provided in Appendix A. The graphical logs of these MiHpt surveys present the subsurface stratigraphy at a high resolution.

Groundwater monitoring and sampling activities were conducted in general accordance with industry standard sampling protocols and consistent with the sampling and analysis plan included in the Groundwater Management Plan (MFA, 2015). Due to the sufficient volume of groundwater present at OS-LLMIP05 and OS-LLMIP07, groundwater monitoring activities were conducted with at least

one pore volume extracted from each temporary well and groundwater quality field parameters stabilized before sample collection (refer to Appendix C). Due to the limited available groundwater volume at OS-LLMIP02 and OS-LLMIP09 with a lack of available groundwater recharge at OS-LLMIP09, groundwater quality field parameters were not collected at these two temporary monitoring wells. At OS-LLMIP03, allowing the groundwater to recharge enabled the collection of two sets of groundwater quality parameters and the full set of necessary containers for the designated laboratory analyses.

Water quality parameters were measured with a YSI meter (YSI Professional Plus) and a turbidity meter (Hach 2100P) before sample collection (as applicable) and were recorded on field sampling data sheets (refer to Appendix C). Five reconnaissance groundwater samples were collected using low-flow sampling techniques involving a peristaltic pump and dedicated disposable tubing.

Groundwater samples were submitted to OnSite under standard chain-of-custody procedures. The following analytical methods were used to analyze the samples for IHSs:

- VOCs by EPA Method 8260D with EPA 5035 sample preparation
- HCID by the NWTPH Method HCID
 - o A detected result of gasoline-range TPH during laboratory analysis by the HCID method was subsequently quantified by the NWTPH Method Gx
 - O A detected result of diesel-range TPH and/or lube oil-range TPH during laboratory analysis by the HCID method was subsequently quantified by the NWTPH Method Dx

The high-resolution reconnaissance groundwater samples were also analyzed for the following geochemical parameters to evaluate the potential biodegradation processes within the off-property dissolved-phase plume:

- Total manganese by EPA Method 6020
- Sulfate by ASTM International D516-07
- Methane by EPA National Risk Management Research Laboratory Method 175

All groundwater samples were submitted for standard turnaround times for the above-listed analytes.

The reconnaissance groundwater samples were field-monitored, where sufficient groundwater was available, for the following groundwater quality parameters:

- Dissolved O₂
- Oxygen reduction potential
- EC
- pH
- Temperature
- Turbidity

Custody of samples for all sampled media was tracked from point of origin through analysis and disposal, using a chain-of-custody form filled out with the appropriate sample and analytical information after samples were collected.

5.2.1 High-Resolution Reconnaissance Groundwater Analytical Results

The high-resolution reconnaissance groundwater sampling laboratory analytical report is provided in Appendix D. A data validation memorandum summarizing data evaluation procedures, usability of data, and deviations from specific field and/or laboratory methods for the investigation data is presented in Appendix E. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

Table 5-2 summarizes the analytical results of high-resolution reconnaissance groundwater samples submitted for analysis. Figure 5-2 presents the HVOCs groundwater analytical results for off-property reconnaissance groundwater samples in comparison to the layout of the Site and monitoring wells where PCE has been detected. Overall, a review of the high-resolution reconnaissance groundwater and quarterly/semiannual groundwater monitoring events analytical results indicate the following:

- The presence of an off-property upgradient HVOCs dissolved-phase plume has been confirmed.
- Detections of PCE concentrations in the off-property upgradient HVOCs dissolved-phase plume are similar in range to the PCE detections exhibited in the inferred downgradient permanent monitoring wells at the Site.
- The lack of breakdown products (TCE, 1-1-DCE, cis-1,2-DCE, trans-1,2-DCE, and VC) and
 the presence and range of concentrations of sulfate and manganese in the off-property highresolution reconnaissance groundwater samples are similar to the findings at the Site's
 monitoring wells, located in the northwest area of the Site, notably MW-10, YMW-1, YMW-2,
 and YMW-3.
- Chloroform was exhibited in all five high resolution reconnaissance groundwater samples. Chloroform may be formed during the degradation of PCE.
- Diesel- and lube oil-range TPHs, at concentrations above the MTCA Method A CUL, were exhibited at OS-LLMIP02 and OS-LLMIP09, respectively. Diesel-range and both diesel- and lube oil range TPHs were also detected at OS-LLMIP05 and OS-LLMIP07, respectively, albeit at concentrations below the Method A CUL.

6 HVOC OFF-PROPERTY DISSOLVED-PHASE PLUME ANALYSIS

6.1 HVOC Off-Property Dissolved-Phase Plume Distribution

The off-property HRSC indicate the following facets about the HVOCs dissolved-phase plume:

- It appears the off-property upgradient HVOCs dissolved-phase plume trends to the northwest and west of the Site.
- Based on the range in concentrations of PCE detections and lack of breakdown products, it appears the confirmed presence of the HVOCs dissolved-phase plume, directly upgradient to the northwest and west of the Site, is not representative of a source area, i.e., it appears this dissolved phase plume is downgradient of the source area.
- The low-level MiHpt surveys indicate high HPT pressure and low system flow, which are indicative of low-permeability soils; meanwhile, the HPT surveys indicate variable hydraulic conductivity (refer to Appendix A).
- Results of the MiHpt and HPT high-resolution reconnaissance groundwater samples also indicate that the lithologies of the soil strata exhibiting the highest impacts from HVOCs are highly variable, ranging from silty sand with gravel to silty clay with sand and gravel units. These units presented both permeable and less permeable zones with variable hydraulic conductivity.
- The variable hydraulic conductivity of the HVOCs impacted zones were illustrated during the monitoring of the groundwater quality field parameters of the high-resolution reconnaissance groundwater samples, from depths ranging approximately from 17 to 22 feet bgs. Monitoring activities were conducted only at two borings (OS-LLMIP05 and OS-LLMIP07) due to the variable yield of groundwater from these depths. Groundwater recharge did not occur during the groundwater monitoring activities at the remaining three borings (OS-LLMIP02, OS-LLMIP03, and OS-LLMIP09). Hence, groundwater quality field parameters were not collected at OS-LLMIP02 and OS-LLMIP09.

6.2 Potential Upgradient HVOC Sources

Based on a review of available documents from the Yakima County Department of Assessors, including property inspections, the following entities are potential upgradient HVOC sources to the Site's HVOCs impacted groundwater.

6.2.1 Nob Hill Cleaners

Historical documentation reviewed on the current Nob Hill Cleaners, located at 2904 West Nob Hill Boulevard, include the Yakima County Department of Assessors notes on property inspection, historical field properties documents, and Ecology dangerous waste reports, small quantity generator reports, and medium quantity generator reports (refer to Appendix F).

The historical field properties documents indicate that historically the dry cleaner at this address was operated as Sun Shine Cleaners from approximately 1978 through at least 1995. The business became Nob Hill Cleaners from approximately 2012 to the present time. A property inspection on October 14, 2012, by the Yakima County Department of Assessors, indicated "possible contamination rear of property excess land."

Ecology dangerous waste reports for the Nob Hill Cleaners indicated that this dry cleaner had operated as a very small (less than 220 pounds per month) to medium (between 220 to 2,200 pounds per month) quantity waste generator. The documents also indicated that the business had converted from using PERC (perchloroethylene solvents) to Exxon chemicals DF200 non-hazardous, non-regulated solvent in August 1999 (refer to Appendix F).

6.2.2 Southards Cleaners

Ecology dangerous waste reports for the Southards Cleaners, also known as Southards Laundry & Cleaners, indicated that this dry cleaner had operated as a very small (less than 220 pounds per month) to medium (between 220 to 2,200 pounds per month) quantity waste generator between approximately 1993 through 2004 (refer to Appendix F).

7 CONCLUSIONS AND RECOMMENDATIONS

The data gained both from the multiple lines of evidence (conducted via the off-property HRSC in concert with the discrete soil) and the reconnaissance groundwater samples' analytical results provide a pathway for accurate data interpretation and correlation as well as integration of the qualitative with the quantitative data from contaminant laboratory analysis. The direct-sensing equipment enables 3-D spatial analysis of the HVOCs dissolved-phase plume and the stratigraphic heterogeneity influencing the contaminant distribution.

The qualitative and quantitative data confirm presence of an HVOCs dissolved phase plume directly upgradient to the northwest of the Site (at the intersection of West Nob Hill Boulevard and South 24th Avenue) and west of the Site (on the west side of South 24th Avenue).

These findings provide the basis to conduct a supplemental off-property HVOCs HRSC to further investigate the potential sources of the HVOCs impacted groundwater to the northwest and west of the Site at and/or nearby the Nob Hill Cleaners and Southards Cleaners (refer to Figure 7-1) and of areas and locales investigated during this high-resolution subsurface characterization.

 $\label{lem:core.windows.net} $$\prod_0.01.601.02.City of Yakima\Report\\001_2022.03.23 Off Property HRSC Report\\Report\\Cox$

A Phase I environmental site assessment of both the potential chlorinated solvents' sources (Nob Hill Cleaners and Southards Cleaners) would enable a more complete research, review, and assessment of historical operations and regulatory documentations at these facilities.

The detections of diesel- and lube oil-range TPHs in reconnaissance groundwater samples upgradient of the Site, at concentrations above the MTCA Method A CUL, may warrant analyzing selected groundwater samples at the Site's monitoring wells located in the northwest area of the Site, during upcoming semi-annual groundwater monitoring events for these potential constituents of concern.

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our Client. This report is solely for the use and information of our Client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

The purpose of an environmental assessment is to reasonably evaluate the potential for or actual impact of past practices on a given site area. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an exhaustive analysis of each conceivable issue of potential concern. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to exclude the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not, therefore, be construed as a guarantee of the absence of such materials on the site.

Environmental conditions that cannot be identified by visual observation may exist at the site. Where subsurface work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

Except where there is express concern of our client, or where specific environmental contaminants have been previously reported by others, naturally occurring toxic substances, potential environmental contaminants inside buildings, or contaminant concentrations that are not of current environmental concern may not be reflected in this document.

Columbia Technologies. 2019. High-resolution light non-aqueous phase liquid conceptual site model assessment, former Tiger Oil, Yakima, WA—December 5, 2019.

Ecology. 2014. Amended cleanup action plan, Tiger Oil facility, 2312 West Nob Hill Boulevard, Yakima, Washington. Washington State Department of Ecology. June.

EPA. 2004. Contract laboratory program, national functional guidelines for inorganics data review. EPA 540/R-94/013. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. October.

EPA. 2008. Contract laboratory program, national functional guidelines for organics data review. EPA 540/R-08/01. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. June.

EPA. 2015. Using high resolution site characterization to improve remedy design and implementation. Dyment, S. - EPA Office of Superfund Remediation and Technology Innovation. June 25.

EPA. 2017. High-Resolution Site Characterization at Chlorinated Solvents Sites. Strategic Environmental Research and Development Program and Environmental Security Technology Certification Program Webinar Series. May 18.

Kleinfelder. 1992. RI/FS work plan, Tiger Oil facility, West Nob Hill Boulevard and South 24th Avenue, Yakima, Washington. Kleinfelder, Inc., Bellevue, Washington. January 29.

Kleinfelder. 1994. Final draft RI/FS report MTCA enforcement order no. DE 90-C140, second amendment, Tiger Oil facility, West Nob Hill Boulevard and South 24th Avenue, Yakima, Washington. Kleinfelder, Inc., Bellevue, Washington. April 4.

MFA. 2015. Groundwater monitoring plan—former Tiger Oil site, 2312 West Nob Hill Boulevard, Yakima, Washington. Prepared for the City of Yakima. Maul Foster & Alongi, Inc., Bellingham, Washington. August 26.

MFA. 2018. High-resolution site characterization work plan—former Tiger Oil site, 2312 West Nob Hill Boulevard, Yakima, Washington. Maul Foster & Alongi, Inc., Seattle, Washington. November 25.

MFA. 2019. High-resolution site characterization report—former Tiger Oil site, 2312 West Nob Hill Boulevard, Yakima, Washington. Maul Foster & Alongi, Inc., Seattle, Washington. April 26.

MFA. 2020. Technical Memorandum—Halogenated volatile organic compounds impacted groundwater — former Tiger Oil site, 2312 West Nob Hill Boulevard, Yakima, Washington. Maul Foster & Alongi, Inc., Seattle, Washington. June 25.

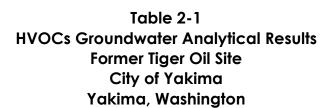
MFA. 2021a. Semi-annual groundwater monitoring report – November 2020, former Tiger Oil site, 2312 West Nob Hill Boulevard, Yakima, Washington. Maul Foster & Alongi, Inc., Seattle, Washington. July 26.

MFA. 2021b. Semi-annual groundwater monitoring report—May 2021, former Tiger Oil site, 2312 West Nob Hill Boulevard, Yakima, Washington. Maul Foster & Alongi, Inc., Seattle, Washington. July 26.

New Jersey Department of Environmental Protection. 2017. Commingled Plume Technical Guidance Document – Version 1.0. Site Remediation and Waste Management Program. April.

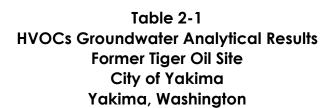
TerraGraphics. 2013. Groundwater sampling report, Tiger Oil, Yakima, Washington. Prepared for State of Washington Department of Ecology. TerraGraphics Environmental Engineering, Inc., Boise, Idaho. June 12.

TABLES





	Calleration				HVOCs		
Location	Collection Date	PCE	TCE	trans-1,2- Dichloroethene	cis-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MTCA A	Cleanup Level:(1)	5	5	NV	NV	NV	0.2
	11/04/2019	21	1.9	0.2 U	0.3	0.2 U	0.2 U
KMW-5	05/04/2020	7.3	4.2	0.36	0.78	0.2 U	0.2 U
KIVIVV-3	11/02/2020	11	3.9	0.2 U	0.57	0.2 U	0.2 U
	05/03/2021	4.5	3.8	0.48	0.76	0.2 U	0.2 U
	11/04/2019	19	2	1 U	1.2	1 U	1 U
KMW-6	05/04/2020	28	1.2	0.2 U	0.26	0.2 U	0.2 U
KIVIVV-0	11/03/2020	23	2.1	0.7	1	0.4 U	0.4 U
	05/03/2021	23	1.2	0.23	0.35	0.2 U	0.2 U
	05/05/2020	33	0.26	0.2 U	0.2 U	0.2 U	0.2 U
KMW-7	11/03/2020	25	0.94	0.2 U	0.63	0.2 U	0.2 U
	05/04/2021	27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	11/05/2019	0.27	0.2 U	0.2 U	0.34	0.2 U	0.55
KMW-14	05/04/2020	0.2 U	0.31	0.2 U	0.62	0.2 U	0.54
K/V(VV-14	11/02/2020	0.35	0.25	0.2 U	0.45	0.2 U	0.69
	05/03/2021	0.28	0.3	0.2 U	0.53	0.2 U	0.63
	11/05/2019	29	0.52	0.2 U	0.2 U	0.2 U	0.2 U
KMW-15	05/04/2020	31	0.66	0.2 U	0.2 U	0.2 U	0.2 U
VIVIVV-13	11/02/2020	30	0.61	0.2 U	0.2 U	0.2 U	0.2 U
	05/03/2021	28	0.57	0.2 U	0.2 U	0.2 U	0.2 U





	Caller dia	HVOCs					
Location	Collection Date	PCE	TCE	trans-1,2- Dichloroethene	cis-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MTCA A	Cleanup Level:(1)	5	5	NV	NV	NV	0.2
	11/05/2019	8	0.75	0.2 U	0.39	0.2 U	0.51
KMW-16	05/04/2020	23	0.62	0.2 U	0.2 U	0.2 U	0.2 U
N/VIVV-10	11/02/2020	11	0.97	0.2 U	0.47	0.2 U	0.3
	05/03/2021	21	0.66	0.2 U	0.2 U	0.2 U	0.2 U
	05/05/2020	31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
MW-10	11/03/2020	26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
	05/04/2021	26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
MW-13	05/04/2021	1.2	1.7	0.2 U	2.9	0.2 U	0.98
	11/05/2019	27	0.41	0.2 U	0.2 U	0.2 U	0.2 U
MWG-2	05/05/2020	29	0.23	0.2 U	0.2 U	0.2 U	0.2 U
1V(VVG-2	11/03/2020	30	0.39	0.2 U	0.2 U	0.2 U	0.2 U
	05/04/2021	27	0.21	0.2 U	0.2 U	0.2 U	0.2 U
MWG-3	11/05/2019	13	10 U	10 U	10 U	10 U	10 U
1V(VG-3	05/05/2020	8.8	2 U	2 U	2.9	2 U	2.1
S-2	11/02/2020	1 U	1.9	1 U	3.6	1 U	1 U
3-2	05/03/2021	1 U	1.4	1 U	1.7	1 U	1 U
	11/05/2019	10 U	10 U	10 U	10 U	10 U	10 U
	11/05/2017	10 U	10 U	10 U	10 U	10 U	10 U
YMW-1	05/05/2020	19	10 U	10 U	10 U	10 U	10 U
	11/03/2020	15	2 U	2 U	2 U	2 U	2 U
	05/04/2021	15	4 U	4 U	4 U	4 U	4 U

Table 2-1 HVOCs Groundwater Analytical Results Former Tiger Oil Site City of Yakima Yakima, Washington



	O all a all a a	HVOCs							
Location	Collection Date	PCE	TCE	trans-1,2- Dichloroethene	cis-1,2- Dichloroethene	1,1- Dichloroethene	Vinyl Chloride		
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
MTCA A	Cleanup Level:(1)	5	5	NV	NV	NV	0.2		
	05/05/2020	10 U	10 U	10 U	10 U	10 U	10 U		
		10 U	10 U	10 U	10 U	10 U	10 U		
YMW-2	11/03/2020	2 U	2 U	2 U	4.2	2 U	2 U		
1//////-2		2 U	2 U	2 U	3.8	2 U	2 U		
	05/04/2021	11	4 U	4 U	4 U	4 U	4 U		
		10	4 U	4 U	4 U	4 U	4 U		
	05/05/2020	10 U	10 U	10 U	10 U	10 U	10 U		
YMW-3	11/03/2020	2 U	2 U	2 U	6.3	2 U	2 U		
	05/04/2021	10 U	10 U	10 U	10 U	10 U	10 U		

NOTES:

Bolding indicates a detection.

Field duplicate indicated by two analytical results for the same collection date for a single monitoring well location.

Shading indicates a MTCA Method A exceedance; non-detects ("U") were not compared with screening criteria.

HVOC = halogenated volatile organic compound.

MTCA = Model Toxics Control Act.

NV = no value.

PCE = tetrachloroethene.

TCE = trichloroethene.

U = result is non-detect.

ug/L = micrograms per liter.

REFERENCE:

[1] Ecology, Cleanup Levels and Risk Calculation (CLARC) table. February 2021.



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		05/27/2015		9.11	NA	1,073.74	
		02/01/2016		8.78	NA	1,074.07	0.33
		05/09/2016		8.72	NA	1,074.13	0.06
		07/25/2016		8.10	NA	1,074.75	0.62
		11/07/2016		8.35	NA	1,074.50	-0.25
		02/14/2017		8.95	NA	1,073.90	-0.60
KMW-5	1,082.85	05/08/2017		8.51	NA	1,074.34	0.44
K/V(VV-5	1,002.03	08/14/2017		7.64	NA	1,075.21	0.87
		11/06/2018		8.62	NA	1,074.23	-0.98
		05/07/2019		9.17	NA	1,073.68	-0.55
		11/04/2019		8.60	NA	1,074.25	0.57
		05/04/2020		9.70	NA	1,073.15	-1.10
		11/02/2020		8.68	NA	1,074.17	1.02
		05/03/2021		9.61	NA	1,073.24	-0.93
		05/28/2015		8.82	NA	1,074.76	
		11/03/2015		8.43	NA	1,075.15	0.39
		02/01/2016		8.45	NA	1,075.13	-0.02
		05/09/2016		8.36	NA	1,075.22	0.09
		07/25/2016		7.71	NA	1,075.87	0.65
		11/07/2016		7.94	NA	1,075.64	-0.23
		02/15/2017		8.65	NA	1,074.93	-0.71
KMW-6	1,083.58	05/08/2017		8.06	NA	1,075.52	0.59
		08/14/2017		7.18	NA	1,076.40	0.88
		11/06/2018		8.30	NA	1,075.28	-1.12
		05/07/2019		8.96	NA	1,074.62	-0.66
		11/04/2019		8.26	NA	1,075.32	0.70
		05/04/2020		9.53	NA	1,074.05	-1.27
		11/02/2020		8.40	NA	1,075.18	1.13
		05/03/2021		9.44	NA	1,074.14	-1.04



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		05/29/2015		13.47	NA	1,078.49	
		11/02/2015		12.64	NA	1,079.32	0.83
		02/01/2016		12.85	NA	1,079.11	-0.21
		05/09/2016		12.69	NA	1,079.27	0.16
		07/25/2016		11.98	NA	1,079.98	0.71
		11/07/2016		12.09	NA	1,079.87	-0.11
		02/14/2017		13.10	NA	1,078.86	-1.01
KMW-7	1,091.96	05/08/2017		12.30	NA	1,079.66	0.80
		08/14/2017		11.40	NA	1,080.56	0.90
		11/06/2018		12.45	NA	1,079.51	-1.05
		05/07/2019		13.40	NA	1,078.56	-0.95
		11/04/2019	0.01	12.36	12.35	1,079.61	1.05
		05/04/2020		14.00	NA	1,077.96	-1.65
		11/02/2020		12.51	NA	1,079.45	1.49
		05/03/2021 ^(c)		13.91	NA	1,078.05	-1.40
	1,092.11	05/29/2015		13.48	NA	1,078.63	
		11/04/2019		12.33	NA	1,079.78	1.15
KMW-8		05/04/2020		14.03	NA	1,078.08	-1.70
		11/02/2020		12.70	NA	1,079.41	1.33
		05/03/2021 ^(c)		13.91	NA	1,078.20	-1.21
		05/29/2015		13.10	NA	1,077.53	
		07/25/2016	0.43	12.25	11.93	1,078.70	1.17
		11/07/2016	0.58	12.50	12.07	1,078.57	-0.14
		02/15/2017	0.40	13.30	13.00	1,077.63	-0.93
		05/08/2017	0.32	12.51	12.27	1,078.36	0.73
KMW-10 ^(d)	1,090.63	08/14/2017	0.29	11.48	11.26	1,079.37	1.01
KMVV-10(*)	1,090.63	11/06/2018	0.37	12.70	12.42	1,078.21	-1.16
		05/07/2019	0.21	13.40	13.24	1,077.39	-0.82
		11/04/2019	0.09	12.37	12.30	1,078.33	0.94
		05/04/2020	0.13	13.85	13.75	1,076.88	-1.45
		11/02/2020	0.61	12.91	12.45	1,078.18	1.30
		05/03/2021	0.61	14.17	13.71	1,076.92	-1.26



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		05/28/2015		12.66	NA	1,069.74	
		11/03/2015		12.37	NA	1,070.03	0.29
		02/01/2016		12.27	NA	1,070.13	0.10
		05/09/2016		12.29	NA	1,070.11	-0.02
		07/25/2016		11.86	NA	1,070.54	0.43
		11/07/2016		11.98	NA	1,070.42	-0.12
		02/15/2017		12.62	NA	1,069.78	-0.64
KMW-14	1,082.40	05/08/2017		12.02	NA	1,070.38	0.60
		08/14/2017		11.38	NA	1,071.02	0.64
		11/06/2018		12.22	NA	1,070.18	-0.84
		05/07/2019		12.88	NA	1,069.52	-0.66
		11/04/2019		12.30	NA	1,070.10	0.58
		05/04/2020		13.39	NA	1,069.01	-1.09
		11/02/2020		12.44	NA	1,069.96	0.95
		05/03/2021		13.39	NA	1,069.01	-0.95
		11/03/2015		10.90	NA	1,072.64	
		02/01/2016		10.86	NA	1,072.68	0.04
		05/09/2016		10.88	NA	1,072.66	-0.02
		07/25/2016		10.36	NA	1,073.18	0.52
		11/07/2016		10.51	NA	1,073.03	-0.15
		02/15/2017		11.14	NA	1,072.40	-0.63
KMW-15	1,083.54	05/08/2017		10.56	NA	1,072.98	0.58
K/V(VV-13	1,003.34	08/14/2017		9.84	NA	1,073.70	0.72
		11/06/2018		10.73	NA	1,072.81	-0.89
		05/07/2019		11.30	NA	1,072.24	-0.57
		11/04/2019		10.78	NA	1,072.76	0.52
		05/04/2020		11.85	NA	1,071.69	-1.07
		11/02/2020		10.89	NA	1,072.65	0.96
		05/03/2021		11.83	NA	1,071.71	-0.94



Takina, Washington										
Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)			
		05/28/2015		11.05	NA	1,072.22				
		11/03/2015		10.67	NA	1,072.60	0.38			
		02/02/2016		10.67	NA	1,072.60	0.00			
		05/09/2016		10.66	NA	1,072.61	0.01			
		07/25/2016		10.14	NA	1,073.13	0.52			
		11/07/2016		10.27	NA	1,073.00	-0.13			
		02/15/2017 ^(e)								
KMW-16	1,083.27	05/08/2017		10.31	NA	1,072.96				
		08/15/2017		9.58	NA	1,073.69	0.73			
		11/06/2018		10.47	NA	1,072.80	-0.89			
		05/07/2019		11.10	NA	1,072.17	-0.63			
		11/04/2019		10.49	NA	1,072.78	0.61			
		05/04/2020		11.63	NA	1,071.64	-1.14			
		11/02/2020		10.63	NA	1,072.64	1.00			
		05/03/2021		11.63	NA	1,071.64	-1.00			
	1,085.34	05/27/2015		9.70	NA	1,075.64				
KMW-18		11/04/2019		9.21	NA	1,076.13	0.49			
K/VIVV-10		05/04/2020		11.63	NA	1,073.71	-2.42			
		11/02/2020		9.16	NA	1,076.18	2.47			
	1,087.47	05/29/2015		10.25	NA	1,077.22				
KMW-24		11/06/2019		9.37	NA	1,078.10	-0.88			
K/V/VV-24		11/02/2020		9.40	NA	1,078.07	0.03			
		05/03/2021		10.48	NA	1,076.99	-1.08			
		05/29/2015	1.44	13.78	12.70	1,077.60				
		11/04/2015	0.29	12.20	11.98	1,078.32	0.72			
		02/01/2016	0.29	12.30	12.08	1,078.22	-0.10			
		05/09/2016	0.32	12.21	11.97	1,078.33	0.11			
		07/25/2016	0.30	11.50	11.28	1,079.03	0.69			
		11/07/2016	0.28	11.58	11.37	1,078.93	-0.09			
		02/15/2017	0.27	12.42	12.22	1,078.08	-0.85			
MW-7	1,090.30	05/08/2017	0.18	11.77	11.64	1,078.67	0.58			
		08/14/2017	0.21	10.55	10.39	1,079.91	1.24			
		11/06/2018	0.20	11.95	11.80	1,078.50	-1.41			
		05/07/2019	0.18	12.76	12.63	1,077.68	-0.83			
		11/04/2019		11.67	NA	1,078.63	0.95			
		05/04/2020	0.26	13.26	13.07	1,077.24	-1.39			
		11/02/2020	0.13	11.86	11.76	1,078.54	1.30			
		05/03/2021	0.38	13.32	13.04	1,077.27	-1.27			



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		05/28/2015		14.20	NA	1,077.28	
		11/03/2015		13.98	NA	1,077.50	0.22
		02/01/2016		14.21	NA	1,077.27	-0.23
		05/09/2016		14.11	NA	1,077.37	0.10
		07/25/2016		13.43	NA	1,078.05	0.68
		11/07/2016		13.59	NA	1,077.89	-0.16
		02/15/2017		14.45	NA	1,077.03	-0.86
MW-9	1,091.48	05/08/2017		13.74	NA	1,077.74	0.71
		08/14/2017		12.78	NA	1,078.70	0.96
		11/06/2018		13.95	NA	1,077.53	-1.17
		05/07/2019		14.79	NA	1,076.69	-0.84
		11/04/2019		13.92	NA	1,077.56	0.87
		05/04/2020	1.66	16.68	15.44	1,076.05	-1.51
		11/02/2020	1.84	15.50	14.12	1,077.36	1.32
		05/03/2021 ^(f)	2.79	14.79		-	-
		05/29/2015		13.19	NA	1,078.92	
		11/02/2015		12.36	NA	1,079.75	0.83
		02/01/2016		12.54	NA	1,079.57	-0.18
		05/09/2016		12.35	NA	1,079.76	0.19
		07/25/2016		11.60	NA	1,080.51	0.75
		11/07/2016		11.70	NA	1,080.41	-0.10
		02/14/2017		12.71	NA	1,079.40	-1.01
MW-10	1,092.11	05/08/2017		11.96	NA	1,080.15	0.75
		08/14/2017		11.00	NA	1,081.11	0.96
		11/06/2018		12.10	NA	1,080.01	-1.10
		05/07/2019		13.06	NA	1,079.05	-0.96
		11/04/2019	0.02	12.05	12.04	1,080.08	1.02
		05/04/2020		13.69	NA	1,078.42	-1.65
		11/02/2020		12.18	NA	1,079.93	1.51
		05/03/2021		13.62	NA	1,078.49	-1.44



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		05/29/2015	0.55	14.51	14.10	1,077.58	
		11/04/2015	0.01	13.35	13.34	1,078.34	0.76
		02/01/2016	0.10	13.52	13.45	1,078.24	-0.10
		05/09/2016	0.10	13.41	13.34	1,078.35	0.11
		07/25/2016		12.62	NA	1,079.06	0.72
		11/07/2016		12.70	NA	1,078.98	-0.08
		02/14/2017	0.01	13.70	13.69	1,077.99	-0.99
MW-11	1,091.68	05/08/2017		12.93	NA	1,078.75	0.76
		08/14/2017		11.95	NA	1,079.73	0.98
		11/06/2018	0.01	13.05	13.04	1,078.64	-1.09
		05/07/2019	0.17	14.15	14.02	1,077.66	-0.98
		11/04/2019	0.02	13.01	13.00	1,078.69	1.03
		05/04/2020	0.44	14.94	14.61	1,077.07	-1.62
		11/02/2020	0.01	13.13	13.12	1,078.56	1.49
		05/03/2021	0.19	14.66	14.52	1,077.16	-1.39
		05/28/2015		10.10	NA	1,081.17	
		11/04/2015	0.20	14.03	13.88	1,077.39	-3.78
		02/01/2016	0.21	14.10	13.94	1,077.33	-0.06
		05/09/2016	0.18	13.98	13.85	1,077.43	0.10
		07/25/2016	0.02	13.12	13.11	1,078.17	0.74
		11/07/2016	0.05	13.30	13.26	1,078.01	-0.16
		02/14/2017	0.04	14.19	14.16	1,077.11	-0.90
MW-13	1,091.27	05/08/2017	0.04	13.48	13.45	1,077.82	0.71
		08/14/2017		12.45	NA	1,078.82	1.00
		11/06/2018		13.60	NA	1,077.67	-1.15
		05/07/2019		14.50	NA	1,076.77	-0.90
		11/04/2019		13.55	NA	1,077.72	0.95
		05/04/2020		15.10	NA	1,076.17	-1.55
		11/02/2020	0.01	13.70	13.69	1,077.58	1.41
		05/03/2021		15.01	NA	1,076.26	-1.32
		05/28/2015		9.71	NA	1,074.27	
MWG-1	1,083.98	11/04/2019		8.98	NA	1,075.00	0.73
		05/03/2021		10.40	NA	1,073.58	-1.42



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		02/01/2016		8.90	NA	1,076.57	
		05/09/2016		8.78	NA	1,076.69	0.12
		07/25/2016		8.10	NA	1,077.37	0.68
		11/07/2016		8.32	NA	1,077.15	-0.22
		02/14/2017		9.15	NA	1,076.32	-0.83
		05/08/2017		8.46	NA	1,077.01	0.69
MWG-2	1,085.47	08/14/2017		7.47	NA	1,078.00	0.99
		11/06/2018		8.60	NA	1,076.87	-1.13
		05/07/2019		9.47	NA	1,076.00	-0.87
		11/04/2019		8.62	NA	1,076.85	0.85
		05/04/2020		10.08	NA	1,075.39	-1.46
		11/02/2020		8.82	NA	1,076.65	1.26
		05/03/2021		10.05	NA	1,075.42	-1.23
		05/28/2015		7.60	NA	1,076.55	
		11/03/2015	0.06	7.10	7.06	1,077.10	0.54
		02/01/2016	0.08	7.10	7.04	1,077.11	0.02
		05/09/2016	0.04	7.00	6.97	1,077.18	0.07
		07/25/2016	0.05	6.40	6.36	1,077.79	0.61
		11/07/2016	0.11	6.61	6.53	1,077.62	-0.16
		02/14/2017	0.02	7.27	7.26	1,076.90	-0.73
MWG-3	1,084.15	05/08/2017	0.03	6.68	6.66	1,077.49	0.60
		08/14/2017		5.81	NA	1,078.34	0.85
		11/06/2018	0.05	6.90	NA	1,077.25	-1.09
		05/07/2019	0.02	7.60	NA	1,076.55	-0.70
		11/04/2019		6.80	NA	1,077.35	0.80
		05/04/2020		8.12	NA	1,076.03	-1.32
		11/02/2020	0.01	6.90	6.89	1,077.26	1.23
		05/03/2021	0.01	8.05	8.04	1,076.11	-1.15
		05/28/2015		11.79	NA	1,077.03	
S-1	1,088.82	11/04/2019		10.81	NA	1,078.01	-0.98
3-1	1,000.02	11/02/2020		10.97	NA	1,077.85	0.16
		05/03/2021		12.26	NA	1,076.56	1.29



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		05/27/2015		8.73	NA	1,077.01	
		11/07/2016		7.67	NA	1,078.07	
		02/14/2017		8.41	NA	1,077.33	-0.74
		05/08/2017		7.88	NA	1,077.86	0.53
		08/14/2017		7.02	NA	1,078.72	0.86
S-2	1,085.74	11/06/2018		8.10	NA	1,077.64	-1.08
		05/07/2019		8.70	NA	1,077.04	-0.60
		11/04/2019		8.01	NA	1,077.73	0.69
		05/04/2020		9.18	NA	1,076.56	-1.17
		11/02/2020		7.99	NA	1,077.75	1.19
		05/03/2021		9.04	NA	1,076.70	-1.05
		05/29/2015		12.00	NA	1,077.05	
		11/04/2015		11.40	NA	1,077.65	0.60
		02/01/2016		11.49	NA	1,077.56	-0.09
		05/09/2016		11.36	NA	1,077.69	0.13
		07/25/2016		10.69	NA	1,078.36	0.67
		11/07/2016		10.79	NA	1,078.26	-0.10
		02/15/2017		11.65	NA	1,077.40	-0.86
YMW-1	1,089.05	05/08/2017		11.01	NA	1,078.04	0.64
		08/14/2017		10.03	NA	1,079.02	0.98
		11/06/2018		11.25	NA	1,077.80	-1.22
		05/07/2019		12.01	NA	1,077.04	-0.76
		11/04/2019		11.09	NA	1,077.96	0.92
		05/04/2020		12.46	NA	1,076.59	-1.37
		11/02/2020		11.14	NA	1,077.91	1.32
		05/03/2021		12.38	NA	1,076.67	-1.24



Location	MP Elevation (feet, NAVD 88)	Measurement Date	LNAPL Thickness (feet)	Depth to Water (feet)	Depth to Water Corrected for Presence of LNAPL (feet) ^(a)	Groundwater Elevation (feet, NAVD 88)	Change in Groundwater Elevation Level (feet) ^(b)
		05/29/2015		13.73	NA	1,077.13	
		11/04/2015		13.10	NA	1,077.76	0.63
		02/01/2016		13.17	NA	1,077.69	-0.07
		05/09/2016		13.08	NA	1,077.78	0.09
		07/25/2016		12.30	NA	1,078.56	0.78
		11/07/2016		12.44	NA	1,078.42	-0.14
		02/15/2017		13.36	NA	1,077.50	-0.92
YMW-2	1,090.86	05/08/2017		12.65	NA	1,078.21	0.71
		08/14/2017		11.12	NA	1,079.74	1.53
		11/06/2018		12.90	NA	1,077.96	-1.78
		05/07/2019		13.71	NA	1,077.15	-0.81
		11/04/2019		12.73	NA	1,078.13	0.98
		05/04/2020		14.21	NA	1,076.65	-1.48
		11/02/2020		12.85	NA	1,078.01	1.36
		05/03/2021		14.13	NA	1,076.73	-1.28
		05/29/2015		12.28	NA	1,077.25	
		11/04/2015	0.06	11.68	11.64	1,077.90	0.64
		02/01/2016		11.75	NA	1,077.78	-0.12
		05/09/2016		11.62	NA	1,077.91	0.13
		07/25/2016		10.92	NA	1,078.61	0.70
		11/07/2016		11.05	NA	1,078.48	-0.13
		02/15/2017		11.90	NA	1,077.63	-0.85
YMW-3	1,089.53	05/08/2017		11.21	NA	1,078.32	0.69
		08/14/2017		10.18	NA	1,079.35	1.03
		11/06/2018		11.42	NA	1,078.11	-1.24
		05/07/2019		12.24	NA	1,077.29	-0.82
		11/04/2019		11.31	NA	1,078.22	0.93
		05/04/2020		12.70	NA	1,076.83	-1.39
		11/02/2020		11.37	NA	1,078.16	1.33
		05/03/2021		12.62	NA	1,076.91	-1.25



NOTES:

-- = no measurable LNAPL thickness present.

LNAPL = light nonaqueous-phase liquid.

MP = measuring point.

NA = not applicable.

NAVD 88 = North American Vertical Datum of 1988.

^(a)Water level corrected for presence of LNAPL, using assumed product density of 0.75 grams per cubic centimeter (American Petroleum Institute).

(b) Change in water level is relative to two most recent sampling events.

(c) Inconsistent detections of free product using oil-water interface probe.

(d) Monitoring well KMW-10 included in monitoring well network only for evaluating presence of LNAPL and depth to water.

^(e)Monitoring well KMW-16 not sampled because of inaccessibility caused by snow pile.

^(f)Thickness of product was estimated due to clay-like substance present in well. Probe malfunctioning during reading.

Table 5-1 Off-Property HRSC—Discrete Soil Analytical Results—Former Tiger Oil Site City of Yakima Yakima, Washington



Location:		OS-LLMIP02	OS-LLMIP03	OS-LLMIP05	OS-LLMIP07	OS-LLMIP09
0	1	DSS-OS-	DSS-OS-	DSS-OS-	DSS-OS-	DSS-OS-
Sample Name:	MTCA A ⁽¹⁾	LLMIP02-12.0	LLMIP03-10.0	LLMIP05-18.0	LLMIP07-9.0	LLMIP09-11.0
Collection Date:	1	5/13/2021	5/13/2021	5/13/2021	5/13/2021	5/13/2021
Collection Depth (ft bgs):	1	12.0	10.0	18.0	9.0	11.0
Hydrocarbon Identification (detect	/non-detect)	•				•
Gasoline	NA	ND	ND	ND	ND	ND
Diesel	NA	ND	ND	ND	ND	ND
Lube Oil	NA	ND	ND	ND	ND	ND
VOCs (mg/kg)		•				•
1,1,1,2-Tetrachloroethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1,1-Trichloroethane	2	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1,2,2-Tetrachloroethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1,2-Trichloroethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1-Dichloroethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1-Dichloroethene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,1-Dichloropropene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2,3-Trichlorobenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2,3-Trichloropropane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2,4-Trichlorobenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2,4-Trimethylbenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dibromo-3-chloropropane	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
1,2-Dibromoethane	0.005	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dichlorobenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,2-Dichloroethane	NV	0.0012 U	. U	0.0011 U	0.0011 U	0.0011 U
1,2-Dichloropropane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,3,5-Trimethylbenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,3-Dichlorobenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,3-Dichloropropane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
1,4-Dichlorobenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
2,2-Dichloropropane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
2-Butanone	NV	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U
2-Chloroethylvinyl ether	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
2-Chlorotoluene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
2-Hexanone	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
4-Chlorotoluene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
4-Isopropyltoluene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
4-Methyl-2-pentanone	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
Acetone	NV	0.06 U	0.057 U	0.055 U	0.056 U	0.071 U
Benzene	0.03	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Bromobenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Bromodichloromethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U

Table 5-1 Off-Property HRSC—Discrete Soil Analytical Results—Former Tiger Oil Site City of Yakima Yakima, Washington



Location:		OS-LLMIP02	OS-LLMIP03	OS-LLMIP05	OS-LLMIP07	OS-LLMIP09
Sample Name:	NATO : . (1)	DSS-OS- LLMIP02-12.0	DSS-OS- LLMIP03-10.0	DSS-OS- LLMIP05-18.0	DSS-OS- LLMIP07-9.0	DSS-OS- LLMIP09-11.0
Callantina Data	MTCA A ⁽¹⁾		5/13/2021		5/13/2021	
Collection Date:		5/13/2021	10.0	5/13/2021		5/13/2021 11.0
Collection Depth (ft bgs): Bromoform	NV	0.006 U	0.0057 U	18.0 0.0055 U	9.0 0.0056 U	0.0054 U
Bromomethane	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
Carbon disulfide	NV	0.008 U	0.0037 U	0.0033 U	0.0036 U	0.0034 U
Carbon tetrachloride	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Chlorobenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Chlorobromomethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Chloroethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
			0.0037 U		0.0036 U	0.0034 U
Chloroform Chloromethane	NV NV	0.0012 U 0.006 U	0.0011 U	0.0011 U 0.0055 U	0.0011 U	0.0011 U
cis-1,2-Dichloroethene	NV	0.006 U		0.0055 U 0.0011 U	0.0036 U	
			0.0011 U			0.0011 U
cis-1,3-Dichloropropene Dibromochloromethane	NV NV	0.0012 U	0.0011 U 0.0011 U	0.0011 U 0.0011 U	0.0011 U 0.0011 U	0.0011 U 0.0011 U
		0.0012 U				
Dibromomethane	NV	0.0012 U	0.0011 U 0.0011 U	0.0011 U	0.0011 U	0.0011 U
Dichlorodifluoromethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Ethylbenzene	6	0.0012 U		0.0011 U	0.0011 U	0.0011 U
Hexachlorobutadiene	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
Isopropylbenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
m,p-Xylene	NV	0.0024 U	0.0023 U	0.0022 U	0.0022 U	0.0021 U
Methyl iodide	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
Methyl tert-butyl ether	0.1	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Methylene chloride	0.02	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
Naphthalene	5	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
n-Butylbenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
n-Propylbenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
o-Xylene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
sec-Butylbenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Styrene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
tert-Butylbenzene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Tetrachloroethene	0.05	0.0012 U	0.0011 U	0.0041	0.0014	0.007
Toluene	7	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
trans-1,2-Dichloroethene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
trans-1,3-Dichloropropene	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Trichloroethene	0.03	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Trichlorofluoromethane	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Vinyl Acetate	NV	0.006 U	0.0057 U	0.0055 U	0.0056 U	0.0054 U
Vinyl chloride	NV	0.0012 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Xylenes, total ^(a)	9.0	0.0024 U	0.0023 U	0.0022 U	0.0022 U	0.0021 U

Table 5-1 Off-Property HRSC—Discrete Soil Analytical Results—Former Tiger Oil Site City of Yakima Yakima, Washington



NOTES:

Detected results are shown in bold font.

Analytical results compared to screening criteria. Non-detects ("U" or "UJ") were not compared with screening criteria. There were no exceedances.

DSS = discrete soil sample.

ft bgs = feet below ground surface.

mg/kg = milligrams per kilogram.

MTCA A = Model Toxics Control Act Method A, unrestricted land use.

NA = not applicable.

ND = not detected.

NV = no value.

OS = off site.

U = result not detected at or above method reporting limit.

VOC = volatile organic compound.

(a) Total xylenes is the sum of m,p-xylene and o-xylene. Non-detect results are summed at one-half the detection limit. When both results are non-detect, the higher detection limit is used.

REFERENCE:

[1] Ecology, Cleanup Levels and Risk Calculation (CLARC) table. February 2021.

Table 5-2

Off-Property HRSC—Reconnaissance

Groundwater Analytical Results—Former Tiger Oil Site City of Yakima Yakima, Washington

Location:		OS-LLMIP02	OS-LLMIP03	OS-LLMIP05	OS-LLMIP07	OS-LLMIP09
Sample Name:	MTCA A ⁽¹⁾	DSW-OS- LLMIP02-17.0	DSW-OS- LLMIP03-20.0	DSW-OS- LLMIP05-22.0	DSW-OS- LLMIP07-21.0	DSW-OS- LLMIP09-19.0
Collection Date:	1	5/13/2021	5/13/2021	5/13/2021	5/13/2021	5/14/2021
Collection Depth (ft bgs):	1	17.0	20.0	22.0	21.0	19.0
Hydrocarbon Identifcation (detect/no	n-detect)	•			•	•
Gasoline Range Hydrocarbons	NA	DETECT	ND	DETECT	DETECT	DETECT
Diesel Range Hydrocarbons	NA	DETECT	ND	ND	DETECT	DETECT
Lube Oil Range Hydrocarbons	NA	DETECT	ND	DETECT	DETECT	DETECT
TPH (ug/L)		•			•	
Gasoline Range Hydrocarbons	800 ^(a)	100 U		100 U	100 U	100 U
Diesel Range Hydrocarbons	500	550		220 U	300	1,100
Lube Oil Range Hydrocarbons	500	270		490	290	830
Geochemical Parameters (ug/L)	-				•	
Sulfate	NV			25,000	25,000	
Manganese	NV			2,700	5,900	
Methane	NV			0.61	0.63	
VOCs (ug/L)	-	-			-	
1,1,1,2-Tetrachloroethane	NV	0.2 U				
1,1,1-Trichloroethane	200	0.2 U				
1,1,2,2-Tetrachloroethane	NV	0.2 U				
1,1,2-Trichloroethane	NV	0.2 U				
1,1-Dichloroethane	NV	0.2 U				
1,1-Dichloroethene	NV	0.2 U				
1,1-Dichloropropene	NV	0.2 U				
1,2,3-Trichlorobenzene	NV	0.2 U				
1,2,3-Trichloropropane	NV	0.2 U				
1,2,4-Trichlorobenzene	NV	0.2 U				
1,2,4-Trimethylbenzene	NV	0.2 U				
1,2-Dibromo-3-chloropropane	NV	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	0.01	0.2 U ^(b)				
1,2-Dichlorobenzene	NV	0.2 U				
1,2-Dichloroethane	5	0.2 U				
1,2-Dichloropropane	NV	0.2 U				
1,3,5-Trimethylbenzene	NV	0.2 U				
1,3-Dichlorobenzene	NV	0.2 U				
1,3-Dichloropropane	NV	0.2 U				
1,4-Dichlorobenzene	NV	0.2 U				
2,2-Dichloropropane	NV	0.2 U				
2-Butanone	NV	5.3	5 U	5 U	5 U	7.4
2-Chloroethylvinyl ether	NV	1 U	1 U	1 U	1 U	1 U
2-Chlorotoluene	NV	0.2 U				

Table 5-2 Off-Property HRSC—Reconnaissance

MAUL FOSTER ALONGI

Groundwater Analytical Results—Former Tiger Oil Site City of Yakima Yakima, Washington

Location:		OS-LLMIP02	OS-LLMIP03	OS-LLMIP05	OS-LLMIP07	OS-LLMIP09
Councide Name of		DSW-OS-	DSW-OS-	DSW-OS-	DSW-OS-	DSW-OS-
Sample Name:	MTCA A ⁽¹⁾	LLMIP02-17.0	LLMIP03-20.0	LLMIP05-22.0	LLMIP07-21.0	LLMIP09-19.0
Collection Date:		5/13/2021	5/13/2021	5/13/2021	5/13/2021	5/14/2021
Collection Depth (ft bgs):		17.0	20.0	22.0	21.0	19.0
2-Hexanone	NV	2 U	2 U	2 U	2 U	2 U
4-Chlorotoluene	NV	0.2 U				
4-Isopropyltoluene	NV	0.2 U				
4-Methyl-2-pentanone	NV	2 U	2 U	2 U	2 U	2 U
Acetone	NV	28	8.3	5 U	5 U	33
Benzene	5	0.2 U	0.2 U	0.2 U	0.2 U	0.34
Bromobenzene	NV	0.2 U				
Bromodichloromethane	NV	0.2 U				
Bromoform	NV	1 U	1 U	1 U	1 U	1 U
Bromomethane	NV	0.2 U				
Carbon disulfide	NV	0.2 U	0.2 U	0.2 U	0.2 U	0.32
Carbon tetrachloride	NV	0.2 U				
Chlorobenzene	NV	0.2 U				
Chlorobromomethane	NV	0.2 U				
Chloroethane	NV	1 U	1 U	1 U	1 U	1 U
Chloroform	NV	0.53	0.36	0.55	0.56	0.25
Chloromethane	NV	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	NV	0.2 U				
cis-1,3-Dichloropropene	NV	0.2 U				
Dibromochloromethane	NV	0.2 U				
Dibromomethane	NV	0.2 U				
Dichlorodifluoromethane	NV	0.2 U				
Ethylbenzene	700	0.2 U				
Hexachlorobutadiene	NV	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	NV	0.2 U				
m,p-Xylene	NV	0.4 U				
Methyl iodide	NV	2 U	2 U	2 U	2 U	2 U
Methyl tert-butyl ether	20	0.2 U				
Methylene chloride	5	1 U	1 U	1 U	1 U	1 U
Naphthalene	160	1.3 U				
n-Butylbenzene	NV	0.2 U				
n-Propylbenzene	NV	0.2 U				
o-Xylene	NV	0.2 U				
sec-Butylbenzene	NV	0.2 U				
Styrene	NV	0.2 U				
tert-Butylbenzene	NV	0.2 U				
Tetrachloroethene	5	3	16	26	21	3.1

Table 5-2

Off-Property HRSC—Reconnaissance

Groundwater Analytical Results—Former Tiger Oil Site City of Yakima Yakima, Washington

Location:		OS-LLMIP02	OS-LLMIP03	OS-LLMIP05	OS-LLMIP07	OS-LLMIP09
Sample Name:	MTCA A ⁽¹⁾	DSW-OS- LLMIP02-17.0	DSW-OS- LLMIP03-20.0	DSW-OS- LLMIP05-22.0	DSW-OS- LLMIP07-21.0	DSW-OS- LLMIP09-19.0
Collection Date:		5/13/2021	5/13/2021	5/13/2021	5/13/2021	5/14/2021
Collection Depth (ft bgs):		17.0	20.0	22.0	21.0	19.0
Toluene	1,000	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	NV	0.2 U				
trans-1,3-Dichloropropene	NV	0.2 U				
Trichloroethene	5	0.2 U				
Trichlorofluoromethane	NV	0.2 U				
Vinyl Acetate	NV	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.2	0.2 U				
Xylenes, total ^(c)	1,000	0.4 U				

Table 5-2

Off-Property HRSC—Reconnaissance Groundwater Analytical Results—Former Tiger Oil Site City of Yakima

Yakima, Washington

NOTES:

Detected results are shown in bold font.

Shading indicates cleanup level exceedance. Non-detect results were not evaluated for exceedances.

MTCA A

DSW = discrete groundwater sample.

ft bgs = feet below ground surface.

MTCA A = Model Toxics Control Act Method A.

NA = not applicable.

ND = not detected.

NV = no value.

OS = off site.

TPH = total petroleum hydrocarbons.

U = result not detected at or above method reporting limit.

ug/L = micrograms per liter.

VOC = volatile organic compound.

^(a)Cleanup level is for gasoline-range hydrocarbons with benzene present.

(b) Laboratory method reporting limit is greater than the MTCA A cleanup level. Reanalysis with a lower reporting limit was not performed due to the method holding time requirement. Sample has been evaluated based on other VOC detected results.

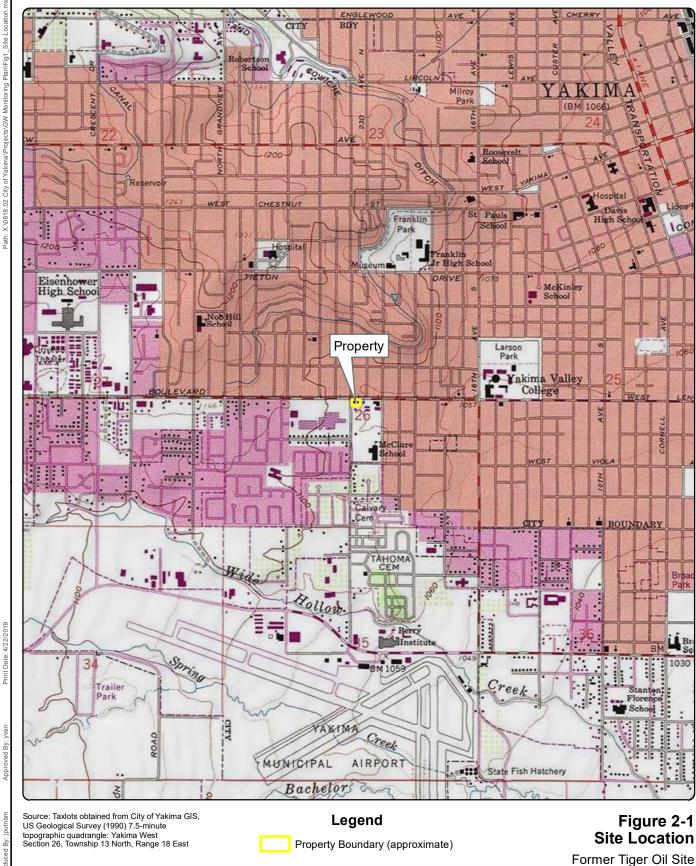
(c) Total xylenes is the sum of m,p-xylene and o-xylene. Non-detect results are summed at one-half the detection limit. When both results are non-detect, the higher detection limit is used.

REFERENCE:

⁽¹⁾Ecology, Cleanup Levels and Risk Calculation (CLARC) table. February 2021.

MAUL FOSTER ALONGI

FIGURES



MAUL FOSTER ALONGI p. 971 544 2139 | www.maulfoster.com

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

2312 West Nob Hill Boulevard Yakima, Washington

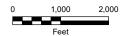






Figure 2-2 **Site Features**

Former Tiger Oil Site 2312 West Nob Hill Boulevard Yakima, Washington

Legend

→ Monitoring Well

Adjacent Taxlot Boundaries





Source: Aerial photograph obtained from Esri ArcGIS Online; Infiltration Gallery delineated by Maul Foster & Alongi, Inc.; stormwater line and taxlot boundaries obtained from City of Yakima; all other features obtained from PLSA.



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or



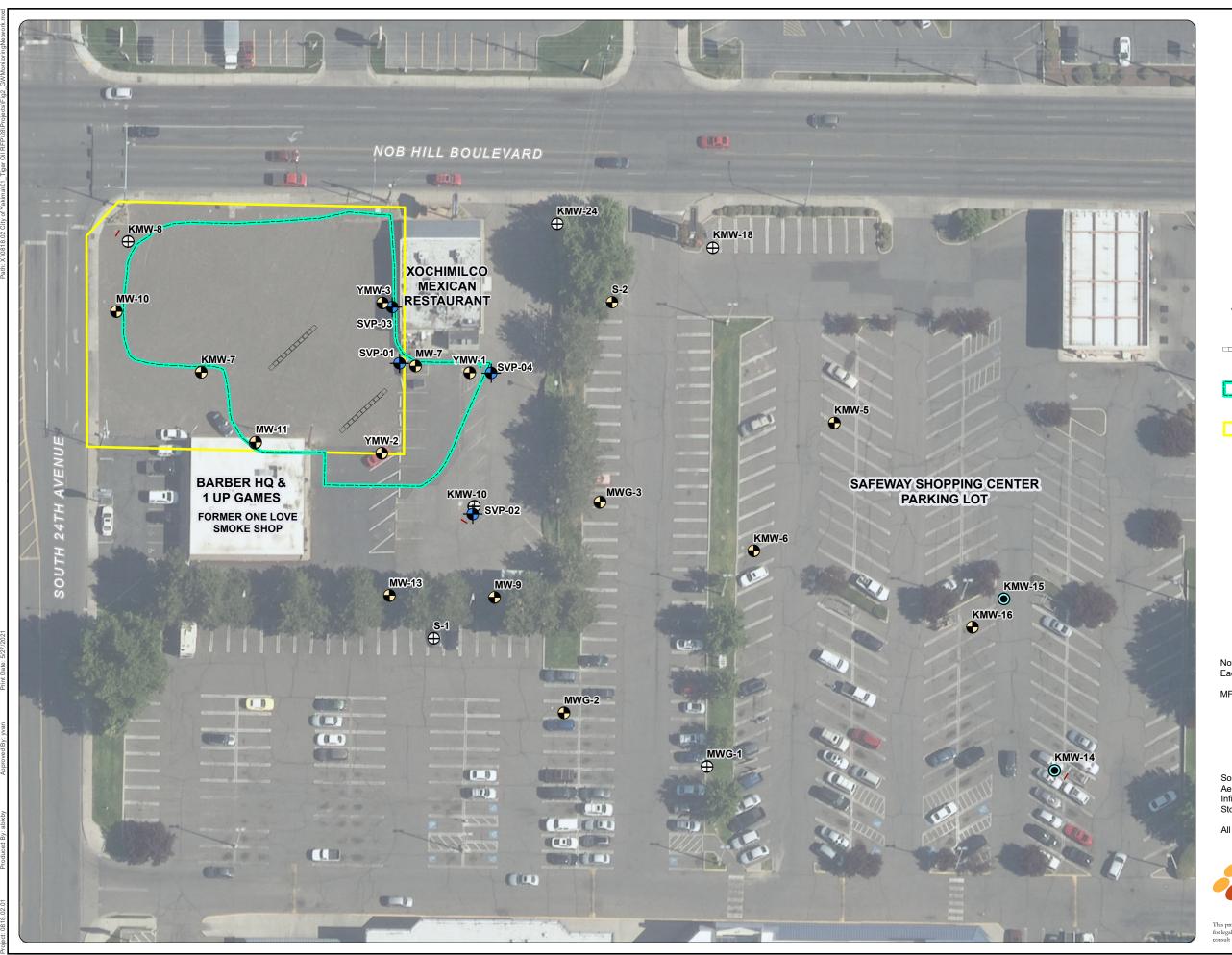


Figure 2-4 Groundwater Monitoring Well Network

City of Yakima Former Tiger Oil Site Yakima, Washington

Legend

- Monitoring Network Well
- Monitoring Well
- Sentry Monitoring Well
- Soil Vapor Probe Monitoring Well

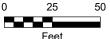
Infiltration Gallery

- Interim Remedial Action Area (May 2015)
- Former Tiger Oil Property Boundary

Notes:

Each soil vapor probe monitoring well contains a shallow, medium, and deep probe.

MFA = Maul Foster & Alongi, Inc.



ree

Source

Aerial photograph obtained from Esri ArcGIS Online. Infiltration Gallery delineated by MFA. Stormwater line and taxlot boundaries obtained from City of Yakima

All other features obtained from PLSA Engineering & Surveying.



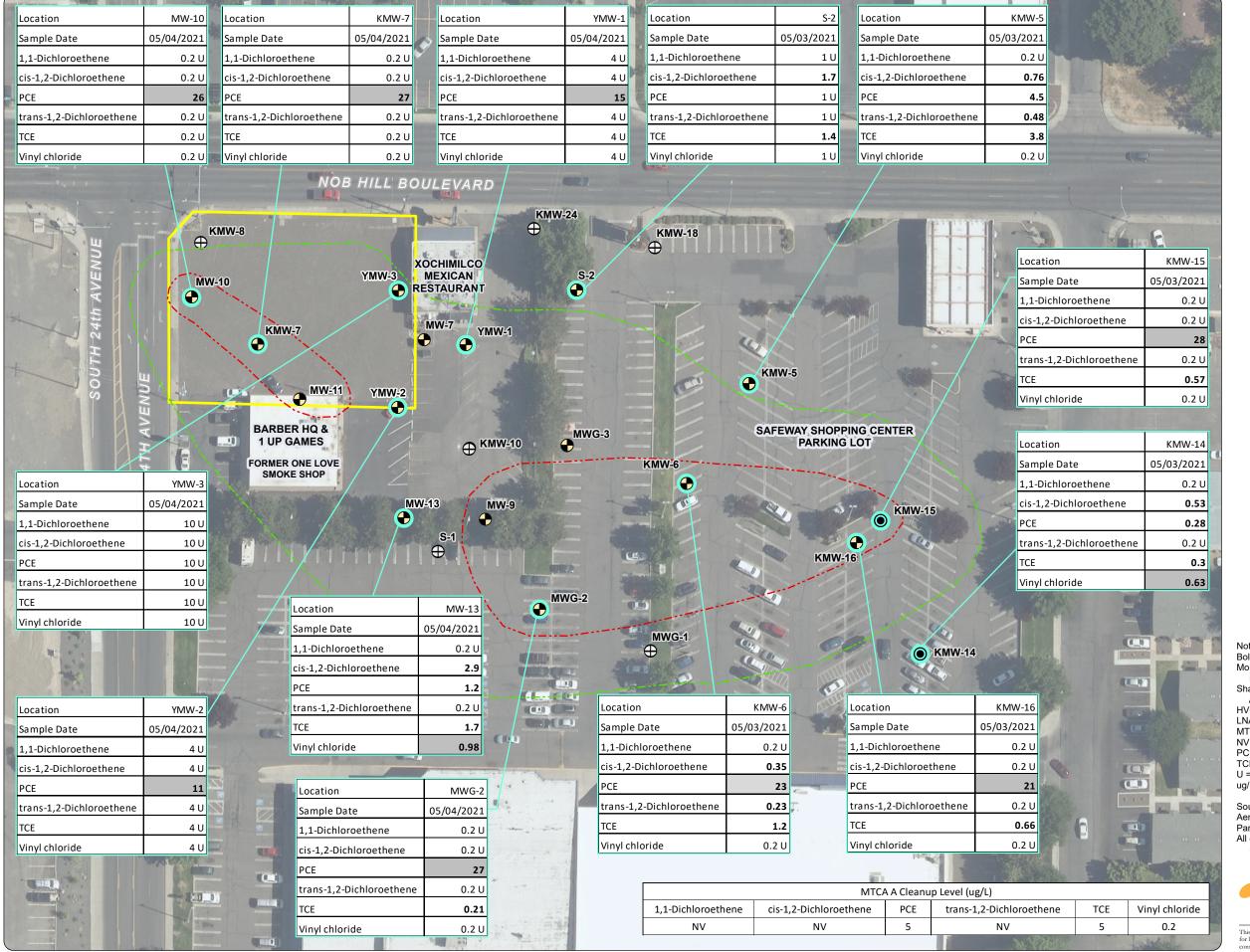


Figure 2-5 **PCE** Isoconcentration Contours **HVOC Results -**May 2021

Former Tiger Oil Site Yakima, Washington

Legend

Approximate PCE Isoconcentration

--- 5 ug/L contour

--- 20 ug/L contour

Monitoring Network Well

Sentry Monitoring Well

Monitoring Well

Sample Collected

Former Tiger Oil Property Boundary



Bolding indicates a detection.

Monitoring network wells containing LNAPL were not sampled. Shading indicates an exceedance of a MTCA Method

A cleanup level.

HVOC = halogenated volatile organic compound. LNAPL = light nonaqueous-phase liquid.

MTCA = Model Toxics Control Act.

NV = no value.

PCE = tetrachloroethene.

TCF = trichloroethene

U = result was not detected at or above the reporting limit. ug/L = micrograms per liter.

Aerial photograph obtained from Esri ArcGIS Online. Parcel boundaries obtained from City of Yakima. All other features obtained from PLSA Engineering & Surveying.



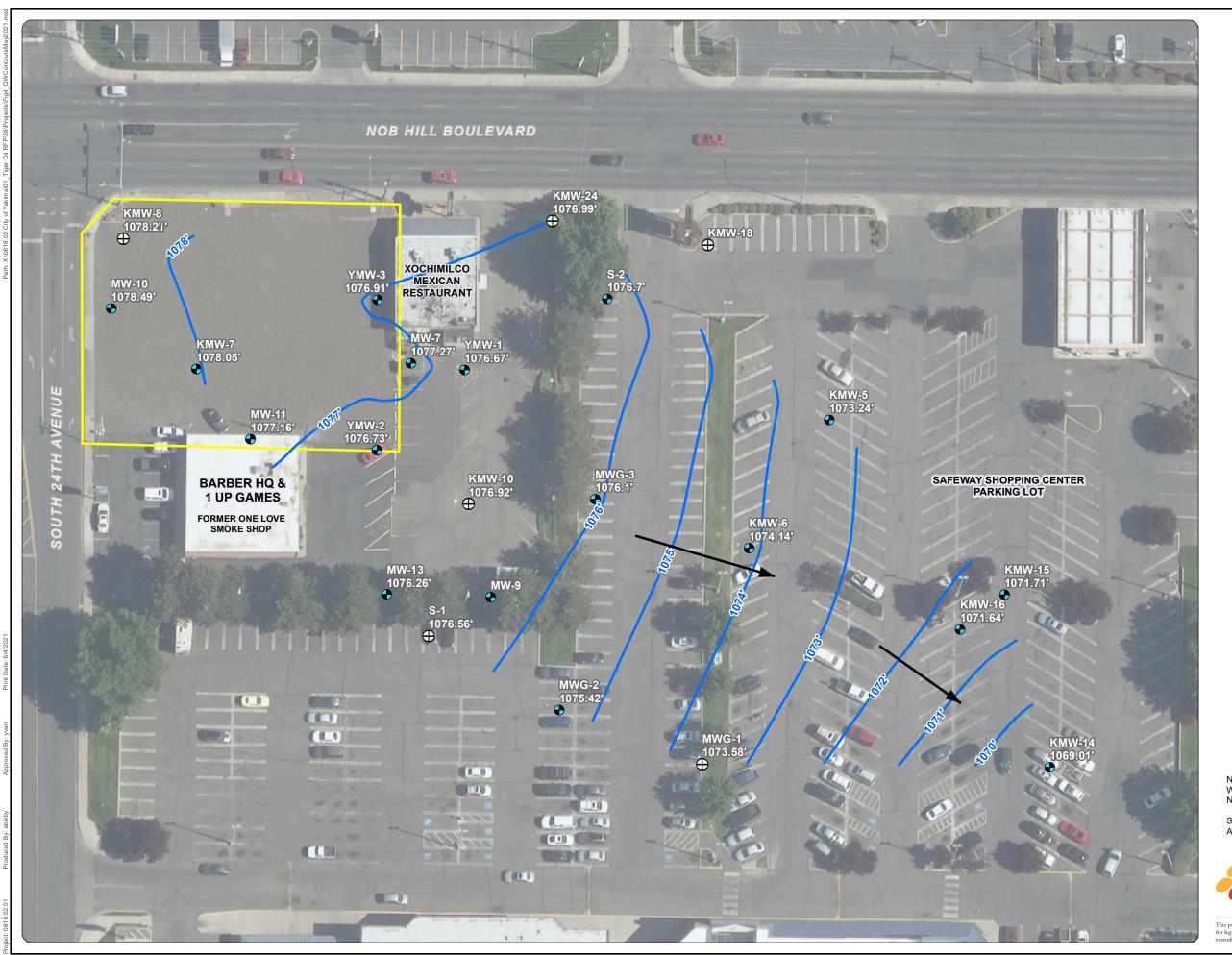


Figure 2-6 Groundwater Potentiometric Map May 2021

City of Yakima Former Tiger Oil Site Yakima, Washington

Legend

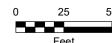
Monitoring Network Well

Monitoring Well

Groundwater Flow Direction

Groundwater Elevation
Contour (1 ft., NAVD 88)

Former Tiger Oil Property Boundary





lotes:

Water levels were collected on May 3, 2021. NAVD 88 = North American Vertical Datum of 1988.

Sources:

Aerial photograph obtained from Esri ArcGIS Online.



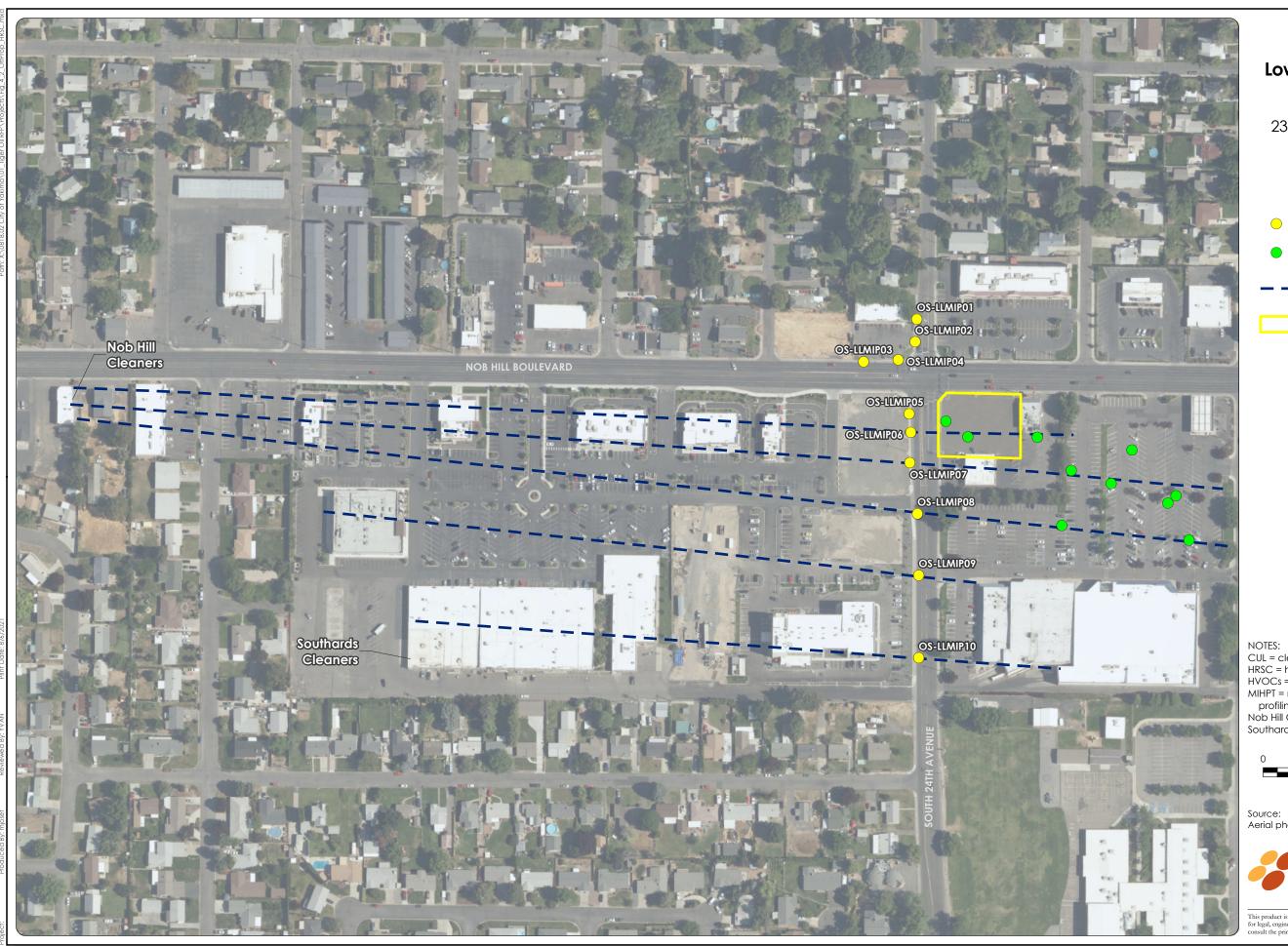


Figure 4-1 Off-Property HRSC Low Level MIHPT Locations

City of Yakima Former Tiger Oil Site 2312 West Nob Hill Boulevard Yakima, Washington

Legend

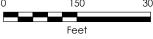
- Off-Property HRSC Boring
- Monitoring Wells With HVOC **Detections Above CUL**
- Inferred Groundwater Flow Direction
- Former Tiger Oil Property Boundary

CUL = cleanup level.

HRSC = high-resolution site characterization.
HVOCs = halogenated volatile organic compounds.
MIHPT = membrane interface probe-hydraulic

profiling tool.

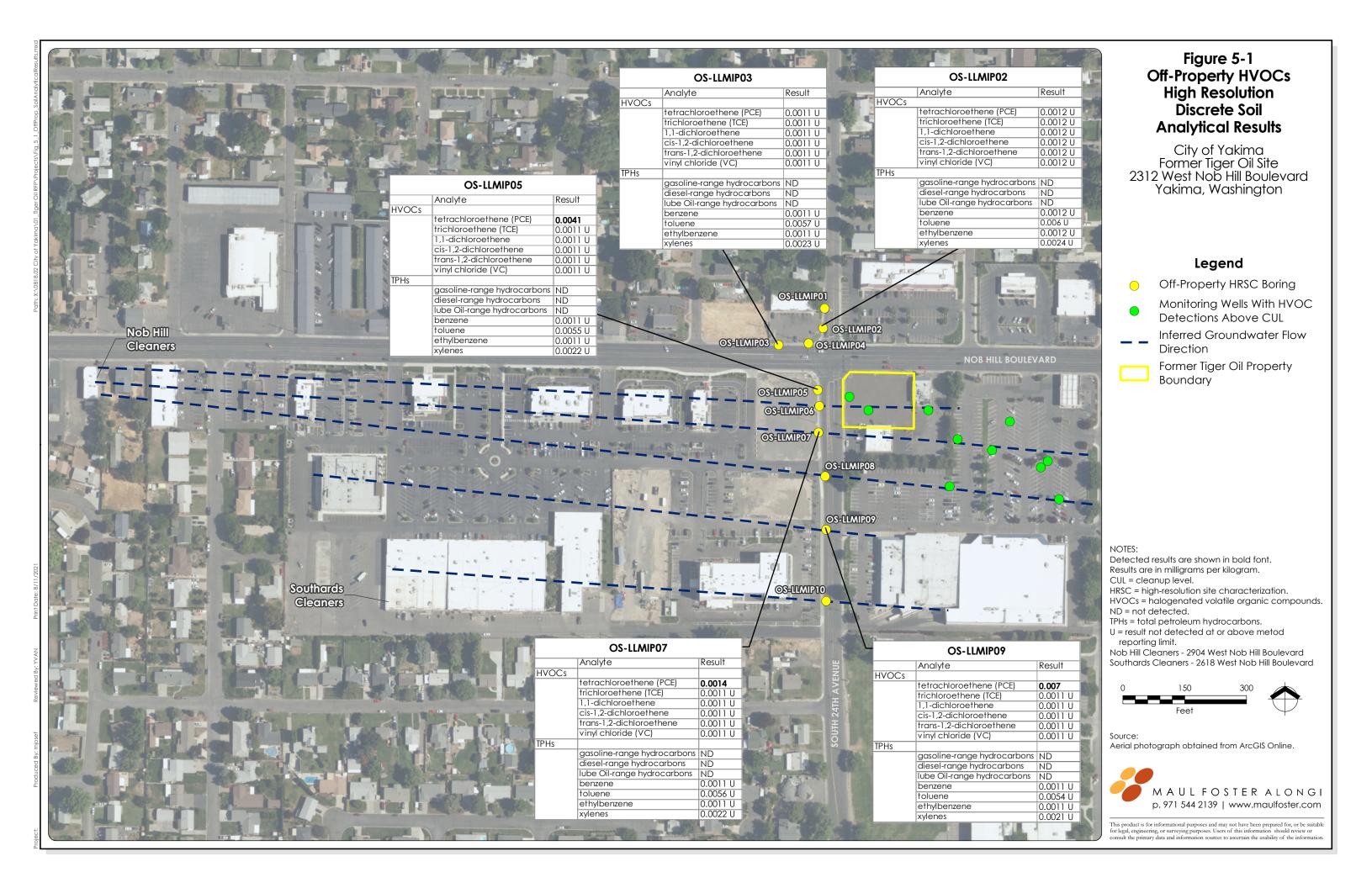
Nob Hill Cleaners - 2904 West Nob Hill Boulevard Southards Cleaners - 2618 West Nob Hill Boulevard





Aerial photograph obtained from ArcGIS Online.





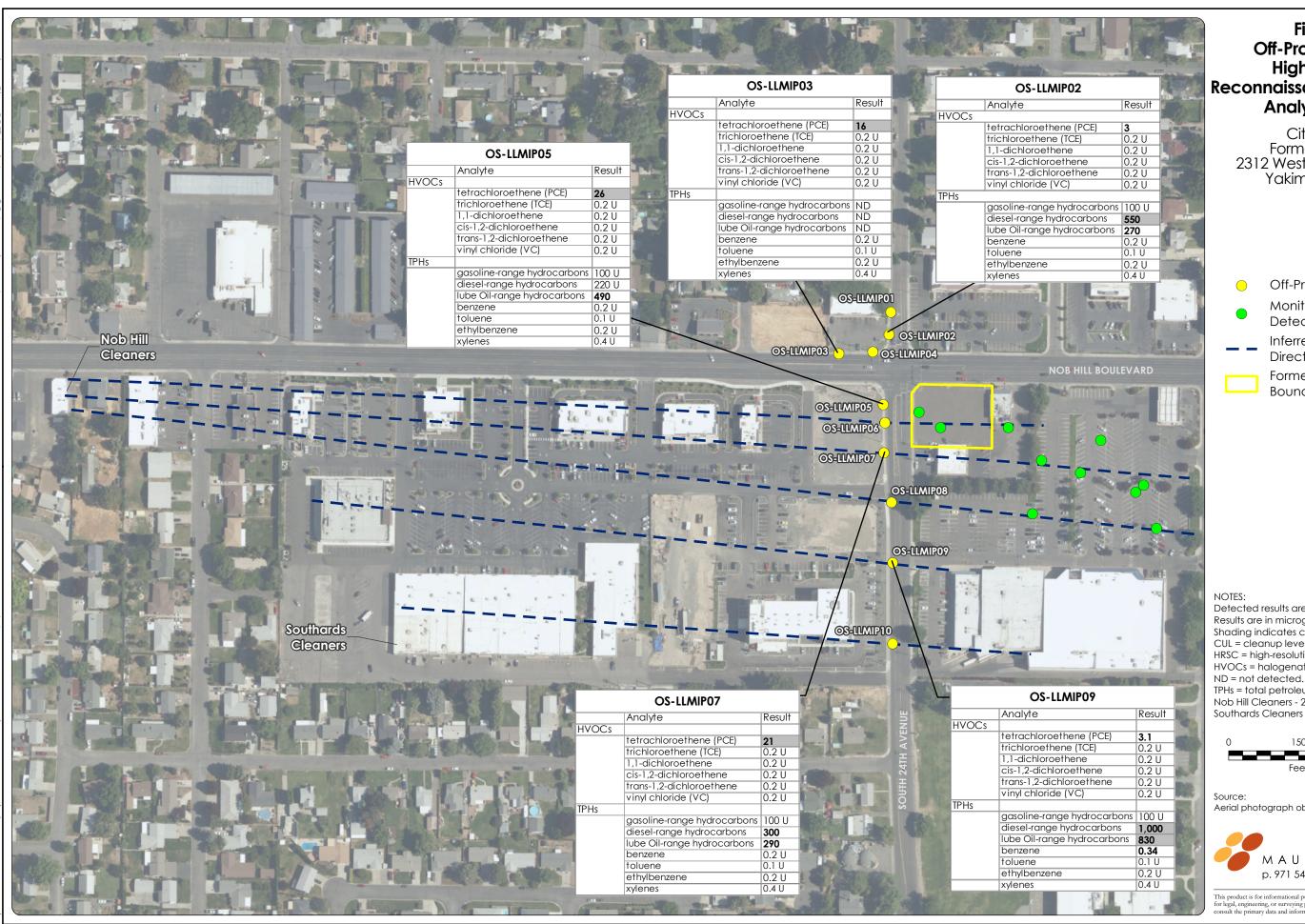


Figure 5-2 **Off-Property HVOCs** High Resolution **Reconnaissance Groundwater Analytical Results**

City of Yakima Former Tiger Oil Site 2312 West Nob Hill Boulevard Yakima, Washington

Legend

- Off-Property HRSC Boring
- Monitoring Wells With HVOC **Detections Above CUL**
- Inferred Groundwater Flow Direction
- Former Tiger Oil Property Boundary

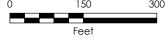
Detected results are shown in bold font. Results are in micrograms per liter.

Shading indicates cleanup level exceedance. CUL = cleanup level.

HRSC = high-resolution site characterization. HVOCs = halogenated volatile organic compounds.

TPHs = total petroleum hydrocarbons.

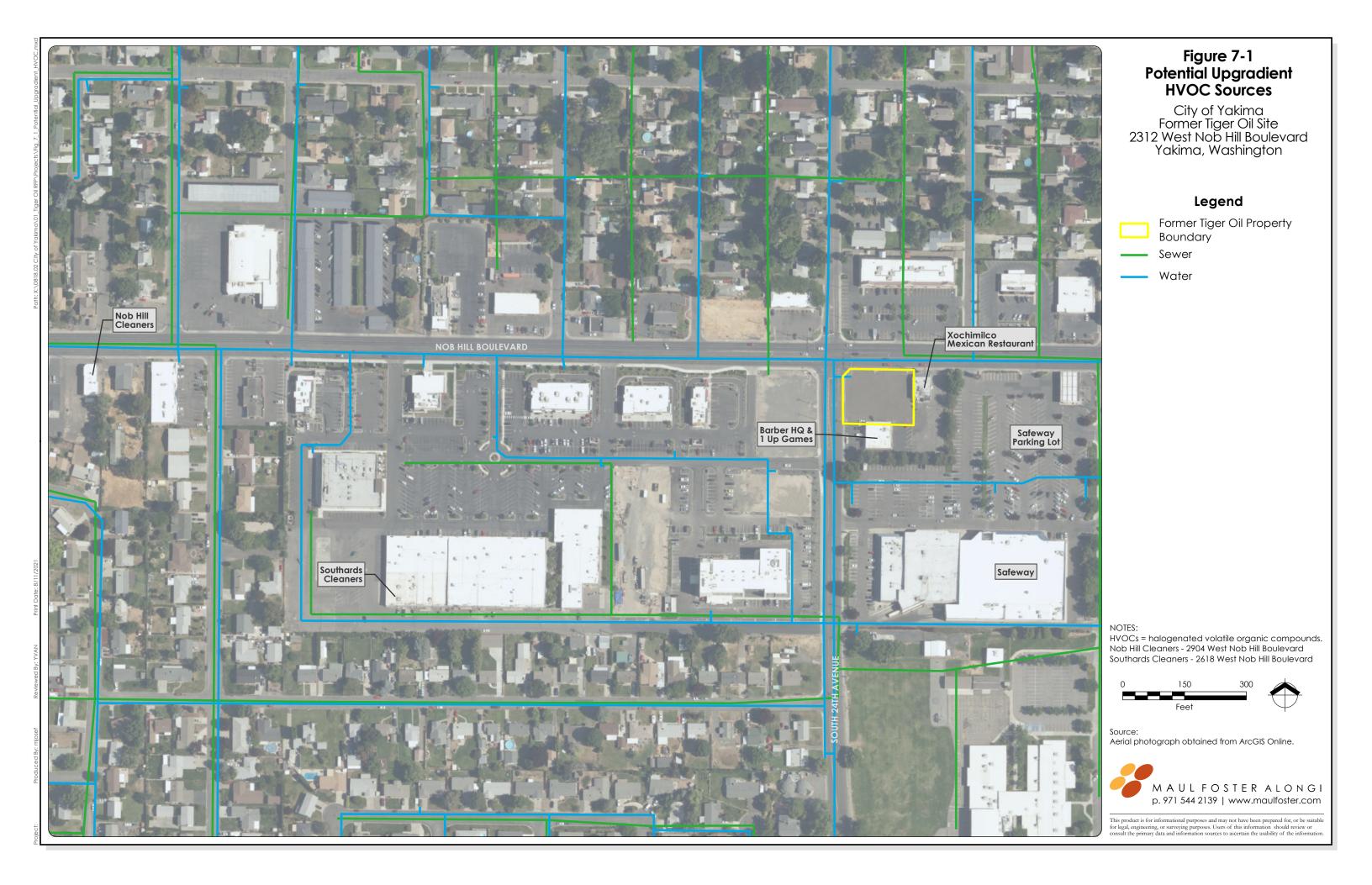
Nob Hill Cleaners - 2904 West Nob Hill Boulevard Southards Cleaners - 2618 West Nob Hill Boulevard





Aerial photograph obtained from ArcGIS Online.





APPENDIX A

COLUMBIA TECHNOLOGIES MAY 2021 OFF-SITE HRSC REPORT



Prepared for:

Maul Foster & Alongi 2815 2nd Avenue, Suite 540 Seattle, WA 98121

High-Resolution Site Characterization Former Tiger Oil Off-Site cVOCs S 24th Ave. @ W Nob Hill Blvd., Yakima, WA

May 2021

CT Project Number 3578-2017-04A



Submitted by:

COLUMBIA Technologies, LLC Rockville, MD

THIS PAGE INTENTIONALLY LEFT BLANK

COLUMBIA Technologies, LLC ONE Research Court, Suite 450 Rockville, Maryland 20850

For more information on COLUMBIA Technologies, SmartData Solutions[®], and high-resolution assessment tools and protocols visit http://www.columbiatechnologies.com or call 1-888-344-2704.

Copyright © 2021 by COLUMBIA Technologies, LLC

All rights reserved under International and Pan-American Copyright Conventions. For noncommercial purposes only, this publication may be reproduced or transmitted in any form or by any means without prior permission in writing from the publisher, provided it is reproduced accurately, the source of the material is identified, and the COLUMBIA Technologies copyright status is acknowledged. All inquiries regarding translations into other languages or commercial reproduction or distribution should be addressed to: COLUMBIA Technologies, ONE Research Court, Suite 450, Rockville, MD 20850

Table of Contents

TABLE OF CONTENTS	
Appendices	
Conversion Factors	
DatumSupplemental Information	
SUMMARY	1
OBJECTIVES	3
METHODS, ASSUMPTIONS, AND PROCEDURES	3
Membrane Interface Probe-Hydraulic Profiling Tool (MiHpt)	3
RESULTS AND DISCUSSION	5
Low-Level MIP Results	5
Hydrostratigraphy	5
Discrete Soil Sampling	6
Groundwater Sampling	7
Presentation of Data Logs and Scale	
Conclusions	9
Issues and Limitations	10
Quality Control and Data Anomalies	
Data Anomalies	10
REFERENCES	11
LIST OF SYMBOLS, ABBREVIATIONS, AND ACRON	YMS 12

Figures

- Figure 1 Typical Electrical Conductivity Ranges for Basic Soil Types
- Figure 2 Example MiHpt Log (OS-LLMIP06)
- Figure 3 Former Tiger Oil Groundwater Data
- Figure 4 MiHpt Stations
- Figure 5 Intervals Cored to Achieve Depth
- Figure 6 HRSC Direct Sensing Interpretation
- Figure 7 Sample Collection Rationale
- Figure 8 Discrete Soil Sample Analytical Results
- Figure 9 Groundwater Sample Analytical Results

Appendices

- APPENDIX A Direct Sensing Equipment Description
- APPENDIX B Quality Control Procedures
- APPENDIX C Data Logs for Low-Level Membrane Interface Probe/EC with Hydraulic Profile Tool (LL-MiHpt) Individual Scale
- APPENDIX D Data Logs for Low-Level Membrane Interface Probe/EC with Hydraulic Profile Tool (LL-MiHpt) Collective Scale

Project No. 3578-2017-04A

APPENDIX E – MiHpt Performance Testing Results

Conversion Factors

Inch/Ounce/Pound/PSI to International System of Units

Multiply	Ву	To obtain
	Length	
Inch (in.)	2.54	Centimeter (cm)
Inch (in.)	25.4	Millimeter (mm)
Foot (ft.)	0.3048	Meter (m)
	Volume	
Ounce (oz.)	29.6	Milliliters (ml)
Gallon (gal)	3.8	Liters (L)
_	Pressure	
Pounds per Square Inch (psi)	6.89	Kilopascals (kPa)
	Hydraulic Conductivity	
Feet per day (ft/day)	0.0003527	Centimeters per second (cm/sec)

Temperature in degrees Celsius (°C) is converted to degrees Fahrenheit (°F) as $(^{\circ}F) = (1.8 \times (^{\circ}C)) + 32$

Datum

Horizontal and vertical coordinates are referenced from the World Geodetic System 1984 [EPSG:4326].

Supplemental Information

Electrical conductivity (EC) is provided in millisiemens per meter (mS/meter).

Concentrations of chemical constituents in water are provided in either milligrams per liter (mg/L) or micrograms per liter (μ g/L).

Concentrations of chemical constituents in soil are provided in either milligrams per kilogram (mg/kg) or micrograms per kilogram (µg/kg).

Concentrations of chemical constituents in vapor are provided in either milligrams per cubic meter (mg/m^3) or micrograms per cubic meter $(\mu g/m^3)$.

High-Resolution Site Characterization Former Tiger Oil Off-Site cVOCs S 24th Ave. @ W Nob Hill Blvd., Yakima, WA May 2021

Summary

COLUMBIA Technologies, LLC, (COLUMBIA) in collaboration with Maul Foster & Alongi, Inc. (MFA) conducted a High-Resolution Site Characterization (HRSC) along S 24th Ave west of the Former Tiger Oil facility in Yakima, Washington (the Site), during the period of May 10 through 14, 2021. The Survey Area is a busy street in a commercial neighborhood.

The primary objective of this HRSC was to determine whether chlorinated volatile organic compounds (cVOCs) recently detected in monitoring wells at the Site exist upgradient and off-site. Recent analyses identified cVOCs in groundwater at the Site.

COLUMBIA conducted the survey using a combined Membrane Interface Probe (MIP) and Hydraulic Profiling Tool (HPT) system equipped with three gas chromatograph (GC) detectors (PID, FID and XSD). The combined probe is referred to as the MiHpt.

The MiHpt system was operated in Low-Level mode to detect dissolved cVOCs in the groundwater upgradient from the Site. The locations of the MiHpt stations were chosen by **MFA** to form a transect between potential upgradient sources and the Site.

This survey advanced Low-Level MiHpt at ten locations.

The investigation found PID and XSD responses indicating cVOCs in the groundwater and vadose zone over much of the Site. The highest vadose zone response occurred at station OS-LLMIP09. This location did not achieve depth to encounter groundwater. The highest response in groundwater occurred at station OS-LLMIP03.

Local soil conditions prevented continuous pushing to the target depth at most stations. At four locations, additional depth was achieved by soil coring through a hard clay and gravel layer, then continuing the logging. This method was utilized beginning the second day and was not attempted on locations OS-LLMIP07 through OS-LLMIP10 which were advanced on the first day.

Project No. 3578-2017-04A

The cVOC responses all indicate low concentrations, barely above LL-MIP detection ability. None of the responses are indicative of source-area concentrations of cVOCs, indicating the cVOCs may have migrated from a source area located elsewhere.

Soil samples collected during this HRSC reveal PCE concentrations near or below laboratory detection levels. The MIP detector responses at these locations therefore indicate cVOCs at levels near or below laboratory detection limits for soil, or cVOCs in the vapor phase in vadose zone.

Groundwater samples collected during this HRSC reveal PCE detections in all samples collected. Three of the five locations may not be completely representative due to the difficulty collecting samples. The samples collected at locations OS-LLMIP05 and 07 appear to be representative, and nearly match the results from monitoring wells at the site.

Based on this HRSC, the PCE concentrations detected in wells at the site may be part of a larger plume of dissolved product emanating from a source upgradient and off site.

Objectives

The primary objective of this HRSC was to determine whether cVOCs recently detected in monitoring wells at the Site exist upgradient and off-site.

Methods, Assumptions, and Procedures

Planning for this HRSC involved a review of available site documentation to develop an understanding of the existing Conceptual Site Model (CSM) and indications of residual cVOC impacts.

Membrane Interface Probe-Hydraulic Profiling Tool (MiHpt)

For this assessment, **COLUMBIA** used three laboratory grade chemical detectors on the MIP: a Halogen Specific Detector (XSD^{TM}), a Flame-Ionization Detector (FID) and a Photo Ionization Detector (PID).

The XSD was developed to address the need for a sensitive and selective detector for halogenated compounds such as cVOCs.

The MIP-XSD detects a broad spectrum of chlorinated VOCs, including the compounds of interest for this assessment. The XSD™ provides high halogen selectivity, making it an effective tool for identification and measurement of halogenated compounds environments where other contaminants. such as hydrocarbons, are present. The MIP-XSD detector responds

halogenated compounds, including those containing bromine, chlorine, and fluorine.

The MIP-PID, with a 10.6 electron volt (eV) lamp, responds to a wide range of volatile aromatic compounds, including benzene, toluene, ethylbenzene, and xylenes (BTEX), as well as chlorinated ethenes such as Tetrachloroethene (PCE). The PID also responds well to chlorobenzene and dichlorobenzenes.

The FID is a general detector useful for detecting petroleum hydrocarbons (straight and branched chain alkanes), including methane and butane as well as for confirmation of high concentrations of compounds seen on the PID and XSD.

Additional discussion of direct sensing equipment and chemical sensors used for this assessment are provided in **Appendices A.** Quality control procedures are discussed in **Appendix B.**

COLUMBIA employed the Hydraulic Profiling Tool (HPT) with the Electrical Conductivity (EC) system to evaluate subsurface hydrostratigraphy in the survey area.

The HPT pressure logs record changes in hydraulic pressure measured directly as water is pumped into the formation at a constant rate. These logs reveal the variability and relative hydraulic conductivity of the soil.

A high-resolution profile of the estimated hydraulic conductivity "K" is obtained following a series of tests in which the HPT pressure is allowed to dissipate to the static hydraulic pressure of the soil formation at different depths.

The combined MiHpt probe also contains an Electrical Conductivity dipole at the tip of the probe that measures the electrical conductivity (EC) of soil and groundwater.

EC measurements identify changes in the soil's electrical conductivity that can be related to changes in stratigraphy, providing insight into contaminant pathways when viewed in relation to chemical detector response.

Low EC values generally indicate coarsegrained materials (sand and gravel), while higher EC values usually indicate elevated clay content, although water chemistry and other site-specific factors, such as cementation, influence EC response as well.

General conductivity ranges for basic soil types are presented in **Figure 1** (Geoprobe, 2015).¹

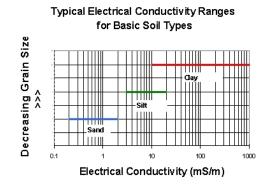


Figure 1

_

¹ Geoprobe Systems. January 2015. Technical Bulletin MK3201: Standard Operating Procedure for Geoprobe® Electrical Conductivity (EC) System

Results and Discussion

MFA planned ten borings upgradient from the site: six along S 24th Ave south of Nob Hill Blvd, two along S 24th Ave north of Nob Hill Blvd, and two along Nob Hill Blvd west of S 24thAve. Low-Level MiHpt borings were advanced at these locations as shown in **Figure 4** at the end of this report.

These locations are located adjacent to the Site and between the Site and potential sources upgradient. The initial target depth was 30-40 ft below ground surface (bgs). Local soil conditions limited the ability to penetrate deeper than 18 ft on the first attempt, with some locations encountering refusal as shallow as 8.5 ft bgs. **COLUMBIA** utilized Macrocore soil sampling at locations OS-LLMIP02, 03, 05, and 06 to penetrate a hard clay containing sand and gravel, and to continue logging below that layer. This method was successful at OS-LLMIP03, 05, and 06, but not at 02, where no advancement was possible even after coring to 17 ft bgs.

Low-Level MIP Results

Low-Level logs generally contain a baseline peak at each 1-foot interval. The XSD exhibits much lower baseline spikes than the PID or FID. CVOC responses are indicated by higher than baseline spikes on the XSD. PCE, Trichloroethene (TCE), Dichloroethenes (DCEs), and Vinyl Chloride (VC) also cause response on the PID. Products

such as VC, DCE, ethene, ethane, and methane are indicated by responses on the FID.

All the LL-MIP logs show some level of cVOC response. None of the logs contain responses indicating a source area.

Hydrostratigraphy

As shown in **Figure 2** at the end of this report high HPT pressure and low system flow are indicative of low permeability soils. Higher permeability is manifested by low hydraulic pressure and normal system flow.

For this Site, HPT data identified soils exhibiting highly variable hydraulic conductivity. Most of the stations exhibited both permeable and less permeable zones.

Soil coring revealed a layer of hard, dry clay containing gravel and sand which was the limiting factor in the initial probe advancement. Coring through this layer allowed further advancement of the Direct-Sensing probe in three of four locations attempted. MiHpt data in this cored interval is not valid, as the soil was removed and probe contact with undisturbed soil was not possible. This cored interval is depicted in **Figure 5**.

At the locations cored, the soil beneath the hard layer was generally well sorted fine sand. This layer was also saturated.

Project No. 3578-2017-04A

Discrete Soil Sampling

Based on the MIP responses, **MFA** collected soil samples at five stations. The data interpretation, sampling rationale, stations and depths are presented in **Figures 6, 7** and **8.**

Soil sample results for this survey are tabulated below:

Sample ID	Station	Depth (ft)	PCE (mg/kg)
DSS-OS-LLMIP02-12	OS-LLMIP02	12	< 0.0012
DSS-OS-LLMIP03-10	OS-LLMIP03	10	<0.0011
DSS-OS-LLMIP05-18	OS-LLMIP05	18	<0.0011
DSS-OS-LLMIP07-09	OS-LLMIP07	9	0.0014
DSS-OS-LLMIP09-11	OS-LLMIP09	11	0.007

The MIP detector responses at these locations indicate cVOCs at levels near or below laboratory detection limits for soil, or cVOCs in the vapor phase in vadose zone samples.

Groundwater Sampling

Based on the MIP responses, **MFA** collected groundwater samples at five stations. The stations, data interpretation, sampling rationale and screened intervals are presented in **Figures 6, 7** and **9.**

The groundwater samples collected at locations OS-LLMIP02 and 09 may not have penetrated the lower aquifer sufficiently to produce representative samples based on the depth. temporary wells were also unable to produce enough sample volume for a full set of analyses or for measurement of groundwater parameters. Location OS-LLMIP03 also did not produce sufficient water for a full set of analyses. groundwater samples from locations OS-LLMIP05 and 07 produced adequate water for full sample sets and parameter monitoring, and likely provide the most representative samples in this survey.

The results from off-site locations OS-LLMIP05 and 07 are similar to the results from permanent monitoring wells on the Site. This indicates that the PCE levels in the groundwater are not site-related and may be the result of an older dissolved plume from an upgradient source.

Groundwater sample results for this survey are tabulated below:

Sample ID	Station	Screen Interval	PCE (μg/l)
		(ft)	
DSW-OS-LLMIP02-17	OS-LLMIP02	13-18	3.0
DSW-OS-LLMIP03-20	OS-LLMIP03	18-22	16
DSS-OS-LLMIP05-22	OS-LLMIP05	10-22	26
DSS-OS-LLMIP07-21	OS-LLMIP07	11.5-21.5	21
DSS-OS-LLMIP09-19	OS-LLMIP09	9-19	3.1

Presentation of Data Logs and Scale

Individual logs of direct sensing data are presented in both individual scale for each log and on a collective scale for all of the logs in **Appendices C and D**.

The reader is advised to pay particular attention to the scale for each detector response for each log when comparing results from location to location and depth to depth. Please note, a high detector response at one depth could mask a lower response at a different In addition, because of the depth. differences in the operation of the MIP, the low-level MIP responses are not comparable the regular MIP to responses.

Project No. 3578-2017-04A

Conclusions

- The Low-Level MIP system detected cVOCs in all the logging stations. Responses were generally low, barely above detection.
- MIP responses did not indicate source area concentrations of cVOCs.
- 3. MIP responses revealed cVOCs both in the vadose zone and in the groundwater at various locations.
- Soil sample results revealed PCE levels at or below laboratory detection limits.
- 5. CVOCs are present upgradient from the Site.
- **6.** PCE concentrations in groundwater both on and off Site are similar, which may indicate a mature plume with a source area further upgradient.
- **7.** Additional investigation is indicated to discover the source or sources of these cVOCs.

Issues and Limitations

Hard refusal above the water table limited the ability to log continuously to the desired depths.

Coring through the hard layer allowed deeper penetration, but MIP resolution was lost in the cored interval.

The target depth for the investigation was 30-40 ft bgs, but refusal prevented penetration to the target depth even after coring though a shallower hard layer.

Quality Control and Data Anomalies

The MiHpt direct sensing equipment was operated in accordance with the manufacturer's *Standard Operating Procedure for the Membrane Interface Probe*, Geoprobe Technical Bulletin MK3010 (Geoprobe, 2012) and the *Standard Practice for Direct Push Technology for Volatile Contaminant Logging with the Membrane Interface Probe (MIP)* ASTM STANDARD D7352 – 07 (ASTM International, 2007).

Performance testing was performed on each system prior to and following each survey sounding. These procedures are outlined in **Appendix B**.

MIP Performance Test Results for this project are presented **Appendix E**.

Data Anomalies

Soil coring through a hard layer allowed deeper penetration, but MIP resolution was lost in the cored interval.

No other significant anomalies affecting the outcome of the data analysis were observed.

The direct-sensing logs generated for this assessment are presented in **Appendices C and D.**

References

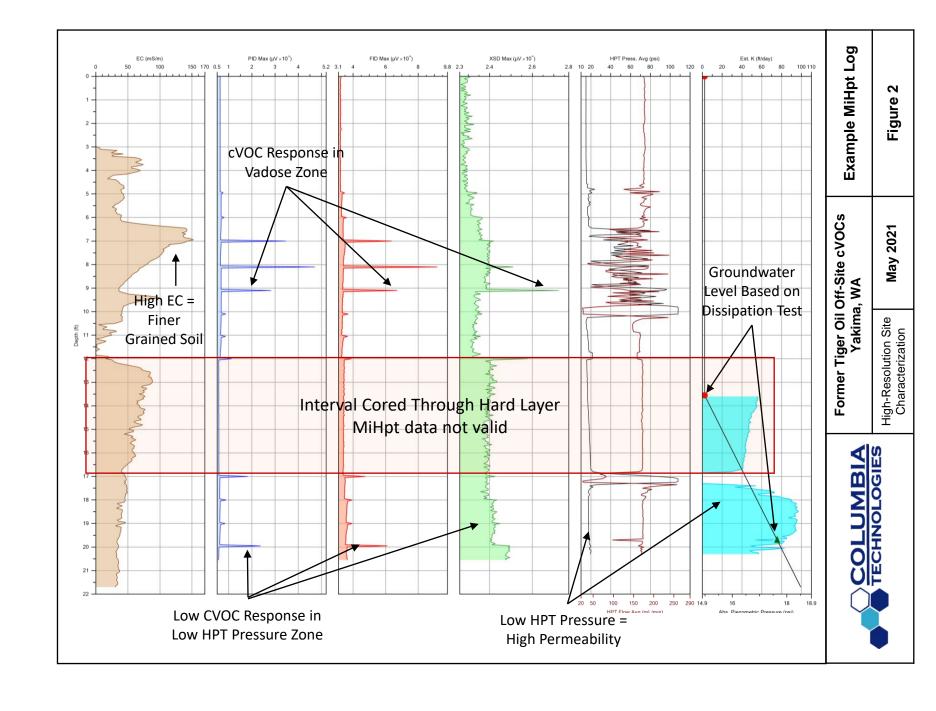
- A. ASTM International. 2007. Standard Practice for Direct Push Technology for Volatile Contaminant Logging with the Membrane Interface Probe (MIP) ASTM D7352 – 07.
- B. Geoprobe Systems. April 2012 (Revised). Technical Bulletin MK3010: Standard Operating Procedure for Geoprobe® Membrane Interface Probe (MIP).
- C. Geoprobe Systems. January 2015. Technical Bulletin MK3201: Standard Operating Procedure for Geoprobe® Electrical Conductivity (EC) System

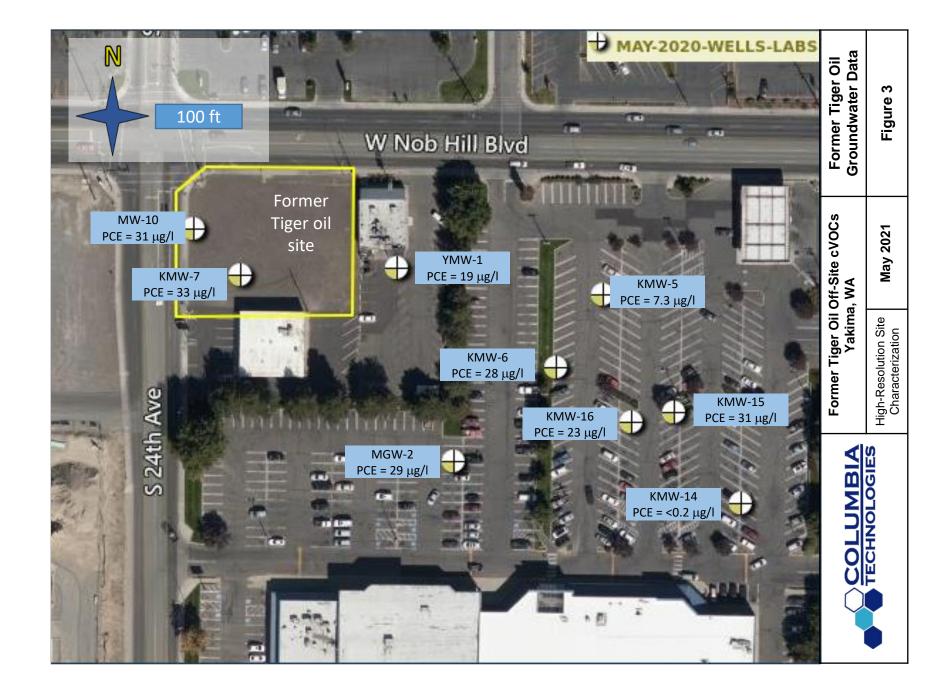
List of Symbols, Abbreviations, and Acronyms

Symbol or Abbreviation	Definition
CSM	Conceptual Site Model. A CSM is a method to describe what is known or can be inferred about a site for the purpose of making a decision. A CSM generally will address physical, chemical and biological systems; contaminant release and transport; societal issues; policy, land use, and exposures.
cVOC	Chlorinated Volatile Organic Compound. A VOC containing chlorine atoms; typically, a cleaning solvent.
DPT	Direct-Push Technology (DPT) refers to a group of techniques used for subsurface investigation by driving, pushing and/or vibrating small-diameter rods into the ground.
DNAPL	Dense Non-Aqueous Phase Liquid. A DNAPL is a denser-thanwater NAPL, i.e., a liquid that is both denser than water and is immiscible in or does not dissolve in water.
HPT	Hydraulic Profiling Tool . The HPT is a logging tool that measures the pressure required to inject a flow of water into the soil as the probe is advanced into the subsurface. In addition to measurement of injection pressure, the HPT can also be used to measure hydrostatic pressure under the zero flow condition.
LNAPL	Light Non-Aqueous Phase Liquid. Subsurface contaminants that are not soluble in water and have lower density than water, in contrast to a DNAPL which has higher density than water.
PCE	Tetrachloroethylene. The chemical compound PCE is a nonflammable, liquid solvent used commonly used in dry cleaning, metal degreasing, and other manufacturing processes.
PID	Photo Ionization Detector. In a PID high-energy photons to break molecules into positively charged ions. The PID will only respond to components that have ionization energies at or below the energy of the photons produced by the PID lamp.
TCE	Trichloroethylene. The chemical compound TCE is a halocarbon commonly used as an industrial solvent. It is a clear non-flammable liquid with a sweet smell.
XSD™	Halogen Specific Detector. The XSD™ was developed for the selective detection of halogen-containing compounds.

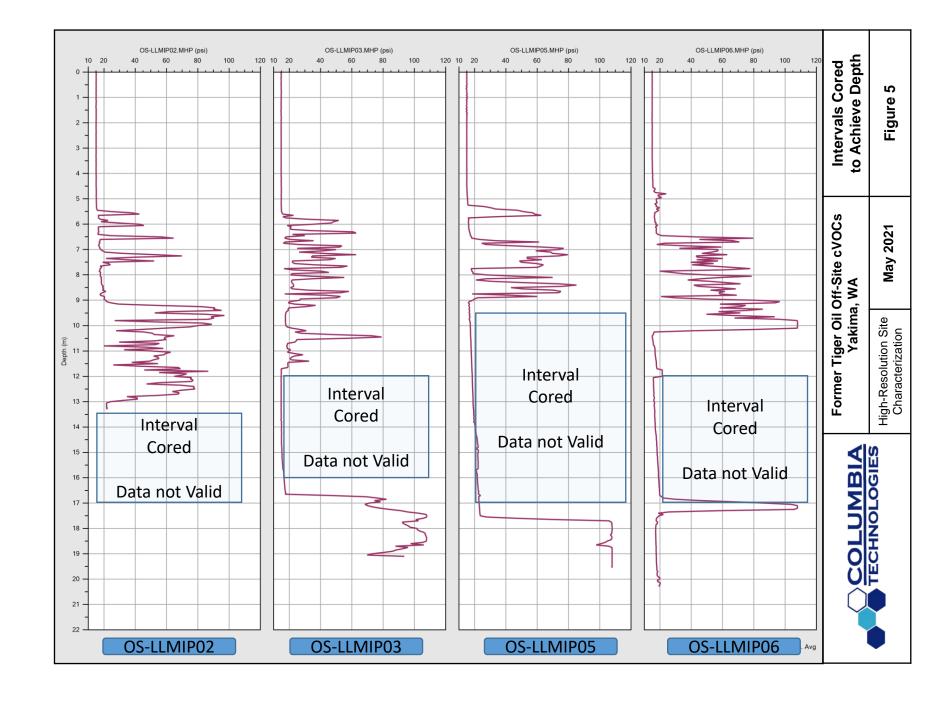
THIS PAGE INTENTIONALLY LEFT BLANK

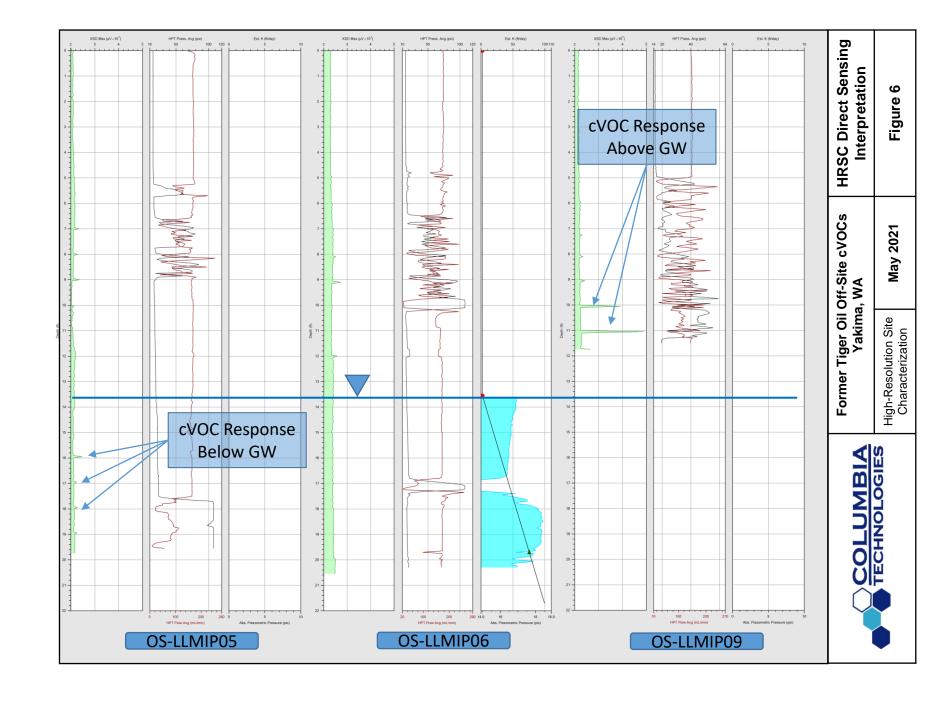
FIGURES

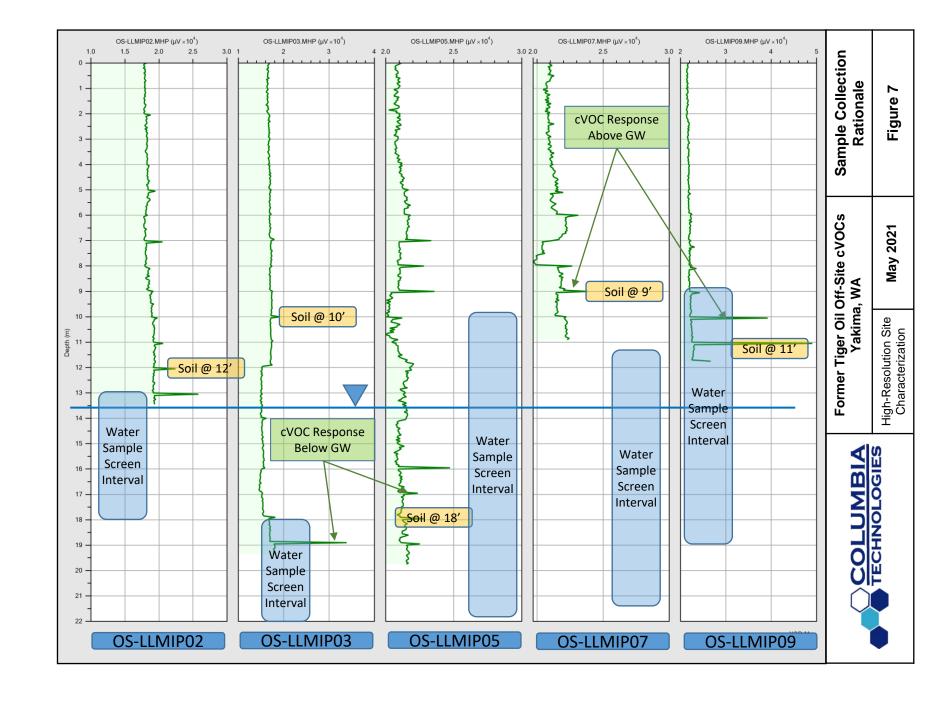
















APPENDICES

APPENDIX A – Direct Sensing Equipment Description

MiHpt Equipment Description

The MiHpt was developed by Geoprobe Systems® and contains three separate systems: the Membrane Interface Probe (MIP); the Hydraulic Profiling Tool (HPT); and the Electrical Conductivity (EC) dipole. The MiHpt probe is approximately 24 inches in length and 1.75-inches in diameter. The probe is driven into the ground at the nominal rate of 12 inches per minute using a direct push technology (DPT) rig from Geoprobe® or equivalent.

The MiHpt Field Instrument collects and continuously displays real-time operating data during each push of the probe, including EC data, MIP detector responses, MIP operating parameters, the rate of push speed, MIP temperature, HPT Pressure, and HPT Flow.

Electrical Conductivity (EC)

EC: Soil electrical conductivity, the inverse of soil resistivity, is measured using a dipole arrangement. process, an alternating electrical current is transmitted through the soil from the center, isolated pin of the probe. This current is then passed back to the probe body. The voltage response of the imposed current to the soil is measured these across same two points. Conductivity is measured in Siemens/meter, and due to the low conductivity of earth materials, the EC probe uses millisiemens/meter (mS/m). The probe is reasonably accurate in the range of 5 to 400 mS/m.

The electrical properties of soil vary by geological setting. Therefore, conductivity measurements will vary both in magnitude and the relative change from one soil type to another in each geological setting. In general, at a given location, lower conductivity values are characteristic of larger particles such as cobbles and sands, while higher conductivities are characteristic of finer sized particles such as fine sands, silts, and clays.

Observed conductivities significantly higher than 400 mS/m are indicative of ionic materials other than soil. Examples include saltwater intrusion, the presence of ionic chemicals from storage or injection, or potentially soil mixtures with metallic compounds.

Membrane Interface Probe (MIP)

The MIP portion of the probe is used to create high-resolution, real-time profiles of subsurface volatile organic compounds (VOCs). The operating principle is based on heating the soil and/or water around a semi-permeable polymer membrane to 121 degrees Celsius (°C), which allows VOCs to partition across this membrane.

The MIP can be used in saturated or unsaturated soils, as water does not pass through the membrane. Nitrogen is used as an inert carrier gas and travels from a surface supply down a transfer tubing which sweeps across the back of the membrane and returns any captured VOCs to the installed detectors at the surface. It takes approximately 60 seconds for the nitrogen gas stream to travel through 150 feet of inert tubing and reach the detectors.

COLUMBIA Technologies utilizes up to three chemical detectors on the MIP: The Photo Ionization Detector (PID); the Flame Ionization Detector (FID); and the Halogen Specific Detector (XSD); all mounted on a laboratory grade gas chromatograph (GC). The output signals from the detectors are captured by the MiHpt data logging system installed on a laptop computer.

The PID detector consists of a special ultraviolet (UV) lamp mounted on a thermostatically controlled, low volume, flow-through cell. The temperature is adjustable from ambient temperature to 250 °C. The 10.6-electron volt (eV) UV lamp emits energy at a wavelength of 120 nm, which is sufficient to ionize most aromatics such as BTEX and many other molecules such as hydrogen sulfide (H₂S), hexane, and ethanol whose ionization potentials are less than 10.6 eV.

The PID also emits a response for chlorinated compounds containing double-bonded carbons (e.g. halogenated ethylenes), such as trichloroethylene (TCE) and tetrachloroethylene (PCE). Methanol water. which have ionization and

potentials greater than 10.6 eV, do not respond on the PID. Given that the PID is non-destructive, it is often run first in series with other detectors for multiple analyses from a single injection.

The FID utilizes a hydrogen flame to combust compounds in the carrier gas. The FID responds linearly over several orders of magnitude, and the response is very stable from day to day. This detector responds to any molecule with a carbonhydrogen bond, but poorly to compounds such as H₂S, carbon tetrachloride, or ammonia. The carrier gas effluent from the GC column is mixed with hydrogen and burned. This combustion ionizes the analyte molecules. A collector electrode attracts the negative ions to the electrometer amplifier, producing an analog signal, which is directed to the data system input.

The XSD was developed to address the need for a sensitive and selective detector for halogenated compounds. The XSD is sensitive to halogen atoms including bromine, chlorine, and fluorine. This detector provides high halogen selectivity, making it an effective tool for identification and measurement οf halogenated compounds in environments where other contaminants are present, such as high concentrations of hydrocarbons. The XSD is used to measure concentrations of a broad range of chlorinated volatile organics and other halogenated compounds such as PCE, TCE and their daughter products.

The XSD detector consists of a ceramic probe, platinum wire (anode) and

platinum bead (cathode) mounted inside a high-temperature reactor. The detector reactor combusts the incoming sample into a stream of air and converts halogenated organics into free halogen atoms. The free halogen atoms will then react with alkali atoms on the surface of the electrically charged platinum bead, which functions as an electron emitter. When this reaction takes place, the current is measured and transmitted to the data system.

Unlike other halogen selective detectors, the XSD contains no radioactive sources and does not use organic solvents.

Hydraulic Profiling Tool (HPT)

The HPT portion of the system is used to create high-resolution, real-time profiles of soil hydraulic properties, which can be used to infer permeability and hydraulic conductivity. The HPT system consists of a pump, a pressure transducer, and a permeable screen.

HPT screening is performed simultaneously with the MIP and EC logging. As the tool is advanced, water is pumped through the trunkline and passes into the soil through the permeable screen. The flow is regulated as to be as constant as possible. The pressure required to maintain a constant flow of water into the soil, known as the HPT pressure, is monitored by the pressure transducer and recorded on the field computer in pounds per square inch (psi) versus depth. The flow rate of the water into the soil formation is also measured and recorded in milliliters per minute (mL/min) versus depth.

Static pressure measurements (dissipation tests) can also be made by stopping at discrete intervals, allowing users to determine the static water level. The dissipation test provides an estimate of the static water level, based on the hydraulic head imposed on the probe at rest as compared to the pressure measured at the surface prior to starting each location push. Dissipation tests are best to run in coarse-grained materials (sands and gravels) to assure that the local ambient hydrostatic pressure is measured quickly and accurately.

To perform a dissipation test, the HPT probe is advanced to a depth below the water table and the water flow is stopped. The pressure dissipation (reduction of pressure gradient caused by forcibly pumping water into the formation) is monitored until a stable value observed. The pressure dissipates over time and usually approaches an inflection point or stable value for the hydraulic pressure that can be used to estimate static water depth. The HPT software can also provide an estimate of K (a value used in hydrogeologic calculations) to provide an interpretation of the hydraulic permeability of the formation.

Depth Measurement

Depth in feet is measured and recorded using a precision potentiometer with a 100-inch linear range. The potentiometer is mounted on the mast of the DPT rig and a counterweight anchored to the foot of the rig. Measurements are recorded

on the down stroke of the mast, as the tooling string is pushed into the ground, and is accurate within 1/10th of an inch. The reference elevation (depth) reported for each individual boring is established by setting the data logger to zero feet with the sensing window of the downhole probe aligned with the ground surface.

Plotting the boring locations on a contour map provides elevations of the ground at the station. The ground surface elevations at the stations can be surveyed if more precise elevations are needed.

APPENDIX B – Quality Control Procedures

System Quality Control Checks

Direct sensing technologies such as MIP, UVOST®, and OIP provide qualitative or semi-quantitative direct contact measurements of conditions in the soil, water, and vapor matrix of the subsurface. Correct performance response of the instruments is determined using standards or mixtures of known values or concentrations. Before and after each measurement run, the instruments are tested with these known standards to ensure their response is within an acceptable range.

The nature of direct-sensing technology is different than a typical laboratory analysis. In the lab, a known volume of a known concentration is introduced to the system, the compounds are separated chromatographically, and the response for each individual compound is recorded. This process is highly reproducible, and precise standards exist for laboratory control limits.

These performance tests of direct sensing instruments are not calibrations, per se. While the instrument response can be expected to be linear for a single chemical compound or in the known matrix conditions of the performance test standards, matrix conditions and chemical mixtures will be highly variable throughout the measurement run in subsurface.

In MIP, for instance, subsurface

compounds diffuse across the MIP membrane, enter the carrier gas stream, and are transported directly to the GC. There is no chromatographic separation, just total response with depth.

Several other factors affect directsensing responses.

For OIP and UVOST®, these factors include:

- Soil grain size
- Interferences from fluorescent minerals such as limestones
- Contaminant types
- Degree of saturation
- System performance

For MIP, these factors include:

- The diffusion rate across the MIP membrane. This differs for every compound, based on:
 - Vapor pressure
 - Solubility
 - Interactions with other compounds
 - Membrane age and wear
- Ambient temperature
- Temperature of the subsurface
- Soil conditions (Clays provide a higher response than sands, due to increased back-pressure at the membrane)
- Detector response for each compound
- System performance

For these reasons, a "calibration" is not possible. The variables within compounds of interest, mixtures of compounds, and subsurface conditions cannot be standardized. However, system performance can. Therefore, COLUMBIA Technologies implements protocols to test and evaluate system performance to produce the highest quality data in the industry. The results of these performance tests are maintained with each project file and available upon request.

UVOST® System Performance Tests

As a quality control check, the UVOST® system response is evaluated prior to and upon completion of each UVOST® screening location. This evaluation is completed using a Reference Emitter (RE) that consists of a blend of NAPL and produces a consistent fluorescence response over the four wavelengths monitored by the UVOST® system. Collected data is then presented as a percentage of the RE. Using the same RE at each location and site allows normalization of data collected over several locations, sites, or screening events. The RE standard is provided by the manufacturer, Dakota Technologies, and is the same for all UVOST® systems currently in operation.

In addition to obtaining a baseline RE for each location, the background reading of the UVOST® system is electronically recorded prior to insertion into the soil. This background reading is

required to be less than 0.5% of RE prior to the start of any testing. The background during tool advancement typically stays at or below the surface background reading – giving confidence that any increases in fluorescence are "true" readings and not fluctuations or variations in background.

MIP System Performance Tests

System response is checked via
Performance Tests with known
compounds at known concentrations to
verify that the system is responding to
an acceptable level. On the
recommendation of the manufacturer,
Geoprobe Systems, this minimum
acceptable response level is established
as five (5) times the standard deviation
of the baseline noise level for each
detector.

These tests vary, mostly due to ambient temperature and the age of the membrane. So, rather than looking for a specific response factor, the system is monitored for an acceptable response. When the response is not acceptable, the system is investigated, and corrective actions are implemented as necessary.

COLUMBIA Technologies performs several levels of MIP system evaluation for each project:

- Pre-Mobilization 5-Point Response Check
- Site Arrival 5-Point Response Check
- Pre-log Midpoint Response Check

 Post-Log Midpoint Response Check

For 5-point response tests, the system is evaluated at 0.10, 0.50, 1.0, 5.0, and 10.0 ppm to check response across 3 orders of magnitude of concentrations. For sites with expected petroleum contamination the system is checked using Toluene. For sites where chlorinated VOCs are expected, the system is checked using Trichloroethene (TCE). Site -specific compounds may be used where appropriate.

As an ongoing quality control check, the MIP system response is evaluated using a 1.0 ppm performance test solution prior to and upon completion of each MIP location. The resulting response values are recorded and compared to the results of the 5-point performance tests. When the response tests fall below 25% of the baseline value, corrective action must be taken.

Low-Level MIP System performance Test

The Low-Level system is evaluated using a similar 5-point response test. The test concentrations are 10, 50, 100, 500, and 1,000 ppb, using Toluene of TCE as appropriate. Ongoing Response tests are performed using a 100-ppb solution.

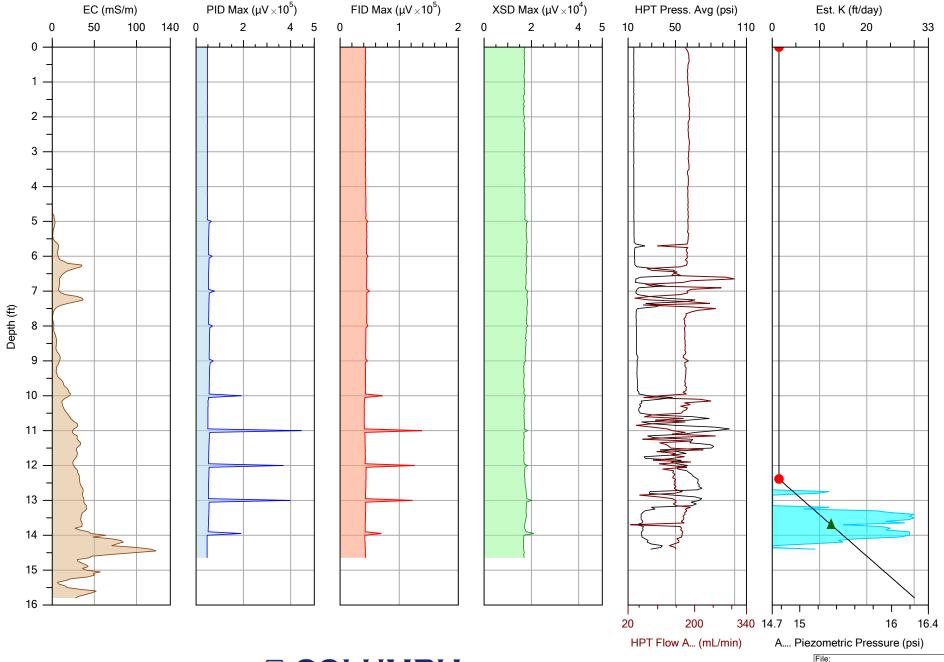
HPT System Performance Test

The EC dipole is evaluated using a brass and stainless-steel test jig, resulting in known values of 55 and 290 millisiemens (mS). Results must fall within 10% of the expected values; otherwise corrective action must be performed.

The HPT pressure and flow sensors are also evaluated using static (no flow) and dynamic (flow at approximately 150 milliliters per minute) hydraulic pressure measurements at two different head elevations, 6.0 inches apart. The difference for each test must be 0.2 psi, +/- 10%; otherwise corrective action must be performed.

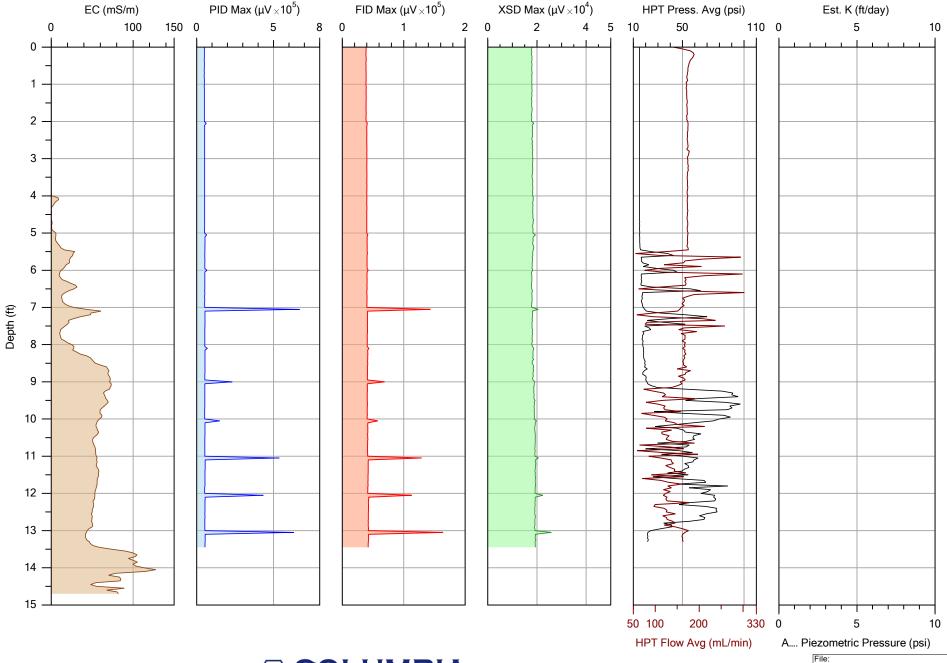
APPENDIX C – Data Logs for Low-Level Membrane Interface Probe/EC with Hydraulic Profiling Tool (LL-MiHpt) - Individual Scale

Project No. 3578-2017-04A



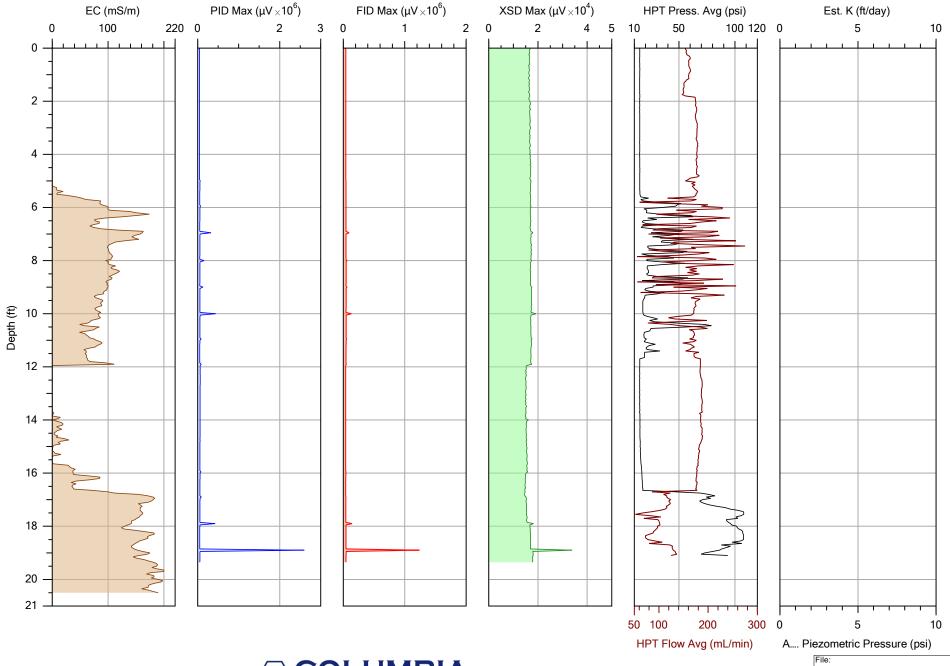


		OS-LLMIP01.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/12/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



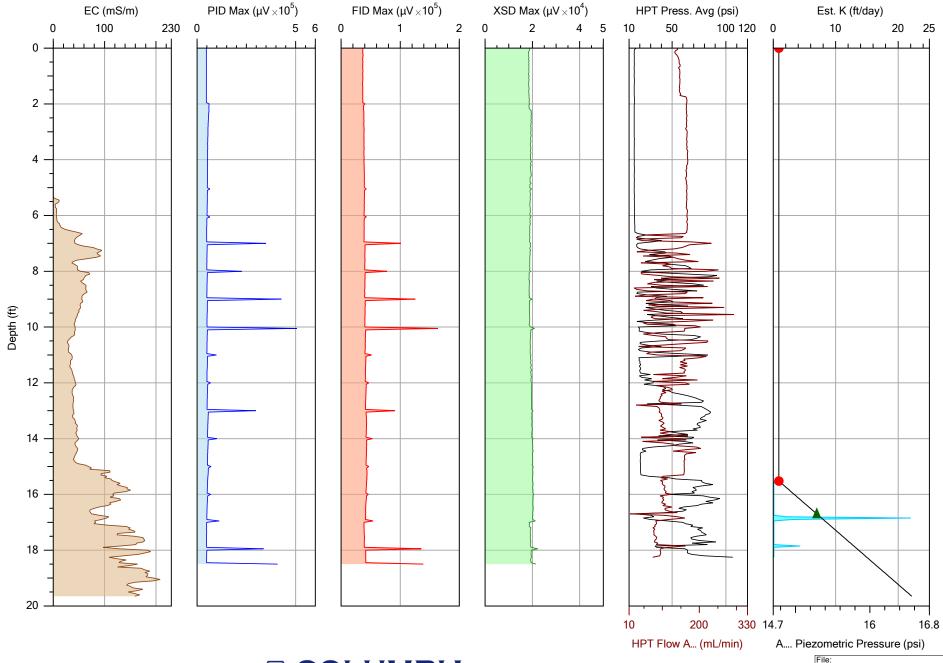


		OS-LLMIP02.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/11/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



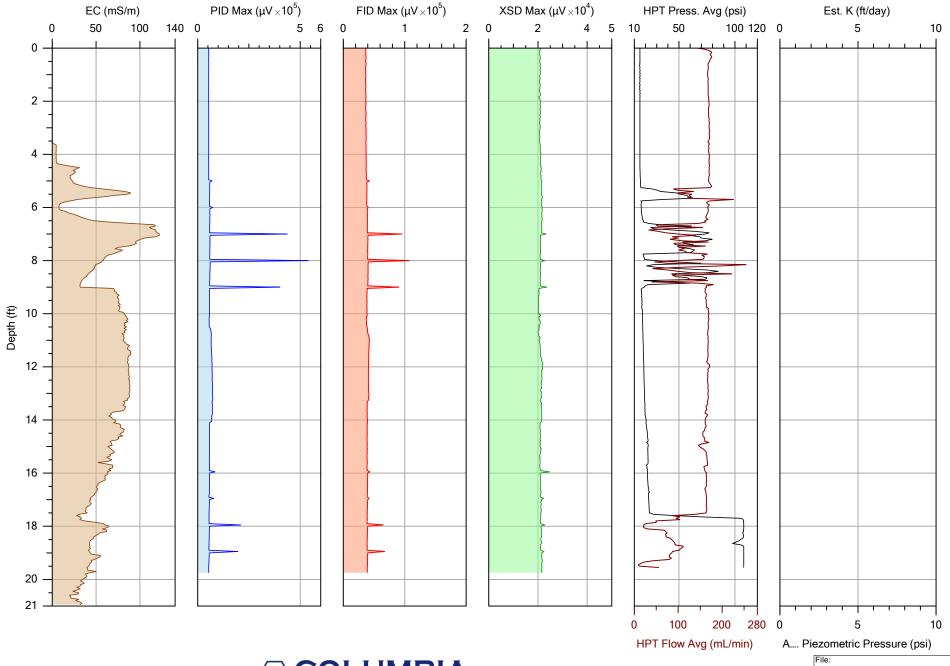


Company: Operator: Date:	
Company. Operator. Date.	
COLUMBIA Technologies RSP 5/12/2021	
Project ID: Client: Location:	
Former Tiger Oil Off-Site cVOC Maul Foster & Alongi Yakima, WA	



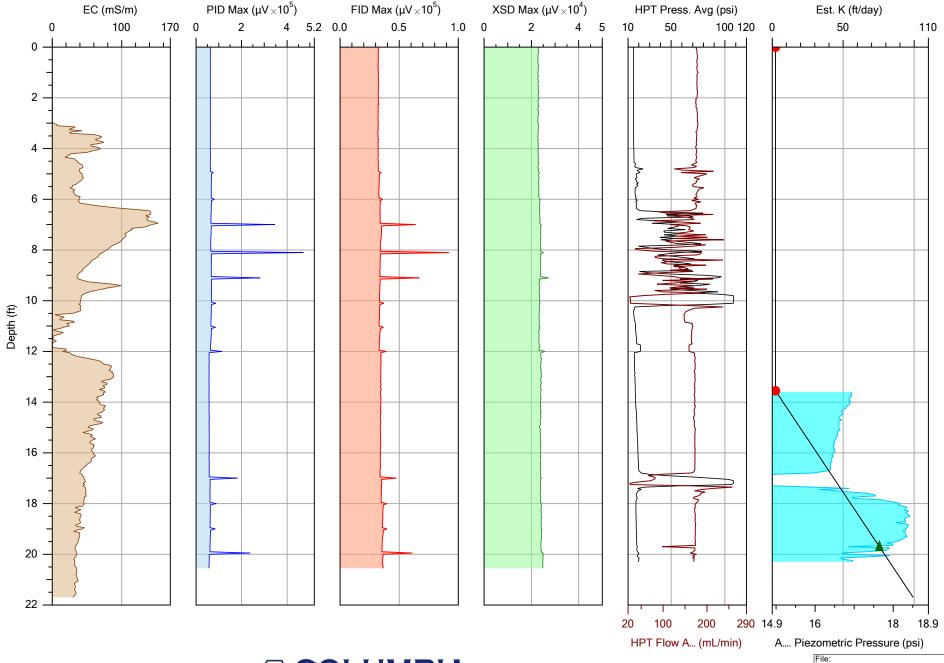


		OS-LLMIP04.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/12/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



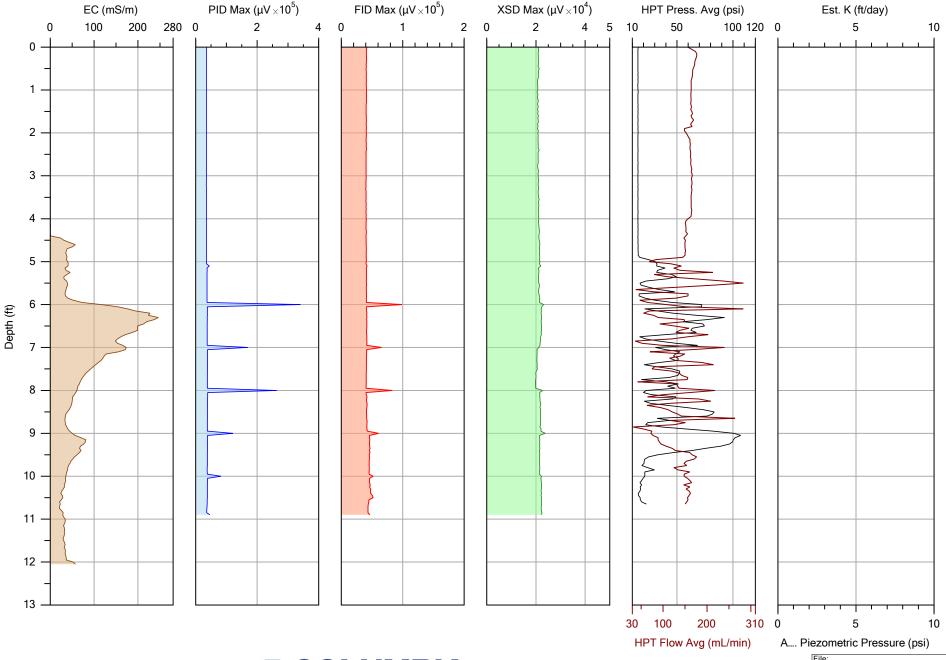


		OS-LLMIP05.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/11/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



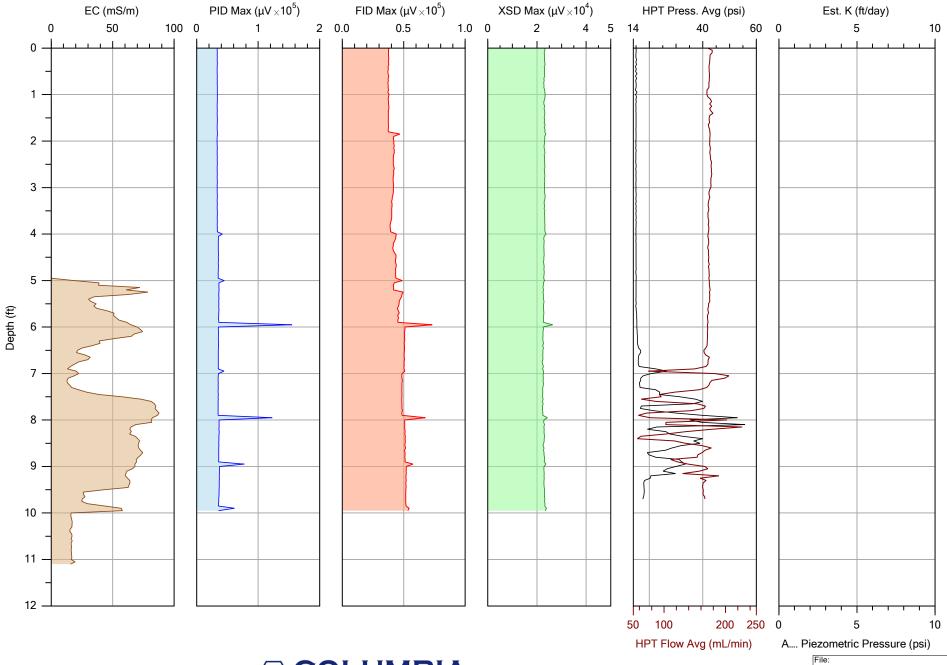


		OS-LLMIP06.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/11/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



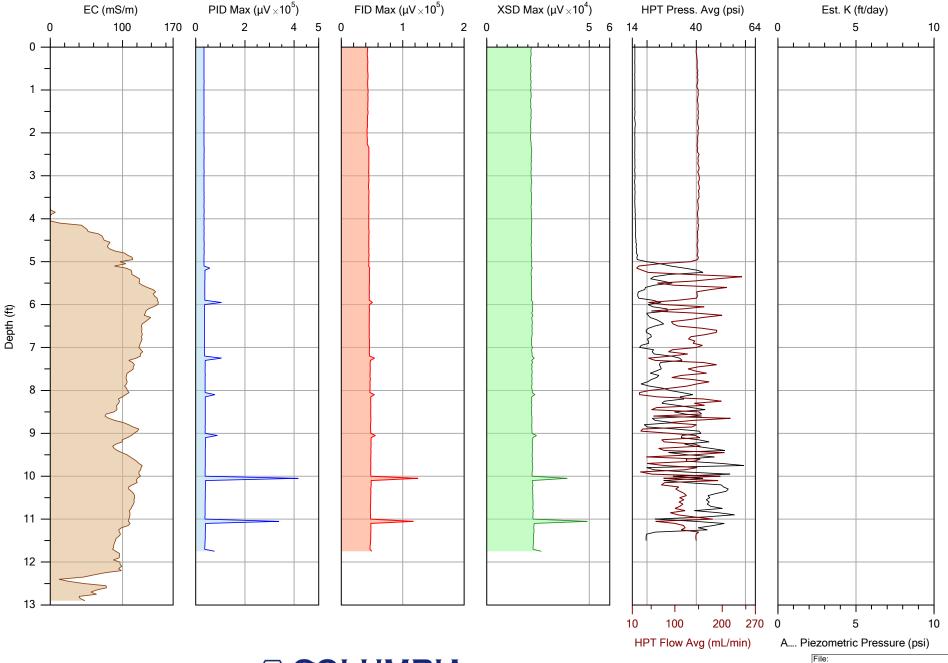


		OS-LLMIP07.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/10/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



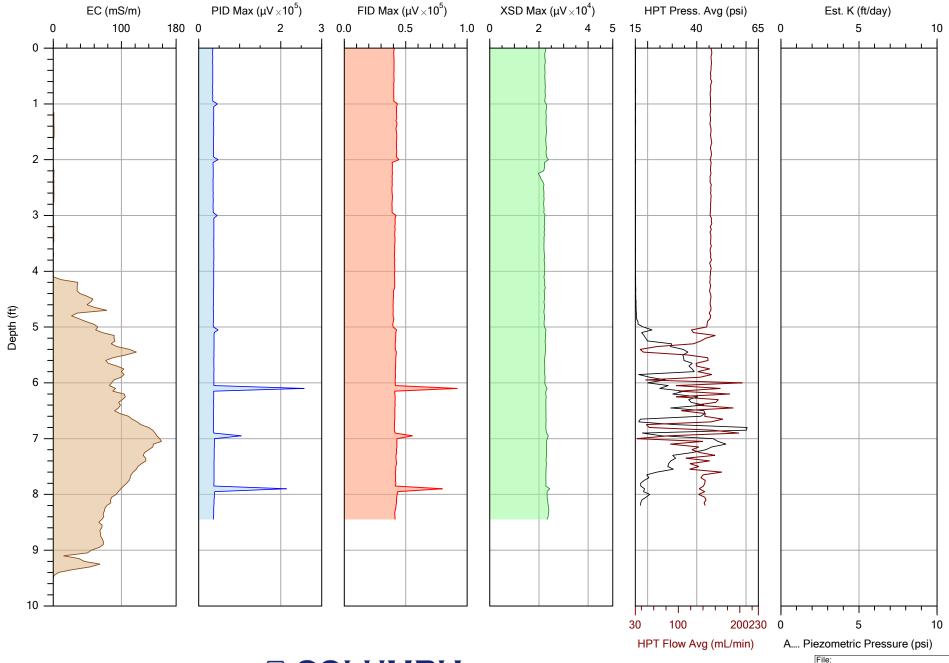


		OS-LLMIP08.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/10/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA





	OS-LLMIP09.MHP
Operator:	Date:
RSP	5/10/2021
Client:	Location:
Maul Foster & Alongi	Yakima, WA
	RSP Client:

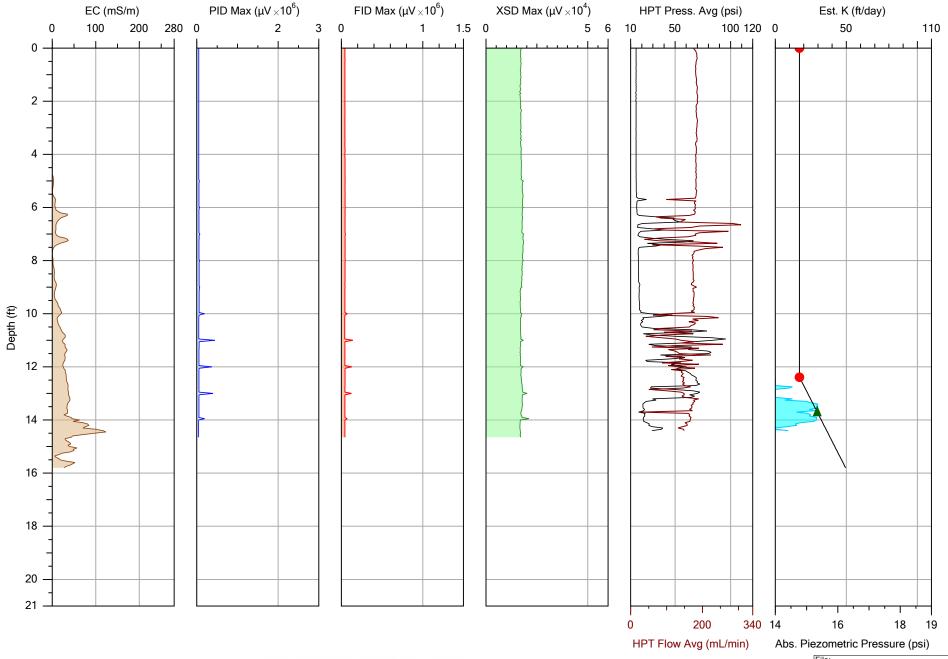




		OS-LLMIP10.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/10/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA

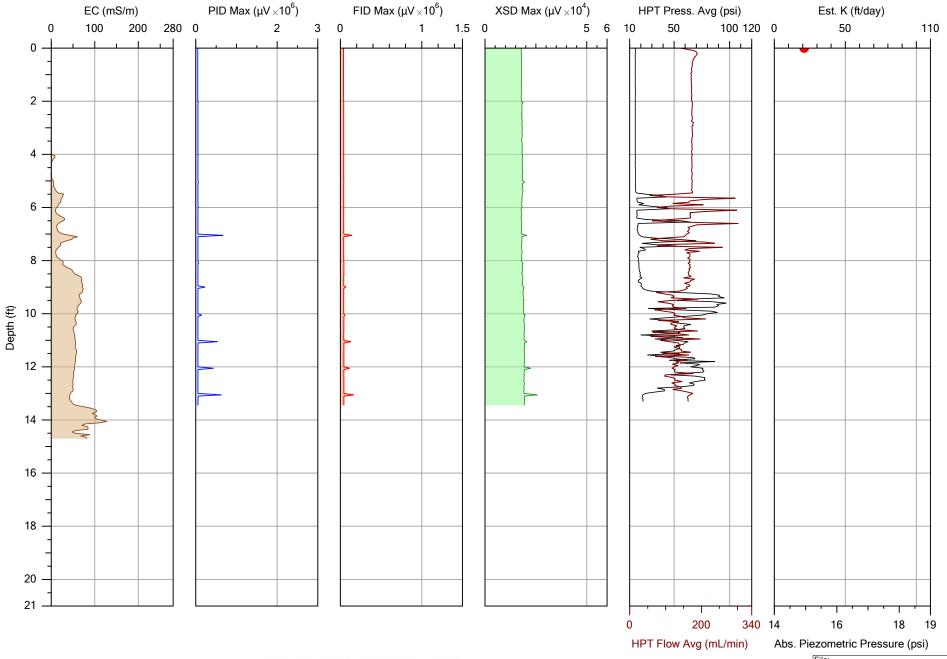
APPENDIX D – Data Logs for Low-Level Membrane Interface Probe/EC with Hydraulic Profiling Tool (LL-MiHpt) - Collective Scale

Project No. 3578-2017-04A



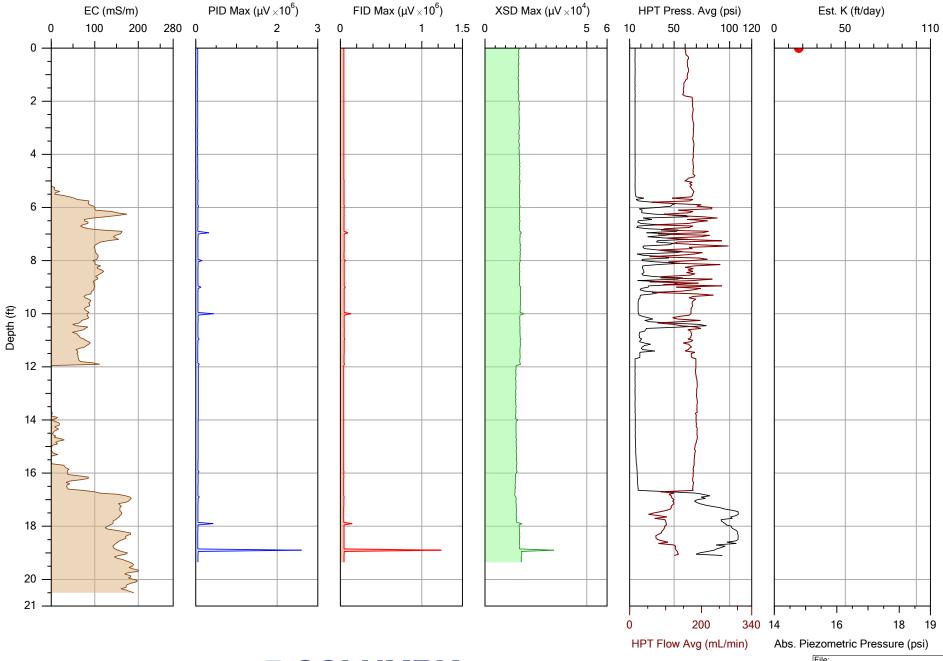


		OS-LLMIP01.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/12/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



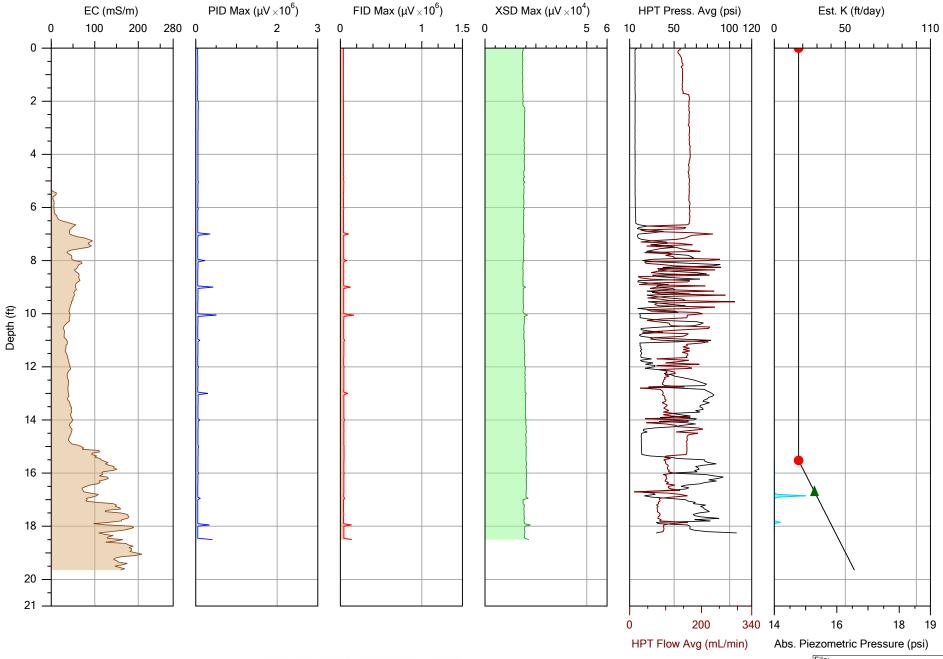


		OS-LLMIP02.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/11/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



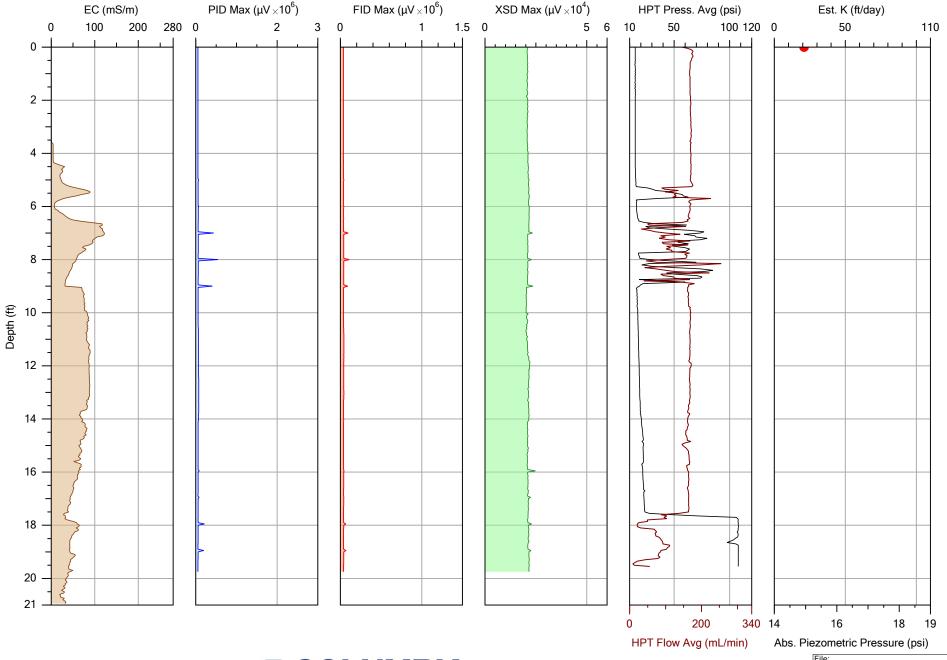


		OS-LLMIP03.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/12/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



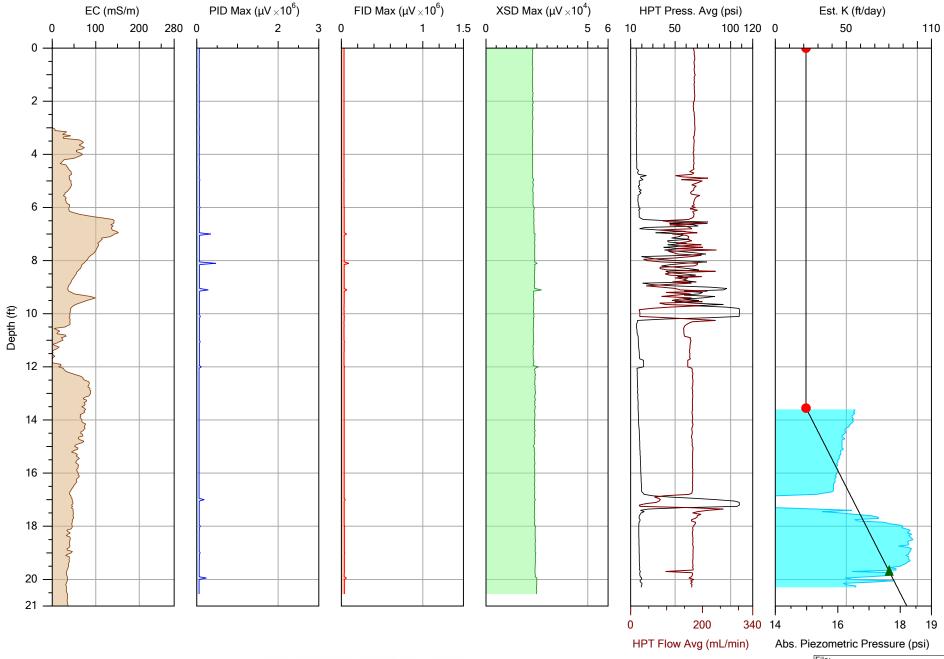


		OS-LLMIP04.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/12/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



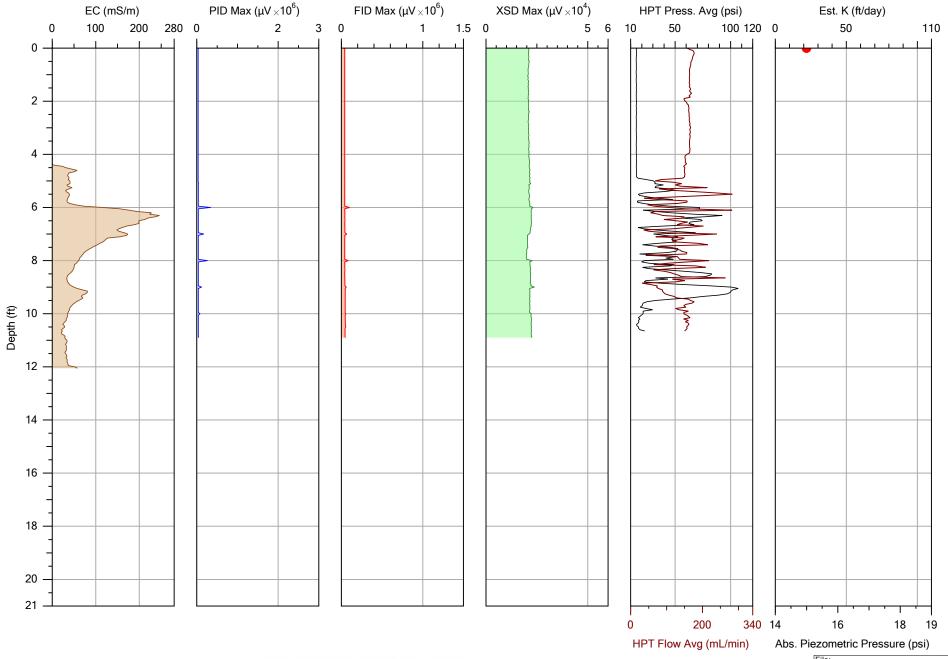


		OS-LLMIP05.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/11/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



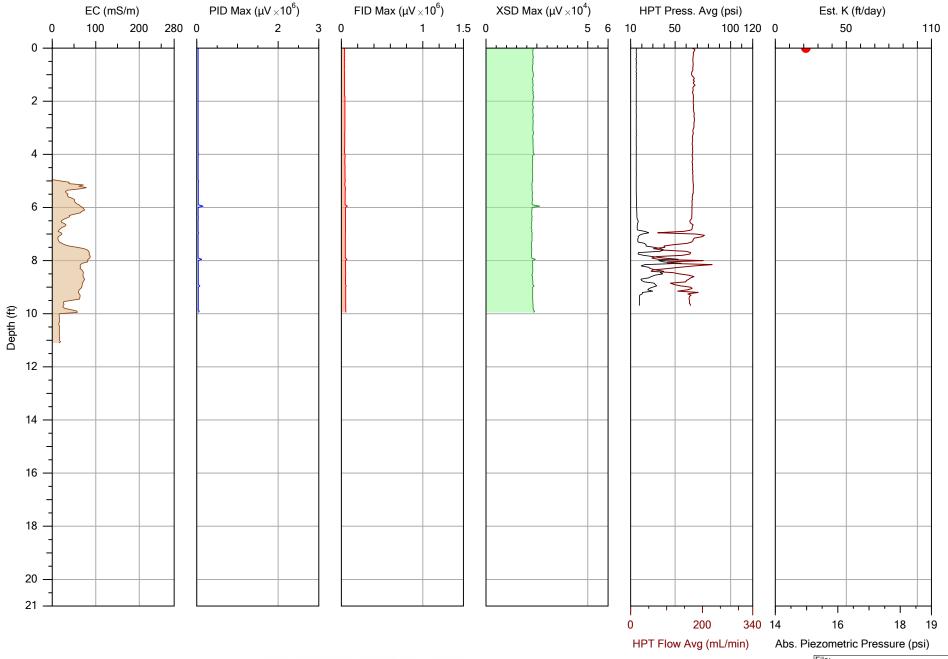


Company: Operator: Date:	
COLUMBIA Technologies RSP 5/11/2021	
Project ID: Client: Location:	\neg
Former Tiger Oil Off-Site cVOC Maul Foster & Alongi Yakima, WA	



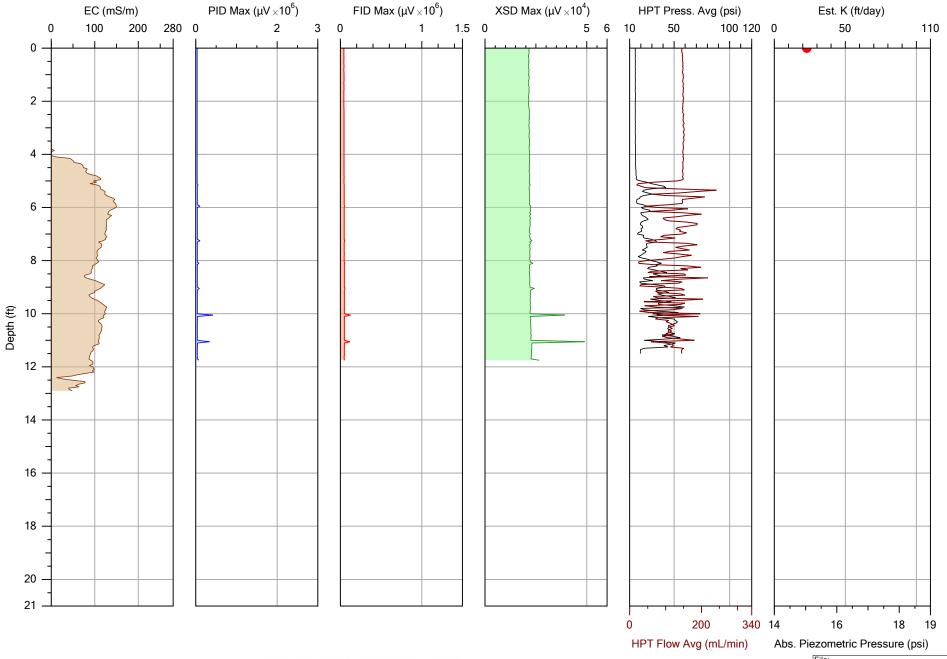


		OS-LLMIP07.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/10/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA



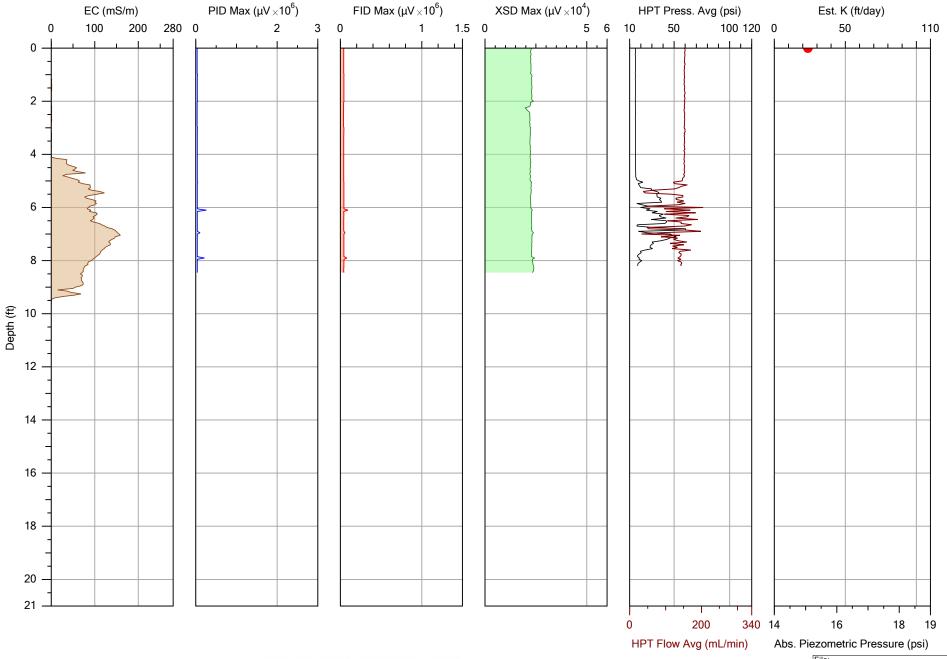


		OS-LLMIP08.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/10/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA





		OS-LLMIP09.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/10/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA





		OS-LLMIP10.MHP
Company:	Operator:	Date:
COLUMBIA Technologies	RSP	5/10/2021
Project ID:	Client:	Location:
Former Tiger Oil Off-Site cVOC	Maul Foster & Alongi	Yakima, WA

APPENDIX E – MIHPT Performance Testing Results



	N.A:	Lint Ouglitus	N				Start Date:	05/10/21				Sit	e Name:	: Form	er Tiger Oil C	Off-Site	cVOC		Client:	Maul	Foster & Alongi			
	IVII	Hpt Quality A	Assurai	ice			End Date	05/14/21			CT Pr	oject N	Number:	: 3578-	2017-04A									
					N	IIP Respo	nse Test				Dete	ctor	Respoi	nse		EC.	Test		HPT Test					
Date	Time	Station	PID Max	XSD Max	PID	XSD	PID	XSD	PID	XSD	PID	D/E	XSD		Low	D/5	High	- /-	Δр	- /-	Notes	Issues	Corrective Action taken	
			PID IVIAX	XSD IVIAX	Baseline	Baseline	Response	Response	Noise	Noise	(>5)	P/F	(>5)	P/F	(55 ± 10%)	P/F	(360 ± 10%)		(0.22 ± 10%)	P/F				
5/10/21	1050	OS-LLMIP10 Pre	4.98E+04	3.26E+04	3.67E+04	2.69E+04	1.31E+04	5.76E+03	110	130	118.8	Р	44.3	Р	57.1	Р	362.9	Р	0.24	Р				
	1240	OS-LLMIP10 Post	5.33E+04	2.92E+04	3.57E+04	2.34E+04	1.76E+04	5.86E+03	110	150	159.8	Р	39.1	Р	56.9	P	365.5	P	0.21	Р				
	1309	OS-LLMIP09 Pre	4.52E+04	2.61E+04	3.45E+04	2.07E+04	1.07E+04	5.41E+03	150	140	71.5	Р	38.6	Р	56.9	Р	364.8	P	0.24	Р				
	1404	OS-LLMIP09 Post	4.51E+04	2.70E+04	3.41E+04	2.21E+04	1.10E+04	4.96E+03	170	230	64.8	Р	21.6	Р	56.8	P	364.9	P	0.21	Р				
	1404	OS-LLMIP07 Pre	4.51E+04	2.70E+04	3.41E+04	2.21E+04	1.10E+04	4.96E+03	170	230	64.8	Р	21.6	Р	57.0	Р	367.1	P	0.20	Р				
	1514	OS-LLMIP07Post	4.56E+04	2.60E+04	3.53E+04	2.08E+04	1.03E+04	5.20E+03	140	140	73.8	Р	37.2	Р	57.0	P	365.9	P	0.22	Р				
	1514	OS-LLMIP08 Pre	4.56E+04		3.53E+04	2.08E+04	1.03E+04	5.20E+03	140	140	73.8	Р	37.2	Р	56.9	P	365.4	P	0.20	Р				
	1647	OS-LLMIP08 Post	4.15E+04	2.48E+04	3.40E+04	2.20E+04	7.52E+03	2.79E+03	200	240	37.6	Р	11.6	Р	56.8	Р	360.2	P	0.22	Р				
5/11/21	954	OS-LLMIP06 Pre	7.83E+04	2.70E+04	6.82E+04	2.22E+04	1.01E+04	4.76E+03	270	110	37.4	Р	43.3	Р	57.2	P	364.3	P	0.22	Р				
	1056	OS-LLMIP06 Post	7.55E+04	2.63E+04	6.40E+04	2.15E+04	1.14E+04	4.78E+03	360	160	31.8	Р	29.9	Р	57.2	Р	364.8	P	0.22	Р				
	1056	OS-LLMIP06D Pre	7.55E+04	2.63E+04	6.40E+04	2.15E+04	1.14E+04	4.78E+03	360	160	31.8	Р	29.9	Р	57.2	P	366.8	P	0.22	Р				
	1220	OS-LLMIP06D Post	8.81E+04	3.30E+04	6.39E+04	2.43E+04	2.42E+04	8.66E+03	225	160	107.8	Р	54.1	Р	56.8	P	365.5	P	0.22	Р	Cleaned PID and XSD, o	changed mebrane		
	1305	OS-LLMIP05 Pre	7.00E+04		5.52E+04	1.95E+04	1.48E+04	3.98E+03	150	155	98.5	Р	25.6	Р	56.7	Р	366.7	P	0.20	Р				
	1343	OS-LLMIP05 Post	7.04E+04	2.76E+04	5.48E+04	2.10E+04	1.56E+04	6.57E+03	155	200	100.3	P	32.8	P	57.7	P	366.8	P	0.22	Р				
	1343	OS-LLMIP05D Pre	7.04E+04		5.48E+04	2.10E+04	1.56E+04	6.57E+03	155	200	100.3	Р	32.8	Р	57.3	Р	367.4	P	0.22	Р				
	1505	OS-LLMIP05D Post	7.24E+04	2.26E+04	5.63E+04	1.51E+04	1.60E+04	7.55E+03	300	200	53.5	P	37.8	P	57.5	P	367.0	P	0.22	Р				
	1542	OS-LLMIP02 Pre	6.90E+04	2.26E+04	5.37E+04	1.56E+04	1.53E+04	7.08E+03	225	125	67.9	Р	56.6	Р	57.5	P	367.4	P	0.24	Р				
	1637	OS-LLMIP02 Post	6.94E+04	2.66E+04	5.49E+04	2.00E+04	1.45E+04	6.62E+03	300	175	48.5	Р	37.8	Р	57.4	Р	364.8	P	0.22	Р				
5/12/21	1020	OS-LLMIP04 Pre	6.85E+04	2.38E+04	5.45E+04	1.75E+04	1.40E+04	6.28E+03	170	140	82.6	Р	44.9	Р	55.7	Р	364.5	P	0.22	Р				
	1212	OS-LLMIP04 Post	6.89E+04		5.61E+04	1.64E+04	1.28E+04	5.17E+03	185	140	69.1	Р	37.0	Р	56.2	Р	366.3	P	0.22	Р				
	1308	OS-LLMIP03 Pre	6.85E+04	2.27E+04	5.40E+04	1.59E+04	1.45E+04	6.83E+03	160	170	90.8	Р	40.2	Р	57.2	Р	367.1	P	0.22	Р				
	1351	OS-LLMIP03 Post	6.63E+04	2.16E+04	5.34E+04	1.65E+04	1.28E+04	5.13E+03	285	155	45.1	P	33.1	Р	57.7	Р	356.3	P	0.21	P				
	1351	OS-LLMIP03D Pre	6.63E+04	2.16E+04	5.34E+04	1.65E+04	1.28E+04	5.13E+03	285	155	45.1	Р	33.1	Р	58.5	Р	369.9	P	0.22	Р				
	1501	OS-LLMIP03D Post	7.64E+04	2.42E+04	5.88E+04	1.67E+04	1.75E+04	7.55E+03	275	125	63.6	P	60.4	Р	58.0	Р	367.9	P	0.23	P				
	1501	OS-LLMIP01 Pre	7.64E+04	2.42E+04	5.88E+04	1.67E+04	1.75E+04	7.55E+03	275	125	63.6	Р	60.4	Р	58.5	Р	367.4	P	0.23	Р				
	1634	OS-LLMIP01 Post	6.63E+04	2.20E+04	5.26E+04	1.66E+04	1.37E+04	5.32E+03	120	120	113.9	Р	44.3	Р	57.2	P	367.3	P	0.22	Р				
																						1		
																						1		
																						1		

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B BORING LOGS

							Geologic Borehole Log			
0	MAUL	FOST	ER ALONGI		Project Nu	umber	Well Number OS-LLMIP02	Sheet 1 of 2		
Proj Star Drillo Geo	iect Name iect Location t/End Date er/Equipme plogist/Engin pple Method	n nt l neer	Yakima, WA 5/13/2021 to 5/1	Tiger Oil Site - Off-Property HVOCs WA Surface Elevation (feet) Northing rvices, Inc./Direct-Push Probe TOC Elevation (feet) Nurface Elevation (feet) Northing Easting Total Depth of Borehole						
	Well		Sample D	ata	ي		Outer Hole Diam Soil Description	2.25-inc		
Depth (feet, BGS)	Details	Water Levels Percent	Sample ID	DID (mdd)	Lithologic Column					
-				0.0		0.0 to 0.8 feet:	Asphalt; black.			
1			DSS-OS- LLMIP02-1		0000	coarse-gra	SANDY GRAVEL (GW): gray; 10% fines; 3 ained; 60% gravel, fine- to medium-size, and POORLY-GRADED SAND (SP): grayish-bed; loose to medium-dense; dry.	gular; dense; dry (FILL).		
3		8	oo							
4										
5			DSS-OS- LLMIP02-5							
6										
8		8	80							
- 1										
9 10 11 12				0.2		9.5 to 13.0 fee	t: SILTY SAND (SM) t: CLAYEY SILT (ML): brown; 100% fines; i oming wet at 12.5 feet.	medium-stiff, low plastici		
11		$ $ $\underline{\nabla}$								
12			DSS-OS- LLMIP02-12	2.0						
_13						Macro-cor	rilling refusal. Switched to macro-core to en re from 13.5 to 17.0 feet; encountered hard	clay with sand and grave		
14						layer at th	is depth. No soil cores available for logging.	,		

								Geologic	Borehole Lo	g	
	MAUL	F O S	TER	ALONGI		Project Nu 0818.02.0			Vell Number DS-LLMIP02		Sheet 2 of 2
Depth (feet, BGS)	Well Details	Water Levels	Percent Recovery	Sample Dat	a (mdd)	Lithologic Column			Soil Description		2 0/ 2
-											
E											
_16											
Ē											
_17				DSW-OS-							
Ė į				LLMIP02-17.0							
18											
							Total Depth =	18.0 feet bgs			

NOTES:

1. bgs = below ground surface. 2. Depths are relative to feet bgs. 3. GP = Geoprobe macro-core sampler. 4. PID = photoionization detector. 5. ppm = parts per million.

<u>Borehole Completion Details</u> 2.25-inch borehole advanced to 18.0 feet.

Installed temporary screen at 13.0 to 18.0 feet to collect reconnaissance groundwater sample.

Borehole Abandonment Details
0 to 18.0 feet bgs: Bentonite chips hydrated with potable water.

								Geologic Borehole Log	
-	MAUL	F O S	TER	ALONGI		Project Nu 0818.02.0		Well Number OS-LLMIP03	Sheet 1 of 2
Proj Star Drill Geo	iect Name iect Location t/End Date ier/Equipme blogist/Engir	nt neer	Yak 5/13 Hol Y. V		2021	f-Property	HVOCs	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Total Depth of Borehole	22.0-fee
	nple Method	7	Gra		,			Outer Hole Diam	2.25-inc
Depth (feet, BGS)	Well Details	Water Levels	Percent Recovery	Sample Dat	a (mdd) OId	Lithologic Column		Soil Description	
2 2			100	DSS-OS- LLMIP03-1.5	0.0		0.3 to 1.5 feet coarse-gr	t: Asphalt; black. t: SANDY GRAVEL (GW): gray; 10% fines; 30; ained; 60% gravel, fine- to medium-size, angular fines; 50; angular fine- to medium-size, angular fines; 50; angular fines; 60; angular fines	ular; dense; dry (FILL).
5 6 7			100	DSS-OS- LLMIP03-5.0 DSS-OS- LLMIP03-7.0	0.0		medium-0	t: SILTY SAND (SM): light-brown; 40% fines; dense; moist. eet: SILTY CLAY / CLAYEY SILT (CL): 100% moist to wet.	-
		Ā	100	DSS-OS- LLMIP03-10.0 DSS-OS- LLMIP03-11.0	0.0		medium-c @ 11.9 feet: c Macro-co layers at: 12.25 to 14.5 to coarse	5 feet: SILTY SAND (SM): 40% fines; 60% sa dense; wet. drilling refusal. Switched to macro-core to ena re from 11.9 to 16.0 feet; encountered very of this depth. feet: SANDY GRAVEL (GW): reddish-gray; 1 -grained; 60% gravel, fine-size, subrounded;	ble reaching deeper de lense sand and gravel 0% fines; 30% sand, fi
14				DSS-OS- LLMIP03-14.0				eet: CLAY/SILTY CLAY (CL): 100% fines; ve	ery stiff, low plasticity; I

								Geolog	gic Borehole	e Log	
	MAULI	F O \$ 1	ΓER	ALONGI		Project Nui 0818.02.0	mber 1-26		Well Number OS-LLMIP03		Sheet 2 of 2
(S5	Well Details		ځ.	Sample Data		ic			Soil Descrip	tion	
Depth (feet, BGS)	Details	Water Levels	Percent Recovery	Sample ID	PID (mdd)	Lithologic Column					
			100	DSS-OS- LLMIP03-18.0							
19				DSW-OS- LLMIP03-20.0							
21											

Total Depth = 22.0 feet bgs

NOTES:

1. bgs = below ground surface. 2. Depths are relative to feet bgs. 3. GP = Geoprobe macro-core sampler. 4. PID = photoionization detector. 5. ppm = parts per million.

<u>Borehole Completion Details</u> 2.25-inch borehole advanced to 22.0 feet.

Installed temporary screen at 18.0 to 22.0 feet to collect reconnaissance groundwater sample.

Borehole Abandonment Details
0 to 18.0 feet bgs: Bentonite chips hydrated with potable water.

¥ Water level at approximately 10.0 feet bgs at time of drilling.

								Geologic Borehole Log	
	MAUL	F O S	TER	ALONGI		Project Nu 0818.02.0		Well Number OS-LLMIP05	Sheet 1 of 2
Proj Star Drille Geo	ect Name iect Location t/End Date er/Equipme plogist/Engli nple Method	ent neer	Yak 5/13		/2021	f-Property	HVOCs	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Total Depth of Borehole Outer Hole Diam	
	Well	,	Gra	Sample Da	to			Soil Description	2.25-1110
Depth (feet, BGS)	Details	Water Levels	Percent Recovery	Sample ID	BID (mdd)	Lithologic Column		Suii Description	
					0.0		0.0 to 0.6 feet:	Asphalt; black.	
_ 1				DSS-OS- LLMIP05-1.5	0.0	0 0 0 0 0 0 0 0 0 0 0 0 0	1.5 to 7.0 teet.	SANDY GRAVEL (GW): gray; 10% fines; (FILL). POORLY-GRADED SAND (SP): grayish-bd; medium-dense; well-sorted; moist.	
3			100						
4									
_ 5				DSS-OS- LLMIP05-5.0)				
6									
- 7 - - 8		\Box	100	DSS-OS- LLMIP05-7.0	0.6		7.0 to 15.5 fee moist, bed	t: CLAYEY SILT (ML): brown; 100% fines; oming wet at 8.0 feet.	medium-stiff, low plastic
_ 8 _ 9 _10 _11 _12 _13 _14									
_10									
_11									
_12			405						
_13			100						
_14									
15									

								Geologic Borehol	le Log	
	I I II A M	- 0 s	TER	ALONGI		Project Nu		Well Number		Sheet
		0.5	ILI	ALONO!		0818.02.0	01-26	OS-LLMIP05		2 of 2
(SE	Well Details		2	Sample Data		ic		Soil Descri	ption	
Depth (feet, BGS)	Details	Water Levels	Percent Recovery	Sample ID	PID (ppm)	Lithologic Column				
16		Ā		DSS-OS-	0.4		Macro-cor this depth. 15.5 to 17.0 fe to coarse- moist, bed	e from 15.0 to 18.0 feet; en et: SANDY GRAVEL (GW):	ncountered ve 	enable reaching deeper depth. ery dense sandy gravel layer at wn; 10% fines; 30% sand, fine- ed; dense; weathered; dry to
18			100	DSS-03- LLMIP05-17.0 DSS-OS- LLMIP05-18.0	0.4			et. SAND With GRAVEE (Gr ained; 5% gravel; medium-d		
19 20				DSS-OS-	0.0			et: POORLY-GRADED SAN rained; dense; well-sorted; v		wn; 100% sand,
21				LLMIP05-20.0				et: SAND with GRAVEL (SF ained; 5% gravel; medium-d		
22				DSW-OS- LLMIP05-22.0						

Total Depth = 23.0 feet bgs

NOTES:

1. bgs = below ground surface. 2. Depths are relative to feet bgs. 3. GP = Geoprobe macro-core sampler. 4. PID = photoionization detector. 5. ppm = parts per million.

<u>Borehole Completion Details</u> 2.25-inch borehole advanced to 23.0 feet.

Installed temporary screen at 12.0 to 22.0 feet to collect reconnaissance groundwater sample.

Borehole Abandonment Details
0 to 23.0 feet bgs: Bentonite chips hydrated with potable water.

록 Saturated clayey silt layer at approximately 8.0 feet bgs at time of drilling. 록 Water level at approximately 17.0 feet bgs at time of sampling.

MFA BOREHOLE W/WELL W:\GINT\GINTW/PROJECTS\0818.02.01\0S-LLMIP02, 03, 05, 07, 09.GPJ 8/16/21

							(Geologic Borehole Log	
	MAULF	0 \$	TER	ALONGI		Project Nu 0818.02.0	umber	Well Number OS-LLMIP07	Sheet 1 of 2
Pro Sta Dril Geo	nject Name nject Location nt/End Date ller/Equipmer ologist/Engin mple Method	nt eer	Yak 5/13		021	f-Property	HVOCs	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Total Depth of Borehole Outer Hole Diam	
Depth (feet, BGS)	Well Details		ent	Sample Date		Lithologic Column		Soil Description	
Dept. (feet,		Water Levels	Percent Recovery	Sample ID	DID (mdd)	Litho			
- - -							0.0 to 0.6 feet:	Asphalt; black.	
1					0.0		coarse-grai	SANDY GRAVEL (GW): gray; 10% fines; 3 ined; 60% gravel, fine- to medium-size, and	80% sand, fine- to
3			100	DSS-OS- LLMIP07-2.5	0.1	0000	2.5 to 6.0 feet:	POORLY-GRADED SAND (SP): 100% sar nse; well-sorted; moist.	nd; fine-grained;
4									
5									
- - - - - - - 7				DSS-OS- LLMIP07-6.0			6.0 to 9.5 feet: moderate p	CLAYEY SILT / SILTY CLAY (CL): brown; lasticity; moist, becoming wet at 7.5 feet.	100% fines; medium-stiff,
8		$\overline{\Delta}$	100		0.8				
9		T		DSS-OS- LLMIP07-9.0					
10		-			0.0		9.5 to 11.0 feet. fine- to coa very dense	SANDY GRAVEL (GW): light-grayish / brownerse-grained; 60% gravel, fine- to medium-sermoist to wet.	own, 10% fines; 30% sand size, subangular; dense to
9				DSS-OS- LLMIP07-11.0		0 7 0 7	@ 11.0 feet: dri Macro-core	lling refusal. Switched to macro-core to en from 11.0 to 21.5 feet; encountered very o vailable soils for logging.	
12			100						
13									
14									

							Geologic Borehole Log	
	MAULI	F O S	TER	ALONGI		Project Nu 0818.02.0	mber Well Number	Sheet 2 of 2
Depth (feet, BGS)	Well Details	Water Levels	Percent Recovery	Sample Data Sample ID	PID (mdd)	Lithologic Column	Soil Description	
16								
17								
18								
19								
_20								
21				DSW-OS- LLMIP07-21.0			Refusal at 21.5 feet.	

NOTES:

1. bgs = below ground surface. 2. Depths are relative to feet bgs. 3. GP = Geoprobe macro-core sampler. 4. PID = photoionization detector. 5. ppm = parts per million.

Total Depth = 21.5 feet bgs

<u>Borehole Completion Details</u> 2.25-inch borehole advanced to 21.5 feet.

Installed temporary screen at 11.5 to 21.5 feet to collect reconnaissance groundwater sample.

<u>Borehole Abandonment Details</u>
0 to 21.5 feet bgs: Bentonite chips hydrated with potable water.

☑ Water level at approximately 7.5 feet bgs at time of drilling. ▼ Water level at approximately 9.5 feet bgs at time of sampling.

☐ Water level at approximately 7.5 feet bgs at time of drilling. ▼ Water level at approximately 9.5 feet bgs at time of sampling.

☐ Water level at approximately 7.5 feet bgs at time of drilling. ▼ Water level at approximately 9.5 feet bgs at time of sampling.

☐ Water level at approximately 7.5 feet bgs at time of drilling. ▼ Water level at approximately 9.5 feet bgs at time of sampling.

MFA BOREHOLE W/WELL W:\GINT\GINTW/PROJECTS\0818.02.01\0S-LLMIP02, 03, 05, 07, 09.GPJ 8/16/21

							(Geologic Borehole Log	
	MAULE	0 \$	TER	ALONGI		Project Nu 0818.02.0		Well Number OS-LLMIP09	Sheet 1 of 2
Pro Sta Dri Ge	oject Name oject Location art/End Date iller/Equipmer ologist/Engin mple Method	nt eer	Yak 5/14		021	f-Property	/ HVOCs	TOC Elevation (feet) Surface Elevation (feet) Northing Easting Total Depth of Borehole Outer Hole Diam	
Depth (feet, BGS)	Well Details	Water Levels	Percent Recovery	Sample Data Sample ID	I	Lithologic Column		Soil Description	
(fee		Wa Lev	Per Red		PID (ppm)	CLI			
1					0.0	00000	0.0 to 0.8 feet: 1	Asphalt; black. SANDY GRAVEL (GP): gray; 10% fines; 3	10% sand fine-to
2					0.0		coarse-grai	ned; 60% gravel, fine- to medium-size, an	gular; dense; dry (FILL).
3			100		0.2		2.0 to 12.0 feet: fine-grained	SANDY CLAY / CLAY (CL): brown; 85% d; medium-stiff, high plasticity; moist to we	fines; 15% sand, t.
. 3									
. 4 5									
•									
_ 6									
. 7		$\overline{\Delta}$	100						
8 9 10 11 12 13									
9									
10									
11				DSS-OS- LLMIP09-11.0					
12			100			0000	coarse-grai	t: SANDY GRAVEL (GP): gray-brown; 10 ned; 60% gravel, fine- to medium-size, su	
13				DSS-OS- LLMIP09-13.0	0.0	0000	13.0 to 14.5 fee	t: POORLY-GRADED SAND (SP): gray-b ned; very dense; well-sorted; wet. Minor fi	rown; 10% fines; 90% sai ine-size gravel.
_14									
15				DSS-OS- LLMIP09-14.5	0.0	0000	14.5 to 19.0 fee sand. fine-	t: SANDY GRAVEL with CLAY (GP): gray to coarse-grained; 60% gravel, fine- to me	r-brown; 10% fines; 30% edium-size, subangular: ve

							Geo	logic Borehole Lo	g	
	MAULE	0 \$	TER	ALONGI		Project Nu.	mber	Well Number OS-LLMIP09	Sheet 2 of 2	
Depth (feet, BGS)	Well Details	Water Levels	Percent Recovery	Sample Data	PID (ppm)	Lithologic Column		Soil Description		
17			80	DSS-OS- LLMIP09-19.0						
_19				DSW-OS- LLMIP09-19.0		00000	Refusal at 19.0 feet.			

Total Depth = 19.0 feet bgs

NOTES:

1. bgs = below ground surface. 2. Depths are relative to feet bgs. 3. GP = Geoprobe macro-core sampler. 4. PID = photoionization detector. 5. ppm = parts per million.

<u>Borehole Completion Details</u> 2.25-inch borehole advanced to 19.0 feet.

Installed temporary screen at 9.0 to 19.0 feet to collect reconnaissance groundwater sample.

<u>Borehole Abandonment Details</u> 0 to 19.0 feet bgs: Bentonite chips hydrated with potable water.

APPENDIX C

OFF-PROPERTY HRSC WATER FIELD SAMPLING DATA SHEETS

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	City of Yakima	Sample Location	OS-LLMIP02
Project #	0818.02.01-26	Sampler	Y. Van
Project Name	Off-Property HVOCs HRSC	Sampling Date	5/13/2021
Sampling Event	May 2021	Sample Name	DSW-05-LLMIP02-17.0
Sub Area		Sample Depth	17
FSDS QA:	R. Paul 6/8/2021	Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume

 $(0.75" = 0.023 \; \text{gal/ft}) \; (1" = 0.041 \; \text{gal/ft}) \; (1.5" = 0.092 \; \text{gal/ft}) \; (2" = 0.163 \; \text{gal/ft}) \; (3" = 0.367 \; \text{gal/ft}) \; (4" = 0.653 \; \text{gal/ft}) \; (6" = 1.469 \; \text{gal/ft}) \; (8" = 2.611 \;$

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
Final Field Parameters									

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water	Quality	Observ	ations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:50:00 PM	VOA-Glass	6	
			Amber Glass	1	
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	7	

General Sampling Comments

No collection of field parameters due to limited available water in boring. Appx. 1 foot of water after 5 hours of allowing GW seepage into boring.

Collect GW @ 16:50.

Si	ignature		

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	City of Yakima	Sample Location	OS-LLMIP03
Project #	0818.02.01-26	Sampler	Y. Van
Project Name	Off-Property HVOCs HRSC	Sampling Date	5/13/2021
Sampling Event	May 2021	Sample Name	DSW-05-LLMIP03-20.0
Sub Area		Sample Depth	20
FSDS QA:	R. Paul 6/8/2021	Easting	Northing TOC

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume

 $(0.75" = 0.023 \; \text{gal/ft}) \; (1" = 0.041 \; \text{gal/ft}) \; (1.5" = 0.092 \; \text{gal/ft}) \; (2" = 0.163 \; \text{gal/ft}) \; (3" = 0.367 \; \text{gal/ft}) \; (4" = 0.653 \; \text{gal/ft}) \; (6" = 1.469 \; \text{gal/ft}) \; (8" = 2.611 \;$

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	4:18:00 PM	0.5	0.2	7.38	18.5	0.703	4.48	-113	113
Final Field Parameters	4:23:00 PM	0.75	0.2	7.37	18.3	0.736	4.03	-141	210

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

***	O 114	α	4.
Water	Chiality	Observa	atione
vv atti	Vuant		ativiis.

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:35:00 PM	VOA-Glass	3	
,		1	Amber Glass	2	
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	5	

General Sampling Comments

About 2.5 feet of water in boring after 5 hours of letting GW seep into boring. Start purging at 16:15. Clear water at beginning of purging. Due to concerns for available water, only collected 2 sets of parameters. Able to collect 3 VOAs and 2 ambers.

\sim	• ,		
•	ignature		
. 7	IVHAIIHE		

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	City of Yakima	Sample Location	OS-LLMIP05
Project #	0818.02.01-26	Sampler	Y. Van
Project Name	Off-Property HVOCs HRSC	Sampling Date	5/13/2021
Sampling Event	May 2021	Sample Name	DSW-05-LLMIP05-22.0
Sub Area		Sample Depth	22
FSDS QA:	R. Paul 6/8/2021	Easting	Northing TOC

Hydrology/Level Measurements

			(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)		
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume

 $(0.75" = 0.023 \; gal/ft) \; (1" = 0.041 \; gal/ft) \; (1.5" = 0.092 \; gal/ft) \; (2" = 0.163 \; gal/ft) \; (3" = 0.367 \; gal/ft) \; (4" = 0.653 \; gal/ft) \; (6" = 1.469 \; gal/ft) \; (8" = 2.611 \; gal/ft) \;$

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	1:50:00 PM	0.5	0.2	7.43	20.6	0.734	4.83	-81.5	2006
	1:58:00 PM	1	0.2	7.38	19.7	0.72	5.33	-91.6	2249
	2:00:00 PM	1.5	0.2	7.32	19.2	0.709	5.95	-82	1385
	2:04:00 PM	1.75	0.2	7.3	18.7	0.7	6.4	-71	1090
	2:08:00 PM	2	0.2	7.26	18.4	0.694	6.36	-71.8	818
	2:12:00 PM	2.25	0.2	7.22	18.6	0.697	6.69	-55.4	321
Final Field Parameters	2:15:00 PM	2.5	0.2	7.23	18.3	0.691	6.7	-58.5	385

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump Groundwater 2:17:00 PM		VOA-Glass	8		
		1	Amber Glass	2	
			White Poly	1	No
			Yellow Poly	1	Yes
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	12	

General Sampling Comments	Started purging at 13:40.

Sig	3	nature

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	City of Yakima	Sample Location	OS-LLMIP07
Project #	0818.02.01-26	Sampler	Y. Van
Project Name	Off-Property HVOCs HRSC	Sampling Date	5/13/2021
Sampling Event	May 2021	Sample Name	DSW-05-LLMIP07-21.0
Sub Area		Sample Depth	21
FSDS QA:	R. Paul 6/8/2021	Easting	Northing TOC

Hydrology/Level Measurements

			(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)		
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume

 $(0.75" = 0.023 \; gal/ft) \; (1" = 0.041 \; gal/ft) \; (1.5" = 0.092 \; gal/ft) \; (2" = 0.163 \; gal/ft) \; (3" = 0.367 \; gal/ft) \; (4" = 0.653 \; gal/ft) \; (6" = 1.469 \; gal/ft) \; (8" = 2.611 \; gal/ft) \;$

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	5:48:00 PM	1.5	0.2	7.45	18.1	0.707	4.75	-84.7	2275
Final Field Parameters	5:51:00 PM	1.75	0.2	7.44	17.8	0.699	5.03	-99	1995

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations	Water	Ouality	Observ	ations
----------------------------	-------	----------------	--------	--------

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump Groundwater 5:40:00 PM		VOA-Glass	8		
<u> </u>			Amber Glass	2	
			White Poly	1	No
			Yellow Poly	1	Yes
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	12	

General Sampling Comments

Samples are turbid.

Collected field parameters after collecting GW samples.

Able to collect all samples.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

Water Field Sampling Data Sheet

Client Name	City of Yakima	Sample Location	OS-LLMIP09
Project #	0818.02.01-26	Sampler	Y. Van
Project Name	Off-Property HVOCs HRSC	Sampling Date	5/14/2021
Sampling Event	May 2021	Sample Name	DSW-05-LLMIP07-19.0
Sub Area		Sample Depth	19
FSDS QA:	R. Paul 6/8/2021	Easting	Northing TOC

Hydrology/Level Measurements

			(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)		
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Pore Volume

 $(0.75" = 0.023 \; gal/ft) \; (1" = 0.041 \; gal/ft) \; (1.5" = 0.092 \; gal/ft) \; (2" = 0.163 \; gal/ft) \; (3" = 0.367 \; gal/ft) \; (4" = 0.653 \; gal/ft) \; (6" = 1.469 \; gal/ft) \; (8" = 2.611 \; gal/ft) \;$

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pН	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump									
Final Field Parameters									

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump Groundwater 11:40:00 AM		VOA-Glass	3		
		1	Amber Glass	1	
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	4	

Genera	l Samn	ling	Comr	nents
CTEHELA	ı Saiiib	ши	COIIII	пспь

Not enough water for parameters. Boring went dry 3 times. Collected VOAs and 1/3 of an amber.

\sim	•		
•	ignature		
. 7	IVHALIHE		





14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 27, 2021

Yen-Vy Van Maul Foster & Alongi, Inc. Bay Vista Tower 2815 2nd Avenue, Suite 540 Seattle, WA 98121

Re: Analytical Data for Project 0818.02.01-26

Laboratory Reference No. 2105-149

Dear Yen-Vy:

Enclosed are the analytical results and associated quality control data for samples submitted on May 14, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 0818.02.01-26

Case Narrative

Samples were collected on May 13 and 14, 2021 and received by the laboratory on May 14, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260D Analysis

Sodium Bisulfate preservation has been proven to increase the frequency of detection and the concentration of Acetone and 2-Butanone due in part to chemical reactions in the sample. If Acetone is a potential site contaminant, Sodium Bisulfate should not be used.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Project: 0818.02.01-26

HYDROCARBON IDENTIFICATION NWTPH-HCID

Matrix: Soil

Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	DSS-OS-LLMIP03-10.0		Wethou	rrepareu	Analyzeu	i iags
Laboratory ID:	05-149-01					
Gasoline Range Organics		25	NWTPH-HCID	5-17-21	5-20-21	
Diesel Range Organics	ND	63	NWTPH-HCID	5-17-21	5-20-21	
Lube Oil Range Organics	ND	130	NWTPH-HCID	5-17-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	92	50-150				
Client ID:	DSS-OS-LLMIP02-12.0)				
Laboratory ID:	05-149-03					
Gasoline Range Organics		27	NWTPH-HCID	5-17-21	5-20-21	
Diesel Range Organics	ND	68	NWTPH-HCID	5-17-21	5-20-21	
Lube Oil Range Organics	ND	140	NWTPH-HCID	5-17-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits	-	-	-	
o-Terphenyl	92	50-150				
, ,						
Client ID:	DSS-OS-LLMIP05-18.0	1				
Laboratory ID:	05-149-05	•				
Gasoline Range Organics		24	NWTPH-HCID	5-17-21	5-20-21	
Diesel Range Organics	ND	60	NWTPH-HCID	5-17-21	5-20-21	
Lube Oil Range Organics	ND	120	NWTPH-HCID	5-17-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits		<u> </u>	0 20 2 .	
o-Terphenyl	92	50-150				
Client ID:	DSS-OS-LLMIP07-9.0					
Laboratory ID:	05-149-07					
Gasoline Range Organics		25	NWTPH-HCID	5-17-21	5-20-21	
Diesel Range Organics	ND	62	NWTPH-HCID	5-17-21	5-20-21	
Lube Oil Range Organics	ND	130	NWTPH-HCID	5-17-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits	111111111111111111111111111111111111111	0 11 21	0 20 21	
o-Terphenyl	92	50-150				
o respirency.	V _	00 .00				
Client ID:	DSS-OS-LLMIP09-11.0)				
Laboratory ID:	05-149-09					
Gasoline Range Organics		24	NWTPH-HCID	5-17-21	5-20-21	
Diesel Range Organics	ND	61	NWTPH-HCID	5-17-21	5-20-21	
Lube Oil Range Organics	ND	120	NWTPH-HCID	5-17-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits		J	0 = 0 = 1	
o-Terphenyl	95	50-150				
	88	00 100				

Project: 0818.02.01-26

HYDROCARBON IDENTIFICATION NWTPH-HCID QUALITY CONTROL

Matrix: Soil

Units: mg/Kg (ppm)

- 3. 3 (11)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0517S3					
Gasoline Range Organics	ND	20	NWTPH-HCID	5-17-21	5-20-21	
Diesel Range Organics	ND	50	NWTPH-HCID	5-17-21	5-20-21	
Lube Oil Range Organics	ND	100	NWTPH-HCID	5-17-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	105	50-150				

Project: 0818.02.01-26

HYDROCARBON IDENTIFICATION NWTPH-HCID CALIBRATION SUMMARY

GASOLINE RANGE HYDROCARBONS

Lab ID	Instrument Response	True Value
SPCCV0520R-T1	22887576	10 ppm

DIESEL RANGE HYDROCARBONS

	True	Calc.	Percent	Control
Lab ID	Value (ppm)	Value	Difference	Limits
CCV0520R-T2	100	109	-9.5	+/-15%
CCV0520R-T3	100	103	-2.9	+/-15%

LUBE OIL RANGE HYDROCARBONS

	True	Calc.	Percent	Control
Lab ID	Value (ppm)	Value	Difference	Limits
LOCCV0520R-T1	200	221	-11	+/-15%

Project: 0818.02.01-26

HYDROCARBON IDENTIFICATION NWTPH-HCID

Matrix: Water
Units: mg/L (ppm)

Onits. mg/L (ppm)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP03-20.0)		-		
Laboratory ID:	05-149-02					
Gasoline Range Organics	s ND	0.11	NWTPH-HCID	5-19-21	5-20-21	
Diesel Range Organics	ND	0.22	NWTPH-HCID	5-19-21	5-20-21	
Lube Oil Range Organics	s ND	0.22	NWTPH-HCID	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	109	50-150				
Client ID:	DSW-OS-LLMIP02-17.0)				
Laboratory ID:	05-149-04					
Gasoline Range Organic	s Detected	0.12	NWTPH-HCID	5-19-21	5-20-21	
Diesel Range Organics	Detected	0.23	NWTPH-HCID	5-19-21	5-20-21	
Lube Oil Range Organics	Detected	0.23	NWTPH-HCID	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	109	50-150				
Client ID:	DSW-OS-LLMIP05-22.0)				
Laboratory ID:	05-149-06					
Gasoline Range Organics		0.11	NWTPH-HCID	5-19-21	5-20-21	
Diesel Range Organics	ND	0.22	NWTPH-HCID	5-19-21	5-20-21	
Lube Oil Range Organics		0.22	NWTPH-HCID	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits		-		
o-Terphenyl	113	50-150				
, ,						
Client ID:	DSW-OS-LLMIP07-21.0	1				
Laboratory ID:	05-149-08	•				
Gasoline Range Organics		0.11	NWTPH-HCID	5-19-21	5-20-21	
Diesel Range Organics	Detected	0.23	NWTPH-HCID	5-19-21	5-20-21	
Lube Oil Range Organics		0.23	NWTPH-HCID	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	98	50-150				
, ,						
Client ID:	DSW-OS-LLMIP09-19.0)				
Laboratory ID:	05-149-10					
Gasoline Range Organic		0.069	NWTPH-HCID	5-19-21	5-20-21	
Diesel Range Organics	Detected	0.14	NWTPH-HCID	5-19-21	5-20-21	
Lube Oil Range Organics		0.14	NWTPH-HCID	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	125	50-150				
1 /	-					

Project: 0818.02.01-26

HYDROCARBON IDENTIFICATION NWTPH-HCID QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

J (11 /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0519W1					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	5-19-21	5-20-21	
Diesel Range Organics	ND	0.20	NWTPH-HCID	5-19-21	5-20-21	
Lube Oil Range Organics	ND	0.20	NWTPH-HCID	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits	•			
o-Terphenyl	92	50-150				

Project: 0818.02.01-26

HYDROCARBON IDENTIFICATION NWTPH-HCID CALIBRATION SUMMARY

GASOLINE RANGE HYDROCARBONS

Lab ID	Instrument Response	True Value
SPCCV0520R-T1	22887576	10 ppm
SPCCV0520R-V1	14857833	10 ppm

DIESEL RANGE HYDROCARBONS

	True	Calc.	Percent	Control
Lab ID	Value (ppm)	Value	Difference	Limits
CCV0520R-T1	100	106	-5.9	+/-15%
CCV0520R-T2	100	109	-9.5	+/-15%
CCV0520R-V2	100	96.5	3.5	+/-15%
CCV0520R-V3	100	101	-1.0	+/-15%
CCV0520R-V4	100	100	0.3	+/-15%

LUBE OIL RANGE HYDROCARBONS

	True	Calc.	Percent	Control
Lab ID	Value (ppm)	Value	Difference	Limits
LOCCV0520R-T1	200	221	-11	+/-15%
LOCCV0520R-V1	200	193	4	+/-15%

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

Matrix: Soil Units: mg/kg

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSS-OS-LLMIP03-10.0					
Laboratory ID:	05-149-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	·
Chloromethane	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	0.057	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	0.011	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene		0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ne ND	0.0011	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: D	SS-OS-LLMIP03-10.0)				
Laboratory ID:	05-149-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.0023	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropar		0.0057	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	0.0057	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	108	74-131				
Toluene-d8	106	78-128				
4.5	100	74 400				

4-Bromofluorobenzene 100 71-130



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

Matrix: Soil Units: mg/kg

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSS-OS-LLMIP02-12.0					
Laboratory ID:	05-149-03					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	0.060	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	0.012	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	ND ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ne ND	0.0012	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	OSS-OS-LLMIP02-12.0)				
Laboratory ID:	05-149-03					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.0024	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropa	ne ND	0.0060	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	0.0060	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	74-131				
Toluene-d8	102	78-128				
4.5	101	74 400				

4-Bromofluorobenzene

71-130

101

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

Matrix: Soil Units: mg/kg

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSS-OS-LLMIP05-18.0					
Laboratory ID:	05-149-05					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	0.055	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	0.011	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	. ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ne ND	0.0011	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: D	SS-OS-LLMIP05-18.0)				
Laboratory ID:	05-149-05					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	0.0041	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.0022	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropar	ne ND	0.0055	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	0.0055	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	108	74-131				
Toluene-d8	103	78-128				

4-Bromofluorobenzene

71-130

102

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

Matrix: Soil Units: mg/kg

Analyte	Result	PQL	Mathaal	B		
		ΓWL	Method	Prepared	Analyzed	Flags
Client ID:	DSS-OS-LLMIP07-9.0					
Laboratory ID:	05-149-07					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	0.056	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	0.011	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloropropen	e ND	0.0011	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	OSS-OS-LLMIP07-9.0					
Laboratory ID:	05-149-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	0.0014	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.0022	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
sopropylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
ert-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
o-Isopropyltoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropar	ne ND	0.0056	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	0.0056	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	74-131				
Toluene-d8	103	78-128				
4.5	400	74 400				

4-Bromofluorobenzene 102 71-130



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

Matrix: Soil Units: mg/kg

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSS-OS-LLMIP09-11.0					
Laboratory ID:	05-149-09					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	_
Chloromethane	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Acetone	0.071	0.054	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Butanone	0.012	0.011	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	e ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ne ND	0.0011	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: D	SS-OS-LLMIP09-11.0	1				
Laboratory ID:	05-149-09					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	0.0070	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.0021	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
ert-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropar	ne ND	0.0054	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	0.0054	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	74-131				
Toluene-d8	102	78-128				
4.5	404	74 400				

4-Bromofluorobenzene 101 71-130



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

page 1 of 2

Matrix: Soil Units: mg/kg

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0519S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	0.050	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	0.010	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

page 2 of 2

		201		Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0519S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
n,p-Xylene	ND	0.0020	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
sopropylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
I,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1-Chlorotoluene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
ert-Butylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
I,2,4-Trimethylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
o-Isopropyltoluene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
I,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	0.0050	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	74-131				
Falsana do	101	70.400				

Toluene-d8 104 78-128 4-Bromofluorobenzene 100 71-130



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

Matrix: Soil Units: mg/kg

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	19S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0468	0.0511	0.0500	0.0500	94	102	71-131	9	19	
Benzene	0.0467	0.0493	0.0500	0.0500	93	99	73-124	5	18	
Trichloroethene	0.0498	0.0529	0.0500	0.0500	100	106	79-130	6	18	
Toluene	0.0467	0.0493	0.0500	0.0500	93	99	76-123	5	18	
Chlorobenzene	0.0445	0.0477	0.0500	0.0500	89	95	78-122	7	18	
Surrogate:										
Dibromofluoromethane					98	100	74-131			
Toluene-d8					101	102	78-128			
4-Bromofluorobenzene					105	105	71-130			

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP03-20.0					
Laboratory ID:	05-149-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	_
Chloromethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Acetone	8.3	5.0	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	ie ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	1.0	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroform	0.36	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	· ND	1.0	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ene ND	0.20	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

Manlyte Result PQL Method Prepared Analyzed Flags					Date	Date	
Laboratory ID: 05-149-02 1,1,2-Trichloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1 certarchloroethene 16 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Hexanone ND 0.20 EPA 8260D 5-19-21 5-19-21 Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1-2-Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1-2-Tebrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
1,1,2-Trichloroethane	Client ID: DS	W-OS-LLMIP03-20.0)				
Tetrachloroethene	Laboratory ID:	05-149-02					
1,3-Dichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Hexanone ND 2.0 EPA 8260D 5-19-21 5-19-21 Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromoethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.40 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.40 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 <	1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	Tetrachloroethene	16	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromoethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Litrylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21	1,3-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Lity-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 <	2-Hexanone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 mp-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Tr	Dibromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	1,2-Dibromoethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 J.1,2,2-Tetrachloroptopane ND 0.20 EPA 8260D 5-19-21 5-19-21 J.1,2,2-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 J.1,2,2-Trimothoropane ND 0.20 EPA 8260D 5-19-21 5-19-21 J.2-Chiorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 <td>Chlorobenzene</td> <td>ND</td> <td>0.20</td> <td>EPA 8260D</td> <td>5-19-21</td> <td>5-19-21</td> <td></td>	Chlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
m.pXylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trimethyloenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21	1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21<	Ethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21	m,p-Xylene	ND	0.40	EPA 8260D	5-19-21	5-19-21	
Bromoform ND	o-Xylene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	Styrene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,	Bromoform	ND	1.0	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5	Isopropylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D	Bromobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 tert-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 0.20 EPA 8260D	1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D <td>1,2,3-Trichloropropane</td> <td>ND</td> <td>0.20</td> <td>EPA 8260D</td> <td>5-19-21</td> <td>5-19-21</td> <td></td>	1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 tert-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21	n-Propylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 tert-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D	2-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 0.20 EPA 8260D <td< td=""><td>4-Chlorotoluene</td><td>ND</td><td>0.20</td><td>EPA 8260D</td><td>5-19-21</td><td>5-19-21</td><td></td></td<>	4-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2,3-Trichlorobenzene ND 0.20 <td>1,3,5-Trimethylbenzene</td> <td>ND</td> <td>0.20</td> <td>EPA 8260D</td> <td>5-19-21</td> <td>5-19-21</td> <td></td>	1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2,3-Trichlorobenzene ND 0.20 EPA 8260D <	tert-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21	1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	sec-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	p-Isopropyltoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	n-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	5-19-21	5-19-21	
Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	Hexachlorobutadiene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Surrogate: Percent Recovery Control Limits	Naphthalene	ND	1.3	EPA 8260D	5-19-21	5-19-21	
·	1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromofluoromethane 100 75-127	Surrogate:	Percent Recovery	Control Limits				
	Dibromofluoromethane	100	75-127				

4-Bromofluorobenzene

Toluene-d8

80-127

78-125

100

97

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP02-17.0					
Laboratory ID:	05-149-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	_
Chloromethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Acetone	28	5.0	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	1.0	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Butanone	5.3	5.0	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroform	0.53	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	· ND	1.0	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ene ND	0.20	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: DS	SW-OS-LLMIP02-17.0)				
Laboratory ID:	05-149-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	3.0	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.40	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropan	e ND	1.0	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	1.3	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	75-127				

M

Toluene-d8

4-Bromofluorobenzene

80-127

78-125

100

96

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP05-22.0					
Laboratory ID:	05-149-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	1.0	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroform	0.55	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND ND	1.0	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ene ND	0.20	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

Mallyte Result PQL Method Prepared Analyzed Flags					Date	Date	
Laboratory ID: 05-149-06 1,1,2-Trichloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1 certarchloroethene 26 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Hexanone ND 0.20 EPA 8260D 5-19-21 5-19-21 Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1-1,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylsene ND 0.40 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 </th <th>Analyte</th> <th>Result</th> <th>PQL</th> <th>Method</th> <th>Prepared</th> <th>Analyzed</th> <th>Flags</th>	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
1,1,2-Trichloroethane	Client ID: DS	W-OS-LLMIP05-22.0	0				
Tetrachloroethene	Laboratory ID:	05-149-06					
1,3-Dichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Hexanone ND 2.0 EPA 8260D 5-19-21 5-19-21 Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromoethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.40 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.40 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 <	1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	Tetrachloroethene	26	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromoethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Litrylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21	1,3-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Lity-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 In-P-Croylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21	2-Hexanone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 mp-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Bromoform ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Tr	Dibromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trimoloropropane ND 0.20 EPA 8260D 5-19-21 5-19-	1,2-Dibromoethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21	Chlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene ND 0.40 EPA 8260D 5-19-21 5-19-21 c-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Int,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trimethylopropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 <td>1,1,1,2-Tetrachloroethane</td> <td>ND</td> <td>0.20</td> <td>EPA 8260D</td> <td>5-19-21</td> <td>5-19-21</td> <td></td>	1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
o-Xylene ND 0.20 EPA 8260D 5-19-21 5-19-21 Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21<	Ethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Styrene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromoform ND 1.0 EPA 8260D 5-19-21 5-19-21 Isopropylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21	m,p-Xylene	ND	0.40	EPA 8260D	5-19-21	5-19-21	
Bromoform ND	o-Xylene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	Styrene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,	Bromoform	ND	1.0	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5	Isopropylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D <td>Bromobenzene</td> <td>ND</td> <td>0.20</td> <td>EPA 8260D</td> <td>5-19-21</td> <td>5-19-21</td> <td></td>	Bromobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D	1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D <td>1,2,3-Trichloropropane</td> <td>ND</td> <td>0.20</td> <td>EPA 8260D</td> <td>5-19-21</td> <td>5-19-21</td> <td></td>	1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 tert-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D	n-Propylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 tert-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D	2-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 0.20 EPA 8260D <td< td=""><td>4-Chlorotoluene</td><td>ND</td><td>0.20</td><td>EPA 8260D</td><td>5-19-21</td><td>5-19-21</td><td></td></td<>	4-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20<	1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D	tert-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21	1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	sec-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	p-Isopropyltoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropane ND 1.0 EPA 8260D 5-19-21 5-19-21 1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	n-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene ND 1.0 EPA 8260D 5-19-21 5-19-21 Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	5-19-21	5-19-21	
Naphthalene ND 1.3 EPA 8260D 5-19-21 5-19-21 1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene ND 0.20 EPA 8260D 5-19-21 5-19-21 Surrogate: Percent Recovery Control Limits	Hexachlorobutadiene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Surrogate: Percent Recovery Control Limits	Naphthalene	ND	1.3	EPA 8260D	5-19-21	5-19-21	
·	1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromofluoromethane 100 75-127	Surrogate:	Percent Recovery	Control Limits				
	Dibromofluoromethane	100	75-127				

4-Bromofluorobenzene

Toluene-d8

80-127

78-125

100

97

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP07-21.0					
Laboratory ID:	05-149-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	ie ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	1.0	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroform	0.56	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND ND	1.0	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ene ND	0.20	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: DS	SW-OS-LLMIP07-21.0)				
Laboratory ID:	05-149-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	21	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.40	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropan	e ND	1.0	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	1.3	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	75-127				



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP09-19.0					
Laboratory ID:	05-149-10					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	_
Chloromethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Acetone	33	5.0	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	0.32	0.20	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	1.0	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Butanone	7.4	5.0	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroform	0.25	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Benzene	0.34	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	· ND	1.0	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ene ND	0.20	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: DS	SW-OS-LLMIP09-19.0)				
Laboratory ID:	05-149-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	3.1	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.40	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	1.3	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	75-127				

Dibromofluoromethane 99 75-127
Toluene-d8 100 80-127
4-Bromofluorobenzene 99 78-125



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: TR	RIP BLANK OFFSITE HR	sc				
Laboratory ID:	05-149-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethen	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	1.0	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether		1.0	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloroprope	ne ND	0.20	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: TRIP E	BLANK OFFSITE HI	RSC				
Laboratory ID:	05-149-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.40	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropane		1.0	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	1.3	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	75-127				
Toluene-d8	101	80-127				

 Toluene-d8
 101
 80-127

 4-Bromofluorobenzene
 97
 78-125



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0519W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloromethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Vinyl Chloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroethane	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Acetone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
lodomethane	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Carbon Disulfide	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Vinyl Acetate	ND	1.0	EPA 8260D	5-19-21	5-19-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Butanone	ND	5.0	EPA 8260D	5-19-21	5-19-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chloroform	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Benzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Trichloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Dibromomethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Toluene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	5-19-21	5-19-21	

Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0519W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Tetrachloroethene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Hexanone	ND	2.0	EPA 8260D	5-19-21	5-19-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Ethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
m,p-Xylene	ND	0.40	EPA 8260D	5-19-21	5-19-21	
o-Xylene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Styrene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromoform	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Isopropylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Bromobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Propylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
tert-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
sec-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
p-Isopropyltoluene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
n-Butylbenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
1,2-Dibromo-3-chloropropane		1.0	EPA 8260D	5-19-21	5-19-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-19-21	5-19-21	
Naphthalene	ND	1.3	EPA 8260D	5-19-21	5-19-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	5-19-21	5-19-21	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	99	75-127
Toluene-d8	101	80-127
4-Bromofluorobenzene	97	78-125



Project: 0818.02.01-26

VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

					Per	Percent			RPD	
Analyte	Result		Spike	Spike Level		Recovery		RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	19W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.85	9.61	10.0	10.0	99	96	78-124	2	19	
Benzene	9.58	9.46	10.0	10.0	96	95	80-119	1	16	
Trichloroethene	9.81	10.1	10.0	10.0	98	101	80-121	3	18	
Toluene	9.30	9.35	10.0	10.0	93	94	80-117	1	18	
Chlorobenzene	9.59	9.75	10.0	10.0	96	98	80-117	2	17	
Surrogate:										
Dibromofluoromethane					99	97	75-127			
Toluene-d8					100	101	80-127			
4-Bromofluorobenzene					102	101	78-125			

Project: 0818.02.01-26

TOTAL MANGANESE EPA 200.8

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP05-22.0					
Laboratory ID:	05-149-06					
Manganese	2700	280	EPA 200.8	5-20-21	5-20-21	
Client ID:	DSW-OS-LLMIP07-21.0					
Laboratory ID:	05-149-08					
Manganese	5900	560	EPA 200.8	5-20-21	5-20-21	

Project: 0818.02.01-26

TOTAL MANGANESE EPA 200.8 QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0520WM1					
Manganese	ND	11	EPA 200.8	5-20-21	5-20-21	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Result		Spike Level		Result	Red	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	05-08	38-02									
	ORIG	DUP									
Manganese	ND	ND	NA	NA			NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	05-08	38-02									
	MS	MSD	MS	MSD		MS	MSD				
Manganese	97.6	103	111	111	ND	88	93	75-125	6	20	
SPIKE BLANK											
Laboratory ID:	SB052	0WM1									
Manganese	1	11	1	11	N/A	1	100	85-115			

Project: 0818.02.01-26

TOTAL MANGANESE EPA 200.8 CONTINUING CALIBRATION SUMMARY

Analyte	Lab ID	True Value (ppb)	Calc. Value	Percent Difference	Control Limits
Manganese	ICV052021X	50.0	49.9	0.20	+/- 10%
Manganese	CCV1052021X	40.0	37.5	6.3	+/- 10%
Manganese	CCV1052021X	20.0	19.3	3.5	+/- 10%
Manganese	CCV2052021X	40.0	38.0	5.0	+/- 10%
Manganese	CCV2052021X	20.0	19.1	4.5	+/- 10%
Manganese	CCV3052021X	40.0	38.8	3.0	+/- 10%
Manganese	CCV3052021X	20.0	19.7	1.5	+/- 10%
Manganese	CCV4052021X	40.0	37.9	5.3	+/- 10%
Manganese	CCV4052021X	20.0	19.3	3.5	+/- 10%

Project: 0818.02.01-26

SULFATE ASTM D516-11

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP05-22.0					
Laboratory ID:	05-149-06					
Sulfate	25	10	ASTM D516-11	5-20-21	5-20-21	
Client ID:	DSW-OS-LLMIP07-21.0					
Laboratory ID:	05-149-08					
Sulfate	25	20	ASTM D516-11	5-20-21	5-20-21	

Project: 0818.02.01-26

SULFATE ASTM D516-11 QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0520W1					
Sulfate	ND	5.0	ASTM D516-11	5-20-21	5-20-21	

	Result			Source	Percent	Recovery		RPD	Flags
Analyte			Spike Level	Result	Recovery	Limits	RPD	Limit	
DUPLICATE									
Laboratory ID:	05-149-08								
	ORIG	DUP							
Sulfate	24.9	26.5	NA	NA	NA	NA	6	10	
MATRIX SPIKE									
Laboratory ID:	05-1	49-08							
	N	1S	MS		MS				
Sulfate	6	5.0	40.0	24.9	100	69-139	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB05	20W1							
	SB		SB		SB			•	
Sulfate	9.	09	10.0	NA	91	89-117	NA	NA	

Project: 0818.02.01-26

SULFATE ASTM D516-11 CONTINUING CALIBRATION SUMMARY

Analyte	Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
Sulfate	ICV052021Z	15.0	14.4	4.0	+/- 10%
Sulfate	CCV1052021Z	15.0	14.4	4.0	+/- 10%
Sulfate	CCV2052021Z	15.0	14.2	5.3	+/- 10%

Project: 0818.02.01-26

DISSOLVED GASES RSK 175

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP05-22.0					
Laboratory ID:	05-149-06					
Methane	0.61	0.55	RSK 175	5-21-21	5-21-21	
Client ID:	DOW OR LIMIDOT 24.0					
Client ID:	DSW-OS-LLMIP07-21.0					
Laboratory ID:	05-149-08					
Methane	0.63	0.55	RSK 175	5-21-21	5-21-21	

Project: 0818.02.01-26

DISSOLVED GASES RSK 175 QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB05021W1					
Methane	ND	0.55	RSK 175	5-21-21	5-21-21	

					Pe	rcent	Recovery		RPD	
Analyte	Re	sult	Spike	Level	Red	covery	Limits	RPD	Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB05	521W1								
	SB	SBD	SB	SBD	SB	SBD				
Methane	18.2	20.2	22.1	22.1	82	91	75-125	10	25	

Project: 0818.02.01-26

DISSOLVED GASES RSK 175 CONTINUING CALIBRATION SUMMARY

Analyte	Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
Methane	CCV0521DG-L1	500	535	-7.0	+/- 15%
Methane	CCV0521DG-2	500	530	-6.0	+/- 15%

Project: 0818.02.01-26

GASOLINE RANGE ORGANICS NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	DSW-OS-LLMIP02-17.	0				
Laboratory ID:	05-149-04					
Gasoline	ND	100	NWTPH-Gx	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	71	66-117				
Client ID:	DSW-OS-LLMIP05-22.	0				
Laboratory ID:	05-149-06					
Gasoline	ND	100	NWTPH-Gx	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	77	66-117				
Client ID:	DSW-OS-LLMIP07-21.	0				
Laboratory ID:	05-149-08					
Gasoline	ND	100	NWTPH-Gx	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	73	66-117				
Client ID:	DSW-OS-LLMIP09-19.	0				
Laboratory ID:	05-149-10					
Gasoline	ND	100	NWTPH-Gx	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits	_			
Fluorobenzene	97	66-117				

Project: 0818.02.01-26

GASOLINE RANGE ORGANICS NWTPH-Gx QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0526W1					
Gasoline	ND	100	NWTPH-Gx	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	95	66-117				

Analyte	Res	sult	Spike	Level	Source Result	Percent Recovery	•	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	05-22	29-01								
	ORIG	DUP								
Gasoline	ND	ND	NA	NA		NA	NA	NA	30	
Surrogate: Fluorobenzene				•		95 92	2 66-117			•

Project: 0818.02.01-26

GASOLINE RANGE ORGANICS NWTPH-Gx CONTINUING CALIBRATION SUMMARY

Lab ID	True Value (ppm)	Calc. Value	Percent Difference	Control Limits
CCVH05626G-1	2.50	2.76	-11	+/- 20%
CCVH05626G-2	2.50	2.58	-3	+/- 20%

Project: 0818.02.01-26

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte Client ID: DS Laboratory ID: Diesel Range Organics Lube Oil Range Organics Surrogate:	Result 6W-OS-LLMIP02-17.0 05-149-04 0.55 0.27 Percent Recovery 109	0.23 0.23 Control Limits	Method NWTPH-Dx NWTPH-Dx	5-19-21 5-19-21	Analyzed 5-20-21	Flags
Laboratory ID: Diesel Range Organics Lube Oil Range Organics	05-149-04 0.55 0.27 Percent Recovery	0.23 0.23				
Diesel Range Organics Lube Oil Range Organics	0.55 0.27 Percent Recovery	0.23				
Lube Oil Range Organics	0.27 Percent Recovery	0.23				
	Percent Recovery		NWTPH-Dx	5-19-21		
Surrogate:	•	Control Limits		J-10-21	5-20-21	
9	109					
o-Terphenyl		50-150				
Client ID: DS	SW-OS-LLMIP05-22.0)				
Laboratory ID:	05-149-06					
Diesel Range Organics	ND	0.22	NWTPH-Dx	5-19-21	5-20-21	
Lube Oil Range Organics	0.49	0.22	NWTPH-Dx	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	113	50-150				
Client ID: DS	SW-OS-LLMIP07-21.0	1				
Laboratory ID:	05-149-08	•				
Diesel Range Organics	0.30	0.23	NWTPH-Dx	5-19-21	5-20-21	
Lube Oil Range Organics	0.29	0.23	NWTPH-Dx	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits	I III DX	0 10 21	0 20 21	
o-Terphenyl	98	50-150				
о-тегрпенут	90	30-130				
	W-OS-LLMIP09-19.0)				
Laboratory ID:	05-149-10					
Diesel Range Organics	1.1	0.20	NWTPH-Dx	5-19-21	5-20-21	
Lube Oil Range Organics	0.83	0.20	NWTPH-Dx	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	125	50-150				

Project: 0818.02.01-26

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analvzed	Flags
METHOD BLANK						
Laboratory ID:	MB0519W1					
Diesel Range Organics	ND	0.20	NWTPH-Dx	5-19-21	5-20-21	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	5-19-21	5-20-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	92	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Result		Spike Level		Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	SB05	19W1								
	ORIG	DUP								
Diesel Fuel #2	0.418	0.401	NA	NA		NA	NA	4	NA	
Surrogate:		•	•						•	•

o-Terphenyl 104 103 50-150

Project: 0818.02.01-26

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx CONTINUING CALIBRATION SUMMARY

	True	Calc.	Percent	Control
Lab ID	Value (ppm)	Value	Difference	Limits
CCV0520F-T1	100	96.1	3.9	+/-15%
CCV0520F-T2	100	94.1	5.9	+/-15%
CCV0520R-T1	100	106	-5.9	+/-15%
CCV0520R-T2	100	109	-9.5	+/-15%
CCV0520R-V2	100	96.5	3	+/-15%
CCV0520R-V3	100	101	-1	+/-15%
CCV0520R-V4	100	100	0.3	+/-15%

Project: 0818.02.01-26

% MOISTURE

Client ID	Lab ID	% Moisture	Date Analyzed
DSS-OS-LLMIP03-10.0	05-149-01	21	5-17-21
DSS-OS-LLMIP02-12.0	05-149-03	26	5-17-21
DSS-OS-LLMIP05-18.0	05-149-05	17	5-17-21
DSS-OS-LLMIP07-9.0	05-149-07	20	5-17-21
DSS-OS-LLMIP09-11.0	05-149-09	18	5-17-21



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- ND Not Detected at PQL
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference





Chain of Custody

Page 1 of 1

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052		naround Req working da			La	abo	rate	ory	Nun	nber	: ()5	- 1	14	9						J			
Phone: (425) 883-3881 • www.onsite-env.com Company:		(Check One)									T	T									1			
MFA Project Number:	Same	Day [1 Day					(0							8270E/SIM									
0818.02.01-26	2 Day	s [3 Days					ean-ni						081B	es 827	8151A				J.	10	ò		
Project Name: Top Oil - Offsite Homes Top Oil - HVOC	Stand	ard (7 Days)		rs	1	\		Acid / SG Clean-up)	10808	s Only	MIS	-level)		ides 8	Pesticides	icides				1664A	1	3		
Project Manager:				Containers	7	X Y			7	Water	270E/	M (low		Pestic	orus Pe	d Herb	tals	tals		ease)	专	y	3	
Sampled by:		(other)			HCID	GA/BTEX	Ğx	Dx (8260D	A 8011	atiles 8	70E/SI	82A	hlorine	hospho	ted Aci	RA Me	CA Me	stals	and gr	7	take 1	43	ITe
	Date	Time	Matrix	Number of	NWTPH-HCID		NWTPH-Gx	NWTPH-Dx (□	Volatiles 8260D Halogenated Volatiles 8260D	EDB EPA 8011 (Waters Only)	emivol	PAHS 8270E/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus	Chlorinated Acid Herbicides	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease)	H Y	3	Tettre	% Moisture
1 No DE-ILMIRAZ .	Sampled	Sampled	Matrix	/	Z	Z	Z	Z		- Lm	S S	2 0	Δ.	0	0	0	P	ĭ	ř	I	due	1		*
0 2500	5/13/21	_	SOIL	6	X				X	+	-	-									N. W.		5	\wedge
2 (PSS)	1	1635	SOLL	5	X				Χ.	+	-	-									益	\$	¥	
3 JSS - DS-LLM1802-12,0	5/ 13/4		49/40)	6		NO			X	_	_	-												X
4 DGW -05-LLM (POZ-17, D Canting)	5/ 13/21	165D	Glas	7	X		Ø	20	×												章	震.	零	
5 DSS - DS- 4H1805-18.0	13/21	1214	5016	6	x	Ne			×															X
6 DEW DS-LINEPOS-320	5/ 13/21	1407	and	12	X	1	(X)	8	x												×	K	X	
7 Drs -05-40007-900	5/13/21	1520	SOIL	6	X				×															X
8 Drw -05- Litupo7- 2100 12	1 13/21	1740	Gw	12	X	(800	3	X												×	×	X	
_		2901	BIL	6	X	,			X												-			X
9 DSS -OS- LAMPOQ - 11.0 10 DS W -OS- LAMPOQ - 19.0 Conting.	SIALZI	1140	GW		X		(X)	(8)	X												发	爱	**	
11 TRIP BLANK SIGNATURE STIE HRSC	5/14/2601	mpany	GW			Date			Time		-	mmer			-	Constitution of the last of th							-9	
Relinquished		MFA		/		51	14	/21	15	55	- (Ø	AI	ded	3	1/2/	1		-0	1		1		
Received #1/1/	9	speedle	411	Z		6	lig	Si	3.	25	, `	0	(10-			126	1/2	1. 4	23	LS'	14			
Relinquished #17	(peld	4 All	dn		5	14/	21		14														
Received	_	(3)	定			1	14	/21	67	114														
Relinquished						4	* * *																	
Received											Da	ta Pad	ckage	: Sta	andar	d y	Lev	/el III		Level	IV [
Reviewed/Date	F	Reviewed/Da	te								Ch	romat	ogran	ns wit	th fina	al rep	ort [] Ele	ctronic	c Data	Deliv	erable	s (EDDs	s) 🔀

Sample/Cooler Receipt and Acceptance Checklist

oampierooder Necelpt a	and Act	ceptani	ce che	ECKIIST	
Client: MFA			Ω m	/	
Client Project Name/Number: 088.02.01-26		Initiated by:	4/11		
OnSite Project Number: 05-149		Date Initiate	ed: 5/1	4/21	
1.0 Cooler Verification					
1.1 Were there custody seals on the outside of the cooler?	Yes	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	(VA)	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	Yes	No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No	N/A	Temperature:	1.1
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A			-
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other
2.0 Chain of Custody Verification					
2.1 Was a Chain of Custody submitted with the samples?	es	No		1 2 3 4	
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4	
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4	
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	No		1 2 3 4	
2.5 Were all of the samples listed on the COC submitted?	(es	No		1 2 3 4	
2.6 Were any of the samples submitted omitted from the COC?	Yes	No		1 2 3 4	
3.0 Sample Verification					
3.1 Were any sample containers broken or compromised?	Yes	(M)		1 2 3 4	
3.2 Were any sample labels missing or illegible?	Yes	100		1 2 3 4	
3.3 Have the correct containers been used for each analysis requested?	(es	No		1 2 3 4	

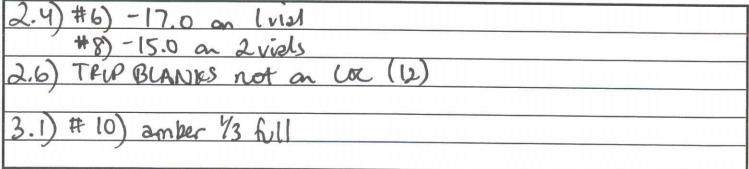
	3.3 Have the correct containers been used for each analysis requested?
	3.4 Have the samples been correctly preserved?
	3.5 Are volatiles samples free from headspace and bubbles greater than 6mm
1	3.6 Is there sufficient sample submitted to perform requested analyses?
	3.7 Have any holding times already expired or will expire in 24 hours?
- 1	

3.9 If 5035A-was used, which sampling option was used (#1, 2, or 3).

	Yes	(b)		1	2	3	4	
	Yes	10		1	2	3	4	
	(es	No		1	2	3	4	
	Yes	No	N/A	1	2	3	4	
m?	(es)	No	N/A	1	2	3	4	
	(es)	No		1	2	3	4	
	Yes	No		1	2	3	4	
	Yes	No	N/A	1	2	3	4	
	#	2	N/A	1	2	3	4	

Explain any discrepancies:

3.8 Was method 5035A used?



^{1 -} Discuss issue in Case Narrative

- 3 Client contacted to discuss problem
- 4 Sample cannot be analyzed or client does not wish to proceed

^{2 -} Process Sample As-is

APPENDIX E DATA VALIDATION MEMORANDUM

DATA QUALITY ASSURANCE/QUALITY **CONTROL REVIEW**

Reference

PROJECT NO. 0818.02.01 | JUNE 3, 2021 | CITY OF YAKIMA

Maul Foster & Alongi, Inc. (MFA) conducted an independent review of the quality of analytical results for groundwater and soil samples collected at the Former Tiger Oil site in Yakima, Washington. The samples were collected on May 13 and 14, 2021.

OnSite Environmental, Inc. (OE) performed the analyses. OE report number 2105-149 was reviewed. The analyses performed and samples analyzed are listed below.

Analysis	Reference
Diesel- and Lube-Oil-Range Hydrocarbons	NWTPH-Dx

Diesel- and Lube-Oil-Range Hydrocarbons	NWTPH-Dx
Dissolved Gases	RSK-175
Gasoline-Range Hydrocarbons	NWTPH-Gx
Hydrocarbon Identification (HCID)	NWTPH-HCID
Sulfate	ASTM D516-11
Total Metals	EPA 200.8
Volatile Organic Compounds	EPA 8260D

NOTES:

ASTM = ASTM International.

EPA = U.S. Environmental Protection Agency.

NWTPH = Northwest Total Petroleum Hydrocarbons.

RSK = Robert S. Kerr, USEPA National Risk Management Research Laboratory,

	Samples Analyzed	
	Report 2105-149	
DSS-OS-LLMIP03-10.0	DSS-OS-LLMIP05-18.0	DSS-OS-LLMIP09-11.0
DSW-OS-LLMIP03-20.0	DSW-OS-LLMIP05-22.0	DSW-OS-LLMIP09-19.0
DSS-OS-LLMIP02-12.0	DSS-OS-LLMIP07-9.0	TRIP BLANK OFFSITE HRSC
DSW-OS-LLMIP02-17.0	DSW-OS-LLMIP07-21.0	

DATA QUALIFICATIONS

Analytical results were evaluated according to applicable sections of EPA procedures (EPA, 2017a,b) and appropriate laboratory and method-specific guidelines (EPA, 1986; OE, 2018).

Data validation procedures were modified, as appropriate, to accommodate quality-control requirements for methods not specifically addressed by the EPA procedures (e.g., NWTPH-Dx).

The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

Extractions and analyses were performed within the recommended holding time criteria.

Preservation and Sample Storage

According to the cooler receipt form for report 2105-149, one of the containers submitted for sample DSW-OS-LLMIP09-19.0 was one-third full. The reviewer confirmed that sufficient volume was submitted for analysis.

According to the case narrative in report 2105-149, EPA Method 8260D acetone and 2-butanone detection frequency and concentration both increase when sodium bisulfate preservation is used. Sodium bisulfate is the EPA method-recommended preservative for low-concentration volatile organic compound soil analysis; however, it can interact with soil organic matter to produce acetone and 2-butanone. Acetone and 2-butanone were detected in sample DSS-OS-LLMIP09-11.0 at 0.071 milligrams per kilogram (mg/kg) and 0.012 mg/kg, respectively. The reviewer confirmed that the detections were less than five times the reporting limit and within concentration ranges that could be produced from sodium bisulfate interacting with soil organic matter. The results have been qualified by the reviewer with "U" as non-detect at the reported concentrations. Remaining acetone and 2-butanone detections in report 2105-149 were associated with groundwater samples, which were not preserved with sodium bisulfate; thus, qualification of groundwater results was not required.

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)	
2105-149	DSS-OS-LLMIP09-11.0	Acetone	0.071	0.071 U	
2105-149	D33-O3-LLMIP09-11.0	2-Butanone	0.012	0.012 U	
NOTES: mg/kg = mill U = Result is r	igrams per kilogram. non-detect.				

The remaining samples were preserved and stored appropriately.

BLANKS

Method Blanks

Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the method blanks were associated with all samples prepared in the analytical batch. All laboratory method blanks were non-detect to method reporting limits.

Trip Blanks

A trip blank sample (sample name "TRIP BLANK OFFSITE HRSC") was submitted with sample delivery group 2105-149 for EPA Method 8260D analysis. The trip blank sample was non-detect to method reporting limits for all target analytes.

Equipment Rinsate Blanks

Equipment rinsate blanks were not submitted for analysis.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance on individual samples. All surrogate recoveries were within percent recovery acceptance limits.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Matrix spike/matrix spike duplicate (MS/MSD) results are used to evaluate laboratory precision and accuracy. All MS/MSD samples were extracted and analyzed at the required frequency.

All MS/MSD results were within acceptance limits for percent recovery and relative percent difference (RPD).

LABORATORY DUPLICATE RESULTS

Duplicate results are used to evaluate laboratory precision. According to report 2105-149, NWTPH-HCID batch laboratory duplicate results were not reported; batch precision could not be evaluated. All remaining laboratory duplicate samples were extracted and analyzed at the required frequency. Laboratory duplicate results within five times the method reporting limit were not evaluated for precision. All laboratory duplicate RPDs were within acceptance limits.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

A laboratory control sample/laboratory control sample duplicate (LCS/LCSD) is spiked with target analytes to provide information on laboratory precision and accuracy. The LCS/LCSD samples were extracted and analyzed at the required frequency. All LCS/LCSD results were within acceptance limits for percent recovery and RPD.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. Field duplicate samples were not submitted for analysis.

CONTINUING CALIBRATION VERIFICATION RESULTS

Continuing calibration verification (CCV) results are used to demonstrate instrument precision and accuracy through the end of the sample batch. All CCVs were within acceptance limits for percent recovery.

REPORTING LIMITS

OE used routine reporting limits for non-detect results, except for samples requiring dilutions because of high analyte concentrations and/or matrix interferences.

DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies.

According to the chain of custody (COC) in report 2105-149, NWTPH-Dx and NWTPH-Gx analyses were added to samples DSW-OS-LLMIP02-17.0, DSW-OS-LLMIP05-22.0, DSW-OS-LLMIP07-21.0, and DSW-OS-LLMIP09-19.0 after samples had been received by laboratory, based on NWTPH-HCID detected results. No action was required by the reviewer.

According to the cooler receipt form in report 2105-149, one of the volatile organics analysis containers submitted for sample DSW-OS-LLMIP05-22.0 was labeled with sample name "DSW-OS-LLMIP05-17.0" and two volatile organics analysis containers submitted for sample DSW-OS-LLMIP07-21.0 were labeled as "DSW-OS-LLMIP07-15.0." The reviewer confirmed that the sample containers were correlated to the correct samples based on the revised sample name recorded on the COC. No additional action was required.

According to the cooler receipt form in report 2105-149, a second trip blank sample named "Trip Blanks" was submitted with sample delivery group 2105-149 but was not recorded on the COC by the sampler. Analysis was not requested for the second trip blank sample. No action was required by the reviewer.

No additional issues were found.

EPA. 1986. Test methods for evaluating solid waste, physical/chemical methods. EPA publication SW-846. 3d ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), and VI phase III (2019).

EPA. 2017a. EPA contract laboratory program, national functional guidelines for inorganic Superfund methods data review. EPA 540-R-2017-001. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. January.

EPA. 2017b. EPA contract laboratory program, national functional guidelines for Superfund organic methods data review. EPA 540-R-2017-002. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. January.

OE. 2018. Quality assurance manual. Rev. 9.6. OnSite Environmental, Inc., Redmond, Oregon. July 24.

APPENDIX F POTENTIAL UPGRADIENT HVOC SOURCES

NOB HILL CLEANERS

Dangerous Waste Report - Annual Report - 1993

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658 Olympia, WA 98504-7658 (800) 874-2022

For Ecology	Use Only	Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

	web site. w	ww.ecolog	<u>ly.wa.gov/DvvReport</u>							
1. Reason for	r Submitt	al []	To provide New	Notification of R	Regulated W	/aste Activity ((complete entire form)			
		[X]	[X] To provide Revised Site Identification information (complete entire form)							
		[]	[] Reactivation Site Identification Number (complete entire form) Received Date: 12/31/1993							
		[]	Withdraw	Effec	tive Date:	12/31/1993				
2. EPA/State	ld Numb	er: WAI	D982651895							
3. Site Name										
Martinizing	Gregson	a LLC No	ob Hill Blvd							
4. Site Loca	ation									
Street 1:	2904 W	NOB HI	LL BLVD							
City:	YAKIMA	1								
State:	WA									
Zip:	98902									
Country:	US									
County:	YAKIMA	\								
District:	CRO									
5. Site Mail	ing Addı	ress								
Street 1:	2	2904 W	NOB HILL BLVD							
Street 2:										
City/State/Zip): \	YAKIMA	, WA 98902							
Country:	U	JS								
6. Site Land	d Type									
Land	Type:[]	Federal	[]State[]Cοι	unty [] Municipa	al [] Distric	t [] Private [] Tribal [] Other			
7. North An	nerican I	Industry	y Classification	System (NAICS	S)					
NAICS: 8123	2									
8. Site Con	tact Pers	son								
Name:										
Title:										
Street Addres	ss:									
City/State/Zip): ,	,								
Email:										
Phone/Ext:										

To ask about available formats for the visually impaired call 360-407-6700. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Dang	gerous Waste Site Ident	ification Fo	rm (continued)		Site ID
9a. Legal Ov	vner				
Ту	pe: []Federal []State []Cou	nty [] Municipa	al [] District [X] Priva	ate [] Tri	bal [] Other
Name:	Martinizing Gregsona LLC Nob Hi	ill Blvd			
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(000)000-0000	E	xt:
Owner Since:					
9b. Land Ov	vner				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Tri	bal [] Other
Name:	Martinizing Gregsona LLC Nob Hi	ill Blvd			
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(000)000-0000	E	xt:
Owner Since:					
9c. Site Ope	rator				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Tri	bal [] Other
Name:	Martinizing Gregsona LLC Nob Hi	ill Blvd			
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(000)000-0000	E:	xt:
Operator Since:					

Dangerous Waste Site Identification F	Form (continued)	Site ID	
10a. Hazardous Waste Activities			
1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [X] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [] d. NQG: No Regulated Waste Generated	[] 7. Designated Facility of (Requires an Ecology Part A or Pamanagement. See WAC 173-303). 8. Recycler of Hazardo Off-Site [] a. Stores prior to receive [] a. Does not store page 1.	ous Waste Received from	
 2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [X] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [] d. XQG: No Regulated Waste Generated 	9. Exempt Boiler and/or Industrial Furnace [] a. Small Quantity On-site Burner Exemption [] b. Smelting, Melting, Refining Furnace Exemption [] 10. Underground Injection Control (Requires a registered underground injection well. See WA 173-218) [] 11. Receives Hazardous Waste from Off-site		
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter		
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Batteries (SLABs) [] a. Importer [] b.	f Spent Lead Acid Exporter	
[] 5. Mixed Waste Generator (Hazardous and Radioactive)			
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility			

Dangerous Waste Site Identification I	Dangerous Waste Site Identification Form (continued)		
10b. Universal Waste Activities	,		
1. Large Quantity Handler of Universal Waste ([] a. Batteries [] b. Lamps [] c. Mercury condition (Note: Large Quantity Handlers accumulate 11,00 thermostats, and lamps calculated collectivel) and waste lamps at any time.)	ontaining equipment O pounds or more total of univ		
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you	
10c. Used Oil Activities			
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of	
[] a. Utility Boiler	[] a. Transporter		
[] b. Industrial Boiler	[] b. Transfer Facility		
[] c. Industrial furnace			
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Market	er	
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil	
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the	
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.			
1. Yes, I am managing dangerous wastes under this	s rule.		
[] a. College or University			
[] b. Teaching hospital that is owned by (or has a university.	a formal written affiliation agre	ement with) a college or	
[] c. Non-profit institute that is owned by (or has	a formal written agreement wi	th) a college or university	
2. [] Yes, I wish to withdraw from this rule. (If you we Academic Laboratory Rule and you no longer wish to page		tes under the State	

	Dangerous Waste Site Identification Form (continued) Site ID					
	10e. State Required Information. Washington State requires the following information. Please answer all questions that apply to your site.					
1. W	1. Washington State Tax Registration Number (UBI number): 601991608					
2. H	ow Fre	equently do you generate dangerous waste?				
[] a	ı. Mon	thly [X] b. Batch [] c. Spill Event [] d. Clean-up: R	emediation of pa	st contamination		
[]	3. Ge	nerator of special waste (per WAC 173-303-073)				
[]	4. Reg	cycler of On-Site Waste (i.e. on-site use, reuse, or recla rated)	mation of a was	te after it was		
[]	5. Pe	mit-by-Rule (PBR)				
[]	6. Tre	atment by Generator (TBG)				
[]	7. Tra	nsport your own waste				
8. Da	anger	ous Waste Fuel Activities				
	[]	a. Generator of dangerous waste fuel				
	[]	b. Generator marketing to burner				
	[]	c. Other marketers (i.e. blender, distributer etc)				
		d. Burner (indicate type of combustion unit)				
		[] 1. Utility Boiler				
		[] 2. Industrial Boiler				
		[] 3. Industrial Furnace				
Des	criptio	n of Hazardous Wastes Additional codes may	oe added to comr	nents if needed.		
11. Waste Codes for Federally Regulated Hazardous Wastes: What codes best describe your waste (e.g., D001 – Ignitable, D002 – Corrosive, D003 – Reactive, etc.)? Find these codes on your Uniform Hazardous Waste Manifest or call your designated facility.						
waste	12. Waste Codes for State Regulated (non-Federal) Hazardous Wastes: What codes best describe your waste (e.g., WT02 – Toxic, WP02 – Persistent, WSC2 – Solid Corrosive, etc.)? Find these codes on your Uniform Hazardous Waste Manifest or call your designated facility.					

	Dangerous Waste Site Identification For	m (cor	ntinued)	Site ID			
13. E	13. Episodic Generator						
lasting	Are you an SQG or VSQG generating hazardous waste from the proof of th						
14. L	QG Consolidation of SQG Hazardous Waste						
pursu	Are you an LQG notifying of consolidating SQG Hazardot ant to WAC 173-303-171? If "Yes", you must fill out the ardous Waste.						
15. I	Notification of LQG Site Closure of a Central Accumu	lation A	rea (CAA) OR Entire	Facility			
[]	LQG Site Closure of a Central Accumulation Area (C	AA) or	Entire Facility				
	A. [] Central Accumulation Area (CAA) [] Entire	Facility	1				
	B. Expected closure date: N/A						
	C. Requesting new closure date: N/A						
	D. Date closed:						
	[] In compliance [] Not in compliance [] Will close as a landfill, WAC 173-303-665 [] Will close under drip pad standards, WAC	173-303	-675				
16. I	Notification of Hazardous Secondary Material (HSM)	Activity					
will s	A. Are you notifying under WAC 173-303-017(8) that top managing hazardous secondary material under the Addendum to the Site Identification Form for Man	WAC 17	73-303-017(5)? If 'Y	es', you must fill			
17.	Manifest Broker						
[]A	re you a Manifest Broker?						
18. (Comments - Attach additional sheets if you need more ro	oom.					
	·						
19. (Certification						
sup evalu or tho my	ertify under penalty of law that this document and all attaced be evision in accordance with a system designed to assure use the information submitted. Based on my inquiry of the pose persons directly responsible for gathering the information knowledge and belief, true, accurate and complete. I amount in a submitting false information, including the possibility of fine possibility of fine possibility of the p	that quant ne personation, the n aware t	alified personnel prop n or persons who ma information submitte that there are significa	perly gather and nage the system, d is, to the best of ant penalties for			
Signa	furo:	Date:	12/31/1993				
Signa	ituio.	שמוב.	12/31/1333				
Name	e (print or type): Electronic Filer	Title:	<u>EF</u>				

Dangerous Waste Report - Annual Report - 1995

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658 Olympia, WA 98504-7658 (800) 874-2022

For Ecology	Use Only	Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

	web site. w	/ww.ecolog	<u>jy.wa.gov/DvvReport</u>					
1. Reason for	r Submitt	al []	To provide New	Notification of I	Regulated W	/aste Activity ((complete entire form)	
		[X]	[X] To provide Revised Site Identification information (complete entire form)					
		[]	Reactivation Site	dentification		mplete entire f ed Date:	form) 03/01/1996	
		[]	Withdraw	Effe	ctive Date:	12/31/1995		
2. EPA/State	Id Numb	er: WA	D982651895					
3. Site Name	:							
Martinizing	Gregson	a LLC No	ob Hill Blvd					
4. Site Loca	ation							
Street 1:	2904 W	NOB HI	ILL BLVD					
City:	YAKIMA							
State:	WA							
Zip:	98902							
Country:	US							
County:	YAKIMA							
District:	CRO							
5. Site Mail	ing Addı	ress						
Street 1:	2	2904 W	NOB HILL BLVD					
Street 2:								
City/State/Zip): \	YAKIMA	, WA 98902					
Country:	U	JS						
6. Site Land	d Type							
Land	Type:[]	Federal	I[]State[]Cοι	ınty [] Municip	al [] Distric	t [] Private [] Tribal [] Other	
7. North An	nerican I	Industry	y Classification	System (NAIC	S)			
NAICS: 8123	2							
8. Site Con	tact Pers	son						
Name:								
Title:								
Street Addres	ss:							
City/State/Zip): ,	,						
Email:								
Phone/Ext:								

To ask about available formats for the visually impaired call 360-407-6700. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Dang	gerous Waste Site Ident	ification Fo	rm (continued)		Site ID
9a. Legal Ov	vner				
Ту	pe: []Federal []State []Cou	nty [] Municipa	al [] District [X] Priva	ate [] Tri	bal [] Other
Name:	Martinizing Gregsona LLC Nob Hi	ill Blvd			
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(000)000-0000	E	xt:
Owner Since:					
9b. Land Ov	vner				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Tri	bal [] Other
Name:	Martinizing Gregsona LLC Nob Hi	ill Blvd			
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(000)000-0000	E	xt:
Owner Since:					
9c. Site Ope	rator				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Tri	bal [] Other
Name:	Martinizing Gregsona LLC Nob Hi	ill Blvd			
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(000)000-0000	E:	xt:
Operator Since:					

Dangerous Waste Site Identification F	Form (continued)	Site ID	
10a. Hazardous Waste Activities			
1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [X] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [] d. NQG: No Regulated Waste Generated	 7. Designated Facility of Hazardous Waste (TS (Requires an Ecology Part A or Part B permit for dangerous management. See WAC 173-303). 8. Recycler of Hazardous Waste Received Off-Site a. Stores prior to recycling a. Does not store prior to recycling 		
 2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [X] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [] d. XQG: No Regulated Waste Generated 	,	On-site Burner Exemption Refining Furnace Exemption ion Control ound injection well. See WAC	
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter		
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Batteries (SLABs) [] a. Importer [] b.	f Spent Lead Acid Exporter	
[] 5. Mixed Waste Generator (Hazardous and Radioactive)			
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility			

Dangerous Waste Site Identification I	Dangerous Waste Site Identification Form (continued)		
10b. Universal Waste Activities	,		
1. Large Quantity Handler of Universal Waste ([] a. Batteries [] b. Lamps [] c. Mercury condition (Note: Large Quantity Handlers accumulate 11,00 thermostats, and lamps calculated collectivel) and waste lamps at any time.)	ontaining equipment O pounds or more total of univ		
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you	
10c. Used Oil Activities			
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of	
[] a. Utility Boiler	[] a. Transporter		
[] b. Industrial Boiler	[] b. Transfer Facility		
[] c. Industrial furnace			
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Market	er	
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil	
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the	
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.			
1. Yes, I am managing dangerous wastes under this	s rule.		
[] a. College or University			
[] b. Teaching hospital that is owned by (or has a university.	a formal written affiliation agre	ement with) a college or	
[] c. Non-profit institute that is owned by (or has	a formal written agreement wi	th) a college or university	
2. [] Yes, I wish to withdraw from this rule. (If you we Academic Laboratory Rule and you no longer wish to page		tes under the State	

	Dangerous Waste Site Identification Form (continued) Site ID			Site ID		
	10e. State Required Information. Washington State requires the following information. Please answer all questions that apply to your site.					
1. W	ashin	gton State Tax Registration Number (UBI number):	601991608			
2. H	ow Fr	equently do you generate dangerous waste?				
[] a	a. Mon	thly []b. Batch []c. Spill Event []d. Clean-up: Rei	mediation of pas	t contamination		
[]	3. Ge	nerator of special waste (per WAC 173-303-073)				
[]		cycler of On-Site Waste (i.e. on-site use, reuse, or reclam rated)	ation of a wast	e after it was		
[]	5. Pe	rmit-by-Rule (PBR)				
[]	6. Tre	eatment by Generator (TBG)				
[]	7. Tra	insport your own waste				
8. Da	anger	ous Waste Fuel Activities				
	[]	a. Generator of dangerous waste fuel				
	[]	b. Generator marketing to burner				
	[]	c. Other marketers (i.e. blender, distributer etc)				
		d. Burner (indicate type of combustion unit)				
		[] 1. Utility Boiler				
		[] 2. Industrial Boiler				
		[] 3. Industrial Furnace				
Des	criptic	on of Hazardous Wastes Additional codes may be	added to comn	nents if needed.		
D001	– Igni	Codes for Federally Regulated Hazardous Wastes: What able, D002 – Corrosive, D003 – Reactive, etc.)? Find these fest or call your designated facility.				
waste	(e.g.,	Codes for State Regulated (non-Federal) Hazardous Was WT02 – Toxic, WP02 – Persistent, WSC2 – Solid Corrosive, zardous Waste Manifest or call your designated facility.				

Dangerous Waste Site Identification Form (continued) Site ID					
13. Episodic Generator					
[] Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, asting no more than 60 days, that moves you to a higher generator category? If "Yes", you must fill out the Addendum for Episodic Generator.					
14. LQG Consolidation of SQG Hazardous Waste					
[] Are you an LQG notifying of consolidating SQG Hazardous Waste Under the Control of the Same P pursuant to WAC 173-303-171 ? If "Yes", you must fill out the Addendum for LQG Consolidation of SQGs Hazardous Waste.					
15. Notification of LQG Site Closure of a Central Accumulation Area (CAA) OR Entire Facility					
[] LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility					
A. [] Central Accumulation Area (CAA) [] Entire Facility					
B. Expected closure date: N/A					
C. Requesting new closure date: N/A					
D. Date closed:					
[] In compliance[] Will close as a landfill, WAC 173-303-665[] Will close under drip pad standards, WAC 173-303-675					
16. Notification of Hazardous Secondary Material (HSM) Activity					
[] A. Are you notifying under WAC 173-303-017(8) that you will begin managing, are managin will stop managing hazardous secondary material under WAC 173-303-017(5)? If 'Yes', you must out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.					
17. Manifest Broker					
[] Are you a Manifest Broker?					
18. Comments - Attach additional sheets if you need more room.					
16. Comments - Attach additional sheets if you need more foom.					
19. Certification					
I certify under penalty of law that this document and all attachments were prepared under my direction supervision in accordance with a system designed to assure that qualified personnel properly gather a evaluate the information submitted. Based on my inquiry of the person or persons who manage the syst or those persons directly responsible for gathering the information, the information submitted is, to the be my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties submitting false information, including the possibility of fine and imprisonment for knowing violations	nd em, est of for				
<u>Signature:</u> <u>Date: 03/01/1996</u>					
Name (print or type): Electronic Filer Title: EF					

0	OI		
EPA/State ID Number:	WAD982651895	Reporting Year:	1995
Site Name:	Martinizing Gregsona LLC Nob Hill Blv	vd .	
EPA/State ID Number:	WAD980978746		
Name:			
Address:	,		
City/State/Zip:	,		
Country:			
Handler Type (Check all that apply):	[] Generator [] Transporter [X] D	esignated Facility	[] Special Waste

Generation and Management Form						GM			
Please enter your US EPA/State ID Number and your site name in the small box at the right, before making as many two-sided copies of this answer sheet as you will need to report each of your waste streams. Then complete one answer sheet for each waste stream. Reference the instructions on pages 29 through 36 as you complete this form. Please type or print legibly in blue or black ink.			Please Enter: Your US EPA/State Id: WAD982651895 Site Name: Martinizing Gregsona LLC Nob Hill Blvd						
Sequence: 1			For Ecology Use Only:						
A. Description of Dangerous Wa	aste Strea	am							
Where was this waste stream m	anaged?	[X] Of	ff-Site	[] On-Site				
A-1. (Optional)									
A-2. Dry cleaning filters									
A-3. D039,F002				A-4. WP01 ,WC02					
A-5. [X] EHW [] DW	W A-6. [X] No [] Yes					A-7. A	 A19		
A-8. B202	A-9. [X] i [] ii [] iii [] iv [] v						X] No [] Yes		
	A-9.a.								
A-11. [X] No [] Yes				A-12.					
B. Waste Management Act	ivities								
B-1. To be completed by Genera	tors, TSI	D and Recyclers- Add	ditional spa	ace is ava	ilable on the	continua	ation sheet		
B-2. Enter waste managed On-Site						B-2.a. Was waste managed according to the treatment-bygenerator guidance?			
						[X] No [] Yes			
B-3. Enter Off-site summary									
Designated Facility (TSDR)		Management Code		Quantity		Recycling Percent			
WAD980978746	WAD980978746 M141			1400		0			
See GM Addendum B3	for Ship	oments Sent sequ	ence nu	mber 1					
B-4. <u>1400</u> [] T	ons [X] Pounds [] Kile	ograms	[] Gal	llons (If gall	ons, an	swer B-4.a.)		
B-4.a. <u>0</u> [] L	bs/gal	[] Specific Gra	avity						
C. Comments									

Hazardous Waste and Toxics Reduction Program



Search for Hazardous Waste Facilities in Washington State : Production

<< Search

Martinizing Gregsona LLC Nob Hill Blvd

WAD982651895 2904 W NOB HILL BLVD Inactive 12/31/1995

FS ID: 98634292 YAKIMA, WA 98902 AR 1995

Site ID History	Close	
	Ciosc	

	1	1			1	1	1		1
Туре	Seq	State/Federal Status	Owner Land & Buildings	Receive Date	Certification Signed Date	E- Filer	View/Print	Effective Date	Last Update
Withdraw (I)	14	XQG NQG	Winkco LLC Pacific Northwest Properties Inc	2/28/2004	2/28/2004	N	View _ Print _	12/31/2003	2/28/2004
AR 2003	13	XQG NQG	Winkco LLC Pacific Northwest Properties Inc	2/27/2004	2/27/2004	N	View Print	12/31/2003	2/27/2004
AR 2002	12	XQG NQG	Martinizing Gregsona LLC Pacific Northwest Properties Inc	2/18/2003	2/18/2003	N	View Print	12/31/2002	2/18/2003
AR 2001	11	XQG NQG	Martinizing Gregsona LLC Pacific Northwest Properties Inc	2/22/2002	2/22/2002	N	View Print	12/31/2001	2/22/2002
AR 2000	10	SQG VSQG	Martinizing Gregsona LLC Pacific Northwest Properties Inc	3/1/2001	3/1/2001	N	View Print	12/31/2000	3/1/2001
Revised	9	XQG NQG		3/30/2000	3/30/2000	N	View _ Print _	03/30/2000	3/30/2000

			Martinizing Gregsona LLC Pacific Northwest Properties Inc						
AR 1999	8	MQG SQG	Martinizing Gregsona LLC Pacific Northwest Properties Inc	2/16/2000	2/16/2000	N	View - Print -	12/31/1999	2/16/2000
AR 1998	7	MQG SQG	Westco Inc Pacific Northwest Properties Inc	3/1/1999	3/1/1999	N	View Print	12/31/1998	3/1/1999
AR 1997	6	MQG SQG	Westco Inc Pacific Northwest Properties Inc	2/23/1998	2/23/1998	N	View - Print -	12/31/1997	2/23/1998
AR 1996	5	SQG VSQG	Westco Inc Pacific Northwest Properties Inc	2/24/1997	2/24/1997	N	View Print	12/31/1996	2/24/1997
AR 1995	4	MQG SQG	Martinizing Gregsona LLC Nob Hill Blvd	3/1/1996	3/1/1996	N	View Print	12/31/1995	3/1/1996
AR 1994	3	XQG NQG	Martinizing Gregsona LLC Nob Hill Blvd	1/1/1995	1/1/1995	N	View _ Print _	12/31/1994	1/1/1995
AR 1993	2	XQG NQG	Martinizing Gregsona LLC Nob Hill Blvd	1/1/1994	1/1/1994	N	View _ Print _	12/31/1993	1/1/1994
AR 1993	1	SQG VSQG	Martinizing Gregsona LLC Nob Hill Blvd	12/31/1993	12/31/1993	N	View _ Print _	12/31/1993	12/31/1993

Detail Report History			
Reporting Year: 2003 - 853	329 Submitted		
Receive Date:	2/27/2004	Site ID Form _	
State Status:	XQG		
Certification Date:	2/27/2004		
Federal Status:	NQG		
Sequence Number	13		
Comments:			
Reporting Year: 2002 - 778			
Receive Date:	2/18/2003	Site ID Form _	
State Status:	XQG		
Certification Date:	2/18/2003		
Federal Status:	NQG		
Sequence Number	12		
Comments:			
Reporting Year: 2001 - 778	830 Submitted		
Receive Date:	2/22/2002	Site ID Form _	
State Status:	XQG		
Certification Date:	2/22/2002		
Federal Status:	NQG		
Sequence Number	11		
Comments:			

Reporting Year: 2000 - 77829 Submitted

Receive Date: 3/1/2001 Site ID

Form

State Status: SQG

Certification Date: 3/1/2001

Federal Status: VSQG

Sequence Number 10

Comments:

00VF: 99% of waste is H2O. The wastewater div of Yakima said the concentration of synth solv was so low that the wastewater could be dump down the sewer See Holly Cushman D.O.E. at Yakima for any question.

Reporting Year: 1999 - 77827 Submitted

Receive Date: 2/16/2000 Site ID Form

State Status: MQG 1 GM Waste

Streams

Certification Date: 2/16/2000

Federal Status: SQG 1 OI Facilities

Sequence Number 8 Generated: 2,140.0000

lbs

Comments:

owner change in lieu of F2 99VF: This store was converted from perc to exxon chemicals DF200 non hazardous, non regulated solvent in August of 1999. Waste that is being reported is from the use of Perc. Westco Recycles the hangers and the poly garment bags. Westco wet cleans as muc as we can. The total of 2190 lbs of waste generated in August was because of the conversion from perc to DF200. Most of this was water used to clean the machine.

Reporting Year: 1998 - 77826 Submitted

Receive Date: 3/1/1999 Site ID Form

State Status: MQG 1 GM Waste

Streams

Certification Date: 3/1/1999

Federal Status: SQG 1 OI Facilities

Sequence Number 7 Generated: 1,200.0000 lbs

Comments:

Reporting Year: 1997 - 77825 Submitted

Receive Date: 2/23/1998 Site ID Form

State Status: MQG 1 GM Waste

Streams

Certification Date: 2/23/1998

Federal Status: SQG 1 OI Facilities

Sequence Number 6 Generated: 960.0000 lbs

Comments:

97VF: We have an on-going program of recycling hangers and garment bags. We also pre-dry our filters before they are sent in for recycling. We also try to wet clean as many items as possible.

Reporting Year: 1996 - 77824 Submitted

Receive Date: 2/24/1997 Site ID

Form.

State Status: SQG

Certification Date: 2/24/1997

Federal Status: VSQG

Sequence Number 5

Comments:

Reporting Year: 1995 - 77823 Submitted

Receive Date: 3/1/1996 Site ID Form

State Status: MQG 1 GM Waste

Streams

Certification Date:	3/1/1996	
Federal Status:	SQG	1 OI Facilities
Sequence Number	4	Generated: 1,400.0000 lbs
Comments:		
Reporting Year: 1994 - 77	822 Submitted	
Receive Date:	1/1/1995	Site ID Form
State Status:	XQG	
Certification Date:	1/1/1995	
Federal Status:	NQG	
Sequence Number	3	
Comments:		
Waste data o	converted from old syster	n
Reporting Year: 1993 - 77	821 Submitted	
Receive Date:	1/1/1994	Site ID Form
State Status:	XQG	
Certification Date:	1/1/1994	
Federal Status:	NQG	
Sequence Number	2	
Comments:		
Waste data o	converted from old syster	n
Reporting Year: 1993 - 77	820 Submitted	

Site ID Form _

State Status: SQG

12/31/1993

Receive Date:

Certification Date:	12/31/1993
Federal Status:	VSQG
Sequence Number	1
Comments:	
Site Info Conver	sion Procedure

Dangerous Waste Report - Annual Report - 1996

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658 Olympia, WA 98504-7658 (800) 874-2022

For Ecology	Use Only	Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

Web site: www.ecology.wa.gov/DWReport

	WCD Site.	www.ccology.wa.gov/Dwitcpon					
1. Reason for Submittal		[] To provide New Notification of Regulated Waste Activity (complete entire form)					
		[X] To provide Revised Site Identification information (complete entire form)					
		[] Reactivation Site Identification Number (complete entire form) Received Date: 02/24/1997					
		[] Withdraw Effective Date: 12/31/1996					
2. EPA/State	Id Numb	per: WAD982651895					
3. Site Name	.						
Martinizing	Gregson	a LLC Nob Hill Blvd					
4. Site Loca	ation						
Street 1:	2904 W	NOB HILL BLVD					
City:	YAKIMA						
State:	WA						
Zip:	98902						
Country:	US						
County:	YAKIMA						
District:	CRO						
5. Site Mail	ing Add	ress					
Street 1:	2	2904 W NOB HILL BLVD					
Street 2:							
City/State/Zip): \	KIMA, WA 98902					
Country:	l	JS					
6. Site Land	d Type						
Land	Type:[]	Federal [] State [] County [] Municipal [] District [] Private [] Tribal [X] Other					
7. North An	nerican	ndustry Classification System (NAICS)					
NAICS: 8123	2						
8. Site Con	tact Pers	son					
Name:							
Title:							
Street Addres	ss:						
City/State/Zip):	,					
Email:							
Phone/Ext:							

Dangerous Waste Site Identification Form (continued)					Site ID
9a. Legal Ov	vner				
Ту	pe: []Federal []State []Cou	nty [] Municipa	al [] District [X] Priva	ate []Tri	bal [] Other
Name:	Westco Inc				
Street 1:	3418 Americana Terrace				
Street 2:					
City/State/Zip:	BOISE, ID 83706				
Country:	US				
Email:		Phone:	(208)342-3631	Ex	ct:
Owner Since:	09/09/1996				
9b. Land Ov	vner				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate []Tri	bal [] Other
Name:	Pacific Northwest Properties Inc				
Street 1:	3418 Americana Terrace				
Street 2:					
City/State/Zip:	BOISE, ID 83706				
Country:	US				
Email:		Phone:	(208)342-3631	E>	ct:
Owner Since:	09/09/1996				
9c. Site Ope	rator				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate []Tri	bal [] Other
Name:	Rank, Sharon				
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(509)248-6071	E	ct:
Operator Since:	09/09/1996				

Dangerous Waste Site Identification F	Form (continued)	Site ID		
10a. Hazardous Waste Activities				
1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [X] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [] d. NQG: No Regulated Waste Generated	 [] 7. Designated Facility of Hazardous Waste (TSD) (Requires an Ecology Part A or Part B permit for dangerous waste management. See WAC 173-303). 8. Recycler of Hazardous Waste Received from Off-Site [] a. Stores prior to recycling [] a. Does not store prior to recycling 			
 2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [X] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [] d. XQG: No Regulated Waste Generated 	9. Exempt Boiler and/or Industrial Furnace [] a. Small Quantity On-site Burner Exemption [] b. Smelting, Melting, Refining Furnace Exemption [] 10. Underground Injection Control (Requires a registered underground injection well. See W. 173-218) [] 11. Receives Hazardous Waste from Off-site			
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter			
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Spent Lead Acid Batteries (SLABs) [] a. Importer [] b. Exporter			
[] 5. Mixed Waste Generator (Hazardous and Radioactive)				
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility				

Dangerous Waste Site Identification I	Form (continued)	Site ID			
10b. Universal Waste Activities					
1. Large Quantity Handler of Universal Waste (Mark all boxes that apply) [] a. Batteries [] b. Lamps [] c. Mercury containing equipment (Note: Large Quantity Handlers accumulate 11,000 pounds or more total of universal waste (batteries, thermostats, and lamps calculated collectivel) and/or accumulates more than 2,200 pounds of universal waste lamps at any time.)					
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you			
10c. Used Oil Activities					
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of			
[] a. Utility Boiler	[] a. Transporter				
[] b. Industrial Boiler	[] b. Transfer Facility				
[] c. Industrial furnace					
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Market	er			
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil			
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the			
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.					
1. Yes, I am managing dangerous wastes under this	s rule.				
[] a. College or University	[] a. College or University				
[] b. Teaching hospital that is owned by (or has a formal written affiliation agreement with) a college or university.					
[] c. Non-profit institute that is owned by (or has a formal written agreement with) a college or university					
2. [] Yes, I wish to withdraw from this rule. (If you was Academic Laboratory Rule and you no longer wish to pa		tes under the State			

	Dangerous Waste Site Identification Form (continued) Site ID						
	10e. State Required Information. Washington State requires the following information. Please answer all questions that apply to your site.						
1. Washington State Tax Registration Number (UBI number): 601991608							
2. H	ow Fr	equently do you generate dangerous waste?					
[] a	a. Mon	thly []b. Batch []c. Spill Event []d. Clean-up: Rei	mediation of pas	t contamination			
[]	3. Ge	nerator of special waste (per WAC 173-303-073)					
[]		cycler of On-Site Waste (i.e. on-site use, reuse, or reclam rated)	ation of a wast	e after it was			
[]	5. Pe	rmit-by-Rule (PBR)					
[]	6. Tre	eatment by Generator (TBG)					
[]	7. Tra	insport your own waste					
8. Da	anger	ous Waste Fuel Activities					
	[]	a. Generator of dangerous waste fuel					
	[]	b. Generator marketing to burner					
	[]	c. Other marketers (i.e. blender, distributer etc)					
		d. Burner (indicate type of combustion unit)					
		[] 1. Utility Boiler					
		[] 2. Industrial Boiler					
		[] 3. Industrial Furnace					
Description of Hazardous Wastes Additional codes may be added to comments if needed.							
11. Waste Codes for Federally Regulated Hazardous Wastes: What codes best describe your waste (e.g., D001 – Ignitable, D002 – Corrosive, D003 – Reactive, etc.)? Find these codes on your Uniform Hazardous Waste Manifest or call your designated facility.							
waste	(e.g.,	Codes for State Regulated (non-Federal) Hazardous Was WT02 – Toxic, WP02 – Persistent, WSC2 – Solid Corrosive, zardous Waste Manifest or call your designated facility.					

Dangerous Waste Site Identifica	tion Form (continued)	Site ID				
13. Episodic Generator						
[] Are you an SQG or VSQG generating hazardou lasting no more than 60 days, that moves you to a high Addendum for Episodic Generator.						
14. LQG Consolidation of SQG Hazardous Waste						
[] Are you an LQG notifying of consolidating SQG pursuant to WAC 173-303-171 ? If "Yes", you must fi Hazardous Waste.						
15. Notification of LQG Site Closure of a Central	Accumulation Area (CAA) OF	R Entire Facility				
[] LQG Site Closure of a Central Accumulation	n Area (CAA) or Entire Facility	У				
A. [] Central Accumulation Area (CAA)	[] Entire Facility					
B. Expected closure date: N/A						
C. Requesting new closure date: N/A						
D. Date closed:						
[] In compliance [] Not in compliance [] Will close as a landfill, WAC 173-3 [] Will close under drip pad standard	03-665					
16. Notification of Hazardous Secondary Materia	al (HSM) Activity					
[] A. Are you notifying under WAC 173-303-07 will stop managing hazardous secondary materia out the Addendum to the Site Identification Form	al under WAC 173-303-017(5)? If 'Yes', you must fill				
17. Manifest Broker						
[] Are you a Manifest Broker?						
18. Comments - Attach additional sheets if you nee	ed more room.					
, , , , , , , , , , , , , , , , , , , ,						
19. Certification						
I certify under penalty of law that this document are supervision in accordance with a system designed evaluate the information submitted. Based on my information persons directly responsible for gathering the my knowledge and belief, true, accurate and composubmitting false information, including the possi	I to assure that qualified personr equiry of the person or persons we in information, the information sollete. I am aware that there are	nel properly gather and who manage the system, ubmitted is, to the best of significant penalties for				
Signature:	Date: 02/24/1997					
Name (print or type): Electronic Filer	Title: EF					

Dangerous Waste Report - Annual Report - 1998

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658 Olympia, WA 98504-7658 (800) 874-2022

For Ecology	Use Only	Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

Web site: www.ecology.wa.gov/DWReport 1. Reason for Submittal [] To provide **New** Notification of Regulated Waste Activity (complete entire form) [X] To provide Revised Site Identification information (complete entire form) [] Reactivation Site Identification Number (complete entire form) Received Date: 03/01/1999 [] Withdraw Effective Date: 12/31/1998 2. EPA/State Id Number: WAD982651895 3. Site Name Martinizing Gregsona LLC Nob Hill Blvd 4. Site Location Street 1: 2904 W NOB HILL BLVD YAKIMA City: State: WA Zip: 98902 Country: US County: YAKIMA **CRO** District: 5. Site Mailing Address Street 1: 2904 W NOB HILL BLVD Street 2: City/State/Zip: **YAKIMA, WA 98902** Country: US 6. Site Land Type Land Type: [] Federal [] State [] County [] Municipal [] District [] Private [] Tribal [X] Other 7. North American Industry Classification System (NAICS) NAICS: 81232 8. Site Contact Person Name: Title: Street Address: City/State/Zip: Email: Phone/Ext:

Dang	gerous Waste Site Ident	ification Fo	rm (continued)		Site ID
9a. Legal Ov	vner				
Ту	pe: []Federal []State []Cou	nty [] Municipa	al [] District [X] Priva	ate []Tri	bal [] Other
Name:	Westco Inc				
Street 1:	3418 Americana Terrace				
Street 2:					
City/State/Zip:	BOISE, ID 83706				
Country:	US				
Email:		Phone:	(208)342-3631	Ex	ct:
Owner Since:	09/09/1996				
9b. Land Ov	vner				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate []Tri	bal [] Other
Name:	Pacific Northwest Properties Inc				
Street 1:	3418 Americana Terrace				
Street 2:					
City/State/Zip:	BOISE, ID 83706				
Country:	US				
Email:		Phone:	(208)342-3631	E>	ct:
Owner Since:	09/09/1996				
9c. Site Ope	rator				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate []Tri	bal [] Other
Name:	Rank, Sharon				
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(509)248-6071	E	ct:
Operator Since:	09/09/1996				

Dangerous Waste Site Identification F	Form (continued)	Site ID	
10a. Hazardous Waste Activities			
1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [X] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [] d. NQG: No Regulated Waste Generated	 [] 7. Designated Facility of Hazardous Waste (TSD) (Requires an Ecology Part A or Part B permit for dangerous waste management. See WAC 173-303). 8. Recycler of Hazardous Waste Received from Off-Site [] a. Stores prior to recycling [] a. Does not store prior to recycling 		
 2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [X] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [] d. XQG: No Regulated Waste Generated 	9. Exempt Boiler and/or Industrial Furnace [] a. Small Quantity On-site Burner Exemption [] b. Smelting, Melting, Refining Furnace Exemption [] 10. Underground Injection Control (Requires a registered underground injection well. See WA 173-218) [] 11. Receives Hazardous Waste from Off-site		
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter		
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Batteries (SLABs) [] a. Importer [] b.	f Spent Lead Acid Exporter	
[] 5. Mixed Waste Generator (Hazardous and Radioactive)			
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility			

Dangerous Waste Site Identification I	Site ID				
10b. Universal Waste Activities	,				
1. Large Quantity Handler of Universal Waste ([] a. Batteries [] b. Lamps [] c. Mercury condition (Note: Large Quantity Handlers accumulate 11,00 thermostats, and lamps calculated collectivel) and waste lamps at any time.)	ontaining equipment O pounds or more total of univ				
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you			
10c. Used Oil Activities					
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of			
[] a. Utility Boiler	[] a. Utility Boiler [] a. Transporter				
[] b. Industrial Boiler	[] b. Industrial Boiler [] b. Transfer Facility				
[] c. Industrial furnace					
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Market	er			
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil			
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the			
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.					
1. Yes, I am managing dangerous wastes under this	s rule.				
[] a. College or University					
[] b. Teaching hospital that is owned by (or has a formal written affiliation agreement with) a college or university.					
[] c. Non-profit institute that is owned by (or has	a formal written agreement wi	th) a college or university			
2. [] Yes, I wish to withdraw from this rule. (If you was Academic Laboratory Rule and you no longer wish to pa		tes under the State			

	Dangerous Waste Site Identification Form (continued) Site ID					
		Required Information. Washington State requires the folus that apply to your site.	lowing informa	tion. Please answer		
1. W	ashin	gton State Tax Registration Number (UBI number):	601991608			
2. H	ow Fr	equently do you generate dangerous waste?				
[] a	a. Mon	thly []b. Batch []c. Spill Event []d. Clean-up: Rei	mediation of pas	t contamination		
[]	3. Ge	nerator of special waste (per WAC 173-303-073)				
[]		cycler of On-Site Waste (i.e. on-site use, reuse, or reclam rated)	ation of a wast	e after it was		
[]	5. Pe	rmit-by-Rule (PBR)				
[]	6. Tre	eatment by Generator (TBG)				
[]	7. Tra	insport your own waste				
8. Da	anger	ous Waste Fuel Activities				
	[]	a. Generator of dangerous waste fuel				
	[]	b. Generator marketing to burner				
	[]	c. Other marketers (i.e. blender, distributer etc)				
		d. Burner (indicate type of combustion unit)				
		[] 1. Utility Boiler				
		[] 2. Industrial Boiler				
		[] 3. Industrial Furnace				
Description of Hazardous Wastes Additional codes may be added to comments if needed.						
D001	– Igni	Codes for Federally Regulated Hazardous Wastes: What able, D002 – Corrosive, D003 – Reactive, etc.)? Find these fest or call your designated facility.				
waste	(e.g.,	Codes for State Regulated (non-Federal) Hazardous Was WT02 – Toxic, WP02 – Persistent, WSC2 – Solid Corrosive, zardous Waste Manifest or call your designated facility.				

Dangerous Waste Site Identification Fo	rm (cor	ntinued)	Site ID
13. Episodic Generator			
[] Are you an SQG or VSQG generating hazardous waster lasting no more than 60 days, that moves you to a higher gen Addendum for Episodic Generator.			
14. LQG Consolidation of SQG Hazardous Waste			
[] Are you an LQG notifying of consolidating SQG Hazardo pursuant to WAC 173-303-171 ? If "Yes", you must fill out the Hazardous Waste.			
15. Notification of LQG Site Closure of a Central Accum	ulation A	rea (CAA) OR Entire	e Facility
[] LQG Site Closure of a Central Accumulation Area (CAA) or	Entire Facility	
A. [] Central Accumulation Area (CAA) [] Entir	e Facility	<i>'</i>	
B. Expected closure date: N/A			
C. Requesting new closure date: N/A			
D. Date closed:			
[] In compliance [] Not in compliance [] Will close as a landfill, WAC 173-303-665 [] Will close under drip pad standards, WAC	173-303	s-675	
16. Notification of Hazardous Secondary Material (HSM)	Activity		
[] A. Are you notifying under WAC 173-303-017(8) the will stop managing hazardous secondary material under out the Addendum to the Site Identification Form for Management	WAC 17	73-303-017(5)? If 'Y	'es', you must fill
17. Manifest Broker			
[] Are you a Manifest Broker?			
18. Comments - Attach additional sheets if you need more	room.		
•			
19. Certification			
I certify under penalty of law that this document and all atta supervision in accordance with a system designed to assure evaluate the information submitted. Based on my inquiry of or those persons directly responsible for gathering the inform my knowledge and belief, true, accurate and complete. I as submitting false information, including the possibility of fi	e that quanthe personation, the manual the m	alified personnel propens or persons who main information submitte that there are signific	perly gather and anage the system, ed is, to the best of ant penalties for
Signature:	Date:	03/01/1999	
Name (print or type): Electronic Filer	Title:	<u>EF</u>	

0	OI		
EPA/State ID Number:	WAD982651895	Reporting Year:	1998
Site Name:	Martinizing Gregsona LLC Nob Hill Blv	vd .	
EPA/State ID Number:	ORD981766124		
Name:			
Address:	,		
City/State/Zip:	,		
Country:			
Handler Type (Check all that apply):	[] Generator [] Transporter [X] D	esignated Facility	[] Special Waste

Generation and Management Form						GM		
Please enter your US EPA/State ID Number and your site name in the small box at the right, before making as many two-sided copies of this answer sheet as you will need to report each of your waste streams. Then complete one answer sheet for each waste stream. Reference the instructions on pages 29 through 36 as you complete this form. Please type or print legibly in blue or black ink.			Please Enter: Your US EPA/State Id: WAD982651895 Site Name: Martinizing Gregsona LLC Nob Hill Blvd					
Sequence: 1				ogy Use C	Only:			
A. Description of Dangerous Wa	aste Strea	am						
Where was this waste stream m	anaged?	[X] Of	ff-Site	[] On-Site			
A-1. (Optional)								
A-2. Dry cleaner filter								
A-3. D039,F002			A-4.					
A-5. [] EHW [X] DW			A-7. A1	λ-7. A19				
A-8. B202 A-9. [X] i [] iii [] iv [] v [] vi A-9.a.				A-10. [X] No [] Yes				
A-11. [X] No [] Yes			A-12.					
B. Waste Management Acti	ivities							
B-1. To be completed by Genera	tors, TSI	O and Recyclers- Add	ditional spa	ace is ava	ilable on the	continua	ation sheet	
B-2. Enter waste managed O	n-Site					accord	Was waste manage ing to the treatment tor guidance?	
						[X] No) []Yes	
B-3. Enter Off-site summary								
Designated Facility (TSD	R)	Management Cod	е	Quantity	/		Recycling Percent	
ORD981766124		M141				1200	0	
See GM Addendum B3	for Ship	oments Sent sequ	ence nu					
B-4. <u>1200</u> []T B-4.a. 0 []L	ons [.bs/gal	X] Pounds [] Kilo [] Specific Gra	•	[] Ga	llons (If gall	ons, ans	swer B-4.a.)	
C. Comments	.b3/gai	[] Opecinic Ora	vity					

Dangerous Waste Report - Annual Report - 2003

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658 Olympia, WA 98504-7658 (800) 874-2022

For Ecology	Use Only	Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

Web site: www.ecology.wa.gov/DWReport

1. Reason fo	r Submitt	tal [] To provide New Notification of Regulated Waste Activity (complete entire form)
		[] To provide Revised Site Identification information (complete entire form)
		[] Reactivation Site Identification Number (complete entire form) Received Date: 02/27/2004
		[] Withdraw Effective Date: 12/31/2003
2. EPA/State	ld Numb	per: WAD982651895
3. Site Name)	
Winkco Ma	artinizing	
4. Site Loca	ation	
Street 1:	2904 W	NOB HILL BLVD
City:	YAKIMA	4
State:	WA	
Zip:	98902	
Country:	US	
County:	YAKIMA	A.
District:	CRO	
5. Site Mail	ing Add	ress
Street 1:	2	2904 W NOB HILL BLVD
Street 2:		
City/State/Zip	o: `	YAKIMA, WA 98902
Country:	l	US
6. Site Land	d Type	
Land	Type:[]	Federal [] State [] County [] Municipal [] District [X] Private [] Tribal [] Other
7. North Ar	nerican l	Industry Classification System (NAICS)
NAICS: 8123	32	
8. Site Con	tact Pers	son
Name:		Dustin D Winkle
Title:		
Street Addre	ss:	2904 W Nob Hill Blvd
City/State/Zip	o: ,	Yakima, WA 98902
Email:		dwinkle@cableone.net
Phone/Ext:		(509)248-6071

Dang	gerous Waste Site Ident	ification Fo	rm (continued)		Site ID
9a. Legal Ov	vner				
Ту	pe: []Federal []State []Cou	nty [] Municipa	al [] District [X] Priva	ate [] Trik	oal [] Other
Name:	Winkco LLC				
Street 1:	812 Summitview Ave				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(509)248-6071	Ex	t:
Owner Since:	06/02/2003				
9b. Land Ov	vner				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Trik	oal [] Other
Name:	Pacific Northwest Properties Inc				
Street 1:	3418 Americana Terrace				
Street 2:					
City/State/Zip:	BOISE, ID 83706				
Country:	US				
Email:		Phone:	(208)342-3631	Ex	t:
Owner Since:	12/31/2003				
9c. Site Ope	rator				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Trik	oal [] Other
Name:	Winkco Martinizing				
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(509)248-6071	Ex	t:
Operator Since:	06/02/2004				

Dangerous Waste Site Identification Form (continued)		Site ID
10a. Hazardous Waste Activities		
 1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [X] d. NQG: No Regulated Waste Generated 	[] 7. Designated Facility of (Requires an Ecology Part A or Pamanagement. See WAC 173-303). 8. Recycler of Hazardo Off-Site [] a. Stores prior to receive [] a. Does not store page 1.	ous Waste Received from ecycling
2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [X] d. XQG: No Regulated Waste Generated	9. Exempt Boiler and/or Industrial Furnace [] a. Small Quantity On-site Burner Exemption [] b. Smelting, Melting, Refining Furnace Exemption [] 10. Underground Injection Control (Requires a registered underground injection well. See WAI 173-218) [] 11. Receives Hazardous Waste from Off-site	
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter	
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Batteries (SLABs) [] a. Importer [] b.	f Spent Lead Acid Exporter
[] 5. Mixed Waste Generator (Hazardous and Radioactive)		
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility		

Dangerous Waste Site Identification I	Site ID			
10b. Universal Waste Activities	,			
1. Large Quantity Handler of Universal Waste ([] a. Batteries [] b. Lamps [] c. Mercury condition (Note: Large Quantity Handlers accumulate 11,00 thermostats, and lamps calculated collectivel) and waste lamps at any time.)	ontaining equipment O pounds or more total of univ			
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you		
10c. Used Oil Activities				
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of		
[] a. Utility Boiler	[] a. Transporter			
[] b. Industrial Boiler	[] b. Transfer Facility			
[] c. Industrial furnace				
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Market	er		
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil		
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the		
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.				
1. Yes, I am managing dangerous wastes under this	s rule.			
[] a. College or University				
[] b. Teaching hospital that is owned by (or has a formal written affiliation agreement with) a college or university.				
[] c. Non-profit institute that is owned by (or has	a formal written agreement wi	th) a college or university		
2. [] Yes, I wish to withdraw from this rule. (If you was Academic Laboratory Rule and you no longer wish to pa		tes under the State		

	Dangerous Waste Site Identification Form (continued) Site ID							
	10e. State Required Information. Washington State requires the following information. Please answer all questions that apply to your site.							
1. W	1. Washington State Tax Registration Number (UBI number): 602300001							
2. H	ow Fr	equently do you generate dangerou	s waste?					
[] a	a. Mon	thly []b. Batch []c. Spill Event	[] d. Clean-up: Rei	mediation of pas	st contamination			
[]	3. Ge	nerator of special waste (per WAC 1	73-303-073)					
[]		cycler of On-Site Waste (i.e. on-site rated)	use, reuse, or reclam	ation of a wast	e after it was			
[]	5. Pe	mit-by-Rule (PBR)						
[]	6. Tre	atment by Generator (TBG)						
[]	7. Tra	nsport your own waste						
8. Da	anger	ous Waste Fuel Activities						
	[]	a. Generator of dangerous waste fuel						
	[]	b. Generator marketing to burner						
	[]	c. Other marketers (i.e. blender, distri	buter etc)					
	d. Burner (indicate type of combustion unit)							
		[] 1. Utility Boiler						
		[] 2. Industrial Boiler						
		[] 3. Industrial Furnace						
			dditional codes may be					
11. Waste Codes for Federally Regulated Hazardous Wastes: What codes best describe your waste (e.g., D001 – Ignitable, D002 – Corrosive, D003 – Reactive, etc.)? Find these codes on your Uniform Hazardous Waste Manifest or call your designated facility.								
waste	(e.g.,	Codes for State Regulated (non-Fed WT02 – Toxic, WP02 – Persistent, WS cardous Waste Manifest or call your de	SC2 - Solid Corrosive,					

Dangerous Waste Site Identification Form (contin	nued)	Site ID
13. Episodic Generator	'	
[] Are you an SQG or VSQG generating hazardous waste from a plann lasting no more than 60 days, that moves you to a higher generator categ Addendum for Episodic Generator.		
14. LQG Consolidation of SQG Hazardous Waste		
[] Are you an LQG notifying of consolidating SQG Hazardous Waste U pursuant to WAC 173-303-171 ? If "Yes", you must fill out the Addendum Hazardous Waste.		
15. Notification of LQG Site Closure of a Central Accumulation Area	a (CAA) OR Entire	Facility
[] LQG Site Closure of a Central Accumulation Area (CAA) or En	tire Facility	
A. [] Central Accumulation Area (CAA) [] Entire Facility		
B. Expected closure date: N/A		
C. Requesting new closure date: N/A		
D. Date closed:		
[] In compliance [] Not in compliance [] Will close as a landfill, WAC 173-303-665 [] Will close under drip pad standards, WAC 173-303-67	75	
16. Notification of Hazardous Secondary Material (HSM) Activity		
[] A. Are you notifying under WAC 173-303-017(8) that you will be will stop managing hazardous secondary material under WAC 173-300 out the Addendum to the Site Identification Form for Managing Hazardous	303-017(5)? If 'Ye	es', you must fill
A7 Marife of Busham		
17. Manifest Broker [] Are you a Manifest Broker?		
18. Comments - Attach additional sheets if you need more room.		
40 Cartification		
19. CertificationI certify under penalty of law that this document and all attachments we	ura proparad undar	my direction or
supervision in accordance with a system designed to assure that qualified evaluate the information submitted. Based on my inquiry of the person of those persons directly responsible for gathering the information, the information my knowledge and belief, true, accurate and complete. I am aware that submitting false information, including the possibility of fine and imprint	ied personnel proper or persons who man formation submitted t there are significa	erly gather and nage the system, I is, to the best of nt penalties for
Signature: Date: 02	2/27/2004	
Name (print or type): Electronic Filer Title: Ef	F	

Notification Site Identification Form

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658

Olympia, WA 98504-7658 (800) 874-2022

Web site: www.ecology.wa.gov/DWReport

For Ecology Use Only Date Rece		Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

	VVCD Sitc.	www.ccology.wa.gov/Dvvrcport				
1. Reason for	r Submitt	ttal [] To provide New Notification of Regulated Waste Activity (complete entire for	m)			
		[] To provide Revised Site Identification information (complete entire form)				
	[] Reactivation Site Identification Number (complete entire form) Received Date: 02/28/2004					
	[X] Withdraw Effective Date: 12/31/2003					
2. EPA/State	Id Numb	ber: WAD982651895				
3. Site Name)					
Winkco Ma	artinizing					
4. Site Loca	ation					
Street 1:	2904 W	NOB HILL BLVD				
City:	YAKIMA	A				
State:	WA					
Zip:	98902					
Country:	US					
County:	YAKIMA	AKIMA				
District:	CRO	CRO				
5. Site Mail	ing Add	Iress				
Street 1:		2904 W NOB HILL BLVD				
Street 2:						
City/State/Zip):	YAKIMA, WA 98902				
Country:	Country: US					
6. Site Land	d Type					
Land	Type:[]	Federal [] State [] County [] Municipal [] District [X] Private [] Tribal [] Other				
7. North An	nerican	Industry Classification System (NAICS)				
NAICS: 8123	2					
8. Site Contact Person						
Name:		Dustin D Winkle				
Title:						
Street Addres	ss:	2904 W Nob Hill Blvd				
City/State/Zip: Yak		Yakima, WA 98902				
Email:		dwinkle@cableone.net				
Phone/Ext:		(509)248-6071				

Dang	gerous Waste Site Ident	ification Fo	rm (continued)		Site ID
9a. Legal Ov	wner				
Ту	pe: []Federal []State []Cou	nty [] Municipa	al [] District [X] Priva	ate [] Trik	oal [] Other
Name:	Winkco LLC				
Street 1:	812 Summitview Ave				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(509)248-6071	Ex	t:
Owner Since:	06/02/2003				
9b. Land Ov	vner				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Trik	oal [] Other
Name:	Pacific Northwest Properties Inc				
Street 1:	3418 Americana Terrace				
Street 2:					
City/State/Zip:	BOISE, ID 83706				
Country:	US				
Email:		Phone:	(208)342-3631	Ex	t:
Owner Since:	12/31/2003				
9c. Site Ope	rator				
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	al [] District [X] Priva	ate [] Trik	oal [] Other
Name:	Winkco Martinizing				
Street 1:	2904 W NOB HILL BLVD				
Street 2:					
City/State/Zip:	YAKIMA, WA 98902				
Country:	US				
Email:		Phone:	(509)248-6071	Ex	t:
Operator Since:	06/02/2004				

Dangerous Waste Site Identification Form (continued)		Site ID
10a. Hazardous Waste Activities		
 1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [X] d. NQG: No Regulated Waste Generated 	[] 7. Designated Facility of (Requires an Ecology Part A or Pamanagement. See WAC 173-303). 8. Recycler of Hazardo Off-Site [] a. Stores prior to receive [] a. Does not store page 1.	ous Waste Received from ecycling
2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [X] d. XQG: No Regulated Waste Generated	9. Exempt Boiler and/or Industrial Furnace [] a. Small Quantity On-site Burner Exemption [] b. Smelting, Melting, Refining Furnace Exemption [] 10. Underground Injection Control (Requires a registered underground injection well. See WAI 173-218) [] 11. Receives Hazardous Waste from Off-site	
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter	
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Batteries (SLABs) [] a. Importer [] b.	f Spent Lead Acid Exporter
[] 5. Mixed Waste Generator (Hazardous and Radioactive)		
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility		

Dangerous Waste Site Identification I	Site ID			
10b. Universal Waste Activities	,			
1. Large Quantity Handler of Universal Waste ([] a. Batteries [] b. Lamps [] c. Mercury condition (Note: Large Quantity Handlers accumulate 11,00 thermostats, and lamps calculated collectivel) and waste lamps at any time.)	ontaining equipment O pounds or more total of univ			
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you		
10c. Used Oil Activities				
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of		
[] a. Utility Boiler	[] a. Transporter			
[] b. Industrial Boiler	[] b. Transfer Facility			
[] c. Industrial furnace				
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Market	er		
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil		
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the		
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.				
1. Yes, I am managing dangerous wastes under this	s rule.			
[] a. College or University				
[] b. Teaching hospital that is owned by (or has a formal written affiliation agreement with) a college or university.				
[] c. Non-profit institute that is owned by (or has	a formal written agreement wi	th) a college or university		
2. [] Yes, I wish to withdraw from this rule. (If you we Academic Laboratory Rule and you no longer wish to pa		tes under the State		

	Dangerous Waste Site Identification Form (continued) Site ID							
	10e. State Required Information. Washington State requires the following information. Please answer all questions that apply to your site.							
1. W	1. Washington State Tax Registration Number (UBI number):							
2. H	ow Fre	equently do you genera	te dangerous	waste?				
[]a	a. Mon	thly []b.Batch []	c. Spill Event	[] d. Clean-up: Rer	nediation of pas	t contamination		
[]	3. Ge	nerator of special waste	e (per WAC 17	3-303-073)				
[]	4. Regene	cycler of On-Site Waste ated)	e (i.e. on-site u	se, reuse, or reclam	ation of a wast	e after it was		
[]	5. Pe	mit-by-Rule (PBR)						
[]	6. Tre	atment by Generator (1	ΓBG)					
[]	7. Tra	nsport your own waste	9					
8. Da	anger	ous Waste Fuel Activitie	es					
	[]	a. Generator of dangero	ous waste fuel					
	[]	b. Generator marketing	to burner					
	[]	c. Other marketers (i.e. I	blender, distrib	uter etc)				
		d. Burner (indicate type	of combustion	unit)				
		[] 1. Utility Boiler						
		[] 2. Industrial Boiler						
	[] 3. Industrial Furnace							
Desc	criptic	n of Hazardous Wastes	s Ado	ditional codes may be	added to comn	nents if needed.		
11. Waste Codes for Federally Regulated Hazardous Wastes: What codes best describe your waste (e.g., D001 – Ignitable, D002 – Corrosive, D003 – Reactive, etc.)? Find these codes on your Uniform Hazardous Waste Manifest or call your designated facility.								
waste	(e.g.,	Codes for State Regula WT02 – Toxic, WP02 – F cardous Waste Manifest of	Persistent, WS0	C2 - Solid Corrosive,				

Dangerous Waste Site Identification F	orm (continued)	Site ID
13. Episodic Generator		'
[] Are you an SQG or VSQG generating hazardous waster lasting no more than 60 days, that moves you to a higher generator.		
14. LQG Consolidation of SQG Hazardous Waste		
[] Are you an LQG notifying of consolidating SQG Hazard pursuant to WAC 173-303-171 ? If "Yes", you must fill out th Hazardous Waste.		
15. Notification of LQG Site Closure of a Central Accur	nulation Area (CAA) OR Entii	re Facility
[] LQG Site Closure of a Central Accumulation Area	(CAA) or Entire Facility	
A. [] Central Accumulation Area (CAA) [] Ent	ire Facility	
B. Expected closure date: N/A		
C. Requesting new closure date: N/A		
D. Date closed:		
[] In compliance [] Not in compliance [] Will close as a landfill, WAC 173-303-665 [] Will close under drip pad standards, WAG		
16. Notification of Hazardous Secondary Material (HSN	I) Activity	
[] A. Are you notifying under WAC 173-303-017(8) the will stop managing hazardous secondary material under out the Addendum to the Site Identification Form for Material and the state of	er WAC 173-303-017(5)? If '`	Yes', you must fill
17. Manifest Broker		
[] Are you a Manifest Broker?		
18. Comments - Attach additional sheets if you need more	e room	
Tel Commente / Alacin adamental eneces il yea neces mere	71001111	
19. Certification		
I certify under penalty of law that this document and all attempts supervision in accordance with a system designed to assest evaluate the information submitted. Based on my inquiry or or those persons directly responsible for gathering the informaty knowledge and belief, true, accurate and complete. It is submitting false information, including the possibility of	ure that qualified personnel pro f the person or persons who mand mation, the information submitt am aware that there are signific	pperly gather and anage the system, ed is, to the best of cant penalties for
Signature:	Date: 02/28/2004	
Name (print or type): Washington Department of Ecology	Title: WA	

Notification Site Identification Form

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658 Olympia, WA 98504-7658 (800) 874-2022

For Ecology Use Only		Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

Web site: www.ecology.wa.gov/DWReport

	web site. v	www.ecolo	gy.wa.gov/DvvReport						
1. Reason for Submittal		tal []	[] To provide New Notification of Regulated Waste Activity (complete entire form)						
		[X]	[X] To provide Revised Site Identification information (complete entire form)						
		[]	[] Reactivation Site Identification Number (complete entire form) Received Date: 03/30/2000						
		[]	Withdraw	Е	ffective Date:	03/30/2000			
2. EPA/State Id Number:		oer: WA	D982651895						
3. Site Name	.								
Martinizing	Gregson	na LLC N	lob Hill Blvd						
4. Site Loca	ation								
Street 1:	2904 W	904 W NOB HILL BLVD							
City:	YAKIMA	4							
State:	WA								
Zip:	98902								
Country:	US								
County:	YAKIMA	4							
District:	CRO								
5. Site Mail	ing Add	ress							
Street 1: 2904		2904 W	04 W NOB HILL BLVD						
Street 2:									
City/State/Zip: YA		YAKIMA	KIMA, WA 98902						
Country: US		US							
6. Site Land	d Type								
Land	Type:[]	Federa	ıl [] State [] Co	ounty [] Mun	icipal [] Distric	t [] Private [] Tribal [X] Other		
7. North An	nerican	Industr	y Classification	n System (NA	AICS)				
NAICS: 8123	2								
8. Site Con	tact Per	son							
Name: Gre		Greg St	reg Stoffers						
Title:									
Street Address: 290		2904 W	904 W Nobhill						
City/State/Zip: YAk		YAKIMA	KIMA, WA 98902						
Email:									
Phone/Ext: (50		(509)248	09)248-6071						

Dan		Site ID						
9a. Legal Owner								
Type: []Federal []State []County []Municipal []District [X]Private []Tribal []Other								
Name:	Martinizing Gregsona LLC							
Street 1:	812 Summitview Ave							
Street 2:								
City/State/Zip:	YAKIMA, WA 98902							
Country:	US							
Email:		Phone:	(509)248-6111	Ex	t:			
Owner Since:	11/03/1999							
9b. Land Owner								
Type: []Federal []State []County []Municipal []District [X]Private []Tribal []Other								
Name:	Pacific Northwest Properties Inc							
Street 1:	3418 Americana Terrace							
Street 2:								
City/State/Zip:	BOISE, ID 83706							
Country:	US							
Email:		Phone:	(208)342-3631	Ex	t:			
Owner Since:	09/09/1996							
9c. Site Operator								
Type: [] Federal [] State [] County [] Municipal [] District [X] Private [] Tribal [] Other								
Name:	Rank, Sharon							
Street 1:	2904 W NOB HILL BLVD							
Street 2:								
City/State/Zip:	YAKIMA, WA 98902							
Country:	US							
Email:		Phone:	(509)248-6071	Ex	t:			
Operator Since:	09/09/1996							

Dangerous Waste Site Identification F	Form (continued)	Site ID				
10a. Hazardous Waste Activities						
1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [X] d. NQG: No Regulated Waste Generated	 7. Designated Facility of Hazardous Waste (TSD) (Requires an Ecology Part A or Part B permit for dangerous waste management. See WAC 173-303). 8. Recycler of Hazardous Waste Received from Off-Site a. Stores prior to recycling a. Does not store prior to recycling 					
2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [X] d. XQG: No Regulated Waste Generated	9. Exempt Boiler and/or Industrial Furnace [] a. Small Quantity On-site Burner Exemption [] b. Smelting, Melting, Refining Furnace Exemption [] 10. Underground Injection Control (Requires a registered underground injection well. See WAC 173-218) [] 11. Receives Hazardous Waste from Off-site					
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter					
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Spent Lead Acid Batteries (SLABs) [] a. Importer [] b. Exporter					
[] 5. Mixed Waste Generator (Hazardous and Radioactive)						
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility						

Dangerous Waste Site Identification I	Site ID					
10b. Universal Waste Activities	,					
1. Large Quantity Handler of Universal Waste ([] a. Batteries [] b. Lamps [] c. Mercury condition (Note: Large Quantity Handlers accumulate 11,00 thermostats, and lamps calculated collectivel) and waste lamps at any time.)	ontaining equipment O pounds or more total of univ					
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you				
10c. Used Oil Activities						
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of				
[] a. Utility Boiler	[] a. Transporter					
[] b. Industrial Boiler	[] b. Industrial Boiler [] b. Transfer Facility					
[] c. Industrial furnace						
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Marketer					
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil				
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the				
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.						
1. Yes, I am managing dangerous wastes under this	s rule.					
[] a. College or University						
[] b. Teaching hospital that is owned by (or has a formal written affiliation agreement with) a college or university.						
[] c. Non-profit institute that is owned by (or has	a formal written agreement wi	th) a college or university				
2. [] Yes, I wish to withdraw from this rule. (If you was Academic Laboratory Rule and you no longer wish to page		tes under the State				

	Site ID								
		Required Information. Washington State requires the folus that apply to your site.	lowing informa	tion. Please answer					
1. W	1. Washington State Tax Registration Number (UBI number): 601991608								
2. H	ow Fr	equently do you generate dangerous waste?							
[] a	a. Mon	thly []b. Batch []c. Spill Event []d. Clean-up: Rei	mediation of pas	t contamination					
[]	3. Ge	nerator of special waste (per WAC 173-303-073)							
[]		cycler of On-Site Waste (i.e. on-site use, reuse, or reclam rated)	ation of a wast	e after it was					
[]	5. Pe	rmit-by-Rule (PBR)							
[]	6. Tre	eatment by Generator (TBG)							
[]	7. Tra	insport your own waste							
8. Da	anger	ous Waste Fuel Activities							
	[]	a. Generator of dangerous waste fuel							
	[]	b. Generator marketing to burner							
	[]	c. Other marketers (i.e. blender, distributer etc)							
		d. Burner (indicate type of combustion unit)							
		[] 1. Utility Boiler							
		[] 2. Industrial Boiler							
	[] 3. Industrial Furnace								
Description of Hazardous Wastes Additional codes may be added to comments if needed.									
11. Waste Codes for Federally Regulated Hazardous Wastes: What codes best describe your waste (e.g., D001 – Ignitable, D002 – Corrosive, D003 – Reactive, etc.)? Find these codes on your Uniform Hazardous Waste Manifest or call your designated facility.									
waste	(e.g.,	Codes for State Regulated (non-Federal) Hazardous Was WT02 – Toxic, WP02 – Persistent, WSC2 – Solid Corrosive, zardous Waste Manifest or call your designated facility.							

	Dangerous Waste Site Identification For	m (continued)	Site ID
13. Epis	sodic Generator		
lasting n	e you an SQG or VSQG generating hazardous waste from more than 60 days, that moves you to a higher geneum for Episodic Generator.		
14. LQ0	G Consolidation of SQG Hazardous Waste		
pursuan	e you an LQG notifying of consolidating SQG Hazardount to WAC 173-303-171? If "Yes", you must fill out the Actual Waste.		
15. No	tification of LQG Site Closure of a Central Accumu	lation Area (CAA) OR Entire	Facility
[] LQ	QG Site Closure of a Central Accumulation Area (C	CAA) or Entire Facility	
A	[] Central Accumulation Area (CAA) [] Entire	Facility	
В	. Expected closure date: N/A		
С	. Requesting new closure date: N/A		
D	. Date closed:		
[] In compliance [] Not in compliance [] Will close as a landfill, WAC 173-303-665 [] Will close under drip pad standards, WAC 2	173-303-675	
16. No	tification of Hazardous Secondary Material (HSM)	Activity	
will stop	Are you notifying under WAC 173-303-017(8) that p managing hazardous secondary material under NAddendum to the Site Identification Form for Man	WAC 173-303-017(5)? If 'Y	es', you must fill
17. Ma	anifest Broker		
[]Are	you a Manifest Broker?		
18. Co	mments - Attach additional sheets if you need more ro	oom.	
19. Ce	rtification		
super evaluat or those my kn	ify under penalty of law that this document and all attactive in accordance with a system designed to assure the information submitted. Based on my inquiry of the persons directly responsible for gathering the information will be and belief, true, accurate and complete. I amount the information, including the possibility of find the possibility of the	e that qualified personnel prop ne person or persons who ma ition, the information submitte n aware that there are significa	perly gather and nage the system, d is, to the best of ant penalties for
Signatur	re:	Date: 03/30/2000	
Name (p	print or type): Electronic Filer	Title: EF	

Dangerous Waste Report - Annual Report - 2001

Site ID



Washington State Department of Ecology Hazardous Waste Information P.O. Box 47658 Olympia, WA 98504-7658 (800) 874-2022

For Ecology	Use Only	Date Received:	
Form	Reviewed	Entered	Verified
Site ID			

Web site: www.ecology.wa.gov/DWReport

1. Reason for	r Submitt	ttal [] To provide New Notification of Regulated Waste Activity (complete entire form)						
		[X] To provide Revised Site Identification information (complete entire form)	[X] To provide Revised Site Identification information (complete entire form)					
[] Reactivation Site Identification Number (complete entire form) Received Date: 02/22/2002								
		[] Withdraw Effective Date: 12/31/2001						
2. EPA/State	Id Numb	ber: WAD982651895						
3. Site Name)							
Martinizing	Gregson	na LLC Nob Hill Blvd						
4. Site Loca	ation							
Street 1:	2904 W	/ NOB HILL BLVD						
City:	YAKIMA	A						
State:	WA							
Zip:	98902							
Country:	US							
County:	YAKIMA	YAKIMA						
District:	CRO							
5. Site Mail	ing Add	dress						
Street 1:	2	2904 W NOB HILL BLVD						
Street 2:								
City/State/Zip	o: `	YAKIMA, WA 98902						
Country:	l	US						
6. Site Land	d Type							
Land	Type:[]] Federal [] State [] County [] Municipal [] District [] Private [] Tribal [X] Other						
7. North An	nerican l	Industry Classification System (NAICS)						
NAICS: 8123	32							
8. Site Con	tact Pers	rson						
Name: Gregory A Stoffers								
Title:								
Street Addres	ss:	812 Summitview Ave						
City/State/Zip	o:	YAKIMA, WA 98902	KIMA, WA 98902					
Email:								
Phone/Ext:		(509)248-6111						

To ask about available formats for the visually impaired call 360-407-6700. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Dang	Dangerous Waste Site Identification Form (continued) Site ID							
9a. Legal Ov	9a. Legal Owner							
Ту	Type: []Federal []State []County []Municipal []District [X]Private []Tribal []Other							
Name:	Martinizing Gregsona LLC	Martinizing Gregsona LLC						
Street 1:	812 Summitview Ave							
Street 2:								
City/State/Zip:	YAKIMA, WA 98902							
Country:	US							
Email:		Phone:	(509)248-6111	E	xt:			
Owner Since:	11/03/1999							
9b. Land Ov	vner							
Ту	pe: []Federal []State []Cou	nty [] Municipa	I [] District [X] Priva	ate [] Tri	bal [] Other			
Name:	Pacific Northwest Properties Inc							
Street 1:	3418 Americana Terrace							
Street 2:								
City/State/Zip:	BOISE, ID 83706							
Country:	US							
Email:		Phone:	(208)342-3631	E	xt:			
Owner Since:	09/09/1996							
9c. Site Ope	rator							
Ту	pe: []Federal[]State[]Cou	nty [] Municipa	l [] District [X] Priva	ate [] Tri	bal [] Other			
Name:	Rank, Sharon							
Street 1:	2904 W NOB HILL BLVD							
Street 2:								
City/State/Zip:	YAKIMA, WA 98902							
Country:	US							
Email:		Phone:	(509)248-6071	E	xt:			
Operator Since:	09/09/1996							

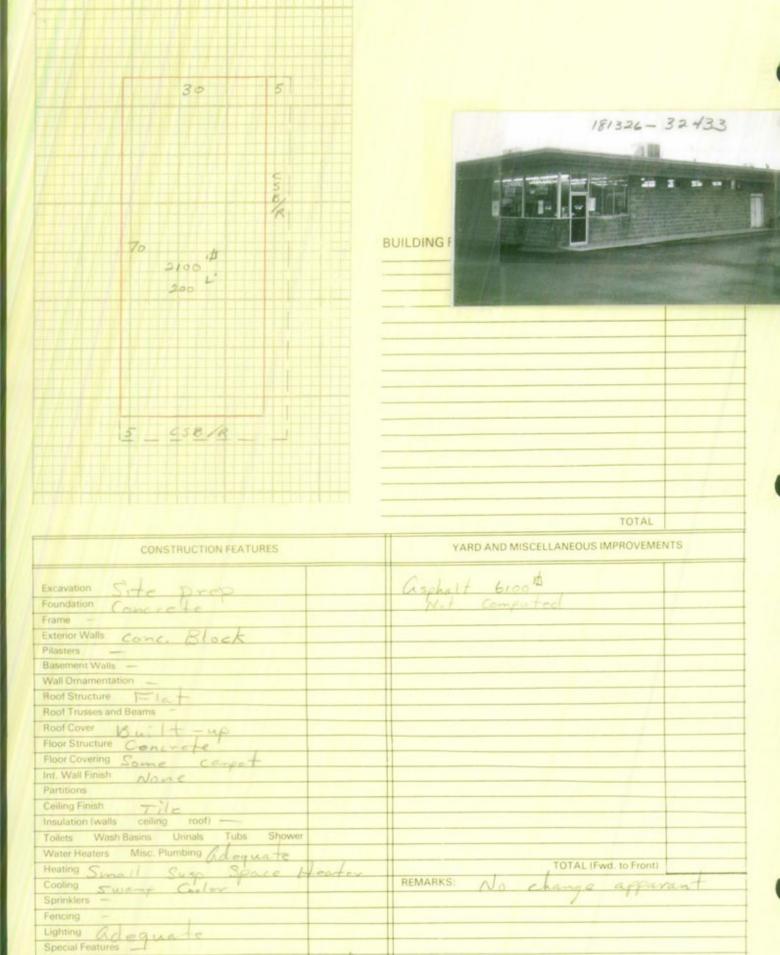
Dangerous Waste Site Identification F	Form (continued)	Site ID		
10a. Hazardous Waste Activities				
 1. Federal Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. SQG: Small Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. VSQG: Very Small Quantity Generator (Less than 220 lbs/mo) [X] d. NQG: No Regulated Waste Generated 	[] 7. Designated Facility of (Requires an Ecology Part A or Pamanagement. See WAC 173-303). 8. Recycler of Hazardo Off-Site [] a. Stores prior to receive [] a. Does not store page 1.	ous Waste Received from		
2. State Generator of Hazardous Waste (Choose one) [] a. LQG: Large Quantity Generator (Greater than 2,200 lbs/mo) [] b. MQG: Medium Quantity Generator (Between 220 – 2,200 lbs/mo) [] c. SQG: Small Quantity Generator (Less than 220 lbs/mo) [X] d. XQG: No Regulated Waste Generated	9. Exempt Boiler and/or Industrial Furnace [] a. Small Quantity On-site Burner Exem [] b. Smelting, Melting, Refining Furnace Exe [] 10. Underground Injection Control (Requires a registered underground injection well. Se 173-218) [] 11. Receives Hazardous Waste from Off-si			
3. Short Term Generator (This question is automatically reported as no to the U.S. Environmental Protection Agency)	12. Recognized Trader [] a. Importer [] b. Exporter			
[] 4. U.S. Importer of Hazardous Waste	13. Importer/Exporter of Batteries (SLABs) [] a. Importer [] b.	f Spent Lead Acid Exporter		
[] 5. Mixed Waste Generator (Hazardous and Radioactive)				
6. Transporter of Hazardous Waste (HW) [] a. HW Transporter [] b. HW Transfer Facility				

Dangerous Waste Site Identification I	Site ID					
10b. Universal Waste Activities	,					
1. Large Quantity Handler of Universal Waste ([] a. Batteries [] b. Lamps [] c. Mercury condition (Note: Large Quantity Handlers accumulate 11,00 thermostats, and lamps calculated collectivel) and waste lamps at any time.)	ontaining equipment O pounds or more total of univ					
[] 2. Destination Facility for Universal Waste (Note: Please check this box if you either store was recycle waste from off-site sources without first si		to recycling or if you				
10c. Used Oil Activities						
1. Off-Specification Used Oil Burner	3. Used Oil Transporter activities	- Indicate types of				
[] a. Utility Boiler	[] a. Transporter					
[] b. Industrial Boiler	[] b. Industrial Boiler [] b. Transfer Facility					
[] c. Industrial furnace						
2. Used Oil Processor/Re-refiner	4. Used Oil Fuel Marketer					
[] a. Processor	[] a. Directs shipment burner	of used oil to used oil				
[] b. Re-refiner	[] b. First claims the uspecifications	ised oil meets the				
10d. Eligible Academic Entities with Laboratories State Academic Laboratory Rule - (Subpart K) for mana 235.						
1. Yes, I am managing dangerous wastes under this	s rule.					
[] a. College or University						
[] b. Teaching hospital that is owned by (or has a formal written affiliation agreement with) a college or university.						
[] c. Non-profit institute that is owned by (or has	a formal written agreement wi	th) a college or university				
2. [] Yes, I wish to withdraw from this rule. (If you was Academic Laboratory Rule and you no longer wish to page		tes under the State				

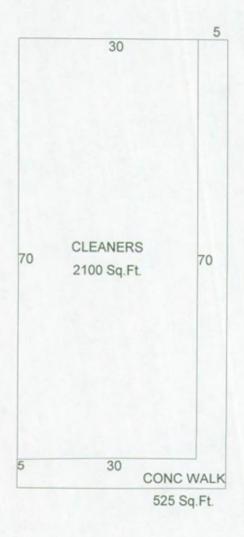
	Site ID								
		Required Information. Washington State requires the folus that apply to your site.	lowing informa	tion. Please answer					
1. W	1. Washington State Tax Registration Number (UBI number): 601991608								
2. H	ow Fr	equently do you generate dangerous waste?							
[] a	a. Mon	thly []b. Batch []c. Spill Event []d. Clean-up: Rei	mediation of pas	t contamination					
[]	3. Ge	nerator of special waste (per WAC 173-303-073)							
[]		cycler of On-Site Waste (i.e. on-site use, reuse, or reclam rated)	ation of a wast	e after it was					
[]	5. Pe	rmit-by-Rule (PBR)							
[]	6. Tre	eatment by Generator (TBG)							
[]	7. Tra	insport your own waste							
8. Da	anger	ous Waste Fuel Activities							
	[]	a. Generator of dangerous waste fuel							
	[]	b. Generator marketing to burner							
	[]	c. Other marketers (i.e. blender, distributer etc)							
		d. Burner (indicate type of combustion unit)							
		[] 1. Utility Boiler							
		[] 2. Industrial Boiler							
	[] 3. Industrial Furnace								
Description of Hazardous Wastes Additional codes may be added to comments if needed.									
11. Waste Codes for Federally Regulated Hazardous Wastes: What codes best describe your waste (e.g., D001 – Ignitable, D002 – Corrosive, D003 – Reactive, etc.)? Find these codes on your Uniform Hazardous Waste Manifest or call your designated facility.									
waste	(e.g.,	Codes for State Regulated (non-Federal) Hazardous Was WT02 – Toxic, WP02 – Persistent, WSC2 – Solid Corrosive, zardous Waste Manifest or call your designated facility.							

Dangerous Waste Site Identification For	m (cor	ntinued)	Site ID
13. Episodic Generator			
[] Are you an SQG or VSQG generating hazardous waste for lasting no more than 60 days, that moves you to a higher generated Addendum for Episodic Generator.			
14. LQG Consolidation of SQG Hazardous Waste			
[] Are you an LQG notifying of consolidating SQG Hazardor pursuant to WAC 173-303-171 ? If "Yes", you must fill out the Albazardous Waste.			
15. Notification of LQG Site Closure of a Central Accumu	lation A	rea (CAA) OR Entire	e Facility
[] LQG Site Closure of a Central Accumulation Area (C	CAA) or	Entire Facility	
A. [] Central Accumulation Area (CAA) [] Entire	Facility	/	
B. Expected closure date: N/A			
C. Requesting new closure date: N/A			
D. Date closed:			
[] In compliance [] Not in compliance [] Will close as a landfill, WAC 173-303-665 [] Will close under drip pad standards, WAC	173-303	3-675	
16. Notification of Hazardous Secondary Material (HSM)	Activity		
[] A. Are you notifying under WAC 173-303-017(8) that will stop managing hazardous secondary material under out the Addendum to the Site Identification Form for Management	WAC 17	73-303-017(5)? If 'Y	es', you must fill
17. Manifest Broker			
[] Are you a Manifest Broker?			
18. Comments - Attach additional sheets if you need more re	oom.		
19. Certification			
I certify under penalty of law that this document and all attacts supervision in accordance with a system designed to assure evaluate the information submitted. Based on my inquiry of the or those persons directly responsible for gathering the information my knowledge and belief, true, accurate and complete. I an submitting false information, including the possibility of firms.	e that qu ne perso ation, the n aware	alified personnel propen or persons who ma information submitte that there are signification.	perly gather and nage the system, d is, to the best of ant penalties for
Signature:	Date:	02/22/2002	
Name (print or type): Electronic Filer	Title:	<u>EF</u>	

Building Name Tax Year Tax						9	5	Sey A	fu	1-86				.5	
Appriser 7 - 4 5 1 1 2 2 4 4 4 4 4 4 4 4		Building Name	ol-	-1	Та	x Year_	84					Status			
Appriser 7 - 4 5 1 1 2 2 4 4 4 4 4 4 4 4	1	Appr. Date 2-17-50 Fin I	Date	tean	15.5										1
NAME	1	Appraiser 1- /- Fin.	No. 17-13				_	PARCEL NU	МВ	ER: 1813	326	- 324.	33		
Remarks	4		11.43				-								
Section Sect	-	Remodeled 19		Remark	ks:						THE				
Sale_Good_Pf_Date_y2_3 Stus Address: 2 Qo y CITY STATE ZP	1	Transfer 19		Yal				ADDR	ESS						
Section Sect		.Sale 56,000 P.A. Date	4.20.83	Situs A	ddress:	2904 11)	CITY			S	TATE		7ID	
Section Section 2 Section 3 Section 4 Section 5	1	Sale 6 9 900 R.C. Date	11.1.82						de	12				ZIF	
1. Building Type										_	tion 4		-	Section E	-
1. Building Type 2. Class & Quality 3. Construction Material 4. No. Streets Brigt Jason, No. Hgt. No. H			Sec. / 3 pg./	3 8			Sec.				-	S			
3. Construction Material 4. No. Street's Fig1/1story 5. Average Floor Area 6. Average Floor Area 7. Age 6 Condition Age Cond.		Building Type	Retail Typ	c										1.0	
4. No. Stories B-HgL-140N No. Hgt. No.			cls. Qual. L	ow c	ds.	Qual.	cls.	Qual.		cls.	Qual.	ck	s.	Qual.	
5. Average Perimeter 7. Age & Condition Age			Masonry	1											
6. Average Perimeter 7. Age & Condition Age Cond. A					No.	Hgt.	No.	Hgt.		No.	Hgt.	N	0.	Hgt.	
## Refinements Sec. Sec.	-											10			
BASE RATE 8. Square Foot Cost BASE RATE ADJUSTMENTS 9. Refinements 10. 11. 12. 12. 13. Number of Stories Multiplier 14. Height per Story Multiplier 15. Floor Area — Perimeter Multiplier 16. Combined Multipliers (lines 13x14x15) FINAL CALCULATIONS Section 1 Section 1 Section 2 Section 3 Section 4 Section 5 FINAL CALCULATIONS FINAL CALCULATIONS Section 1 Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (see, 99 P. 3) 19. Local Multiplier (see, 99 P. 3) 19. L			200	T.											
Sec. 1 Sec. 2 Sec. 3 Sec. 4 Sec. 5		7. Age & Condition	Age. 2 4 Cond.	Aug 1	Age	Cond.	Age	Cond.		Age	Cond.	A	ge	Cond.	
Sec. 1 Sec. 2 Sec. 3 Sec. 4 Sec. 5				7		RASER	ATE								
### BASE RATE ADJUSTMENTS 10.						DAGE III	- IL								
BASE RATE ADJUSTMENTS 9. Refinements 10. 11. 12. 12. 13. Number of Stories Multiplier 14. Height per Story Multiplier 15. Floor Area — Perimeter Multiplier 16. Combined Multipliers (lines 13x14x15) FINAL CALCULATIONS Section 1 Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x18) 18. Current cost multiplier (see, 99-p. 3) 19. Local Multiplier (see, 99-p. 566) 20. Final Square Foot cost (17x18x19) 21. Total Area (all 10x19) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciated Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213.93 Area 2007, 474000 Land Value Adjustments Land Value Adjustments New ConSTRUCTION		Q Causes Foot Cost							+	Sec. 2	Sec.	3 Se	c. 4	Sec. 5	
9. Refinements 10. 11. 12. 12. 13. Number of Stories Multiplier 14. Height per Story Multiplier 15. Floor Area — Perimeter Multiplier 16. Combined Multipliers (lines 13x14x15) FINAL CALCULATIONS Section 1 Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-P. 56f6) 19. Griand Square Foot (17x18x19) 20. Final Square Foot (17x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard of Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciated Value 27. Value per Square Foot 17/X 1/1 Value X Utilities / City / Well / Septic / Other Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213, 93 Area 20073, 47 MULE 1/4 Soo 1/4 Soo New Construction New Construction New Construction		o. Square Foot Cost						19.68							
10. 11. 11. 12. 13. Number of Stories Multiplier 14. Height per Story Multiplier 15. Floor Area – Perimeter Multiplier 16. Combined Multipliers (lines 13x14x15) FINAL CALCULATIONS FINAL CALCULATIONS Section 1 Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x16) 18. Current cost multiplier see, 99.P. 3) 19. Local Multiplier (see, 99.P. 3) 19. Local Multiplier (BAS	E RATE ADJU	JSTME	ENTS							
10. 11. 12. 13. Number of Stories Multiplier 14. Height per Story Multiplier 15. Floor Area – Perimeter Multiplier 16. Combined Multipliers (lines 13x14x15) FINAL CALCULATIONS FINAL CALCULATIONS FINAL CALCULATIONS FINAL CALCULATIONS Section 1 Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (sec. 99 P. 3) 19. Local Multiplier		9. Refinements		1	- 555	Heat		-1.54							
11. 12. 13. Number of Stories Multiplier 14. Height per Story Multiplier 15. Floor Area — Perimeter Multiplier 16. Combined Multipliers (lines 13x14x15) FINAL CALCULATIONS Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (sec. 99-p. 3) 19. Local Multiplier (sec. 99-p. 566) 20. Final Square Foot cost (17x18x19) 21. Total Area (alf floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 24. Total Replacement Cost 27. Value per Square Foot 29. Value per Square Foot 20. Total Area (alf floors) 20. Final Square Foot 20. Final Square Foot 20. Line 20 x Line 21 21. Yard & Miscellaneous Improvements 24. Total Replacement Cost 27. Value per Square Foot 29. Value per Square Foot 20. Value Per Square F		10.													
Height and Size Multiplier 14. Height per Story Multiplier 15. Floor Area — Perimeter Multiplier 16. Combined Multiplier (sines 13x14x15) FINAL CALCULATIONS Section 1 Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (sec. 99 - P. 3) 19. Local Multiplier (sec. 99 - P. 3) 19. Local Multiplier (sec. 99 - P. 566) 20. Final Square Foot cost (1x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciated Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213, 93 Area 20773 17 KMEE Frontage 96.87 Depth 213, 93 Area 20773 17 KMEE Land Value Adjustments Total Land Value Adjustments Total Land Value New Construction		(338)													
1.		12.				total lines 8 ti	hrough	11 16.30							
1.															
14. Height per Story Multiplier 15. Floor Area — Perimeter Multiplier 16. Combined Multipliers (lines 13x14x15) FINAL CALCULATIONS FINAL CALCULATIONS Section 1 Section 2 Section 3 Section 4 Section 5 17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (sec. 99-p. 3) 19. Local Multiplier (sec. 99-p. 566) 20. Final Square Foot cost (17x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciation — (sec. 97) 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96-87 Depth 2/3,93 Area 20047 NALUE Frontage 96-87 Depth 2/3,93 Area 20047 TOTAL LAND VALUE Back Land or Total Area 20047 Septic NEW CONSTRUCTION Total Land Value Adjustments Total Land Value Adjustments	1				He	ight and Size	Multip	liers							
15. Floor Area — Perimeter Multipliers (lines 13x14x15)	١														
FINAL CALCULATIONS Section 1															
FINAL CALCULATIONS Section 2 Section 3 Section 4 Section 5									+						
Section 1 Section 2 Section 3 Section 4 Section 5		16. Combined Multiple	iers (lines 13x14x15)					1.132	+						
17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-P. 566) 20. Final Square Foot cost (17x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciated Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213,93 Area 20073, 47 MULE IMPROVEMENT VALUE IAND VALUE STATES Land Value Adjustments TOTAL LAND VALUE Construction NEW CONSTRUCTION Total Land Value					F	INAL CALCUI	LATIO	NS							
17. Refined Square Foot Cost (12x16) 18. Current cost multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-P. 566) 20. Final Square Foot cost (17x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciated Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213,93 Area 20073, 47 MULE IMPROVEMENT VALUE IAND VALUE STATES Land Value Adjustments TOTAL LAND VALUE Construction NEW CONSTRUCTION Total Land Value						Section 1		Section 2		Castian 2		C		0	
18. Current cost multiplier (sec. 99-P. 3) 19. Local Multiplier (sec. 99-p. 556) 20. Final Square Foot cost (17x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciated Value 27. Value per Square Foot 28. Depreciated Value 27. Value per Square Foot 29. Line 20 x Line 21 20. Total Area 20. Total Ar			Mar ac				,	Section 2		Section 3		Section 4		Section 5	
19. Local Multiplier (sec. 99-p. 566) 20. Final Square Foot cost (17x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciated Value 27. Value per Square Foot 27. Value per Square Foot 28. Total Computations 29. Total Computations 20. End Computations 20.						18.45									
20. Final Square Foot cost (17x18x19) 21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciated Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213,93 Area 20047 If X If value X d/f= Back Land or Total Area 20047 Land Value Adjustments Total Land Value Total Land Value Total Land Value New Construction Septic New Construction Septic New Construction Septic New Construction															
21. Total Area (all floors) 22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciation — (sec. 97) 27. Value per Square Foot Land Computations 20. Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213,93 Area 2073,47 Acres 1/1X f/f value X d/f= Back Land or Total Area 2073,47 Acres 20617 Back Land Value Adjustments 1. Total Land Value Total Land Value New Construction New Construction															
22. Line 20 x Line 21 23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciation — (sec. 97) 27. Value per Square Foot Land Computations 20 Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213.93 Area 20023, 47 Acres 1/7 Acre															
23. Yard & Miscellaneous Improvements 24. Total Replacement Cost 25. % Depreciation — (sec. 97) 26. Depreciator Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213,93 Area 20723,47 AUE 1/4300 1/4300 TOTAL IMPROVEMENT VALUE 1/4300 Frontage 96.87 Depth 213,93 Area 20723,47 AUE 1/47 Area 20723,47 AUE 1/47 Area 20723,47 AUE 1/4300 NEW CONSTRUCTION Total Land Value NEW CONSTRUCTION		22. Line 20 x Line 21													
25. % Depreciation — (sec. 97) 26. Depreciated Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213,93 Area 20723 47 4444 1/fX f/f value X d/f= Back Land or Total Area 20723 4 3000 Land Value Adjustments Total Land Value New Construction New Construction		23. Yard & Miscellaneous Im	provements			-17/8									
25. % Depreciation — (sec. 97) 26. Depreciated Value 27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 2/3,93 Area 20047 If X If value X d/f= Back Land or Total Area 20047 Land Value Adjustments Total Land Value New Construction New Construction		24. Total Replacement Cost				47712									
27. Value per Square Foot Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213,93 Area 20723 47 MINE 1/300 1/1X f/f value X d/f = TOTAL LAND VALUE TOTAL LAND VALUE TOTAL LAND VALUE 1/300 NEW CONSTRUCTION Total Land Value			97)			706									
Land Computations Zone Utilities / City / Well / Septic / Other Frontage 96.87 Depth 213.93 Area 20723,47444 IMPROVEMENT VALUE 143.00 TOTAL IMPROVEMENT VALUE 143.00 TOTAL LAND VALUE 143.00 Frontage 96.87 Depth 213.93 Area 20723,47444 IMPROVEMENT VALUE 143.00 TOTAL LAND VALUE 143.00 STATES Land Value Adjustments Total Land Value Land Value Adjustments Total Land Value CONSTRUCTION Total Land Value						14300									
Utilities / City / Well / Septic / Other IMPROVEMENT VALUE Frontage 96.87 Depth 213.93 Area 20723,47 MINE 1/1X f/f value X d/f = TOTAL LAND VALUE Back Land or Total Area 20723 × 3000 = 62200 Land Value Adjustments Total Land Value		27. Value per Square Foot				6.8									
Utilities		Land Computations		Zone	9					TOTAL					
## 1/fX		Utilities / City	/ Well	1						IMPROVEME	ENT		. 1-		
Back Land or Total Area Land Value Adjustments Total Land Value Interpretation Inter		Frontage 96.8	7 Depth 2	13,9	3	Area 2-	0 6/1	3 ,47 acr	-	TOTAL		95-11	53	100	
62200						/f=				LAND			37	900	
62200		Back Land or Total Area	20617	500		-		62169					6 2	200	
62200		Land Value Adjustments	3	100	- 12900						ION				
		Total Land Value		4.=				62200		- July 1 HOCT	.014				
							-	1	-						



Parking Area asphalt approx 6100#



Parcel ID: 18132632433

Label	Perimeter	Area		
CLEANERS	200	2100		
CONC WALK	220	525		

30 s

CONSTRUCTION FEATURES	YARD AND MISCELLANEOUS IMPROVEMENTS					
Excavation St	YARD IMP.					
Foundation Come	ASPIRALT APPROX 6100 A 50 3050					
Frame Masonry	1. S.EN POLE 12"x12" 34. 400					
Exterior Walls Care Block						
Pilasters						
Basement Walls						
Wall Ornamentation						
Roof Structure						
Roof Trusses and Beams -						
Root Cover Suich Up						
Marquee	Total (forward to front) SEC2 3450					
Floor Structure						
Floor Covering Small and Carnet	REMARKS:					
Wall Finish Value						
Ceiling Finish Tile						
Insulation (walls ceiling roof)						
Tollets Wash Basins Urinals Tubs adequate						
Water Heaters Misc. Plumbing						
Heating Small Sure Space						
Electrical aliquete						
Sprinklers - 0						
Elevators						
Escalators						
Fire Escapes						
Parking Area Off Street Cuple H.						



Dave Cook, Assessor

Courthouse Room 112 Yakima, WA 98901 (509) 574-1100 Toll Free 1 (800) 572-7354 FAX (509) 574-1101 Property Account Summary

Alternate Property Number:

Account No.:

181326-32433

Account Type:

Real Property

TCA:

333

Situs Address:

2904 W Nob Hill Blvd Yakima, 98902

Description:

APPLEWOOD MANOR: LOT 18 BLK 2

Parties:

Role Name & Address Owner Westco Inc 3430 Americana Ter Boise, Id 837062504 Taxpayer Westco Inc 3430 Americana Terrace Boise, Id 83706

Property Values:

Value Name	2003	2002	2001	2000
Taxable Value Regular	\$121,100	\$121,100	\$121,100	\$121,100
Assessed Value	\$121,100	\$121,100	\$121,100	\$121,100
Market Land	\$105,400	\$105,400	\$105,400	\$105,400
Market Improvement	\$15,700	\$15,700	\$15,700	\$15,700
New Construction			\$0	so

Property Characteristics:

Characteristic Use Code

Unit of Measure

Size

62 Service - Personal

Square Feet 20617.00

Exemptions:

181326-32433

605830

R/W

Parcel Segre	egation/Merger (PSM)	00	tober 27, 1987			Page	of
JRNL TYPE S M	DOC TYPE <u>E A</u>	DOC DATE <u>01</u> /2	3 / / 9 8 7 NE	OC OR(10) 225	796	JRNL NOTES(15) <u>(</u>	WD RIW	
PARCEL-NBR	i <u>181326-</u>	<u> 3243</u> 3	R/W					
Owner	Certified	Appraisal	Certified	Appraisal	Certified	Appraisal	Certified	Appraisal
AV Land	81170	81170	1730	1730				
AV Impr	14300	14 300	4					
ASMT-CLASS				*******				***************************************
Mkt Land	81170	81170	1730	1730				
Mkt Impr	14300	14300	-6-	-				
New Cnstr								
XMPT-CODE								
	Ac . 47	sq 20,617	Ac	sq_106_	. Ac	Sq	Ac	Sq
Former PARCE	L-NBR							
Certified Ye	ar <u>1988</u>	Appraisal Ye	r <u>/989</u>	Dedicat	ed Right of Way	: Acres	Value	
Remove value	s for the follo	wing: ROLL-TY	PE = 0	Combidi	ad Value	La	and	Impr
				Check T	ed Value otal: AV	82	900	14,300
					MKT		<u> </u>	
		***************************************		New Cns	tr		EC-DATE	

172710

lules (M)

18132632433 ROLL TYPE 1 NEW PARCEL 1 R/W PARCEL

NAME NBR 58761 NEW OWNER WESTCO INC

ATTN

410 S ORCHARD #116

BOISE	ID 8370	5	ALT ATTN	
NAME NOTES				
			MANUAL PROCESS	XMPT
TAX YR	1988	1989	TRANSFER 045170 D	
LEVY CODE	333	333	JRNL TYPE	NGHBD YK1
USE CODE	62	62	JRNL DATE	CYCLE 3
AV LAND	82900	82900	DOC TYPE	WORK
AV IMPR	14300	14300	DOC DATE	MISC
ASMT CLASS			DOC NOR	
MKT LAND	82900	82900	JRNL NOTES	
MKT IMPR	14300	14300	AP NOTES	
NEW CNSTR			DESCRIPTION: A	CRES SQFT
INSPECT DATE	06/09/1983	06/09/1983	APPLEWOOD MANOR: LOT 1	8 BLK 2
INSPECT APR	17	1.7		
NOTICE DATE		08/05/1987		
ASAT NOTES				
PENALTY			EXT DATE	
CROSS REF		SI	TUS ADDR 2904 NOB HILL	BLUD W

PARCEL 18132632433

EXIT PAGE NAME LIST

JRNL TYPE DATE DOC TYPE DATE NBR NOTES

DESC NBR

XMPT-MISC XMPT-NOTES INTEREST

REG-AV 97200 EXC-AV 97200

REG-AV-LOSS EXC-AV-LOSS

SPECIAL ASMY

DIST TYPE1 UNITS1 TYPE2 UNITS2 CODE

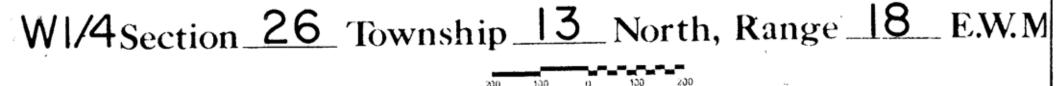
EXIT PAGE NAME PARCEL

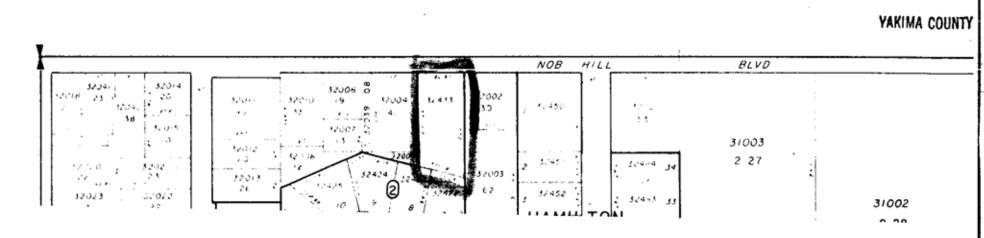
CHAPTER 82.45 RCW CHAPTER 468-81 WAC

PLEASE TYPE OR PRINT

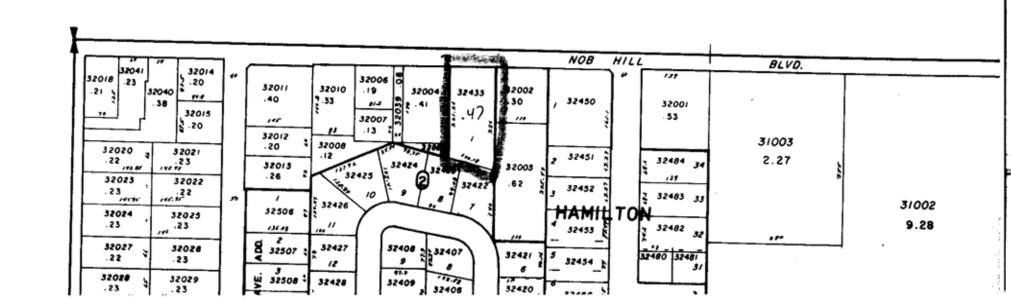
THIS AFFIDAVIT WILL NOT BE ACCEPTED UNLESS ITE	MS 1 THROUGH 2 ARE FULLY COMPLETED
O JOHN J. DUNN, in his sole and separate e	Name
410 S. Orchard STreet Suites 116	a municipal corporation 129 North Second Street
410 S. Orchard STreet Suitee 116	129 North Second Street
boise Idaho li 83705	Yakim WA 98901 Cay State Zp
New OWNER'S PERMANENT ADDRESS PERMANENT ADDRESS	ALL TAX PARCEL NUMBERS 181326-32433 / (portion)
FOR ALL PROPERTY Street 129 NOTTH SECOND STREET	
TAX RELATED CORRESPONDENCE CRy/State WA Zp.	98901
line of said Parcel A. 1.74 feet South of the	r of said Parcel A; thence E along the N line thence S slong the E line of said Parcel beginning.
Is the property currently: YES NO	Description of personal property if included in sale (furniture, ap-
Classified or designated as forest land?	pliances, etc.)
Classified as current use land (open space, farm and agricultural, Chapter 84.34 RCW or timber)?	Manager than the first contribution
Exempt from property tax under Chapter 84.36 RCW? (sonprofit organizations)	If exemption claimed, explain
Receiving special valuation as historic XXXXX	458-61-420 Municipal Corporation
property under Chapter 449, Laws of 1985?	Type of Document
Type Property: E land only land with new building	Date of Sale or Conveyance 1-23-87
Land with previously Land with mobile home used building	Gross Sale Price 1/ \$
SEE TAX OBLIGATIONS ON REVERSE SIDE	Taxable Sale Price \$
(1) NOTICE OF CONTINUANCE (RCW 84.33 or RCW 84.34)	Excise Tax State 3/ \$
If the new owner(s) of land that is classified or designated as current use or	Delinquent Penalty 6/
forest land wish(ee) to continue the classification or designation of such land, the new owner(s) do(es) not desire to	Total Tax Due \$(SEE 1-5 ON REVERSE SIDE)
continue such classification or designation, all compensating or additional tax calculated pursuant to RCW 84.33.120 and 140 or RCW 84.34.108 shall be due	(SEE 1-D ON REVERSE SIDE)
and payable by the seller or transferor at the time of sale. To determine if the land transferred qualifies to continue classification or designation, the county	AFFIDAVIT I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE
Sassessor must be consulted. All new owners must sign. This land does does not qualify	STATE OF WASHINGTON THAT THE FOREGOING IS TRUE AND CORRECT (see #6 on reverse for penalties).
for continuance. DEPUTY ASSESSOR	Connect (see a con reverse for pensiones).
M 0/12	SIGNATURE: STATE OF THE PARTY O
(2) NOTICE OF COMPLIANCE (Chapter 449, Laws of 1985)	NAME (print): Barbard J. Carnotti
If the new owner(a) of property with special valuation as historic property wish(es) to continue this special valuation the new owner(s) must sign below. If the new owner(s) do(es) not desire to continue such special valuation, all additionally recommended to the new owner(s) do(es) not desire to continue such special valuation, all additions to the new owner(s) do(es) not desire to continue such special valuation, all additions to the new owner(s) do(es) not desire to continue such special valuation.	DATE & PLACE OF SIGNING: 1 Yakima
tional tax calculated pursuant to Chapter 449, Laws of 1985, shall be due and payable by the seller or transferor at the time of sale.	SPECIFY (circle): grantor/grantee/grantor's agent/grantee's agent
	Address of residence or place of business of person signing (specify): Lyon Law Offices
(3) OWNER(S) SIGNATURE	222 North Third Street
	Yakima WA 98901
The following optional questions are requested by RCW 82.45.120 is property at the time of sale:	Does conveyance involve a trade, partial interest corporate affiliates, related parties, 1 2
Subject to elderly, disability, or physical Improvement seemption?	trust, receivership or an estate?
b. Does building, if any, have a heat pump or solar heating or cooling system?	perty?
c. Does this conveyance divide a current parcel of land?	g. Principal use:
d. Does sale include current crop or merchantable timber?	1 agricultural 2 coadominium 3 recreational 4 apt (4+ units) 5 industrial 6 residential 7 commercial 8 mobile home 9 timber
FOR TREASURER	'S USE ONLY

225996





YAKIMA COUNTY ASSESSOR'S PLAT | Wild | Wild



Parcel Number: 181326-32433 View Map | Property Tax | View Web Version | Print Page

Situs Address: 2904 W Nob Hill Blvd Yakima

Property Use: 62 Service - Personal

Tax Code Area: 333 Property Size: 0.47 Neighborhood: C303

Owners: 2904 West Nob Hill Boulevard Llc

Abbreviated Legal Description:APPLEWOOD MANOR: LOT 18 BLK 2

Utility Information:(indicates utility is available at parcel boundary)

Gas: Yes Electricity: Yes Water: Public Sewer/Septic: Public

Site Information:

Property Type: Commercial **Zoning:** Bcom

Street Type:Two-WayStreet Finish:Paved/AsphltTraffic:HeavySide Walk:Yes

Curbs: Yes Location: Road-Frntage

Details for Land Record #1

Land Flag: C Soil Class:

Calc CU: Water Source: Public No **Sewer Source:** Public Flood Plain: No Lot Shape: Irregular **Topography:** Level Land View: No View Landscaping: None Sq-Feet Value Method: Lots: SquareFeet: Acre(s): 0.220

Details for Commercial Section #101

Building Type: Laundromat Quality: Average Condition: Ext. Wall Type: Average Block Year Built: 1965 **Ground Floor:** 2,100 Stories: Foundation: Yes 1 **Construction:** Masonry-Wall Heat/Cool Type: Space-Heat

Excise Transactions on Parcel Number 181326-32433

Excise #	Grantor Name	Excise Date	Sale Price	Document Type	Portion (Y/N)	Parcel(s) Sold
431892	Pacific Northwest Properties Inc	Oct 31, 2012	\$0	Quit Claim Deed	No	1
431321	Westco Inc	Oct 30, 2012	\$0	Ouit Claim Deed	No	1

Tax Breakdown Information*

Details for Tax Year 2020

District	Regular Rate	Regular Value	Regular Tax	Excess Rate	Excess Value	Excess Tax
County Ems	0.21308552	\$166,700	\$35.52	0.00000000	\$166,700	\$0.00
County Flood Control	0.07748694	\$166,700	\$12.92	0.00000000	\$166,700	\$0.00
State School Levy	2.06205763	\$166,700	\$343.75	0.00000000	\$166,700	\$0.00
State School Levy Part 2	1.11858386	\$166,700	\$186.47	0.00000000	\$166,700	\$0.00
Yakima City	2.67322473	\$166,700	\$445.63	0.00000000	\$166,700	\$0.00
Yakima County	1.43558517	\$166,700	\$239.31	0.00000000	\$166,700	\$0.00
Yakima School	0.00000000	\$166,700	\$0.00	2.50000000	\$166,700	\$416.75
Yakima School Bonds	0.00000000	\$166,700	\$0.00	1.41286152	\$166,700	\$235.52
Yakima Valley Regional Library	0.41164661	\$166,700	\$68.62	0.00000000	\$166,700	\$0.00

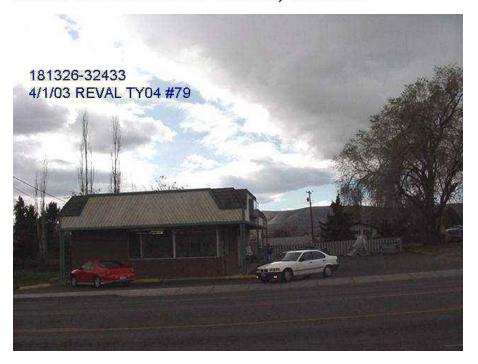
^{*}Please Note: These are not guaranteed tax amounts and are only provided for convenience. Tax amounts above may have rounding errors and are only provided as an indication of what taxes would be if the parcel were taxed at current values for the full tax year. In addition no assessments are included in these lists and may be included in the property tax bill. If you want exact tax amounts please view this property on the County Treasurer Tax Portal.

Value Breakdown Information

Value Type	2020	2019	2018	2017	2016	2015	2014		
Taxable Value Regular	\$166,700	\$159,800	\$151,200	\$147,100	\$150,800	\$154,600	\$147,100		
Taxable Value Excess	\$166,700	\$159,800	\$151,200	\$147,100	\$150,800	\$154,600	\$147,100		
Market Land	\$57,500	\$57,500	\$57,500	\$57,500	\$57,500	\$57,500	\$57,500		
Market Improvement	\$109,200	\$102,300	\$93,700	\$89,600	\$93,300	\$97,100	\$89,600		



2904 W NOB HILL BLVD YAKIMA, WA 98902





45170DV CHAPTERS	SEASTICE SALES OF THE STATE OF
THIS APPROACH WILL NOT BE ACCEPTED UNITESS ITEM Na - e	WESTCO, INC.
seet 605 Queen Avenue	Street 410 South Orchard, 1116
City Yalima Suze WA Zip 98902 NEW CAMERS FERMANIMI ADDRESS FOR ALL FROFERTY TAX FELATED CORRESPONDENCE CITY SINE CONTEST ON CONTES	181326-12933 824836
LEGAL DESCRIPTION OF PROFERTY SITUATED IN UNINCORPORATED Lot 18, Block 2, Applewood Hanor plat thereof recorded in Yakima	county ORINCHYOF Yakima , according to the County, Washington.
Cinput 2+tached &	ale) 72.000.00 I
	Description of personal property if included in sale (furniture.
Classified or designated as forest land? Chapter 84.33 RCW	goodwill and covenant to not compete
Classified as current use fand (open space, farm and agricultural, or (imber)? Chapter 84:34 RCW	If exemption claimed, explain
Exempt from property tax under Chapter XX 84 36 RCW? (nonprofit organizations)	If transfer is a gift, gift taxes are due and payable to State of Washington by Apral 15th of the following year. Type of Document Purch Assign of Cont. & Deed
Type Property	Date of Sale
If the new owner(s) of land that is classified or designated as current use or forest land wish(es) to continue the classification or designation of such fand, the new owner(s) must sign below. If the new owner(s) do(es) not desire to continue such classification or designation, all compensating or additional tax calculated pursuant to RCW 84.33.120 and 140 or RCW 84.34.108 shall be due and payable by the seller or transferor at the time of sale. To determine if the land transferred qualifies to continue classification or designation, the county assessor must be consulted. All new owners must sign. Signature(s)	Delinquent Penalty 4/ Total Tax Due \$ \$ 599.20 (SEE 1-4 ON THE REVERSE SIDE) AFFIDAVIT I. the undersigned, being first sworn, on oath state that the foregoing information to the best of my knowledge is a true and correct statement of the facts pertaining to the transfer of the above described real estate. Any person willfully giving false information in this affidavit shall be subject to the PENJURY LAWS of the State of Washington, SEE SION REVERSE FOR PENALTIES.
This land does does not qualify for continuance.	Signature (Streetly: Graphy Maltee Ager for Grantor Grantee) Subscribes and sworn to me this 200 day of April 1983 Lineard for the State of Washington residing at Yakima
AssessorDate	
The following optional questions are requested by RCW 82.45.120. Is properly at the time of sale: Subject to elderly, disability, or physical improvement exemption? b. Does building, if any, have a heat pump or solar heating or cooling system? c. Does this conveyance divide a current parcel of land? d. Does sale include current crop or merchantable timber? FOR TREASURER	e. Does conveyance involve a trade, partial interest corporate affiliates, related parties, trust, receivership or an estate? 1. Is the grantee acting as a nominee for a third party? 2. Principal use: 1. agricultural 2. condominium 3. recreational 4. apt (4-units) 5. industrial 6. residential 7. XX commercial 8. mobile home 9. timber
	Chusink)
	197863 √

COUNTY TREASURES

FORM REV 64 0030 (9:81)

824848

Applewood Manor

Contract Dated Mar, 31, 1966

\$30,000

8248313 6,24,66

Aff. No. 83857 \$300

Glascam Builders, Inc.

to

John J.Dunn, et ux

Lot 18, Blk. 2, Applewood Manor

John J. Dunn 803 So. 3rd St. Yakima, Wash.

14/16/35

51623B

91

Applewood Manor

Sellers Assign, of cont, and deed Dated Apr. 27, 1966

2085284 \$ S.R.S. 25. V ol 677 Filed May:4, 1966 Rec. No. ----

Glascam Builders, Inc.

to

Richard Maddox, et ux

Lot 18, Blk. 2, Applewood Manor

Contract dated M ar. 31, 1966, bet Glascam Builders, Inc. as seller, and John J.Dunn, et ux, as purchasers.

PCL V2.26.13 YAKIMA COUNTY PROD PARCEL LISTING 06/04/20 PAGE 1

PARCEL ID: 2021 181326-32433

Foundation

Sketch

OWNER NAME: 2904 WEST NOB HILL BOULEVARD LLC (Page 1)

ADDRESS: 2904 W NOB HILL BLVD

**** PARCEL LAST UPDATED : 11/15/2018

Total Acres	.470	Water	P - PUBLIC	Prop Subtype	355 - SINGLE USE COM
Total Sqft	20473	Sewer Septic	SW - PUBLIC	Improved Acre	.470
Inspct Cycle	4 - 2019ASMT	Street Type	T - TWO-WAY	Flood Plain	и - ио
Roll Type	1 - REAL-PROP	Street Finsh	P - PAVED/ASPHLT	Topography	L - LEVEL
Prop Type	COM - COMMERCIAL	Traffic	H - HEAVY	Lot Shape	RC - RECTANGLE
Nbhd	C303	Side Walk	Y - YES	Landscaping	N - NONE
Nbhd Infl	S - STABLE	Curbs	Y - YES	Land View	NV - NO VIEW
Use Code	62 - SRV-PERSONAL	Location	RF - ROAD-FRNTAGE	Business Name	YAKIMA DRY CLEANERS
Zone	BCOM	Property Id	41212	Tot Comm Bld	2100
Gas	Y - YES	Current Use	N - NO		
Electric	Y - YES	Region	03 - REGION3		
**** INSPECTION	₹ #1	Appraiser Id	95	Inspect Date	03/30/2009
INSPECTION	ī #2	Appraiser Id	76	Inspection Re	CIS - CYCLE INSPECTION
		Inspect Date	10/14/2012		
INSPECTION	1 #3	Appraiser Id	102	Inspection Re	CIS - CYCLE INSPECTION
		Inspect Date	11/15/2018	Entered Prope	ENP - ENTERED PARCEL
**** VALUATION		LAST UP	DATED : 09/09/2013		
Cost Date	03/06/2020	Cost Ren	263675	Det Struc Val	0
Cost Total	165600	Cost Rcnld	108107		
Cost Land	57500	Curr Use Lnd	57500		
**** LAND #1		LAST UP	PDATED : 11/15/2018		
Land Type	P - PRIMARY	Num Lots	1	Flood Plain	n - no
Land Flag	С	Eff Frontage	95	Topography	L - LEVEL
Soil Quality	AV - 6.00,2300,24000	Square Feet	9583	Lot Shape	IR - IRREGULAR
Calc Cu	N - NO	Acres	.220	Landscaping	N - NONE
Zone	BCOM - BUSINESS COMMERCI	Value Method	S - SQ-FEET	Land View	NV - NO VIEW
Water Source	P - PUBLIC	Land Value	57498		
Sewer Source	P - PUBLIC	Improved	I - IMPROVED		
**** COMM_SECTI	ON #101	LAST UP	DATED : 11/15/2018		
Bldg Type	260 - LAUNDROMAT	Construction	C - MASONRY-WALL	Misc Structr	CLEANERS
Use Category	2 - RETAIL STORE	Lighting	A - AVERAGE	Ecn Pct Good	92
Grnd Fl Area	2100	Heatcool Typ	SH - SPACE-HEAT	Num Occur	1
Num Stories	1.0	Pct Heated	100	Ron	263675
Avg Wall Hgt	10	Condition	AV - AVERAGE	Rcnld	108107
Perimeter	200	Quality	A - AVERAGE	Total Sqft	2100
Ext Wall Typ	BL - BLOCK	Year Built	1965		
Foundation	Y - YES	Eff Yr Built	1975		

CLEANERS{1}[R15D33]:SR30D70L30U70,CONC WALK{1}[R28D72]:R30SR5D75L35U5R30U70,;

1975

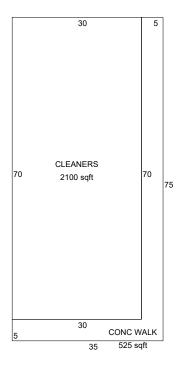
Eff Yr Built

Y - YES

PCL V2.26.13 YAKIMA COUNTY PROD PARCEL LISTING 06/04/20 PAGE 2

PARCEL ID: 2021 181326-32433

OWNER NAME: 2904 WEST NOB HILL BOULEVARD LLC (Page 2)



**** COMM GROUP #101/1

LAST UPDATED :

 Use Code
 260 - LAUNDROMAT
 Base Fl Area
 2100
 Cost By Grp
 N - NO

 Base Floor
 1
 Num Floors
 1.0
 Rcn
 199332

**** NOTE FOR PARCEL LAST UPDATED : 10/14/2012

TYPE: CREATED ON: 10/14/2012 UPDATED BY: TROYL ASR-T1138

NOTE: possible contamination rear of property excess land

**** NOTE FOR LAND LAST UPDATED :

TYPE: LND - LND NOTES CREATED ON: UPDATED BY:

NOTE: pllit land #76 1/2007. 03/30/09 #95 (REVAL '10) CHNGD LND RATE FR: \$5.25 TO: \$6.00 SQFT (LND RATE ADJ IN AREA). RE-CA

LC FOR TX YR '10.

**** NOTE FOR LAND LAST UPDATED : 11/22/2011

TYPE: LND - LND NOTES CREATED ON: 11/22/2011 UPDATED BY: SCOTTAS ASR-T1126

NOTE: 11/22/11 #95 (AUDIT FR: #56) LND REC'S HAVE 2 REC'S CHGD TO PROPER LAND FLAG: CPAD, CSTR, CMLT OR C. VERIFYING BETWEEN SQFT, LOT OR ACRES. MADE APPROPRIATE CHG. THIS PARCEL LOCATED IN YAKIMA WITH A \$5.84 RATE, USING \$5.75, THIS WILL C

OST APPROPRIATELY WHEN RATES ARE IN PLACE. LOOK AT LND INFLUENCE. RE-CALC FOR TX YR '13.

**** NOTE FOR COMM_SECTION LAST UPDATED : 11/15/2018

TYPE: CMS - CMS NOTES CREATED ON: UPDATED BY: UZIELE ASR-1123L

NOTE: SUN SHINE CLEANERS SEE 17 0001 14300 PRIOR OVERRIDE VALUE 18/40=45 27.08/SF IV 11/18 Cycle 4, Yakima Dry Cleaners, adde

d canopy. #102

06/04/20

OWNER NAME: 2904 WEST NOB HILL BOULEVARD LLC (Page 3)

**** PHOTO FOR COMMERCIAL 101/1: 181326.CPC\32433-3.JPG UPDATED ON 11/16/2018 BY UZIELE

PARCEL ID: 2021 181326-32433



2904 W NOB HILL BLVD YAKIMA, WA 98902

**** PHOTO FOR RESIDENCE 1/1: 181326.CPC\32433-1.JPG UPDATED ON 04/02/2003 BY jacobt



PCL V2.26.13 YAKIMA COUNTY PROD PARCEL LISTING 06/04/20 PAGE

PARCEL ID: 2021 181326-32433

OWNER NAME: 2904 WEST NOB HILL BOULEVARD LLC (Page 4)

**** PHOTO FOR RESIDENCE 1/2: 181326.CPC\32433-2.JPG
UPDATED ON 04/02/2009 BY jacobt





REAL ESTATE EXCISE TAX AFFIDAVIT

This form is your receipt

R PRINT CHAPTER 82.45 RCW – CHAPTER 458-61A WAC when stamped by cashier.

THIS AFFIDAVIT WILL NOT BE ACCEPTED UNLESS ALL AREAS ON ALL PAGES ARE FULLY COMPLETED PLEASE TYPE OR PRINT

Check box if partial sale of property	e back of	f last pag	ge for instructions) If multiple owners, list percentage of ownership next to name.
Name Westco. Inc.			Name Pacific Northwest Properties, Inc.
Mailing Address_7217 W. McMullen Street City/State/Zip Boise, Idaho 83709			Mailing Address 7217 W. McMullen Street City/State/Zip Boise, Idaho 83709
City/State/Zip Boise, Idaho 83709			City/State/Zip Boise, Idaho 83709
Phone No. (including area code) (208) 342-3631			Phone No. (including area code) (208) 342-3631
		L	ist all real and personal property tay parcel account
Some and property and consequence for all a sum of a sum	antee		numbers – check box if personal property List assessed value(s)
Name 2904 Nob Hill Boulevard LLC		- -	Parcel # 181326-32433 \$179,400
Mailing Address 7217 W. McMullen Street		- -	
City/State/Zip Boise, Idaho 83709		-	425 D
Phone No. (including area code) (208) 342-3631		<u> </u>	
Street address of property: 2904 West Nob Hill Boulevard	<u>d, Yakin</u>	na	
This property is located in Yakima County			
Check box if any of the listed parcels are being segregated if	îrom ano	ther parc	cel, are part of a boundary line adjustment or parcels being merged.
Legal description of property (if more space is needed, yo	ou may a	ittach a	separate sheet to each page of the affidavit)
See Exhibit A, attached herewith			
Select Land Use Code(s):			List all personal property (tangible and intangible) included in selling
- Tenant occupied, commercial properties			price.
enter any additional codes: (See back of last page for instructions)			None
(See back of last page for instructions)	YES	NO	
Is this property exempt from property tax per chapter		✓	
84.36 RCW (nonprofit organization)?			
6	YES	NO	If claiming an exemption, list WAC number and reason for exemption:
Is this property designated as forest land per chapter 84.33 RCW?		✓	
Is this property classified as current use (open space, farm and			WAC No. (Section/Subsection) 458-61A-211(c)(2)
agricultural, or timber) land per chapter 84.34?	_		Reason for exemption
Is this property receiving special valuation as historical property per chapter 84.26 RCW?		☑	Transfer from one wholly owned subsidiary to another
If any answers are yes, complete as instructed below.			
(1) NOTICE OF CONTINUANCE (FOREST LAND OR CURF	ENT U	SE)	Type of Document Quitclaim Deed
NEW OWNER(S): To continue the current designation as forest	land or		
classification as current use (open space, farm and agriculture, or you must sign on (3) below. The county assessor must then dete			Date of Document 10/36/12
land transferred continues to qualify and will indicate by signing			Gross Selling Price \$
land no longer qualifies or you do not wish to continue the design	nation or	r	*Personal Property (deduct) \$
classification, it will be removed and the compensating or additionable due and payable by the seller or transferor at the time of sale.	mal taxe	s will	Exemption Claimed (deduct) \$
84.33.140 or RCW 84.34.108). Prior to signing (3) below, you m		act	Taxable Selling Price \$0.00
your local county assessor for more information.			Excise Tax : State \$
This land does does not qualify for continuance.			0.0025 Local \$0.00
			*Delinquent Interest: State \$
	DATE	·	Local \$
(2) NOTICE OF COMPLIANCE (HISTORIC PROPE		,	*Delinquent Penalty \$
NEW OWNER(S): To continue special valuation as historic sign (3) below. If the new owner(s) does not wish to continue	e, all		Subtotal \$
additional tax calculated pursuant to chapter 84.26 RCW, sha payable by the seller or transferor at the time of sale.	ıll be du	e and	*State Technology Fee \$
(3) OWNER(S) SIGNATURE			*Affidavit Processing Fee \$
(b) OTTIBILITION			Total Due \$
PRINT NAME			A MINIMUM OF \$10.00 IS DUE IN FEE(S) AND/OR TAX *SEE INSTRUCTIONS
I CEDTIES LINDED DENALTY	OF PFP	JIJRV T	THAT THE FOREGOING IS TRUE AND CORRECT.
	, reek	JUNI I	
Signature of Grantor or Grantor's Agent			Signature of Grantee or Grantee's Agent
Name (print) Dennis Heeb			Name (print) Dennis Heeb
Date & city of signing: April 72, 2013	Bois	-1D	Date & city of signing: April 22, 2013 Boise, 1
Dute a city of signing.			Date & city of signing:

Perjury: Perjury is a class C felony which is punishable by imprisonment in the state correctional institution for a maximum term of not more than five years, or by a fine in an amount fixed by the court of not more than five thousand dollars (\$5,000.00), or by both imprisonment and fine (RCW 9A.20.020 (1C)).

REV 84 0001ae (2/28/13)

THIS SPACE - TREASURER'S USE ONLY

COUNTY TREASURER

EXHIBIT A

Lot 18, Block 2, Applewood Manor, according to the plat thereof recorded in Yakima County, Washington.

excepting therefrom a strip of land described as:

Said strip of land being described as follows: Beginning at the Northwest corner of the Southwest Quarter (West Quarter corner) of Section 26, Township 13 North, Range 18 East, W.M.; thence North 90°00' East, along the North line thereof, 542.12 feet; thence South 0°00' West 35.00 feet to the true point of beginning; thence North 0°00' East 35.00 feet; thence North 90°00' East, along the North line of said subdivision, 375.00 feet; thence South 0°00' West, 30.00 feet; thence South 89°14'10" West, 375.04 feet to the true point of beginning.



REAL ESTATE EXCISE TAX AFFIDAVIT

This form is your receipt

R PRINT CHAPTER 82.45 RCW – CHAPTER 458-61A WAC when stamped by cashier.
THIS AFFIDAVIT WILL NOT BE ACCEPTED UNLESS ALL AREAS ON ALL PAGES ARE FULLY COMPLETED PLEASE TYPE OR PRINT

	Check box if partial sale of property	ast pag	e for ins	If multiple owners, list percentage	of ownership next to name.			
1	Name Pacific Northwest Properties, Inc.		_ 2	Name 2904 West Nob Hill Boulevard L	LC			
~ %			- L B		1990-9			
SELLER GRANTOR	Mailing Address 7217 W. McMullen Street		BUYER GRANTEE	Mailing Address 7217 W. McMullen Str	reet			
땅	l			교공 City/State/Zip <u>Boise, Idaho 83709</u>				
	Phone No. (including area code) (208) 342-3631	T .	_	Phone No. (including area code)(208) 34	2-3631			
3	Send all property tax correspondence to: Same as Buyer/Grantee			al and personal property tax parcel account bers – check box if personal property	List assessed value(s)			
Nam	ne 2904 West Nob Hill Boulevard LLC	- -	Parcel :	# 181326-32433	\$179,400			
Mai	ling Address 7217 W. McMullen Street	- -						
_	/State/Zip Boise, Idaho 83709	- -						
Pho	ne No. (including area code) (208) 342-3631	_						
4	Street address of property: 2904 West Nob Hill Boulevard, Yakima	1						
	This property is located in Yakima &ounty City							
	Check box if any of the listed parcels are being segregated from anoth				being merged.			
	Legal description of property (if more space is needed, you may att	ach a	separate	sheet to each page of the affidavit)				
	See Exhibit A, attached herewith							
5	Select Land Use Code(s):	_		st all personal property (tangible and in	ntangible) included in selling			
	59 - Tenant occupied, commercial properties enter any additional codes:		•	ice.				
	(See back of last page for instructions)	_		one				
	YES	NO						
	is property exempt from property tax per chapter 6 RCW (nonprofit organization)?	V						
6	YES	NO						
_	is property designated as forest land per chapter 84.33 RCW?	☑	lf cla	iming an exemption, list WAC numb	per and reason for exemption:			
Is th	is property classified as current use (open space, farm and	$\overline{\mathbf{Q}}$	WAC	No. (Section/Subsection) 458-61A-	211(c)(2)			
	zultural, or timber) land per chapter 84.34?			on for exemption				
	is property receiving special valuation as historical property hapter 84.26 RCW?	✓	Transf	er from one wholly owned subsidiary to	another			
•	y answers are yes, complete as instructed below.							
	NOTICE OF CONTINUANCE (FOREST LAND OR CURRENT USI	E)	Туре	of Document Quitclaim Deed				
NEV	WOWNER(S): To continue the current designation as forest land or sification as current use (open space, farm and agriculture, or timber) le	and	Date	of Document _10/31/12				
you	must sign on (3) below. The county assessor must then determine if t	he		Gross Selling Price \$				
	transferred continues to qualify and will indicate by signing below. If no longer qualifies or you do not wish to continue the designation or	the		*Personal Property (deduct) \$	"			
class	sification, it will be removed and the compensating or additional taxes	will		Exemption Claimed (deduct) \$				
	ue and payable by the seller or transferor at the time of sale. (RCW 3.140 or RCW 84.34.108). Prior to signing (3) below, you may contact	et		Taxable Selling Price \$	0.00			
you	local county assessor for more information.			Excise Tax : State \$				
This	s land does does not qualify for continuance.		:		0.00			
	DATE DATE			*Delinquent Interest: State \$				
	DEPUTY ASSESSOR DATE (2) NOTICE OF COMPLIANCE (HISTORIC PROPERTY)							
	W OWNER(S): To continue special valuation as historic property,			*Delinquent Penalty \$	0.00			
addi	(3) below. If the new owner(s) does not wish to continue, all tional tax calculated pursuant to chapter 84.26 RCW, shall be due	and		*State Technology Fee \$				
paya	able by the seller or transferor at the time of sale.			*Affidavit Processing Fee \$	C 00			
	(3) OWNER(S) SIGNATURE			Total Due \$	40.00			
	PRINT NAME			A MINIMUM OF \$10.00 IS DUE I	N FEE(S) AND/OR TAX TIONS			
8	I CERTIFY ON DER PENALTY OF PERJ	URY T	HAT T	HE FOREGOING IS TRUE AND CORR	RECT.			
	nature of			ture of	1/1			
Gra	intor or Grantor's Agent	_		tee or Grantee's Agent	um feel			
Nar	ne (print) Dennis Heeb		Name	(print) Dennis He				
Dat	e & city of signing: 19 pril 23, 2013 Boise,	<u> </u>	Date	& city of signing: April 23	3, 2013 Boise, 1D			
_		: Al		mactional institution for a maximum term	of not more than five years or by a			

Perjury: Perjury is a class C felony which is punishable by imprisonment in the state correctional institution for a maximum term of not more than fine in an amount fixed by the court of not more than five thousand dollars (\$5,000.00), or by both imprisonment and fine (RCW 9A.20.020 (1C)).

REV 84 0001ae (2/28/13)

THIS SPACE - TREASURER'S USE ONLY

COUNTY TREASURER



EXHIBIT A

Lot 18, Block 2, Applewood Manor, according to the plat thereof recorded in Yakima County, Washington.

excepting therefrom a strip of land described as:

Said strip of land being described as follows: Beginning at the Northwest corner of the Southwest Quarter (West Quarter corner) of Section 26, Township 13 North, Range 18 East, W.M.; thence North 90°00' East, along the North line thereof, 542.12 feet; thence South 0°00' West 35.00 feet to the true point of beginning; thence North 0°00' East 35.00 feet; thence North 90°00' East, along the North line of said subdivision, 375.00 feet; thence South 0°00' West, 30.00 feet; thence South 89°14'10" West, 375.04 feet to the true point of beginning.

SOUTHARD CLEANERS

Hazardous Waste and Toxics Reduction Program



Search for Hazardous Waste Facilities in Washington State : Production

<< History

			~~ I IIStOI		
Southards Laundry & Cle	aners				
WAD988493367 FS ID: 4488396	2618 NOB HILL BLVD W YAKIMA , WA 98902	Inactive 12/31/1993 AR 1993			
General Information					
Received Date 12/31/1	993				
Non Notifier Extract	Flag 🗹				
Accessibility	Acknowledge Flag 0				
1. Reason for Submittal					
N - Annual Report	Effective D	Pate: 12/31/1993			
2. Site ID					
EPA Id: WAD988493367		Activity Location: WA			
3. Site Name					
Name: Southards Laundi	y & Cleaners				
4. Site Location					
2618 NOB HILL BLVD W	,YAKIMA WA 98902	Latitude 46.58535 Longitude: -120.544			
YAKIMA County, UNITED	STATES	State District: CRO			
5. Site Mailing Address					
2618 NOB HILL BLVD W	,YAKIMA WA 98902 UNITED STATE	ES			
6. Site Land Type					
7. North American Industry	Classification System (NAICS)				
81232 - DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)					
8. Site Contact Person					

8a. Site Contact Address								
United States								
9a. Legal	Owner							
Туре	Name	Address		Phone	Date			
Private Southards Laundry & Cleaners		2618 NOB HILL BLVD W , YAKIMA WA 98902		(000)000-0000				
9b. Land	Owner							
Type Name Add		Address		Phone	Date			
Private	Southards Laundry & Cleaners	2618 NOB HILL BLVD W , YAKIMA WA 98902		(000)000-0000				
9c. Site C	Operator							
Туре	e Name Address			Phone	Date			
Private	ivate Southards Laundry & Cleaners 2618 NOB HILL		D W , YAKIMA WA 98902	(000)000-0000				
10. Type of Federal Regulated Waste Activity								
10a. Dangerous Waste Activities								
1. State Generator Status			8. Recycler of Dangerous Waste					
SQG			□ a. Stores Prior to Recycling□ b. Does Not Store Prior to Recycling					
2. Federal Generator Status			9. Exempt Boiler and / or Inc	-				
VSQG			☐ a. Small Quantity On-site Burner Exemption ☐ b. Smelting, Melting, Refining Furnace Exemption					
3. Short Term Generator								
(This question is automatically reported as "no" to U.S. Environmental Protection Agency).			☐ 10. Underground Injection Control (Requires a registered underground injection well. See WAC 173-218).					
\square 4. United States Importer of Dangerous Waste			☐ 11. Receives Dangerous Waste from Off-site					
\square 5. Mixed Waste (Dangerous and radioactive) Generator			12. Recognized Trader ☐ a. Importer ☐ b. Exporter					
6. Transporter of Dangerous Waste ☐ a. HW Transporter			13. Importer/Exporter of Spent Lead Acid Batteries (SLABs)					
☐ b. HW Transfer Facility			☐a. Importer ☐ b. Exporter					
☐ 7. Designated Facility of Dangerous Waste (TSD) (Requires an Ecology Part A or Part B permit for dangerous waste management).								
10b. Universal Waste Activities								

a. Batteries b. Lamps c. Mercury containing equipment	
2. Destination Facility for Universal Waste	
0c. Used Oil Activities	
1. Off-Specification Used Oil Burner	3. Used Oil Transporter - Indicate types of
☐ a. Utility Boiler ☐ b. Industrial boiler	activities. □ a. Transporter
c. Industrial furnace	□ b. Transfer Facility
2. Used Oil Processor and/or Re-refiner - Indicate types of activities.	4. Used Oil Fuel Marketer - Indicate types of
□ a. Processor	activities.
☐ b. Re-refiner	\square a. Marketer Who Directs Shipment of Off-
	Specification Used Oil to Off-Specification
	Used Oil Burner ☐ b. Marketer Who First Claims the Used Oil
	Meets the Specifications
0d. Eligible Academic Entities with Laboratories	
1. Yes, I am managing dangerous wastes under this rule.	
□a. College or University	
a. College of Offiversity	
\square b. Teaching Hospital that is owned by (or has a formal written affili	ation agreement with) a college or university.
\Box b. Teaching Hospital that is owned by (or has a formal written affiliate. Non-profit institute that is owned by (or has a formal written affiliate.)	
☐ c. Non-profit institute that is owned by (or has a formal written affili	iation agreement with) a college or university.
	iation agreement with) a college or university.
\Box c. Non-profit institute that is owned by (or has a formal written affili	iation agreement with) a college or university.
☐ c. Non-profit institute that is owned by (or has a formal written affili☐ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this	iation agreement with) a college or university. erous wastes under the State Academic s option.)
 □ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this 	dation agreement with) a college or university. Herous wastes under the State Academic s option.) Vashington State.
□ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this □ Oe. State Required Information. The following information is required by W	dation agreement with) a college or university. Herous wastes under the State Academic s option.) Vashington State.
C. Non-profit institute that is owned by (or has a formal written affiliation of the content of	dation agreement with) a college or university. Herous wastes under the State Academic s option.) Vashington State.
□ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this □ 0e. State Required Information. The following information is required by W 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste? □ a. Monthly □ b. Batch □ c. Spill Event □ d.	diation agreement with) a college or university. Derous wastes under the State Academic soption.) Vashington State. 57827 Clean-Up
C. Non-profit institute that is owned by (or has a formal written affiliation of the content of	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
□ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this □ 0e. State Required Information. The following information is required by W ■ 1. Washington State Tax Registration Number (UBI number): 6001 ■ 2. How Frequently do you generate dangerous waste? □ a. Monthly □ b. Batch □ c. Spill Event □ d.	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
C. Non-profit institute that is owned by (or has a formal written affiliated on the content of	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
C. Non-profit institute that is owned by (or has a formal written affiliation of the content of	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
C. Non-profit institute that is owned by (or has a formal written affiliation of the content of	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
C. Non-profit institute that is owned by (or has a formal written affiliation of the profit institute that is owned by (or has a formal written affiliation of the profit institute that is owned by (or has a formal written affiliation of the profit institute that is owned by (or has a formal written affiliation of the profit institute that is owned by (or has a formal written affiliation of the profit institute that is owned by (or has a formal written affiliation of the profit institute and institute that is owned by (or has a formal written affiliation of the profit institute and i	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
C. Non-profit institute that is owned by (or has a formal written affiliation of the content of	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
C. Non-profit institute that is owned by (or has a formal written affili Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this 0e. State Required Information. The following information is required by W. 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste? □ a. Monthly □ b. Batch □ c. Spill Event □ d. € □ 3. Generator of Special Waste (Regulated under WAC 173 □ 4. Recycler of On-Site Waste (i.e. on-site use, reuse, or regenerated) □ 5. Permit-by-Rule (PBR) □ 6. Treatment by Generator (TBG) □ 7. Transport your own waste 8. Dangerous Waste Fuel Activity	iation agreement with) a college or university. lerous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up

d. B	urner (indicate type of combustio	n unit)			
☐ 1. Utility boiler ☐ 2. Industrial Boiler ☐ 3. Industrial Furnace					
11. Federal W	Vaste Codes				
12. State Was	ste Codes				
17. Manifest I	Broker				
☐ Are you a	Manifest Broker?				
18. Comment	ts				
19. Certification	on				
Title	First Name	Last Name			
EF	Electronic	Filer			
Email		Certification Date			
		12/31/1993			
Episodic Ever	nts				
LQG Consolid	dations				
Notification(s)) of LQG Site Clean Closure for a	Central Accumulation Area (CAA) (optional) OR Entire Facility			

Close

Hazardous Waste and Toxics Reduction Program



Search for Hazardous Waste Facilities in Washington State : Production

<< History

Southards	Laundry	& Cleaners
-----------	---------	------------

WAD988493367 2618 NOB HILL BLVD W Inactive 12/31/1996

FS ID: 4488396 YAKIMA , WA 98902 AR 1996

General Information

Received Date 2/13/1997

Non Notifier Extract Flag

Accessibility Acknowledge Flag 0

1. Reason for Submittal

N - Annual Report Effective Date: 12/31/1996

2. Site ID

EPA Id: WAD988493367 Activity Location: WA

3. Site Name

Name: Southards Laundry & Cleaners

4. Site Location

2618 NOB HILL BLVD W ,YAKIMA WA 98902 Latitude 46.58535 Longitude: -120.544

YAKIMA County, UNITED STATES State District: CRO

5. Site Mailing Address

2618 W NOB HILL BLVD , YAKIMA WA 98902 UNITED STATES

- 6. Site Land Type
- 7. North American Industry Classification System (NAICS)

81232 - DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)

8. Site Contact Person

Richard E Vroman

	(509)453-52	236					
	Contact Address NOB HILL BLVD ,YAKIN 3-5236	//A WA 9890	2 UNITED STATES				
9a. Legal	l Owner						
Туре	Name		Address			Phone	Date
Private	Southards Laundry & C	Cleaners	2618 NOB HILL B	LVD W , YAKIMA WA 9	98902	(000)000	0-0000
9b. Land	Owner						
Туре	Name	Address			Phone		Date
Private	Rainier Properties	3161 ELI	LIOTT AVE , SEATT	LE WA 98121	(206)28	84-3950	8/16/1996
9c. Site C	Operator						
Туре	Name	Addres	SS		Phone		Date
Private	Vroman, Richard E	101 N	54TH AVE , YAKIMA	A WA 98908	(509)45	3-5236	8/16/1996
10. Type	of Federal Regulated W	aste Activity					
10a. Da	ngerous Waste Activities	;					
	ate Generator Status			8. Recycler of Da	to Recyclin	g	
2. Fed	deral Generator Status			9. Exempt Boiler	and / or In	dustrial Fu	ırnace
١	/SQG			□a. Small Quanti □b. Smelting, Me	-		-
	ort Term Generator		" t- II C			J	•
•	question is automatically r		110 10 0.5.	☐ 10. Undergro (Requires a registe See WAC 173-218	ered under		
□ 4.	United States Importer	of Dangero	ous Waste	☐ 11. Receives D	angerous	Waste from	m Off-site
☐ 5. Gene	Mixed Waste (Dangero rator	us and radi	oactive)	12. Recognized T □ a. Importer □		r	
□ a.	Transporter of Dangero HW Transporter HW Transfer Facility	ous Waste		13. Importer/Expo Batteries (SLABs ☐ a. Importer ☐)		acid
(TSD	Designated Facility i) iires an Ecology Part A o						

waste management).

Large Quantity Handler of Universal Waste	
\square a. Batteries \square b. Lamps \square c. Mercury containing equipment	
\square 2. Destination Facility for Universal Waste	
10c. Used Oil Activities	
1. Off-Specification Used Oil Burner	3. Used Oil Transporter - Indicate types of
a. Utility Boiler	activities.
☐ b. Industrial boiler	\square a. Transporter
c. Industrial furnace	\square b. Transfer Facility
2. Used Oil Processor and/or Re-refiner - Indicate types of activities.	4. Used Oil Fuel Marketer - Indicate types o
a. Processor	activities.
□ b. Re-refiner	\square a. Marketer Who Directs Shipment of Off-
	Specification Used Oil to Off-Specification
	Used Oil Burner
	 □ b. Marketer Who First Claims the Used Oil Meets the Specifications
0d. Eligible Academic Entities with Laboratories	
1. Yes, I am managing dangerous wastes under this rule.	
a. College or University	
	ation agreement with) a college or university.
a. College or University	
☐ a. College or University ☐ b. Teaching Hospital that is owned by (or has a formal written affili	ation agreement with) a college or university. erous wastes under the State Academic
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affil □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this	erous wastes under the State Academic s option.)
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affil □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this	erous wastes under the State Academic s option.)
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affil □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this	erous wastes under the State Academic s option.)
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this 0e. State Required Information. The following information is required by W 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste?	erous wastes under the State Academic s option.)
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this 0e. State Required Information. The following information is required by W 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste?	erous wastes under the State Academic s option.) //ashington State.
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this Oe. State Required Information. The following information is required by W. 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste? □ a. Monthly □ b. Batch □ c. Spill Event □ d. □ 3. Generator of Special Waste (Regulated under WAC 173 □ 4. Recycler of On-Site Waste (i.e. on-site use, reuse, or recommendation).	erous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this Oe. State Required Information. The following information is required by W. 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste? □ a. Monthly □ b. Batch □ c. Spill Event □ d. □ 3. Generator of Special Waste (Regulated under WAC 173 □ 4. Recycler of On-Site Waste (i.e. on-site use, reuse, or recommendation).	erous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
□ a. College or University □ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this 0e. State Required Information. The following information is required by W 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste? □ a. Monthly □ b. Batch □ c. Spill Event □ d. □ 3. Generator of Special Waste (Regulated under WAC 173 □ 4. Recycler of On-Site Waste (i.e. on-site use, reuse, or regenerated)	erous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up
□ b. Teaching Hospital that is owned by (or has a formal written affili □ c. Non-profit institute that is owned by (or has a formal written affili □ Yes, I wish to withdraw from this rule. (If you were managing dang Laboratory Rule and you no longer wish to participate, select this □ 0e. State Required Information. The following information is required by W 1. Washington State Tax Registration Number (UBI number): 6001 2. How Frequently do you generate dangerous waste? □ a. Monthly □ b. Batch □ c. Spill Event □ d. □ 3. Generator of Special Waste (Regulated under WAC 173 □ 4. Recycler of On-Site Waste (i.e. on-site use, reuse, or regenerated) □ 5. Permit-by-Rule (PBR)	erous wastes under the State Academic s option.) //ashington State. 57827 Clean-Up

□ b. G	Senerator marketing to burner	
☐ c. O	ther marketers (i.e. blender, distrik	outer etc)
d. B	urner (indicate type of combustion	unit)
	$oxed{1}$ 1. Utility boiler $oxed{\square}$ 2. Industrial Bo	iler 🗆 3. Industrial Furnace
11. Federal V	Vaste Codes	
12. State Wa	ste Codes	
17. Manifest	Broker	
☐ Are you a	Manifest Broker?	
18. Commen	ts	
19. Certificati	on	
Title	First Name	Last Name
EF	Electronic	Filer
Email		Certification Date
		2/13/1997
Episodic Eve	nts	
LQG Consolid	dations	
Notification(s) of LQG Site Clean Closure for a	Central Accumulation Area (CAA) (optional) OR Entire Facility

Close

Hazardous Waste and Toxics Reduction Program



Search for Hazardous Waste Facilities in Washington State : Production

<< Search

Southards Laundry & Cleaners

WAD988493367 2618 NOB HILL BLVD W Inactive 10/1/2003

FS ID: 4488396 YAKIMA, WA 98902

Site ID I	Ory	ose	
	Oil	030	

Туре	Seq	State/Federal Status	Owner Land & Buildings	Receive Date	Certification Signed Date	E- Filer	View/Print	Effective Date	Last Update
Withdraw (I)	12	XQG NQG	Southards Laundry & Cleaners Rainier Properties	4/1/2004	4/1/2004	N	View _ Print _	10/01/2003	4/1/2004
AR 2003	11	SQG VSQG	Southards Laundry & Cleaners Rainier Properties	3/31/2004	3/31/2004	N	View _ Print _	10/01/2003	3/31/2004
AR 2002	10	SQG VSQG	Southards Laundry & Cleaners Rainier Properties	1/30/2003	1/30/2003	N	View . Print .	12/31/2002	1/30/2003
AR 2001	9	SQG VSQG	Southards Laundry & Cleaners Rainier Properties	6/1/2002	6/1/2002	N	View Print	12/31/2001	6/1/2002
AR 2000	8	SQG VSQG	Southards Laundry & Cleaners Rainier Properties	1/17/2001	1/17/2001	N	View Print	12/31/2000	1/17/2001
AR 1999	7	SQG VSQG	Southards Laundry & Cleaners Rainier Properties	4/5/2000	4/5/2000	N	View Print	12/31/1999	4/5/2000
AR 1998	6	SQG VSQG	Southards Laundry & Cleaners	2/16/1999	2/16/1999	N	View . Print .	12/31/1998	2/16/1999

			Rainier Properties						
AR 1997	5	SQG VSQG	Southards Laundry & Cleaners Rainier Properties	1/26/1998	1/26/1998	N	View . Print .	12/31/1997	1/26/1998
AR 1996	4	SQG VSQG	Southards Laundry & Cleaners Rainier Properties	2/13/1997	2/13/1997	N	View . Print .	12/31/1996	2/13/1997
AR 1995	3	SQG VSQG	Southards Laundry & Cleaners	2/12/1996	2/12/1996	N	View . Print .	12/31/1995	2/12/1996
AR 1994	2	XQG NQG	Southards Laundry & Cleaners	1/1/1995	1/1/1995	N	View . Print .	12/31/1994	1/1/1995
AR 1993	1	SQG VSQG	Southards Laundry & Cleaners	12/31/1993	12/31/1993	N	View . Print .	12/31/1993	12/31/1993

Detail Re	port ⊦	listory
-----------	--------	---------

Reporting Year: 2003 - 84766 Submitted

Receive Date: 3/31/2004 Site ID

Form

State Status: SQG

Certification Date: 3/31/2004

Federal Status: VSQG

Sequence Number 11

Comments:

Reporting Year: 2002 - 7357 Submitted

Receive Date: 1/30/2003 Site ID

Form

State Status: SQG

Certification Date: 1/30/2003

Federal Status: VSQG

Sequence Number	10	
Comments:		
Reporting Year: 2001 - 735	56 Submitted	
Receive Date:	6/1/2002	Site ID Form
State Status:	SQG	
Certification Date:	6/1/2002	
Federal Status:	VSQG	
Sequence Number	9	
Comments:		
Reporting Year: 2000 - 735	55 Submitted	
Receive Date:	1/17/2001	Site ID Form
State Status:	SQG	
Certification Date:	1/17/2001	
Federal Status:	VSQG	
Sequence Number	8	
Comments:		
Reporting Year: 1999 - 735	54 Submitted	
Receive Date:	4/5/2000	Site ID

Form

State Status: SQG

Certification Date: 4/5/2000

Federal Status: VSQG

Sequence Number	7				
Comments:	Comments:				
Reporting Year: 1998 - 73	53 Submitted				
Receive Date:	2/16/1999	Site ID Form			
State Status:	SQG				
Certification Date:	2/16/1999				
Federal Status:	VSQG				
Sequence Number	6				
Comments:					
Reporting Year: 1997 - 73	52 Submitted				
Receive Date:	1/26/1998	Site ID			
		Form _			
State Status:	SQG				
Certification Date:	1/26/1998				
Federal Status:	VSQG				
Sequence Number	5				
Comments:					
Reporting Year: 1996 - 73	51 Submitted				
Receive Date:	2/13/1997	Site ID			

Form

State Status: SQG

Certification Date: 2/13/1997

Federal Status: VSQG

Sequence Number	4		
Comments:			
Reporting Year: 1995 - 73	50 Submitted		
Receive Date:	2/12/1996	Site ID Form	
State Status:	SQG		
Certification Date:	2/12/1996		
Federal Status:	VSQG		
Sequence Number	3		
Comments:			
Reporting Year: 1994 - 73	49 Submitted		
Receive Date:	1/1/1995	Site ID Form	
State Status:	XQG		
Certification Date:	1/1/1995		

1/1/1995

Federal Status: NQG

Sequence Number 2

Comments:

Waste data converted from old system

Reporting Year: 1993 - 7348 Submitted

Receive Date: 12/31/1993 Site ID

Form ..

State Status: SQG

Certification Date: 12/31/1993

Federal Status: VSQG

Sequence Number 1			
Comments:			
Site Info Conversion P	rocedure		