# DRYWELL DECOMMISSIONING AND CONTAMINATED SOIL REMOVAL REPORT

**FOR** 

HAHN MOTOR COMPANY 1201 SOUTH 1<sup>ST</sup> STREET YAKIMA, WASHINGTON 98901

Facility Site ID No. 502 Cleanup Site ID No. 4927 VCP Project No. CE0529

July 28, 2022

Prepared for:

Ms. Debra Manjarrez

Manjarrez & De Leon Inc, PS
2010 West Nob Hill Blvd, Suite 1
Yakima, Washington 98902
And
Mr. Kyle Parker
Department of Ecology
Toxic Cleanup Program, Central Regional Office
1250 West Alder Street
Union Gap, Washington 98903-0009

Prepared by:
Yancy Meyer
Environmental Professional
And
Brent Bergeron, LHG, LG
Licensed Hydrogeologist and Geologist

Blue Mountain Environmental and Consulting Company, Inc. PO Box 545/125 Main St. Waitsburg, WA 99361 509-520-6519

#### **PROJECT SUMMARY**

Client:	Ms. Debra Manjarrez
---------	---------------------

Manjarrez & De Leon Inc, PS 2010 West Nob Hill Blvd, Suite 1 Yakima, Washington 98902

Point of Contact: Ms. Debra Manjarrez

Property: Hahn Motor Company

1201 South 1st Street

Yakima, Washington 98901

Major Commercial Activity: Automotive Sales and Automobile Repair

Cleanup Site ID Number: 4927

Facility Site ID#: 502

VCP Project ID Number: CE0529

BMEC Supervisor: Yancy Meyer, Environmental Professional

License Number/Expiration: UST Decommissioning Supervisor #5226971

Exp. 1/21/2024

WA Site Assessor #5226971 Exp. 1/21/2024

Licensed Hydrogeologist/Geologist: Brent N. Bergeron, LHG, LG

License Number/Expiration: LHG #2267, expires 1/3/2022

LG #2267, expires 1/3/2022

Project Number: E2022/0308

Report Date: July 28, 2022

Legal description: Tax Parcel 191330-13032 in the southwest quarter of the northeast quarter of Section 30, Township 13 North, Range 19 E.W.M; Latitude 46° 35' 17.37" North, Longitude 120° 29'52.41" West.

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#### 1.0 INTRODUCTION

Blue Mountain Environmental and Consulting Company, Inc. (BMEC) supervised the removal and decommissioning of two drywells associated with the former was bay at the subject property, currently Own A Car Yakima, located at 1201 S. 1<sup>st</sup> St., in Yakima, Washington. This work was completed as a part of the cleanup and remediation of the site approved by the Washington Department of Ecology (DOE), Facility Site ID Number 502, Cleanup Site ID Number 4927, and VCP Project Number CE0529.

Excavation of the drywells and soil disposal started on July 5, 2022 and concluded on July 14, 2022. Removal and disposal of the two former drywells and contaminated soil was performed by Clarke Construction of Ilwaco, Washington. The soil sampling and the site assessment was completed by Yancy Meyer, Environmental Professional, and Brent Bergeron, Licensed Geologist and Hydrogeologist, and employees of BMEC.

Initial soil sampling was conducted in the drywell area by BMEC in January of 2022 (Boring SB1 was located between the 2 drywells, and SB2 was located down-gradient from drywell 2). The report, dated February 1, 2022, concluded that the MTCA Method A Cleanup Level for TPH-D + TPH-O (2000 mg/Kg) was exceeded in sample SB1-2-1-22-10' at 2,070 mg/Kg. TPH-G was quantified in sample SB1-2-1-22-10' at 220 mg/Kg which exceeds the MTCA Method A Cleanup Level of 30 mg/Kg. Cadmium was detected in sample SB1-2-1-22-10' at 2.5 mg/Kg, which exceeds the MTCA Method A Cleanup Level of 2 mg/Kg. Chromium was detected in sample SB2-2-1-22-5' at 45 mg/Kg, which was the only soil sample to exceed the MTCA Method A Cleanup Level of 19 mg/Kg.

Based on the results of these preliminary investigations we know now with certainty that the longtime use of the two discharge points for the automobile engine washing activities had heavily impacted the soil and groundwater in the vicinity of the exterior dry wells, immediately outside (down-slope) the washing bay, with RCRA metals, TPH-Dx and TPH-Gx contaminants. PCE was present in the groundwater beneath the Site, but not at concentrations exceeding MTCA Method A Cleanup Levels. BMEC followed the DOE request and recommended excavation of the drywells and contaminated soil, with confirmation soil sampling to insure that no contamination exceeding MTCA cleanup screening levels remained at this portion of the subject property (see Section 1.1: Action Summary). These recommendations were submitted to DOE and approved by Mr. Kyle Parker (VCP Site Manager).

On July 5, 2022, BMEC, Clark Construction, and HydroCon LLC, from Vancouver, Washington, supervised an initial pre-excavation investigation of the two drywells and the existing stormwater discharge system configuration.

The top sections of the two drywells were removed, and they were pumped dry by vac truck, and it was determined that Drywell 1 was connected to the wash basin inside the building by a 4-inch drainpipe, with no additional intake or outflow pipes. Drywell 1 was six feet deep and three feet in diameter. Drywell 2 was determined to be a stand-alone drywell to drain the parking lot in that area of the yard. Drywell 2 was seven feet deep and four feet in diameter. Both drywells were old and in poor condition. Security fencing was left around Drywell 2 to secure the area until the July 12 field activities.

On July 12, 2022, excavation of Drywell 1 and associated contaminated soils began, and was supervised by Brent Bergeron and Yancy Meyer with BMEC. Contaminated soil was excavated to a depth of 11 feet below ground surface (bgs). 123.66 tons of contaminated soil was excavated and hauled to the Wasco County Landfill in The Dalles, Oregon for disposal. The Site was secured overnight.

On July 13, 2022, over-excavation of Drywell 1 and excavation of Drywell 2 was completed. 119.81 tons of contaminated soil was excavated and hauled to the Wasco County Landfill in The Dalles, Oregon for disposal. Confirmation samples were taken and transported to OnSite Environmental Laboratory in Redmond, Washington for rush analysis. The Site was secured overnight.

On July 14, 2022, after receiving sample results, a new drywell was placed in the location of Former Drywell 2 to allow for stormwater drainage from the parking lot, and the excavation was backfilled and compacted to grade.

## 1.1 Action Summary:

On February 1, 2022, BMEC hydrogeologist, Brent Bergeron, LHG, and BMEC environmental professional Yancy Meyer, supervised the advancement of six soil borings (SB1 through SB6) to depths varying between 15 feet and 25 feet bgs. The six soil borings were advanced via sonic drilling methodology by EWE personnel. Continuous soil samples were brought to the surface via core barrel and sample bag methodology.

Based on the Further Action Required letter from Jennifer Lind of DOE, dated , 2016, the documentation that was made available to BMEC prior to February 2022, along with the field data collected from the Site by BMEC during the February 2, 2022 subsurface investigation, BMEC made the following recommendations:

- 1) Install a network of monitoring wells (five to six) at the Site to better assess contaminants of concern in the groundwater, as well as confirm the groundwater flow direction beneath the Site. At a minimum, one well should be place up-gradient to assess on-site migration of contaminants; one well should be placed in the immediate vicinity of the two former 2000-gallon USTs; one well should be place in the vicinity of the two dry wells; one well should be placed inside the auto repair bay near an inside sump drain; and one to two wells should be placed down-gradient near the property boundary.
- 2) Immediately cease all engine washing operations inside the automobile shop interior (southeast corner of building). These activities appear to have heavily impacted the soil and groundwater in the vicinity of the exterior dry wells, immediately outside the engine washing bay, with RCRA metals, TPH-Dx and TPH-Gx contaminants.
- 3) Decommission of both dry wells via removal and excavation of contaminated soils.

- 4) Conduct a minimum of four quarterly groundwater sampling events (GWSEs) and submit the groundwater samples to the laboratory for RCRA metals analysis, TPH-Dx and TPH-Gx analysis, as well as VOC including PCE analysis.
- 5) Assess whether background metals concentrations in the shallow aquifer may be naturally elevated above MTCA Method A Cleanup Levels. If so, this phenomenon shall be factored into the assessment of metals in groundwater and the pursuit of NFA status.
- 6) Complete reports documenting all future field activities. BMEC plans to compare all future soil and groundwater sampling results to MTCA Method A Cleanup Levels.

These recommendations were reviewed by DOE and approved by Mr. Kyle Parker. The drywell decommissioning described in this report was conducted to satisfy Part 3 above.

### 1.2 Site Background:

It was determined by Ecology on July 9, 2007, and documented via certified mail dated July 26, 2007, that Hahn Motor Company was in *Non-Compliance with the Underground Storage Tank Regulations Chapter 173-360* for not properly upgrading their 2,000-gallon USTs prior to storage in both of them with waste oil. Via directive from Ecology as defined in the July 26, 2007 certified mail, both USTs were decommissioned via removal and backfill in November 2007. Approximately 50 cubic yards of PCS and asphalt were hauled off-site and disposed at the Anderson Disposal Facility in Yakima, Washington.

During the November 9, 2007 UST decommissioning activities, three soil samples were collected from the west, north, and east side of the eastern UST, yielding one heavy oil detection of 396 mg/Kg in the west sample. Similarly, three soil samples were collected from the west, north, and east side of the eastern UST, yielding heavy oil detections ranging between 155 – 492 mg/Kg. The MTCA Method A Cleanup Level for heavy oil is 2,000 mg/Kg. No gasoline range hydrocarbons were identified by laboratory analysis in any soil samples collected. Significant lead concentrations were detected in residual sampled and analyzed from the tank bottom(s).

In 2017, Ecology conducted semi-annual groundwater sampling of the YRRA groundwater monitoring network which is a six-square mile area located along the railroad corridor in the cities of Yakima and Union Gap, Washington. The YRRA was defined in 1991. The Site is located near the center of the YRRA, within the is impacted by chlorinated solvents, primarily PCE. Fifteen of the 39 groundwater samples collected from wells within the YRRA yielded concentrations ranging from 5 to 9,110 µg/L. The MTCA Cleanup Level for TCE in groundwater is 5 µg/L.

#### 1.3 Purpose:

The drywell decommissioning was conducted as a part of the remediation of the site. The confirmation soil samples were collected and analyzed by an accredited laboratory as part of the decommissioning procedures.

#### 1.4 Protocol:

The procedure for this soil investigation was to perform in practical and reasonable steps, employing currently available technology, existing regulations, and generally acceptable engineering practices, an investigation to ascertain the possibility, presence, or absence of petroleum releases.

### 2.0 SUBJECT PROPERTY SITE DESCRIPTION

#### 2.1 Physical Setting Source:

Source of reference is a United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle (quad) Map containing the subject property. The USGS 7.5 minute quad map has an approximate scale of 1" to 24,000 feet, shows physical features such as water bodies, and roadways. The USGS 7.5 quad map is considered to be the only Standard Physical Setting Source, and is sufficient as a single reference.

The property consists of one parcel of land with improvements. The site is accessible from S. 1<sup>st</sup> St. and E. Arlington St. The nearest major roadway is Hwy. 12, approximately 1.1 miles west of the subject property. The elevation is 1,041 feet above mean sea level.

## 2.2 Topography, Geology, and Hydrogeology

Based on the subsurface investigation field activities conducted at the Site on February 1, 2022, the following geologic soil conditions were encountered in soil borings SB1 through SB4 and SB6:

- 0-0.25': Asphalt; and
- 0.25 25': Brown to dark brown, sandy, well-rounded, coarse GRAVEL & COBBLES, with little silt, loose (GW).

Similar lithology was encountered in soil boring SB5 to a depth of 9 feet bgs where a foot of pea gravel was encountered (9-10 feet bgs). From 1- to 22 feet bgs, brown, sandy SILT with some well-rounded gravel and cobbles, loose (ML), was encountered. From 22 to 25 feet bgs, brown sandy, coarse, well-rounded GRAVEL, loose (GW), was again encountered. Copies of the boring logs for the six soil borings advanced on February 1, 2022, are included in **Appendix B**.

During the February 1, 2022 field activities, groundwater was encountered in soil borings SB1 at 11 feet bgs, SB3 at 16.3 feet bgs, SB4 at 18 feet bgs, and SB5 at 14.5 feet bgs. The groundwater flow direction is inferred to be to the east toward the Yakima River which is approximately 1.5 miles east of the Site. Based on data collected during the 2017 YRRA groundwater sampling event(s), depth to shallow groundwater between 3 to 30 feet bgs and flowed to the southeast with an approximate horizontal gradient of 0.005 feet per foot. The estimated flow direction in the deeper aquifer beneath the Site is also to the southeast with an approximate hydraulic gradient of 0.004 feet per foot.

## 3.0 Sampling Methodology:

Several samples were field tested for petroleum hydrocarbons using a photo-ionization detector (PID). Field testing during the excavation was done by utilizing the "head space" field screening method to detect the volatiles as measured by a Combustible Gas Instrument (CGI) and PID. The PID readings were collected by obtaining several hundred grams of soil and placing that sample aliquot in a Ziploc baggie, sealing the baggie, and allowing the sealed sample to "heat up" on the hood of a vehicle for 10 to 15 minutes, prior to inserting the tip of the PID probe into the Ziploc baggie to obtain the PID measurement which are indicative of the presence or absence of volatile organic compounds with some indication of the collective concentration of the volatile organics.

## 4.0 Laboratory Results:

Ten confirmation soil samples were collected from under the two drywells and from the sidewalls after removal of contaminated soil by excavation. Samples were analyzed for petroleum hydrocarbons by NWTPH-Gx/BTEX and NWTPH-Dx, and for Cadmium, Chromium, Lead, and Arsenic by EPA 6010D:

Units: mg/kg

Sample Number (a)	)	CS1-11'	CS2-11'	CS3-11'	CS4-11'	CS5-11'
	MTCA					
Analyte	Criteria(b)					
Benzene	0.03	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Toluene	7.0	< 0.074	< 0.060	< 0.072	< 0.059	< 0.057
Ethylbenzene	6.0	< 0.074	< 0.060	< 0.072	< 0.059	< 0.057
Xylenes	9.0	< 0.074	< 0.060	< 0.072	< 0.059	< 0.057
TPH Gasoline (c)	30/100	<7.4	<6.0	<7.2	< 5.9	< 5.7
Diesel	2000	<28	<28	<28	<28	<28
Lube Oil	2000	<55	<55	<55	< 56	<55
Cadmium	2.0	< 0.55	< 0.55	< 0.55	< 0.56	< 0.55
Chromium (total)	19*	< 0.55	12	11	9.3	13
Lead	250	< 5.5	<5.5	< 5.5	< 5.6	< 5.5
Arsenic	20	<11	<11	<11	<11	<11

Sample Number (a)		CS6-11'	CS7-11'	CS8-11'	CS9-11'	CS10-11'
Analyte	MTCA Criteria(b)					
Benzene	0.03	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Toluene	7.0	< 0.059	< 0.060	< 0.059	< 0.070	< 0.073
Ethylbenzene	6.0	< 0.059	< 0.060	< 0.059	< 0.070	< 0.073
Xylenes	9.0	< 0.059	< 0.060	< 0.059	< 0.070	< 0.073
TPH Gasoline (c)	30/100	< 5.9	< 6.0	< 5.9	<7.0	<7.3
Diesel	2000	<28	<27	<28	<27	<28
Lube Oil	2000	< 56	<54	< 56	<54	< 56
Cadmium	2.0	< 0.56	< 0.54	< 0.55	< 0.54	< 0.56
Chromium (total)	19*	11	8.7	9.0	6.9	7.8
Lead	250	< 5.6	<5.4	<5.5	<5.4	< 5.6
Arsenic	20	<11	<11	<11	<11	<11

#### Notes:

- (a) Samples taken on July 13, 2022
- (b) MTCA Model Toxics Control Act, Washington State
- (c) 30 mg/kg for Gasoline range TPH with Benzene present; 100 mg/kg for Gasoline range TPH without Benzene, and with Ethylbenzene, Toluene, and Xylenes less than 1% of gasoline mixture
- \*MTCA CSL for Chromium VI, analysis was for Total Chromium

Concentrations for all chemicals and MTCA criteria in mg/kg

Analyses by OnSite Environmental, Redmond, WA

NWTPH Gx/BTEX/MTBE analysis for gasoline, BTEX, and MTBE

#### 5.0 Conclusions:

Confirmation samples indicated no contaminants above MTCA cleanup screening levels remaining after over-excavation of the two drywells. On July 14, 2022, after receiving sample results, a new drywell was placed in the location of Former Drywell 2 to allow for stormwater drainage from the parking lot, and the excavation was backfilled and compacted to grade.

It is the opinion of BMEC that the former drywells associated with car washing activities at the subject property no longer represent a recognized environmental condition, and the additional investigation work described in Section 1.1 can proceed.

#### 6.0 Statement of the Environmental Professionals

#### Statement of Quality Assurance

We have performed this Assessment in accordance with generally accepted environmental practices and procedures, as of the date of this report. We have employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area. The conclusions contained within this Assessment are based upon site conditions we readily observed or which were reasonably ascertainable and present at the time of the site inspection.

The conclusions and recommendations stated in this report are based upon personal observations made by employees of BMEC and upon information provided by others. We have no reason to suspect or believe that the information provided by others is inaccurate.

Blue Mountain Environmental Consulting, Inc.

Yancy Meyer, WA USTs Site Assessor

The objective of this Phase II Environmental Site Assessment was to ascertain the potential presence or absence of environmental problems that could impact the subject property, as delineated by the Scope of Work. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted engineering practices in order to accomplish the stated objective. To the best of my knowledge, this site investigation has been performed in compliance with BMEC's Standard Operating Procedures protocol for Environmental Site Assessments.

Blue Mountain Environmental Consulting, Inc.

Hydrogeologist 2267 Geonsed Geo

Brent N. Bergerøn, LHG

## 7.0 Report Limitations

The enclosed site assessment has been performed for the exclusive use of the client, or agents specified by them, for the transaction at issue concerning the subject property, located at 1201 S, 1<sup>st</sup> St., in Yakima, Washington.

The purpose of an environmental investigation is to evaluate potential or actual effects of past or current practices on a given site. In performing an environmental investigation, a balance must be struck between reasonable inquiry into environmental issues and an exhaustive analysis of every conceivable issue of possible concern. This environmental assessment contains BMEC's opinion regarding environmental issues of concern and/or additional issues that may need to be addressed. In rendering our professional opinion, BMEC warrants that the services provided within the scope of this assessment were performed, within the limits described, in accordance with generally accepted environmental consulting principles and practices. No other warranty, expressed or implied, is made. The following paragraphs describe the assumptions and standard parameters under which such opinion is rendered.

Any opinions and/or recommendations presented in this report apply to site conditions existing at the time of performance of services. BMEC is unable to report on or accurately predict events that may affect the site after performance of services, whether occurring naturally or caused by human forces. BMEC assumes no responsibility for conditions BMEC did not investigate, or conditions not generally recognized as environmentally unacceptable at the time services were performed.

Where subsurface work was performed, BMEC's professional opinions are based in part on the interpretation of data from discrete sample locations that may not represent actual conditions at the non-sampled locations.

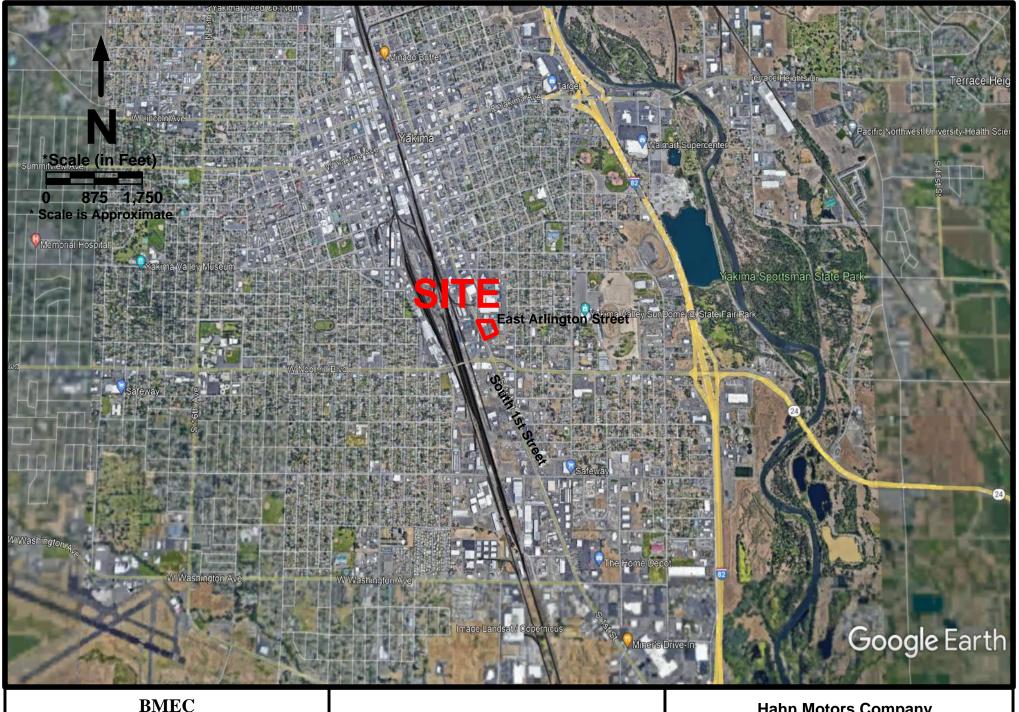
Except where there is expressed concern of our client, or where specific environmental contaminants have previously been reported by others, naturally occurring toxic substances, potential environmental contaminants located inside buildings, or contaminant concentrations not of current environmental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

No assessment is thorough enough to exclude the presence of hazardous materials at a given site. Therefore, if specific hazardous materials have not been identified during this assessment, the lack of such identifications should not be construed as a guarantee of the absence of hazardous materials, but merely as the result of services performed within the scope, limitations, and cost of work done.

BMEC is not responsible for the effects of changes in applicable environmental standards, practices, or regulations after the performance of services.

Services provided for this assessment were performed in accordance with BMEC's agreement and understanding with our client, which may not be fully disclosed in this report. Opinions and/or recommendations are intended for the client, purpose, site, location, time frame, and project parameters indicated.

This report was prepared solely for the use of our client, and should be reviewed in its entirety; BMEC is not responsible for subsequent separation, detachment, or partial use of this document. Any reliance on this report by a third party shall be at such party's sole risk.



BMEC P.O. Box 545/125 Main Street Waitsburg, Washington 99361

FIGURE 1 - SITE VICINITY MAP

Hahn Motors Company 1201 South 1st Street Yakima, Washington 98901



BMEC
P.O. Box 545/125 Main Street
Waitsburg, Washington 99361

FIGURE 2 - SITE LOCATION MAP

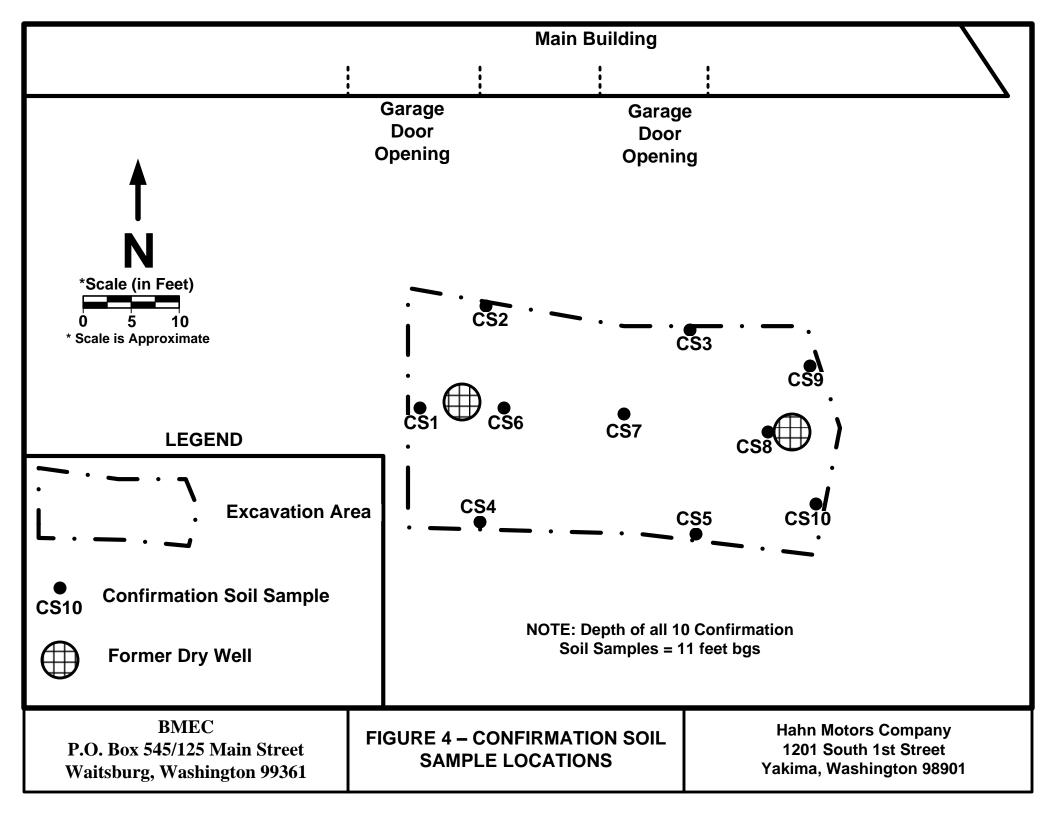
Hahn Motors Company 1201 South 1st Street Yakima, Washington 98901



BMEC
P.O. Box 545/125 Main Street
Waitsburg, Washington 99361

FIGURE 3 – DRY WELL EXCAVATION AREA

Hahn Motors Company 1201 South 1st Street Yakima, Washington 98901



# APPENDIX A

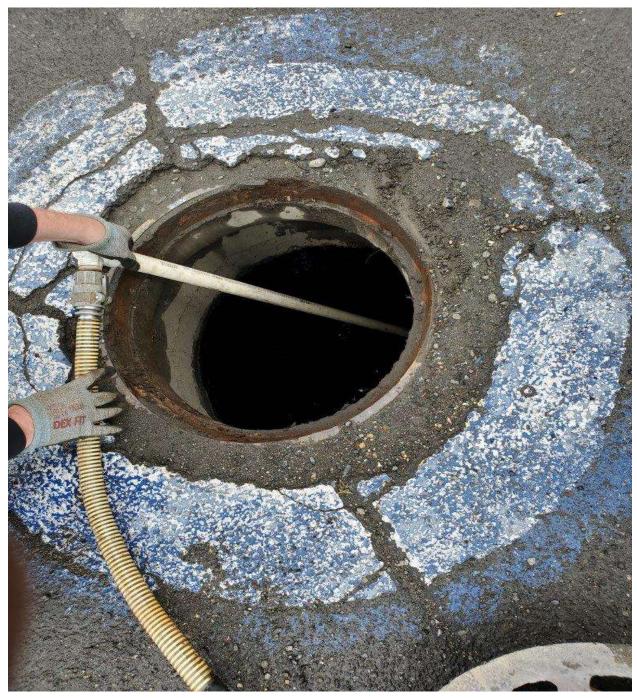
# **PHOTOGRAPHS**



Photograph 1 – Clarke Construction personnel removing lid and assessing Dry Well 2 on July 5, 2022 (facing south).



Photograph 2 – Clarke Construction personnel further assessing Dry Well 2 on July 5, 2022 (facing west).



Photograph 3 – Clark Construction personnel removing liquids from Dry Well 1 on July 5, 2022.



Photograph 4 – Clark Construction personnel removing liquids from Dry Well 2 on July 5, 2022.



Photograph 5 – Dry Well 2 subsequent to removing liquids and some sediment on July 5, 2022.



Photograph 6 – Clarke Construction beginning excavation of Dry Well 1 on July 12, 2022 (facing NW).



Photograph 7 – View of Dry Well 1 subsequent to liquid removal and before removal.



Photograph 8 – Loading contaminated soil in dump truck for disposal on July 12, 2022 (facing NW).



Photograph 9 – Dry well 1 subsequent to soil removal and prior to decommissioning on July 12, 2022 (facing SE).



Photograph 10 – Dry well 1 subsequent to soil removal and prior to decommissioning on July 12, 2022 (facing SW). Note dark stained petroleum-contaminated soil (PCS).



Photograph 11 – Close-up of PCS in vicinity of Dry Well 1.



Photograph 12 – PCS depth in vicinity of Dry Well 1 extending to below 5 feet bgs.



Photograph 13 – Dry Well 1 removed on July 12 2022. Dark stained PCS is evident.



Photograph 14 – Dry Well 1 removed from the ground on July 12, 2022 (facing west).



Photograph 15 – Safety fencing erected on July 12, 2022 (facing west).



Photogrpah 16 – Clarke Construction continuing excavation to east toward Dry Well 2 on July 12, 2022 (facing east).



Photograph 17 – Further excavation to east toward Dry Well 2 on July 13, 2022 (facing south).



Photograph 18 – Continued excavation toward Dry Well 2 on July 13, 2022 (facing SE).



Photograph 15 – Dry Well 2 exposed during PCS excavation on July 13, 2022 (facing SE).



Photograph 16 – Beginning removal of Dry Well 2 on July 13, 2022 (facing NE).



Photograph 17 – Eastern extent of PCS excavation trench on July 13, 2022 (facing NE).



Photograph 18 – Western extent of PCS excavation trench on July 13, 2022 (facing NW).



Photograph 19 – Subsequent to receipt of laboratory analysis indicating clean confirmatory soil samples, backfill and compaction on July 14, 2022 (facing west).



Photograph 20 – New Dry Well being installed near location of former Dry Well 2 on July 14, 2022.



Photograph 21 – View of excavation area after dry well install and backfill, followed by compaction on July 14, 2022 (facing SE).



Photograph 22 – View of new dry well installed on July 14, 2022 (facing NE).

### APPENDIX B

BILLS OF LADING

Masco comich manatiti WASCO COUNTY LANDFILL 2550 Steele Road The Dalles, OR 97058

000297

Clarke Construction, LLC

Site 01

Ticket 00432970

Date In 07/14/22

Time In 05:54:35

Date Out 07/14/22

Time Out 06:17:41

ghmaster:Linda

Ref. KISSLER 15

DESCRIPTION

Scale 3 Gross Wt.

Scale 7 Tare Wt.

95580LB

Vehicle WC-22-164

42840LB Roll-Off

Net Wt.

52740LB

TON

26.37

PETR CONT SOIL - OUT per TON TRUCKING - PER TON per TON

PO # TRAILER #

DRIVER KISSLER 15

Signature	

Masco country manualter WASCO COUNTY LANDFILL 2550 Steele Road The Dalles, OR 97058

000297

Clarke Construction, LLC

Site Ticket 00432969 Date In 07/14/22 Time In 05:45:12

Date Out 07/14/22 Time Out 06:03:18

ghmaster:Linda

Ref. KISSLER 16

DESCRIPTION

Scale 3 Gross Wt. 103660LB

Scale 7 Tare Wt. 42620LB Net Wt.

Vehicle WC-22-164

61040LB

Roll-Off TON

30.52

PETR CONT SOIL - OUT per TON TRUCKING - PER TON per TON

PO # TRAILER #

DRIVER KISSLER 16

Signature	

000297

Clarke Construction, LLC

Site 01

Ticket 00432888 Date In 07/13/22

Time In 11:31:14

Date Out 07/13/22

Time Out 11:56:35

Ref. KISSLER 16

OL A

DESCRIPTION

Scale 3 Gross Wt. Scale 7 Tare Wt.

Net Wt.

97720LB

Vehicle WC-22-164

42240LB Roll-Off

55480LB

TON

27.74

PETR CONT SOIL - OUT per TON TRUCKING - PER TON per TON

PO #

TRAILER #

DRIVER

KISSLER 16

Signature	

000297

Clarke Construction, LLC

Site 01 Ticket 00432746

Date In 07/13/22

Time In 05:55:25

Date Out 07/13/22

Time Out 06:17:59

Weighmaster:Linda

Ref. KISSLER 16

DESCRIPTION

Scale 3 Gross Wt. 113040LB Scale 7 Tare Wt.

Net Wt.

Vehicle WC-22-164

42600LB 70440LB

Roll-Off TON

35.22

PETR CONT SOIL - OUT per TON TRUCKING - PER TON per TON

PO # TRAILER #

DRIVER KISSLER 16

Signature	
-	

Masco coarrey manualta WASCO COUNTY LANDFILL 2550 Steele Road The Dalles, OR 97058

000297

OL A

Clarke Construction, LLC

Site 01

Ticket 00432876

Date In 07/13/22

Time In 11:07:08

Date Out 07/13/22

Time Out 11:38:38

Ref. KISSLER 15

DESCRIPTION

Scale 3 Gross Wt. 104860LB

Scale 7 Tare Wt.

62340LB

Vehicle WC-22-164

42520LB Roll-Off

Net Wt.

TON

31.17

PETR CONT SOIL - OUT per TON TRUCKING - PER TON per TON

PO #

TRAILER #

DRIVER KISSLER 15

Signature	
7	

000297

Clarke Construction, LLC

Site 01

Ticket 00432741

Date In 07/13/22

Time In 05:39:35

Date Out 07/13/22

Time Out 05:57:59

Weighmaster:Linda

Ref. KISSLER 15

DESCRIPTION

Scale 3 Gross Wt. 103840LB

Vehicle WC-22-164

Scale 7 Tare Wt. 42640LB Roll-Off

Net Wt.

61200LB

TON

30.60

PETR CONT SOIL - OUT per TON TRUCKING - PER TON per TON

PO #

TRAILER #

DRIVER KISSLER 15

Signature			

000297

Clarke Construction, LLC

Site

Ticket 00432698 Date In 07/12/22

Time In 13:24:32

Date Out 07/12/22

Time Out 13:47:45

SASHA

Ref. KISSLER 16

DESCRIPTION

Scale 3 Gross Wt. 104100LB

Scale 7 Tare Wt. 42300LB

Vehicle WC-22-164

Roll-Off

Net Wt.

61800LB

TON

30.90

PETR CONT SOIL - OUT per TON TRUCKING - PER TON per TON

PO # TRAILER #

DRIVER KISSLER 16

Signature	

000297

Clarke Construction, LLC

Site 01

Ticket 00432685 Date In 07/12/22 Time In 12:51:01

Date Out 07/12/22

Time Out 13:11:52

SASHA

Ref. KISSLER 15

#### DESCRIPTION

Scale 3 Gross Wt. 104580LB Vehicle WC-22-164 Scale 7 Tare Wt. 42600LB Roll-Off Net Wt.

61980LB

TON

30.99

PETR CONT SOIL - OUT per TON

TRUCKING - PER TON per TON

PO # TRAILER #

DRIVER KISSLER 15

Signature	

### APPENDIX C

# LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION



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

July 14, 2022

Peter Trabusiner Blue Mountain Environmental, Inc. 1500 Adair Drive Richland, WA 99352

Re: Analytical Data for Project E2022-0308; 1201 S. 1st St. Yakima

Laboratory Reference No. 2207-106

#### Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on July 13, 2022.

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: E2022-0308: 1201 S. 1st St. Yakima

#### **Case Narrative**

Samples were collected on July 13, 2022 and received by the laboratory on July 13, 2022. 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.

Project: E2022-0308: 1201 S. 1st St. Yakima

## GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID: 7	'-13-22-CS1-11'					
Laboratory ID:	07-106-01					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.074	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.074	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.074	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.074	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	7.4	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	101	69-130				
Client ID: 7	'-13-22-CS2-11'					
Laboratory ID:	07-106-02					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	6.0	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	101	69-130				
Client ID: 7	'-13-22-CS3-11'					
Laboratory ID:	07-106-03					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.072	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.072	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.072	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.072	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	7.2	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	139	69-130				Q

Project: E2022-0308: 1201 S. 1st St. Yakima

## GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Soil

ome. mg/ng (ppm)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	7-13-22-CS4-11'					
Laboratory ID:	07-106-04					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	5.9	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	96	69-130				
Client ID:	7-13-22-CS5-11'					
Laboratory ID:	07-106-05					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.057	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.057	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.057	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.057	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	5.7	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	97	69-130				
Client ID:	7-13-22-CS6-11'					
Laboratory ID:	07-106-06					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	5.9	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	93	69-130				
	00	00 700				

Project: E2022-0308: 1201 S. 1st St. Yakima

## GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Soil

5 5 (11 )				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	7-13-22-CS10-11'					
Laboratory ID:	07-106-07					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.060	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	6.0	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	110	69-130				
Client ID:	7-13-22-CS7-11'					
Laboratory ID:	07-106-08					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.059	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	5.9	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	69-130				
Client ID:	7-13-22-CS8-11'					
Laboratory ID:	07-106-09					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.070	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.070	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.070	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.070	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	7.0	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	102	69-130				

Project: E2022-0308: 1201 S. 1st St. Yakima

## GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	7-13-22-CS9-11'					
Laboratory ID:	07-106-10					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.073	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.073	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.073	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.073	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	7.3	NWTPH-Gx	7-13-22	7-13-22	

Surrogate: Percent Recovery Control Limits Fluorobenzene 101 69-130

Project: E2022-0308: 1201 S. 1st St. Yakima

#### GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B QUALITY CONTROL

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0713S1					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	5.0	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	82	69-130				
Laboratory ID:	MB0713S2					
Benzene	ND	0.020	EPA 8021B	7-13-22	7-13-22	
Toluene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
Ethylbenzene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
m,p-Xylene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
o-Xylene	ND	0.050	EPA 8021B	7-13-22	7-13-22	
Gasoline	ND	5.0	NWTPH-Gx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits	•		•	
Fluorobenzene	93	69-130				

**RPD** Source Percent Recovery Result Spike Level Limits **RPD** Limit Analyte Result Recovery Flags **DUPLICATE** Laboratory ID: 07-106-01 DUP ORIG Benzene NA NA NA NA NA 30 ND ND Toluene ND ND NA NA NA NA NA 30 Ethylbenzene ND ND NA NA NA NA NA 30 m,p-Xylene ND ND NA NA NA NA NA 30 o-Xylene ND ND NA NA NA NA NA 30 Gasoline ND ND NA NA NA NA NA 30 Surrogate: Fluorobenzene 101 100 69-130 Laboratory ID: 07-106-02 ORIG DUP Benzene ND ND NA NA NA NA NA 30 Toluene NA NA 30 ND ND NA NA NA Ethylbenzene ND ND NA NA NA NA NA 30 m,p-Xylene ND ND NA NA NA NA NA 30 o-Xylene ND ND NA NA NA NA NA 30 Gasoline ND ND NA NA NA NA NA 30 Surrogate: Fluorobenzene 101 101 69-130

Project: E2022-0308: 1201 S. 1st St. Yakima

### DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Soil

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	7-13-22-CS1-11'	i QL	Wictifod	Перигеи	Analyzea	i iugs
Laboratory ID:	07-106-01					
Diesel Range Organics	ND	28	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND	55	NWTPH-Dx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	64	50-150				
Client ID:	7 42 22 662 441					
Client ID:	<b>7-13-22-CS2-11'</b> 07-106-02					
Laboratory ID: Diesel Range Organics	ND	28	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND ND	55	NWTPH-Dx	7-13-22 7-13-22	7-13-22 7-13-22	
	Percent Recovery	Control Limits	INVVIPIT-DX	1-13-22	1-13-22	
Surrogate:	81	50-150				
o-Terphenyl	61	50-150				
Client ID:	7-13-22-CS3-11'					
Laboratory ID:	07-106-03					
Diesel Range Organics	ND	28	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND	55	NWTPH-Dx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	70	50-150				
Olicard ID:	7 40 00 004 441					
Client ID:	7-13-22-CS4-11'					
Laboratory ID:	07-106-04	20	NW/TDLL Dv	7-13-22	7 40 00	
Diesel Range Organics	ND ND	28 56	NWTPH-Dx	7-13-22 7-13-22	7-13-22	
Lube Oil Range Organics			NWTPH-Dx	1-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	60	50-150				
Client ID:	7-13-22-CS5-11'					
Laboratory ID:	07-106-05					
Diesel Range Organics	ND	28	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND	55	NWTPH-Dx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	87	50-150				
Client ID:	7-13-22-CS6-11'					
Laboratory ID:	07-106-06					
	ND	28	NWTPH-Dx	7-13-22	7-13-22	
Diesel Range Organics		28 56	NWTPH-DX NWTPH-Dx			
Lube Oil Range Organics	ND Paraant Pagayanu		ואאא ו געו-חצ	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	82	50-150				

Project: E2022-0308: 1201 S. 1st St. Yakima

## DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	7-13-22-CS10-11'					
Laboratory ID:	07-106-07					
Diesel Range Organics	ND	27	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND	54	NWTPH-Dx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	77	50-150				
Client ID:	7-13-22-CS7-11'					
Laboratory ID:	07-106-08					
Diesel Range Organics	ND	28	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND	56	NWTPH-Dx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	71	50-150				
Client ID:	7-13-22-CS8-11'					
Laboratory ID:	07-106-09					
Diesel Range Organics	ND	27	NWTPH-Dx	7-13-22	7-14-22	
Lube Oil Range Organics	ND	54	NWTPH-Dx	7-13-22	7-14-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	84	50-150				
Client ID:	7-13-22-CS9-11'					
Laboratory ID:	07-106-10					
Diesel Range Organics	ND	28	NWTPH-Dx	7-13-22	7-14-22	<del></del>
Lube Oil Range Organics	ND	56	NWTPH-Dx	7-13-22	7-14-22	
Lube Oil Range Organics Surrogate:	ND Percent Recovery	56 Control Limits	NWTPH-Dx	7-13-22	7-14-22	

Project: E2022-0308: 1201 S. 1st St. Yakima

#### DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0713S2					
Diesel Range Organics	ND	25	NWTPH-Dx	7-13-22	7-13-22	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-13-22	7-13-22	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	88	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	SB07	13S2								
	ORIG	DUP								
Diesel Fuel #2	95.4	87.2	NA	NA		NA	NA	9	NA	
Surrogate:										
o-Terphenyl						96 90	50-150			

Project: E2022-0308: 1201 S. 1st St. Yakima

#### TOTAL METALS EPA 6010D

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	7-13-22-CS1-11'					
Laboratory ID:	07-106-01					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.55	EPA 6010D	7-13-22	7-13-22	
Chromium	ND	0.55	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.5	EPA 6010D	7-13-22	7-13-22	
Client ID:	7-13-22-CS2-11'					
Laboratory ID:	07-106-02					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.55	EPA 6010D	7-13-22	7-13-22	
Chromium	12	0.55	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.5	EPA 6010D	7-13-22	7-13-22	
Client ID:	7-13-22-CS3-11'					
Laboratory ID:	07-106-03					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.55	EPA 6010D	7-13-22	7-13-22	
Chromium	11	0.55	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.5	EPA 6010D	7-13-22	7-13-22	
Client ID:	7-13-22-CS4-11'					
Laboratory ID:	07-106-04					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.56	EPA 6010D	7-13-22	7-13-22	
Chromium	9.3	0.56	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.6	EPA 6010D	7-13-22	7-13-22	
Client ID:	7-13-22-CS5-11'					
Laboratory ID:	07-106-05					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.55	EPA 6010D	7-13-22	7-13-22	
Chromium	13	0.55	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.5	EPA 6010D	7-13-22	7-13-22	

Project: E2022-0308: 1201 S. 1st St. Yakima

#### TOTAL METALS EPA 6010D

Matrix: Soil

<b>5 6 11 1</b>				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	7-13-22-CS6-11'					
Laboratory ID:	07-106-06					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.56	EPA 6010D	7-13-22	7-13-22	
Chromium	11	0.56	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.6	EPA 6010D	7-13-22	7-13-22	
Client ID:	7-13-22-CS10-11'					
Laboratory ID:	07-106-07					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.54	EPA 6010D	7-13-22	7-13-22	
Chromium	8.7	0.54	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.4	EPA 6010D	7-13-22	7-13-22	
Olford ID.	7 40 00 007 441					
Client ID:	7-13-22-CS7-11'					
Laboratory ID:	07-106-08					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.55	EPA 6010D	7-13-22	7-13-22	
Chromium	9.0	0.55	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.5	EPA 6010D	7-13-22	7-13-22	
Client ID:	7-13-22-CS8-11'					
Laboratory ID:	07-106-09					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.54	EPA 6010D	7-13-22	7-13-22	
Chromium	6.9	0.54	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.4	EPA 6010D	7-13-22	7-13-22	
Client ID:	7-13-22-CS9-11'					
Laboratory ID:	07-106-10					
Arsenic	ND	11	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.56	EPA 6010D	7-13-22	7-13-22	
Chromium	7.8	0.56	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.6	EPA 6010D	7-13-22	7-13-22	

Project: E2022-0308: 1201 S. 1st St. Yakima

#### TOTAL METALS EPA 6010D QUALITY CONTROL

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0713SM2					
Arsenic	ND	10	EPA 6010D	7-13-22	7-13-22	
Cadmium	ND	0.50	EPA 6010D	7-13-22	7-13-22	
Chromium	ND	0.50	EPA 6010D	7-13-22	7-13-22	
Lead	ND	5.0	EPA 6010D	7-13-22	7-13-22	

Analyte	Res	sult	Spike	Level	Source Result	_	rcent covery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-3	39-01									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Cadmium	ND	ND	NA	NA			NA	NA	NA	20	
Chromium	17.9	15.9	NA	NA			NA	NA	12	20	
Lead	ND	ND	NA	NA			NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	06-3	39-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	96.9	94.3	100	100	ND	97	94	75-125	3	20	

Laboratory ID:	06-3	39-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	96.9	94.3	100	100	ND	97	94	75-125	3	20	
Cadmium	48.3	48.0	50.0	50.0	ND	97	96	75-125	1	20	
Chromium	113	111	100	100	17.9	95	94	75-125	1	20	
Lead	247	247	250	250	ND	99	99	75-125	0	20	

Project: E2022-0308: 1201 S. 1st St. Yakima

#### **% MOISTURE**

Client ID	Lab ID	% Moisture	Date Analyzed
7-13-22-CS1-11'	07-106-01	9	7-13-22
7-13-22-CS2-11'	07-106-02	9	7-13-22
7-13-22-CS3-11'	07-106-03	9	7-13-22
7-13-22-CS4-11'	07-106-04	10	7-13-22
7-13-22-CS5-11'	07-106-05	10	7-13-22
7-13-22-CS6-11'	07-106-06	10	7-13-22
7-13-22-CS10-11'	07-106-07	8	7-13-22
7-13-22-CS7-11'	07-106-08	10	7-13-22
7-13-22-CS8-11'	07-106-09	8	7-13-22
7-13-22-CS9-11'	07-106-10	11	7-13-22



#### **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.
- X2 Sample extract treated with a 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.
- Y1 Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





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					7/15/22 1425	1425×1425	1-12-7 IIIII	<									×	NWTP NWTP Volatil	PH-Gx PH-Dx ( es 826) enated	Acid / S	SG Clea	n-up 🗌	)	
Chromatograms with final report $\square$ Electronic Data Deliverables (EDDs) $\square$	Data Package: Standard ☐ Level III ☐ Level IV ☐						commens/operal manuellons	Comments/Special Instructions								-	× × × ×	(with In PAHs PAHs PCBs Organ Organ Chloria Total F Total M TCLP HEM (	8082  ochlori ophosp nated A  RCRA N  MTCA N  Metals  ooil and	ne Pes  phorus  Aletals  Grease  CAD	s) v-level) tticides 8 Pesticid erbicides	8151		