FULCRUM
environmental consulting

Whitten Oil
Groundwater Monitoring
September 2019
Sampling Report

Whitty's Chevron
370 West 5th Avenue
Colville, Washington 99114

Project Number: 172206.00

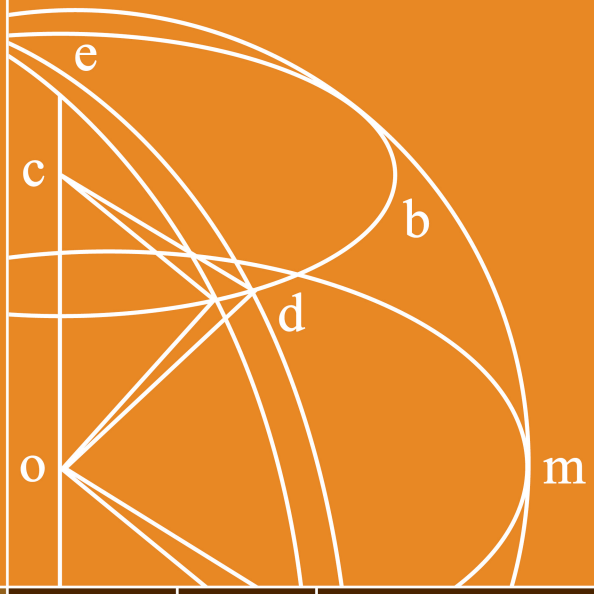
Date: October 18, 2019

Prepared for:

Jeff Whitten
1118 27th Avenue
Seattle, Washington 98122

Prepared by:

Fulcrum Environmental Consulting, Inc.
207 West Boone Avenue
Spokane, Washington 99201



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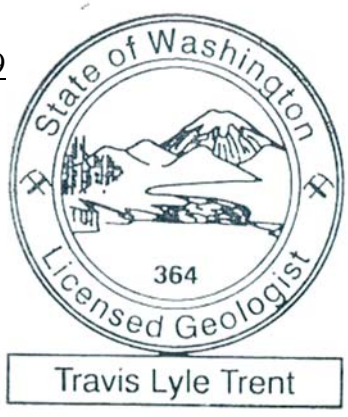
207 West Boone Avenue
Spokane, Washington 99201
509.459.9220

The professionals who completed site services and prepared and reviewed this report include, but are not limited to:

Authored by: _____ Date: 10/18/2019
Scott Groat, GIT
Environmental Geologist

Reviewed by: _____ Date: 10/18/2019
Travis Trent, PG, CIH
Principal



Report Integrity

Fulcrum Environmental Consulting, Inc.'s scope of service for this project was limited to those services as established in the proposal, contract, verbal direction, and/or agreement. This report is subject to applicable federal, state, and local regulations governing project-specific conditions and was performed using recognized procedures and standards of the industry. Scientific data collected in situ may document conditions that may be specific to the time and day of service, and subject to change as a result of conditions beyond Fulcrum's control or knowledge. Fulcrum makes no warranties, expressed or implied, as to the accuracy or completeness of other's work included herein. Fulcrum has performed these services in accordance with generally accepted environmental science standards of care at the time of the inspection. No warranty, expressed or implied, is made.

TABLE OF CONTENTS

SECTION		PAGE
1.0	INTRODUCTION	1
1.1	Scope of Services	1
1.2	Site Description	1
1.3	Site Hydrogeology	2
1.4	Background	2
2.0	DISCUSSION OF PERTINENT REGULATIONS AND GUIDANCE	3
2.1	MTCA Regulations	3
2.2	MTCA Cleanup Standards	4
3.0	FIELD ACTIVITIES	4
3.1	Groundwater Sampling	4
4.0	RESULTS	5
4.1	Laboratory Analytical Results	5
4.2	Diesel-Range and Heavy Oil-Range Extended Organics	7
4.3	Gasoline-Range Extended Organics	7
4.4	Benzene, Toluene, Ethylbenzene and Xylenes	7
4.5	Hydraulic Results	8
4.6	Data Quality	8
5.0	DISCUSSION	8
6.0	RECOMMENDATIONS	9

TABLES

Table 1: Whitty's Chevron Groundwater Analytical Results for September 17, 2019 6

FIGURES

Figure 1 Site Location Map
Figure 2 Historic Site Diagram Map
Figure 3 Site Diagram Map
Figure 4 Groundwater Elevation Map

APPENDICES

Appendix A Professional Certifications
Appendix B Summary of Historical Data
Appendix C 2005 Soil Sampling Results
Appendix D Laboratory Analytical Results

1.0 INTRODUCTION

On September 17, 2019, Fulcrum Environmental Consulting, Inc. (Fulcrum) completed a semiannual Groundwater Monitoring Event at Whitty's Chevron located at 370 West 5th Avenue in Colville, Washington. Monitoring was conducted to evaluate petroleum hydrocarbon impacts to site groundwater associated with a historic gasoline release identified in September 1989. Figure 1 presents a general Site Location Map.

Site services were completed by Scott Groat and Amanda Biondi, both Washington State-recognized Geologists-In-Training with Fulcrum. Work was completed under the direction of Travis Trent, a Washington State Licensed Geologist/Hydrogeologist and Principal with Fulcrum. Relevant professional certifications are presented in Appendix A.

1.1 Scope of Services

Fulcrum has been retained by Whitten Oil (Whitten) to complete semi-annual groundwater sampling services utilizing existing onsite groundwater monitoring wells at Whitty's Chevron located at 370 West 5th Avenue in Colville, Washington. Each semi-annual sampling event consists of measurement of water depths in five (5) on-site groundwater monitoring wells followed by collection of water samples from each well. Samples are collected in accordance with industry standard of care and submitted under chain of custody to a Washington State accredited laboratory to be analyzed for benzene, toluene, ethyl benzene, xylene (BTEX), and gasoline, diesel, and heavy oil range petroleum hydrocarbons. Results of the investigation and testing from March 2019, are presented in this summary report.

1.2 Site Description

The site is located on the northeast corner of West Fifth Avenue (U.S. Highway 395) and North Lincoln Street in Colville, Washington. The subject facility functions as an active gasoline service station and car wash. One (1) refueling area containing one (1) dispenser island was observed to be located south of the office building, while another gasoline/diesel refueling area containing two (2) dispenser islands was observed to be located north of the office building. A newer appearing dispensing island is located southeast of the office building. Four (4) operational underground storage tanks (UST) were reported to be located west of the office building within the southern portion of the property: two 10,000-gallon diesel tanks, one 6,000-gallon premium gasoline tank, and one 10,000-gallon unleaded gasoline tank. A six-bay carwash station is located northwest of the office building.

The entire surface of the property was observed to be covered by concrete or asphalt with the exception of a small area immediately east of the office building which was finished with gravel. Historic reports indicates that beneath the paved surface are 3 to 8 feet (ft) of sandy fill material underlain by fine-grained alluvium down to 14.5 feet below ground surface (ft bgs).

1.3 Site Hydrogeology

The site sits approximately 1,586 feet (ft) above mean sea level (MSL). The inferred groundwater flow direction is to the northwest, generally following surface topography of the area, with a hydraulic gradient of 0.014.

During Fulcrum's investigation, recorded site groundwater levels ranged from 4.95 to 5.85 ft bgs.

1.4 Background

The following information is summarized in part from prior project reporting provided by the owner. Fulcrum has made no independent investigation to verify accuracy of provided historic site information. A copy of select representative historic documentation is provided in Appendix B.

The subject facility has been in operation as a service station or bulk plant since the 1950s. Whitten Oil began operation around 1973, and the carwash was constructed around 1988. In September 1989, Petroleum Equipment Sales, Inc. (PES) was reportedly retained to decommission and replace onsite USTs during the construction of a new tank basin. Sunrise Environmental Services (SES) was reportedly retained by PES to observe the removal of the USTs and provide recommendations for corrective action. PES reportedly removed a total of six (6) USTs from the site with one (1) UST abandoned in place due to its location beneath the onsite office building. Three (3) of the USTs were reported to have been suspect for leakage. Approximately 1,200 cubic yards of petroleum-contaminated soil was removed along with the USTs.

Following removal of the USTs and associated contaminated soils, additional site investigation was conducted to evaluate the potential for residual soil and/or groundwater impact. In January 1990, Delta Environmental Consultants (Delta) supervised drilling activities performed by Budinger & Associates. Six (6) soil borings were drilled in suspected areas of petroleum hydrocarbon contamination to investigate for potential petroleum hydrocarbon impact to site soils/groundwater. The depth of soil borings ranged from 10 to 14.5 ft bgs. Soil samples were collected at five-foot intervals during the advancement of soil borings. Soil samples that exhibited a petroleum hydrocarbon odor were submitted to Technology Laboratory, Inc. of Fort Collins, Colorado for benzene, toluene, ethylbenzene, xylenes (BTEX) and total hydrocarbon analyses. Laboratory analysis identified petroleum hydrocarbons in only one of the collected samples (SB-

5). Concentrations were reportedly below Washington State Department of Ecology's specified guidelines at the time.

All soil borings, with the exception of SB-5, were completed as groundwater monitoring wells, and groundwater samples were collected and submitted to Technology Laboratory, Inc. of Fort Collins, Colorado for BTEX and total hydrocarbon analyses. Laboratory analyses for BTEX and total hydrocarbons indicated that the groundwater had been impacted at the subject site. The highest hydrocarbon concentrations were detected in groundwater samples from monitoring wells MW-2 and MW-4, which were located in close proximity to the former UST basin. Detectable hydrocarbon concentrations were also found in downgradient monitoring well MW-6. It was Delta's professional opinion that site conditions posed little threat to humans or the environment due to tight soil conditions, thus preventing contamination from migrating off site. Therefore, no significant remedial action was recommended. Locations of the historic soil borings, monitoring wells, and approximate areas of excavation are presented as Figure 2. Historic soil boring and groundwater monitoring data is presented as Appendix B.

In December 2005, additional soil sampling was conducted by Northwest Environmental Solutions, Inc. to facilitate the change in ownership for the subject site. The investigation consisted of five (5) soil borings drilled in areas proximal to regions of historic soil work or current UST presence. The depth of the soil borings ranged from 5 to 15 ft bgs. One soil sample was collected at the bottom of each soil boring. All five (5) soil samples were submitted to Spectra Laboratories of Tacoma, Washington for lead, methyl tert-butyl ether (MTBE), BTEX, and for concentrations of diesel-range hydrocarbons by Northwest Total Petroleum Hydrocarbons as diesel (NWTPH-Dx), as oil (NWTPH-Oil), and as gasoline (NWTPH-Gx). Detectable analytes (gasoline range petroleum hydrocarbons, ethyl benzene, toluene, xylene, and lead) were reported in soil boring 2-A and (toluene and xylene) were detected in soil borings 2-C and 2-D; all below MTCA Method A cleanup levels for soil. The 2005 historic soil boring results and locations are presented as Appendix C.

2.0 DISCUSSION OF PERTINENT REGULATIONS AND GUIDANCE

2.1 MTCA Regulations

In Washington State, MTCA Cleanup Regulations became effective in March of 1989, with amended MTCA Cleanup Regulations effective in February of 2001. The MTCA Cleanup Regulations set standards to ensure quality of cleanup and protection of human health and the environment.

A major portion of the MTCA regulations are the development of numerical cleanup standards and requirements for cleanup actions. MTCA establishes three options for site-specific cleanup levels: Method A, B, and C. Method A defines cleanup levels for 25 to 30 of the most common hazardous substances found in soil and groundwater. Method B cleanup levels are established using applicable state and federal laws, risk assessment equations, and other requirements specified for each medium. Method C is similar to Method B, but cleanup levels are based on less stringent exposure assumptions, and the lifetime cancer risk is set at 1 in 100,000 rather than 1 in 1,000,000.

2.2 MTCA Cleanup Standards

Contaminants of concern at the subject site are gasoline-range hydrocarbons, diesel-range hydrocarbons, and BTEX, for which regulatory cleanup limits are provided under MTCA Method A. Based on the contaminants released at the subject site, the Method A Cleanup Levels are the most appropriate and conservative for determining site cleanup.

3.0 FIELD ACTIVITIES

3.1 Groundwater Sampling

On September 17, 2019, Fulcrum completed groundwater sampling of the following five (5) monitoring wells; CW-01, CW-02, MW-03, MW-04, and MW-06. Five (5) groundwater samples (WOS-091719-CW01, -CW02, -MW03, -MW04, -MW06) and one (1) field duplicate sample (WOS-091719-MW07) were collected for a total of six (6) groundwater samples. Prior to sample collection, Fulcrum measured the depth to groundwater (DTW) and depth to bottom (DTB) utilizing an electronic water level indicator accurate to ± 0.01 foot. Elevation corrections were made using wellhead elevation data from the subject site. Sampling activities were completed using a peristaltic pump or submersible pump and field water quality instruments. In each location the monitoring well was either pumped dry or for a minimum of three well volumes. Field parameters were measure prior to, during, and following completion of the monitoring well pumping to ensure that they stabilized indicating that sampled water was representative of groundwater.

Fulcrum noted that select samples had a high opacity indicative of elevated suspended solids. Potential exists for groundwater sample results to be impacted by contaminants adhered to particulate mater present in the affected samples.

Samples were placed in a pre-cooled ice chest and shipped under standard chain-of-custody for analysis to Fremont Analytical Inc. (Fremont); a Washington State certified laboratory located in Seattle, Washington. Personnel conducting analysis are trained in accordance with the laboratory's internal quality assurance/quality control (QA/QC) policy. A site diagram map is presented as Figure 3.

4.0 RESULTS

4.1 Laboratory Analytical Results

All groundwater samples were analyzed for concentrations of gasoline-range hydrocarbons by Northwest Total Petroleum Hydrocarbons as Gasoline (NWTPH-Gx), diesel-range hydrocarbons by Northwest Total Petroleum Hydrocarbons as diesel (NWTPH-Dx), and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260c. Table 1 summarizes sample identification, locations, and analyte concentrations, which are reported in micrograms per liter (µg/L). Copies of current laboratory analytical results are presented in Appendix D.

Table 1: Whitty's Chevron Groundwater Analytical Results for September 17, 2019

Location	Sample Number	Groundwater Elevation[1]	Results (µg/L)						
			NWTPH-Dx		NWTPH-Gx	Benzene	Toluene	Ethyl-benzene	Xylene
			Diesel–range hydrocarbons	Heavy oil-range hydrocarbons					
CW-01	WOS-091719-CW01	93.65	63.3	ND	ND	ND	ND	ND	ND
CW-02	WOS-091719-CW02	93.46	ND	ND	ND	ND	ND	ND	ND
MW-03	WOS-091719-MW03	93.01	ND	ND	67.3	ND	ND	ND	ND
MW-04	WOS-091719-MW04	93.35	188	293	744	**5.06**	ND	3.05	1.14
	WOS-091719-MW07		181	310	780	**5.09**	ND	3.08	1.16
MW-06	WOS-091719-MW06	92.32	ND	**1,440**	90.2	ND	ND	ND	ND
MTCA Cleanup Levels[2]			500[+]		800[*]	5	1,000	700	1,000

Bold – MTCA Method A exceedance
ND – Nondetect
µg/L – Micrograms per liter (µg/L), equivalent to parts per billion (ppb)
[1]Elevations are based on an arbitrary datum of 100.00 feet
[2]Model Toxic Cleanup Act Method A Cleanup Levels for groundwater in µg/L, as established by the Washington State Department of Ecology
*Established cleanup level when benzene is present in groundwater
+ Diesel-range and heavy oil-range hydrocarbon concentrations are combined together per MTCA Method A cleanup standards for groundwater

4.2 Diesel-Range and Heavy Oil-Range Extended Organics

Laboratory analytical results report non-detect concentrations of diesel-range hydrocarbons in monitoring well MW-06, laboratory analytical results report detectable concentrations for heavy oil-range hydrocarbons in monitoring well MW-06 at 1,440 µg/L which is above the MTCA Method A cleanup level of 500 µg/L.

Laboratory analytical results report detectable concentrations of diesel-range hydrocarbons in monitoring well MW-04 at 188 µg/L. laboratory analytical results report detectable concentrations for heavy oil-range hydrocarbons in monitoring well MW-04 at 293 µg/L. Heavy oil-range hydrocarbon concentrations combined with the diesel-range hydrocarbon concentrations yields a total of 481 µg/L which is below the MTCA Method A cleanup level of 500 µg/L.

Laboratory analytical results report detectable concentrations of diesel-range hydrocarbons in monitoring well CW-01 at 63.3 µg/L and laboratory analytical results report non-detect concentrations for heavy oil-range hydrocarbons which is below the MTCA Method A cleanup level of 500 µg/L. Heavy oil-range hydrocarbon concentrations combined with the diesel-range hydrocarbon concentrations yields a total of 63.3 µg/L which is below the MTCA Method A cleanup level of 500 µg/L.

Laboratory analytical results report non-detect concentrations for diesel-range hydrocarbons and heavy oil-range hydrocarbons by NWTPH-Dx for monitoring wells CW-02 and MW-03.

4.3 Gasoline-Range Extended Organics

Laboratory analytical results report detectable concentrations of gasoline-range hydrocarbons by NWTPH-Gx for monitoring wells MW-03 at 67.3 µg/L, MW-04 at 744 µg/L and 780 µg/L, and MW-06 at 90.2, which are all below the MTCA Method A cleanup level of 800 µg/L.

Laboratory analytical results report non-detect concentrations of gasoline-range hydrocarbons by NWTPH-Gx for monitoring wells CW-01 and CW-02.

4.4 Benzene, Toluene, Ethylbenzene and Xylenes

Laboratory analytical results report detectable concentrations of benzene for monitoring well MW-04 at 5.06 µg/L which is above the MTCA Method A cleanup level of 5 µg/L.

Laboratory analytical results report detectable concentrations of ethyl-benzene for monitoring well MW-04 at 3.05 µg/L which is below the MTCA Method A cleanup level of 700 µg/L.

Laboratory analytical results report detectable concentrations of xylenes for monitoring well MW-04 at 1.14 µg/L which is both below the MTCA Method A cleanup level of 1,000 µg/L.

Laboratory analytical results report non-detect concentrations for BTEX in monitoring wells CW-01, CW-02, MW-04, and MW-06.

4.5 Hydraulic Results

The groundwater flow direction, as determined by this sampling and monitoring event, is northwest with a hydraulic gradient of 0.014 (0.45-ft change in groundwater depth over 33-feet), which is consistent with site geomorphology. A groundwater elevation map is presented as Figure 4.

4.6 Data Quality

Samples were shown as received by the laboratory at an acceptable temperature. Results for Fulcrum's field duplicate were within an acceptable range of variance. Qualifiers were not present in the laboratory quality control (QC) sample results report. Based on reported analytical results, identified cleanup standards, and the absence of lab data qualifiers, it is Fulcrum's opinion that field and laboratory data quality results confirm acceptable accuracy of analytical data.

5.0 DISCUSSION

Review of current groundwater analytical data indicates the following:

- **CW-01:** Analytical results for groundwater samples collected from CW-01 reported detectable concentrations of diesel-range hydrocarbons below MTCA Method A cleanup levels. Analytical results for groundwater samples report non-detectable concentrations for heavy oil-range hydrocarbons, gasoline-range hydrocarbons, benzene, toluene, ethyl-benzene, and xylene at the laboratory method detection limit.
- **CW-02:** Analytical results for groundwater samples collected from the CW-02 reported non-detectable concentrations for diesel-range hydrocarbons, heavy oil-range hydrocarbons, gasoline-range hydrocarbons, benzene, toluene, ethyl benzene and xylene at the laboratory method detection limit.
- **MW-03:** Analytical results for groundwater samples collected from MW-03 reported detectable concentrations for gasoline-range organics below the MTCA Method A cleanup

levels. Analytical results for groundwater samples collected from MW-03 reported non-detectable concentrations for diesel-range hydrocarbons, heavy oil-range hydrocarbons, benzene, toluene, ethyl-benzene, and xylenes below the MTCA Method A cleanup levels, and reported non-detectable concentrations for heavy oil at the laboratory method detection limit.

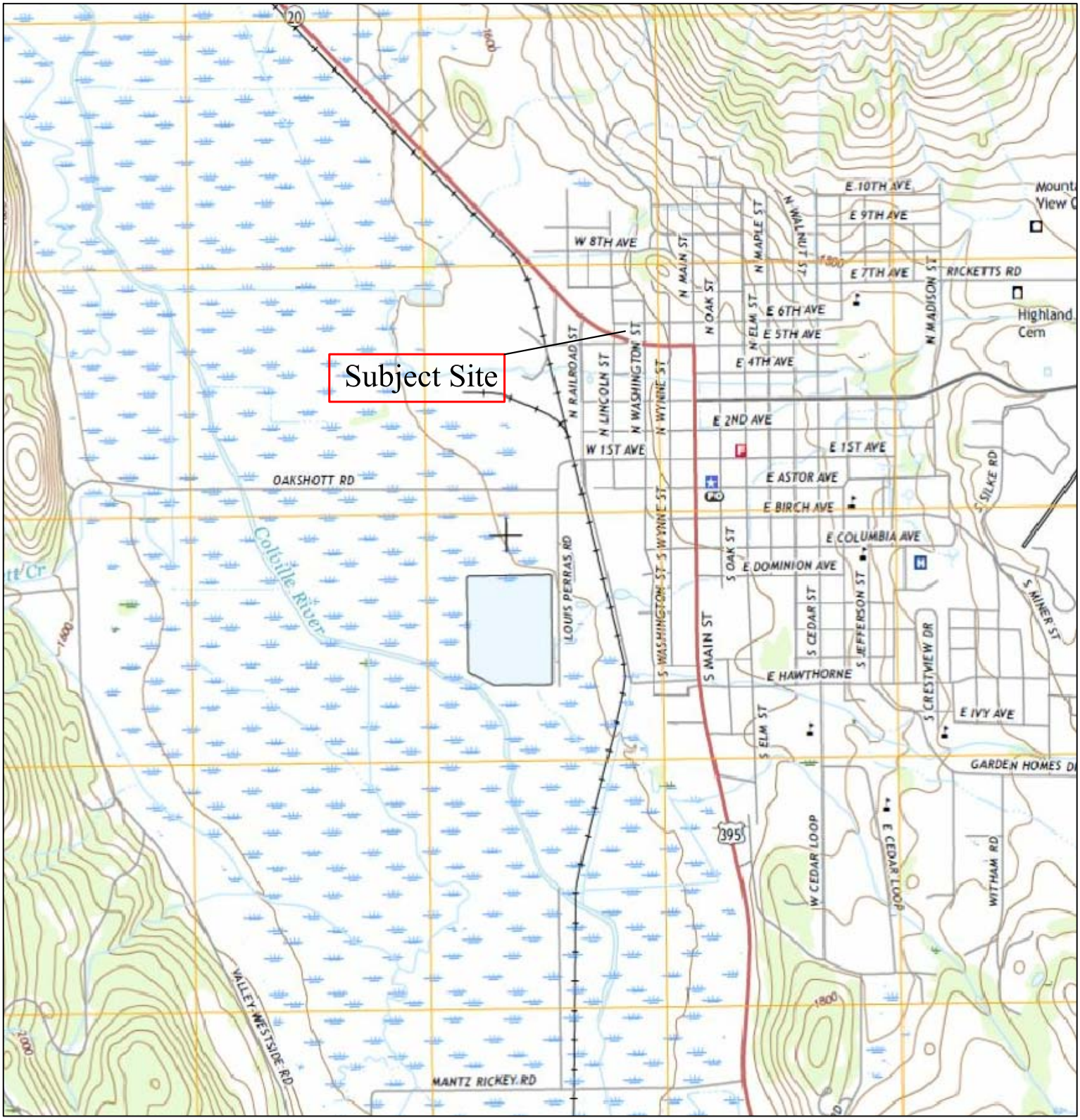
- **MW-04:** Analytical results for the groundwater samples collected from MW-04 reported concentrations of **benzene above MTCA Method A cleanup levels**. Analytical results for groundwater samples collected from MW-04 report detectable concentrations of diesel-range hydrocarbons, heavy oil-range hydrocarbons, gasoline-range hydrocarbons, benzene, ethyl benzene, and xylene below MTCA Method A cleanup levels, and reported non-detectable concentrations for toluene.
- **MW-06:** Analytical results for groundwater samples collected from MW-06 reported detectable concentrations of **heavy oil-range hydrocarbons above MTCA Method A cleanup levels**. Analytical results reported detectable concentrations of gasoline-range hydrocarbons below MTCA Method A cleanup levels, and reported non-detectable concentrations for diesel-range hydrocarbons, benzene, toluene, ethyl-benzene, and xylenes at the laboratory method detection limit.

The September 2019 groundwater analytical data indicates contaminant concentrations in all wells to be below MTCA method A cleanup levels with the exception of benzene in MW-04 and heavy oil-range hydrocarbons in MW-06.

6.0 RECOMMENDATIONS

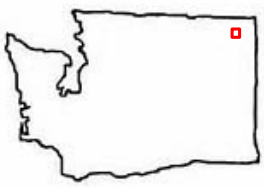
Based on the results of this investigation, Fulcrum recommends continuing semiannual monitoring frequency for the existing groundwater monitoring. Fulcrum also recommends that testing methodology be reviewed to determine whether filtered sampling would be more appropriate to characterize groundwater condition at the site.

FIGURES



LEGEND

Map Location



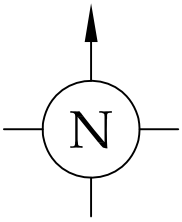
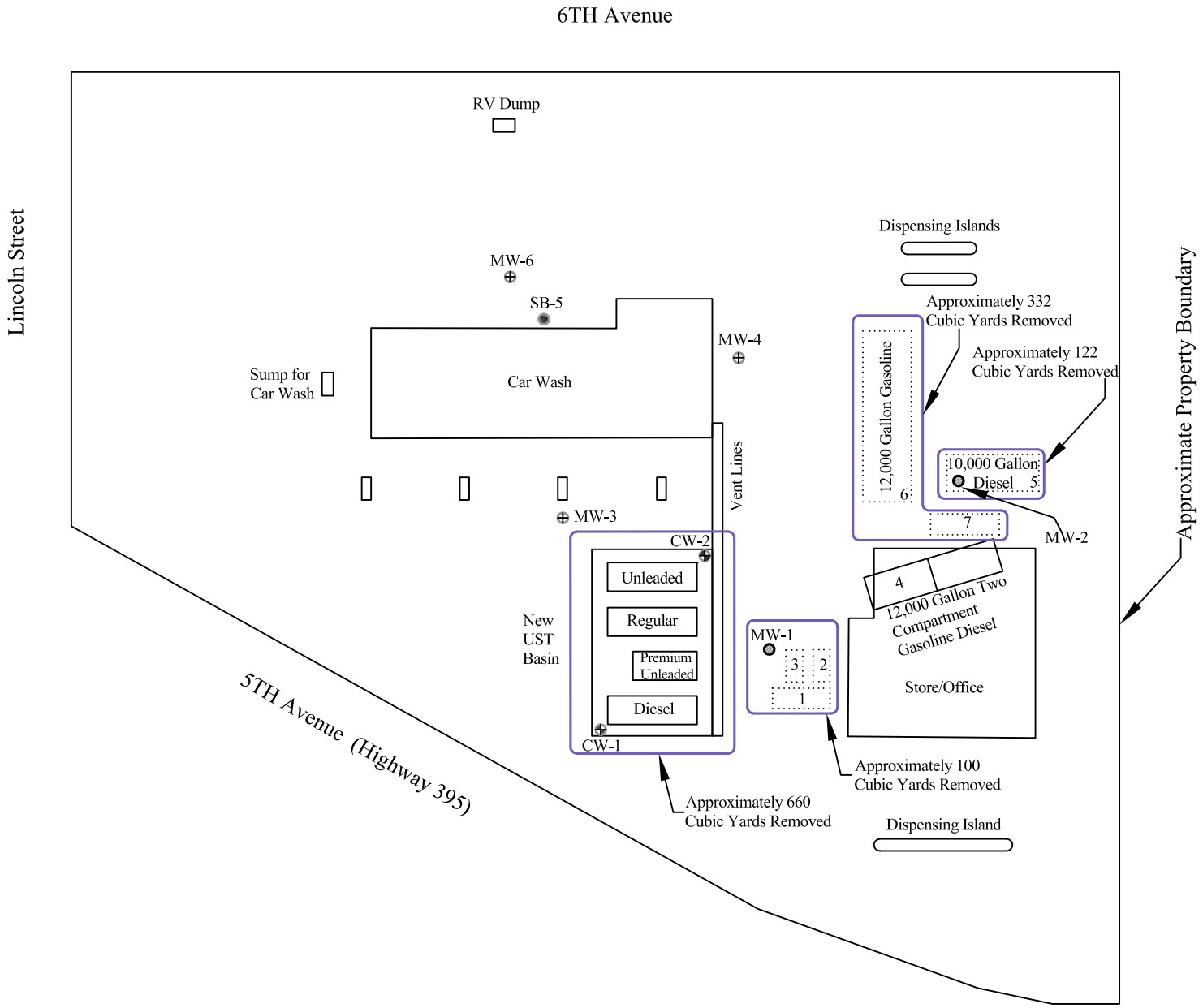


Figure 1: General Site Location Map

Second Semi-annual Groundwater Sampling Event September 2019
Whitty's Chevron
370 West 5th Avenue
Colville, Washington

FULCRUM ENVIRONMENTAL CONSULTING, INC.
207 W. BOONE AVENUE
SPOKANE, WASHINGTON 99201
(509) 459-9220 www.efulcrum.net

MAP BY: S. Groat	PROJECT NUMBER: 172206.00
DATE: October 3, 2019	REVIEWED BY: T. Trent



LEGEND

- Approximate extent of soil excavation
- Existing onsite UST
- Historic UST removed from site
- Historic Soil Boring
- Historic Monitoring Well
- Existing onsite Monitoring Well
- Existing onsite Compliance Well

N

0 30

Approximate Scale In Feet

Figure 2: Historic USTs, Soil Borings, and Monitoring Wells Site Diagram Map

Second Semi-annual Groundwater Sampling Event September 2019
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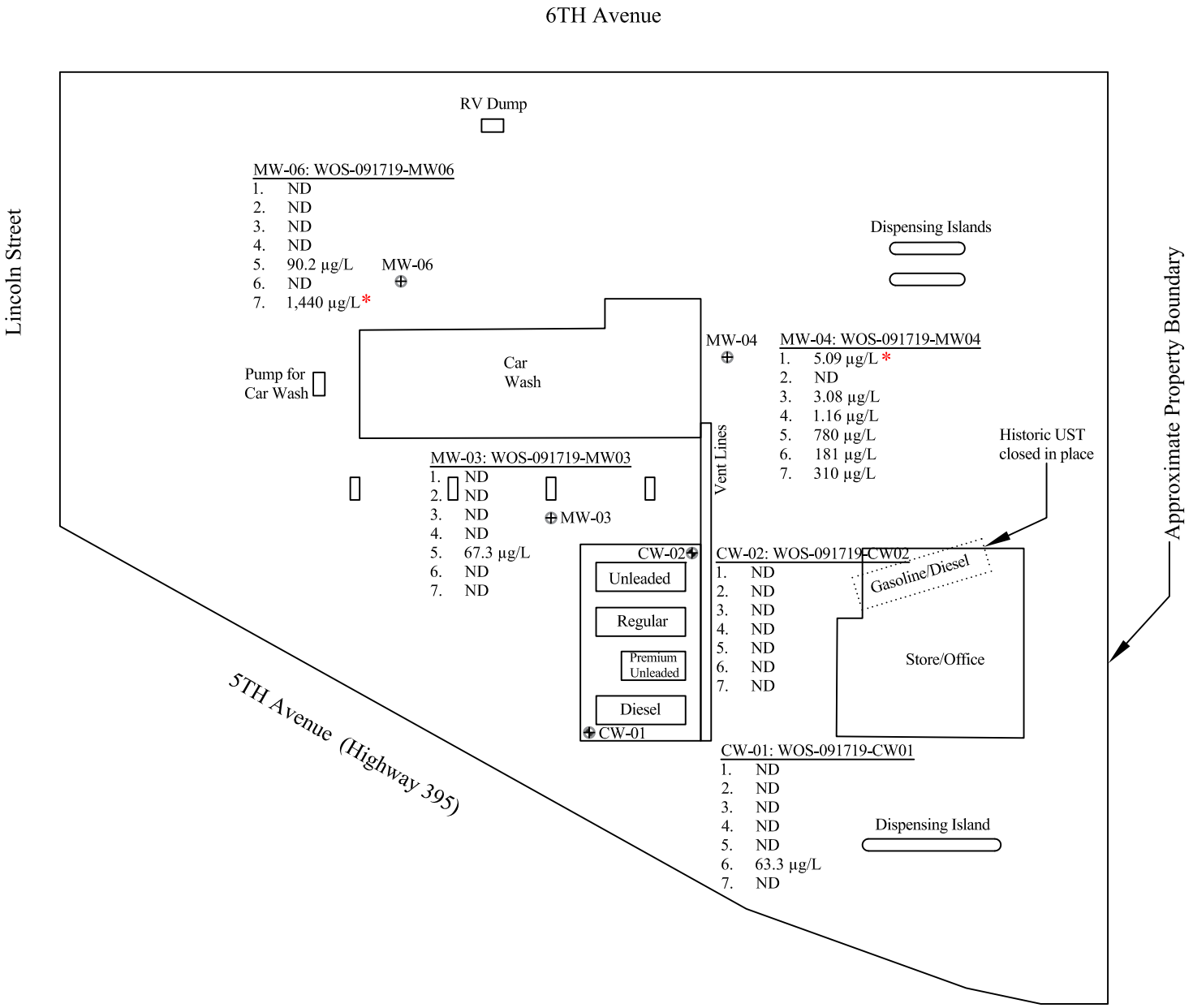

LEGEND

Parameters (µg/L)
1. Benzene
2. Toluene
3. Ethyl-benzene
4. Xylenes
5. NWTPH-GX
6. Diesel Range Organics
7. Heavy Oil

⊕ Monitoring Well

⊕ Compliance Well

* Analyte Concentration Exceeds MTCA Method A Cleanup Level

N

0 30

Approximate Scale In Feet

Figure 3: Site Diagram Map

Second Semi-annual Groundwater Sampling Event September 2019
Whitty's Chevron
370 West 5th Avenue
Colville, Washington

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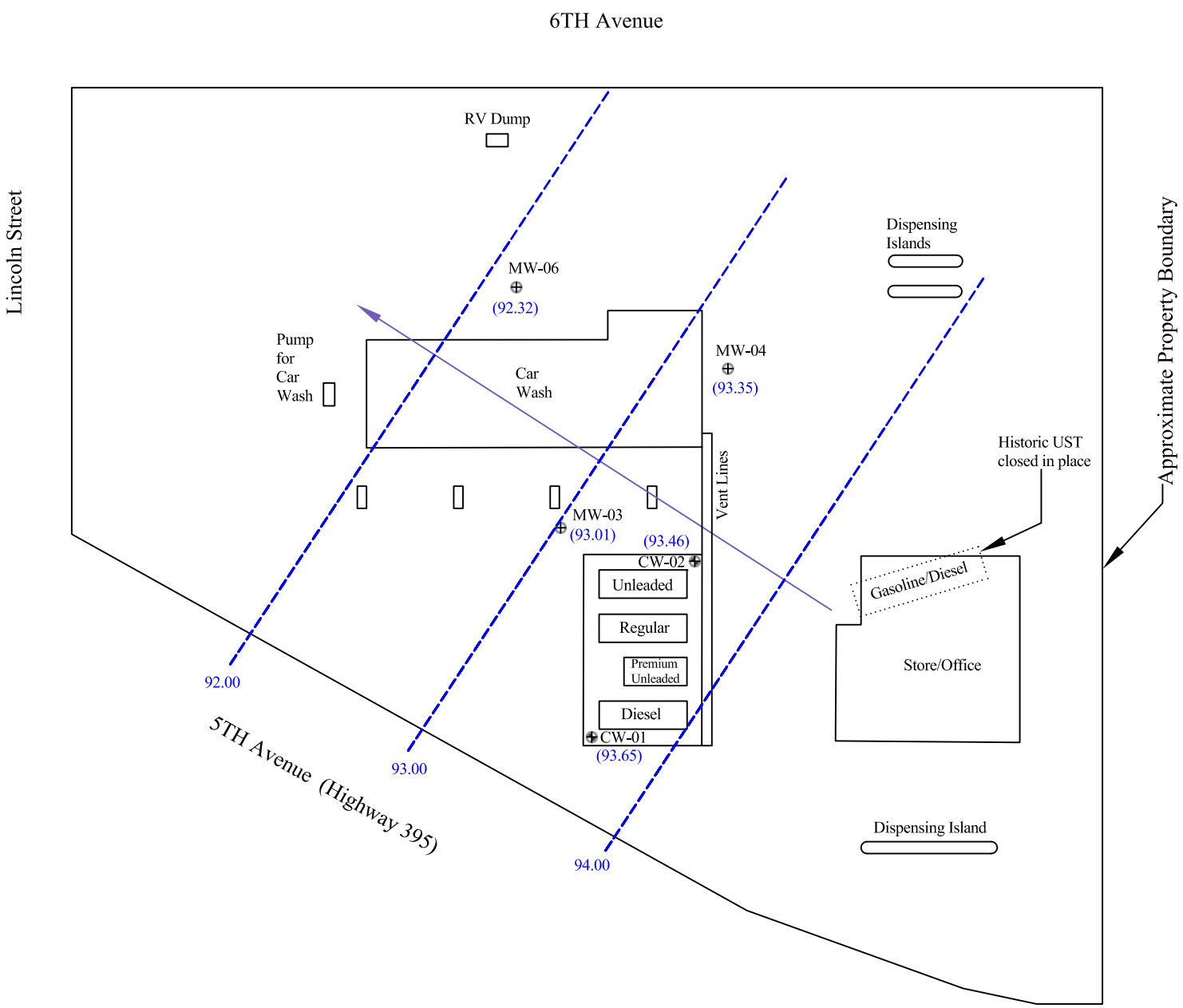

Note:

Elevations are based on an arbitrary datum of 100.00 feet.

LEGEND

Approximate Groundwater Flow Direction & Gradient

93.00 — Groundwater Elevation Contour (In Feet)

(93.00) — Monitoring Well Groundwater Elevation (In Feet)

Monitoring Well

Compliance Well

N

0 30

Approximate Scale In Feet

Figure 4: Groundwater Elevation Map

Second Semi-annual Groundwater Sampling Event September 2019
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370 West 5th Avenue
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MAP BY: S. Groat	PROJECT NUMBER: 172206.00
DATE: October 3, 2019	REVIEWED BY: T. Trent

APPENDIX A

Professional Certifications

STATE OF WASHINGTON

DEPARTMENT OF LICENSING – BUSINESS AND PROFESSIONS DIVISION

THIS CERTIFIES THAT THE PERSON OR BUSINESS NAMED BELOW IS AUTHORIZED AS A

GEOLOGIST
HYDROGEOLOGIST

TRAVIS LYLE TRENT
FULCRUM ENVIRONMENTAL CONSULT.
207 WEST BOONE AVENUE
SPOKANE WA 99201

License Number	Issued Date	Expiration Date
364	01/08/2002	06/06/2020

Teresa Berntsen

Teresa Berntsen, Director

PL-630-159 (R/3/16)

APPENDIX B

Historic Data

HISTORIC GROUNDWATER ELEVATION AND ANALYTICAL DATA

Whitty's Chervon

370 West Fifth Avenue
Colville, Washington

Boring ID	Sampling Date	ERP (feet)	DS (feet)	TD (feet)	TPH (µg/L)	Diesel-range hydrocarbons (µg/L)	Heavy oil-range hydrocarbons (µg/L)	Combined Diesel-range and Heavy oil-range (µg/L)	NWTPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
SB-1	1/8/1990	*100.20*	---	*15.00*	---	---	---	---	---	---	---	---	---
SB-2	1/8/1990	*99.39*	*10.00*	*15.00*	ND	---	---	---	ND	ND	ND	ND	ND
SB-3	1/9/1990	*99.30*	---	*15.00*	---	---	---	---	---	---	---	---	---
SB-4	1/9/1990	*98.96*	*5.00*	*15.00*	ND	---	---	---	ND	ND	ND	ND	ND
SB-5	1/9/1990	*99.29*	*5.00*	*15.00*	*1,220*	---	---	---	---	*0.476*	*1.38*	*5.62*	*50.2*
SB-6	1/9/1990	*97.87*	---	*15.00*	---	---	---	---	---	---	---	---	---

Well ID	Sampling Date	ERP (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Diesel-range hydrocarbons (µg/L)	Heavy oil-range hydrocarbons (µg/L)	Combined Diesel-range and Heavy oil-range (µg/L)	NWTPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
CW-1	1/10/1990	*99.50*	*5.82*	*93.68*	---	---	---	---	---	---	---	---	---
	9/13/2017	*99.50*	5.91	*93.59*	---	---	---	---	ND	ND	ND	ND	ND
	12/11/2017	*99.50*	4.96	*94.54*	---	---	---	---	ND	ND	ND	ND	ND
	3/26/2018	*99.50*	4.71	*94.79*	---	---	---	---	ND	ND	ND	ND	ND
	3/26/2018	*99.50*	4.71	*94.79*	---	---	---	---	ND	ND	ND	ND	ND
	6/27/2018	*99.50*	5.53	*93.97*	---	---	---	---	ND	ND	ND	ND	ND
	9/19/2018	*99.50*	5.86	*93.64*	---	214.00	ND	214.00	ND	ND	ND	ND	ND
	3/21/2019	*99.50*	4.84	*94.66*	---	ND	ND	ND	ND	ND	ND	ND	ND
	9/17/2019	*99.50*	5.85	*93.65*	---	63.30	ND	63.30	ND	ND	ND	ND	ND
CW-2	1/10/1990	*99.01*	*5.33*	*93.68*	---	---	---	---	---	---	---	---	---
	9/13/2017	*99.01*	5.64	*93.36*	---	---	---	---	ND	ND	ND	ND	ND
	12/11/2017	*99.01*	4.65	*94.36*	---	---	---	---	ND	ND	ND	ND	ND
	3/26/2018	*99.01*	4.39	*94.62*	---	---	---	---	ND	ND	ND	ND	ND
	6/27/2018	*99.01*	5.24	*93.77*	---	---	---	---	ND	ND	ND	ND	ND
	9/19/2018	*99.01*	5.56	*93.45*	---	ND	ND	ND	50.60	**10.60**	16.60	ND	ND
	9/19/2018	*99.01*	5.56	*93.45*	---	ND	188.00	188.00	56.80	**9.94**	15.90	ND	ND
	3/21/2019	*99.01*	4.53	*94.48*	---	ND	261.00	261.00	ND	ND	ND	ND	ND
	9/17/2019	*99.01*	5.54	*93.46*	---	ND	ND	ND	ND	ND	ND	ND	ND

2001 MTCA Method A Cleanup Levels for Groundwater	**NE**	**500**	**800**	**5**	**1000**	**700**	**1000**

Well ID	Sampling Date	ERP (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Diesel-range hydrocarbons (µg/L)	Heavy oil-range hydrocarbons (µg/L)	Combined Diesel-range and Heavy oil-range (µg/L)	NWTPH-Gx (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)
MW-1	1/10/1990	*100.00*	*5.59*	*94.41*	*ND*	---	---	---	---	ND	ND	ND	ND
Decommissioned													
MW-2	1/10/1990	*98.92*	*4.51*	*94.41*	*2,460*	---	---	---	---	***1,643.0***	*409.00*	*ND*	***2955.00***
Decommissioned													
MW-3	1/10/1990	*98.56*	*5.77*	*92.79*	*ND*	---	---	---	---	*ND*	*ND*	*ND*	*ND*
	9/13/2017	*98.56*	5.55	93.02	---	---	---	---	131.00	ND	ND	ND	ND
	12/11/2017	*98.56*	5.05	93.51	---	---	---	---	ND	1.65	ND	ND	ND
	12/11/2017	*98.56*	5.05	93.51	---	---	---	---	ND	1.60	ND	ND	ND
	3/26/2018	*98.56*	4.44	94.12	---	---	---	---	ND	ND	ND	ND	ND
	6/27/2018	*98.56*	5.26	*93.30*	---	---	---	---	ND	ND	ND	ND	ND
	9/19/2018	*98.56*	5.56	*93.01*	---	ND	172.00	172.00	ND	ND	ND	ND	ND
	3/21/2019	*98.56*	4.80	*93.76*	---	273	ND	273	202.00	**24.40**	32.00	1.10	16.54
	9/17/2019	*98.56*	5.55	*93.01*	---	ND	ND	ND	67.30	ND	ND	ND	ND
MW-4	1/10/1990	*98.27*	*4.06*	*94.21*	*3,050*	---	---	---	---	***118***	*23.00*	*ND*	*284.00*
	9/13/2017	*98.27*	5.32	92.96	---	---	---	---	558.00	4.03	ND	1.51	1.46
	9/13/2017	*98.27*	5.32	92.96	---	---	---	---	547.00	ND	ND	ND	ND
	12/11/2017	*98.27*	4.13	94.17	---	---	---	---	702.00	**6.81**	1.07	9.07	ND
	3/26/2018	*98.27*	3.75	94.52	---	---	---	---	302.00	4.63	1.34	15.70	ND
	6/27/2018	*98.27*	4.80	*93.47*	---	---	---	---	284.00	**5.84**	1.32	16.60	ND
	9/19/2018	*98.27*	4.83	*93.44*	---	**1,450.00**	**2,080.00**	**3,530.00**	644.00	**7.25**	2.61	25.80	2.72
	3/21/2019	*98.27*	3.60	*94.67*	---	220.00	376.00	**596.00**	718.00	4.46	1.78	18.10	2.70
	9/17/2019	*98.27*	4.92	*93.35*	---	181.00	310.00	491.00	780.00	**5.09**	ND	3.08	1.16
MW-6	1/10/1990	*97.27*	*9.01*	*88.26*	*ND*	---	---	---	---	***9.00***	*5.00*	*15.00*	*80.00*
	9/13/2017	*97.27*	---	---	---	---	---	---	ND	ND	ND	ND	ND
	12/11/2017	*97.27*	---	---	---	---	---	---	---	---	---	---	---
	3/26/2018	*97.27*	5.24	*92.03*	---	---	---	---	404.00	ND	ND	ND	ND
	6/27/2018	*97.27*	5.31	*91.96*	---	---	---	---	101.00	ND	ND	ND	ND
	9/19/2018	*97.27*	6.36	*90.92*	---	102.00	369.00	471.00	119.00	ND	ND	ND	ND
	3/21/2019	*97.27*	5.08	*92.19*	---	ND	409.00	409.00	ND	ND	ND	ND	ND
	9/17/2019	*97,027.00*	4.95	*92.32*	---	ND	**1440.00**	**1440.00**	90.20	ND	ND	ND	ND
2001 MTCA Method A Cleanup Levels for Groundwater			**NE**			**500**			**800**	**5**	**1000**	**700**	**1000**

Notes :

MTCA Method A exceedences shown in bold

Historic Data not collected by Fulcrum shown in italics

NE	Not Established. Indvidual analyte thresholds for Total Petroleum Hydrocarbons (TPH) have not been established and are referenced as the appropriate regulatory values above
TPH	Total Petroleum Hydrocarbons
TD	Total Boring Depth

Notes :

DS	Depth Sampled
ERP	Elevation of riser pipe based on an arbitrary datum of 100.00 feet
DTW	Depth to water
GWE	Groundwater elevation based on an arbitrary datum of 100.00 feet
NWTPHGx	Northwest total petroleum hydrocarbons as gasoline;
BTEX	Benzene, toluene, ethylbenzene and total xylenes
µg/L	micrograms per liter or parts per billion
ND	Not detected in concentrations exceeding laboratory method detection limit
---	Not available, not tested, not measured

APPENDIX C

2005 Soil Sampling Results

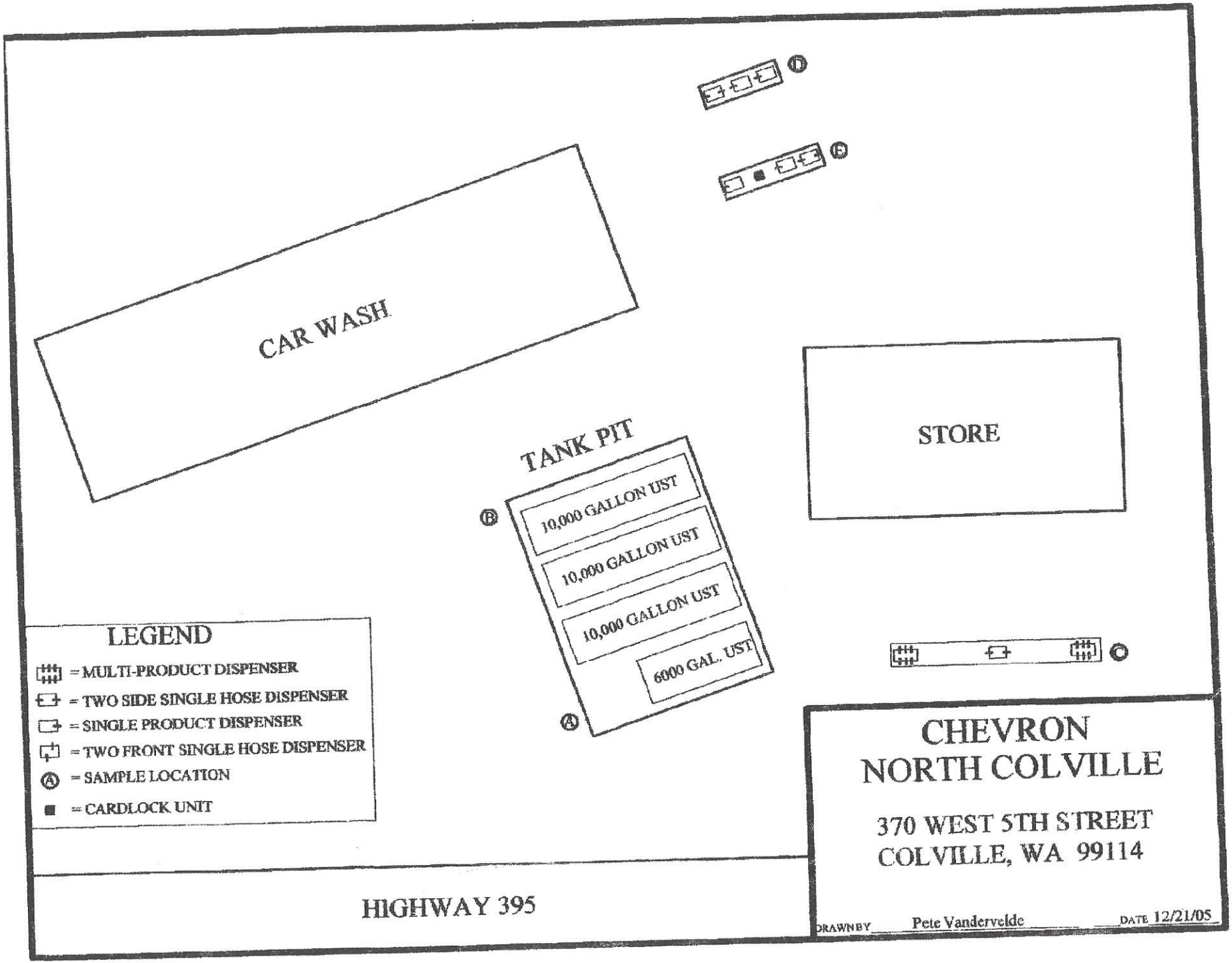

TABLE 1
SOIL SAMPLE RESULTS
CHEVRON
NORTH COLVILLE

DEPTH OF SAMPLE	15'	14	5'	5'	5'	*CLEANUP STANDARD*
ANALYSES	2-A	2-B	2-C	2-D	2-E	
NWTPH-OIL	<100	<100	<100	<100	<100	*2000 mg/Kg*
NWTPH-DIESEL	<10	<10	<10	<10	<10	*2000 mg/Kg*
NWTPH-GAS	8	<5.0	<5.0	<5.0	<5.0	*100 mg/Kg OR 30mg/Kg*
BENZENE	<0.025	<0.025	<0.025	<0.025	<0.025	*0.03 mg/Kg*
ETHYLBENZENE	0.12	<0.025	<0.025	<0.025	<0.025	*6.0 mg/Kg*
MTBE	<0.025	<0.025	<0.025	<0.025	<0.025	*0.1 mg/Kg*
TOLUENE	0.229	<0.05	0.111	0.066	<0.05	*7.0 mg/Kg*
XYLENE	0.69	<0.05	0.099	0.081	<0.05	*9.0 mg/Kg*
TOTAL LEAD	13	N/A	N/A	N/A	N/A	*250 mg/Kg*

N/A = NOT ANALYZED (verifys analyte is below cleanup standards for highest NWTPH-G concentration reported)

BOLDED RESULTS = ABOVE CLEANUP STANDARDS

ITALICIZED RESULTS = ESTIMATED CONCENTRATION. RESULT IS ABOVE NORMAL CALIBRATION RANGE. FINAL RESULT IS MOST LIKELY HIGHER

<1.25 ? = SAMPLE METHOD DETECTION LIMIT WAS DILUTED ABOVE CLEANUP STANDARD DUE TO HIGH CONCENTRATION OF OTHER ANALYTE DETECTED

SPECTRA Laboratories
2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vanderveide

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-A
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 1
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	8	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	0.12	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	0.229	mg/Kg	SW846 8260B
Total Xylenes	0.69	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene-d8	111	NWTPH-G
4-Bromofluorobenzene	118	NWTPH-G
p-Terphenyl	98	NWTPH-D

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Page 1 of 3

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-B
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 2
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	<0.05	mg/Kg	SW846 8260B
Total Xylenes	<0.05	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene-d8	118	NWTPH-G
4-Bromofluorobenzene	111	NWTPH-G
p-Terphenyl	60	NWTPH-D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
sh/ish

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-C
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 3
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	0.111	mg/Kg	SW846 8260B
Total Xylenes	0.099	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene-d8	111	NWTPH-G
4-Bromofluorobenzene	119	NWTPH-G
p-Terphenyl	62	NWTPH-D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
nd/jjh

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-D
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 4
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	0.066	mg/Kg	SW846 8260B
Total Xylenes	0.081	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene-d8	116	NWTPH-G
4-Bromofluorobenzene	112	NWTPH-G
p-Terphenyl	76	NWTPH-D

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Steve Hibbs, Laboratory Manager
sG/jb

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12/16/2005

Northwest Environmental Solutions, Inc
PO Box 1583
Sumner, WA 98390
Attn: Pete Vandervelde

P.O.#: Pd Ck #7160319036
Project: Whitton Oil
Client ID: 2-E
Sample Matrix: Soil
Date Sampled: 12/08/2005
Date Received: 12/12/2005
Spectra Project: 2005120166
Spectra Number: 5
Rush

Analyte	Result	Units	Method
Diesel	<10	mg/Kg	NWTPH-D
Oil	<100	mg/Kg	NWTPH-D
Gasoline	<5	mg/Kg	NWTPH-G
Benzene	<0.025	mg/Kg	SW846 8260B
Ethylbenzene	<0.025	mg/Kg	SW846 8260B
Methyl-tert-Butyl Ether	<0.025	mg/Kg	SW846 8260B
Toluene	<0.05	mg/Kg	SW846 8260B
Total Xylenes	<0.05	mg/Kg	SW846 8260B

Surrogate	Recovery	Method
Toluene-d8	112	NWTPH-G
4-Bromofluorobenzene	113	NWTPH-G
p-Terphenyl	62	NWTPH-D

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager

APPENDIX D

Laboratory Analytical Results

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Fulcrum Environmental
Scott Groat
207 W Boone Ave.
Spokane, WA 99201

RE: Whitten Oil
Work Order Number: 1909312

September 26, 2019

Attention Scott Groat:

Fremont Analytical, Inc. received 7 sample(s) on 9/19/2019 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

CC:
Amanda Biondi

Date: *09/26/2019*

CLIENT: Fulcrum Environmental
Project: Whitten Oil
Work Order: 1909312

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1909312-001	WOS-091719-CW01	09/17/2019 1:29 PM	09/19/2019 10:50 AM
1909312-002	WOS-091719-CW02	09/17/2019 12:10 PM	09/19/2019 10:50 AM
1909312-003	WOS-091719-MW03	09/17/2019 1:42 PM	09/19/2019 10:50 AM
1909312-004	WOS-091719-MW04	09/17/2019 11:43 AM	09/19/2019 10:50 AM
1909312-005	WOS-091719-MW06	09/17/2019 3:35 PM	09/19/2019 10:50 AM
1909312-006	WOS-091719-MW07	09/17/2019 1:13 PM	09/19/2019 10:50 AM
1909312-007	Trip Blank	08/31/2019 11:04 AM	09/19/2019 10:50 AM

Case Narrative

WO#: **1909312**
Date: **9/26/2019**

CLIENT: Fulcrum Environmental
Project: Whitten Oil

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1909312**
Date Reported: **9/26/2019**

Client: Fulcrum Environmental
Collection Date: 9/17/2019 1:29:00 PM
Project: Whitten Oil
Lab ID: 1909312-001
Matrix: Groundwater
Client Sample ID: **WOS-091719-CW01**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 25922		Analyst: ML
Diesel (Fuel Oil)	63.3	49.0		µg/L	1	9/25/2019 6:02:54 PM
Heavy Oil	ND	98.0		µg/L	1	9/25/2019 6:02:54 PM
Surr: 2-Fluorobiphenyl	83.4	50 - 150		%Rec	1	9/25/2019 6:02:54 PM
Surr: o-Terphenyl	90.8	50 - 150		%Rec	1	9/25/2019 6:02:54 PM
Gasoline by NWTPH-Gx				Batch ID: 25902		Analyst: TN
Gasoline	ND	50.0		µg/L	1	9/23/2019 6:51:46 PM
Surr: Toluene-d8	107	65 - 135		%Rec	1	9/23/2019 6:51:46 PM
Surr: 4-Bromofluorobenzene	94.7	65 - 135		%Rec	1	9/23/2019 6:51:46 PM
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 25902		Analyst: KT
Benzene	ND	1.00		µg/L	1	9/23/2019 6:51:46 PM
Toluene	ND	1.00		µg/L	1	9/23/2019 6:51:46 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2019 6:51:46 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2019 6:51:46 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2019 6:51:46 PM
Surr: Dibromofluoromethane	101	45.4 - 152		%Rec	1	9/23/2019 6:51:46 PM
Surr: Toluene-d8	102	40.1 - 139		%Rec	1	9/23/2019 6:51:46 PM
Surr: 1-Bromo-4-fluorobenzene	93.5	64.2 - 128		%Rec	1	9/23/2019 6:51:46 PM

Analytical Report

Work Order: **1909312**
Date Reported: **9/26/2019**

Client: Fulcrum Environmental
Collection Date: 9/17/2019 12:10:00 PM
Project: Whitten Oil
Lab ID: 1909312-002
Matrix: Groundwater
Client Sample ID: **WOS-091719-CW02**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 25922		Analyst: ML
Diesel (Fuel Oil)	ND	49.1		µg/L	1	9/25/2019 8:01:59 PM
Heavy Oil	ND	98.1		µg/L	1	9/25/2019 8:01:59 PM
Surr: 2-Fluorobiphenyl	74.5	50 - 150		%Rec	1	9/25/2019 8:01:59 PM
Surr: o-Terphenyl	83.8	50 - 150		%Rec	1	9/25/2019 8:01:59 PM
Gasoline by NWTPH-Gx				Batch ID: 25902		Analyst: TN
Gasoline	ND	50.0		µg/L	1	9/23/2019 7:21:57 PM
Surr: Toluene-d8	107	65 - 135		%Rec	1	9/23/2019 7:21:57 PM
Surr: 4-Bromofluorobenzene	93.0	65 - 135		%Rec	1	9/23/2019 7:21:57 PM
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 25902		Analyst: KT
Benzene	ND	1.00		µg/L	1	9/23/2019 7:21:57 PM
Toluene	ND	1.00		µg/L	1	9/23/2019 7:21:57 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2019 7:21:57 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2019 7:21:57 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2019 7:21:57 PM
Surr: Dibromofluoromethane	99.7	45.4 - 152		%Rec	1	9/23/2019 7:21:57 PM
Surr: Toluene-d8	102	40.1 - 139		%Rec	1	9/23/2019 7:21:57 PM
Surr: 1-Bromo-4-fluorobenzene	91.7	64.2 - 128		%Rec	1	9/23/2019 7:21:57 PM

Analytical Report

Work Order: **1909312**
Date Reported: **9/26/2019**

Client: Fulcrum Environmental
Collection Date: 9/17/2019 1:42:00 PM
Project: Whitten Oil
Lab ID: 1909312-003
Matrix: Groundwater
Client Sample ID: **WOS-091719-MW03**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 25922		Analyst: ML
Diesel (Fuel Oil)	ND	49.5		µg/L	1	9/25/2019 8:31:42 PM
Heavy Oil	ND	99.1		µg/L	1	9/25/2019 8:31:42 PM
Surr: 2-Fluorobiphenyl	75.3	50 - 150		%Rec	1	9/25/2019 8:31:42 PM
Surr: o-Terphenyl	82.8	50 - 150		%Rec	1	9/25/2019 8:31:42 PM
Gasoline by NWTPH-Gx				Batch ID: 25902		Analyst: TN
Gasoline	ND	50.0		µg/L	1	9/23/2019 7:52:09 PM
Gasoline Range Organics (C6-C12)	67.3	50.0		µg/L	1	9/23/2019 7:52:09 PM
Surr: Toluene-d8	104	65 - 135		%Rec	1	9/23/2019 7:52:09 PM
Surr: 4-Bromofluorobenzene	91.1	65 - 135		%Rec	1	9/23/2019 7:52:09 PM
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 25902		Analyst: KT
Benzene	ND	1.00		µg/L	1	9/23/2019 7:52:09 PM
Toluene	ND	1.00		µg/L	1	9/23/2019 7:52:09 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2019 7:52:09 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2019 7:52:09 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2019 7:52:09 PM
Surr: Dibromofluoromethane	95.3	45.4 - 152		%Rec	1	9/23/2019 7:52:09 PM
Surr: Toluene-d8	102	40.1 - 139		%Rec	1	9/23/2019 7:52:09 PM
Surr: 1-Bromo-4-fluorobenzene	90.0	64.2 - 128		%Rec	1	9/23/2019 7:52:09 PM

NOTES:
GRO - Indicates the presence of unresolved compounds eluting from hexane to dodecane (~C6-C12).

Analytical Report

Work Order: **1909312**
Date Reported: **9/26/2019**

Client: Fulcrum Environmental
Collection Date: 9/17/2019 11:43:00 AM
Project: Whitten Oil
Lab ID: 1909312-004
Matrix: Groundwater
Client Sample ID: **WOS-091719-MW04**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 25922		Analyst: ML
Diesel (Fuel Oil)	188	50.0		µg/L	1	9/25/2019 9:01:31 PM
Heavy Oil	293	99.9		µg/L	1	9/25/2019 9:01:31 PM
Surr: 2-Fluorobiphenyl	84.9	50 - 150		%Rec	1	9/25/2019 9:01:31 PM
Surr: o-Terphenyl	88.6	50 - 150		%Rec	1	9/25/2019 9:01:31 PM
Gasoline by NWTPH-Gx				Batch ID: 25902		Analyst: TN
Gasoline	744	50.0		µg/L	1	9/23/2019 8:22:23 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	9/23/2019 8:22:23 PM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	9/23/2019 8:22:23 PM
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 25902		Analyst: KT
Benzene	5.06	1.00		µg/L	1	9/23/2019 8:22:23 PM
Toluene	ND	1.00		µg/L	1	9/23/2019 8:22:23 PM
Ethylbenzene	3.05	1.00		µg/L	1	9/23/2019 8:22:23 PM
m,p-Xylene	1.14	1.00		µg/L	1	9/23/2019 8:22:23 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2019 8:22:23 PM
Surr: Dibromofluoromethane	96.9	45.4 - 152		%Rec	1	9/23/2019 8:22:23 PM
Surr: Toluene-d8	100	40.1 - 139		%Rec	1	9/23/2019 8:22:23 PM
Surr: 1-Bromo-4-fluorobenzene	104	64.2 - 128		%Rec	1	9/23/2019 8:22:23 PM

Analytical Report

Work Order: **1909312**
Date Reported: **9/26/2019**

Client: Fulcrum Environmental
Collection Date: 9/17/2019 3:35:00 PM
Project: Whitten Oil
Lab ID: 1909312-005
Matrix: Groundwater
Client Sample ID: **WOS-091719-MW06**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 25922		Analyst: ML
Diesel (Fuel Oil)	ND	49.9		µg/L	1	9/25/2019 10:01:03 PM
Heavy Oil	1,440	99.7		µg/L	1	9/25/2019 10:01:03 PM
Surr: 2-Fluorobiphenyl	74.6	50 - 150		%Rec	1	9/25/2019 10:01:03 PM
Surr: o-Terphenyl	70.2	50 - 150		%Rec	1	9/25/2019 10:01:03 PM
Gasoline by NWTPH-Gx				Batch ID: 25902		Analyst: TN
Gasoline	90.2	50.0		µg/L	1	9/23/2019 8:52:34 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	9/23/2019 8:52:34 PM
Surr: 4-Bromofluorobenzene	96.3	65 - 135		%Rec	1	9/23/2019 8:52:34 PM
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 25902		Analyst: KT
Benzene	ND	1.00		µg/L	1	9/23/2019 8:52:34 PM
Toluene	ND	1.00		µg/L	1	9/23/2019 8:52:34 PM
Ethylbenzene	ND	1.00		µg/L	1	9/23/2019 8:52:34 PM
m,p-Xylene	ND	1.00		µg/L	1	9/23/2019 8:52:34 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2019 8:52:34 PM
Surr: Dibromofluoromethane	98.3	45.4 - 152		%Rec	1	9/23/2019 8:52:34 PM
Surr: Toluene-d8	101	40.1 - 139		%Rec	1	9/23/2019 8:52:34 PM
Surr: 1-Bromo-4-fluorobenzene	94.1	64.2 - 128		%Rec	1	9/23/2019 8:52:34 PM

Analytical Report

Work Order: **1909312**
Date Reported: **9/26/2019**

Client: Fulcrum Environmental
Collection Date: 9/17/2019 1:13:00 PM
Project: Whitten Oil
Lab ID: 1909312-006
Matrix: Groundwater
Client Sample ID: **WOS-091719-MW07**

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch ID: 25922		Analyst: ML
Diesel (Fuel Oil)	181	49.5		µg/L	1	9/25/2019 9:31:20 PM
Heavy Oil	310	99.0		µg/L	1	9/25/2019 9:31:20 PM
Surr: 2-Fluorobiphenyl	85.7	50 - 150		%Rec	1	9/25/2019 9:31:20 PM
Surr: o-Terphenyl	88.6	50 - 150		%Rec	1	9/25/2019 9:31:20 PM
Gasoline by NWTPH-Gx				Batch ID: 25902		Analyst: TN
Gasoline	780	50.0		µg/L	1	9/23/2019 9:22:46 PM
Surr: Toluene-d8	102	65 - 135		%Rec	1	9/23/2019 9:22:46 PM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	9/23/2019 9:22:46 PM
Volatile Organic Compounds by EPA Method 8260D				Batch ID: 25902		Analyst: KT
Benzene	5.09	1.00		µg/L	1	9/23/2019 9:22:46 PM
Toluene	ND	1.00		µg/L	1	9/23/2019 9:22:46 PM
Ethylbenzene	3.08	1.00		µg/L	1	9/23/2019 9:22:46 PM
m,p-Xylene	1.16	1.00		µg/L	1	9/23/2019 9:22:46 PM
o-Xylene	ND	1.00		µg/L	1	9/23/2019 9:22:46 PM
Surr: Dibromofluoromethane	97.1	45.4 - 152		%Rec	1	9/23/2019 9:22:46 PM
Surr: Toluene-d8	99.5	40.1 - 139		%Rec	1	9/23/2019 9:22:46 PM
Surr: 1-Bromo-4-fluorobenzene	103	64.2 - 128		%Rec	1	9/23/2019 9:22:46 PM

Work Order: 1909312
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: **MB-25922** SampType: **MBLK** Units: **µg/L** Prep Date: **9/24/2019** RunNo: **54162**
Client ID: **MBLKW** Batch ID: **25922** Analysis Date: **9/25/2019** SeqNo: **1072789**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	99.9									
Surr: 2-Fluorobiphenyl	63.8		79.92		79.8	50	150				
Surr: o-Terphenyl	72.4		79.92		90.7	50	150				

Sample ID: **LCS-25922** SampType: **LCS** Units: **µg/L** Prep Date: **9/24/2019** RunNo: **54162**
Client ID: **LCSW** Batch ID: **25922** Analysis Date: **9/25/2019** SeqNo: **1072790**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	756	49.5	990.7	0	76.3	65	135				
Surr: 2-Fluorobiphenyl	62.7		79.26		79.1	50	150				
Surr: o-Terphenyl	57.8		79.26		72.9	50	150				

Sample ID: **1909312-001BDUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/24/2019** RunNo: **54162**
Client ID: **WOS-091719-CW01** Batch ID: **25922** Analysis Date: **9/25/2019** SeqNo: **1073188**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	67.7	48.7						63.35	6.59	30	
Heavy Oil	ND	97.3						0		30	
Surr: 2-Fluorobiphenyl	62.0		77.87		79.6	50	150		0		
Surr: o-Terphenyl	67.4		77.87		86.6	50	150		0		

Sample ID: **1909312-001BMS** SampType: **MS** Units: **µg/L** Prep Date: **9/24/2019** RunNo: **54162**
Client ID: **WOS-091719-CW01** Batch ID: **25922** Analysis Date: **9/25/2019** SeqNo: **1072793**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	832	50.2	1,004	63.35	76.6	65	135				
Surr: 2-Fluorobiphenyl	65.5		80.31		81.5	50	150				
Surr: o-Terphenyl	61.7		80.31		76.8	50	150				

Work Order: 1909312
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: **1909312-001BMS** SampType: **MS** Units: **µg/L** Prep Date: **9/24/2019** RunNo: **54162**
Client ID: **WOS-091719-CW01** Batch ID: **25922** Analysis Date: **9/25/2019** SeqNo: **1072793**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **1909312-001BMSD** SampType: **MSD** Units: **µg/L** Prep Date: **9/24/2019** RunNo: **54162**
Client ID: **WOS-091719-CW01** Batch ID: **25922** Analysis Date: **9/25/2019** SeqNo: **1072794**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel (Fuel Oil)	802	50.1	1,001	63.35	73.8	65	135	832.1	3.73	30	
Surr: 2-Fluorobiphenyl	61.9		80.08		77.3	50	150		0		
Surr: o-Terphenyl	61.4		80.08		76.6	50	150		0		

Work Order: 1909312
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: **LCS-25902** SampType: **LCS** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54148**
Client ID: **LCSW** Batch ID: **25902** Analysis Date: **9/23/2019** SeqNo: **1072598**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	521	50.0	500.0	0	104	65	135				
Surr: Toluene-d8	25.9		25.00		104	65	135				
Surr: 4-Bromofluorobenzene	26.6		25.00		107	65	135				

Sample ID: **MB-25902** SampType: **MBLK** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54148**
Client ID: **MBLKW** Batch ID: **25902** Analysis Date: **9/23/2019** SeqNo: **1072599**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	50.0									
Surr: Toluene-d8	26.2		25.00		105	65	135				
Surr: 4-Bromofluorobenzene	23.4		25.00		93.4	65	135				

Sample ID: **1909312-006ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54148**
Client ID: **WOS-091719-MW07** Batch ID: **25902** Analysis Date: **9/23/2019** SeqNo: **1072576**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	769	50.0						779.5	1.35	30	
Surr: Toluene-d8	26.0		25.00		104	65	135		0		
Surr: 4-Bromofluorobenzene	27.1		25.00		109	65	135		0		

Sample ID: **1909320-004ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54148**
Client ID: **BATCH** Batch ID: **25902** Analysis Date: **9/24/2019** SeqNo: **1072593**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	75,700	25,000						73,340	3.13	30	D
Surr: Toluene-d8	12,900		12,500		103	65	135		0		D
Surr: 4-Bromofluorobenzene	12,300		12,500		98.6	65	135		0		D

Work Order: 1909312
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: **1909320-001AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54148**
Client ID: **BATCH** Batch ID: **25902** Analysis Date: **9/24/2019** SeqNo: **1072587**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	37,300	50.0	500.0	35,310	403	65	135				SE
Surr: Toluene-d8	26.7		25.00		107	65	135				
Surr: 4-Bromofluorobenzene	31.5		25.00		126	65	135				

NOTES:
S - Analyte concentration was too high for accurate spike recovery(ies).
E - Estimated value. The amount exceeds the linear working range of the instrument.

Sample ID: **1909320-001AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54148**
Client ID: **BATCH** Batch ID: **25902** Analysis Date: **9/24/2019** SeqNo: **1072588**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	37,100	50.0	500.0	35,310	362	65	135	37,330	0.541	30	SE
Surr: Toluene-d8	26.4		25.00		105	65	135		0		
Surr: 4-Bromofluorobenzene	31.3		25.00		125	65	135		0		

NOTES:
S - Analyte concentration was too high for accurate spike recovery(ies).
E - Estimated value. The amount exceeds the linear working range of the instrument.

Work Order: 1909312
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **LCS-25902** SampType: **LCS** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **LCSW** Batch ID: **25902** Analysis Date: **9/23/2019** SeqNo: **1071953**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.0	1.00	20.00	0	100	69.3	132				
Toluene	20.4	1.00	20.00	0	102	61.3	145				
Ethylbenzene	18.6	1.00	20.00	0	93.1	72	130				
m,p-Xylene	38.3	1.00	40.00	0	95.6	70.3	134				
o-Xylene	18.5	1.00	20.00	0	92.5	62	125				
Surr: Dibromofluoromethane	24.9		25.00		99.7	45.4	152				
Surr: Toluene-d8	25.8		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	27.1		25.00		108	64.2	128				

Sample ID: **MB-25902** SampType: **MBLK** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **MBLKW** Batch ID: **25902** Analysis Date: **9/23/2019** SeqNo: **1071954**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1.00									
Toluene	ND	1.00									
Ethylbenzene	ND	1.00									
m,p-Xylene	ND	1.00									
o-Xylene	ND	1.00									
Surr: Dibromofluoromethane	24.4		25.00		97.4	45.4	152				
Surr: Toluene-d8	25.6		25.00		102	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	23.1		25.00		92.3	64.2	128				

Sample ID: **1909312-006ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **WOS-091719-MW07** Batch ID: **25902** Analysis Date: **9/23/2019** SeqNo: **1071929**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	5.10	1.00						5.092	0.167	30	
Toluene	ND	1.00						0		30	
Ethylbenzene	3.04	1.00						3.083	1.47	30	
m,p-Xylene	1.13	1.00						1.164	2.91	30	

Work Order: 1909312
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **1909312-006ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **WOS-091719-MW07** Batch ID: **25902** Analysis Date: **9/23/2019** SeqNo: **1071929**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	1.00						0		30	
Surr: Dibromofluoromethane	24.4		25.00		97.5	45.4	152		0		
Surr: Toluene-d8	25.2		25.00		101	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	25.1		25.00		100	64.2	128		0		

Sample ID: **1909312-001AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **WOS-091719-CW01** Batch ID: **25902** Analysis Date: **9/24/2019** SeqNo: **1071922**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.2	1.00	20.00	0	106	65.4	138				
Toluene	21.6	1.00	20.00	0	108	52	147				
Ethylbenzene	20.2	1.00	20.00	0	101	64.5	136				
m,p-Xylene	42.1	1.00	40.00	0	105	63.3	135				
o-Xylene	20.0	1.00	20.00	0	99.9	64.8	150				
Surr: Dibromofluoromethane	25.5		25.00		102	45.4	152				
Surr: Toluene-d8	25.8		25.00		103	40.1	139				
Surr: 1-Bromo-4-fluorobenzene	28.0		25.00		112	64.2	128				

Sample ID: **1909312-001AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **WOS-091719-CW01** Batch ID: **25902** Analysis Date: **9/24/2019** SeqNo: **1071923**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.1	1.00	20.00	0	105	65.4	138	21.22	0.808	30	
Toluene	21.5	1.00	20.00	0	108	52	147	21.62	0.435	30	
Ethylbenzene	20.3	1.00	20.00	0	101	64.5	136	20.20	0.273	30	
m,p-Xylene	41.8	1.00	40.00	0	105	63.3	135	42.09	0.684	30	
o-Xylene	20.1	1.00	20.00	0	100	64.8	150	19.99	0.461	30	
Surr: Dibromofluoromethane	25.3		25.00		101	45.4	152		0		
Surr: Toluene-d8	25.5		25.00		102	40.1	139		0		
Surr: 1-Bromo-4-fluorobenzene	27.9		25.00		112	64.2	128		0		

Work Order: 1909312
CLIENT: Fulcrum Environmental
Project: Whitten Oil

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: **1909312-001AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **WOS-091719-CW01** Batch ID: **25902** Analysis Date: **9/24/2019** SeqNo: **1071923**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: **1909320-004ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/23/2019** RunNo: **54118**
Client ID: **BATCH** Batch ID: **25902** Analysis Date: **9/24/2019** SeqNo: **1071948**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1,430	500						1,425	0.0333	30	D
Toluene	13,400	500						13,310	0.304	30	D
Ethylbenzene	1,120	500						1,121	0.0758	30	D
m,p-Xylene	4,900	500						4,978	1.55	30	D
o-Xylene	2,400	500						2,463	2.58	30	D
Surr: Dibromofluoromethane	12,000		12,500		96.0	45.4	152		0		D
Surr: Toluene-d8	12,600		12,500		101	40.1	139		0		D
Surr: 1-Bromo-4-fluorobenzene	12,200		12,500		97.5	64.2	128		0		D

NOTES:
Diluted due to matrix.

Sample Log-In Check List

Client Name:	**FES**	Work Order Number:	**1909312**
Logged by:	**Clare Griggs**	Date Received:	**9/19/2019 10:50:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☑	No ☐	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	4.9
Sample	4.9
Temp Blank	5.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 9/18/2019 Page: 1 of: 1

Laboratory Project No (internal): 1909312

Project Name: Whitty's 0.1

Special Remarks:

Project No: 172206.00

Client: Fulcrum Environmental

Collected by: A. Biondi & S. Groat

Address: 207 W. Boone Ave.

Location: Whitty's Chevron, Colville, WA

City, State, Zip: Spokane, WA 99201

Report To (PM): Sgroat@efulcrum.net

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Telephone: 509-459-9220

PM Email: Amanda.Biondi@efulcrum.net

Fax:

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	NWTPH-Dx				Comments
1	WOS-091719-CW01	9/17/19	1329	GW		X												X				
2	-CW02		1210			X												X				
3	-MW03		1342			X												X				
4	-MW04		1143			X												X				
5	-MW06		1535			X												X				
6	-MW07		1313			X												X				
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

- ☒ Standard
- ☐ 3 Day
- ☐ 2 Day
- ☐ Next Day
- Same Day _____ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x Scott Groat	9/18/2019@1700	x	
x Scott Groat	9/18/2019@1700	x [illegible]	9/19/19 1050