

Mr. Frank Winslow  
Washington State Department of Ecology  
Central Regional Office  
1250 W. Alder Street  
Union Gap, Washington 98903

Arcadis U.S., Inc.  
320 Commerce  
Suite 200  
Irvine  
California 92602  
Tel 714 730 9052  
Fax 714 730 9345  
www.arcadis.com

Subject:

***Fourth Quarter 2018 Groundwater Monitoring Report and Site Closure Request***

Chevron Site No. 9-7348  
502 North Wenatchee Avenue  
Wenatchee, Washington  
Agency ID No. 15685336

ENVIRONMENT

Date:  
December 27, 2018

Contact:  
Ms. Janet Newman

Phone:  
949.293.2445

Email:  
Janet.Newman  
@arcadis.com

Our ref:  
B0048279.0000.00006

Dear Mr. Winslow:

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) has prepared this *Fourth Quarter 2018 Groundwater Monitoring Report and Site Closure Request* report for the Chevron Site No. 9-7348 (the site) located at 502 North Wenatchee Avenue in Wenatchee, Washington (Figure 1). This letter report documents the groundwater monitoring activities completed during the Fourth Quarter 2018.

The site was sampled on November 16, 2018 in accordance to the approved groundwater monitoring plan, which was a requirement of Agreed Order No. DE 15666 between the Washington Department of Ecology (Ecology) and Chevron U.S.A. Inc. (Appendix A). Based on the four consecutive quarters with all groundwater analyte concentrations being below the Model Toxics Control Act (MTCA) Method A Cleanup Levels, CEMC is requesting that no further action (NFA) status be granted for Chevron Site No. 9-7348.

## **SITE BACKGROUND**

The site is a former Chevron service station located at 502 North Wenatchee Avenue in Wenatchee, Washington (Figure 1). It is located on the corner of North Wenatchee Avenue and 5<sup>th</sup> Street, about 600 feet southwest of the Columbia River. Chevron operated a service station at the site until 1990. All site features,

including underground storage tanks (USTs) were removed in 1991. The site is currently occupied by a Superwash carwash, office building, and parking lot.

There are currently five onsite monitoring wells associated with this site, MW-2 and MW-4 through MW-7.

## PREVIOUS SITE INVESTIGATION AND REMEDIATION ACTIVITIES

In November 1990, five soil borings were advanced and sampled at the site. Soil borings MW-2 through MW-4 were converted into groundwater monitoring wells and screened within the sandy layer between the approximate depths 6 and 30 feet below ground surface (bgs). Soil boring MW-5 was converted into a groundwater monitoring well and screened within the crystalline bedrock between the approximate depths of 30 and 50 feet bgs. Soil boring MW-1 was advanced to the approximate depth of 50 feet bgs without encountering groundwater. No groundwater monitoring well was installed at soil boring MW-1.

In February 1991, Groundwater Technology, Inc. (GTI) observed the removal of six USTs: two 9,960-gallon gasoline, one 5,000-gallon gasoline steel, one used-oil steel, one heating-oil steel, and one unknown UST. GTI's observations and findings were presented in their *Report of Underground Storage Tank Closure* dated April 1991, and included the following:

- Sediments observed at the site included a brown sand, with traces of silt, from the near surface to a depth of approximately 20 feet bgs.
- Groundwater was not encountered within the maximum depth of excavation, approximately 18 to 20 feet bgs.
- The analytical results for the ten soil samples collected from the gasoline UST excavation indicated non-detectable concentrations for total petroleum hydrocarbons – gasoline range organics (TPH-GRO) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Two of the ten soil samples were reported to contain total recoverable petroleum hydrocarbon (TRPH) concentrations by United States Environmental Protection Agency (USEPA) Method 418.1 of 7 and 10 milligrams per kilogram (mg/kg).
- The analytical results for the eight soil samples collected from dispenser island/product line excavations indicated non-detectable TPH-GRO and BTEX concentrations, with the exception of one soil sample (WSI-12) that was reported to contain nominal concentrations of toluene, ethylbenzene, and total xylenes. Two of the eight soil samples were reported to contain TRPH concentrations of 9 and 14 mg/kg.
- The analytical results for the three soil samples collected from the sidewalls of unknown UST excavations indicated non-detectable TPH-GRO and TRPH concentrations. The bottom sample collected at the approximate depth of 11 feet below grade indicated non-detectable TPH-GRO concentration and TRPH concentration of 2,600 mg/kg. Following over excavation of the impacted soils, the bottom sample collected at the approximate depth of 20 feet indicated non-detectable TPH-GRO, TRPH, polychlorinated biphenyl (PCB), and halogenated volatile organic compound (HVOC) concentrations.
- The analytical results for the four soil samples collected from the used oil UST and heating oil UST excavations indicated non-detectable TPH-GRO concentrations, and TRPH concentrations ranging

from 5 to 9 mg/kg. The two soil samples collected from beneath the used oil UST indicated non-detectable PCB and HVOC concentrations.

- The analytical results for the three soil samples collected from beneath the hydraulic lifts indicated non-detectable TPH-GRO and HVOC concentrations, and TRPH concentrations ranging from 5 to 9 mg/kg.
- Approximately 300-400 cubic yards of petroleum hydrocarbon impacted soils was transported off-site for disposal.
- Based on the analytical results for the UST closure activities, Ecology Compliance Clean-up Levels for soil at the extents of the excavations were met for the site.

In April 2001, soil borings B-6 and B-7 were advanced along the eastern property boundary and downgradient of the former gasoline USTs and dispenser islands. Concentrations of TPH-GRO, total petroleum hydrocarbons – diesel range organics (TPH-DRO), total petroleum hydrocarbons - heavy range organics (TPH-HRO), and BTEX were not detected above the laboratory reporting limits in the four soil samples collected along borings B-6 and B-7. Total lead concentration reported for the soil sample collected at the approximate depth of 20 feet along boring B-7 was below the MTCA Method A Cleanup Level.

In September 2007, monitoring wells MW-6 and MW-7 were installed in the northwest and northeast corners, respectively. No analytes were detected in the soil samples exceeding the MTCA Method A Cleanup Levels. Total lead concentration reported for the groundwater sample collected from monitoring well MW-6 was the only groundwater analyte that exceeded the MTCA Method A Cleanup Levels.

Groundwater monitoring at the site has been conducted between 1991 and 2013 and resumed again in 2018.

## **FOURTH QUARTER 2018 GROUNDWATER MONITORING EVENT**

The scope of work for the Fourth Quarter 2018 monitoring event included the following:

- Collected water level measurements (relative to the top of casing) in monitoring wells MW-2, MW-4, MW-5, MW-6, and MW-7.
- Purged and sampled monitoring wells MW-2, MW-4, MW-5, and MW-7 for:
  - TPH-GRO by Method NWTPH-Gx 97-602
  - TPH-DRO by Method NWTPH-Dx 97-602 with silica gel clean-up
  - TPH-HRO by Method NWTPH-Dx 97-602 with silica gel clean-up
  - BTEX by USEPA Method 8260B
  - Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by USEPA Method 8720C SIM
- Collected a duplicate sample from well MW-4 for Quality Assurance/Quality Control (QA/QC) purposes.

### **Groundwater Monitoring Activities**

On November 16, 2018, Blaine Tech Services, Inc. (Blaine Tech), an Arcadis subcontractor, visited the site to collect groundwater samples from monitoring wells MW-2, MW-4, MW-5, and MW-7. Prior to purging or

sampling, depth to groundwater was measured in monitoring wells MW-2, MW-4, MW-5, MW-6, and MW-7 using a static water level indicator. Depth to groundwater ranged from 16.12 to 22.48 feet below the top of the well casings. These values were used to develop groundwater contours and calculate a hydraulic gradient of 0.008 feet per foot (ft/ft) to the northeast. Groundwater elevation data are presented in Table 1 and on Figure 2.

Monitoring wells MW-2, MW-4, MW-5, and MW-7 were purged and sampled using a peristaltic pump and dedicated tubing per standard operating procedures. During the purging process, the pH, electrical conductivity, turbidity, dissolved oxygen, oxidation reduction potential, and temperature were monitored and recorded on the sampling data sheets included as Attachment B. Purging continued until these parameters were stabilized.

The samples were shipped under chain-of-custody documentation to Eurofins Lancaster Laboratories Environmental (Lancaster Laboratories). Strict chain-of-custody procedures were followed from the time the samples were collected until the time they were shipped to the laboratory. Copies of the chain-of-custody documentation and laboratory report are included as Attachment C.

### **Summary of Results**

Groundwater elevation data are summarized in Table 1 and Figure 2. Historical groundwater analytical results are summarized in Table 1. Analytical results reported for the groundwater samples collected on November 16, 2018 are presented on Figure 3.

Groundwater samples collected during the monitoring event indicated the following:

- TPH-GRO, TPH-DRO, TPH-HRO, and BTEX constituent concentrations reported for the groundwater samples collected from MW-2, MW-4, MW-5, and MW-7 were below their respective laboratory reporting limits and MTCA Method A Cleanup Levels.
- cPAH concentrations reported for the groundwater samples collected from wells MW-4 and MW-7 were below the laboratory reporting limit for each respective analyte. The total cPAHs values were calculated per requirements presented in MTCA Clean Up Regulation WAC 173-340-708 (8)(e). The total cPAHs concentrations calculated for the groundwater samples collected from well MW-2 and MW-5 was 0.0161 and 0.0353 micrograms per liter ( $\mu\text{g/L}$ ), respectively. The total cPAH concentrations are below the MTCA Method A Cleanup Level of 0.1  $\mu\text{g/L}$ .

### **Quality Assurance / Quality Control**

Trip blanks assess potential sample contamination resulting from the transportation and storing of samples. One trip blank was submitted to Lancaster Laboratories during the monitoring event and analyzed for TPH-GRO and BTEX. Analysis of the trip blank did not indicate any detectable analyte concentrations at or above laboratory reporting limits.

The second QA/QC sample was of a field duplicate sample. Duplicate samples help assess the precision of the analyses. A duplicate sample was collected from well MW-4 and submitted to Lancaster Laboratories for chemical analysis. Both the original sample (MW-4181116) and duplicate sample (DUP-1-181116) were

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analyzed for TPH-GRO, TPH-DRO, TPH-HRO, and BTEX. Since none of the analyte concentrations for the original or duplicate samples were at or above the laboratory reporting limits, relative percent differences (RPDs) for the samples could not be calculated.

## CONCLUSIONS

Based on the historical site information summarized above, the petroleum hydrocarbon impacted soils detected during the UST closure activities were adequately assessed and remediated to the acceptable clean-up levels. Soil samples collected during subsequent site investigations indicated that petroleum hydrocarbon concentrations were either below the laboratory reporting limits and/or MTCA Method A Cleanup Levels.

Groundwater at the site has been monitored periodically between 1991 and 2018. The analytical results for the groundwater samples collected during the First, Second, Third, and Fourth Quarters of 2018 indicated that all analyte concentrations were below the MTCA Method A Cleanup Levels.

Given the historical site information and four consecutive quarters with groundwater concentrations below MTCA Method A Cleanup Levels, CEMC is requesting NFA status for the Chevron Site No. 9-7348.

Please contact Janet Newman at 949.293.2445, if you have any questions or comments regarding this report.

Sincerely,

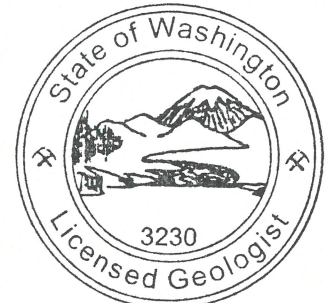
Arcadis U.S., Inc.



Janet Newman  
Senior Project Manager



Grayson Fish  
Licensed Professional Geologist



Grayson Chiarello Fish  
12/26/2018

Copies:

Eric Hetrick, Chevron Environmental Management Company  
Michael Noyd, Property Owner

Enclosures:

**Tables**

- 1 Groundwater Monitoring Data and Analytical Results

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### **Figures**

- 1 Topographic Map of Site Location and Vicinity
- 2 Groundwater Contour Map – November 16, 2018
- 3 Groundwater Concentration Map – November 16, 2018

### **Attachments**

- A Agreed Order dated April 26, 2018
- B Groundwater Monitoring and Sampling Data Package
- C Chain-of-Custody Form and Laboratory Analytical Data

# ATTACHMENTS



# TABLES











**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
**Chevron Site No. 9-7348**  
**Wenatchee, Washington**

Well ID	Date	TOC	DTP	DTW	GWE	DO	ORP	HYDROCARBONS			PRIMARY VOCS				LEAD		PAH	cPAHs							ADDITIONAL VOCS											
								TPH-GRO	TPH-DRO	TPH-HRO	B	T	E	X	MTBE	Dissolved		Total	Naphthalene	Benzo(a)-anthracene	Chrysene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Benzo(a)-pyrene	Indeno(1,2,3-cd)pyrene	Total cPAHs	Methanol	Methanol	Ethanol	ETBE	TAME	1,2-EDC	1,2-EDB	DIPE		
MTCA Method A Cleanup Levels								800/1000	500	500	5	1000	700	1000	20	NA	15	160	NA	NA	NA	NA	0.1	NA	NA	0.1	NA	NA	NA	NA	NA	NA	5	0.01	NA	
Units								μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	
TRIP BLANK	12/6/2006	--	--	--	--	--	--	<50	--	--	<1.0	0.31	<1.0	0.26	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
TRIP BLANK	2/6/2007	--	--	--	--	--	--	<50	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
TRIP BLANK	5/22/2007	--	--	--	--	--	--	<50	--	--	<1.0	<1.0	<1.0	<3.0	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TRIP BLANK	9/28/2007	--	--	--	--	--	--	<50	--	--	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TRIP BLANK	11/7/2007	--	--	--	--	--	--	<50	--	--	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TRIP BLANK	5/13/2008	--	--	--	--	--	--	<50	--	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
TRIP BLANK	12/14/2012	--	--	--	--	--	--	<50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRIP BLANK	2/14/2018	--	--	--	--	--	--	<50.0	--	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRIP BLANK	6/27/2018	--	--	--	--	--	--	<50	--	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRIP BLANK	9/24/2018	--	--	--	--	--	--	<19	--	--	<0.2	<0.2	<0.4	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TRIP BLANK	11/16/2018	--	--	--	--	--	--	<19	--	--	<0.20	<0.20	<0.40	<1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**LEGEND**

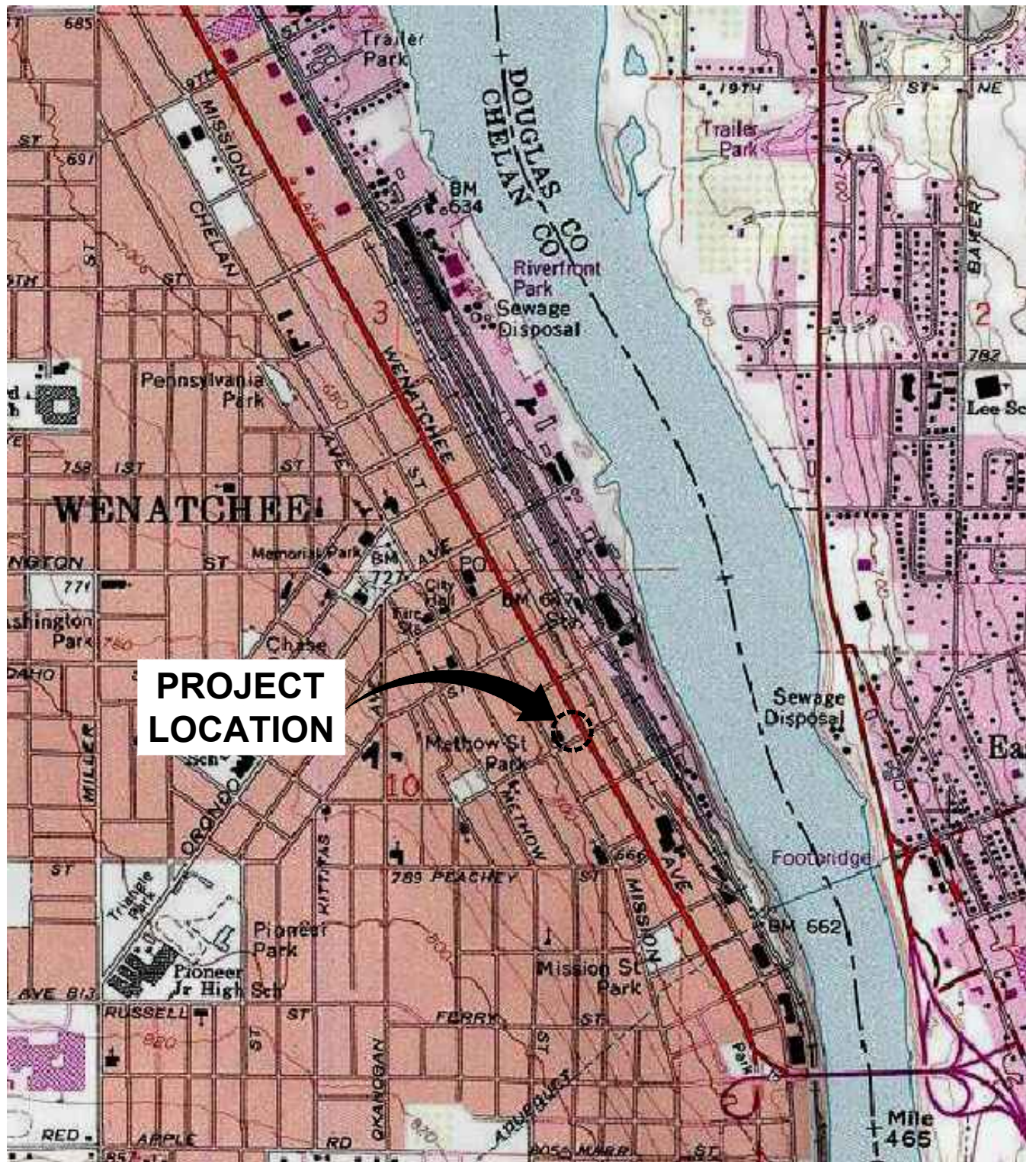
MTCA = Model Toxics Control Act Cleanup Regulations [WAC 173-340-720(2)(a)(1), as amended February 2001]  
 NA = No applicable MTCA Method A cleanup level  
 ND = Not detected  
 TOC = Top of casing elevation  
 DTP = Depth to product  
 DTW = Depth to water  
 GWE = Groundwater elevation  
 DO = Dissolved oxygen  
 ORP = Oxidation reduction potential  
 TPH-GRO = Total petroleum hydrocarbons - gasoline range organics (C4-C12), analyzed by Method orthwest Total Petroleum Hydrocarbon (NWTPH)-Gx Ecology (ECY0 97-602 8015B)  
 TPH-DRO = Total petroleum hydrocarbons - diesel range organics (C10-C28), extended with silica gel clean-up and analyzed by Method NWTPH-Dx, ECY Method 97-602 Modified  
 TPH-HRO = Total petroleum hydrocarbons - heavy range organics (C16-C36), extended with silica gel clean-up and analyzed by Method NWTPH-Dx, ECY Method 97-602 Modified  
 VOCs = Volatile organic compounds analyzed by Environmental Protection Agency (EPA) Method 8260B  
 BTEX = Benzene, Toluene, Ethylbenzene and Total Xylenes  
 MTBE = Methyl tertiary-butyl ether  
 ETBE = Ethyl t-butyl ether  
 TAME = t-Amyl methyl ether  
 EDC = 1,2 - Dichloroethane  
 EDB = 1,2 - Dibromoethane  
 DIPE = Di-Isopropyl ether  
 ft = Feet  
 μg/L = Micrograms per liter  
 -- = Not measured or not analyzed  
 PAHs = Polycyclic aromatic hydrocarbons analyzed by EPA Method 8270 using Selective Ion Monitoring (SIM)  
 cPAHs = Carcinogenic PAHs, identified as known or probable human carcinogens by the US EPA  
 U = Not detected above laboratory reporting limits  
 J = Estimated concentration  
 R = Rejected  
 \* = A site survey was conducted on October 28, 2007. All top of casing measurements subsequent to that date reflect revised top of casing and groundwater elevation measurements.  
 [Number] = Duplicate sample  
 <0.5 = Not detected at or above the laboratory Limit

**NOTES:**

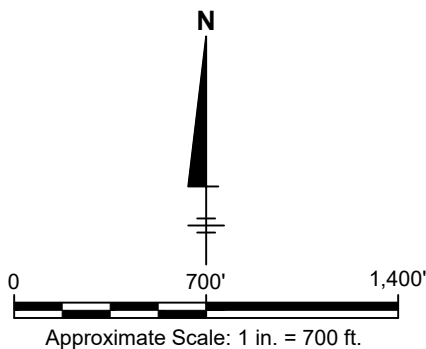
Total and dissolved lead analyzed by EPA Method 7421  
 Total cPAHs results from January 16, 2006 to March 31, 2010 are calculated using the Toxic Equivalency Factors for cPAHs found on page 21 of WSDOE's publication titled "Cleanup Levels and Risk Calculations under the Model Toxics Control Act Cleanup Regulation," Version 3.1, November 2001. MTCA Method A cleanup level is based on benzo(a)pyrene.  
 Total cPAHs results from March 7, 2011 to present are calculated using the Toxic Equivalency Factors for cPAHs found on page 2 of WSDOE's publication titled "Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalence Factors," October 12, 2007. The reference chemical is benzo(a)pyrene.  
 Methanol and ethanol analyzed by EPA Method SW-846 8015B Modified  
 TPH-DRO and TPH-HRO have been analyzed with Silica Gel Cleanup methods since 2001. Results from 2001 through 2009 were reported in Conestoga-Rovers & Associates' 2009 Groundwaer Monitoring Report.


# FIGURES





REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., WENATCHEE, WASHINGTON, 1987



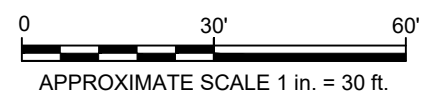
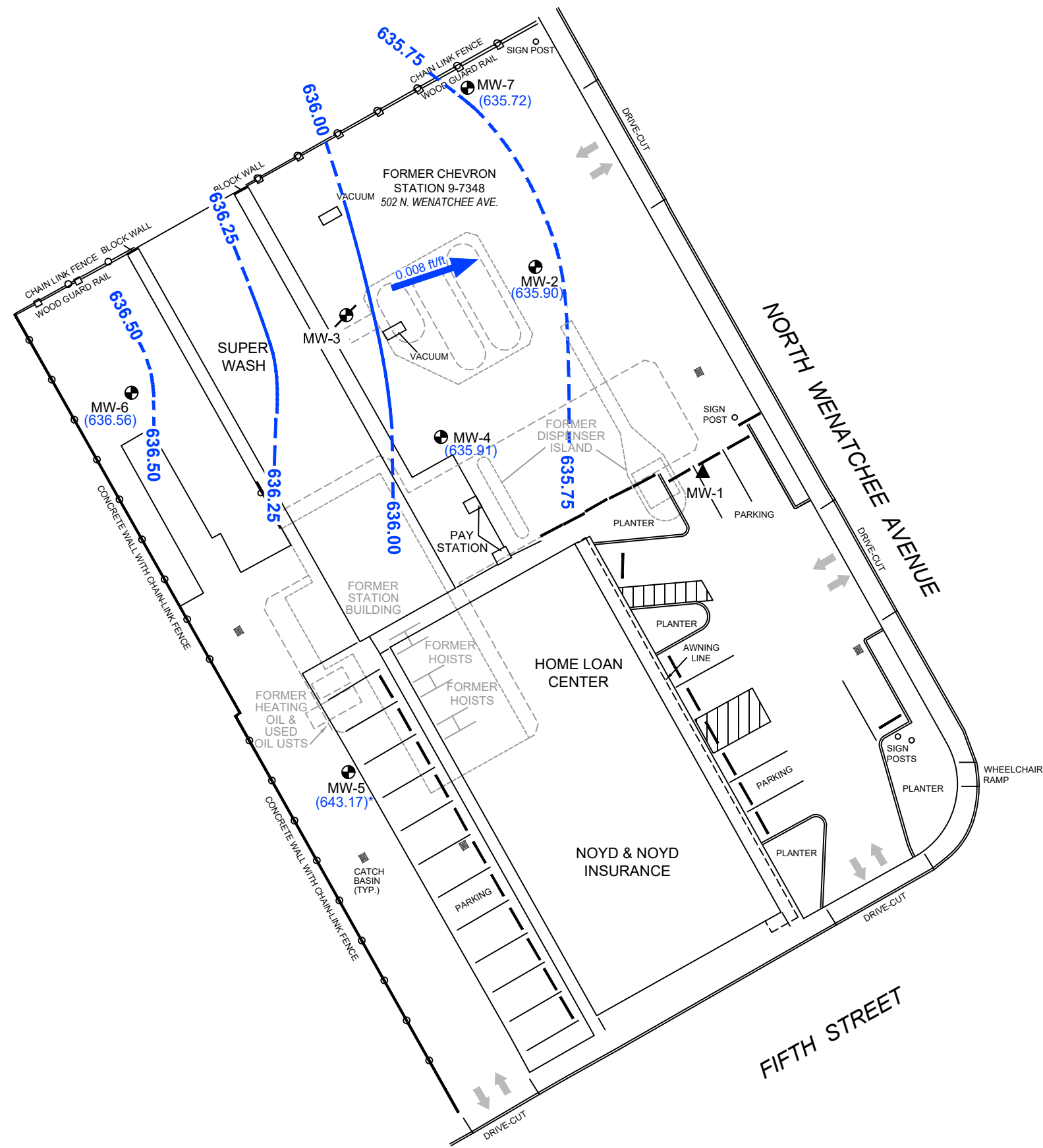
CHEVRON SITE NO. 9-7348 WENATCHEE, WASHINGTON	
<b>SITE LOCATION MAP</b>	
 <b>ARCADIS</b>	<small>Design &amp; Consultancy for natural and built assets</small>
FIGURE <b>1</b>	

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LEGEND:

- MW-1 ▲ SOIL BORING LOCATION AND IDENTIFICATION
- MW-2 ● MONITORING WELL LOCATION AND IDENTIFICATION
- MW-3 ⦿ ABANDONED MONITORING WELL LOCATION
- (636.56) GROUNDWATER ELEVATIONS (FT AMSL)
- 636.50 - - - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- ← APPROXIMATE DIRECTION OF GROUNDWATER FLOW
- 0.008 ft/ft APPROXIMATE HYDRAULIC GRADIENT (FEET/FOOT)
- \* WELL NOT USED IN GROUNDWATER ELEVATION CONTOUR



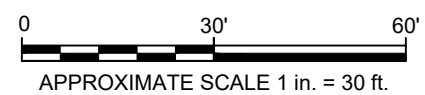
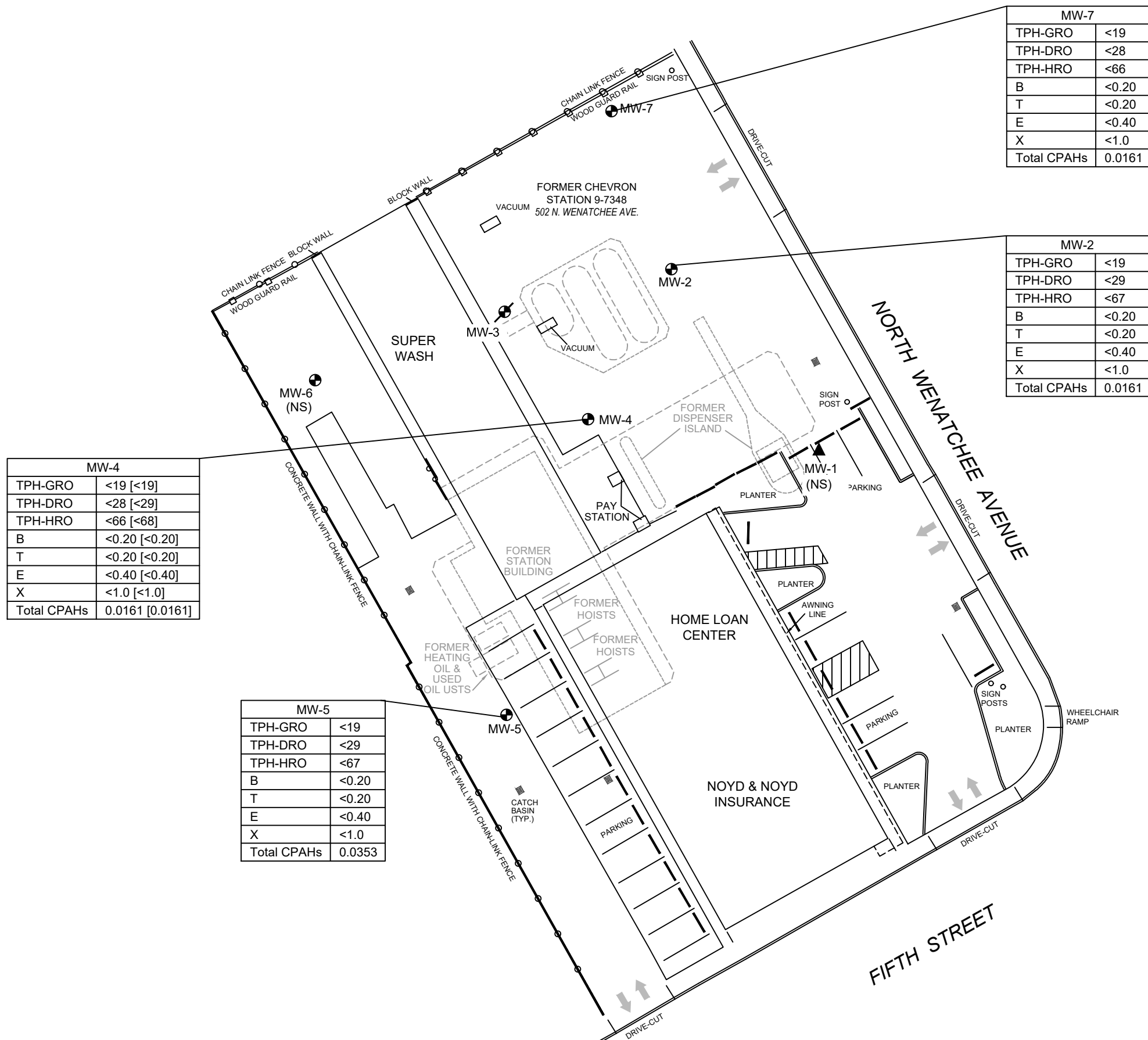
CHEVRON SITE NO. 9-7348  
WENATCHEE, WASHINGTON

**GROUNDWATER CONTOUR MAP**  
**NOVEMBER 16, 2018**

**ARCADIS** Design & Consultancy  
for natural and built assets

FIGURE  
**2**

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CHEVRON SITE NO. 9-7348  
WENATCHEE, WASHINGTON

**GROUNDWATER CONCENTRATION MAP  
NOVEMBER 16, 2018**

**ARCADIS** Design & Consultancy  
for natural and built assets

FIGURE  
**3**



# ATTACHMENT A

Agreed Order dated April 26, 2018



**STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY**

In the Matter of Remedial Action by:

AGREED ORDER

Chevron U.S.A. Inc.

No. DE 15666

RE: Chevron Station #97348  
500 and 510 N. Wenatchee Ave  
Wenatchee, WA

TO: ATTN: Mr. Eric Roehl  
Chevron Environmental Management Company  
145 South State College Blvd.  
Brea, CA 92821  
(714) 671-3347

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EXHIBIT A	Site Location Map
EXHIBIT B	Scope of Work (SOW) and Schedule

## I. INTRODUCTION

The mutual objective of the State of Washington, Department of Ecology (Ecology) and Chevron U.S.A. Inc. (CUSA), (referred to as the PLP) under this Agreed Order (Order) is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Order requires the PLP to complete the work described in Section VII for the site identified by Ecology as the Chevron #97348 Site located at 500 and 510 N. Wenatchee Ave in Wenatchee, Washington (the Site). Ecology believes the actions required by this Order are in the public interest.

## II. JURISDICTION

This Agreed Order is issued pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

## III. PARTIES BOUND

This Agreed Order shall apply to and be binding upon the Parties to this Order, their successors and assigns. The undersigned representative of each party hereby certifies that he or she is fully authorized to enter into this Order and to execute and legally bind such party to comply with this Order. The PLP agrees to undertake all actions required by the terms and conditions of this Order. No change in ownership or corporate status shall alter the PLP's responsibility under this Order. The PLP shall provide a copy of this Order to all agents, contractors, and subcontractors retained to perform work required by this Order, and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Order.

## IV. DEFINITIONS

Unless otherwise specified herein, the definitions set forth in RCW 70.105D and WAC 173-340 shall control the meanings of the terms in this Order.

A. Site: The Site is referred to as the "Chevron #97348 Site". The Site constitutes a facility under RCW 70.105D.020(8). The Site is defined by where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located. Based upon factors currently known to Ecology, the Site is generally

located at 500 and 510 N. Wenatchee Ave, Wenatchee, Washington as shown in the Site Location Map (**Exhibit A**).

- B. Parties: Refers to the State of Washington, Department of Ecology and CUSA.
- C. Potentially Liable Person (PLP): Refers to CUSA.
- D. Agreed Order or Order: Refers to this Order and each of the exhibits to this Order.

All exhibits are integral and enforceable parts of this Order.

#### V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by the PLP:

- A. A Chevron service station operated at the Site from the 1970s until 1990. All structures and buildings were removed from the Site in 1991.
- B. Releases of petroleum hydrocarbons (gasoline and oil) to soil and groundwater occurred at the former Chevron service station located at 500 and 510 N. Wenatchee Ave, Washington, as documented in “Report of Environmental Site Assessment, Chevron Service Station #7348, 502 N Wenatchee Ave, Wenatchee, Washington”, prepared by Groundwater Technology, Inc., dated December 1990; “Report of Underground Storage Tank Closure, Chevron Service Station #7348, 502 N Wenatchee Ave, Wenatchee, Washington”, prepared by Groundwater Technology, Inc., dated April 1991; and in subsequent investigation reports. Additional soil and groundwater investigations were conducted between 2000 and 2007 on behalf of Chevron Environmental Management Company (CEMC), a CUSA affiliate. No remediation activities have taken place at the Site in the last 27 years, based on review of Ecology’s files. Groundwater monitoring has taken place between 1991 and 2013, as documented in various monitoring reports prepared for CEMC.
- C. The most recent groundwater monitoring data in Ecology’s file from March and April 2013, includes exceedances of the MTCA Method A cleanup level for carcinogenic polycyclic aromatic hydrocarbons (PAHs). The previous groundwater monitoring round in December

2012 included MTCA Method A exceedances for heavy oil range total petroleum hydrocarbons and lead.

- D. A Site hazard assessment was performed by the Department of Ecology (Ecology) in 2014 (reported in a letter dated January 6, 2015) resulted in a Site ranking of 2, on a scale of 1 to 5 (second highest ranking). This ranking indicates a threat to human health and the environment. Cleanup of the Site is therefore required.

## **VI. ECOLOGY DETERMINATIONS**

Ecology makes the following determinations, without any express or implied admissions of such determinations (and underlying facts) by the PLP.

- A. CUSA is an “owner or operator” as defined in RCW 70.105D.020(22) of a “facility” as defined in RCW 70.105D.020(8). By signing this Order, CUSA waives the procedural requirements of WAC 173-340-500 and, without admitting liability, accepts PLP status for the purpose of this Order.
- B. Pursuant to RCW 70.105D.030(1) and .050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.
- C. Under WAC 173-340-430, an interim action is a remedial action that is technically necessary to reduce a threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance, that corrects a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed, or that is needed to provide for completion of a site hazard assessment, remedial investigation/feasibility study, or design of a cleanup action plan. Any Party may propose an interim action under this Order. If the Parties are in agreement concerning the interim action, the Parties will follow the process in Section

VII.D. If the Parties are not in agreement, Ecology reserves its authority to require interim action(s) under a separate order or other enforcement action under RCW 70.105D, or to undertake the interim action itself.

## VII. WORK TO BE PERFORMED

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that the PLP take the following remedial actions at the Site. And that these actions must be conducted in accordance with WAC 173-340:

A. The PLP will perform works in accordance with the schedule and terms of the Scope of Work and Schedule, **Exhibit B**, and all other requirements of this Order. The following naming conventions shall be used for documents: Agency Review Draft (designation for the first time Ecology receives a document); Public Review Draft (designates a document ready for public comment); Final (designation for a document after public comment and Ecology approval); and the preliminary Draft Cleanup Action Plan (designation for the PLP's version of the DCAP).

B. The PLP shall submit to Ecology written quarterly Progress Reports that describe the actions taken during the previous quarter to implement the requirements of this Order. All Progress Reports shall be submitted by the tenth (10th) day of the month in which they are due after the effective date of this Order. Unless otherwise specified by Ecology, Progress Reports and any other documents submitted pursuant to this Order shall be sent by certified mail, return receipt requested, to Ecology's project coordinator. The Progress Reports shall include the following:

- a. A list of on-site activities that have taken place during the quarter;
- b. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests;
- c. Description of all deviations from the Scope of Work and Schedule (**Exhibit B**) during the current quarter and any planned deviations in the upcoming quarter;

- d. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule;
- e. All raw data (including laboratory analyses) received by the PLP during the past quarter and an identification of the source of the sample; and
- f. A list of deliverables for the upcoming quarter if different from the schedule.

C. All plans or other deliverables submitted by the PLP for Ecology's review and approval under the Scope of Work and Schedule (**Exhibit B**) shall, upon Ecology's approval, become integral and enforceable parts of this Order.

D. If the Parties agree on an interim action under Section VI.D, the PLP shall prepare and submit to Ecology an Interim Action Work Plan, including a scope of work and schedule, by the date determined by Ecology. Ecology will provide public notice and opportunity to comment on the Interim Action Work Plan in accordance with WAC 173-340-600(16). The PLP shall not conduct the interim action until Ecology approves the Interim Action Work Plan. Upon approval by Ecology, the Interim Action Work Plan becomes an integral and enforceable part of this Order, and the PLP is required to conduct the interim action in accordance with the approved Interim Action Work Plan.

E. If Ecology determines that the PLP has failed to make sufficient progress or failed to implement the remedial action, in whole or in part, Ecology may, after notice to the PLP, perform any or all portions of the remedial action or at Ecology's discretion, allow the PLP opportunity to correct. The PLP shall reimburse Ecology for the costs of doing such work in accordance with Section VIII.A (Remedial Action Costs). Ecology reserves the right to enforce requirements of this Order under Section X (Enforcement).

F. Except where necessary to abate an emergency situation, the PLP shall not perform any remedial actions at the Site outside those remedial actions required by this Order, unless Ecology concurs, in writing, with such additional remedial actions.



## VIII. TERMS AND CONDITIONS

### A. Payment of Remedial Action Costs

The PLP shall pay to Ecology costs incurred by Ecology pursuant to this Order and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Site under RCW 70.105D, including remedial actions and Order preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the issuance of this Order. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). For all Ecology costs incurred, the PLP shall pay the required amount within thirty (30) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly.

In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency and/or, pursuant to RCW 70.105D.055, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

### B. Designated Project Coordinators

The project coordinator for Ecology is:

Frank P. Winslow  
Toxics Cleanup Program  
Washington State Department of Ecology  
Central Regional Office  
1250 W. Alder Street, Union Gap, WA 98903  
Tel: 509-454-7835  
Fax: 509.575.2809  
frank.winslow@ecy.wa.gov

The project coordinator for the PLP is:

Mr. Eric Roehl  
Chevron Environmental Management Company  
145 South State College Blvd.  
Brea, CA 92821  
(714) 671-3347

Each project coordinator shall be responsible for overseeing the implementation of this Order. Ecology's project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and the PLP, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order shall be directed through the project coordinators. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Order.

Any party may change its respective project coordinator. Written notification shall be given to the other party at least ten (10) calendar days prior to the change.

**C. Performance**

All geologic and hydrogeologic work performed pursuant to this Order shall be under the supervision and direction of a geologist or hydrogeologist licensed by the State of Washington or under the direct supervision of an engineer registered by the State of Washington, except as otherwise provided for by RCW 18.43 and 18.220.

All engineering work performed pursuant to this Order shall be under the direct supervision of a professional engineer registered by the State of Washington, except as otherwise provided for by RCW 18.43.130.

All construction work performed pursuant to this Order shall be under the direct supervision of a professional engineer or a qualified technician under the direct supervision of a professional engineer. The professional engineer must be registered by the State of Washington, except as otherwise provided for by RCW 18.43.130.

Any documents submitted containing geologic, hydrogeologic, or engineering work shall be under the seal of an appropriately licensed professional as required by RCW 18.43 and 18.220.

The PLP shall notify Ecology in writing of the identity of any engineer(s) and geologist(s), contractor(s) and subcontractor(s), and others to be used in carrying out the terms of this Order, in advance of their involvement at the Site.

**D. Access**

Ecology or any Ecology authorized representative shall have access to enter and freely move about all property at the Site that the PLP either owns, controls, or has access rights to at all reasonable times for the purposes of, *inter alia*: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the PLP's progress in carrying out the terms of this Order; conducting such tests or collecting such samples as Ecology may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by the PLP. The PLP shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by the PLP where remedial activities or investigations will be performed pursuant to this Order. Ecology or any Ecology authorized representative shall give reasonable notice before entering any Site property owned or controlled by the PLP unless an emergency prevents such notice. All persons who access the Site pursuant to this section shall comply with any applicable health and safety plan(s). Ecology employees and their representatives shall not be required to sign any liability release or waiver as a condition of Site property access. Ecology acknowledges that the PLP does not own or control the properties within the Site, and therefore may not be able to provide Ecology with access.

**E. Sampling, Data Submittal, and Availability**

With respect to the implementation of this Order, the PLP shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in

both printed and electronic formats in accordance with Section VII (Work to be Performed), Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

If requested by Ecology, the PLP shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by the PLP pursuant to implementation of this Order. The PLP shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow The PLP and/or its authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Order, provided that doing so does not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section VIII.D (Access), Ecology shall notify the PLP prior to any sample collection activity unless an emergency prevents such notice.

In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under WAC 173-50 for the specific analyses to be conducted, unless otherwise approved by Ecology.

#### **F. Public Participation**

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing this public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that this Order is inadequate or improper in any respect.

Ecology shall maintain the responsibility for public participation at the Site. However, the PLP shall cooperate with Ecology, and shall:

1. If agreed to by Ecology, develop appropriate mailing lists and prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans, remedial investigation/feasibility study reports, cleanup action plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings.

2. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. Likewise, Ecology shall notify the PLP prior to the issuance of all press releases and fact sheets related to the Site, and before meetings related to the Site with the interested public and local governments. For all press releases, fact sheets, meetings, and other outreach efforts by the PLP that do not receive prior Ecology approval, the PLP shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

3. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions or as a presenter.

4. When requested by Ecology, arrange and/or continue information repositories to be located at the following locations:

- a. Wenatchee Public Library  
310 Douglas Street, Wenatchee, WA 98801
- b. Department of Ecology  
Central Regional Office  
1250 W. Alder St, Union Gap, WA 98903

At a minimum, copies of all public notices, fact sheets, and documents relating to public comment periods shall be promptly placed in these repositories. A copy of all documents related to this Site shall be maintained in the repository at Ecology's Central Regional Office in Union Gap Washington.

**G. Retention of Records**

During the pendency of this Order, and for ten (10) years from the date of completion of work performed pursuant to this Order, the PLP shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors.

Upon request of Ecology, the PLP shall make all records available to Ecology and allow access for review within a reasonable time.

Nothing in this Order is intended to waive any right the PLP may have under applicable law to limit disclosure of documents protected by the attorney work-product privilege and/or the attorney-client privilege. If the PLP withholds any requested records based on an assertion of privilege, the PLP shall provide Ecology with a privilege log specifying the records withheld and the applicable privilege. No Site-related data collected pursuant to this Order shall be considered privileged.

#### **H. Resolution of Disputes**

1. In the event that the PLP elects to invoke dispute resolution the PLP must utilize the procedure set forth below.

a. Upon the triggering event (receipt of Ecology's project coordinator's written decision or an itemized billing statement), the PLP has thirty (30) calendar days within which to notify Ecology's project coordinator in writing of its dispute (Informal Dispute Notice).

b. The Parties' project coordinators shall then confer in an effort to resolve the dispute informally. The parties shall informally confer for up to fourteen (14) calendar days from receipt of the Informal Dispute Notice. If the project coordinators cannot resolve the dispute within those 14 calendar days, then within seven (7) calendar days Ecology's project coordinator shall issue a written decision (Informal Dispute Decision) stating: the nature of the dispute; the PLP's position with regards to the dispute; Ecology's position with regards to the dispute; and the extent of resolution reached by informal discussion.

c. The PLP may then request regional management review of the dispute. This request (Formal Dispute Notice) must be submitted in writing to the Central Region Toxics Cleanup Section Manager within seven (7) calendar days of receipt of Ecology's Informal Dispute Decision. The Formal Dispute Notice shall include a written statement of dispute

setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.

d. The Section Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Decision on Dispute) within thirty (30) calendar days of receipt of the Formal Dispute Notice. The Decision on Dispute shall be Ecology's final decision on the disputed matter.

2. The Parties agree to only utilize the dispute resolution process in good faith and agree to expedite, to the extent possible, the dispute resolution process whenever it is used.

3. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Order, unless Ecology agrees in writing to a schedule extension.

4. In case of a dispute, failure to either proceed with the work required by this Order or timely invoke dispute resolution may result in Ecology's determination that insufficient progress is being made in preparation of a deliverable, and may result in Ecology undertaking the work under Section VII.E (Work to be Performed) or initiating enforcement under Section X (Enforcement).

#### **I. Extension of Schedule**

1. The PLP's request for an extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

- a. The deadline that is sought to be extended;
- b. The length of the extension sought;
- c. The reason(s) for the extension; and
- d. Any related deadline or schedule that would be affected if the extension were granted.

2. The burden shall be on the PLP to demonstrate to the satisfaction of Ecology that the request for such extension has been submitted in a timely fashion and that good cause exists for granting the extension. Good cause may include, but may not be limited to:

a. Circumstances beyond the reasonable control and despite the due diligence of the PLP including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by the PLP;

b. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty; or

c. Endangerment as described in Section VIII.K (Endangerment).

However, neither increased costs of performance of the terms of this Order nor changed economic circumstances shall be considered circumstances beyond the reasonable control of the PLP.

3. Ecology shall act upon any PLP's written request for extension in a timely fashion. Ecology shall give the PLP written notification of any extensions granted pursuant to this Order. A requested extension shall not be effective until approved by Ecology. Unless the extension is a substantial change, it shall not be necessary to amend this Order pursuant to Section VIII.J (Amendment of Order) when a schedule extension is granted.

4. At the PLP's request, an extension shall only be granted for such period of time as Ecology determines is reasonable under the circumstances. Ecology may grant schedule extensions exceeding ninety (90) days only as a result of:

a. Delays in the issuance of a necessary permit which was applied for in a timely manner;

b. Other circumstances deemed exceptional or extraordinary by Ecology; or

c. Endangerment as described in Section VIII.K (Endangerment).



**J. Amendment of Order**

The project coordinators may verbally agree to minor changes to the work to be performed without formally amending this Order. Minor changes will be documented in writing by Ecology within seven (7) days of verbal agreement.

Except as provided in Section VIII.L (Reservation of Rights), substantial changes to the work to be performed shall require formal amendment of this Order. This Order may only be formally amended by the written consent of both Ecology and the PLP. Ecology will provide its written consent to a formal amendment only after public notice and opportunity to comment on the formal amendment.

When requesting a change to the Order, the PLP shall submit a written request to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request is received. If Ecology determines that the change is substantial, then the Order must be formally amended. Reasons for the disapproval of a proposed change to this Order shall be stated in writing. If Ecology does not agree to a proposed change, the disagreement may be addressed through the dispute resolution procedures described in Section VIII.H (Resolution of Disputes).

**K. Endangerment**

In the event Ecology determines that any activity being performed at the Site under this Order is creating or has the potential to create a danger to human health or the environment on or surrounding the Site, Ecology may direct the PLP to cease such activities for such period of time as it deems necessary to abate the danger. The PLP shall immediately comply with such direction.

In the event the PLP determines that any activity being performed at the Site under this Order is creating or has the potential to create a danger to human health or the environment, the PLP may cease such activities. The PLP shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after making such determination or ceasing such activities. Upon Ecology's direction, the PLP shall provide Ecology with documentation of the

basis for the determination or cessation of such activities. If Ecology disagrees with the PLP's cessation of activities, it may direct the PLP to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to this section, the PLP's obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended in accordance with Section VIII.I (Extension of Schedule) for such period of time as Ecology determines is reasonable under the circumstances.

Nothing in this Order shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

**L. Reservation of Rights**

This Order is not a settlement under RCW 70.105D. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any of Ecology's rights or authority. Ecology will not, however, bring an action against the PLP to recover remedial action costs paid to and received by Ecology under this Order. In addition, Ecology will not take additional enforcement actions against the PLP regarding remedial actions required by this Order, provided the PLP complies with this Order.

Ecology nevertheless reserves its rights under RCW 70.105D, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health or the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

By entering into this Order, the PLP does not admit to any liability for the Site. Although the PLP is committing to conducting the work required by this Order under the terms of this Order, the PLP expressly reserves all rights available under law, including but not limited to the right to seek cost recovery or contribution against third parties, and the right to assert any defenses to liability in the event of enforcement.

**M. Transfer of Interest in Property**

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by the PLP without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to the PLP's transfer of any interest in all or any portion of the Site, and during the effective period of this Order, the PLP shall provide a copy of this Order to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least thirty (30) days prior to any transfer, the PLP shall notify Ecology of said transfer. Upon transfer of any interest, the PLP shall notify all transferees of the restrictions on the activities and uses of the property under this Order and incorporate any such use restrictions into the transfer documents.

**N. Compliance with Applicable Laws**

1. All actions carried out by the PLP pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits or approvals, except as provided in RCW 70.105D.090. At this time, no federal, state, or local requirements have been identified as being applicable to the actions required by this Order. The PLP has a continuing obligation to identify additional applicable federal, state, and local requirements which apply to actions carried out pursuant to this Order, and to comply with those requirements. As additional federal, state, and local requirements are identified by Ecology or the PLP, Ecology will document in writing if they are applicable to actions carried out pursuant to this Order, and the PLP must implement those requirements.

2. All actions carried out by the PLP pursuant to this Order shall be done in accordance with relevant and appropriate requirements identified by Ecology. At this time, no relevant and appropriate requirements have been identified as being applicable to the actions required by this Order. If additional relevant and appropriate requirements are identified by Ecology or the PLP, Ecology will document in writing if they are applicable to actions carried out pursuant to this Order and the PLP must implement those requirements.

3. Pursuant to RCW 70.105D.090(1), the PLP may be exempt from the procedural requirements of RCW 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 and of any laws requiring or authorizing local government permits or approvals. However, the PLP shall comply with the substantive requirements of such permits or approvals. For permits and approvals covered under RCW 70.105D.090(1) that have been issued by local government, the Parties agree that Ecology has the non-exclusive ability under this Order to enforce those local government permits and/or approvals. At this time, no state or local permits or approvals have been identified as being applicable but procedurally exempt under this section.

4. The PLP has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event either Ecology or the PLP determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or the PLP shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the PLP shall promptly consult with the appropriate state and/or local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements that must be met by the PLP and on how the PLP must meet those requirements. Ecology shall inform the PLP in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The PLP shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency that is necessary for the state to administer any federal law, the exemption shall not apply and the PLP shall comply with both the

procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits or approvals.

**O. Indemnification**

The PLP agrees to indemnify and save and hold the State of Washington, its employees, and agents harmless from any and all claims or causes of action (1) for death or injuries to persons, or (2) for loss or damage to property, to the extent arising from or on account of acts or omissions of the PLP, its officers, employees, agents, or contractors in entering into and implementing this Order. However, the PLP shall not indemnify the State of Washington nor save nor hold its employees and agents harmless from any claims or causes of action to the extent arising out of the negligent acts or omissions of the State of Washington, or the employees or agents of the State, in entering into or implementing this Order.

**IX. SATISFACTION OF ORDER**

The provisions of this Order shall be deemed satisfied upon the PLP's receipt of written notification from Ecology that the PLP has completed the remedial activity required by this Order, as amended by any modifications, and that the PLP has complied with all other provisions of this Agreed Order.

**X. ENFORCEMENT**

Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

- A. The Attorney General may bring an action to enforce this Order in a state or federal court.
- B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.
- C. A liable party who refuses, without sufficient cause, to comply with any term of this Order will be liable for:
  1. Up to three (3) times the amount of any costs incurred by the State of Washington as a result of its refusal to comply.

2. Civil penalties of up to twenty-five thousand dollars (\$25,000) per day for each day it refuses to comply.

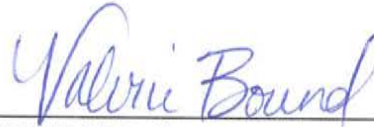
D. This Order is not appealable to the Washington Pollution Control Hearings Board. This Order may be reviewed only as provided under RCW 70.105D.060.

**APR 26 2018**

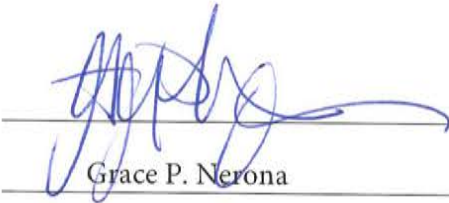
Effective date of this Order: \_\_\_\_\_

CHEVRON U.S.A. INC.  
~~CHEVRON U.S.A. INC.~~  
By CHEVRON ENVIRONMENTAL  
MANAGEMENT COMPANY  
As attorney-in-fact for Chevron U.S.A. Inc.

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY



**Valerie Bound**  
Section Manager  
Toxics Cleanup Program  
Central Regional Office  
(509) 454-7886



\_\_\_\_\_  
Signature

Grace P. Nerona

\_\_\_\_\_  
Print Name

Assistant Secretary

\_\_\_\_\_  
Print Title

Chevron Environmental Management Company  
6001 Bollinger Canyon Road  
San Ramon, CA 94583

Eric Roehl, (714) 671-3347

\_\_\_\_\_  
Telephone

**EXHIBIT A – SITE LOCATION MAP**



\*Note: The Site is generally located at 500 and 510 N. Wenatchee Ave in Wenatchee, and is defined by the extent of soil and groundwater contamination, not property boundaries. The arrow shown is for general location purposes only.

Aerial Map Source: Google Maps.



# EXHIBIT B –SCOPE OF WORK (SOW) AND SCHEDULE

## SCOPE OF WORK

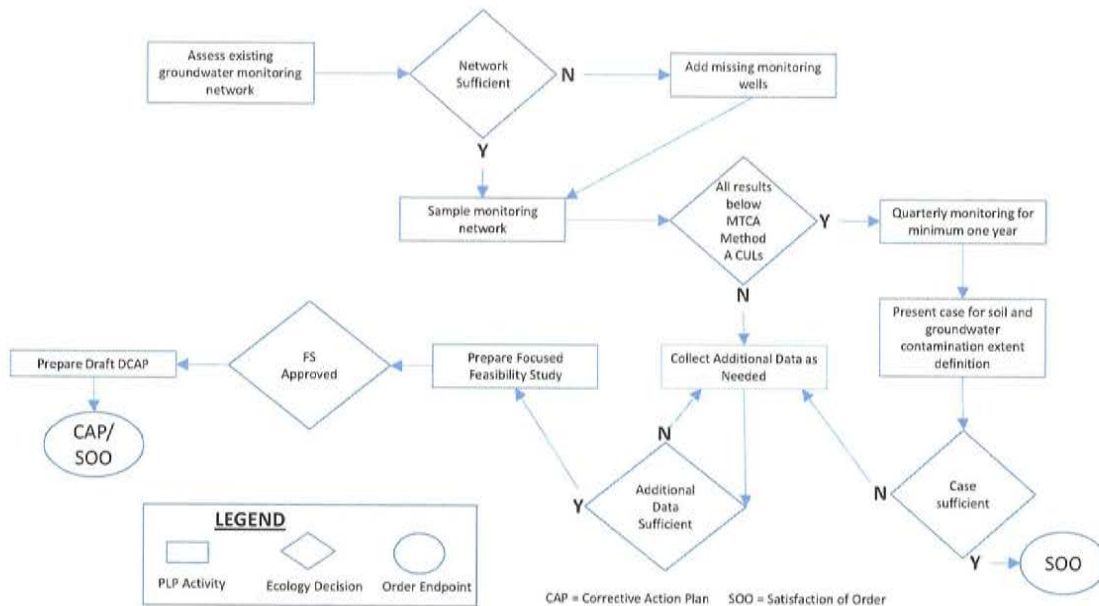
### PURPOSE

The work under this AO involves two potential workflow paths, depending upon the outcome of initial groundwater sampling. Figure 1 illustrates the two potential work flow paths, which are described herein as a Monitoring Only path and a Cleanup Action Plan (CAP) path. The Monitoring Only path is based on the following conditions:

- The monitoring network is deemed sufficient by Ecology;
- Sampling of the monitoring network by the PLP results in all constituents having results below MTCA Method A cleanup levels; and
- The PLP can make the case that the extent of soil and groundwater contamination has been defined, and neither soil nor groundwater contamination exceeds Method A cleanup levels.

The CAP path shall be required if groundwater sampling results from the monitoring network have results above Method A cleanup levels or the PLP cannot make the case that the extent of soil or groundwater contamination has been sufficiently defined.

Figure 1: Two potential work flow paths.



## Exhibit B Scope of Work and Schedule

The Scope of Work (SOW) is divided into the following tasks:

- Task 1. Assessment of Existing Monitoring Network
- Task 2. Update of Existing Monitoring Network (if needed)
- Task 3. Monitoring Network Sampling
- Task 4. Quarterly Monitoring Network (if monitoring only option is appropriate)
- Task 5. Extent of Soil and Groundwater Contamination (both options)
- Task 6. Supplemental Data Collection (if needed)
- Task 7. Focused Feasibility Study Report (CAP option)
- Task 8. SEPA Compliance (CAP option)
- Task 9. Draft Corrective Action Plan (CAP option)

The PLP shall coordinate with Ecology throughout the development of the SOW tasks, and shall keep Ecology informed of changes to any project plans, and of any issues or problems as they develop.

### **TASK 1 – ASSESSMENT OF EXISTING MONITORING NETWORK**

Under both work flow options, the initial task will be for the PLP to assess the condition of the existing monitoring well network and present that information to Ecology. This information will include the locations, construction, and conditions of existing monitoring wells. Ecology will make a determination as to whether or not this network is sufficient to determine the current conditions of groundwater.

### **TASK 2 – UPDATE OF EXISTING MONITORING NETWORK (IF NEEDED)**

If the existing monitoring network is not considered sufficient by Ecology, then additional monitoring points will be required. Ecology must approve the locations and construction methods and materials for additional monitoring points. After Ecology approval, the PLP shall install the additional monitoring points.

### **TASK 3 – MONITORING NETWORK SAMPLING**

The PLP shall present a brief work plan to Ecology presenting the monitoring wells to be sampled, the sampling methods to be used, and the laboratory analysis to be performed. Ecology shall provide comments and/or approval on that work plan. After Ecology approval of the work plan, the PLP shall sample the monitoring wells. The results of the sampling will be presented to Ecology in a letter report, including a map showing well locations, potentiometric surface map, tabulated data, and analytical laboratory reports. A new survey of monitoring wells may be needed to generate a potentiometric surface map.

**TASK 4 – QUARTERLY MONITORING (IF MONITORING ONLY PATH IS APPROPRIATE)**

If the results of Task 3 indicate all results below MTCA Method A cleanup levels, then the PLP can propose quarterly monitoring for a minimum of one year, counting the initial monitoring round. If at the end of one year of monitoring all results are below MTCA Method A cleanup levels, then the PLP can petition for a No Further Action determination, provided the PLP can make the case that the extent of soil and groundwater contamination has been defined and are both below MTCA method A clean levels (see Task 5).

**TASK 5 – EXENT OF SOIL AND GROUNDWATER CONTAMINATION**

If the PLP opines that they can make a case that the extent of soil and groundwater contamination has been previously defined, then the PLP shall present that case either in a letter report or combined with a groundwater monitoring report. The extent of contamination case must be presented using tables, maps, and cross sections to show the identified historical contamination distribution. A conceptual site model must be presented to demonstrate that all transport and exposure pathways and mechanisms have been considered and assessed. This conceptual site model should be expressed both graphically and verbally.

**MONITORING ONLY PATH NO FUTHER ACTION DETERMINATION**

Ecology shall, at their sole discretion, issue a No Further Action Determination for the Site if the four quarters of groundwater monitoring result in all contaminants being present at concentrations less than their respective Method A clean up levels and the PLP has made a sufficient case that the extent of soil and groundwater contamination has been defined. Ecology reserves the right to request additional monitoring rounds and/or collection of additional data, at their sole discretion.

**WORK FLOW PATH 2 – CORRECTIVE ACTION PLAN**

The second work flow path will be required if groundwater monitoring results are above Method A cleanup levels.

**TASK 6 – SUPPLEMENTAL DATA COLLECTION**

Initially, the PLP will opine whether or not sufficient data has been collected to prepare a focused feasibility study, based on the documentation of the extent of soil and groundwater contamination (Task 5). Ecology will determine whether or not additional data are needed prior to proceeding to the focused feasibility study. This determination will be made based on whether or not previous works meet the requirements for an RI as detailed in WAC 173-340-350(7).

## Exhibit B Scope of Work and Schedule

If Ecology has determined that supplemental data collection is required prior to proceeding to the focused Feasibility Study, then the PLP shall prepare a letter work plan detailing the methods, locations, and depths, of such supplemental data collection. After Ecology approval, the PLP shall proceed with the supplemental data collection activities. The results of such activities shall be presented to Ecology in a letter report to be approved by Ecology.

### **TASK 7 – FOCUSED FEASIBILITY STUDY**

After Ecology has determined that sufficient data are available to proceed, the PLP shall prepare a Focused Feasibility Study (FFS). The FFS must include the components required in WAC 173-340-350(8) but can focus on model remedies approved of by Ecology. The focused feasibility study can include evaluation of cleanup levels and points of compliance, as appropriate.

The *Draft* FFS will evaluate remedial alternatives for site cleanup, consistent with MTCA requirements to ensure protection of human health and the environment by eliminating, reducing, or otherwise controlling risk posed through each exposure pathway and migration route. Prior to beginning the FFS, a Key Project Meeting will be held to review ARARs, potential remedial alternatives and establish points of compliance.

The *Draft* FFS will provide a detailed analysis of each remedial alternative according to the applicable requirements of WAC 173-340-350(8). The remedial alternatives will be evaluated for compliance with the applicable requirements of WAC 173-340-360, Selection of Cleanup Actions, including a detailed evaluation of remedial alternatives relative to the following criteria:

- Compliance with Cleanup Standards and Applicable Laws
- Protection of Human Health
- Protection of the Environment
- Provision for a Reasonable Restoration Time Frame
- Use of Permanent Solutions to the Maximum Extent Practicable
- The Degree to which Recycling, Reuse, and Waste Minimization are Employed
- Short-term Effectiveness
- Long-Term Effectiveness
- Net Environmental Benefit
- Implementability
- Provision for Compliance Monitoring
- Cost-Effectiveness
- Prospective Community Acceptance

The remedial alternative that is judged to best satisfy the evaluation criteria will be identified. Justification for the selection will be provided, and the recommended remedial alternative further developed, in the *Draft* FFS Report.

## Exhibit B Scope of Work and Schedule

The PLP shall prepare the *Draft* Focused Feasibility Study Report and submit two hard copies and one electronic copy in Adobe (.pdf) format to Ecology for review. The PLP shall incorporate Ecology's comments and then prepare the *Final* Focused Feasibility Study Report and submit two hard copies and one electronic copy in Adobe (.pdf) format, to Ecology. The FS will not be considered Final until after a public review and comment period.

### **TASK 8. SEPA COMPLIANCE**

The PLP shall be responsible for complying with the State Environmental Policy Act (SEPA) Rules including preparing and submitting an environmental checklist. If the result of the threshold determination is a determination of significance (DS), the PLP shall be responsible for the preparation of Draft and final environmental impact statements. The PLP shall assist Ecology with coordinating SEPA public involvement requirements with MTCA public involvement requirements whenever possible, such that public comment periods and meetings or hearings can be held concurrently.

### **TASK 9. PRELIMINARY DRAFT CLEANUP ACTION PLAN**

Upon Ecology approval of the *Draft* Focused Feasibility Study, a Key Project Meeting will be held regarding the Cleanup Action Plan. The Cleanup Action Plan Meeting will be used to review plans for developing the *Preliminary Draft* Cleanup Action Plan (DCAP).

The PLP shall prepare a preliminary DCAP in accordance with WAC 173-340-380 that provides a proposed remedial action to address the contamination present on the Site. Where contaminated sediments are included in the remedial action, the cleanup plan will comply with WAC 173-204-580, in addition to the MTCA requirements cited above. The preliminary DCAP shall include a general description of the proposed remedial actions, cleanup standards developed from the RI/FS and rationale regarding their selection, a schedule for implementation, description of any institutional controls proposed, and a summary of applicable local, state, and federal laws pertinent to the proposed cleanup actions.

The PLP will submit a preliminary DCAP for Ecology's review and approval. The preliminary DCAP will include, but not be limited to, the information listed under WAC 173-340-380. The PLP shall provide two hard copies and one electronic copy in Adobe (.pdf) format, to Ecology for review and approval.

After receiving Ecology's comments on the preliminary DCAP, the PLP shall revise the preliminary DCAP to address Ecology's comments and submit three hard copies and one electronic copy in Adobe (.pdf) formats for public review.

## SCHEDULE OF DELIVERABLES

The schedule for deliverables described in the Agreed Order and the Scope of Work is presented below. If the date for submission of any item or notification required by this Schedule of Deliverables occurs on a weekend, state or federal holiday, the date for submission of that item or notification is extended to the next business day following the weekend or holiday. Where a deliverable due date is triggered by Ecology notification, comments or approval, the starting date for the period shown is the date the PLP received such notification, comments or approval by certified mail, return receipt requested, unless otherwise noted below. Where triggered by Ecology receipt of a deliverable, the starting date for the period shown is the date Ecology receives the deliverable by certified mail, return receipt requested, or the date of Ecology signature on a hand-delivery form.

<b>Task</b>	<b>RI/FS Deliverable</b>	<b>Deliverable description</b>	<b>Completion Times</b>
1	Assessment of Existing Monitoring Network	PLP submittal of document to Ecology	Within 60 calendar days following the effective date of the Agreed Order
		Ecology comments on document to PLP	Within 20 calendar days following receipt of draft document
2	Update of Existing Monitoring Network (if needed)	PLP submittal of letter work plan to Ecology	Within 60 calendar days following completion of Task 2
		Ecology comments on work plan	Within 20 calendar days following receipt of work plan
		PLP completion of additional monitoring wells and reporting to Ecology	Within 90 calendar days of receipt of Ecology comments
3	Monitoring Network Sampling	PLP submittal of letter work plan to Ecology	Within 45 calendar days following Ecology approval of monitoring network
		Ecology comments on work plan	Within 20 calendar days following receipt of work plan
		PLP sampling of monitoring wells and reporting to Ecology	Within 60 calendar days of Ecology approval of work plan

Exhibit B Scope of Work and Schedule

4	Quarterly Monitoring (if appropriate)	PLP to perform quarterly monitoring and submit monitoring reports to Ecology for one year	Within 60 days following end of each quarter
5	Extent of Soil and Groundwater Contamination	Letter report presenting extent of contamination and CSM to Ecology	Within 60 calendar days following effective date of the Agreed Order
		Ecology determination on sufficiency of extent document	Within 20 calendar days following receipt of document
		PLP work plan for supplemental investigation (if needed)	Within 60 calendar days of receipt of Ecology request for additional data
		Ecology comments on work plan	Within 20 calendar days following receipt of document
6	Supplemental Data Collection	Supplemental field data acquisition <sup>3</sup>	Within 90 calendar days following Ecology approval of work plan
		Supplement data report	Within 60 calendar days of completion of field work
7	Focused Feasibility Study (FFS) Report	PLP submittal of draft document to Ecology	Within 90 calendar days following completion of the FFS
		Ecology comments on draft document to PLP	Within 30 calendar days following receipt of draft document
		PLP submittal of revised document to Ecology <sup>1,2</sup>	Within 45 calendar days of receipt of Ecology comments
8	Preliminary Draft Cleanup Action Plan (DCAP)	PLP submittal of draft document to Ecology	Within 90 calendar days following completion of the FFS

Exhibit B Scope of Work and Schedule

		Ecology comments on draft document to PLP	Within 30 calendar days following receipt of draft document
		PLP submittal of revised document to Ecology <sup>1,2</sup>	Within 45 calendar days of receipt of Ecology comments

1 – Ecology reserves the right, at the sole discretion of Ecology, to require one additional comment and document revision round, if needed. All Ecology comments must be addressed to Ecology’s satisfaction prior to document finalization.

2 – If the document submitted is not satisfactory to Ecology after completion of two rounds of review and comments (including initial review and comments), Ecology may at its sole discretion complete the document or contract with an Ecology contractor for completion of the document at the expense of the PLP under Section VIII (A) of the Agreed Order.

3 – The schedule for supplemental field data acquisition may be revised by Ecology, based on the exact scope of work presented within the work plan prepared by the PLP.



# ATTACHMENT B

Groundwater Monitoring and Sampling Data Package



## LOW FLOW WELL MONITORING DATA SHEET

Project #: 181116-LB1	Client: ARCADIS
Sampler: LB	Gauging Date: 11/16/18
Well I.D.: MW-2	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): 26.69	Depth to Water (ft.): 20.13
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSE 556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1045      Flow Rate: 200 mL/MIN      Pump Depth: 23.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or <del>µS/cm</del> )	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <del>ml</del> )	Depth to Water (ft.)
1048	13.88	7.30	863	31	1.47	-95.6	600	20.18
1051	14.22	7.23	881	20	1.38	-91.7	1200	20.18
1054	14.46	7.17	876	17	1.34	-90.9	1800	20.18
1057	14.48	7.14	874	16	1.33	-91.4	2400	20.18
1100	14.50	7.13	873	16	1.32	-92.0	3000	20.18

Did well dewater? Yes <input checked="" type="checkbox"/>	Amount actually evacuated: 3L
Sampling Time: 1101	Sampling Date: 11/16/18
Sample I.D.: MW-2-181116	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>SEE COC</u>
Equipment Blank I.D.: @	Duplicate I.D.:

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 181116-LB1	Client: ARCADES
Sampler: LB	Gauging Date: 11/16/18
Well I.D.: MW-4	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): 27.24	Depth to Water (ft.): 22.73
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PXC</u> Grade	Flow Cell Type: <u>YSI 556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0945      Flow Rate: 200 ML / MIN      Pump Depth: 25'

Time	Temp. ( <u>C</u> or °F)	pH	Cond. (mS/cm or <u>µS/cm</u> )	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <u>ML</u> )	Depth to Water (ft.)
0948	12.64	7.61	326	61	1.76	-79.3	600	22.78
0951	12.91	7.60	326	35	1.65	-85.6	1200	22.78
0954	13.00	7.58	328	23	1.63	-91.0	1800	22.78
0957	13.01	7.57	328	12	1.62	-93.7	2400	22.78
1000	13.08	7.57	329	11	1.61	-94.6	3000	22.78
1003	13.12	7.56	330	10	1.60	-95.1	3600	22.78

Did well dewater? Yes <u>No</u>	Amount actually evacuated: 3.6L
Sampling Time: 1004	Sampling Date: 11/16/18
Sample I.D.: MW-4-181116	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>SEE COC</u>
Equipment Blank I.D.: @ Time	Duplicate I.D.: DUP-1-181116

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 181116-LB1	Client: ARCADIS
Sampler: LB	Gauging Date: 11/16/18
Well I.D.: MW-5	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): 50.19	Depth to Water (ft.): 16.12
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="checkbox"/> PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 0852      Flow Rate: 200 mL / MIN      Pump Depth: 335'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0855	11.94	7.27	234	18	1.62	-85.0	600	16.15
0858	12.80	7.11	236	13	1.60	-93.1	1200	16.15
0901	13.38	7.01	237	9	1.55	-96.2	1800	16.15
0904	13.37	7.95	238	8	1.54	-97.3	2400	16.15
0907	13.34	7.93	239	8	1.53	-98.4	3000	16.15

Did well dewater? Yes <input checked="" type="checkbox"/> No	Amount actually evacuated: 3L
Sampling Time: 0908	Sampling Date: 11/16/18
Sample I.D.: MW-5-181116	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COC
Equipment Blank I.D.: @	Duplicate I.D.:

## LOW FLOW WELL MONITORING DATA SHEET

Project #: 181116-LB1	Client: ARCADES
Sampler: LB	Gauging Date: 11/16/18
Well I.D.: MW-7	Well Diameter (in.): <u>2</u> 3 4 6 8
Total Well Depth (ft.): 24.29	Depth to Water (ft.): 20.62
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	Flow Cell Type: <u>YSE 556</u>

Purge Method: 2" Grundfos Pump      Peristaltic Pump      Bladder Pump  
 Sampling Method: Dedicated Tubing      New Tubing      Other \_\_\_\_\_  
 Start Purge Time: 1121      Flow Rate: 200 mL/MTW      Pump Depth: 22.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or <del>µS/cm</del> )	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or <del>ml</del> )	Depth to Water (ft.)
1124	14.14	7.59	349	34	1.16	-64.2	600	20.69
1127	14.43	7.52	325	17	1.14	-59.4	1200	20.69
1130	14.45	7.49	321	13	1.13	-60.3	1800	20.69
1133	14.49	7.36	310	11	1.08	-62.4	2400	20.69
1136	14.51	7.34	309	10	1.07	-63.1	3000	20.69
1139	14.54	7.33	308	10	1.06	-64.4	3600	20.69

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: 3.6L
Sampling Time: 1140	Sampling Date: 11/16/18
Sample I.D.: MW-7-181116	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>SSE COC</u>
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

# ATTACHMENT C

Chain-of-Custody Form and Laboratory Analytical Data





## ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental  
2425 New Holland Pike  
Lancaster, PA 17601

Prepared for:

Chevron Environmental Mgmt Co  
6101 Bollinger Canyon Road  
San Ramon CA 94583

Report Date: December 04, 2018 10:00

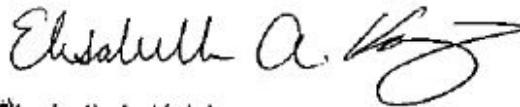
**Project: 97348**

Account #: 13036  
Group Number: 2010499  
PO Number: 0015271929  
Release Number: ROEHL  
State of Sample Origin: WA

Electronic Copy To ARCADIS  
Electronic Copy To ARCADIS

Attn: Janet Newman  
Attn: Robin Simon

Respectfully Submitted,



Elisabeth A. Knisley  
Project Manager

(717) 556-7262

To view our laboratory's current scopes of accreditation please go to <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. Historical copies may be requested through your project manager.



## SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection Date/Time</u>	<u>ELLE#</u>
MW-2-181116 NA Water	11/16/2018 11:01	9905124
MW-4-181116 NA Water	11/16/2018 10:04	9905125
MW-5-181116 NA Water	11/16/2018 09:08	9905126
MW-7-181116 NA Water	11/16/2018 11:40	9905127
DUP-1-181116 NA Water	11/16/2018	9905128
TB-181116 NA Water	11/16/2018 09:00	9905129

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



**Sample Description:** MW-2-181116 NA Water  
Facility# 97348  
502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
**ELLE Sample #:** WW 9905124  
**ELLE Group #:** 2010499  
**Matrix:** Water

**Project Name:** 97348

Submittal Date/Time: 11/17/2018 09:50  
Collection Date/Time: 11/16/2018 11:01

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>			<b>SW-846 8260C</b>	<b>ug/l</b>	<b>ug/l</b>	
13130	Benzene	71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	1
13130	Toluene	108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)	1330-20-7	N.D.	1	5	1
<b>GC/MS Semivolatiles</b>			<b>SW-846 8270D SIM</b>	<b>ug/l</b>	<b>ug/l</b>	
14244	Benzo(a)anthracene	56-55-3	0.01	0.01	0.05	1
14244	Benzo(a)pyrene	50-32-8	N.D.	0.01	0.05	1
14244	Benzo(b)fluoranthene	205-99-2	N.D.	0.01	0.05	1
14244	Benzo(k)fluoranthene	207-08-9	N.D.	0.01	0.05	1
14244	Chrysene	218-01-9	N.D.	0.01	0.05	1
14244	Dibenz(a,h)anthracene	53-70-3	N.D.	0.02	0.07	1
14244	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.01	0.05	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

<b>GC Volatiles</b>			<b>ECY 97-602 NWTPH-Gx</b>	<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
<b>GC Petroleum Hydrocarbons w/Si</b>			<b>ECY 97-602 NWTPH-Dx modified</b>	<b>ug/l</b>	<b>ug/l</b>	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	96	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	240	1

The reverse surrogate, capric acid, is present at <1%.

## Sample Comments

State of Washington Lab Certification No. C457  
"Carcinogenic PAHs have been reported for this sample"

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F183252AA	11/21/2018 13:42	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183252AA	11/21/2018 13:41	Alexander D Sechrist	1
14244	SIM SVOAs 8270D MINI	SW-846 8270D SIM	1	18324WAQ026	11/26/2018 23:59	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	18324WAQ026	11/23/2018 15:00	Mathias Okpo	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18331A20A	11/29/2018 22:29	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	18331A20A	11/29/2018 22:28	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-2-181116 NA Water  
 Facility# 97348  
 502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
 ELLE Sample #: WW 9905124  
 ELLE Group #: 2010499  
 Matrix: Water

**Project Name:** 97348

Submittal Date/Time: 11/17/2018 09:50  
 Collection Date/Time: 11/16/2018 11:01

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	183320025A	11/30/2018 17:46	Marisa Englebright	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	183320025A	11/28/2018 17:15	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-4-181116 NA Water  
Facility# 97348  
502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
**ELLE Sample #:** WW 9905125  
**ELLE Group #:** 2010499  
**Matrix:** Water

**Project Name:** 97348

**Submittal Date/Time:** 11/17/2018 09:50  
**Collection Date/Time:** 11/16/2018 10:04

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>			<b>SW-846 8260C</b>	<b>ug/l</b>	<b>ug/l</b>	
13130	Benzene	71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	1
13130	Toluene	108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)	1330-20-7	N.D.	1	5	1
<b>GC/MS Semivolatiles</b>			<b>SW-846 8270D SIM</b>	<b>ug/l</b>	<b>ug/l</b>	
14244	Benzo(a)anthracene	56-55-3	N.D.	0.01	0.05	1
14244	Benzo(a)pyrene	50-32-8	N.D.	0.01	0.05	1
14244	Benzo(b)fluoranthene	205-99-2	N.D.	0.01	0.05	1
14244	Benzo(k)fluoranthene	207-08-9	N.D.	0.01	0.05	1
14244	Chrysene	218-01-9	N.D.	0.01	0.05	1
14244	Dibenz(a,h)anthracene	53-70-3	N.D.	0.02	0.07	1
14244	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.01	0.05	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

<b>GC Volatiles</b>			<b>ECY 97-602 NWTPH-Gx</b>	<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
<b>GC Petroleum Hydrocarbons w/Si</b>			<b>ECY 97-602 NWTPH-Dx modified</b>	<b>ug/l</b>	<b>ug/l</b>	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	94	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	240	1

The reverse surrogate, capric acid, is present at <1%.

## Sample Comments

State of Washington Lab Certification No. C457  
"Carcinogenic PAHs have been reported for this sample"

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F183252AA	11/21/2018 14:04	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183252AA	11/21/2018 14:03	Alexander D Sechrist	1
14244	SIM SVOAs 8270D MINI	SW-846 8270D SIM	1	18324WAQ026	11/27/2018 00:29	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	18324WAQ026	11/23/2018 15:00	Mathias Okpo	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18331A20A	11/29/2018 22:57	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	18331A20A	11/29/2018 22:56	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-4-181116 NA Water  
 Facility# 97348  
 502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
 ELLE Sample #: WW 9905125  
 ELLE Group #: 2010499  
 Matrix: Water

**Project Name:** 97348

Submittal Date/Time: 11/17/2018 09:50  
 Collection Date/Time: 11/16/2018 10:04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	183320025A	11/30/2018 18:08	Marisa Englebright	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	183320025A	11/28/2018 17:15	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-5-181116 NA Water  
Facility# 97348  
502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
**ELLE Sample #:** WW 9905126  
**ELLE Group #:** 2010499  
**Matrix:** Water

**Project Name:** 97348

**Submittal Date/Time:** 11/17/2018 09:50  
**Collection Date/Time:** 11/16/2018 09:08

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>			<b>SW-846 8260C</b>	<b>ug/l</b>	<b>ug/l</b>	
13130	Benzene	71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	1
13130	Toluene	108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)	1330-20-7	N.D.	1	5	1
<b>GC/MS Semivolatiles</b>			<b>SW-846 8270D SIM</b>	<b>ug/l</b>	<b>ug/l</b>	
14244	Benzo(a)anthracene	56-55-3	0.01	0.01	0.05	1
14244	Benzo(a)pyrene	50-32-8	0.02	0.01	0.05	1
14244	Benzo(b)fluoranthene	205-99-2	0.05	0.01	0.05	1
14244	Benzo(k)fluoranthene	207-08-9	0.02	0.01	0.05	1
14244	Chrysene	218-01-9	0.03	0.01	0.05	1
14244	Dibenz(a,h)anthracene	53-70-3	N.D.	0.02	0.07	1
14244	Indeno(1,2,3-cd)pyrene	193-39-5	0.05	0.01	0.05	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

<b>GC Volatiles</b>			<b>ECY 97-602 NWTPH-Gx</b>	<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
<b>GC Petroleum Hydrocarbons w/Si</b>			<b>ECY 97-602 NWTPH-Dx modified</b>	<b>ug/l</b>	<b>ug/l</b>	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	95	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	240	1

The reverse surrogate, capric acid, is present at <1%.

## Sample Comments

State of Washington Lab Certification No. C457  
"Carcinogenic PAHs have been reported for this sample"

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F183252AA	11/21/2018 14:26	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183252AA	11/21/2018 14:25	Alexander D Sechrist	1
14244	SIM SVOAs 8270D MINI	SW-846 8270D SIM	1	18324WAQ026	11/27/2018 00:58	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	18324WAQ026	11/23/2018 15:00	Mathias Okpo	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18331A20A	11/29/2018 23:24	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	18331A20A	11/29/2018 23:23	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-5-181116 NA Water  
 Facility# 97348  
 502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
 ELLE Sample #: WW 9905126  
 ELLE Group #: 2010499  
 Matrix: Water

**Project Name:** 97348

Submittal Date/Time: 11/17/2018 09:50  
 Collection Date/Time: 11/16/2018 09:08

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	183320025A	11/30/2018 18:30	Marisa Englebright	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	183320025A	11/28/2018 17:15	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-7-181116 NA Water  
Facility# 97348  
502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
**ELLE Sample #:** WW 9905127  
**ELLE Group #:** 2010499  
**Matrix:** Water

**Project Name:** 97348

**Submission Date/Time:** 11/17/2018 09:50  
**Collection Date/Time:** 11/16/2018 11:40

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>			<b>SW-846 8260C</b>	<b>ug/l</b>	<b>ug/l</b>	
13130	Benzene	71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	1
13130	Toluene	108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)	1330-20-7	N.D.	1	5	1
<b>GC/MS Semivolatiles</b>			<b>SW-846 8270D SIM</b>	<b>ug/l</b>	<b>ug/l</b>	
14244	Benzo(a)anthracene	56-55-3	N.D.	0.01	0.05	1
14244	Benzo(a)pyrene	50-32-8	N.D.	0.01	0.05	1
14244	Benzo(b)fluoranthene	205-99-2	N.D.	0.01	0.05	1
14244	Benzo(k)fluoranthene	207-08-9	N.D.	0.01	0.05	1
14244	Chrysene	218-01-9	N.D.	0.01	0.05	1
14244	Dibenz(a,h)anthracene	53-70-3	N.D.	0.02	0.07	1
14244	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.01	0.05	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

<b>GC Volatiles</b>			<b>ECY 97-602 NWTPH-Gx</b>	<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
<b>GC Petroleum Hydrocarbons w/Si</b>			<b>ECY 97-602 NWTPH-Dx modified</b>	<b>ug/l</b>	<b>ug/l</b>	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	94	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	240	1

The reverse surrogate, capric acid, is present at <1%.

## Sample Comments

State of Washington Lab Certification No. C457  
"Carcinogenic PAHs have been reported for this sample"

## Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F183252AA	11/21/2018 14:49	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183252AA	11/21/2018 14:48	Alexander D Sechrist	1
14244	SIM SVOAs 8270D MINI	SW-846 8270D SIM	1	18324WAQ026	11/27/2018 01:28	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	18324WAQ026	11/23/2018 15:00	Mathias Okpo	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18331A20A	11/29/2018 23:52	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	18331A20A	11/29/2018 23:51	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** MW-7-181116 NA Water  
 Facility# 97348  
 502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
 ELLE Sample #: WW 9905127  
 ELLE Group #: 2010499  
 Matrix: Water

**Project Name:** 97348

Submittal Date/Time: 11/17/2018 09:50  
 Collection Date/Time: 11/16/2018 11:40

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	183320025A	11/30/2018 18:52	Marisa Englebright	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	183320025A	11/28/2018 17:15	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result



**Sample Description:** DUP-1-181116 NA Water  
Facility# 97348  
502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
**ELLE Sample #:** WW 9905128  
**ELLE Group #:** 2010499  
**Matrix:** Water

**Project Name:** 97348

**Submittal Date/Time:** 11/17/2018 09:50  
**Collection Date/Time:** 11/16/2018

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260C</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
13130	Benzene	71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	1
13130	Toluene	108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)	1330-20-7	N.D.	1	5	1
<b>GC/MS Semivolatiles</b>		<b>SW-846 8270D SIM</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
14244	Benzo(a)anthracene	56-55-3	N.D.	0.01	0.05	1
14244	Benzo(a)pyrene	50-32-8	N.D.	0.01	0.05	1
14244	Benzo(b)fluoranthene	205-99-2	N.D.	0.01	0.05	1
14244	Benzo(k)fluoranthene	207-08-9	N.D.	0.01	0.05	1
14244	Chrysene	218-01-9	N.D.	0.01	0.05	1
14244	Dibenz(a,h)anthracene	53-70-3	N.D.	0.02	0.07	1
14244	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.01	0.05	1

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial.

<b>GC Volatiles</b>		<b>ECY 97-602 NWTPH-Gx</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	19	250	1
<b>GC Petroleum Hydrocarbons w/Si</b>		<b>ECY 97-602 NWTPH-Dx modified</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	97	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	240	1

The reverse surrogate, capric acid, is present at <1%.

### Sample Comments

State of Washington Lab Certification No. C457  
"Carcinogenic PAHs have been reported for this sample"

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F183252AA	11/21/2018 15:10	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183252AA	11/21/2018 15:09	Alexander D Sechrist	1
14244	SIM SVOAs 8270D MINI	SW-846 8270D SIM	1	18324WAQ026	11/27/2018 01:57	Catherine E Bachman	1
10466	BNA Water Extraction SIM	SW-846 3510C	1	18324WAQ026	11/23/2018 15:00	Mathias Okpo	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	18331A20A	11/30/2018 00:19	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	18331A20A	11/30/2018 00:18	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** DUP-1-181116 NA Water  
 Facility# 97348  
 502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
 ELLE Sample #: WW 9905128  
 ELLE Group #: 2010499  
 Matrix: Water

**Project Name:** 97348

Submittal Date/Time: 11/17/2018 09:50  
 Collection Date/Time: 11/16/2018

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	183320025A	11/30/2018 19:14	Marisa Englebright	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	183320025A	11/28/2018 17:15	Ryan J Dowdy	1

\*=This limit was used in the evaluation of the final result

**Sample Description:** TB-181116 NA Water  
Facility# 97348  
502 N Wenatchee Ave - Wenatchee, WA

**Chevron Environmental Mgmt Co**  
**ELLE Sample #:** WW 9905129  
**ELLE Group #:** 2010499  
**Matrix:** Water

**Project Name:** 97348

Submittal Date/Time: 11/17/2018 09:50  
Collection Date/Time: 11/16/2018 09:00

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
<b>GC/MS Volatiles</b>		<b>SW-846 8260C</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
13130	Benzene	71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	1
13130	Toluene	108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)	1330-20-7	N.D.	1	5	1
<b>GC Volatiles</b>		<b>ECY 97-602 NWTTPH-Gx</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	
08273	NWTTPH-Gx water C7-C12	n.a.	N.D.	19	250	1

### Sample Comments

State of Washington Lab Certification No. C457

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX 8260C	SW-846 8260C	1	F183252AA	11/21/2018 15:32	Alexander D Sechrist	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F183252AA	11/21/2018 15:31	Alexander D Sechrist	1
08273	NWTTPH-Gx water C7-C12	ECY 97-602 NWTTPH-Gx	1	18331A20A	11/29/2018 19:16	Linda C Pape	1
01146	GC VOA Water Prep	SW-846 5030B	1	18331A20A	11/29/2018 19:15	Linda C Pape	1

\*=This limit was used in the evaluation of the final result

## Quality Control Summary

Client Name: Chevron Environmental Mgmt Co  
Reported: 12/04/2018 10:00

Group Number: 2010499

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Method Blank

Analysis Name	Result ug/l	MDL** ug/l	LOQ ug/l
Batch number: F183252AA	Sample number(s): 9905124-9905129		
Benzene	N.D.	0.2	1
Ethylbenzene	N.D.	0.4	1
Toluene	N.D.	0.2	1
Xylene (Total)	N.D.	1	5
Batch number: 18324WAQ026	Sample number(s): 9905124-9905128		
Benzo(a)anthracene	N.D.	0.01	0.05
Benzo(a)pyrene	N.D.	0.01	0.05
Benzo(b)fluoranthene	N.D.	0.01	0.05
Benzo(k)fluoranthene	N.D.	0.01	0.05
Chrysene	N.D.	0.01	0.05
Dibenz(a,h)anthracene	N.D.	0.02	0.07
Indeno(1,2,3-cd)pyrene	N.D.	0.01	0.05
Batch number: 18331A20A	Sample number(s): 9905124-9905129		
NWTPH-Gx water C7-C12	N.D.	19	250
Batch number: 183320025A	Sample number(s): 9905124-9905128		
DRO C12-C24 w/Si Gel	N.D.	30	100
HRO C24-C40 w/Si Gel	N.D.	70	250

### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: F183252AA	Sample number(s): 9905124-9905129								
Benzene	20	21.24			106		80-120		
Ethylbenzene	20	20.32			102		80-120		
Toluene	20	21.11			106		80-120		
Xylene (Total)	60	61.11			102		80-120		
	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>	<b>ug/l</b>					
Batch number: 18324WAQ026	Sample number(s): 9905124-9905128								
Benzo(a)anthracene	1.00	0.696	1.00	0.664	70	66*	67-111	5	30
Benzo(a)pyrene	1.00	0.716	1.00	0.685	72	69	69-121	4	30
Benzo(b)fluoranthene	1.00	0.718	1.00	0.693	72	69*	70-123	3	30

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron Environmental Mgmt Co  
Reported: 12/04/2018 10:00

Group Number: 2010499

### LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzo(k)fluoranthene	1.00	0.754	1.00	0.729	75	73	66-120	3	30
Chrysene	1.00	0.708	1.00	0.682	71	68	66-109	4	30
Dibenz(a,h)anthracene	1.00	0.708	1.00	0.683	71	68	55-123	4	30
Indeno(1,2,3-cd)pyrene	1.00	0.719	1.00	0.688	72	69	52-124	4	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 18331A20A NWTPH-Gx water C7-C12	Sample number(s): 9905124-9905129								
	1100	1099.85	1100	1101.92	100	100	64-131	0	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 183320025A DRO C12-C24 w/Si Gel	Sample number(s): 9905124-9905128								
	1600.37	946.9	1600.37	968.9	59	61	32-117	2	20

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX 8260C  
Batch number: F183252AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9905124	94	99	103	95
9905125	95	97	101	93
9905126	92	96	101	94
9905127	92	98	101	94
9905128	93	93	101	94
9905129	94	97	101	94
Blank	92	99	104	96
LCS	91	103	103	96
Limits:	80-120	80-120	80-120	80-120

Analysis Name: SIM SVOAs 8270D MINI  
Batch number: 18324WAQ026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
9905124	63	19	48
9905125	68	47	54
9905126	61	49	46
9905127	66	52	52
9905128	53	41	44
Blank	68	57	54

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron Environmental Mgmt Co  
Reported: 12/04/2018 10:00

Group Number: 2010499

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: SIM SVOAs 8270D MINI

Batch number: 18324WAQ026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
LCS	69	62	62
LCSD	67	60	58
Limits:	38-119	18-129	29-112

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 18331A20A

	Trifluorotoluene-F
9905124	87
9905125	88
9905126	87
9905127	81
9905128	82
9905129	87
Blank	87
LCS	95
LCSD	95
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel

Batch number: 183320025A

	Orthoterphenyl
9905124	84
9905125	70
9905126	82
9905127	74
9905128	77
Blank	79
LCS	77
LCSD	80
Limits:	50-150

\*- Outside of specification

\*\* - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

A-13036

G-201049

S-9905124-29

CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ■ 6001 Bollinger Canyon Road ■ San Ramon, CA 94583-2324

COC 1 of 1

Chevron Site Number: <u>9-7348</u>				Chevron Consultant: <u>ARCADIS</u>			ANALYSES REQUIRED																		
Program Designation: <u>CMP</u>				Address: <u>320 Commerce, Suite 200, Irvine, CA 92602.</u>			<u>H</u>		<u>H</u>	<u>H</u>															Preservation Codes
Site Address (street, city, state / county): <u>502 N Wenatchee Ave, Wenatchee, WA</u>				Consultant Contact: <u>Janet Newman</u>																					H = HCL T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other
Chevron PM:				Consultant Phone No. <u>(949)293-2445</u>																					
Chevron PM Phone No.:				Consultant Project No. <u>18115-LB1</u>																					
<input type="checkbox"/> Retail and Terminal Business Unit (RTBU) Job <input type="checkbox"/> Construction/Retail Job				Sampling Company: <u>Blaine Tech Services</u>																					
Charge Code: <u>NWRTB 00SITE NUMBER-0- OML</u>				Lancaster Laboratories			Other Lab	Temp. Blank	Check	Time	Temp.														Special Instructions
WBS ELEMENTS: SITE ASSESSMENT: <u>A1L</u> REMEDIATION IMPLEMENTATION: <u>R5L</u> SITE MONITORING: <u>OML</u> OPERATION MAINTENANCE & MONITORING: <u>M1L</u>				<input checked="" type="checkbox"/> Lancaster, PA Lab Contact: Megan Moeller 2425 New Holland Pike, Lancaster, PA 17601 Phone No: (717)656-2300																					*Use a 10-gram column when silica gel cleanup is requested
SAMPLE ID				Sample Time	# of Containers	Container Type	TPH-DRO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-Dx w/ sec)	TPH-ORO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-Dx w/ sec)	TPH-HRO w/ SILICA GEL CLEANUP (97-602M) (NWTPH-Dx w/ sec)	8260B FULL SCAN VOCs EDCO TBAO TAMEO EDBO ETHANOL BTEX MTBEO	PAH'S CPAH'S 8270 SIM	TPH-G (NWTPH-GX)	ALKALINITY 2320	DISSOLVED LEAD (6020)	TPH-D AND TPH-O BY (NWTPH-DX)	RBDM VOCs (OREGON RISK BASED DECISION MAKING LIST)	SULFATE 300 NITRATE 300 FERROUS IRON SM20 3500								Notes/Comments
Field Point Name	Matrix	Top Depth	Date (yymmdd)																						
MW-2-18116	W	—	18116	1101	10	MIXED	X	X	X	X	X														
MW-4-18116	W	—		1004	10		X	X	X	X	X														
MW-5-18116	W	—		0908	10		X	X	X	X	X														
MW-7-18116	W	—		1120	10		X	X	X	X	X														
DUP-1-18116	W	—		—	10		X	X	X	X	X														
TB-18116	W	—		0900	3	VQA				X	Y														
Relinquished By <u>[Signature]</u> Company <u>BTS</u> Date/Time: <u>11/16/18 1500</u>				Relinquished To <u>[Signature]</u> Company <u>SHIPPED VIA FEDEX</u> Date/Time				Turnaround Time: Standard <input checked="" type="checkbox"/> 24 Hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 72 Hours <input type="checkbox"/> Other <input type="checkbox"/>																	
Relinquished By <u>[Signature]</u> Company <u>[Signature]</u> Date/Time				Relinquished To <u>[Signature]</u> Company <u>[Signature]</u> Date/Time				Sample Integrity: (Check by lab on arrival) Intact: <input checked="" type="checkbox"/> On Ice: <input type="checkbox"/> Temp: <u>2-46</u>																	
Relinquished By <u>[Signature]</u> Company <u>[Signature]</u> Date/Time				Relinquished To <u>[Signature]</u> Company <u>[Signature]</u> Date/Time <u>11/17/18 950</u>				COC #																	



Group Number(s): 99  
206499  
(3) CS 4/17/18  
12429

Client: Blaine

**Delivery and Receipt Information**

Delivery Method: Fed Ex      Arrival Timestamp: 11/17/2018 9:50  
 Number of Packages: 3      Number of Projects: 2

**Arrival Condition Summary**

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	No
Samples Chilled:	Yes	Total Trip Blank Qty:	3
Paperwork Enclosed:	Yes	Trip Blank Type:	HCl
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Ariel Garcia (15332) at 15:22 on 11/17/2018

**Samples Chilled Details**

Thermometer Types:    *DT = Digital (Temp. Bottle)*    *IR = Infrared (Surface Temp)*    All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	32170023	3.9	IR	Wet	Y	Loose	N
2	32170023	4.6	IR	Wet	Y	Loose	N
3	32170023	1.2	IR	Wet	Y	Loose	N



# Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>BMQL</b>	Below Minimum Quantitation Level	<b>mL</b>	milliliter(s)
<b>C</b>	degrees Celsius	<b>MPN</b>	Most Probable Number
<b>cfu</b>	colony forming units	<b>N.D.</b>	non-detect
<b>CP Units</b>	cobalt-chloroplatinate units	<b>ng</b>	nanogram(s)
<b>F</b>	degrees Fahrenheit	<b>NTU</b>	nephelometric turbidity units
<b>g</b>	gram(s)	<b>pg/L</b>	picogram/liter
<b>IU</b>	International Units	<b>RL</b>	Reporting Limit
<b>kg</b>	kilogram(s)	<b>TNTC</b>	Too Numerous To Count
<b>L</b>	liter(s)	<b>µg</b>	microgram(s)
<b>lb.</b>	pound(s)	<b>µL</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>umhos/cm</b>	micromhos/cm
<b>meq</b>	milliequivalents	<b>MCL</b>	Maximum Contamination Limit
<b>mg</b>	milligram(s)		
<b>&lt;</b>	less than		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

**Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.**

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$ . The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$ . The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$ . The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.