# SITE ASSESSMENT SUMMARY REPORT LA BAMBA RESTAURANT / FORMER UNOCAL SERVICE STATION NO. 372654 (VCP #CE0394) 3202 Main Street Union Gap, Washington

May 19, 2016

# Prepared for:

Washington State Department of Ecology 1250 West Alder Street Union Gap, Washington 98903-0009

# Prepared by:

Leidos, Inc. 18919 North Creek Parkway, Suite 101 Bothell, Washington 98011

On Behalf of:

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



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> Russell S. Shropshire, PE Principal Engineer

> > Ruth Otteman, LG Senior Geologist





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# SITE ASSESSMENT SUMMARY REPORT LA BAMBA RESTAURANT / FORMER UNOCAL SERVICE STATION NO. 372654 (VCP #CE0394)

## 1. INTRODUCTION

Leidos, Inc. (Leidos) prepared this report on behalf of Chevron Environmental Management Company (CEMC) to summarize the results of site assessment activities performed at the former La Bamba Restaurant (the Site), also known as Former Unocal Service Station No. 372654, located at 3202 Main Street in Union Gap, Washington. A vicinity map is included as Figure 1 and a site map is included as Figure 2.

The objective of the site assessment was to evaluate the current nature and extent of petroleum contamination in soil and groundwater at the Site resulting from past operations of a service station on the property. Assessment activities documented in this report were performed in accordance with the procedures described in Leidos' *Draft-Site Assessment Work Plan*, dated October 23, 2013 (Leidos, 2013), which was approved by the Washington State Department of Ecology (Ecology) by letter dated October 30, 2013.

### 2. BACKGROUND

### 2.1 SITE DESCRIPTION

The Site is located at the southwest corner of the intersection of Franklin Street and Main Street in Union Gap, Washington. The Site is bordered by Franklin Street to the north and Main Street to the east. In this area, Main Street is a major north-south arterial, with two traffic lanes in each direction.

To the west, the property is bordered by an unpaved alley, with residential properties across the alley to the west. To the south, the property is bordered by a bakery/market, and an auto repair facility is located on the next property to the south.

Per current information available from the Yakima County Assessor's Office, the property is identified as parcel number 19120532449 and is approximately 0.23 acre in size. The current property owner is Enrique Navarrete.

The Site is currently the location of a single-story masonry building (approximately 3,000 square feet), which covers most of the eastern half of the property. The western portion of the property is an asphalt covered parking area. The property is currently leased for use as a Mexican market and restaurant named El Rancho.

## 2.2 SITE USE HISTORY

The property was reportedly in use as agricultural property in 1927. A residence and apparent commercial structure were present at the site by 1941, through at least 1951 (PBS Engineering and Environmental [PBS], 2003a).



A Certified Sanborn Map for the area indicates that a service station was present on the property by 1959. Polk City Directories for Union Gap indicate that Jim's Union Service was in operation at the site by 1965, through at least 1975. The Polk City Directory for 1980 indicates that the property was vacant, and a review of available aerial photographs of the Site vicinity performed by Leidos at Aerometric in Tukwila, Washington indicates that the above-grade service station infrastructure had been removed by sometime in 1978. To date, Leidos has not located any records documenting the decommissioning of the service station facilities or removal of any underground storage tanks (USTs) or other infrastructure that may have been present at the Site. The approximate layout of the service station building and canopy are shown on Figure 2.

Yakima County Assessor's records indicate that the current building was constructed in 1981. Since that time the building is believed to have operated as a restaurant or market under a number of different owners/operators. According to a 50 year chain-of-title search performed by the Washington State Department of Ecology (Ecology), the current owner purchased the property in 1988.

## 2.3 SUMMARY OF PREVIOUS ASSESSMENTS AND REGULATORY HISTORY

In 2003, PBS conducted Phase I and Phase II environmental site assessments (PBS, 2003a and 2003b), on behalf of Touchstone Asset Management (a first mortgage lien holder on the property). During the Phase II assessment, five soil borings (B-1 through B-5) were advanced using a truck-mounted direct-push rig to collect soil and grab groundwater samples at the Site. Of the five borings, two borings (B-3 and B-4) were successfully advanced to depths sufficient to collect soil samples in the vicinity of the groundwater interface; however, in three of the five borings (B-1, B-2, and B-5) split-spoon refusal was encountered at depths several feet above groundwater. Grab groundwater samples were collected at each boring location.

Selected soil and groundwater samples were submitted for laboratory analyses. None of the soil samples submitted for analyses had detections of petroleum hydrocarbons at concentrations exceeding their respective Model Toxics Control Act (MTCA) Method A cleanup levels. However, gasoline-range organics (GRO) and diesel-range organics (DRO) were detected at concentrations exceeding Method A cleanup levels in groundwater samples collected from soil borings B-3 and B-4.

The Phase I and Phase II reports by PBS were submitted to Ecology in May 2003. Based on review of the reports, Ecology prepared a Department Decision Recommendation memorandum that recommended an interim action to perform additional groundwater and source investigation. On December 9, 2003, Ecology issued an Early Notice Letter to Mr. Navarrete regarding the release of hazardous substances on the property. In response to this letter, Mr. Navarrete reportedly provided information to Ecology that indicated soil borings B-3 and B-4 were not located on the subject property, but were instead located within the City of Union Gap right-of-way. Ecology responded by letter dated July 6, 2004, which stated that despite this new information, previous assessment information indicated there may be a potential source of contamination on the property, and that the property would remain on Ecology's Confirmed and Suspected Contaminated Sites List.



Ecology performed a Site Hazard Assessment (SHA) on the Site in 2008. The Site's hazard ranking, which is an estimation of the potential threat to human health and/or the environment relative to all other Washington State sites assessed at the time, was determined to be a 2, where 1 represents the highest relative risk and 5 the lowest. This information was published in the August 20, 2008 Special Issue of Ecology's Site Register, and listing of the Site received local media coverage through a September 2008 article in the Yakima Herald Republic newspaper.

Based on review of Ecology's files for the Site, which were obtained through a public records request, no action occurred on the Site following the 2008 SHA, with the exception of some minor communication with the property owner. Ecology issued a Notice of Potential Liability letter to Mr. Navarrete on November 28, 2012, and subsequent letters were issued on January 7, and February 21, 2013.

CEMC received notice of potential liability for the Site by letter dated April 19, 2013, and a determination of potentially liable person (PLP) status was issued by Ecology on May 23, 2013. In response to the PLP letter, CEMC entered the site into Ecology's Voluntary Cleanup Program (VCP) in June 2013. The Site was assigned VCP # CE0394 (Ecology, 2013).

In September 2013, Leidos contracted Geophysical Survey LLC of Kennewick, Washington to perform a geophysical investigation to determine whether evidence of USTs or other subsurface service station infrastructure could be located at the Site. Results of the geophysical investigation provided no conclusive evidence to indicate that USTs or other subsurface service station infrastructure remain at the Site.

#### 3. SITE ASSESSMENT ACTIVITIES

Based on the results of the geophysical survey, the *Draft Site Assessment Work Plan* was developed and submitted to Ecology on October 23, 2013. The following objectives were identified for this site assessment as follows:

- 1) Fully delineate soil contamination at the Site with a Sonic drill rig, capable of collecting continuous core samples through the gravel and cobbles previously encountered at the Site;
- 2) Install six groundwater monitoring wells and collect groundwater samples to confirm the presence of groundwater contamination at the Site; and
- 3) Determine the groundwater flow direction and the potential for seasonal fluctuations in groundwater elevations over four consecutive groundwater sampling events.

Site assessment activities began at the Site following Ecology's acceptance of the *Draft-Site Assessment Work Plan* on October 30, 2013 and following approval of permits and access agreements with adjacent property owners and the City of Union Gap. Permits and access agreements with adjacent property owners were finalized in October 2014. Per the work plan new monitoring wells were installed at the following locations (Figure 2):

• Monitoring well MW-1 was placed near the northwest corner of the Site. This well was installed upgradient of the former service station features in order to provide background groundwater quality conditions for the Site.



- Monitoring well MW-2 was placed along the eastern property boundary, just north of the approximate former location of the service station canopy. This well was installed down gradient of the presumed location of the former USTs or other potential sources that may have been located in the northeast portion of the Site.
- Monitoring well MW-3 was placed along the eastern property boundary, in the
  approximate location of boring B-4, which contained the highest concentrations of
  gasoline and diesel in groundwater during the Phase II assessment completed by PBS. It
  is also located downgradient of the former pump islands location based on the service
  pump island canopy shown in historic Sanborn maps and aerial photographs of the
  station.
- Monitoring well MW-4 was placed along the eastern property boundary, in the vicinity of B-3 which contained gasoline and diesel at concentrations exceeding MTCA Method A cleanup levels for groundwater. This location is downgradient from a potential location of the former UST basin.
- Monitoring well MW-5 was placed just south of the southern property boundary in the vicinity of soil borings B-1 and B-2. This well was installed to evaluate potential downgradient contamination in a more southerly direction from the former service station facilities.
- Monitoring well MW-6 was placed in the southern portion of the property in the parking area west of the market building. This well was installed to collect additional hydrogeological data at the Site.

## 3.1 MONITORING WELL INSTALLATION ACTIVITIES

Monitoring well installation activities were performed between December 8 and 12, 2014, by Cascade Drilling L.P., with oversight by Leidos. Each boring was first cleared to a depth of at least eight feet below ground surface (bgs) using an air-knife excavation rig. The borings were then advanced to their final depth using a limited access sonic drill rig.

During the drilling activities, a Leidos geologist was present to log soil lithology and collect soil samples for field-screening and laboratory analysis. Soil was collected in the upper eight feet of the boring with a stainless steel hand auger at approximately 2-foot intervals, if possible. Below eight feet, soil was collected continuously with the sonic rig sampling core. Soil samples were classified in accordance with the Unified Soil Classification System. Each sample was field screened for the presence of petroleum hydrocarbons by visual and olfactory observations. Headspace vapor measurements were recorded using a photo-ionization detector (PID), and sheen tests were conducted.

At least two soil samples from each boring were collected and submitted for laboratory analysis: one from the capillary fringe, and the second from the deepest sample interval attained in the boring. Additional soil samples were also submitted from depths containing potential hydrocarbon impacts as indicated by field screening observations. Selected soil samples were submitted to Eurofins Lancaster Laboratories for the following analyses:

• Total petroleum hydrocarbons (TPH) as gasoline-range organics (TPH-GRO) by Ecology Method 97-602 NWTPH-Gx;



- TPH as diesel-range organics (TPH-DRO) and heavy oil-range organics (TPH-HRO) by Ecology Method 97-602 NWTPH-Dx;
- TPH-DRO and TPH-HRO by Ecology Method 97-602 NWTPH-Dx with silica gel cleanup;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), 1,2-dibromoethane (EDB) and methyl tertiary butyl ether (MTBE), by U.S. Environmental Protection Agency (USEPA) SW-846 8260;
- Naphthalene by SW-846 8270;
- Total lead by SW-846 6010B; and
- Moisture by SM 2540 G-1997.

Selected soil samples were also analyzed for:

- 1,2 dichloroethane (EDC), halogenated volatile organic compounds (VOCs) and n-hexane by USEPA Method 8260B;
- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by USEPA Method SW-846 8270 with selective ion monitoring (SIM);
- Polychlorinated biphenyls (PCBs) by USEPA Method SW-846 8082; and
- Cadmium, chromium, lead, nickel, and zinc by USEPA Method SW-846 6010B.
- Extractable petroleum hydrocarbons (EPH) by ECY 97-602 WA EPH;
- Volatile petroleum hydrocarbons (VPH) by ECY 97-602 WA VPH; and
- Fractional organic carbon by SM-5310B.

Soil sampling results are summarized in Tables 1 through 3 and are further discussed in Section 4.1.

Each of the six soil borings were installed to total depths of approximately 20 feet bgs based on previous investigations and depth to groundwater field observations at the Site. Each soil boring was completed as a 2-inch diameter monitoring well. Monitoring wells MW-1 through MW-6 were constructed with schedule 40 poly-vinyl chloride casing, 0.020-inch factory slotted screen with a 10-foot screen interval, and with 2/12 Monterey sand for the filter-pack. The monitoring wells were completed at the ground surface with a flush-mounted, traffic-rated well box. Monitoring well elevation measurements were surveyed to the nearest 0.01 foot at the ground surface (top of well-box lid) and at the top of the well casing, relative to the North American Vertical Datum of 1988 by a licensed surveying company. A copy of the monitoring well survey is attached in Appendix A. Well construction details are presented on the boring logs, which are included in Appendix B.

Each of the new monitoring wells were developed by Leidos on February 18, 2015. Well development consisted of surging for 10 minutes, followed by pumping of the well using an electric submersible pump until at least 10 well casing volumes were removed or until water produced from the well was clear and free of sediment.



## 3.2 GROUNDWATER MONITORING

Following the completion of monitoring well installation activities, a program of quarterly groundwater monitoring was initiated at the Site, which was performed by Gettler-Ryan, Inc. (Gettler-Ryan), on behalf of CEMC. Four consecutive quarterly monitoring events were performed on the following dates:

- March 30, 2015;
- July 1, 2015;
- September 17, 2015; and
- December 8, 2015.

Gettler-Ryan collected depth-to-groundwater measurements and checked for the presence of separate-phase hydrocarbons in all six monitoring wells on the Site. Samples were then collected from each well using low-flow purge and sampling techniques, and the samples were submitted to Eurofins Lancaster Laboratories, Inc. for the following analyses:

- TPH-GRO by Ecology Method 97-602 NWTPH-Gx;
- TPH-DRO and TPH-HRO by Ecology Method 97-602 NWTPH-Dx;
- TPH-DRO and TPH-HRO by Ecology Method 97-602 NWTPH-Dx with silica gel cleanup;
- BTEX, EDC, and MTBE by USEPA Method SW-846 8260;
- EDB by USEPA Method SW-846 8011;
- Naphthalene and 2-Methylnaphthalene by USEPA Method SW-846 8270 SIM; and
- Total lead by USEPA Method SW-846 6010.

A discussion of groundwater monitoring results is presented in Section 4.2. Gettler-Ryan field data sheets for each monitoring event are provided as Appendix C.

## 4. SUMMARY AND EVALUATION OF RESULTS

## 4.1 SOIL

Soils encountered during installation of the six monitoring wells completed during this assessment indicate that the lithology beneath the Site, from ground surface to approximately 20 feet bgs, generally consists of brown, loose to medium dense, silty sand to sandy gravel and cobbles with up to 25% fine to coarse sand and up to 20% silt. These observations are consistent with historical boring logs for the Site.



## 4.1.1 Evaluation of Soil Sampling Results Using Method A

A summary of analytical results for soil samples collected during the installation of the monitoring wells is included in Tables 1 through 3, and the laboratory analytical report for these samples is included as Appendix D. As these results indicate, TPH-GRO was detected at monitoring well MW-3, at a depth of approximately 12 feet bgs (sample ID: MW-3-12), at a concentration of 62 milligrams per kilogram (mg/kg). The duplicate sample (sample ID: DUP-121114) contained TPH-GRO at a concentration of 76 mg/kg. These results are in compliance with the MTCA Method A Soil Cleanup Level for weathered gasoline (100 mg/kg); however, they would exceed the Method A Soil Cleanup Level for TPH-GRO for sites where benzene is present in soil (30 mg/kg). All other soil sampling results are in compliance with Method A cleanup levels for soil.

Based on evaluation of the sampling results for the BTEX analyses, Leidos believes that use of the weathered gasoline cleanup level is appropriate for this Site. Although low levels of benzene were detected in 7 of the 21 soil samples submitted for laboratory analysis, the concentrations of these detections were all below 0.005 mg/kg. Per Tables 12.1 and 12.2 of Ecology's guidance document, *Guidance for Remediation of Petroleum Contaminated Sites* (Ecology, 2011), soils containing less than 0.005 mg/kg of benzene would meet the benzene concentration screening criteria to be classified as Category 1 soils with no detectable or quantifiable levels of petroleum contamination. Toluene, ethylbenzene, and total xylenes were not detected in any of the samples submitted for laboratory analysis. Therefore, the BTEX analytical results for soil appear to satisfy Ecology requirements for use of the 100 mg/kg cleanup level for TPH-GRO.

## 4.1.2 Evaluation of Soil Sampling Results Using Method B

Although Leidos believes that use of the 100 mg/kg Method A cleanup level for TPH-GRO is appropriate at this site, we also recognize that the benzene detection limits achieved for samples MW-3-12 and DUP-121114 may not be low enough to sufficiently satisfy Ecology to fully support its use. Therefore, Leidos also evaluated the MW-3-12 soil sample data using Method B procedures for petroleum mixtures to provide an additional line of evidence to demonstrate that conditions at the Site are sufficiently protective of human health and the environment to comply with MTCA.

Method B is the standard or universal method for developing cleanup levels under MTCA and can be used for any site, unlike Method A which is intended for relatively simple sites with few hazardous substances. Method A cleanup levels may be overly conservative for some sites because they are based on the most conservative contaminant exposure pathway (protection of drinking water), which may not be present at some sites, and because they are based on standard product compositions for petroleum products, which do not account for reductions in product toxicity that occur due to natural attenuation processes. Under Method B, these site-specific factors are also considered in determining whether current conditions are sufficiently protective of human health and the environment to comply with MTCA.

To perform this evaluation, Leidos used Ecology's MTCATPH 11.1 workbook tool to examine the toxicity for the TPH composition that currently remains present at this Site, using petroleum



fraction data from VPH/EPH analysis. A technical memorandum, which presents the workbook inputs and results, is presented in Appendix E.

Results of the MTCATPH workbook analysis are provided in the following table:

Sample ID	Measured Soil TPH	Protective Soil TPH Conc. (mg/kg)						
	Conc. (mg/kg)	Direct Contact	Potable Groundwater					
MW-3-12	38.350	3,118	76					
		Pass	Pass					

As these results show, the MTCATPH workbook was used to calculate a Measured TPH Soil Concentration for soil sample MW-3-12 based on the TPH fraction data provided by laboratory analysis of the sample. The workbook also calculates Protective Soil TPH Concentrations for protection of soil direct contact and protection of Method B groundwater quality using the specific product composition present in the sample. According to these results, the measured soil TPH concentration for in soil sample MW-3-12 is below the estimated concentrations that would be protective of human health under both the direct contact and drinking water exposure pathways<sup>1</sup>.

### 4.2 GROUNDWATER

Results of the four consecutive quarterly groundwater sampling events are presented in Table 4 and laboratory analytical reports are provided as Appendix C. Data from these events indicate that groundwater collected at each monitoring well location was in compliance with MTCA Method A cleanup levels for all tested analytes during each of the four quarterly monitoring events. Petroleum-range organics (TPH-GRO, TPH-DRO, and TPH-HRO) and BTEX compounds were not detected above the method detection limit in samples collected during any of the quarterly monitoring events.

Groundwater elevation data are presented in Table 4, and potentiometric maps for each monitoring event are provided in Figures 3 through 6. Groundwater elevation data collected during the events indicate that the water table was generally encountered at depths of approximately 11 to 12 feet bgs, and that groundwater flow across the Site is consistently toward the southeast at a gradient of approximately 0.007 to 0.028 feet per foot. The maximum seasonal groundwater elevation variation observed between the four quarterly events was 0.77 feet.

<sup>&</sup>lt;sup>1</sup> Under MTCA Method B, sites must also be evaluated to determine whether terrestrial ecological exposure pathways may be present, which may necessitate an adjustment of calculated Method B cleanup levels. However, per WAC 173-340-7491(1)(c), the Site is excluded from the requirement to complete a terrestrial ecological evaluation because there is less than 1.5 acres of contiguous undeveloped land on the Site or within 500 feet of any area of the Site.



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## 5. CONCLUSIONS

Based on the results of these assessment activities, Leidos believes that current conditions at this Site are in compliance with MTCA standards for protection of human health and the environment.

Results of the groundwater assessment activities at the Site indicate no evidence of petroleum impacts to groundwater based on four consecutive quarterly groundwater sampling events. Results of these events indicate that TPH-GRO, TPH-DRO, TPH-HRO, and BTEX compounds were not detected above laboratory method detection limits during each of the four sampling events. Total lead was detected in each monitoring well at concentrations that are at least one order of magnitude less than the MTCA Method A cleanup level.

Soil sampling results indicate that low-level residual TPH-GRO was detected in two soil borings (MW-3 and MW-4) located along the eastern boundary of the former service station property. The maximum TPH-GRO concentrations (62 - 76 mg/kg) were detected in samples collected from a depth of approximately 12 feet bgs in the boring for MW-3 (samples MW-3-12 and DUP-12114); however, all soil sample concentrations were below MTCA Method A cleanup levels for weathered gasoline (TPH-GRO cleanup level = 100 mg/kg). No other petroleum constituents were not detected above their respective Method A cleanup levels.

Additional analysis of the MW-3-12 soil sample using petroleum fraction data from VPH/EPH analysis and Ecology's MTCATPH 11.1 workbook tool indicates that the residual TPH detected in this sample is below levels that are protective of human health under both the direct contact and drinking water exposure pathways. Sampling results from four consecutive quarters of groundwater monitoring at monitoring well MW-3 also provide empirical evidence that residual soil contamination remaining at this location does not adversely impact groundwater quality at the Site, which has consistently been in compliance with drinking water standards.

Based on current EPA guidance for addressing petroleum vapor intrusion at UST sites (EPA, 2015), further investigation to assess the potential for a vapor intrusion exposure pathway at the Site is not warranted. Per the criteria presented in Table 3 of the EPA guidance, for sites with relatively low levels of benzene and/or TPH in soil or groundwater where LNAPL is not present, no further investigation for petroleum vapor intrusion is necessary where a vertical separation distance of 6 feet is met or exceeded (where no precluding factors such as preferential transport pathways are present). Based on the results of this assessment, Leidos believes that conditions at the Site are consistent with these exclusion criteria and that vapor intrusion is not an exposure pathway of concern. Use of the 2015 EPA guidance for initially assessing the potential for petroleum vapor intrusion was recently recommended by Ecology Implementation Memorandum No. 14, *Updated Process for Initially Assessing the Potential for Petroleum Vapor Intrusion*, dated March 31, 2016.

The results of these site assessment activities indicate that current conditions at the Site are protective of human health and that an exposure pathway for ecological receptors is unlikely due to a lack of undeveloped land at the Site, and in the immediate vicinity. In consideration of these results, Leidos respectfully requests, on behalf of CEMC, that Ecology issue an opinion for No Further Action at the La Bamba Restaurant Site.



## 6. REFERENCES

- City of Union Gap, 2011. Union Gap Zoning Map. July 2011.
- Ecology, 2011. Guidance for Remediation of Petroleum Contaminated Sites, Publication No. 10-09-057. September.
- Ecology, 2013. Letter from Frosti Smith to Eric Hetrick. June 18, 2013.
- EPA, 2015. Technical Guide for Addressing Petroleum Vapor Intrusion at Leaking Underground Storage Tank Sites. June 2015.
- Leidos, 2013. Draft- Site Assessment Work Plan. October 23, 2013.
- PBS, 2003a. Phase One Environmental Site Assessment. March 2003.
- PBS, 2003b. Limited Phase II Environmental Site Assessment, 3202 Main Street, Union Gap, Washington. May 5, 2003.



### REPORT LIMITATIONS

This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and Leidos shall have no responsibility or liability for the consequences thereof.

Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from CEMC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.

All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied on by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.









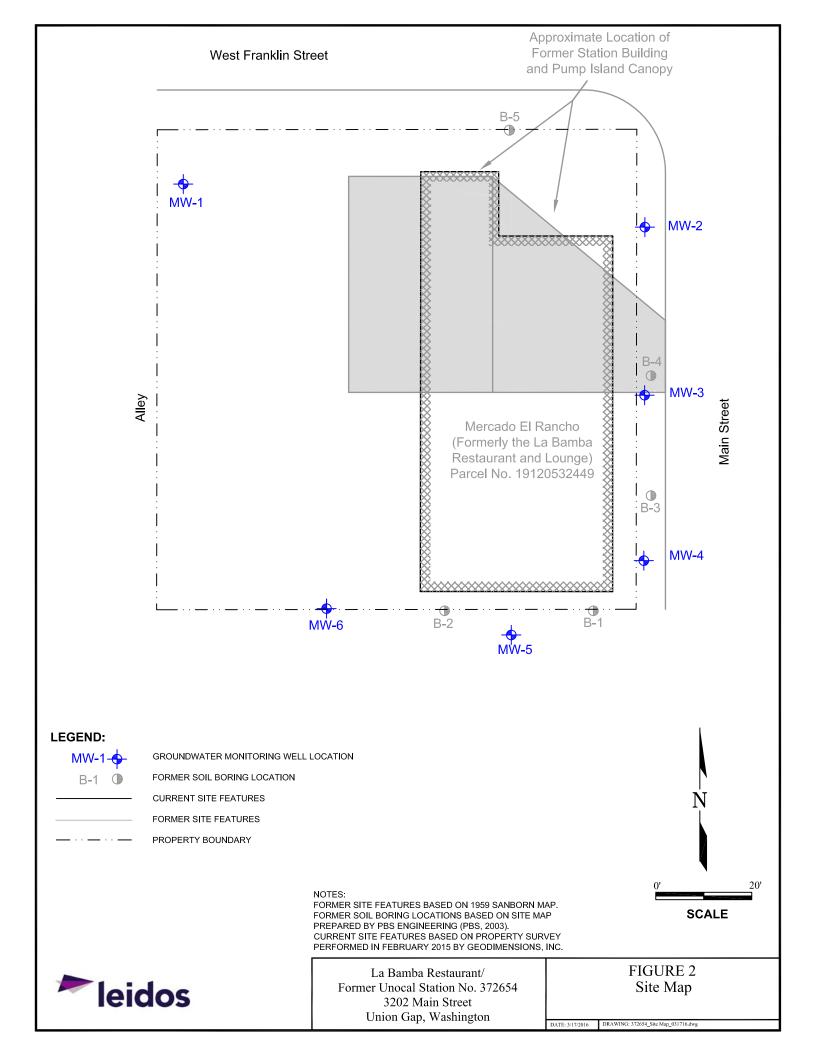


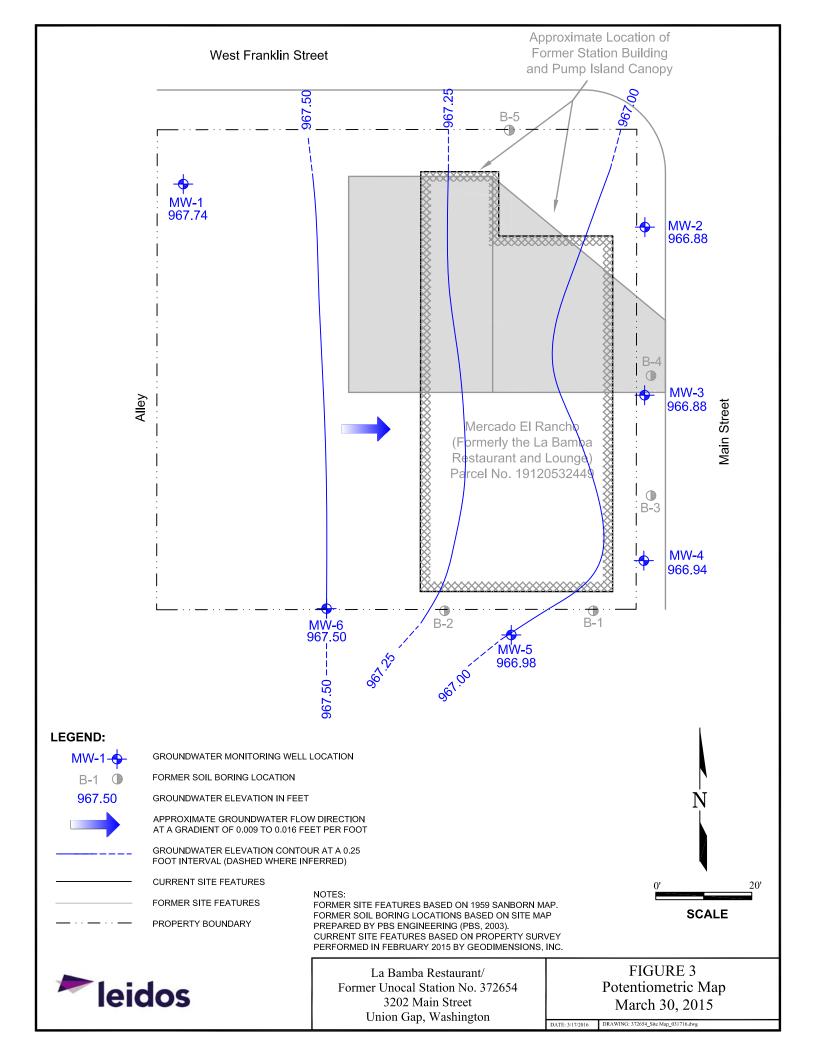
La Bamba Restaurant/
Former Unocal Station No. 372654
3202 Main Street
Union Gap, Washington

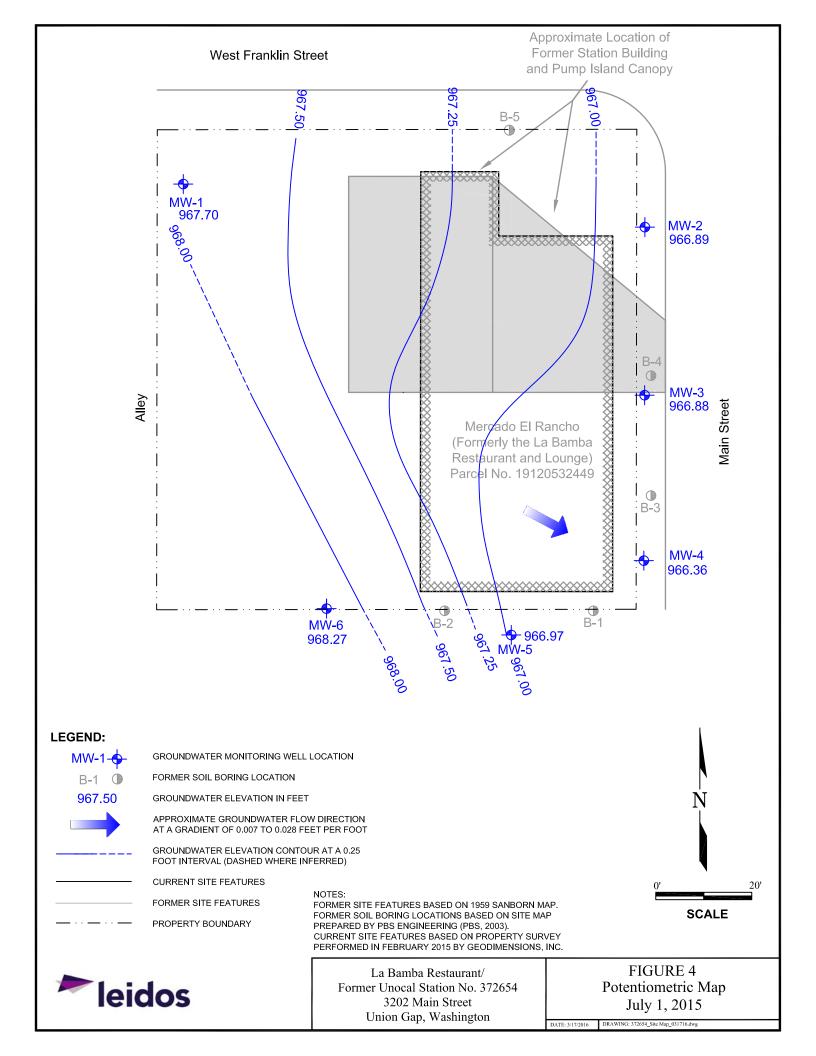
FIGURE 1 Vicinity Map

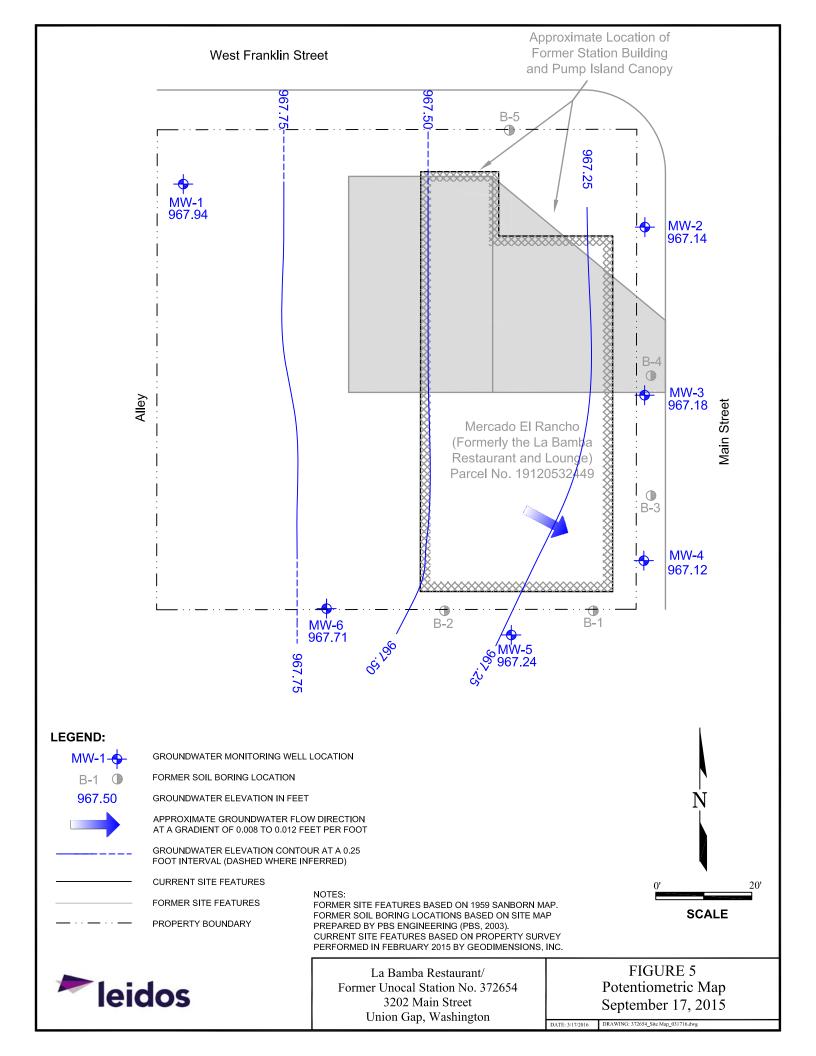
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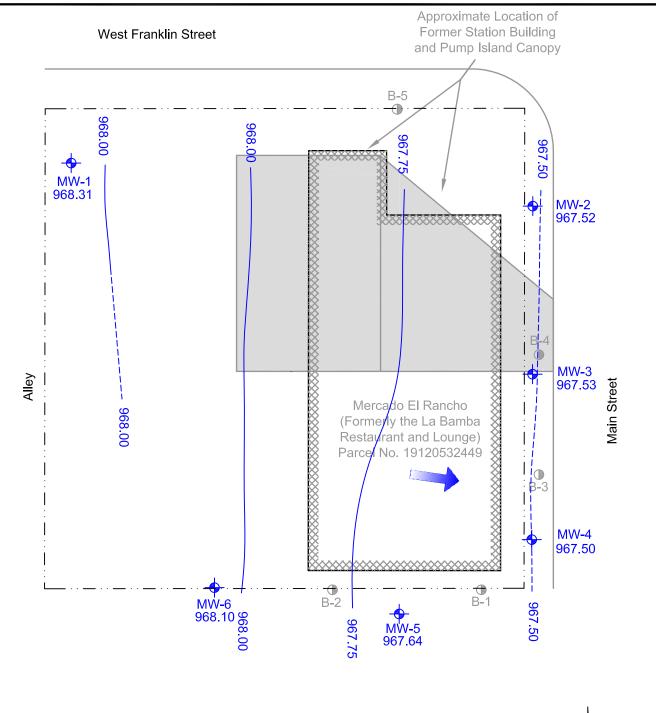
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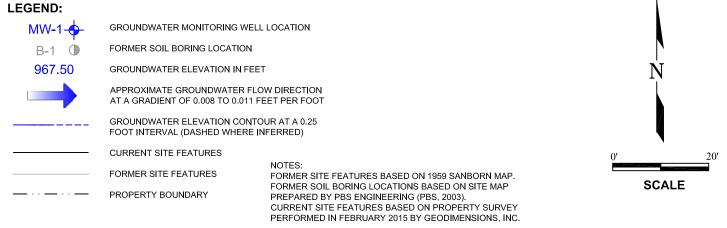














La Bamba Restaurant/
Former Unocal Station No. 372654
3202 Main Street
Union Gap, Washington

FIGURE 6
Potentiometric Map
December 8, 2015

DATE: 3/17/2016 DRAWING: 372654\_Site Map\_031716.dwg

# Table 1 Summary of Soil Sampling Analytical Results- TPHs and Volatile Petroleum Compounds La Bamba Restaurant/Former Unocal Service Station No. 372654 3202 Main Street

Union Gap, Washington

					Total Petr	oleum Hydro		Vola	atile Petroleu	m Hydrocar	bons	
Sample Location	Sample ID	Depth (ft.)	Date Sampled	TPH-GRO	TPH-DRO	TPH-DRO - Silica Gel Cleanup	трн-нго	TPH-HRO - Silica Gel Cleanup	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW-1	MW-1-11	11	12/11/2014	<1.4	<3.1	<3.1	<10	<10	0.0007	< 0.001	< 0.001	< 0.001
	MW-1-12.5	12.5	12/11/2014	<1.1	<3.2	<3.2	<11	<11	0.0007	< 0.001	< 0.001	< 0.001
	MW-1-14	14	12/11/2014	<1.1	23	<3.2	57	<11	0.0008	< 0.001	< 0.001	< 0.001
	MW-1-20	20	12/11/2014	<1.1	< 3.2	<3.2	<11	<11	< 0.0005	< 0.001	< 0.001	< 0.001
MW-2	MW-2-9	9	12/11/2014	<1.1	<3.1	<3.1	<10	<10	< 0.0005	< 0.001	< 0.001	< 0.001
	MW-2-12	12	12/11/2014	<1	<3.3	<3.3	<11	<11	< 0.0005	< 0.0009	< 0.0009	< 0.0009
	MW-2-20	20	12/11/2014	<1.3	<3.6	<3.6	<12	<12	< 0.0005	< 0.001	< 0.001	< 0.001
MW-3	MW-3-10	10	12/11/2014	<1.1	<3.1	<3.1	<10	<10	< 0.0005	< 0.001	< 0.001	< 0.001
	MW-3-12	12	12/11/2014	62	9.8	9.2	<11	<11	< 0.022	< 0.044	< 0.044	< 0.044
	DUP-121114	12	12/11/2014	76	<3.2	5.2	<11	<11	< 0.023	< 0.046	< 0.046	< 0.046
	MW-3-15	15	12/11/2014	<11	<3.2	<3.2	<11	<11	< 0.0006	0.001	< 0.001	< 0.001
	MW-3-20	20	12/11/2014	5.7	<3.5	<3.5	<12	<12	< 0.0005	< 0.001	< 0.001	< 0.001
MW-4	MW-4-9	9	12/11/2014	<1.1	<3.1	<3.1	<10	<10	0.0008	< 0.001	< 0.001	< 0.001
	MW-4-12	12	12/11/2014	27	<3.3	<3.3	<11	<11	< 0.0005	< 0.001	< 0.001	< 0.001
	MW-4-14	14	12/11/2014	12	<3.2	<3.2	<11	<11	0.001	0.0008	< 0.0008	< 0.0008
	MW-4-20	20	12/11/2014	<1	<3.3	<3.3	<11	<11	< 0.0004	< 0.0009	< 0.0009	< 0.0009
MW-5	MW-5-9	9	12/10/2014	<1.0	<3.1	<3.1	19	15	0.0007	< 0.001	< 0.001	< 0.001
	MW-5-11	11	12/10/2014	<1.0	<3.1	<3.1	15	<10	0.001	< 0.001	< 0.001	< 0.001
	MW-5-20	20	12/10/2014	<1.1	<3.3	<3.3	12	12	< 0.0005	< 0.001	< 0.001	< 0.001
MW-6	MW-6-12	12	12/10/2014	<1.1	<3.1	<3.1	15	14	< 0.0005	< 0.001	< 0.001	< 0.001
	MW-6-20	20	12/10/2014	<1	<3.4	<3.4	<11	<11	< 0.0005	< 0.001	< 0.001	< 0.001
	MTCA Met	hod A Cl	eanup Levels:	100	2,000	2,000	2,000	2,000	0.03	7	6	9
·		Ana	lytical Method:	NWTPH-Gx		NWTPH-D	x Extended			USEPA	8260B	

All concentrations reported in units of mg/kg.

### **Abbreviations:**

DUP = Duplicate
TPH = Total Petroleum Hydrocarbons

(ft.) = Feet
TPH-DRO = TPH as Diesel-Range Organics

mg/kg = Milligrams per kilogram
TPH-GRO = TPH as Gasoline-Range Organics

MTCA = Model Toxics Control Act
TPH-HRO = TPH as Heavy Oil-Range Organics

NW = Northwest
USEPA = United States Environmental Protection Agency



Table 2

# Summary of Soil Sampling Analytical Results- Fuel Additives and PAHs La Bamba Restaurant/Former Unocal Service Station No. 372654 3202 Main Street

Union Gap, Washington

	Fuel Additives							Napht	thalenes		Carcinogenic PAHs							
Sample Location	Sample ID	Depth (ft.)	Date Sampled	MTBE	EDB	EDC	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene	Total Naphthalenes	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene	Indeno (1,2,3-cd) pyrene	Total cPAHs <sup>1</sup>
MW-1	MW-1-11	11	12/11/2014	< 0.0005	< 0.001		< 0.003											
	MW-1-12.5	12.5	12/11/2014	< 0.0005	< 0.001		< 0.004					-						
	MW-1-14	14	12/11/2014	< 0.0006	< 0.001		< 0.004											
	MW-1-20	20	12/11/2014	< 0.0005	< 0.001		< 0.004											1
MW-2	MW-2-9	9	12/11/2014	< 0.0005	< 0.001		< 0.003					-						1
	MW-2-12	12	12/11/2014	< 0.0005	< 0.0009		< 0.004											
	MW-2-20	20	12/11/2014	< 0.0005	< 0.001		< 0.004											
MW-3	MW-3-10	10	12/11/2014	< 0.0005	< 0.001		< 0.003											1
	MW-3-12	12	12/11/2014	< 0.022	< 0.044	< 0.044	< 0.00072	0.024	0.0079	0.0319	0.0017	< 0.00072	0.00088	< 0.00072	0.0018	< 0.00072	< 0.00072	0.00438
	DUP-121114	12	12/11/2014	< 0.023	< 0.046		< 0.004											
	MW-3-15	15	12/11/2014	< 0.0006	< 0.001		< 0.004											
	MW-3-20	20	12/11/2014	< 0.0005	< 0.001		< 0.004											
MW-4	MW-4-9	9	12/11/2014	< 0.0005	< 0.001		0.005											
	MW-4-12	12	12/11/2014	< 0.0005	< 0.001	< 0.001	0.0025	0.0017	0.0045	0.0087	< 0.00073	< 0.00073	< 0.00073	< 0.00073	< 0.00037	< 0.00073	< 0.00073	< 0.00073
	MW-4-14	14	12/11/2014	< 0.0004	< 0.0008		< 0.004											
	MW-4-20	20	12/11/2014	< 0.0004	< 0.0009		< 0.004											
MW-5	MW-5-9	9	12/10/2014	< 0.0005	< 0.001		< 0.003											-
	MW-5-11	11	12/10/2014	< 0.0005	< 0.001	< 0.001	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00068	< 0.00034	< 0.00068	< 0.00068	< 0.00068
	MW-5-20	20	12/10/2014	< 0.0005	< 0.001		< 0.004											1
MW-6	MW-6-12	12	12/10/2014	< 0.0005	< 0.001		< 0.003											
	MW-6-20	20	12/10/2014	< 0.0005	< 0.001		< 0.004											-
	MTCA N	Method A Clo	eanup Levels:	0.1	0.005		Se	ee Total Naphthalen	ies	5			See Total Car	rcinogenic PAHs (T	otal cPAHs)		<u> </u>	0.1
	Analytical Method: USEPA 8260B							USEPA 8270C SIM										

All concentrations reported in units of mg/kg.

## Abbreviations:

EDB = Ethylene dibromide EDC = Ethylene dichloride DUP = Duplicate

(ft.) = Feet

mg/kg = Milligrams per kilogram

MTBE = Methyl tertiary-butyl ether

MTCA = Model Toxics Control Act PAHs = Polycyclic Aromatic Hydrocarbons

USEPA = United States Environmental Protection Agency

## Notes:

1. Total cPAHs toxic equivalency calculated using the toxic equivalency factors listed in MTCA, Table 708-2.



# Table 3

# Summary of Soil Sampling Analytical Results- Metals and Other Non-Petroleum Contaminants La Bamba Restaurant/Former Unocal Service Station No. 372654 3202 Main Street Union Gap, Washington

						Metals				Halogen	ated VOCs		PCBs							
Sample Location	Sample ID	Depth (ft.)	Date Sampled	Cadmium	Chromium	Lead	Nickel	Zinc	Methylene Chloride	PCE	1,1,1 - TCA	TCE	1016	1221	1232	1242	1248	1254	1260	Total PCBs
MW-1	MW-1-11	11	12/11/2014			2.41						-					-			
	MW-1-12.5	12.5	12/11/2014			2.56						•		•			•		-	
	MW-1-14	14	12/11/2014			2.73						-								
	MW-1-20	20	12/11/2014			2.13														
MW-2	MW-2-9	9	12/11/2014			2.91														
	MW-2-12	12	12/11/2014			1.73														
•	MW-2-20	20	12/11/2014			2.82														
MW-3	MW-3-10	10	12/11/2014			5.74														
•	MW-3-12	12	12/11/2014	0.164	16.4	3.67	23.4	43.2	< 0.088	< 0.044	< 0.044	< 0.044	< 0.0039	< 0.0049	< 0.0086	< 0.0035	< 0.0035	< 0.0035	< 0.0052	< 0.0086
	DUP-121114	12	12/11/2014			2.86														
•	MW-3-15	15	12/11/2014			2.12														
•	MW-3-20	20	12/11/2014			2.35														
MW-4	MW-4-9	9	12/11/2014			4.81														
•	MW-4-12	12	12/11/2014	0.102	18.5	5.57	27.4	44.7	< 0.002	< 0.001	< 0.001	< 0.001	< 0.0039	< 0.0050	< 0.0087	< 0.0036	< 0.0036	< 0.0036	< 0.0053	< 0.0087
•	MW-4-14	14	12/11/2014			2.66						-								
•	MW-4-20	20	12/11/2014			2.23														
MW-5	MW-5-9	9	12/10/2014			6.38														
•	MW-5-11	11	12/10/2014	0.153	24.0	4.14	11.4	52.7	< 0.002	< 0.001	< 0.001	< 0.001	< 0.0037	< 0.0047	< 0.0082	< 0.0034	< 0.0034	< 0.0034	< 0.0050	< 0.0082
•	MW-5-20	20	12/10/2014			3.17														
MW-6	MW-6-12	12	12/10/2014			2.76														
	MW-6-20	20	12/10/2014			2.61														
	MTCA Met	thod A Cl	eanup Levels:	2		250			0.02	0.05	2	0.03	See Total PCBs 1				1			
	Analytical Method: USEPA 6010B								USEPA 8260B USEPA 8082											

All concentrations reported in units of mg/kg.

### **Abbreviations:**

DUP = Duplicate NW = Northwest USEPA = United States Environmental Protection Agency

(ft.) = Feet PCBs = Polychlorinated biphenyls VOCs = Volatile Organic Compounds

 $mg/kg = Milligrams \ per \ kilogram \ PCE = Tetrachloroethylene$   $MTCA = Model \ Toxics \ Control \ Act \ TCA = Trichloroethylene$  TCE = Trichloroethylene



## Table 4

# Summary of Groundwater Sampling Analytical Results La Bamba Restaurant/Former Unocal Service Station No. 372654 3202 Main Street Union Gap, Washington

Well ID/Date Sampled	TOC <sup>1</sup> (ft.)	DTW (ft.)	GWE (ft.)	TPH-GRO	TPH-DRO	TPH-DRO - Silica Gel Cleanup	трн-нго	TPH-HRO - Silica Gel Cleanup	Benzene	Toluene	Ethyl- benzene	Total Xylenes	МТВЕ	EDB	EDC	Naphthalene	2-Methyl- Naphthalene	Total Lead
MW-1			•				•		•			•						•
3/30/2015	980.62	12.88	967.74	<50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	<4.7
7/1/2015	980.62	12.92	967.70	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0095	< 0.5	< 0.1	< 0.1	<4.7
9/17/2015	980.62	12.68	967.94	< 50	<29	<29	<67	<67	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<5.1
12/8/2015	980.62	12.31	968.31	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	6.6
MW-2																		
3/30/2015	979.57	12.69	966.88	< 50	<29	<29	<67	<67	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	<4.7
7/1/2015	979.57	12.68	966.89	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<4.7
9/17/2015	979.57	12.43	967.14	< 50	<29	<29	<67	<67	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<5.1
12/8/2015	979.57	12.05	967.52	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	6.5
MW-3																		
3/30/2015	979.79	12.91	966.88	<50	<29	<29	<67	<67	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<4.7
7/1/2015	979.79	12.91	966.88	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<4.7
9/17/2015	979.79	12.61	967.18	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	<5.1
12/8/2015	979.79	12.26	967.53	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	7.7
MW-4																		
3/30/2015	979.27	12.43	966.84	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<4.7
7/1/2015	979.27	12.91	966.36	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<4.7
9/17/2015	979.27	12.15	967.12	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	<5.1
12/8/2015	979.27	11.77	967.50	< 50	<29	<29	<67	<67	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	7.1
MW-5			1									1						
3/30/2015	979.79	12.81	966.98	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<4.7
7/1/2015	979.79	12.82	966.97	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	<4.7
9/17/2015	979.79	12.55	967.24	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<5.1
12/8/2015	979.79	12.15	967.64	< 50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0095	< 0.5	< 0.1	< 0.1	8.9
MW-6			1				•	T	1			1		1		_		•
3/30/2015	980.38	12.88	967.50	<50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	<4.7
7/1/2015	980.38	12.11	968.27	<50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0095	< 0.5	< 0.1	<0.1	<4.7
9/17/2015	980.38	12.67	967.71	<50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0096	< 0.5	< 0.1	< 0.1	<5.1
12/8/2015	980.38	12.28	968.10	<50	<28	<28	<66	<66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.0097	< 0.5	< 0.1	< 0.1	6.5
QA			1		Г		T	1	1			1		1		<u>,                                      </u>		
3/30/2015				<50					< 0.5	< 0.5	< 0.5	< 0.5	< 0.5					
7/1/2015				<50					< 0.5	< 0.5	< 0.5	< 0.5	< 0.5					
9/17/2015				<50					< 0.5	< 0.5	< 0.5	< 0.5	< 0.5					
12/8/2015				<50					<0.5	< 0.5	< 0.5	<0.5	< 0.5					
	MTCA M	ethod A Cle	anup Levels:	800/1,000 <sup>2</sup>	500	500	500	500	5	1,000	700	1,000	20	0.01	5	160		15
		Cur	rent Method:	NWTPH-Gx	'	NWTPH	-Dx Extended		USEPA 8260B								USEPA 6010	

All concentrations reported in units of µg/L

### **Abbreviations:**

DTW = Depth to Water EDB = Ethylene dibromide EDC = Ethylene dichloride

(ft.) = Feet

GWE = Groundwater Elevation MTBE = Methyl tertiary-butyl ether MTCA = Model Toxics Control Act
QA = Quality Assurance/Trip Blank
TOC = Top of Casing

TPH = Total Petroleum Hydrocarbons -- = Not Measured/Not Analyzed  $\mu$ g/L = Micrograms per liter

**Notes:** 

- 1. TOC elevations have been surveyed in feet relative to the 1988 North American Vertical Datum.
- 2. TPH-GRO MTCA Method A cleanup level is  $800~\mu\text{g/L}$  if benzene is present and  $1{,}000~\mu\text{g/L}$  if benzene is not present.

TPH-DRO = TPH as Diesel-Range Organics TPH-GRO = TPH as Gasoline-Range Organics

TPH-HRO = TPH as Heavy Oil-Range Organics

USEPA = United States Environmental Protection Agency

VOCs = Volatile Organic Compounds



Appendix A: Monitoring Well Survey



# TAX PARCEL NUMBER:

19120532449

TOTAL SITE AREA IS 9,990± SQUARE FEET OR 0.2± ACRES.

METHOD OF SURVEY:
INSTRUMENTATION FOR THIS SURVEY WAS A TRIMBLE ELECTRONIC DISTANCE MEASURING UNIT. PROCEDURES USED IN THIS SURVEY WERE DIRECT AND REVERSE ANGLES, NO CORRECTION NECESSARY. MEETS STATE STANDARDS SET BY WAC 332-130-090.

BASIS OF BEARINGS:

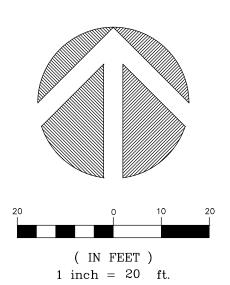
THE CENTERLINE OF 1ST STREET BEARS N 00°04'12" E BETWEEN FOUND MONUMENTS, PER RECORD OF SURVEY, VOLUME 61, PAGE 56, RECORDS OF YAKIMA COUNTY, WASHINGTON.

LEGAL DESCRIPTION:

LOTS 11, AND 12, BLOCK 8, YAKIMA CITY, NOW UNION GAP, AS RECORDED IN VOLUME A OF PLATS, PAGE 33, RECORDS OF YAKIMA COUNTY, WASHINGTON.

TITLE REPORT REFERENCE:
THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.
EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.

DATE OF SURVEY: FEBRUARY OF 2015



# TABLE OF COORIDNATES AND ELEVATIONS

N5328.88, E10175.63 TOP OF PIPE= 980.62' TOP OF LID = 980.97

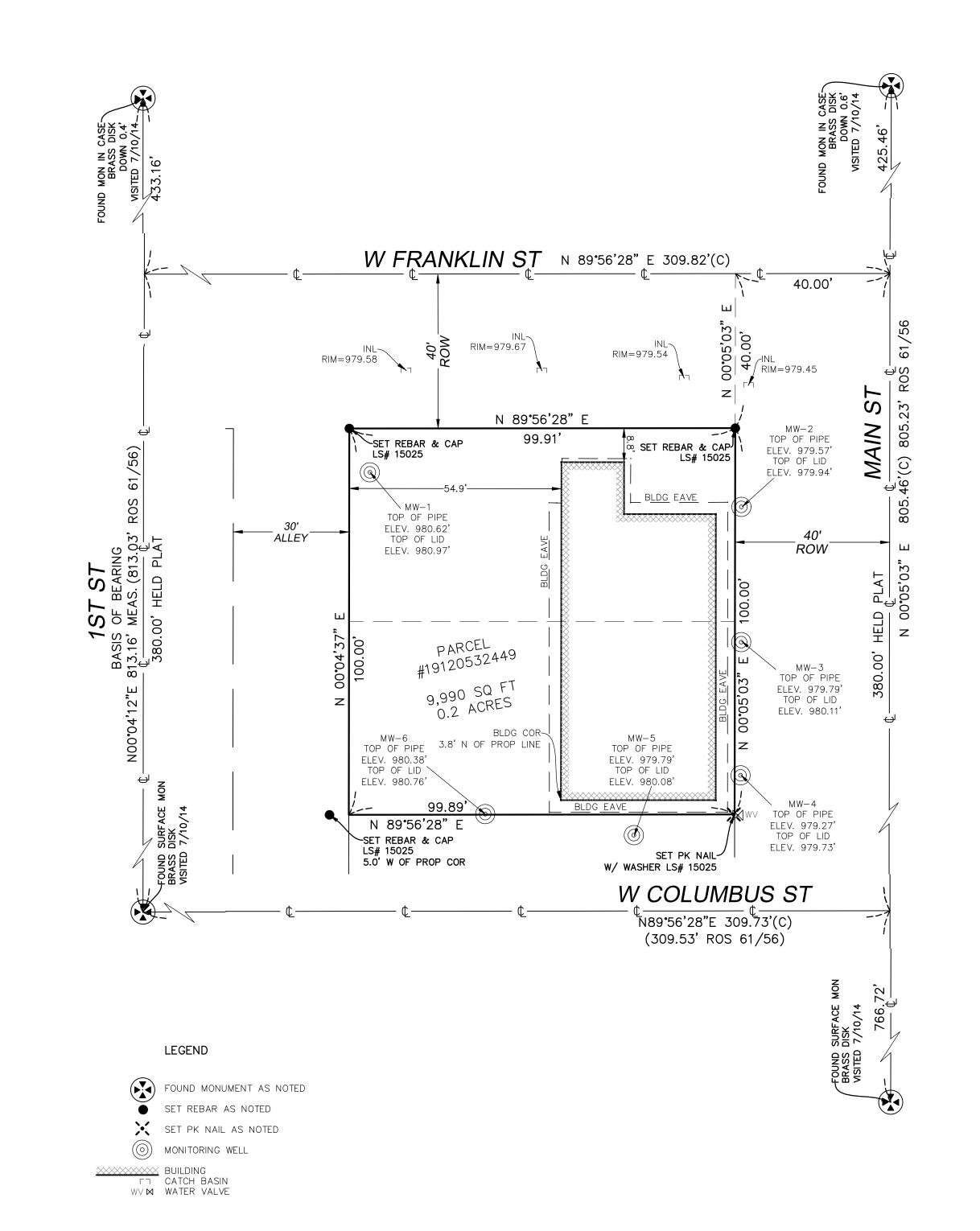
N5319.88, E10271.90 TOP OF PIPE = 979.57TOP OF LID = 979.94'

N5284.84, E10271.89 TOP OF PIPE = 979.79'TOP OF LID = 980.11

N5250.31, E10271.74 TOP OF PIPE = 979.27TOP OF LID = 979.73'

MW5: N5234.72, E10244.05 TOP OF PIPE = 979.79TOP OF LID = 980.08'

N5240.33, E10205.48 TOP OF PIPE = 980.38' TOP OF LID = 980.76



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SEC.

SW 1/4,

NW 1/4,

JOB NO.: **140863** 

DATE: 05/05/15

CHECKED BY: EJG/JGM

SCALE: 1" = 20'

OF

DRAFTED BY: VLJ

LEIDOS

SURVEY

TIORING

MONIT

Appendix B: Boring Logs and Well Construction Diagrams





# Monitoring Well: MW-1

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/8/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 980.62 ft

MOISTURE	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	ANALYTICAL RESULTS (mg/kg)	U.S.C.S. SYMBOL	GRAPHIC LOG	<b>DEPTH (ft)</b>	LITHOLOGY/DESCRIPTION	WE	ELL DIAGRAM
Moist	1.7				SM			Asphalt top 2 inches.  (SM) Brown, medium dense, silty SAND with 30% silt and 70% fine sand; no odor, no sheen.		Well box - Sch. 40 PVC riser - Cement Seal  Ecology well tag ID # BHN 932
Moist	1.4				GM		3— - 4— - 5—	Brown, dense, silty SAND with 5% gravel, 25% silt, 70% fine sand; no odor, no sheen.  (GM) Cobbles.  Well graded, silty, sandy GRAVEL with 5% silt and 35%		- Hydrated bentonite chip seal
					GM		- 6- - - 7- - -	fine to coarse sand. No recovery with hand auger.  (GM) Same as above except 70% cobbles and 25% fine to coarse sand. No recovery with hand auger.		
Moist	0.0				SM		8— - - 9—	(SM) Gray-brown, gravelly SAND with 5-10% silt, 5-10% cobbles, 20% gravel, and 60% fine to coarse sand; no sheen.		
Moist	0.0	$\left  \right $					9— - -	Same as above; no sheen.		



# Monitoring Well: MW-1

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/8/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 980.62 ft

MOISTURE	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	ANALYTICAL RESULTS (mg/kg)	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION	WELL DIAGRAM
Moist	0.0	\					_	(SM) Same as above; no sheen.	
Moist	0.0		MW-1-11	G <1.4 D <3.1 HO <10 B = 0.0007	SM		- 11- - -	Same as above; no odor, no sheen.	- Filter Pack (2/12 Monterey Sand)
Moist	0.0	$/ \setminus$				1960 (60 ) 1960 (60 ) 1960 (60 ) 1960 (60 )	12—	Same as above; no, odor, no sheen.	
Wet	0.0	/ \ /	12.5	G <1.1 D <3.2			_	(SM) Same as above except gray; slight odor, slight sheen.	
Wet	0.0		MW-1-12.	HO <11 B = 0.0007	SM		13—	(GM) Gray-brown, dense, sandy GRAVEL; no odor, no	
	0.0	$/ \setminus$			GM		_	sheen.	
Wet	0.0		MW-1-14	G <1.1 D = 23 HO = 57 B = 0.0008	Givi		- 14 <i></i> -	Same as above; no odor, no sheen.	- 20 Slot PVC Screen
Wet	0.0	$\left\langle \cdot \right\rangle$					15— - -	Same as above; no sheen.	
Wet	0.0	\ /			GM		16 <i>-</i>	(GM) Same as above; no odor, no sheen.	
Wet	0.0						- 17 — - -	Same as above; no odor, no sheen.	
Wet	0.0	/ \ \  /					- 18 <i>-</i> -	Gray-brown, sandy GRAVEL with 5% silt, 20% cobbles, 30% fine to coarse sand, and 45% gravel.	
Wet	0.0		20	G <1.1	GM		- 19 <i>-</i> -	(GM) Same as above; no odor, no sheen.	
Wet	0.0		MW-1-20	D <3.2 HO <11 B <0.0005	Jivi		- <del>20</del>	Bottom of borehole at 20.0 feet.	

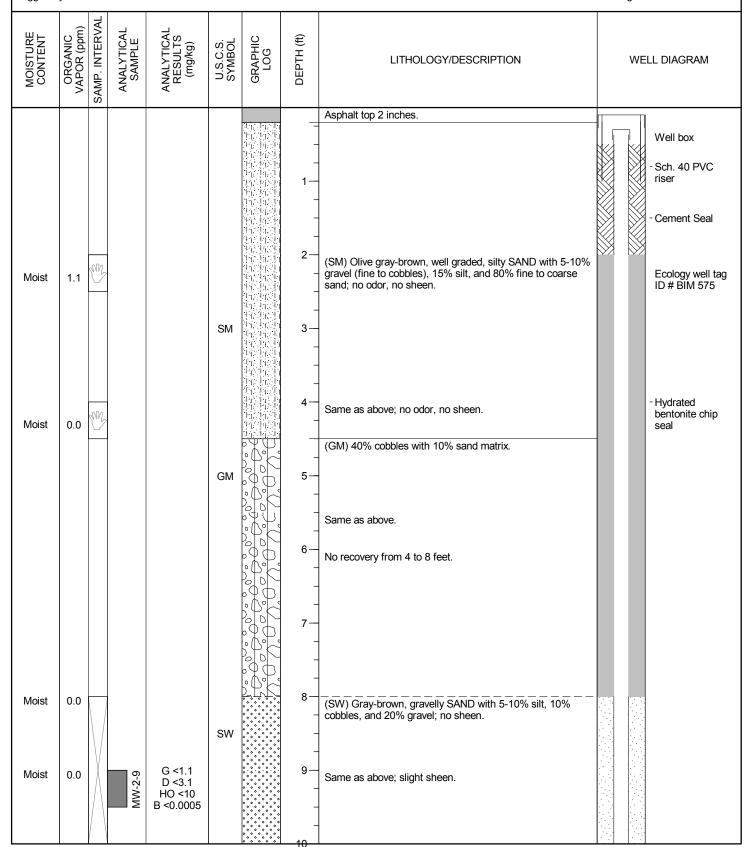


# Monitoring Well: MW-2

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/9/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.57 ft



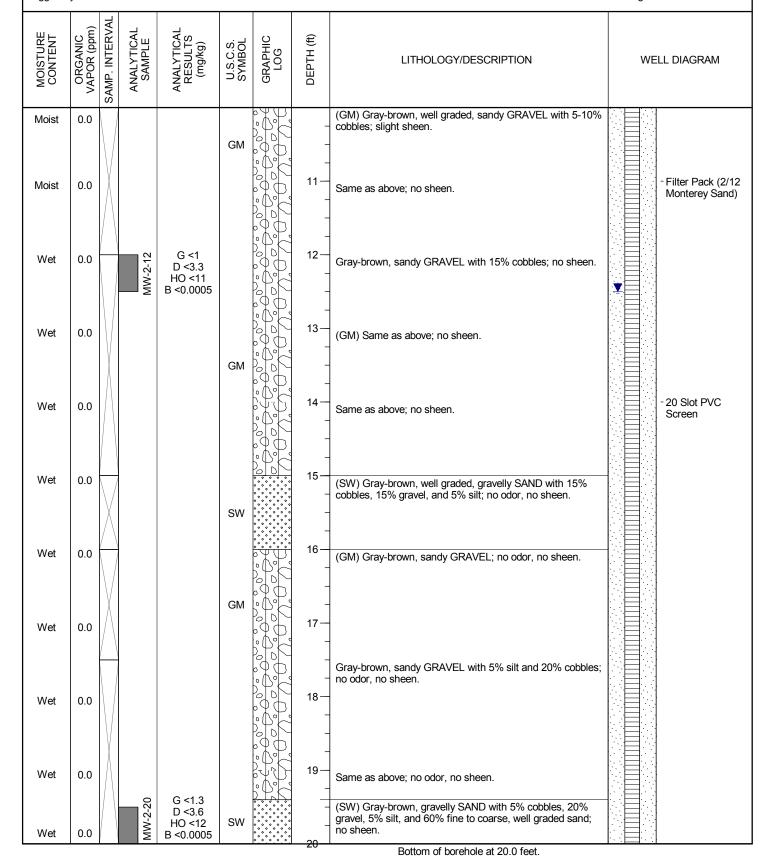


# Monitoring Well: MW-2

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/9/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.57 ft



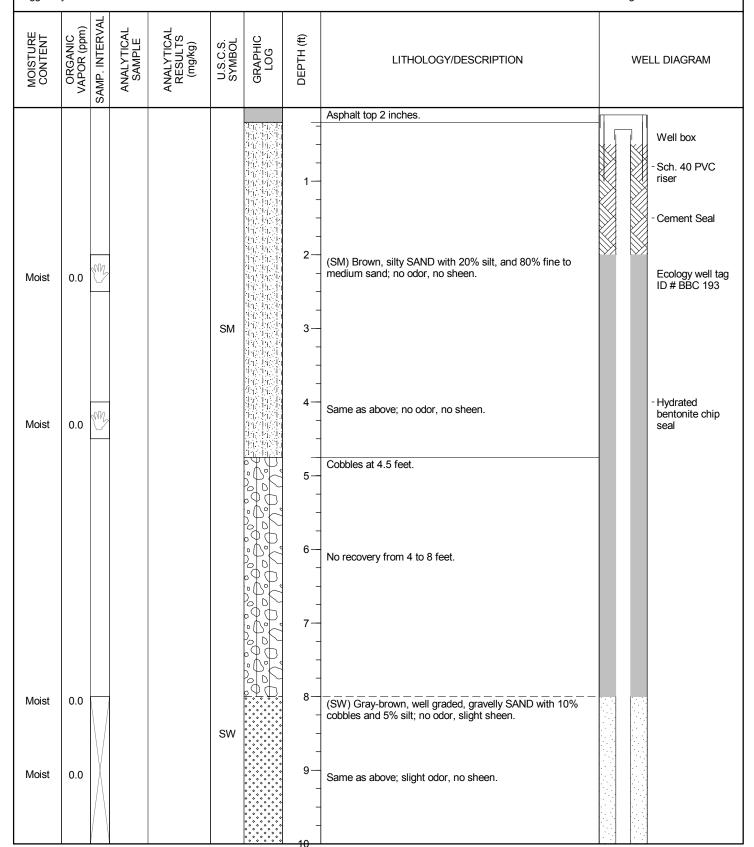


# Monitoring Well: MW-3

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/10/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.79 ft





# Monitoring Well: MW-3

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/10/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.79 ft Well Diameter: 2 in Well Screen: 10-20 ft Filter Pack: 2/12 Monterey Sand Well Casing: Sch 40 PVC

MOISTURE	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	ANALYTICAL RESULTS (mg/kg)	U.S.C.S. SYMBOL	GRAPHIC LOG	<b>DEPTH (ft)</b>	LITHOLOGY/DESCRIPTION	WELL DIAGRAM
Moist	0.0		MW-3-10	G <1.1 D <3.1 HO <10 B <0.0005	SW		-	(SW) Same as above; no odor, no sheen.	
Moist	0.0						- 11— - -	Same as above; slight odor, slight sheen.	- Filter Pack (2/12 Monterey Sand)
Wet	156		MW-3-12	G = 62 D = 9.8 HO <11 B <0.022			12-	Gray, gravelly SAND with 5% cobbles; strong odor, slight sheen.	
Wet	0.0		2	_	GM		- 13— - -	(GM) Gray-brown, sandy GRAVEL with 5% silt; no sheen.	
Wet	0.0						- 14 <del></del> -	Same as above; slight odor, no sheen.	- 20 Slot PVC Screen
Wet	0.0		MW-3-15	G <11 D <3.2 HO <11 B <0.0006			- 15 <i>-</i> -	Same as above; slight odor, no sheen.	
Wet	0.0				GM		16— - -	(GM) Same as above; no sheen.	
Wet	0.0						- 17 <i>-</i> - -	Same as above; no sheen.	
Wet	0.0						- 18— - -	Same as above; no odor, no sheen.	
Wet	0.0		0;	G = 5.7	GM		- 19 <i>-</i> -	(GM) Same as above; no odor, no sheen.	
Wet	0.0		MW-3-20	D <3.5 HO <12 B <0.0005			- - <del>20</del>	Same as above; no odor, no sheen.	

Bottom of borehole at 20.0 feet.

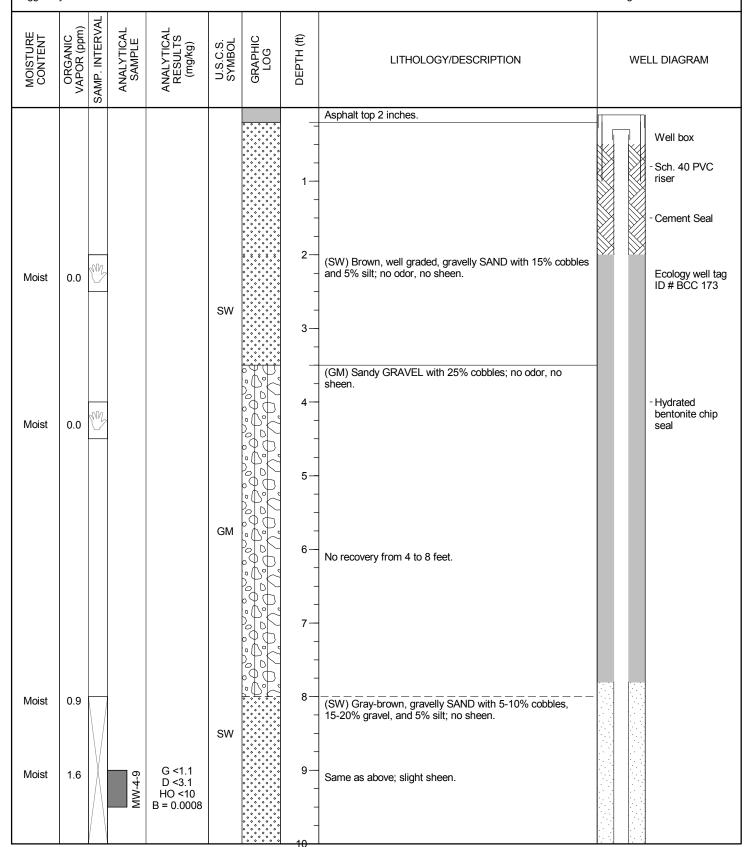


# Monitoring Well: MW-4

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/10/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.27 ft



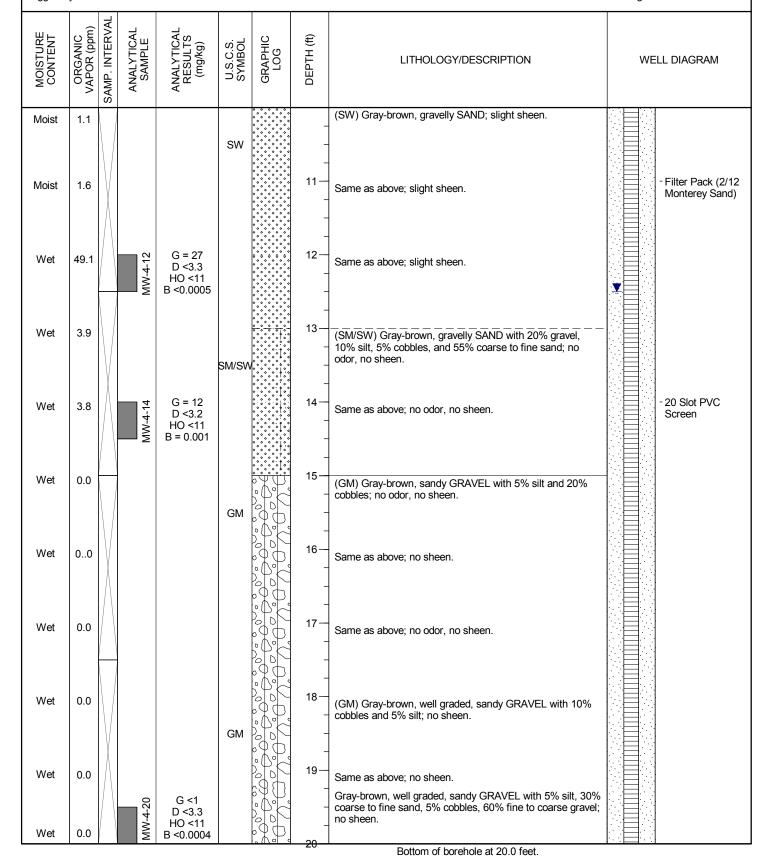


# Monitoring Well: MW-4

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/10/2014 Date Completed: 12/11/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.27 ft



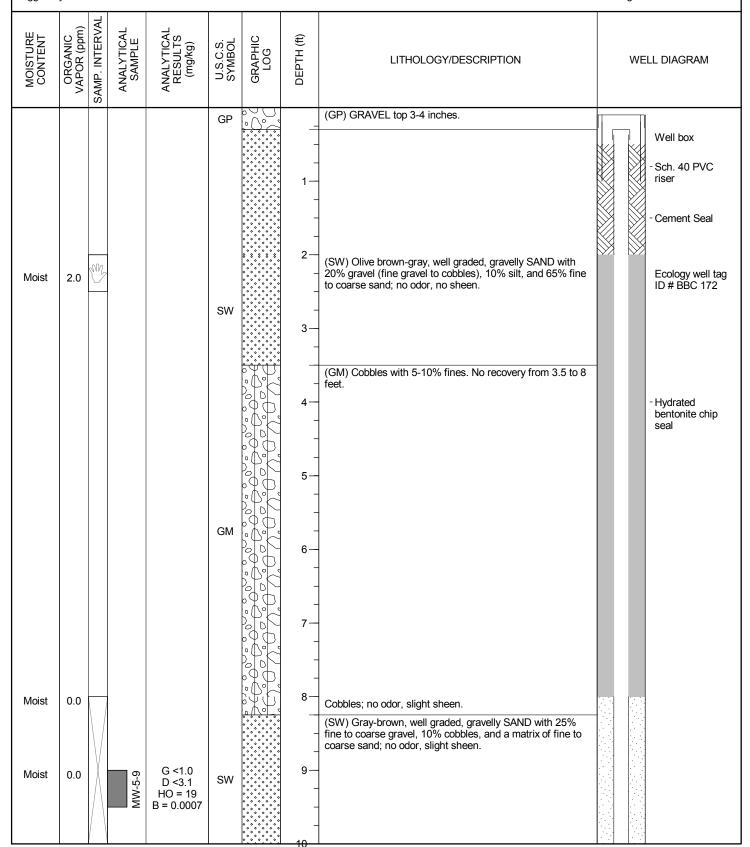


# Monitoring Well: MW-5

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/9/2014 Date Completed: 12/10/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.79 ft





18912 North Creek Parkway, Suite 101 Bothell, WA 98011

# Monitoring Well: MW-5

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/9/2014 Date Completed: 12/10/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 979.79 ft Well Diameter: 2 in Well Screen: 10-20 ft Filter Pack: 2/12 Monterey Sand Well Casing: Sch 40 PVC

MOISTURE	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	ANALYTICAL RESULTS (mg/kg)	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION	WELL DIAGRAM
Moist	0.0						-	(SW) Same as above; slight sheen.	
Moist	0.0		MW-5-11	G <1.0 D <3.1 HO = 15 B = 0.001	SW		- 11 — - -	Same as above; slight sheen.	- Filter Pack (2/12 Monterey Sand)
Wet	0.0	$/ \setminus$					12—	Same as above.	
Wet	0.0				GM		- - 13 -	(GM) Gray-brown, well graded, sandy GRAVEL with 5% silt, 20% fine to coarse sand, 10% cobbles, and 65% fine to coarse gravel; no odor, no sheen.	
Wet	0.0	$\left\langle \cdot \right\rangle$					 14 - -	Same as above; no sheen.	- 20 Slot PVC Screen
Wet	0.0						- 15 - -	Same as above; no sheen.	
Wet	0.0				GM		- 16 <i>-</i>	(GM) Same as above; no sheen.	
Wet	0.0						- 17— -	Same as above; no sheen.	
Wet	0.0						- 18— -	Same as above; no sheen.	
Wet	0.0		-20	G <1.1 D <3.3	GM		- 19 <i></i> -	(GM) Same as above; no sheen.	
Wet	0.0		MW-5-20	HO = 12 B < 0.0005			- 	Same as above; no sheen.	



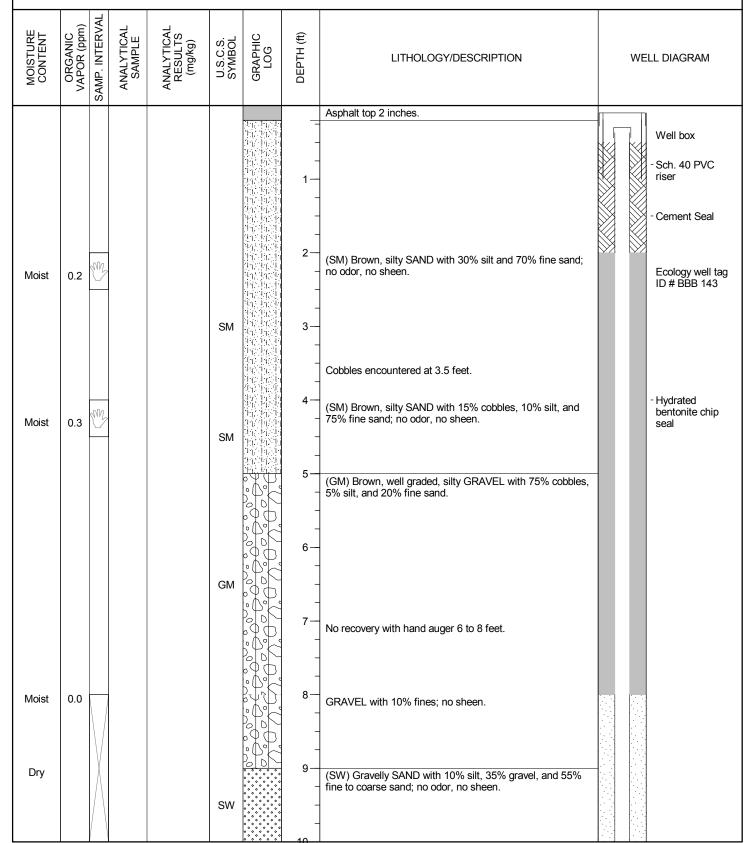
18912 North Creek Parkway, Suite 101 Bothell, WA 98011

## Monitoring Well: MW-6

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/9/2014 Date Completed: 12/10/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 980.38 ft Well Diameter: 2 in Well Screen: 10-20 ft Filter Pack: 2/12 Monterey Sand Well Casing: Sch 40 PVC





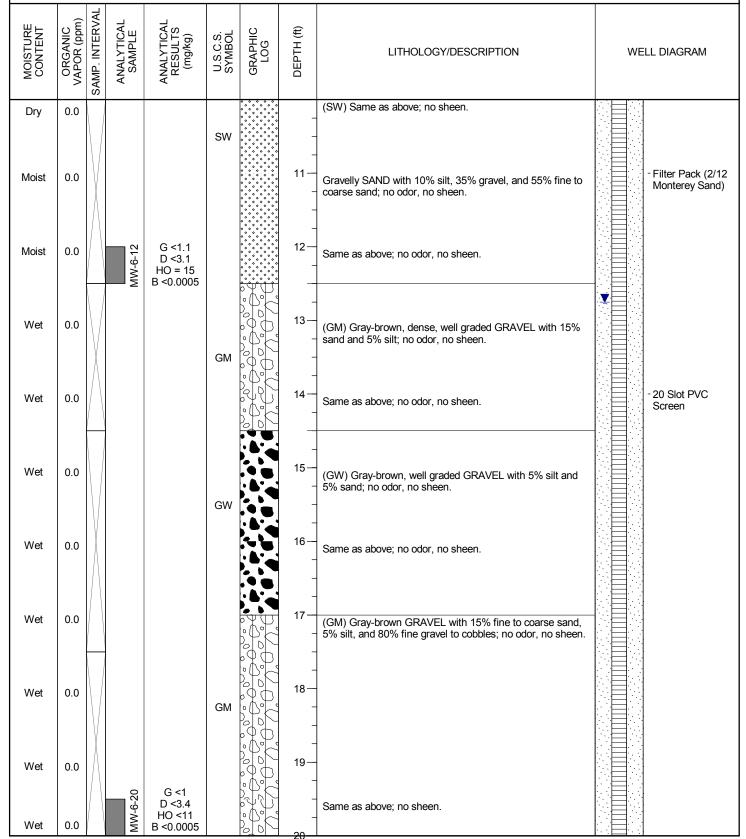
18912 North Creek Parkway, Suite 101 Bothell, WA 98011

## Monitoring Well: MW-6

Project: Former Unocal Station No. 372654 Client: Chevron EMC

Location: 3202 Main Street, Union Gap, WA Logged By: R. Otteman

Date Started: 12/9/2014 Date Completed: 12/10/2014 Driller: Cascade Drilling Drill Method: Air Knife/Sonic Total Boring Depth: 20 ft Hole Diameter: 6-12 in Well Depth: 20 ft TOC Elevation: 980.38 ft Well Diameter: 2 in Well Screen: 10-20 ft Filter Pack: 2/12 Monterey Sand Well Casing: Sch 40 PVC



Appendix C: Groundwater Monitoring and Sampling Data Packages



April 3, 2015 G-R #386773

TO:

Mr. Russell Shropshire

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6805 Sierra Court, Suite G Dublin, California 94568 **RE:** Former Unocal Station

#372654

3202 Main Street

Union Gap, Washington

#### WE HAVE ENCLOSED THE FOLLOWING:

ndwater Monitoring and Sampling Data Package  Quarter Event of March 30, 2015

#### **COMMENTS:**

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/211556

	CHEVRON - SITE CHECK LIST													
	Facility#:	Chevron #	372654	100-04-04-04-04-04-04-04-04-04-04-04-04-0		Date: 3.20.	16							
	Address:	3203 Main	Street			- 09	(-1/							
	City/St.:	Union Gap	, WA	/										
	Status of S	Site: () -	STOVE											
DRUMS:				list below AL	L DRUMS on	site:								
DKUMS:		(i.e., drum de	escription, co	ondition, labe	ling, contents	and location of drun	ns)							
	#	Desc	iption	Condition	Labeling	Contents/Capacity	Location							
		No	WWW											
9		01/01	TU											
		1 ( May	10											
		F	Please check	the condition	n of ALL WELL	S on sito:								
WELLS:	(i.e.,					vell box condition a	nd etc.)							
	Gaskets	Bolts	Replaced	Replaced										
Well ID	(M) Missing	(M) Missing	Plug	Lock	17770	ell Box	Other							
	(R) Replaced	(R) Replaced	Y/N	Y/N	Manuractur	er/Size/# of Bolts								
MW-1	a	OK	ox	ok	8 V	BRRIS X 9								
MW-2														
MW-3														
MW-4														
MW-5						/								
MW-6	<b>√</b>	·V	<b>√</b>	V	V									
							<del></del>							
					-									
							<del></del>							
l.		<u> </u>	<u>l</u>		· · · · · · · · · · · · · · · · · · ·									
Additional Co	omments/Obs	ervations:												

#### Standard Operating Procedure, Low-Flow Purging and Sampling

Gettler-Ryan Inc. field personnel adhere to the following Standard Operating Procedure (SOP) for the collection and handling of representative groundwater samples using the Low-Flow (Minimal-Drawdown) Purging technique. This SOP incorporates purging and sampling methods discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - "Low-Flow (Minimal-Drawdown) Ground-Water Sampling Procedures."

A QED Well Wizard<sup>TM</sup> (or equivalent) bladder pump or Peristaltic Pump will be used to purge and sample selected wells as outlined in the scope-of-work. An in-line flow cell or other multi-parameter meter is used to collect water quality indicating parameters during purging.

#### Initial Pump Discharge Test Procedures

The Static Water Level (SWL) is measured in all wells at the site prior to the installation of the pump or tubing and initiation of the test procedures in any well. In addition, the presence or absence of separate-phase hydrocarbons (SPH) is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot. The SWL measurement and SPH thickness, if any, will be recorded on the field data sheet.

The bladder pump or suction inlet tubing of the peristaltic pump is then positioned with its inlet located within the screened interval of the well. The in-line flow cell is then connected to the discharge tubing. After pump installation, the SWL is allowed to recover to its original level. The pump is then started at a discharge rate between 100 ml to 300 ml per minute with the in-line flow cell connected. The water level is monitored continuously for any change from the original measurement and the discharge rate is adjusted until an optimum discharge rate (ODR) is determined. The goal for the ODR is to produce a stable drawdown of less than 0.1 meter as allowed by site conditions; however the total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen. Once achieved, the ODR will be confirmed by volumetric discharge measurement and recorded on the field data sheet.

#### Purging and Water Quality Parameter Measurement

When the ODR has been determined and the SWL drawdown has been established within the acceptable range, and a minimum of one pump system volume (bladder volume and/or discharge tubing volume) has been purged, field measurements for temperature (T), pH, conductivity (Ec), and if required, oxygen reduction potential (ORP) and dissolved oxygen (DO) will be collected and documented on the field data sheet. Measurements should be taken every three to five minutes until parameters stabilize for three consecutive readings. The minimum parameter subset of T ( $\pm$  10%), pH ( $\pm$  0.1 unit), and Ec ( $\pm$  10 uS) are required to stabilize. Additional parameters that may be required are DO ( $\pm$  0.2 mg/l) and ORP ( $\pm$  20 mV).

#### Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler,

maintained at 4°C for transport to the laboratory. A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.



Client/Facility#:	Cnevron #37	2654		Job Number:	385900				
Site Address:	3203 Main St	reet		Event Date:	3.30	6.15	(inclusive)		
City:	Union Gap, V	VA		Sampler:	<u>ی</u>	P	_		
Well ID Well Diameter Total Depth Depth to Water Depth to Water Disposable Bailer Stainless Steel Baile Stack Pump Deristaltic Pump DED Bladder Pump Dther:		C XVF C C C C C C C C C C C C C C C C C C C	Volur Factor heck if water colur	or (VF) 4"= 0.60 nn is less then 0.50 x3 case volume = + DTW]: _/4/. 24	2 1"= 0.04 2". 6 5"= 1.02 6"= 0 ft.  Estimated Purge Volume Time Started Time Comple Depth to Pro Depth to War Hydrocarbon Visual Confir Skimmer / At Amt Remove Amt Remove Water Remove	eted:	gal(2400 hrs)ftftftftftftftftftftftftftft		
Start Time (purg Sample Time/Da Approx. Flow Ra Did well de-wate Time	ate: /240/3	Mipm yes, Time:	Sediment D	r: cuear	Odor: Y / N  Vox/t  ltrs DTW @  D.O.	′ <u></u>	/ <b>2</b> . <b>9</b> / Gauge DTW		
(2400 hr.)	(Liters)  3.6  4.6	6.70 6.70	μmhos/cm)  - 316  - 317	(C) F) 	(mg/L) 7.26 7.26 7.18	(mV) 73.7 73.6 73.9	as parameters are recorded		
				•					
	1 (0) 001 111 11			RY INFORMATIC	N				
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE		ANATON O OTTO	ANALYSES			
MW-	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX-	<del></del>	2 DCE(8260B)		
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/	NWTPH-Dx			
	x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)				
	2 x 250ml ambers	YES	NP	LANCASTER	NAPHTHALENE/2-		HALENE(8270)		
	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(6010	))	·		
OMMENTS:	Depth Pump S	Set At:	13-10						
	Deput I unip c		75.370	***************************************					
d/Replaced Gaske	et: Add	I/Replaced B	olt: <i>A</i>	Add/Replaced Plug: _	Add/Re	eplaced Lock:			



Client/Facility#:	Chevron #37	2654		Job Number:	385900	385900				
Site Address:	3203 Main St	reet		Event Date:	ع ٠ ق	d.15	(inclusive)			
City:	Union Gap, V	VA		Sampler:		P	<b>-</b> · · ·			
							_			
Well ID	MW-2		D	ate Monitored:	( <b>9</b> ·	30.15				
Well Diameter	2 , in.	-					<del>-</del>			
Total Depth	19.10 ft.	-	Volume Factor			= 0.17 3"= 0.38 = 1.50 12"= 5.80				
Depth to Water			heck if water column			1.00 12 - 0.00				
Dopar to Water	6.41	xVF =	= -		Estimated Purge Vi	olume -	gal.			
Depth to Water	w/ 80% Recharge		/ater Column x 0.20) +		_	l:				
	•		·	-		eted:				
Purge Equipment:	:	Sa	impling Equipment:			duct:	······································			
Disposable Bailer		Dis	sposable Bailer			ter:				
Stainless Steel Bail	ler	Pr	essure Bailer		Hydrocarbor	Thickness:	ft			
Stack Pump		Me	etal Filters		Visual Confi	mation/Descriptio	n:			
Peristaltic Pump	×	Pe	eristaltic Pump							
QED Bladder Pump		QE	ED Bladder Pump			bsorbant Sock (cir	•			
Other: Y6T	Mp8 666	Ot	her: TOBING			ed from Skimmer:_				
	•					ed from Well: ved:				
						sferred to:				
Start Time (purg	ge): 666		Weather Cor	nditions:	SUN					
Sample Time/D	/1/	-30.15	Water Color:		Odor: Y (N)					
Approx. Flow R		mĺpm	Sediment De							
Did well de-wate				· —	NONE	0	- 7-			
Did well de-wall	er? NO II	yes, Time:	53%	iume:	Itrs DTW @	sampling:	12.70			
Time	Volume		Conductivity	Temperature	D.O.	ORP	Gauge DTW			
(2400 hr.)	(Liters)	pН	( μS (mS) μmhos/cm)	(C/F)	(mg/L)	(mV)	as parameters			
1000	40	627	μππος/cm)	15.63	6.45	43.2	are recorded			
1020	4 7 db	6.76	. 32/	13.03	6.53	44.4	12.69			
1029	110 0	6.78	. 520	1201	6.41	44.6	12.70			
14 25	- 14.g	0.70	- 3520			19.0	- <u>12.119</u>			
						-				
	···		LABORATOR	Y INFORMATIC	N					
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	3			
MW-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX	+MTBE(8260B)/1,	2 DCE(8260B)			
		YES	HCL	LANCASTER	NWTPH-Dx w/sgc	NWTPH-Dx				
		YES	Na2S2O3	LANCASTER	EDB(8011)					
	√2 x 250ml ambers	YES	NP	LANCASTER	NAPHTHALENE/2	<del></del>	HALENE(8270)			
	/ x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(601	0)				
				<u> </u>						
				I	L					
COMMENTS:	Depth Pump S	set At:	15-16							
						<del>.</del>				
	<del></del>		n							
Add/Replaced Gask	et: Add	d/Replaced B	olt: Ad	d/Replaced Plug: _	Add/R	eplaced Lock:	<del></del>			
			74							



Client/Facility#: Chevron	#372654		Job Number: 385900						
Site Address: 3203 Ma	in Street		Event Date:	3 . 8 .	6.15	(inclusive)			
City: Union G	ap, WA		Sampler:	ران عالی عالی عالی عالی عالی عالی عالی عالی	0	-`			
Well ID <b>MW</b> ·	2		D-4- 04- 14- 14		,				
			Date Monitored:	<u> </u>	30.15	_			
	in.	Volum			= 0.17 3"= 0.38				
Total Depth 19.24	<u>ft.</u>	Facto			1.50 12"= 5.80				
Depth to Water <u>(4.4)</u>		heck if water colum		) ft. Estimated Purge Vo	olumo:				
Depth to Water w/ 80% Rec		/ater Column v 0 20)				· · · · · · · · · · · · · · · · · · ·			
separto rrater w/ 00/0 reco	raige ((neight of vi	ater Column x 0.20)	+ D(W). 14.1/		l: eted:	(2400 hrs) (2400 hrs)			
Purge Equipment:	Sa	mpling Equipment:			duct:				
Disposable Bailer		sposable Bailer			ter:				
Stainless Steel Bailer		essure Bailer			Thickness:				
Stack Pump		etal Filters		11 '	mation/Description				
Peristaltic Pump	_	ristaltic Pump				•			
QED Bladder Pump		ED Bladder Pump		Skimmer / Al	osorbant Sock (circ	de one)			
Other: Y6I MAS 6560		her: TOBIN	<u> </u>		d from Skimmer:_				
					d from Well:	ltr			
				Water Remo					
				Product Tran	sferred to:				
Start Time (purge):		Weather Co		5M					
Sample Time/Date: ///	13.30.15	Water Color	CLEAR	Odor: Y (N)					
Approx. Flow Rate:	2 mlpm	Sediment De	escription:	NONE					
Did well de-water?	If yes, Time:	Vo	olume:	Itrs DTW @	Sampling:	w.93			
		Conductivity	_			Gauge DTW			
Time Volume (2400 hr.) (Liters)	pН	(µS(mS)	Temperature	D.O.	ORP	as parameters			
(2400 hr.) (Liters)		µmhos/ <del>c</del> m)	((C) F)	(mg/L)	(mV)	are recorded			
1567 3.6	6.76	. 318	16.64	5.54	_7&.9	12.93			
1600 4.2	6.74	.318	16.69	5.51	73.16	18.93			
1603 4.8	6.7/4	.319	16.741	5.49	74.1	12.93			
		/			/				
		LAROPATOR	RY INFORMATIO	NA .					
SAMPLE ID (#) CONTAI	NER REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES				
	oa vial YES	HCL	LANCASTER	NWTPH-Gx/BTEX	+MTBE(8260B)/1,2	2 DCE(8260B)			
2 x 1 liter a		HCL	LANCASTER	NWTPH-Dx w/sgc/	NWTPH-Dx				
· · · · · · · · · · · · · · · · · · ·	oa vial YES	Na2S2O3	LANCASTER	EDB(8011)					
A x 250ml a		NP	LANCASTER	NAPHTHALENE/2		HALENE(8270)			
v 250*	nl poly YES	HNO3	LANCASTER	TOTAL LEAD(6010	0)				
1 X 2501				I					
j X2501									
	mp Set At:	15-16							
	mp Set At:	15-16			a				
	mp Set At:	15'-16			×				



Client/Facility#:	Chevron #37	2654		Job Number:			
Site Address:	3203 Main St	treet	-	Event Date:	3.54	6.15	(inclusive)
City:	Union Gap, V	<b>V</b> A		Sampler:	<u></u>	ρ	-
Well ID	MW/		D	ate Monitored:		6.15	
Well Diameter	<b>2</b> in.	_	Volume	3/4"= 0.02		'= 0.17 3"= 0.38	
Total Depth	19.68 ft.	_	Factor			= 1.50 12"= 5.80	
Depth to Water		_	heck if water column				
Depth to Water	7.25 w/ 80% Recharge	-	/ater Column x 0.20) +				(0.400.1)
						eted:	(2400 hrs)
Purge Equipment:			ampling Equipment:			duct:	
Disposable Bailer			sposable Bailer			iter:	
Stainless Steel Baile	er		essure Bailer	***************************************		Thickness:	
Stack Pump	<del></del>		etal Filters		Visual Confi	mation/Description	n:
Peristaltic Pump  QED Bladder Pump	<u> </u>		eristaltic Pump		Skimmer / A	bsorbant Sock (cin	cle one)
Other:			ED Bladder Pump her:			ed from Skimmer:_	
Other		Oi	ner.			ed from Well:	
					Water Remo		ltr
					Product Tran	sferred to:	
Start Time (purg	e): 142 <b>9</b>		Weather Con	ditions:	Sul		
Sample Time/Da	ate: 1500 / 3	3.30.15	Water Color:	CIEAR	Odor: Y / N		
Approx. Flow Ra	-//	mlpm	Sediment De		None 3	SLIBHTLY BI	REV
Did well de-wate		yes, Time:		lume:	ltrs DTW @		12.46
Time (2400 hr.)	Volume (Liters)	рН	Conductivity ( µS mS) µmhos/cm)	Temperature C F )	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
147	3.6	6.91	. 323	16.49	5.69	63.8	12.46
1460	4.2	6.90	.322	16.55	5.66	69.3	19.46
1453	4.8	6.90	.303	16.59	5.63	B 60.	CEAR
			LABORATOR	VINEODMATIC	M		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	Y INFORMATIO LABORATORY		ANALYSES	
MW- 4	( x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX		
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc		
	2 x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)		
		YES	NP	LANCASTER	NAPHTHALENE/2	-METHYL NAPHT	HALENE(8270)
	/ x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(601)	0)	
COMMENTS:	Depth Pump S		16-16	Por	GE AN	EXTRA /	Omin
7/	GET 1	URBIA	17 1/ //////	( WHEAT)			
	ve,	UND INI	y Duar	V, PHOID			



Client/Facility#:	Chevron #37	2654		Job Number: 385900						
Site Address:	3203 Main St	reet		Event Date:	3.34	6.15	(inclusive)			
City:	Union Gap, V	VA		Sampler:	<u>ن</u> .	P	·			
Well ID Well Diameter Total Depth Depth to Water Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Peristaltic Pump QED Bladder Pump Other:	W. 97 w/ 80% Recharge	C xVF [(Height of W Sa Di Pr Mo Pe	Volume Factor heck if water column	(VF) 4"= 0.66 n is less then 0.50 x3 case volume = DTWJ: 14.2	2 1"= 0.04 2". 5 5"= 1.02 6"= 0 ft. Estimated Purge Volume Time Started Time Comple Depth to Pro Depth to Wai Hydrocarbon Visual Confir	:  bted:  duct:  ter:  Thickness:  mation/Description:  bsorbant Sock (circle d from Skimmer: d from Well:	(2400 hrs)ftftftftftft			
Start Time (purg Sample Time/Da Approx. Flow Ra Did well de-wate	ate: <u>1350 / 3</u> ate: <u>266</u>	3.30.15 mlpm yes, Time:		CUEAR	Odor: Y I/N NONE Itrs DTW @		/Q .83			
Time (2400 hr.)	Volume (Liters)	pН	Conductivity ( µS (mS) µmhos/cm)	Temperature C / F )	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded			
1341	3.6	6.91,	.335	15.97	7.85	64.3	12.83			
1347	4.2	6.90	. 334	16.86	7.82 <sub>1</sub> 7.80	64.61 64.9	12.83 12.83			
			LABORATOR	Y INFORMATIC	)N					
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES				
MW-5	6 x voa vial	YES	HCL	LANCASTER		+MTBE(8260B)/1,2	DCE(8260B)			
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/	NWTPH-Dx				
	x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)	METUNI MADURE	AL ENE (OCTO)			
	/ x 250ml ambers	YES	NP HNO3	LANCASTER LANCASTER	TOTAL LEAD(6010	METHYL NAPHTH	ALENE(82/U)			
	/ X 230m poly	15	7.1400	LAITOAGILIN	TOTAL LLAD(0010	<u>" </u>				
COMMENTS:	Depth Pump S	Set At:	15'-16							
Add/Replaced Gaske	t: Add	d/Replaced B	olt: Ad	ld/Replaced Plug: _	Add/Re	eplaced Lock:				



Client/Facility#:	Chevron #37	2004		Job Number: 385900							
Site Address:	3203 Main St	reet		Event Date:	3.30	1.15	(inclusive)				
City:	Union Gap, V	VA		Sampler:	2.4	0	•				
Well ID Well Diameter Total Depth Depth to Water Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Peristaltic Pump QED Bladder Pump Other:	×	CI xVF [(Height of W Sa Dis Pro Me Pe QE	Volume Factor neck if water column	(VF) 4"= 0.66 n is less then 0.50 x3 case volume = DTW]: _/-/.3	7 ft. Estimated Purge Vol Time Started: Time Complet Depth to Prod Depth to Wate Hydrocarbon Visual Confirm Skimmer / Ab Amt Removed Amt Removed Water Remove	0.17 3"= 0.38 1.50 12"= 5.80  ume:  ted: uct: er: Thickness: nation/Description sorbant Sock (circ if from Skimmer: if from Well:	gal(2400 hrs)(2400 hrs)ftftftftftltrltr				
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate	te: //35 / (	3.30.15 mlpm yes, Time:		ccal scription:	Odor: Y I(N)  Nove  Itrs DTW @	Sampling:	12.9ф				
Time (2400 hr.)	Volume (Liters)	рН	Conductivity (µS)mS) µmhos/em)	Temperature C / F )	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded				
1124	3.6	6.79	552	15.81	6.75	41.4	12.9b				
1127	4.90	6.00	. 330	15.72	6.92 10 7.64	41.8	12.46				
			LABORATOR	Y INFORMATIO	N						
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES					
MW- <i>(</i>	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+	MTBE(8260B)/1,2	PDCE(8260B)				
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/N	WTPH-Dx					
	x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)						
	x 250ml ambers	YES	NP	LANCASTER	NAPHTHALENE/2-I		HALENE(8270)				
	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(6010)	)					
COMMENTS:	Depth Pump S	Set At:	16	- 17							
dd/Replaced Gasket	: Ado	d/Replaced Bo		d/Replaced Plug:	Add/Re	placed Lock:					

# Chevron Northwest Region Analysis Request/Chain of Custody

	eurofins	Lancaster Laboratories		A	.cct. # _				G	iroup	For Eu # nstructio				Sa	mple	#										-
1		Client Inform	nation			K	4)	Mat	trix			(5)	C-T-PEGG	( the table of	Aı	naly	ses	Req	uest	ed	IN 11-			SCR	4.		4/57
Facility	* SS#372654-0	OML G-R#3859	WBS																O	30				SCH		7	
Site A	3202 MAIN S	TREET, UNION	GAP, WA				Ø				:									MAGINA	}				ults in Dry W		
Chevr	on PM <b>EH</b>	LEIDOSR		onsultant Ru	ssell	Shr	ent	Ground	Surface			Naphth				Þ	d d		Method	FTHYK &		80		Mu	t meet lowes ts possible fo	t detection	n
Consu	tant/Office <b>Gettler-Ryan</b> ,	Inc., 6805 Siei	rra Court,			- 1	o o	ල් <b>68</b>	Sul	1	Containers	8260 🛛				Seanup	el Clea	_	Diss.	NeT		8		соп	pounds 1 MTBE Con		
Consu	Itant Project Mgr.	arding, (deanna					-				Conta			ates		a Gel C	ilica G	Hai	Diss	8		3		Cor	nfirm MTBE +	Naphthal	
Consu	Itant Phone #							aple	ES	Air	r of	8021		Oxygenates		Silic	out S	WA	Ø	L	à	1		Cor	ifirm all hits b	y 8260	ş
Sampl	(925) 551-744 er	14 x180	1.6	AYNE	3	site		Potable	NPDES		Number	MTBE	scan	ŏ		NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	П	Total	APTHALFILE	00	Del		_	oxà,		
2	unto Idontification		C	ollected	Grab	Composite	Soil	Water	arc	Ö	Total N	BTEX + I	8260 full scan	-	NWTPH-Gx	WTPH-	WTPH-	WA VPH [	Lead	APTA	80	3			Domo	el e	
San	ple Identification	DA.	Da 3 3		0	0	ഗ	S		0	J.	<u>m</u>	88		Ž	Z	Ž	3	1	<				6	Rema	rks	
1/2		MW		1240				>			13	X			V	X	X		X	X	×	X		Req	uesting r	esults	for
		MW.2		1035	X			X	$\Box$		13	Ý.			X.	X	V		X	V	V	Y.		potn	Dx and Dx gel clea		illica
		WW 3		1610	X			Х	-		13	X			X	X	Ý.		X	Y.	Ŷ	Ŷ.					
		WW.F		1600	4 X	$\dashv$		X	$\rightarrow$		13	Ϋ́			X	X	X	1	X	X	X	X				-	
-			, 1	1350		$\dashv$		X	<del>,</del>	-	13	X V	<del>                                     </del>		X	X	X		7	X	X	X					
		TUWY W		11111	<b>1</b> × 1					$\neg$	1.0	*		_	X		X		X	-X	X	X					
	SANCE OF THE SANCE								$\Box$	7																	
						$\rightarrow$			$\dashv$			_						_									
	Cultivative Technology								$\rightarrow$		_	_						-									
_	Andrew Control								1	$\overline{}$																	
7	Turnaround Time F	Requested (TAT) 5 day	(please circle		Reling	uished	by	20	/	)		Date 3	.3/.	15	Time //	001	7	Recei	ved by	,		1		Date	9	Time	9
· .	72 hour	48 hour	EDF/		Relinq	uished	by	1					W - #:			- 0		Recei	ived by	,				Date	9	Time	
(8)	Data Package (circle	if required)	IFDD (circle	if required)	Relin	quishe	ed by	Comr	mercia	al Ca	rrier:							Recei	ived by	,			e 18	Date	9	Time	
$\sim$				telinquished by Commercial Carrier: Received by  UPSX FedEx Other																							
	Type VI (Raw Data)		Other:			Te	mp	eratu	re Ur	pon	Rec	eipt			7 2	°C		Cı	usto	dy S	eals	Intad	ct?		Yes	1	Vo.

July 10, 2015

G-R #386773

TO:

Mr. Russell Shropshire

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6805 Sierra Court, Suite G Dublin, California 94568 RE: Former Unocal Station

#372654

3202 Main Street

Union Gap, Washington

#### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Second Quarter Event of July 1, 2015

#### **COMMENTS:**

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/211556

-			CHEVE	ON SIT	E CHECK	/ LICT	
	Equility #	Chevron #		OI4 - 311	E CHECK		<del> </del>
	Facility#: Address:	3203 Main				Date: 7/1/	15
	City/St.:	Union Gap					
	Status of S			1. (6	1. T		<del></del>
		7101	Please	list bolow Al	LoT LDRUMS on	oito:	
DRUMS:		(i.e., drum de	escription, co	nsi below Al Indition, labe	lina. contents :	รแe: and location of drun	ns)
	#		ription	Condition		Contents/Capacity	Location
9		11: 6	O 4	Condition	Labelling	Contents/Capacity	Location
9		100 P	MYUM2	+0N	517		
							· · · · · · · · · · · · · · · · · · ·
	<u> </u>		Plaasa shaak	the condition	n of ALL WELL	Compile	
WELLS:	(i.e.,					.S on site: vell box condition ar	nd etc.)
	Gaskets	Bolts	Replaced	Replaced		TOIL DOX CONGRIGOR OF	14 616.)
Well ID	(M) Missing	(M) Missing	Plug	Lock		ell Box	Other
	(R) Replaced	(R) Replaced	Y/N	Y/N	Manutactun	er/Size/# of Bolts	
MW-1	or	OK	No	No	MORR	13/8/3	
MW-2							
MW-3							
MW-4							
MW-5							
MW-6	V		<b>√</b>		V		
					<del>********************</del>		
Additional Co	omments/Obs	ervations:					
		-					

#### Standard Operating Procedure, Low-Flow Purging and Sampling

Gettler-Ryan Inc. field personnel adhere to the following Standard Operating Procedure (SOP) for the collection and handling of representative groundwater samples using the Low-Flow (Minimal-Drawdown) Purging technique. This SOP incorporates purging and sampling methods discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - "Low-Flow (Minimal-Drawdown) Ground-Water Sampling Procedures."

A QED Well Wizard<sup>TM</sup> (or equivalent) bladder pump or Peristaltic Pump will be used to purge and sample selected wells as outlined in the scope-of-work. An in-line flow cell or other multi-parameter meter is used to collect water quality indicating parameters during purging.

#### Initial Pump Discharge Test Procedures

The Static Water Level (SWL) is measured in all wells at the site prior to the installation of the pump or tubing and initiation of the test procedures in any well. In addition, the presence or absence of separate-phase hydrocarbons (SPH) is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot. The SWL measurement and SPH thickness, if any, will be recorded on the field data sheet.

The bladder pump or suction inlet tubing of the peristaltic pump is then positioned with its inlet located within the screened interval of the well. The in-line flow cell is then connected to the discharge tubing. After pump installation, the SWL is allowed to recover to its original level. The pump is then started at a discharge rate between 100 ml to 300 ml per minute with the in-line flow cell connected. The water level is monitored continuously for any change from the original measurement and the discharge rate is adjusted until an optimum discharge rate (ODR) is determined. The goal for the ODR is to produce a stable drawdown of less than 0.1 meter as allowed by site conditions; however the total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen. Once achieved, the ODR will be confirmed by volumetric discharge measurement and recorded on the field data sheet.

#### Purging and Water Quality Parameter Measurement

When the ODR has been determined and the SWL drawdown has been established within the acceptable range, and a minimum of one pump system volume (bladder volume and/or discharge tubing volume) has been purged, field measurements for temperature (T), pH, conductivity (Ec), and if required, oxygen reduction potential (ORP) and dissolved oxygen (DO) will be collected and documented on the field data sheet. Measurements should be taken every three to five minutes until parameters stabilize for three consecutive readings. The minimum parameter subset of T ( $\pm$  10%), pH ( $\pm$  0.1 unit), and Ec ( $\pm$  10 uS) are required to stabilize. Additional parameters that may be required are DO ( $\pm$  0.2 mg/l) and ORP ( $\pm$  20 mV).

#### Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler,

maintained at 4°C for transport to the laboratory. A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.



Client/Facility#:	Chevron #37	2654		Job Number:	385900		
Site Address:	3203 Main S	treet		Event Date:	7/1/15		— (inclusive)
City:	Union Gap, \	NA		Sampler:	GM		<u> </u>
Well ID Well Diameter	MW- 1 2 in	-	Volur	Date Monitored:	<b>7/</b> 1//0		
Total Depth	19.71 ft.	_		or(VF) 4"= 0.6		= 0.17 3"= 0.3 = 1.50 12"= 5.8	
Depth to Water			heck if water colun	nn is less then 0.50	0 ft.		<u>.</u>
	<u>u.79</u>	xVF	=_	x3 case volume =	Estimated Purge Vo	lume:	gal.
Depth to Water	w/ 80% Recharge	[(Height of V	Vater Column x 0.20)	+ DTW]:			(2400 hrs) (2400 hrs)
Purge Equipment:		S	ampling Equipment:	1	16	duct:	
Disposable Bailer		D	isposable Bailer		4	ter:	
Stainless Steel Baile	r	Pi	ressure Bailer		Hydrocarbon	Thickness:	t ft
Stack Pump		M	etal Filters		Visual Confir	mation/Descriptio	n:
Peristaltic Pump	X		eristaltic Pump	X	China and Alt		
QED Bladder Pump			ED Bladder Pump	<del> </del>		sorbant Sock (cir d from Skimmer:	
Other:		O	ther:			d from Well:	
					Water Remov	/ed:	tr
					Product Trans	sferred to:	
Sample Time/Da Approx. Flow Ra Did well de-wate	te: 200	mlpm yes, Time:	Sediment De	escription:	_Odor: Y / 何) ltrs DTW @		12.96
Time (2400 hr.)	Volume (Liters)	pН	Conductivity (QS) mS µmhos/cm)	Temperature	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1252	7.6	7.15	197	20.1			12.96
1522	· <del>4.2</del>	7.16	194	20,0			12.96
1258	4.5	4.14	196	20.0			12.96
			LADORATOR				
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	Y INFORMATIC LABORATORY	N I	ANALYSES	
MW-	x voa vial ور	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+		
	7x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/N		(
	Z x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)		
	2x 250ml ambers	YES	NP	LANCASTER	NAPHTHALENE/2-I		HALENE(8270)
	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(6010)	)	
OMMENTS:	Depth Pump S	et At: 🔈	- 14,00				
			· · · · · · · · · · · · · · · · · · ·				
d/Replaced Gasket:	Add	/Replaced Bo	olt: A	dd/Replaced Plug: _	Add/Re <sub>l</sub>	placed Lock:	



Well Diameter         2         in.           Total Depth         19.10 ft.           Depth to Water         12.68 ft.             Using the properties of	(inclusive)
Well ID         MW-2         Date Monitored:         3/1/1           Well Diameter         2         in.         Volume Factor (VF)         3/4"= 0.02 1"= 0.04 2"= Factor (VF)         4"= 0.66 5"= 1.02 6"=           Depth to Water         12 68 ft.         Check if water column is less then 0.50 ft.	
Well Diameter         2         in.           Total Depth         19.10 ft.           Depth to Water         12.68 ft.             Check if water column is less then 0.50 ft.	5
Total Depth 19.10 ft.  Depth to Water 12.68 ft.   Volume Factor (VF)   3/4"= 0.02   1"= 0.04   2"= Factor (VF)   4"= 0.66   5"= 1.02   6"=   1.02	
Total Depth 19.10 ft.  Depth to Water 12.68 ft.	0.47 00 0.00
MI H2 1/15	
Ponth to Woter w/ 90% Ponthage William Co.	
	(2400 hrs)
Purge Equipment: Sampling Equipment: Time Complete  Depth to Produ	,
Di ili Dii	uct:ft
	ation/Description:
Peristaltic Pump Peristaltic Pump	ation/Description.
	orbant Sock (circle one)
	from Skimmer:ltr
Amt Removed	from Well: Itr
Water Remove	
Product Transf	erred to:
Start Time (purge): 0953 Weather Conditions: Sywy	
Sample Time/Date: 1045 / 7/1/15 Water Color: CLEMIC Odor: Y /N	\
Approx. Flow Rate: 700 mlpm Sediment Description: NO NO	
Did well de-water? If yes, Time: Volume: Itrs DTW @ S	Sampling: 12.71
Conductivity	Gauge DTW
pH (us/ms Temperature D.O.	URP as narameters
(2400 hr.) (Liters) ph (mg/L) (mg/L)	(mV) are recorded
101) 3.6 3.04 296 20.4	12.7-1
1014 4.2 7.01 296 70.4	12:71
1017 4.8 7.00 299 2013	12.71
LABORATORY INFORMATION	
SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY  MW- 2	ANALYSES
MW-	ATRIL D.:
Zx voa vial YES Na2S2O3 LANCASTER EDB(8011)	VVIFI-DX
	ETHYL NAPHTHALENE(8270)
/ x 250ml poly YES HNO3 LANCASTER TOTAL LEAD(6010)	CONTENT OF THE PARTY OF THE PAR
COMMENTS: Depth Pump Set At: ≿ 1 4.00	



Client/Facility#:	Chevron #3/	2654		Job Number:	385900		_
Site Address:	3203 Main S	treet		Event Date:	7/1/15	-	– (inclusive)
City:	Union Gap, \	WA		Sampler:	GM		_ ·
Well ID Well Diameter		_		Date Monitored:			
Total Depth	19.74 ft.	_	Volun	ne 3/4"= 0.0 or (VF) 4"= 0.6		0.17 3"= 0.38 1.50 12"= 5.80	
Depth to Water			heck if water colun	• •	•	1.50 12 - 5.60	<u>'</u>
,	6.33		=		: Estimated Purge Vol	ıme:	gal.
Depth to Water	w/ 80% Recharge	= [(Height of V	Vater Column x 0.20)				
Purge Equipment:		e.	ampling Equipment:		Time Complet	ed:	(2400 hrs)
Disposable Bailer			isposable B <b>a</b> iler			uct:	
Stainless Steel Baild	er		ressure Bailer		и -	r: Thickness:	ft
Stack Pump			etal Filters		H *	rnickness ration/Description	π
Peristaltic Pump			eristaltic Pump		Violar Commi	iation i Description	11.
QED Bladder Pump			ED Bladder Pump	<del></del>	Skimmer / Abs	orbant Sock (cir	cle one)
Other:			ther:			from Skimmer:_	
					Amt Removed	from Well:	Itr
						ed:	ltr
					Product Transf	erred to:	
Start Time (purg	e): (615		Weather Co	nditions:	Surry	•	
Sample Time/Da		11.115		CIEAL		<del></del>	
Approx. Flow Ra	<del> </del>	mlpm	Sediment De		NONE		
Did well de-wate		yes, Time:		olume:	ltrs DTW @ \$	Sampling:	12.95
		•	Conductivity	<del></del>			
Time	Volume	pН	/ mS	Temperature	D.O.	ORP	Gauge DTW as parameters
(2400 hr.)	(Liters)	•	µmhos/cm)	(C/F)	(mg/L)	(mV)	are recorded
1673	3.4	7.14	552	20.8			12.95
1636	4.2	1.12	273	20.0			12.95
1637	4.8	7.10	224	20.7			12.95
				Y INFORMATIO	N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
NWJ	( x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+N		2 DCE(8260B)
	2x 1 liter ambers	YES YES	HCL Na2S2O3	LANCASTER	NWTPH-Dx w/sgc/N	W [PH-Dx	
	7 x 250ml ambers	YES	Na2S2O3 NP	LANCASTER LANCASTER	EDB(8011)	ETHVI MADUT	LALENE/2070
	× 250ml poly	YES	HNO3	LANCASTER	NAPHTHALENE/2-M TOTAL LEAD(6010)	EINTENAPHII	TALENE(82/0)
	A Loomii poly		1,1100	LANDAGILA	TOTAL LEAD(6010)		
OMMENTS:	Depth Pump S	et At: 🔨	14,00	· · · · · · · · · · · · · · · · · · ·	<u> </u>		
I/Replaced Gasket	t: Add	/Replaced Bo	olt: Ad	dd/Replaced Plug: _	Add/Ren	laced Lock:	
	<del></del>				/ tour top		



Client/Facility#:	Chevron #37	2654		Job Number:	385900		
Site Address:	3203 Main S	treet		Event Date:	2/1/1	~	 (inclusive)
City:	Union Gap, \	WA		Sampler:	GM		(
Well ID	MW- 4			Date Monitored:	21/10		
Well Diameter	2 in	<b>-</b>	<u> </u>	Date Monitored.	2/1/15		<u> </u>
Total Depth	19.68 ft.	_	Volum			= 0.17 3"= 0.3	
Depth to Water			Factor			1.50 12"= 5.8	30
Deptil to water	12.91 ft.	- Terrenti	check if water colum			olume:	gal.
Depth to Water			Vater Column x 0.20)				(2400 hrs)
Purge Equipment:		e	ampling Equipment:			eted:	
Disposable Bailer						duct:	
Stainless Steel Baile			isposable Bailer ressure Bailer		4	ter:	
Stack Pump	·		letal Filters			Thickness:	
Peristaltic Pump	<u>×</u>		eristaltic Pump	×	Visual Collins	mation/Descriptio	лі.
QED Bladder Pump			ED Bladder Pump		Skimmer / Ab	sorbant Sock (ci	rcle one)
Other:			ther:			d from Skimmer:	
<u> </u>		J			Amt Remove	d from Well:	Itr
						/ed:	ltr
					Product Tran	sferred to:	
Start Time (purge	e): 1505		Weather Cor	nditions:	Sunny	/	
Sample Time/Da	ate: 1555/ 3	1,715	Water Color:	CLOTAL	Odor: Y IN		·
Approx. Flow Ra			Sediment De		NONE		<del> </del>
Did well de-wate		yes, Time:		lume:	Itrs DTW @	Sampling:	12.92
		•					
Time	Volume	рH	Conductivity  ( )S / mS	Temperature	D.O.	ORP	Gauge DTW as parameters
(2400 hr.)	(Liters)	<b>P</b>	µmhos/cm)	(-e) / F)	(mg/L)	(mV)	are recorded
1523	3-6	7.18	204	21.0			1292
1526	4.2	7.19	206	70.9			12.92
1529	4.8	7.27	205	70,9			12.92
<del></del>		· · · · · · · · · · · · · · · · · · ·					
			LABORATOR	Y INFORMATIO	N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	3
мw- <b>Ч</b>		YES	HCL	LANCASTER	NWTPH-Gx/BTEX+	MTBE(8260B)/1,	,2 DCE(8260B)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/f	WTPH-Dx	
	2-x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)		
<del></del>	2 x 250ml ambers	YES	NP UNO2	LANCASTER	NAPHTHALENE/2-		HALENE(8270)
	) x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(6010	)	<del></del>
OMMENTS:	Depth Pump S	Set At: 🐟	14.00				
d/Replaced Gasket	: Add	/Replaced Be	olt: Ad	d/Replaced Plug: _	Add/Re	placed Lock:	
					!	· -	



Client/Facility#:	Chevron #37	72654		Job Number:	385900		
Site Address:	3203 Main S	treet		Event Date:	2/1/1	5	_ (inclusive)
City:	Union Gap,	WA		Sampler:	Gus		_ (
Well ID	MW-S		Г	Date Monitored:	7/1/1		
Well Diameter	<b>2</b> ir	<del>-</del>	<u>-</u>		7/1//	<u> </u>	<del>-</del>
Total Depth	19.78 ft	<del>-</del>	Volum Factor			0.17 3"= 0.38	
Depth to Water			Check if water colum	<u> </u>		1.50 12"= 5.80	<u>'</u>
Depui to Water	1,96		= =			lume:	nal
Depth to Water			Vater Column x 0.20) +			dire.	
Purge Equipment:		s	ampling Equipment:		Time Comple	ted:	(2400 hrs)
Disposable Bailer			isposable Bailer			luct: er:	
Stainless Steel Baile	er —		ressure Bailer			Thickness:	ft
Stack Pump	· · · · · · · · · · · · · · · · · · ·		letal Filters		ur -	nation/Description	
Peristaltic Pump	×		eristaltic Pump	k			••
QED Bladder Pump			ED Bladder Pump			sorbant Sock (cire	
Other:			ther:		Amt Removed	from Skimmer:_	ltr
						from Well:	
						ed:	
					Product Trans	ferred to:	
Start Time (purge	e): <u>135</u> 8	>	Weather Cor	nditions:	SUNNY		
Sample Time/Da	ate: 1440 /	7/1/15	Water Color:	CLGAR	Odor: Y / (N)	····	
Approx. Flow Ra	te: 200	mlpm	Sediment De		NONE		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Did well de-wate		yes, Time:		lume:	itrs DTW @	Sampling:	12.82
			Conductivity	_	_		Gauge DTW
Time (2400 hr.)	Volume (Liters)	pН	(JuS )mS	Temperature	D.O.	ORP	as parameters
,			µmhos/cm)	(C)/F)	(mg/L)	(mV)	are recorded
1408	3.6	7.24	169	<u> 21.4</u>			12,83
1411	4.2	7.22	169	71.3			12.93
1414	4.8	7.53	170	21.4			12 82
	-						
				Y INFORMATIO	N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
MW- <del>5</del>	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+		2 DCE(8260B)
	2 x 1 liter ambers 2 x voa vial	YES YES	HCL Na2S2O3	LANCASTER	NWTPH-Dx w/sgc/N	IVV I PH-DX	
	2x 250ml ambers	YES	Na2S2O3 NP	LANCASTER LANCASTER	EDB(8011)	AETHVI NADUT	JAI ENE (0070)
· · · · · · · · · · · · · · · · · · ·	/x 250ml poly	YES	HNO3	LANCASTER	NAPHTHALENE/2-N TOTAL LEAD(6010)		TALENE(02/U)
	7 X Zoottii poiy	120	11100	EANCAGIER	TOTAL LEAD(0010)		
OMMENTS:	Depth Pump S	Set At: 🌊	14.00				
<del> </del>		· · · · · · · · · · · · · · · · · · ·					
d/Replaced Gasket:	: Add	I/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Rer	olaced Lock:	
•		•					<del></del>



Client/Facility#	t: Chevron #3	72654		Job Number:	385900		
Site Address:	3203 Main S	itreet		Event Date:	7/1/1	_	(inclusive)
City:	Union Gap,	WA		Sampler:	GM	<b>-</b>	
Well ID	MW(-	winner-		Date Monitored:	7/1/15	-	-
Well Diameter		1.	Volun	ne 3/4*= 0.0	2 1"= 0.04 2"=	0.17 3"= 0.3	
Total Depth	Zo. 08 f			r (VF) 4"= 0.6		1.50 12"= 5.8	
Depth to Wate	70.97		Check if water colum				<u>-</u>
Denth to Water		_xVF	4	x3 case volume =	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWIND TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN	The second second second	Company of the Compan
Deput to vvale	r w/ 80% Recharge	e ((meignt of t	Water Column x 0.20)	+ DIWJ:			(2400 hrs)
Purge Equipment	<b>:</b>	S	ampling Equipment:			ted:	
Disposable Bailer			esposable Bailer			luct: er:	
Stainless Steel Bai	ier		ressure Bailer	·		Thickness:	
Stack Pump			letal Filters			nation/Descriptio	
Peristaltic Pump			eristaltic Pump	×	Tisdar Commi	ilenois Descriptio	***
QED Bladder Pump			ED Bladder Pump		Skimmer / Ab	sorbant Sock (cir	cle one)
Other:	· · ·		ther:		Amt Removed	from Skimmer:_	ttr
		_		······································	Arnt Removed	from Well:	ltr
					Water Remov	***************************************	tr
Marian Carlos Ca					Product Trans	ferred to:	
Start Time (purg	je): (120		Weather Co	nditions:	Cund		
Sample Time/D		برا	•		Odor: Y F(N)		
Approx. Flow R				CLEAR			
• •		•	Sediment De		NONE		
Did well de-wate	er? No IT	yes, Time:	Vo	lume:	itrs DTW @	Sampling:	13.11
Time	Volume	_	Conductivity	Temperature	<b>D</b> .O.	ORP	Gauge DTW
(2400 hr.)	(Liters)	pН	(US) mS	(C) F)	(mg/L)	(mV)	as parameters
1120	21.	0 27	µmhos/cm)		V <b>3</b> -7	(,,,,,	are recorded
138	3.0	7.27	544	23.2			12.11
1(4)		4. 30	242	23.0			12.11
1144	4.8	7. 29	241	22.7			13.11
							•
0.0001 5.15	L 45 CONTAINED			Y INFORMATIO	N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
MW-C	2 x 1 liter ambers	YES YES	HCL HCL	·	NWTPH-GWBTEX+I		Z DCE(8260B)
	Z x voa vial	YES	Na2S2O3	LANCASTER LANCASTER	NWTPH-Dx w/sgc/N	WIPH-UX	
	2 x 250ml ambers	YES	NP	LANCASTER	EDB(8011) NAPHTHALENE/2-N	ETHY MADLE	JAI ENE(PATA)
	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(6010)		MEENE(62/U)
OMMENTS:	Depth Pump S	et At	2, 17 10				
	Dopair ump C	OL AL	<u> </u>				
d/Replaced Gaskel	t: Add	/Replaced Bo	olt: Ad	d/Replaced Plug:	Add/Rep	laced Lock:	<u></u>

# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins	Lancaster Laboratories		Ac	cct. # _				(	Group	o #	urofins			Sa	mple	#		<u> </u>					, u)
1)	Client Information	n				4	Ma	atrix			(5)		5000	A	naly	ses	Req	uest	ed		- Allian		SCR #:
A THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN	ML G-R#385900	WBS								1		4	7		12			0		(0+			SCH #:
Site Addres <b>3202 MAIN</b> ST											□   tag					     		00		82			Results in Dry Weight J value reporting needed
Chevron PMEH	LEIDOSRS	Lead Cons	sultant Russ	sell :	Shro	PE	PENO	Surface			Naphth Naphth				E	1 3		Method		TAN D			Must meet lowest detection limits possible for 8260
Consultant/Office				blin,	, CA	**	<b>68</b> 5	Su		Containers	3560 J				Gel Cleanup	el Cles			200	I AL			compounds  8021 MTBE Confirmation
Consultant Project Mgr. <b>Deanna L. Ha</b> i	rding, (deanna@gr	inc.com	i)							Cont			ates		a Gel (	Silica G	ЕРН	Diss.	326	APHY			Confirm MTBE + Naphthalene
Consultant Phone # (925) 551-7444	4 x180				$\overline{\Gamma}$	-	Potable	NPDES	Air	₽	8021		Oxygenates	e, ,,,	th Silic	thout S	WA	Total	1) 3:	ALE 12 N.	Bon		Confirm all hits by 8260
Sampler SIL BEAT	MEDINA			3	Composite					Total Number	+ MTBE	8260 full scan		NWTPH-Gx	NWTPH-Dx with Silica	NWTPH-Dx without Silica Gel Cleanup	П	Tot	2	アドイド	N.		Run oxy's on all hits
2		Col	llected	Grab	투	=		Water	_	ta	l <sup>†</sup>	00 fu		IP	I dE	횬	WA VPH	ا ي	2	Q I	1 /-		
Sample Identification		Date	Time	Ö	ပြ	Soil		<u> </u>	ō	은	ВТЕХ	826		Ž	ž	ž	X	Lead	-	ZN	Ti		6 Remarks
Q	Name and Address of the Party o	67/1/i	77 77	X	_	$\perp$	1	W		2	×	-		X		100							Requesting results for
	W-1		1325	1		$\perp$	_	1	_	جدا	4		-		X	×		X	X	Y	Y		both Dx and Dx with silica
	W·2	-	1045	1	<u> </u>	┺	_	1_		Н	$\vdash$		-11					1				igsquare	gel cleanup.
	v - 3	-	1705	₩	<u> </u>	╄	_		_	H	$\bot$	_		1	1	4 (0)		Ш	1		1		
MW		$\vdash$	1555	₩	<u> </u>	ــــــــــــــــــــــــــــــــــــــ				Н	11	igspace		1							$\perp$	igsquare	1
Mw		$\vdash$	1440			ـــــ				$\sqcup$	$\vdash$	igsquare			$\perp$	1		Ш				igsqcup	1
MW	- 0	V	1210	V		1	1	<u> </u>		¥	V	$oxed{oxed}$		$\downarrow$	W	V		V	1		2	1	1
				1	4	1	_			ar Jose	102378	distance of	Sec. 11					Щ				igsquare	1
		<b></b>		╀	<u> </u>	1	╀			┡	╀	<u> </u>			لسا						aler		
	1			$\vdash$	4_'	1	₩		_	┡		_											н
1-		₩	+	4_	4_'	-	_		$\vdash$	_	_				$\sqcup$		$\vdash$	$\sqcup$	$\square$			$\sqcup$	
		├─		-		-	+		⊢	$\vdash$	⊢	-			H	$\vdash$	$\vdash$	fgi					1
7) Turnaround Time R	Requested (TAT) (pleas	ac circle)		Relin	nquished	ad by			<u></u>		Date		1	Time	70		Recei	ived by	-				Date Time
Standard	5 day	EDF/ED	חר		>	1	1	6	0.	7	7	1/2	lie	1	13	0	-	1/1		PL	1	eu	LC 7/2/15 11:30
72 hour		24 hour		Reline	nquisne	g by	1	he		71	Date 2	15	6	Time			Regei	ived by	,				Date Time
8 Data Package (circle		D (circle if I	required)	Relif	nquish	ned b	y Con	nmerc	ial Ca	rrier:		24					Recei	ived by	,	ma-10-			Date Time
Type I - Full	CVX-F	-RTBU-FI_0	5 (default)	L	UPS.				edEx				her _										
Type VI (Raw Data)		er:			T/	emp	erat	ure L	Jpon	Rec	ceipt				°C		Cı	ustoc	32 yt	eals	Intac	ct?	Yes No

September 28, 2015 G-R #386773

TO:

Mr. Russell Shropshire

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

FROM:

Deanna L. Harding

Project Coordinator

Gettler-Ryan Inc.

6805 Sierra Court, Suite G Dublin, California 94568 **RE:** Former Unocal Station

#372654

3202 Main Street

Union Gap, Washington

#### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Third Quarter Event of September 17, 2015

#### **COMMENTS:**

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/211556

			CHEVR	ON - SIT	TE CHEC	K LIST	
	Facility#:	Chevron #	372654			Date: 9-17-15	
	Address:	3203 Main	Street			1 7/15	
	City/St.:	Union Gap	, WA				
	Status of	Site: Sta	ore par	king lo	<del>+</del>		
DRUMS:			Please	list below Al	L DRUMS on		
DICOMO.		(i.e., drum de	escription, co	ndition, labe	ling, contents	and location of drun	ns)
2	#	Desci	ription	Condition	Labeling	Contents/Capacity	Location
							<del> </del>
			16	MO3Ah	Λς		
			700	DAZ AM	13		<del></del>
			· · · · · · · · · · · · · · · · · · ·				
WELLS:		F	Please check	the condition	n of ALL WEL	LS on site:	
WELLS:	(i.e.	, gaskets, bol	s, replaced v	well plug and	l/or well lock,	well box condition ar	nd etc.)
	Gaskets	Bolts	Replaced	Replaced	\A/	/ell Box	
Well ID	(M) Missing (R) Replaced	(M) Missing (R) Replaced	Plug	Lock		rer/Size/# of Bolts	Other
MW-1		(N) Keplaced  ⊘∠	Y/N N	Y/N		/o "b	•
MW-2	OK	102	\	~	maris/	18"13	•
MW-3					<u> </u>		
MW-4							
MW-5			,				
MW-6	<u> </u>	<del>                                     </del>	<i>J</i>	- 4 -			
					···		
	· · · · · · · · · · · · · · · · · · ·						
Additional Co	omments/Obs	servations:					

#### Standard Operating Procedure, Low-Flow Purging and Sampling

Gettler-Ryan Inc. field personnel adhere to the following Standard Operating Procedure (SOP) for the collection and handling of representative groundwater samples using the Low-Flow (Minimal-Drawdown) Purging technique. This SOP incorporates purging and sampling methods discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - "Low-Flow (Minimal-Drawdown) Ground-Water Sampling Procedures."

A QED Well Wizard<sup>TM</sup> (or equivalent) bladder pump or Peristaltic Pump will be used to purge and sample selected wells as outlined in the scope-of-work. An in-line flow cell or other multi-parameter meter is used to collect water quality indicating parameters during purging.

#### Initial Pump Discharge Test Procedures

The Static Water Level (SWL) is measured in all wells at the site prior to the installation of the pump or tubing and initiation of the test procedures in any well. In addition, the presence or absence of separate-phase hydrocarbons (SPH) is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot. The SWL measurement and SPH thickness, if any, will be recorded on the field data sheet.

The bladder pump or suction inlet tubing of the peristaltic pump is then positioned with its inlet located within the screened interval of the well. The in-line flow cell is then connected to the discharge tubing. After pump installation, the SWL is allowed to recover to its original level. The pump is then started at a discharge rate between 100 ml to 300 ml per minute with the in-line flow cell connected. The water level is monitored continuously for any change from the original measurement and the discharge rate is adjusted until an optimum discharge rate (ODR) is determined. The goal for the ODR is to produce a stable drawdown of less than 0.1 meter as allowed by site conditions; however the total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen. Once achieved, the ODR will be confirmed by volumetric discharge measurement and recorded on the field data sheet.

#### Purging and Water Quality Parameter Measurement

When the ODR has been determined and the SWL drawdown has been established within the acceptable range, and a minimum of one pump system volume (bladder volume and/or discharge tubing volume) has been purged, field measurements for temperature (T), pH, conductivity (Ec), and if required, oxygen reduction potential (ORP) and dissolved oxygen (DO) will be collected and documented on the field data sheet. Measurements should be taken every three to five minutes until parameters stabilize for three consecutive readings. The minimum parameter subset of T ( $\pm$  10%), pH ( $\pm$  0.1 unit), and Ec ( $\pm$  10 uS) are required to stabilize. Additional parameters that may be required are DO ( $\pm$  0.2 mg/l) and ORP ( $\pm$  20 mV).

#### Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler,

maintained at 4°C for transport to the laboratory. A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.



Client/Facility#:	Chevron #3/	<b>2004</b>		Job Number:	385900	
Site Address:	3203 Main St	treet		Event Date:	9-17-15	(inclusive)
City:	Union Gap, \	<b>NA</b>		Sampler:	64W	
Well ID Well Diameter Total Depth	MW-   2 in  9.11 ft.	_	Volume Factor			17 3"= 0.38
Depth to Water	12-68 ft.		heck if water column	is less then 0.50	) ft.	<u></u>
Depth to Water	7.03 w/ 80% Recharge	xVF	/ater Column x 0.20) +		Estimated Purge Volum	gal. (2400 hrs)
Dunna Empirement		0			Time Completed	l:(2400 hrs)
Purge Equipment: Disposable Bailer			mpling Equipment:			t:ft
Stainless Steel Baile			sposable Bailer essure Bailer		- 4	ft ickness: ft
Stack Pump			etal Filters		Visual Confirmat	
Peristaltic Pump			ristaltic Pump		Viodai Commina	don/bescription.
QED Bladder Pump			ED Bladder Pump		Skimmer / Absor	bant Sock (circle one)
Other:			her:			om Skimmer: ltr
	_					om Well:itr
						:ltr rred to:
					Product Translet	red (U
Start Time (purge	e): 1230		Weather Con	ditions:	Cloud	
Sample Time/Da	· —	9-17-15	Water Color:		Odor: Y KN	
•		<del></del>				
Approx. Flow Ra		mlpm 	Sediment De		C CN	
Did well de-wate	r? <b></b> It	yes, Time:	Vol	ume:	ltrs DTW @ Sa	ampling: 17.80
Time	Volume		Conductivity	Temperature	D.O.	ORP Gauge DTW
(2400 hr.)	(Liters)	pН	( 🚱 mS µmhos/cm)	(6/F)	(mg/L)	(m\/) as parameters
1248	3.6	6.79	774	20.4		are recorded
12-51	4:2	6.82	219	20,5		7 777
1254	4.8	655	285	20.5		12.80
						/
			LABORATOR	Y INFORMATIO	N	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES
MW-	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+M1	BE(8260B)/1,2 DCE(8260B)
12	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NW	TPH-Dx
	x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)	
	250ml ambers	YES	NP NP	LANCASTER	· · · · · · · · · · · · · · · · · · ·	THYL NAPHTHALENE(8270)
(8.0)	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(6010)	
		<del></del>				
			~ !!! -		L	
COMMENTS:	Depth Pump S	set At:	~ 140			, , , , , , , , , , , , , , , , , , ,
***		<u></u>				
	···				-	
Add/Replaced Gasket	t: Add	d/Replaced B	olt: Ad	d/Replaced Plug: _	Add/Repla	ced Lock:



Client/Facility#:	Chevron #37	72654		Job Number:	385900		
Site Address:	3203 Main S	treet		Event Date:	9-17-15	<u> </u>	— (inclusive)
City:	Union Gap,	WA		Sampler:	AU		_ (
Weil ID	MW- 2			Date Monitored:	9-17-	15	
Well Diameter	2 ir	<u>1.</u>	Volum	e 3/4"= 0.02	2 1"= 0.04 2"=	: 0.17 3"= 0.3	<del>-</del>
Total Depth	19.10 ft	<u>.</u>	Factor			1.50 12"= 5.8	- 1
Depth to Water	12.43 ft	_ 🔲 0	Check if water colum	n is less then 0.50	) ft.		
	6.67		=			lume:	gal.
epth to Water v	w/ 80% Recharge	€ [(Height of V	Vater Column x 0.20) ⊀	- DTW]: 13-16	— <b>I</b> I Otalico.		(2400 hrs)
urge Equipment:		s	ampling Equipment:				(2400 hrs)
isposable Bailer			isposable Bailer			luct: er:	
tainless Steel Baile	г		ressure Bailer		4	Thickness:	π
tack Pump			letal Filters			nation/Descriptio	ππ
eristaltic Pump			eristaltic Pump		Viodai Commi	nation Descriptio	11.
ED Bladder Pump			ED Bladder Pump		Skimmer / Ab	sorbant Sock (cir	cle one)
ther:			ther:		Amt Removed	from Skimmer:_	ltr
						from Well:	
					E I	ed:	ltr
					Product Trans	sterred to:	
tart Time (purge	): 0830		Weather Cor	nditions:	Claudy		
ample Time/Da		9-17-15	Water Color:	Clare	Odor: Y 1		
pprox. Flow Rai		mipm	Sediment De		CIR	7	
id well de-wateı		yes, Time:		lume:	Itrs DTW @		12.53
		•	Conductivity				
Time	Volume	pН	(NS)/mS	Temperature	D.O.	ORP	Gauge DTW as parameters
(2400 hr.)	(Liters)		µmhos/cm)	( <b>@</b> /F)	(mg/L)	(mV)	are recorded
0849		7.65	<u> 281</u>	17.3	,		1248
<b>035</b> 1	4.2	7.62	287	17.4	<del></del>		12-51
<u> </u>	4.8	7.61	290	17.4			12.53
				····			
			LABORATOR	Y INFORMATIO	N		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
MW-2	x voa vial		HCL		NWTPH-Gx/BTEX+		2 DCE(8260B)
	Z x 1 liter ambers	YES	HCL		NWTPH-Dx w/sgc/N	IWTPH-Dx	
	2 x voa vial	YES	Na2S2O3		EDB(8011)		
	2 x 250ml ambers	YES YES	NP		NAPHTHALENE/2-N		HALENE(8270)
	x 250ml poly	150	HNO3	LANCASTER	TOTAL LEAD(6010)		
DMMENTS:	Depth Pump S	Set At: ^	13.5ft.				
Replaced Gasket:	Add	d/Replaced Bo	oit: Ad	d/Replaced Plug: _	Add/Rep	placed Lock:	



	Check if water co  Check if water co  Check if water co  Sampling Equipme  Disposable Bailer  Pressure Bailer  Metal Filters  Peristaltic Pump  QED Bladder Pump  Other:  Weather  Water Co  Sediment  Time:  Conductivity	conditions:  Conditions:  Description:  Volume:  Temperature	red:  9-7-13  1 = 0.02	17   3"= 0.38   50   12"= 5.80
Well ID Well Diameter  Total Depth Depth to Water W/ 80% Recharge [(Heightein Stainless Steel Bailer Stainless Steel Bailer Stack Pump Peristaltic Pump Depth Time/Date:  Start Time (purge): Sample Time/Date: Did well de-water?  Time (2400 hr.)  Oquia 3.6  Oquia 4.8  Oquia 4.8  Oquia 5.6  Oquia 6.9  Oquia 7.0  SAMPLE ID (#) CONTAINER REF	Check if water co	Date Monitor  /olume 3/4" actor (VF) 4"  Dlumn is less then	red: 9-17-13  = 0.02 1"= 0.04 2"= 0.2 6"= 1.00.50 ft.  me = Estimated Purge Volum	17
Vell Diameter otal Depth Depth to Water Depth to Water w/ 80% Recharge [(Height Light September 12.6] ft.    12.6] ft.   12.6]	Check if water co	Date Monitor  /olume 3/4" actor (VF) 4"  Dlumn is less then	red: 9-7-13  = 0.02 1"= 0.04 2"= 0. = 0.66 5"= 1.02 6"= 1.  1 0.50 ft.  me = Estimated Purge Volum  93 Time Started: Time Completed Depth to Product Depth to Water: Hydrocarbon Th Visual Confirmat  Skimmer / Abson Amt Removed fr Amt Removed fr Water Removed Product Transfer  Odor: Y / OP  Clear  Itrs DTW @ Sales  D.O.	17 3"= 0.38   50 12"= 5.80
Vell Diameter 2 in.  otal Depth 4 19.24 ft.  epth to Water W/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.63 xVF_ epth to Water w/ 80% Recharge [(Heigher Line)   12.61 ft.  6.64 xVelocity   12.61 ft.  6.65 xVelocity   12.61 ft.  6.65 xVelocity   12.61	Check if water co	conditions:  Conditions:  Volume:  3/4"  4"  20) + DTW]:  13.  Conditions:  Dlor:  Volume:  Temperature	2 = 0.02   1" = 0.04   2" = 0.     2 = 0.66   5" = 1.02   6" = 1.     3 = 0.50 ft.     4 = 0.50 ft.     5 = 1.02   6" = 1.     5 = 1.02   6" = 1.     6 = 1.02   6" = 1.     7 = 1.02   6" = 1.     8 = 1.02   6" = 1.     9 = 1.02   6" = 1.     10 = 0.50 ft.     11 = 0.04   2" = 0.     12 = 0.04   2" = 0.     11 = 0.04   2" = 0.     11 = 0.04   2" = 0.     11 = 0.04   2" = 0.     11 = 0.04   2" = 0.     11 = 0.04   2" = 0.     11 = 0.04   2" = 0.     11 = 0.04   2" = 0.     12 = 0.04   2" = 0.     13 = 0.04   2" = 0.     14 = 0.04   2" = 0.     15 = 0.04   2" = 0.     15 = 0.04   2" = 0.     15 = 0.04   2" = 0.     15 = 0.04   2" = 0.     15 = 0.04   2" = 0.     15 = 0.04   2" = 0.04     15 = 0.04   2" = 0.04     15 = 0.04   2" = 0.04     15 = 0.04   2" = 0.04     15 = 0.05   0.05     16 = 0.05   0.05     17 = 0.04   2" = 0.     17 = 0.04   2" = 0.05     18 = 0.05   0.05     18 = 0.05   0.05     19 = 0.05   0.05     10 =	17 3"= 0.38   50 12"= 5.80
potal Depth	Check if water co	actor (VF) 4"  blumn is less then  x3 case volu  20) + DTW]: 13  ent:  Conditions:  blor: Cert  Temperature	# 0.66 5"= 1.02 6"= 1.00 0.50 ft.  ### Time Started:    Time Started:   Time Completed:   Depth to Product:   Depth to Water:   Hydrocarbon The Visual Confirmation of the Value of the Val	gal.  (2400 hrs) d:(2400 hrs) d:(2400 hrs) d:(2400 hrs) d:ft  ft ickness:ft tion/Description:  rbant Sock (circle one) rom Skimmer:ltr rom Well:ltr rred to:ltr  Gauge DTW
epth to Water   12.61 ft.   6.63 xVF   epth to Water w/ 80% Recharge [(Height Inge Equipment: sposable Bailer ainless Steel Bailer ack Pump ristaltic Pump ED Bladder Pump ED	Check if water co	actor (VF) 4"  blumn is less then  x3 case volu  20) + DTW]: 13  ent:  Conditions:  blor: Cert  Temperature	# 0.66 5"= 1.02 6"= 1.00 0.50 ft.  ### Time Started:    Time Started:   Time Completed:   Depth to Product:   Depth to Water:   Hydrocarbon The Visual Confirmation of the Value of the Val	gal.  (2400 hrs) d:(2400 hrs) d:(2400 hrs) d:(2400 hrs) d:ft  ft ickness:ft tion/Description:  rbant Sock (circle one) rom Skimmer:ltr rom Well:ltr rred to:ltr  Gauge DTW
epth to Water w/ 80% Recharge [(Height Inge Equipment: sposable Bailer ainless Steel Bailer ack Pump Pristaltic Pump ED Bladder Pump her:  art Time (purge):  ample Time/Date:  oprox. Flow Rate:  d well de-water?  Time (2400 hr.)  O948  O954  Volume (Liters)  O959  O954  SAMPLE ID (#) CONTAINER REF	sampling Equipme Disposable Bailer Pressure Bailer Metal Filters Peristaltic Pump QED Bladder Pump Other:  Weather Water Con Sediment Time:  Conductivity	x3 case voluing 20) + DTWJ: 13.  ent:  Conditions:  blor: Cert  t Description:  Volume: Temperature	Time Started: Time Completed Depth to Product Depth to Water: Hydrocarbon Th Visual Confirmat  Skimmer / Abson Amt Removed fr Amt Removed fr Water Removed Product Transfer  Odor: Y / OP  Clear  Itrs DTW @ Sales	(2400 hrs) d:(2400 hrs) d:(2400 hrs) ct:ft ft  ickness:ft  tion/Description:  rbant Sock (circle one) rom Skimmer:ltr rom Well:ltr !:ltr rred to:
epth to Water w/ 80% Recharge [(Height Ingree Equipment: sposable Bailer ainless Steel Bailer ack Pump enstaltic Pump ED Bladder Pump her:  art Time (purge):	Sampling Equipme Disposable Bailer Pressure Bailer Metal Filters Peristaltic Pump QED Bladder Pump Other:  Weather Water Con Sediment Time:  Conductivity	Conditions:  olor:  Description:  Volume:  Temperature	Time Started: Time Completed Depth to Product Depth to Water: Hydrocarbon Th Visual Confirmat Skimmer / Absol Amt Removed fr Amt Removed fr Water Removed Product Transfel  Cloud Odor: Y / DP  Cleur Itrs DTW @ Sales D.O.	(2400 hrs) d:(2400 hrs) d:(2400 hrs) ct:ft ft  ickness:ft  tion/Description:  rbant Sock (circle one) rom Skimmer:ltr rom Well:ltr !:ltr rred to:
art Time (purge):  ample Time/Date:  d well de-water?  Time (2400 hr.)  O948  O954  SAMPLE ID  SAMPLE ID  SAMPLE ID  SPOSS STEEL Bailer  ack Pump  O930  O930  O930  O947  Volume (Liters)  O948  O951  C954  C954  C954  CONTAINER  REF  MW-3  K yoa vial  YE  A yoa vial  YE  SAMPLE ID  MW-3  K yoa vial  K yes  K y	Sampling Equipme Disposable Bailer Pressure Bailer Metal Filters Peristaltic Pump QED Bladder Pump Other:  Weather Water Con Sediment Time:  Conductivity	Conditions: blor: Clew t Description: Volume: Temperature	Time Completed Depth to Product Depth to Water: Hydrocarbon Th Visual Confirmat Skimmer / Abson Amt Removed fr Amt Removed fr Water Removed Product Transfer  Cleux Odor: Y / D  Itrs DTW @ Sales D.O.	d:(2400 hrs) ct:ft ft ft ft dickness:ft ft fton/Description: rbant Sock (circle one) rom Skimmer: ltr rom Well:ltr ft
sposable Bailer ainless Steel Bailer ack Pump ristaltic Pump ED Bladder Pump her:  art Time (purge):  ample Time/Date:  oprox. Flow Rate:  d well de-water?  Time (2400 hr.)  O948  O951  O954  SAMPLE ID  W CONTAINER  REF  MW-3  6 x voa vial  YE	Disposable Bailer Pressure Bailer Metal Filters Peristaltic Pump QED Bladder Pump Other:  Weather Water Co Sediment Time:  Conductivity	Conditions:  olor: t Description: Volume:	Depth to Product Depth to Water: Hydrocarbon Th Visual Confirmat  Skimmer / Absord Amt Removed fr Amt Removed fr Water Removed Product Transfer  Odor: Y / DP  Clear  itrs DTW @ Sales  D.O.	ct:ftftft
sposable Bailer ainless Steel Bailer ack Pump eristaltic Pump ED Bladder Pump ther:  ample Time (purge): pprox. Flow Rate: d well de-water?  Time (2400 hr.) (2400 hr.) (2400 hr.) (2400 hr.) (2400 hr.) (3.6 (4) (4) (4) (5) (5) (6) (7) (6) (7) (7) (8) (8) (9) (9) (9) (9) (9) (9) (9) (9) (9) (9	Disposable Bailer Pressure Bailer Metal Filters Peristaltic Pump QED Bladder Pump Other:  Weather Water Co Sediment Time:  Conductivity	Conditions:  olor: t Description: Volume:	Depth to Water: Hydrocarbon Th Visual Confirmat Skimmer / Abson Amt Removed fr Amt Removed fr Water Removed Product Transfer  Odor: Y / \( \)  Itrs DTW @ Sa	ft ickness:ft tion/Description: rbant Sock (circle one) rom Skimmer: ltr rom Well: ltr : ltr rred to:
tart Time (purge): ample Time/Date: by prox. Flow Rate: cack Pump ther:  tart Time (purge): ample Time/Date: by prox. Flow Rate: cack Pump ther:  tart Time (purge): ample Time/Date: by 18 / 9-17-19 by 18 / 9-17-19 by 19 /	Pressure Bailer Metal Filters Peristaltic Pump QED Bladder Pump Other:  Weather Water Co Sediment Time:  Conductivity	Conditions:  plor: t Description: _ Volume: Temperature	Hydrocarbon Th Visual Confirmat Skimmer / Absot Amt Removed fr Amt Removed fr Water Removed Product Transfer  Cloud Odor: Y / DP  Litrs DTW @ Sales D.O.	ickness:ft tion/Description:  rbant Sock (circle one) rom Skimmer:ltr rom Well:ltr :ltr rred to:
tack Pump eristaltic Pump ED Bladder Pump ther:  tart Time (purge): ample Time/Date: pprox. Flow Rate: pprox. Flow Rate: pprox. Flow Rate: volume (2400 hr.) PH (2400 hr.) PH (2400 hr.) PH (2400 hr.) PH (2400 hr.) SAMPLE ID W-2 G-9	Metal Filters Peristaltic Pump QED Bladder Pump Other:  Weather Water Co Sediment Time:  Conductivity	Conditions:  plor: t Description: _ Volume: Temperature	Visual Confirmation Skimmer / Absord Amt Removed from Amt Removed from Water Removed Product Transfer  Cloud Odor: Y / OP  Itrs DTW @ Same D.O.	rbant Sock (circle one) rom Skimmer: Itr rom Well: Itr i: Itr rred to: ampling: 12.74  Gauge DTW
tart Time (purge): ample Time/Date: pprox. Flow Rate: id well de-water?  Time (2400 hr.)	Peristaltic Pump QED Bladder Pump Other:  Weather Water Con Sediment Time:  Conductivity	Conditions:  plor: t Description: _ Volume: Temperature	Skimmer / Absord Amt Removed from Mater Removed from Water Removed Product Transfer Cloud Odor: Y / D Cleur Itrs DTW @ Sales D.O.	rbant Sock (circle one) rom Skimmer: Itr rom Well: Itr : Itr rred to:  ampling:
tart Time (purge): ample Time/Date: pprox. Flow Rate: id well de-water?  Time (2400 hr.)  0951  0951  0951  V22  0954  SAMPLE ID  (#) CONTAINER  REF  MW- 3 6 x voa vial  Verification  Volume (Liters)  6.90  7.07	QED Bladder Pump Other:  Weather Water Co Sediment Time:  Conductivity	Conditions:  plor: t Description: _ Volume: Temperature	Amt Removed fr Amt Removed fr Water Removed Product Transfel  Cloud Odor: Y / DP  Itrs DTW @ Sale D.O.	rom Skimmer: ltr rom Well: ltr :: ltr med to:  ampling:
tart Time (purge): ample Time/Date: pprox. Flow Rate: id well de-water?  Time (2400 hr.)  0948  3-6  0951  4-2  6.99  0954  SAMPLE ID  (#) CONTAINER  REF  MW- 3 6 x voa vial  Yell  MET Time (2400 hr.)  MONTAINER  REF  MW- 3 6 x voa vial  Yell  X Voa vial	Weather Water Co Sediment Time: Conductivity	Conditions:  blor: <u>Cov</u> t Description: Volume:	Amt Removed fr Amt Removed fr Water Removed Product Transfel  Cloud Odor: Y / DP  Itrs DTW @ Sale D.O.	rom Skimmer: ltr rom Well: ltr :: ltr med to:  ampling:
tart Time (purge):  ample Time/Date:  pprox. Flow Rate:  id well de-water?  Time (2400 hr.)  0948  0951  0954  Volume (Liters)  0950  0954  SAMPLE ID  (#) CONTAINER  REF  MW- 3 6 x voa vial  Y-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-	Weather Water Co Sediment Time: Conductivity	Conditions:  olor: <u>Cov</u> t Description: Volume:	Amt Removed fr Water Removed Product Transfer  Cloud Odor: Y / DP  Itrs DTW @ Sage	ampling:
ample Time/Date:	Water Consider Sediment Time:  Conductivity	t Description: Volume:	Water Removed Product Transfer  Cloud Odor: Y / DP  Cleur Itrs DTW @ Sa	ampling:
ample Time/Date:	Water Consider Sediment Time:  Conductivity	t Description: Volume:	Product Transfer  Clow Odor: Y / DP  Clew itrs DTW @ Sa	ampling:
SAMPLE ID   (#) CONTAINER   REF	Water Consider Sediment Time:  Conductivity	t Description: Volume:	Odor: Y / 🐼 Odor: Y / 💮 Odor: Y / 🐼 Odor: Y / 🐼 Odor: Y / 🐼 Odor: Y / 🐼 Odor: Y / 💮 Odor: Y / 🐼 Odor: Y / 🐼 Odor: Y / 💮 Odor: Y / 🐼 Odor: Y / 🐼 Odor: Y / 💮 Odor: Y / 🐼 Odor: Odor: Y / 💮 Odor: Odo	ampling: 12.74  Gauge DTW
SAMPLE ID (#) CONTAINER REF MW- 3 6 x voa vial YE	µmhos/cm) 280 286	18.2 18.3	) (mg/L)	are recorded V2.66
MW- 3 6 x voa vial YE	290	18.3		12,74
MW-3 6 x voa vial YE			//	
MW-3 6 x voa vial YE	LABORAT RIG.   PRESERV. TY	ORY INFORMA	TION	ANALYSES
	S HCL	LANCASTE		TBE(8260B)/1,2 DCE(8260B)
[ A viliter attibets]	S HCL	LANCASTE		
2 x voa vial YE		LANCASTE		
2 x 250ml ambers YE		LANCASTE		THYL NAPHTHALENE(8270)
x 250ml poly YE	<del></del>	LANCASTE		IANI ITTI MELINE(02/U)
		2 11.07.01.2	-10 17 12 ELD (00 10)	
MMENTS: Depth Pump Set A				
	1: 14.0ft.			



Client/Facility#: Cnevron #3/2654 Site Address: 3203 Main Street Union Gap, WA			Job Number:	385900	_		
				Event Date:	9-17-15 AW		(inclusive)
				Sampler:			
Well ID	MW- 4	_	D	ate Monitored:	9-1	7-15	
Well Diameter	<b>2</b> in	<u>.</u>	Volume	3/4"= 0.02	2 1"= 0.04 2"=	0.17 3"= 0.38	_
Total Depth	19.68 ft.		Factor			1.50 12"= 5.80	
Depth to Water			neck if water column				
enth to Water	7.53 w/ 80% Recharge		=				_gal.
	w oo w roonarge	(theight of vv	ater Column x 0.20)	DIVI. <u>13.67</u>		ed:	
urge Equipment:		Sa	mpling Equipment:			uct:	
Disposable Bailer		Dis	sposable Bailer			er:	
Stainless Steel Baile	er	Pro	essure Bailer		Hydrocarbon <sup>-</sup>	Thickness:	ft
Stack Pump		Me	etal Filters		Visual Confirm	nation/Description	:
Peristaltic Pump		Pe	ristaltic Pump				
QED Bladder Pump		QE	D Bladder Pump	Skimmer / Absorbant Sock (circle one) Amt Removed from Skimmer:			
Other:		Oti	her:	Amt Removed from Skimmer  Amt Removed from Well:			
						ed:	
					Product Trans		
Start Time (purg	e): <b>1030</b>		Weather Con	ditions:	Sum		
Sample Time/Da	ate: 1120 / G	7-17-15	Water Color:	cler	Odor: Y / (RD /		
pprox. Flow Ra		mlpm	Sediment De		Clear		
id well de-wate		yes, Time:		lume:	Itrs DTW @	Sampling: _/	2-28
			Conductivity	_			Gauge DTW
			( <b>∕(√S</b> / mS <sup>*</sup>	Temperature	D.O.	ORP	-
Time (2400 br.)	Volume	pН		( (D)   E )	(ma/L)	(m\/\	as parameters
(2400 hr.)	(Liters)		μmhos/cm)	( <b>6</b> / F )	(mg/L)	(mV)	as parameters are recorded
(2400 hr.)	(Liters) <b>3.6</b>	6.79	µmhos/cm) 294	18.3	(mg/L)	(mV)	are recorded
(2400 hr.) 1048 1051	(Liters) 3.6 4.2	6.79 6.82	μmhos/cm) 294 3οο	18.3 18.4	(mg/L)	(mV)	12.19 12.23
(2400 hr.)	(Liters) <b>3.6</b>	6.79	µmhos/cm) 294	18.3	(mg/L)	(mV)	are recorded
(2400 hr.) 1048 1051	(Liters) 3.6 4.2	6.79 6.82	µmhos/cm) 294 300 300	18.3 18.4 18.4		(mV)	12.19 12.23
(2400 hr.) 1048 1051	(Liters) 3.6 4.2 4.8	6.79 6.82	µmhos/cm) 294 300 300	18.3 18.4 18.4 Y INFORMATIO			12.19 12.23
(2400 hr.) 1048 1051 1054	(Liters) 3.6 4.2	6.79 6.82 6-85	µmhos/cm) 294 300 300 LABORATOR	IB. 3 IB. 4 IB. 4 IB. 4 IB. 4 IB. 4 IB. 4	N N	ANALYSES	are recorded
(2400 hr.)  1048  1051  1054  SAMPLE ID	(Liters) 3.6 4.2 4.8 (#) CONTAINER	6.79 6.82 6.85	umhos/cm) 294 300 300 LABORATOR' PRESERV. TYPE	18.3 18.4 18.4 Y INFORMATIO		ANALYSES MTBE(8260B)/1,2	are recorded
(2400 hr.)  1048  1051  1054  SAMPLE ID	(Liters)  3.6  4.2  4.8  (#) CONTAINER  x voa vial	6.79 6.82 6.85 REFRIG. YES	µmhos/cm) 294 300 300 LABORATOR' PRESERV. TYPE HCL	IB. 3 IB. 4 IB. 3 IB. 4 IB. 3 IB. 4 IB. 3 IB. 4	N NWTPH-Gx/BTEX+	ANALYSES MTBE(8260B)/1,2	are recorded 12.19 12.23 12.28
(2400 hr.)  1048  1051  1054  SAMPLE ID	(Liters)  3.6  4.2  4.8  (#) CONTAINER  x voa vial  2 x 1 liter ambers	6.79 6.82 6.85 REFRIG. YES	µmhos/cm) 294 300 300 CONTROL OF THE PRESERV. TYPE HCL HCL	18.3 18.4 18.4 Y INFORMATIO LABORATORY LANCASTER LANCASTER	N NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N	ANALYSES MTBE(8260B)/1,2	are recorded     2.19     2.23     12.28   DCE(8260B)
(2400 hr.)  1048  1051  1054  SAMPLE ID	(Liters) 3.6 4.2 4.8  (#) CONTAINER 6 x voa vial 2 x 1 liter ambers 2 x voa vial	6.79 6.82 6.85 REFRIG. YES YES	LABORATOR' PRESERV. TYPE HCL HCL Na2S2O3	IB. 3 IB. 44 IB. 44 Y INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER	N NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011)	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx METHYL NAPHTH	are recorded     2.19     2.23     12.28   DCE(8260B)
(2400 hr.)  1048  1051  1054  SAMPLE ID	(Liters)  3.6  4.2  4.8  (#) CONTAINER  x voa vial  2 x 1 liter ambers  x voa vial  2 x 250ml ambers  x 250ml poly	6.79 6.82 6.85 REFRIG. YES YES YES YES YES	µmhos/cm) 294 300 300 300 LABORATOR' PRESERV. TYPE HCL HCL Na2S2O3 NP HNO3	IB. 3 IB. 44 IB. 44 IB. 44 YINFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	N NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx METHYL NAPHTH	are recorded     2.19     2.23     12.28   DCE(8260B)
(2400 hr.)  1048  1051  1054  SAMPLE ID	(Liters) 3.6 4.2 4.8  (#) CONTAINER  x voa vial 2 x 1 liter ambers 2 x voa vial 2 x 250ml ambers	6.79 6.82 6.85 REFRIG. YES YES YES YES YES	µmhos/cm) 294 300 300 300 LABORATOR' PRESERV. TYPE HCL HCL Na2S2O3 NP HNO3	IB. 3 IB. 44 IB. 44 IB. 44 YINFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	N NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx METHYL NAPHTH	are recorded     2.19     2.23     12.28   DCE(8260B)
(2400 hr.)  1048  1051  1054  SAMPLE ID  MW- 14	(Liters)  3.6  4.2  4.8  (#) CONTAINER  x voa vial  2 x 1 liter ambers  x voa vial  2 x 250ml ambers  x 250ml poly	6.79 6.82 6.85 REFRIG. YES YES YES YES YES	µmhos/cm) 294 300 300 300 LABORATOR' PRESERV. TYPE HCL HCL Na2S2O3 NP HNO3	IB. 3 IB. 44 IB. 44 IB. 44 YINFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	N NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx METHYL NAPHTH	are recorded     2.19     2.23     12.28   DCE(8260B)



Client/Facility#:	Chevron #37	2654		Job Number:	385900		
Site Address: 3203 Main Street Union Gap, WA			Event Date:	9-17-15		— (inclusive)	
				- Sampler:	AW		_(,,,o,do,,,o,
				· · · · · · · · · · · · · · · · · · ·			
Well ID	<u>mw- 5</u>	_		Date Monitored:	9-17-	15	_
Well Diameter	2 in	_	Volu	ime 3/4"= 0.02	2 1"= 0.04 2"≈	0.17 3"= 0.3	38
Total Depth	19.78 ft.		Fact	tor (VF) 4"= 0.66		1.50 12"= 5.8	
Depth to Water	12.55 ft.			mn is less then 0.50			
enth to Water	7. 23 w/ 80% Recharge			x3 case volume =			gal.
opin to viater	W 00 / Recharge	(i leight of v	valer Column x 0.20	) + D ( V). 10 11			(2400 hrs) (2400 hrs)
urge Equipment:		Si	ampling Equipmen	t:		uct:	
isposable Bailer			isposable Bailer				
tainless Steel Baile	er		ressure Bailer	Depth to Water: Hydrocarbon Thickness:			
tack Pump			etal Filters		H .	nation/Description	
eristaltic Pump			eristaltic Pump		Visual Colillin	iation/Description	Jri.
ED Bladder Pump			ED Bladder Pump		Skimmer / Absorbant Sock (circle one)		
•			ther:	<u> </u>		from Skimmer:	
ther:	•	O.	liler	<del> ·</del>		from Well:	
					Water Remove	ed:	ltr
					Product Trans	ferred to:	
tart Time (purg	e): <b>07<i>0</i>0</b>	· · <u></u>	Weather C	onditions:	Cloudy		
ample Time/Da	ata: OTTER	9-17-5	Motor Cole				
	alc. 1/ / <b>-1</b> 11 /	1-11-63	vvaler Coic	or: Claus	Odor: Y //N/		
		-		or: <u>Cfew</u>	Odor: Y		
pprox. Flow Ra	ate: 200	mlpm	Sediment [	Description:	Clea		10.69
pprox. Flow Ra old well de-water	ate: 200	-	Sediment [				12-68
pprox. Flow Ra id well de-wate	ate: <b>200</b> er? <b>/</b> If	mlpm	Sediment D	Description:	ltrs DTW @	Sampling: _	2-68 Gauge DTW
pprox. Flow Ra id well de-wate Time	ate: 200 If Volume	mlpm	Sediment D  Conductivity  (DS / mS	Description: /olume:	ltrs DTW @	Sampling: _ ORP	Gauge DTW as parameter
pprox. Flow Ra id well de-wate Time (2400 hr.)	volume (Liters)	mlpm yes, Time:	Conductivity (05 / mS  µmhos/cm)	Description:  /olume:  Temperature ( C / F )	ltrs DTW @	Sampling: _	Gauge DTW as parameter are recorded
pprox. Flow Raid well de-water Time (2400 hr.)	volume (Liters)	mlpm yes, Time: pH 6.93	Sediment I	Description: /olume:	ltrs DTW @	Sampling: _ ORP	Gauge DTW as parameter are recorded
pprox. Flow Raid well de-water  Time (2400 hr.)  0718	eate: 200 er? ✓ If  Volume (Liters)  7-6  4.2	mlpm yes, Time: pH 6.93	Conductivity (05 / mS µmhos/cm) 285	Description:  /olume:  Temperature ( C / F )	ltrs DTW @	Sampling: _ ORP	Gauge DTW as parameter are recorded
pprox. Flow Raid well de-wate  Time (2400 hr.)	volume (Liters)	mlpm yes, Time: pH 6.93	Sediment I	Description:  /olume:  Temperature ( © / F )  17.0	ltrs DTW @	Sampling: _ ORP	Gauge DTW as parameter are recorded
Time (2400 hr.) 0 7 ts	eate: 200 er? ✓ If  Volume (Liters)  7-6  4.2	mlpm yes, Time: pH 6.93	Conductivity (05 / mS µmhos/cm) 285	Temperature (C) / F)  17.0	ltrs DTW @	Sampling: _ ORP	Gauge DTW as parameter are recorded 2.60
oprox. Flow Raid well de-water (2400 hr.) 0718 0714	volume (Liters)  7.6  4.2  4.5	mlpm yes, Time: pH 6.93 6.97 6.99	Sediment I	Description: /olume:  Temperature ( © / F )	D.O. (mg/L)	Sampling: ORP (mV)	Gauge DTW as parameter are recorded 12.60 12.63 V2.68
Time (2400 hr.) 0718 0724 SAMPLE ID	ete: 200 er? ✓ If  Volume (Liters)  7.6  4.2  4.5  (#) CONTAINER	mlpm yes, Time: pH 6.93 6.97 6.99	Sediment I	Description: /olume:  Temperature (  C / F )   17.0   17.1   17.1   DRY INFORMATION	D.O. (mg/L)	ORP (mV)  ANALYSE	Gauge DTW as parameter are recorded 12.60 17.63 V2.68
pprox. Flow Raid well de-water (2400 hr.) 0718 0714 0724	ate: 200 er?	mlpm yes, Time: pH 6.93 6.97 6.99 REFRIG. YES	Conductivity (05 / mS µmhos/cm) 285 293 299  LABORATO PRESERV. TYPI HCL	Temperature (C) F)  17.0  17.1  17.1  PRY INFORMATION LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+	ORP (mV)  ANALYSE MTBE(8260B)/1	Gauge DTW as parameter are recorded 12.60 17.63 V2.68
Time (2400 hr.) 0718 0724 SAMPLE ID	## CONTAINER  (#) CONTAINER    (#) CONTAINER   (#) x voa vial   Z x 1 liter ambers	mlpm yes, Time: pH 6.93 6.97 6.99 REFRIG. YES YES	Conductivity (05 / mS µmhos/cm) 285 293 299  LABORATO PRESERV. TYPI HCL HCL	Temperature ( C / F )  17.0  17.1  17.1  PRY INFORMATION LANCASTER  LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N	ORP (mV)  ANALYSE MTBE(8260B)/1	Gauge DTW as parameter are recorded  12.60 17.63 V2.68
Time (2400 hr.)  0718  0714  3724	## CONTAINER    (#) CONTAINER   0	mlpm yes, Time: pH 6.93 6.97 6.99 REFRIG. YES YES YES	Conductivity (05 / mS µmhos/cm)  285  293  299  LABORATO PRESERV. TYPI  HCL HCL Na2S2O3	Temperature ( C / F )  17.0  17.1  17.1  PRY INFORMATIO E LABORATORY  LANCASTER  LANCASTER  LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011)	ORP (mV)  ANALYSE MTBE(8260B)/1	Gauge DTW as parameter are recorded 12.60 12.63 V2.68
Time (2400 hr.)  0 7 ts  0 724  SAMPLE ID	## CONTAINER    (#) CONTAINER   0	mlpm yes, Time: pH 6.93 6.97 6.99  REFRIG. YES YES YES YES	Conductivity (t05 / mS µmhos/cm)  285  293  299  LABORATO PRESERV. TYPI  HCL HCL Na2S2O3 NP	Temperature ( C / F )  17.0  17.1  17.1  PRY INFORMATION LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ORP (mV)  ANALYSE MTBE(8260B)/1 IWTPH-Dx  METHYL NAPH	Gauge DTW as parameter are recorded 12.60 12.63 V2.68
Time (2400 hr.)  0718  0714  3724	## CONTAINER    (#) CONTAINER   0	mlpm yes, Time: pH 6.93 6.97 6.99 REFRIG. YES YES YES	Conductivity (05 / mS µmhos/cm) 285 293 299  LABORATO PRESERV. TYPI HCL HCL Na2S2O3	Temperature ( C / F )  17.0  17.1  17.1  PRY INFORMATIO E LABORATORY  LANCASTER  LANCASTER  LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011)	ORP (mV)  ANALYSE MTBE(8260B)/1 IWTPH-Dx  METHYL NAPH	Gauge DTW as parameter are recorded 12.60 12.63 VZ.68  S 1,2 DCE(8260B)
Time (2400 hr.) 0718 0724 SAMPLE ID	## CONTAINER    (#) CONTAINER   0	mlpm yes, Time: pH 6.93 6.97 6.99  REFRIG. YES YES YES YES	Sediment I	Temperature ( C / F )  17.0  17.1  17.1  PRY INFORMATION LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ORP (mV)  ANALYSE MTBE(8260B)/1 IWTPH-Dx  METHYL NAPH	Gauge DTW as parameter are recorded 12.60 12.63 V2.68
Time (2400 hr.) 0718 0724 SAMPLE ID	## CONTAINER    (#) CONTAINER   0	mlpm yes, Time: pH 6.93 6.97 6.99 REFRIG. YES YES YES YES YES	Conductivity (t05 / mS µmhos/cm)  285  293  299  LABORATO PRESERV. TYPI  HCL HCL Na2S2O3 NP	Temperature ( C / F )  17.0  17.1  17.1  PRY INFORMATION LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ORP (mV)  ANALYSE MTBE(8260B)/1 IWTPH-Dx  METHYL NAPH	Gauge DTW as parameter are recorded 12.60 12.63 V2.68
Time (2400 hr.)  OTIS  OTU  SAMPLE ID  MW- 55	## CONTAINER  ## CONTAINER  ## CONTAINER  ## CONTAINER  ## X voa vial  ## X voa	mlpm yes, Time: pH 6.93 6.97 6.99 REFRIG. YES YES YES YES YES	Sediment I	Temperature ( C / F )  17.0  17.1  17.1  PRY INFORMATION LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ORP (mV)  ANALYSE MTBE(8260B)/1 IWTPH-Dx  METHYL NAPH	Gauge DTW as parameter are recorded 12.60 12.63 V2.68



Site Address:   3203 Main Street   Event Date:   G-17-45   (inclusive)	Client/Facility#:	Chevron #37	<b>4</b> 004		Job Number:	385900		_
Veil ID				Event Date:	9-17-15		(inclusive)	
					Sampler:			-
Depth   20.09	/ell ID			C	ate Monitored:	9-17	-15	
Sample Time (purge):   130   Weather Conditions:   Water Removed from Skimmer   Itra product Transferred to:   Itra produc	ell Diameter		_	Volume	e 3/4"= 0.02	7 1"= 0.04 2"=	0.17 3"= 0.38	
### State   St	otal Depth	20.08 ft.	_					}
pepth to Water w/ 80% Recharge (Height of Water Column x 0.20) + DTW): 4-15  Tripe Equipment:	epth to Water							
Sampling Equipment:   Sampling Equipment:   (2400 hrs)   Depth to Product:   (2400 hrs)   Depth to Product:   ft   Depth to Water:   ft	epth to Water							
Disposable Bailer   Disposable Bailer   Pressure Bailer Bailer Bailer   Pressure Bailer Bailer   Pressure Bailer Bai		_			-			
Act Pump	ırge Equipment:		Sa	mpling Equipment:		Depth to Prod	luct:	ft
Metal Filters	•		Di	sposable Bailer		Depth to Wate	er:	ft
Peristaltic Pump   Peristaltic Pump   QED Bladder   QUB Bladder Pump   QED Bladder   QUB Bladder Pump   QED Bladder   QUB Bladder Pump   QED Bladder   QUB Bladder Pump   QED Bladder Pump   QED Bladder   QUB Bladder Pump   QED Bladder Pump   QED Bladder Pump   QED Bladder Pump		er				-		<del></del> '-
Skimmer / Absorbant Sock (circle one)   Ant Removed from Skimmer.   Itr   Amt Removed from Skimmer.   Itr   Amt Removed from Well:   Itr   Water Removed:   It	•					Visual Confirm	nation/Description	:
Ant Removed from Skimmer:   Itr   Ant Removed from Skimmer:   Itr   Ant Removed from Well:   Itr   Itr   Water Removed:   Itr   Itr   Water Removed:   Itr   Product Transferred to:	•			•		Chimmon / Ab		da
Ant Removed from Well:   Itr   Water Removed:   Itr   Water Removed:   Itr   Water Removed:   Itr   Product Transferred to:			QI	ED Bladder Pump				
Water Removed:	her:		Ot	her:				
Product Transferred to:   Product Transfer								
Water Color:   Wate								
Mater Color:   Mate	tart Time (nurge	e): 1130		Weather Cor	nditions:	Class	۸,	
Depth Pump Set At:   1   Depth Pump Set At:   Dep			7-17-15		_		7	
Itrs DTW @ Sampling:	•	· · · · · · · · · · · · · · · · · · ·				<b>-</b>		
Time (2400 hr.) (Liters) pH (S) mS (mg/L) (my/L) (mV) as parameters are recorded (Mg/L)	•		•		_			12.77
Time	<b>T</b>		•		•			
148   3.6   6.79   275   19.3   12.71   151   4.8   6.84   292   19.4   12.77   154   4.8   6.84   292   19.4   12.77   12.77   154   4.8   6.84   292   19.4   12.77   12.77   154   4.8   6.84   292   19.4   12.77   12.77   154   4.8   6.84   292   19.4   12.77   12.77   154   15			pН	( <b>69</b> / ms				-
LABORATORY INFORMATION   SAMPLE ID	` ,				_	(IIIg/L)	(1114)	
LABORATORY INFORMATION  SAMPLE ID, (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY NOT HAVE SUBJECT NOT HAVE								· ———
LABORATORY INFORMATION  SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW- 6								
SAMPLE ID. (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW- 6	1154	<u> 4.8</u>	6.84	292	19.4			12,77
SAMPLE ID. (#), CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW- 6								· · · · · · · · · · · · · · · · · · ·
MW- 6 x voa vial YES HCL LANCASTER NWTPH-Gx/BTEX+MTBE(8260B)/1,2 DCE(8260B)  2 x 1 liter ambers YES HCL LANCASTER NWTPH-Dx w/sgc/NWTPH-Dx  x voa vial YES Na2S2O3 LANCASTER EDB(8011)  x 250ml ambers YES NP LANCASTER NAPHTHALENE/2-METHYL NAPHTHALENE(8270)  x 250ml poly YES HNO3 LANCASTER TOTAL LEAD(6010)  Depth Pump Set At:  \( \sqrt{Y.o.f.t.} \)	0.440, 5.10	T (#) OOMTAINED	DEEDIO			N		
2 x 1 liter ambers YES HCL LANCASTER NWTPH-Dx w/sgc/NWTPH-Dx x voa vial YES Na2S2O3 LANCASTER EDB(8011)  x 250ml ambers YES NP LANCASTER NAPHTHALENE/2-METHYL NAPHTHALENE(8270)  x 250ml poly YES HNO3 LANCASTER TOTAL LEAD(6010)  Depth Pump Set At:  \( \square \) \( \squ		+ 7				NACEDI I COURTEY		DOE (BOSOD)
x voa vial YES Na2S2O3 LANCASTER EDB(8011) x 250ml ambers YES NP LANCASTER NAPHTHALENE/2-METHYL NAPHTHALENE(8270) x 250ml poly YES HNO3 LANCASTER TOTAL LEAD(6010)  Depth Pump Set At:  \( \subset \text{V.o.f.t.} \)	1010V- 10							2 DCE(8260B)
Total Lead(6010)  NP LANCASTER NAPHTHALENE/2-METHYL NAPHTHALENE(8270)  LANCASTER TOTAL LEAD(6010)  NMMENTS: Depth Pump Set At: ✓ \\\			-		<del> </del>		WWIPH-DX	
Name   N			-		<b>†</b>		METUVI NADUTI	JAI ENE/2270)
OMMENTS: Depth Pump Set At: ~ \\\					<b>†</b>		_	TALLINE (0270)
		A Zoomi poly	120	711100	BUILDAGIER	TOTAL LEAD(0010	,	
I/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:	OMMENTS:	Depth Pump S	Set At:	~ 14.0ft.				
d/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:								
/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:			<del></del>					W
	I/Replaced Gaske	et: Ade	d/Replaced B	olt: Ad	ld/Replaced Plug: _	Add/Re	placed Lock:	<del></del>

further water

# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins	Lancaster Laboratories		A	oct. # _		di.	fider	Gro	oup#	THE PARTY	*			_ Sa	ratorio mple d with c	#										
1)	Client Inform					4)	Matr	ix		(	5			Ar	nalys	ses	Req	uest	ed				SCR #:			
Facility # SS#372654-O	ML G-R#3859	00 WBS						36	7	1								Q			NA TA		30h #		Jun Kink	_
Site Addres 3202 Main Str						t 🗆	, — ·				Naphth [					Ħ		(1) p			NAPHTHALENE		☐ Results ir	-	-	
Chevron PMEH  Consultant/Office  Gettler-Ryan i	LEIDOSŘ	S Lead Cons	ultant Rus	sell S	Shra	dingen	ronad	Surface		ည					⊠ dn			Method			1 NA		Must mee	sible for 8		
	nc., 6805 Sierr	a Court, Sui	te G, Du	blin,	CA	3 <b>63</b> 56	80	ا <sub>ب</sub>		aine	8260-1				Clean	sel Cle		š.			THAT		compoun 8021 MTI		mation	
Consultant Project Mgr. <b>Deanna L. Ha</b>	rding, (deanna	@grinc.com	)						]	<u>ĕ</u>			nates		sa Gel	Silica G	표	Diss.	8260B)		1 24		Confirm N			
Consultant Phone # (925) 551-744	4 x180						Potable	٦	7		E 8021		Oxygenates		/ith Silic	/ithout	WA	Total.			NE /		Confirm a			:
Sampler Alex	Work			<b>3</b>	Composite		1		]	Total Number	+ MTBE	8260 full scan		NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	ī	To	DCE	1108)	APHTHALENE		Run	oxy's	on all hits	
	7		ected	Grab	E O	Soil	Water	-	5	ota	ВТЕХ	260 ft		WTP	WTP	WTP	WA VPH	ead	7	8	I I			20		
Sample Identification	QA	7-17-15	Time	Δ		တ	\sqrt{\sq}\}}}\sqrt{\sq}}}}}}\sqrt{\sq}}}}}}}}\sqrt{\sqrt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	+	4!	5	<u>8</u>	8		<del>Z</del> '	Ż	Ż	3	۳		الميا	<b>₹</b>		6 F	Remar	KS	
	MW-1	1-17-15	1320	1	$\dashv$		1	+	1	5	$\geqslant$	$\neg$	$\dashv$	$\bigcirc$	X	×^		√/	$\vee$	<u> </u>	X					
	Nw-2		0920				1	$\top$	丁	1	1			î	1	1		1		1	1		7.0			
	mw-3		1018																							
	mn-4		1120																							
	12w-5		0750	Ш	_				4	Д	$\perp$										Ш					
	MW-6		1220	V	_		1	$\bot$	┵		1	$\dashv$		d	N	V		1	1/	V	V					
				$\sqcup$	_			_	4	_	$\dashv$	-		$\blacksquare$												
- AMTHER								+	+	$\dashv$		$\dashv$				_										
								士	土	士																
					-			+	+	$\dashv$	-	$\dashv$	$\dashv$	$\dashv$												
7 Turnaround Time F	Requested (TAT)	(please circle)		Relinq	uished	by				- 1	Date		- 1	Time			Recei	ved by		11			Date		Гime	9
Standard	5 day	4 day EDF/ED	ND.	`		and the same of th		C.			9-	18-1	5				6	f f	1/8	1			9/18		9:50	
72 hour	48 hour	24 hour	טי	Relinq	uished	by					Date			Time			Recei	ved by					Date		Γime	
8 Data Package (circle	if required)	EDD (circle if r	equired)	Relind	quishe	ed by	Comm	ercial	Carri	er:							Recei	ved by					Date		Time	
Type I - Full		CVX-RTBU-FI_05	i (default)	U	PS_		·	Fedl	Ex _	-		Oth	er_								a 0				4	1000
Type VI (Raw Data)		Other:	~		Те	mpe	erature	∍ Upo	on R	Rece	ipt _			°	,C		Cı	ustoc	dy Se	eals	Intad	ct?	Ye	s	No	

## TRANSMITTAL

December 18, 2015 G-R #386773

TO:

Mr. Russell Shropshire

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, Washington 98011

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6805 Sierra Court, Suite G Dublin, California 94568 RE: Former Unocal Station

#372654

3202 Main Street

Union Gap, Washington

### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Fourth Quarter Event of December 8, 2015

### **COMMENTS:**

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/211556

	CHEV	<b>RON - SIT</b>	E CHECI	K LIST	
Facility#:	Chevron #372654			Date: /2/8/17	
Address:	3203 Main Street			7-7-8711	
City/St.:	Union Gap, WA				<del></del>
Status of	Site: PA	RKm Lot			- M
	Pleas (i.e., drum description,	se list below AL			
	(i.e., drain description,	condition, laber	ing, contents	and location of drum	ıs)
#	Description	Condition	Labeling	Contents/Capacity	
#		1			Location
#	Description	1			
#	Description	1			

**WELLS:** 

**DRUMS:** 

Please check the condition of ALL WELLS on site:

(i.e., gaskets, bolts, replaced well plug and/or well lock, well box condition and etc.)

Well ID	Gaskets (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Replaced Plug Y/N	Replaced Lock Y/N	Well Box Manufacturer/Size/# of Bolts	Other
MW-1	Olc	Oh	N	~	8"morns	
MW-2	١	١		1		
MW-3						
MW-4						
MW-5						
MW-6	V		<	1		

Additional Comments/Observations:	

## Standard Operating Procedure, Low-Flow Purging and Sampling

Gettler-Ryan Inc. field personnel adhere to the following Standard Operating Procedure (SOP) for the collection and handling of representative groundwater samples using the Low-Flow (Minimal-Drawdown) Purging technique. This SOP incorporates purging and sampling methods discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - "Low-Flow (Minimal-Drawdown) Ground-Water Sampling Procedures."

A QED Well Wizard<sup>TM</sup> (or equivalent) bladder pump or Peristaltic Pump will be used to purge and sample selected wells as outlined in the scope-of-work. An in-line flow cell or other multi-parameter meter is used to collect water quality indicating parameters during purging.

#### Initial Pump Discharge Test Procedures

The Static Water Level (SWL) is measured in all wells at the site prior to the installation of the pump or tubing and initiation of the test procedures in any well. In addition, the presence or absence of separate-phase hydrocarbons (SPH) is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot. The SWL measurement and SPH thickness, if any, will be recorded on the field data sheet.

The bladder pump or suction inlet tubing of the peristaltic pump is then positioned with its inlet located within the screened interval of the well. The in-line flow cell is then connected to the discharge tubing. After pump installation, the SWL is allowed to recover to its original level. The pump is then started at a discharge rate between 100 ml to 300 ml per minute with the in-line flow cell connected. The water level is monitored continuously for any change from the original measurement and the discharge rate is adjusted until an optimum discharge rate (ODR) is determined. The goal for the ODR is to produce a stable drawdown of less than 0.1 meter as allowed by site conditions; however the total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen. Once achieved, the ODR will be confirmed by volumetric discharge measurement and recorded on the field data sheet.

### Purging and Water Quality Parameter Measurement

When the ODR has been determined and the SWL drawdown has been established within the acceptable range, and a minimum of one pump system volume (bladder volume and/or discharge tubing volume) has been purged, field measurements for temperature (T), pH, conductivity (Ec), and if required, oxygen reduction potential (ORP) and dissolved oxygen (DO) will be collected and documented on the field data sheet. Measurements should be taken every three to five minutes until parameters stabilize for three consecutive readings. The minimum parameter subset of T ( $\pm$  10%), pH ( $\pm$  0.1 unit), and Ec ( $\pm$  10 uS) are required to stabilize. Additional parameters that may be required are DO ( $\pm$  0.2 mg/l) and ORP ( $\pm$  20 mV).

### Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler,

maintained at 4°C for transport to the laboratory. A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.



Client/Facility#:	: Chevron #37	72654		Job Number:	385900		
Site Address:	3203 Main S	treet	-	Event Date:	12/8	K	- (inclusive)
City:	Union Gap,	WA		Sampler:	717		_,
Well ID	MW- L			Date Monitored:	12/8/1		
Well Diameter	2 in	<del>-</del>	F	Date Monitored.	12/8/1		
Total Depth	19.71 ft	_	Volu			"= 0.17 3"= 0.38	
Depth to Water				or (VF) 4"= 0.6		= 1.50 12"= 5.80	)
Deptir to vvater	7.40 ft	***************************************	heck if water colur				
Jonth to Mateu		_xVF	=	_ x3 case volume =			
Deptil to vvater	w/ 80% Recharge	e [(Height of v	vater Column x 0.20)	+DTW]: 13.77		d:	(2400 hrs)
Purge Equipment:	<b>:</b>	s	ampling Equipment	•		eted:	
Disposable Bailer			isposable Bailer	•		oduct:	
Stainless Steel Baile	er		ressure Bailer			nter: n Thickness:	
Stack Pump			etal Filters		12 -	rmation/Description	
Peristaltic Pump	X	P	eristaltic Pump	$\overline{}$	<b></b>		
QED Bladder Pump	)		ED Bladder Pump			bsorbant Sock (cir	
Other:		0	ther:		Amt Remove	ed from Skimmer:_	ltr
						ed from Well:	
						nsferred to:	
tart Time (purg	e): 1145		Weather Co	anditions:	Cla	dy	
	-/- <u>-/-</u>					/5 <b>7</b>	
		12/8/15		r: <u>Clean</u>	Odor: Y / 69	~~7	<del></del>
Sample Time/Da	ate: 1225 / 1	mlpm		: Clean	Odor: Y / W		
Sample Time/Da Approx. Flow Ra Did well de-wate	ate: 1225 / 1 ate: 200	mipm	Water Color Sediment D	: Clean	_ Udor: Y / W		
Sample Time/Da Approx. Flow Ra Did well de-wate	ate: 1225 / 1 ate: 200 er? M If	mipm	Water Color Sediment D	r: Clean escription: olume:		Sampling:	12.41
Sample Time/Da Approx. Flow Ra Did well de-wate Time	ate: 1225 / 1 ate: 200 er? 100 If	mipm	Water Color Sediment D  Conductivity  S mS	escription: olume: Temperature		Sampling:	
Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	ate: 1225 / 1 ate: 200 er? M If	_mlpm yes, Time: pH	Water Color Sediment D  Conductivity (15 / mS  unmos/cm)	escription: olume:  Temperature ( G / F )		Sampling:	<b>/2.4/</b> Gauge DTW
Sample Time/Da approx. Flow Ra Did well de-wate Time (2400 hr.)	ate: 1225 / 1 ate: 200 er?	mlpm yes, Time:	Water Color Sediment D  Conductivity (15 / mS  phrios/cm)  255	escription: olume:  Temperature ( G / F )		Sampling:	Gauge DTW as parameters are recorded
rample Time/Da pprox. Flow Ra lid well de-wate Time (2400 hr.)	ate: 1225 / 1 ate: 200 er? // // // // // // Volume (Liters) 3.6 4.2	_mlpm yes, Time: pH	Water Color Sediment D V Conductivity (15 / mS µmnos/cm) 255 255	escription: olume:  Temperature ( Ø / F )		Sampling:	Gauge DTW as parameters are recorded 12.33 12.37
ample Time/Da pprox. Flow Ra id well de-wate Time (2400 hr.)	ate: 1225 / 1 ate: 200 er?	_mlpm yes, Time: pH	Water Color Sediment D  Conductivity (15 / mS  phrios/cm)  255	escription: olume:  Temperature ( G / F )		Sampling:	Gauge DTW as parameters are recorded
ample Time/Da pprox. Flow Ra id well de-wate Time (2400 hr.)	ate: 1225 / 1 ate: 200 er? // // // // // // Volume (Liters) 3.6 4.2	_mlpm yes, Time: pH	Water Color Sediment D V Conductivity (15 / mS µmnos/cm) 255 255	escription: olume:  Temperature ( Ø / F )		Sampling:	Gauge DTW as parameters are recorded 12.33
ample Time/Da pprox. Flow Ra id well de-wate  Time (2400 hr.)  1203 1206 1205	ate: 1225 / 1 ate: 200 er?	mlpm yes, Time:  pH 6.95 6.57 7.01	Water Color Sediment D  Conductivity (AS / mS  phmos/cm)  255  257  3 • 2	escription: olume:  Temperature ( Ø / F )  11. 8  11. 8  RY INFORMATIO	D.O. (mg/L)	Sampling:	Gauge DTW as parameters are recorded 12.33
ample Time/Da pprox. Flow Ra lid well de-wate  Time (2400 hr.)  1203  1206  1206	ate: 1225 / 1 ate: 200 er?	mlpm yes, Time:  pH 6.95 6.57 7.01  REFRIG.	Water Color Sediment D  Conductivity (IS / mS µmnos/cm) 255 256 3 • 2  LABORATOR PRESERV. TYPE	escription: olume:  Temperature ( Ø / F )  11. 8  11. 8  RY INFORMATIC LABORATORY	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded [12.33] [12.37] [12.4]
ample Time/Da pprox. Flow Ra lid well de-wate  Time (2400 hr.)  1203  1206  1205	ate: 1225 / 1 ate: 200 er?	mlpm yes, Time:  pH 6.95 6.57 7.01  REFRIG. YES	Water Color Sediment D  V  Conductivity (15 / mS µmnos/cm) 255 257 3 • 2  LABORATOR PRESERV. TYPE  HCL	escription: olume:  Temperature ( Ø / F )  11. 8  11. 8  RY INFORMATIC LABORATORY LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX	ORP (mV)  ANALYSES +MTBE(8260B)/1,3	Gauge DTW as parameters are recorded [2.33] [12.37] [12.4]
ample Time/Da pprox. Flow Ra lid well de-wate  Time (2400 hr.)  1203  1206  1206	ate:	mlpm yes, Time:  pH 6.95 6.97 7.01  REFRIG. YES YES	Water Color Sediment D  V  Conductivity (AS / mS phrinos/cm) 255 257 3	escription: olume:  Temperature ( G / F )  II. 8  II. 8  RY INFORMATIO LABORATORY LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX NWTPH-Dx w/sgc	ORP (mV)  ANALYSES +MTBE(8260B)/1,3	Gauge DTW as parameters are recorded [2.33] [12.37] [12.4]
ample Time/Da pprox. Flow Ra id well de-wate  Time (2400 hr.)  1203  1206  1206  1206	ate:	mlpm yes, Time:  pH 6.95 6.97 7.01  REFRIG. YES YES YES	Water Color Sediment D  V Conductivity (IS / mS phmos/cm) 255 255 3	escription: olume:  Temperature ( G / F )  II. 8  II. 8  II. 8  RY INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX NWTPH-Dx w/sgc EDB(8011)	ANALYSES +MTBE(8260B)/1,2	Gauge DTW as parameters are recorded 12.33 12.37 12.41
ample Time/Da pprox. Flow Ra id well de-wate  Time (2400 hr.)  1203  1206  1206  1206	ate:	mlpm yes, Time:  pH 6.55 6.57 7.01  REFRIG. YES YES YES YES	Water Color Sediment D  V  Conductivity (AS / mS phrinos/cm) 255 257 3	escription: olume:  Temperature ( G / F )  II. 8  II. 8  RY INFORMATIO LABORATORY LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX NWTPH-Dx w/sgc	ANALYSES  +MTBE(8260B)/1,2 NWTPH-Dx	Gauge DTW as parameters are recorded 12.33 12.37 12.41
ample Time/Da pprox. Flow Ra lid well de-wate  Time (2400 hr.)  1203  1206  1206	# CONTAINER  (#) CONTAINER  (#) CONTAINER    X voa vial   X x voa vial   X x 250ml ambers	mlpm yes, Time:  pH 6.55 6.57 7.01  REFRIG. YES YES YES YES	Water Color Sediment D  V Conductivity (\$\int_{\inle\int_{\inle\tin_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\in	escription: olume:  Temperature ( Ø / F )  II. 8  II. 8  RY INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX NWTPH-Dx w/sgc EDB(8011) NAPHTHALENE/2	ANALYSES  HMTBE(8260B)/1,2  WETHYL NAPHTH	Gauge DTW as parameters are recorded 12.33 12.37 12.4/
Sample Time/Da spprox. Flow Ra lid well de-wate  Time (2400 hr.)  1203  1206  1206  1206  MW- I	# CONTAINER  (#) CONTAINER  (#) CONTAINER    X voa vial   X x voa vial   X x 250ml ambers	mlpm yes, Time: pH 6.95 6.97 7.01  REFRIG. YES YES YES YES YES	Water Color Sediment D  V Conductivity (\$\int_{\inle\int_{\inle\tin_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\int_{\in	escription: olume:  Temperature ( Ø / F )  II. 8  II. 8  RY INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX NWTPH-Dx w/sgc EDB(8011) NAPHTHALENE/2	ANALYSES  HMTBE(8260B)/1,2  WETHYL NAPHTH	Gauge DTW as parameters are recorded 12.33 12.37 12.4/
ample Time/Da pprox. Flow Ra id well de-wate  Time (2400 hr.)  1203  1206  1206  1206  MW- I	# (#) CONTAINER  (#) CONTAINER  (#) CONTAINER  (#) CONTAINER  2 x 1 liter ambers  2 x voa vial  2 x 250ml ambers  1 x 250ml poly	mlpm yes, Time: pH 6.95 6.97 7.01  REFRIG. YES YES YES YES YES	Water Color Sediment D  V  Conductivity (\$\hat{F} / mS \\ \text{pimos/cm})  2 \hat{F} \\ 2 \hat{F} \\ 3 \cdot 2   LABORATOF PRESERV. TYPE  HCL  HCL  Na2S2O3  NP  HNO3	escription: olume:  Temperature ( Ø / F )  II. 8  II. 8  RY INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX NWTPH-Dx w/sgc EDB(8011) NAPHTHALENE/2	ANALYSES  HMTBE(8260B)/1,2  WETHYL NAPHTH	Gauge DTW as parameters are recorded 12.33 12.37 12.4/



Client/Facility#:	Chevron #37	<b>2654</b>		Job Number:	385900		
Site Address:					12/8/15		- (inclusive)
City:	Union Gap,	WA		Sampler:	KZ		_ `,
4							-
Well ID	MW- 2_		[	Date Monitored:	12/8/15		_
Well Diameter	<b>2</b> in	<u>.</u>	Volum	e 3/4"= 0.0	2 1"= 0.04 2"= 0.	.17 3"= 0.38	_
Total Depth	_19.10 ft		Factor				
Depth to Water	12.05 ft.		heck if water colum	n is less then 0.50	O ft.		
	7.05	xVF		x3 case volume =	Estimated Purge Volun	ne:	_ gal.
Depth to Water	w/ 80% Recharge						
					Time Completed	d:	(2400 hrs)
Purge Equipment:		S	ampling Equipment:		Depth to Produc	xt:	ft
Disposable Bailer			isposable Bailer		Depth to Water:		ft
Stainless Steel Baile	er		ressure Bailer		Hydrocarbon Th		
Stack Pump			etal Filters		Visual Confirma	tion/Description	:
Peristaltic Pump			eristaltic Pump		Skimmer / Aboo	mant Coals (aims	\
QED Bladder Pump			ED Bladder Pump		Skimmer / Abso Amt Removed fr		
Other:		O	ther:		Amt Removed fr		
					Water Removed		
					Product Transfe		
Start Time (purg Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	ate: <u>1705</u> / 1 ate: <u>2</u> co	218/16 mlpm yes, Time:	Sediment De	<u>Clear</u>	Odor: Y 100		Gauge DTW as parameters
1838	3.6	7.71	32.7	118		. ,	are recorded
1641	<del>- 3.2</del>	7.66	331	71.7			12.11
1644	<u> </u>	7.62	338	11.6			12.14
		<u></u>	LABORATOR	Y INFORMATIO	N.		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	l	ANALYSES	
MW- Z	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+M1	TBE(8260B)/1,2	DCE(8260B)
<del></del>	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NW	TPH-Dx	
<del></del>	2 x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)		
	2 x 250ml ambers	YES	NP	LANCASTER	NAPHTHALENE/2-ME	THYL NAPHTH	ALENE(8270)
<del></del>	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(6010)	·····	
				<del></del>			
OMMENTS:	Depth Pump S	Set At: 1	4,00	I			
d/Replaced Gaskel	t: Add	I/Replaced Bo	olt: Ad	d/Replaced Plug: _	Add/Repla	ced Lock:	



Client/Facility#:	Chevron #37	72654		Job Number:	385900			
Site Address:	3203 Main S	treet		Event Date:	12 811	<u> </u>	- (inclusive)	
City:	Union Gap,	WA		Sampler:	Z)\range		_ `	
Vell ID	MW-3			Date Monitored:	12/8/1	<u> </u>		
Vell Diameter	<b>2</b> in	 ).					<del>-</del>	
otal Depth	19.24 ft	_	Volum Factor			0.17 3"= 0.38 1.50 12"= 5.80	li e	
epth to Water			theck if water colum	·		1.50 12 - 5.60		
opin to vvator	6.98	xVF	= = Colum		י ונ. Estimated Purge Vol	ume:	gal.	
epth to Water	w/ 80% Recharge	_ € [(Height of V	Vater Column x 0.20)		Time Started:		(2400 hrs)	
ırge Equipment:		9,	ampling Equipment:			ted:		
sposable Bailer			isposable Bailer			luct:		
ainless Steel Baile	er		ressure Bailer			er: Thickness:		
ack Pump			etal Filters			nation/Description		
eristaltic Pump	<del></del>		eristaltic Pump	<del></del>	Visual Commit	nation/Description	•	
ED Bladder Pump			ED Bladder Pump		Skimmer / Ab	sorbant Sock (circ		
her:			ther:		Amt Removed	from Skimmer:_	ltr	
					Amt Removed	I from Well:	ltr	
						ed: ferred to:		
					Froduct Halls	ileired to		
			Weather Cor		Cloud			
art Time (purg ample Time/Da oprox. Flow Ra d well de-wate	ate: 1605 / 1	mlpm ves. Time:	Water Color: Sediment De	scription:	Odor: Y 160 /		12.37	
ample Time/Da	ate: 1605 / 1	mlpm	Water Color: Sediment De Vo	scription:	Odor: Y 1 60 Clean		12.37	
ample Time/Da pprox. Flow Ra d well de-wate Time	ate: 1605 / 1 ate: 200 er? 100 If	mlpm yes, Time:	Water Color: Sediment De Vo Conductivity	scription:	Odor: Y / O / Clewitrs DTW @ D.O.		Gauge DTW	
ample Time/Da pprox. Flow Ra d well de-wate	ate: 1605 / 1 ate: 200 er? 100 If	mlpm	Water Color: Sediment De Vo	cleaning scription:	Odor: Y / 🚱 ' Clew itrs DTW @	Sampling:	Gauge DTW as parameter	
imple Time/Da prox. Flow Ra d well de-wate Time	ate: 1605 / 1 ate: 200 er? 100 If	mlpm yes, Time:	Water Color: Sediment De Vo Conductivity ( \( \( \( \) \( \) \( \) mS	scription:	Odor: Y / O / Clewitrs DTW @ D.O.	Sampling:	Gauge DTW as parameter are recorded	
mple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.)	ate: 1605 / 1 ate: 200 er? 100 If  Volume (Liters) 3.6	mlpm yes, Time: pH 7-13	Water Color: Sediment De Vo Conductivity ((IS) mS platos/cm)	scription:lume: Temperature ( C / F )	Odor: Y / O / Clewitrs DTW @ D.O.	Sampling:	Gauge DTW as parameter are recorded /2,25	
mple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.)	ate: 1605 / 1 ate: 200 er? 100 If  Volume (Liters) 3.6	mlpm yes, Time: pH	Water Color: Sediment De Vo Conductivity (µS/mS µtabos/cm) 312	scription:lume: Temperature ( C / F )	Odor: Y / O / Clewitrs DTW @ D.O.	Sampling:	Gauge DTW as parameter are recorded /2,2 f	
mple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.)	volume (Liters)  3.6  4.2	mlpm yes, Time: pH 7-13	Water Color: Sediment De Vo Conductivity (µS/mS µIntos/cm) 312 320	Temperature (C) F)  11.9	Odor: Y / O / Clewitrs DTW @ D.O.	Sampling:	Gauge DTW as parameter are recorded /2,25	
mple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.) 1543 1544	volume (Liters)  3.6  4.2	mlpm yes, Time: pH 7-13	Water Color: Sediment De Vo Conductivity ((IS) mS µlobos/cm) 312 320 324	Temperature (C) F)  11.9	Odor: Y / 60 / Clean Litrs DTW @ D.O. (mg/L)	Sampling:	Gauge DTW as parameter are recorded /2,2 f	
mple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.) 1543 1544 1549	ate: 1605 / ] ate: 200 er? 100 If  Volume (Liters) 3.6 4.2 4.8	mlpm yes, Time:  pH  7.13  7.14  7.20  REFRIG.	Water Color: Sediment De Vo  Conductivity (µS/mS µmbos/cm) 312 320 324  LABORATOR PRESERV. TYPE	Scription: lume:  Temperature ( C / F )  11. 7  11. 6	Odor: Y / 60 / Clean Longitrs DTW @ D.O. (mg/L)  ON	Sampling: ORP (mV)	Gauge DTW as parameter are recorded /2,2 f	
imple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.) 1543	(#) CONTAINER   (6 × voa vial	mlpm yes, Time:  pH  7.13  77.14  7.20  REFRIG. YES	Water Color: Sediment De Vo Conductivity ((IS/ mS µlmbos/cm) 312 320 329  LABORATOR PRESERV. TYPE HCL	Scription: lume:  Temperature ( C / F )  11. 7  11. 6	Odor: Y / 60 / Clean Litrs DTW @ D.O. (mg/L)	Sampling: ORP (mV)	Gauge DTW as parameter are recorded /2,2 f	
imple Time/Da iprox. Flow Ra d well de-wate  Time (2400 hr.)  1543 1544 1549  SAMPLE ID	(#) CONTAINER   (Container   Container   Container	mlpm yes, Time:  pH  7.13  77.16  7.20  REFRIG. YES YES	Water Color: Sediment De Vo Conductivity ((IS/ mS µlmbos/cm) 312 320 324  LABORATOR PRESERV. TYPE HCL HCL	Scription: lume:  Temperature (	Odor: Y / O C lean  itrs DTW @  D.O. (mg/L)  NWTPH-Gx/BTEX+I NWTPH-Dx w/sgc/N	Sampling: ORP (mV)  ANALYSES MTBE(8260B)/1,2	Gauge DTW as parameter are recorded /2,2 f	
mple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.) 1543 1544 1549	(#) CONTAINER   (Container   Container   Container	mlpm yes, Time:  pH  7-13  7-14  7-20  REFRIG. YES YES YES	Water Color: Sediment De Vo  Conductivity ((IS) mS places/cm) 312 320 324  LABORATOR PRESERV. TYPE HCL HCL Na2S2O3	Scription: lume:  Temperature (C/F)  11.7  11.6  Y INFORMATIC LABORATORY LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+I NWTPH-Dx w/sgc/N EDB(8011)	ORP (mV)  ANALYSES MTBE(8260B)/1,2	Gauge DTW as parameter are recorded /2.25 /2.39 /2.37  DCE(8260B)	
mple Time/Da prox. Flow Ra d well de-wate Time (2400 hr.) 1543 1544 1549	# CONTAINER  (#) CONTAINER  (#) CONTAINER  ( x voa vial	mlpm yes, Time:  pH  7-13  7-14  7-20  REFRIG.  YES YES YES YES	Water Color: Sediment De Vo  Conductivity (µS/ mS µIntros/cm) 312 32 9  LABORATOR PRESERV. TYPE HCL HCL Na2S2O3 NP	Scription: lume:  Temperature (C/F)  11.7  11.6  Y INFORMATIC LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx	Gauge DTW as parameter are recorded /2.25 /2.39 /2.37  DCE(8260B)	
imple Time/Daprox. Flow Rad well de-water (2400 hr.)    543   544   1549	(#) CONTAINER   (Container   Container   Container	mlpm yes, Time:  pH  7-13  7-14  7-20  REFRIG. YES YES YES	Water Color: Sediment De Vo  Conductivity ((IS) mS places/cm) 312 320 324  LABORATOR PRESERV. TYPE HCL HCL Na2S2O3	Scription: lume:  Temperature (C/F)  11.7  11.6  Y INFORMATIC LABORATORY LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+I NWTPH-Dx w/sgc/N EDB(8011)	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx	Gauge DTW as parameter are recorded /2.25 /2.39 /2.37  DCE(8260B)	
ample Time/Dapprox. Flow Rad well de-water (2400 hr.)	# CONTAINER  (#) CONTAINER  (#) CONTAINER  ( x voa vial	mlpm yes, Time:  pH  7-13  7-14  7-20  REFRIG.  YES YES YES YES	Water Color: Sediment De Vo  Conductivity (µS/ mS µIntros/cm) 312 32 9  LABORATOR PRESERV. TYPE HCL HCL Na2S2O3 NP	Scription: lume:  Temperature (C/F)  11.7  11.6  Y INFORMATIC LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx	Gauge DTW as parameter are recorded /2.2 f /2.3 f /2.37  DCE(8260B)	
ample Time/Dapprox. Flow Rad well de-water (2400 hr.)  1543 1544 1549  SAMPLE ID  MW-	te: 1605 /   ate: 200   er? MU If  Volume (Liters)  3.6  4.2  4.8  (#) CONTAINER  6 x voa vial 2 x 1 liter ambers 2 x voa vial 3 x 250ml ambers 4 x 250ml poly	mlpm yes, Time:  pH  7.13  87.16 7.20  REFRIG. YES YES YES YES YES YES	Water Color: Sediment De Vo  Conductivity (µS/ mS µtubos/cm) 312 320 324  LABORATOR PRESERV. TYPE HCL HCL Na2S2O3 NP HNO3	Scription: lume:  Temperature (C/F)  11.7  11.6  Y INFORMATIC LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx	Gauge DTW as parameter are recorded /2.2 f /2.3 f /2.37  DCE(8260B)	
ample Time/Dapprox. Flow Rad well de-water (2400 hr.)	# CONTAINER  (#) CONTAINER  (#) CONTAINER  ( x voa vial	mlpm yes, Time:  pH  7.13  87.16 7.20  REFRIG. YES YES YES YES YES YES	Water Color: Sediment De Vo  Conductivity (µS/ mS µIntros/cm) 312 32 9  LABORATOR PRESERV. TYPE HCL HCL Na2S2O3 NP	Scription: lume:  Temperature (C/F)  11.7  11.6  Y INFORMATIC LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx	Gauge DTW as parameters are recorded /2,2 f /2 - 3 f /2 - 3 7  DCE(8260B)	
ample Time/Daprox. Flow Rad well de-water (2400 hr.)    543   544   1549     SAMPLE ID   MW-3	te: 1605 /   ate: 200   er? MU If  Volume (Liters)  3.6  4.2  4.8  (#) CONTAINER  6 x voa vial 2 x 1 liter ambers 2 x voa vial 3 x 250ml ambers 4 x 250ml poly	mlpm yes, Time:  pH  7.13  87.16 7.20  REFRIG. YES YES YES YES YES YES	Water Color: Sediment De Vo  Conductivity (µS/ mS µtubos/cm) 312 320 324  LABORATOR PRESERV. TYPE HCL HCL Na2S2O3 NP HNO3	Scription: lume:  Temperature (C/F)  11.7  11.6  Y INFORMATIC LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+ NWTPH-Dx w/sgc/N EDB(8011) NAPHTHALENE/2-N	ANALYSES MTBE(8260B)/1,2 IWTPH-Dx	Gauge DTW as parameters are recorded /2,2 f /2 - 3 f /2 - 3 7  DCE(8260B)	



Client/Facility#	: Chevron #37	72654		Job Number:	385900		
Site Address:	3203 Main S	treet	•	Event Date:	12	8/15	(inclusive)
City:	Union Gap,	WA		 Sampler:	7)		
				<u>-</u>			
Well ID	<u> </u>	_		Date Monitored:	12/8	15	
Well Diameter	<b>2</b> ir	<u>.</u>	[v	olume 3/4"= 0.0	22 41- 2.24	011 0 47 01 0 00	
Total Depth	19.68 ft			olume 3/4"≈ 0.0 actor (VF) 4"= 0.6		2"= 0.17 3"= 0.38 6"= 1.50 12"= 5.80	· •
Depth to Water			LL. Check if water col	lumn is less then 0.5	O ft.		
	7.91	-		x3 case volume =		Volume:	gal
Depth to Water	w/ 80% Recharge			20) + DTWJ: 13.35		led:	
	•			•		pleted:	(2400 hrs)
Purge Equipment:	:	;	Sampling Equipme	nt:		roduct:	
Disposable Bailer		i	Disposable Bailer			Vater:	
Stainless Steel Bail	ler	- 1	Pressure Bailer			on Thickness:	
Stack Pump		1	Metal Filters		Visual Cor	nfirmation/Description	1:
Peristaltic Pump	_×	I	Peristaltic Pump				
QED Bladder Pump	0		QED Bladder Pump			Absorbant Sock (circ	
Other:		(	Other:			ved from Skimmer:_ ved from Well:	
						noved:	
						ansferred to:	
	4						
Start Time (purg				Conditions: _	<u> </u>	dy	
Sample Time/Da	ate: 1510 /	12/8/18	Water Co	lor: <u>Clea</u>	_ Odor: Y / <b>(</b> N		
Approx. Flow Ra	ate: 200	mlpm	Sediment	Description:	Clea	<u> </u>	
Did well de-wate	er?	yes, Time	e:	Volume:	Itrs DTW	@ Sampling:	11.90
			Constructivity		<del></del>	-	
Time	Volume	рН	(US) mS	Temperature	D.O.	ORP	Gauge DTW as parameters
(2400 hr.)	(Liters)	•	µmHos/cm)	( <b>ⓒ</b> )/ F)	(mg/L)	/ (mV)	/ are recorded
1448	3.6	7.01	311	11.8		/ /	11.80
1451	4.2	7.05	315	11.7			11.84
1454	· ५. ४	7.67	317	11.6			1190
<del></del>					7		
			LABORATO	ORY INFORMATION	<b>N</b>		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYP			ANALYSES	<del></del>
MW- 4	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTE	X+MTBE(8260B)/1,2	2 DCE(8260B)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sg	c/NWTPH-Dx	
	2 x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)		
	2 x 250ml ambers	YES	NP	LANCASTER		2-METHYL NAPHTI	HALENE(8270)
	x 250ml poly	YES	HNO3	LANCASTER	TOTAL LEAD(60	10)	
COMMENTS:	Depth Pump S	Set At:	13.00		•		T-1
					<del> </del>		
ld/Replaced Gaske	νt· Λ.Δ.	//Renlaced I	Bolt:	Add/Poplessed Diver	الائداء ٨	Donlood Losly	0
an replaced Gaske	Aut	m replaced i	JUIL	Add/Replaced Plug: _	Add/I	Replaced Lock:	



Client/Facility#	#: <u>Chevron #37</u>	/2004		Job Number:	385900		
Site Address:	3203 Main S	treet		Event Date:	12/8/15	•	(inclusive)
City:	Union Gap,	WA		Sampler:	VC		
Well ID	MW-5	,		Date Monitored:	12/8/11		
Well Diameter	r <b>2</b> in	1.	Volum	e 3/4"= 0.0	2 41-0.04 01	0.47	· 
Total Depth	19.78 ft	<del>-</del>	Factor			0.17 3"= 0.38 1.50 12"= 5.80	
Depth to Water			heck if water colum	n is less then 0.50	Oft.		
	7.63	xVF	<u> </u>	x3 case volume =	Estimated Purge Vol	ume:	gal.
Depth to Water	er w/ 80% Recharge						
						ed:	
Purge Equipmen			ampling Equipment:			uct:	
Disposable Bailer		D	isposable Bailer	-	Depth to Wate	r:	ft
Stainless Steel Ba	niler	Pi	ressure Bailer		Hydrocarbon 1	hickness:	ft
Stack Pump		M	etal Filters		Visual Confirm	ation/Description:	
Peristaltic Pump	<u>×</u>		eristaltic Pump	<b>—</b> ×	011		<del> </del>
QED Bladder Pum			ED Bladder Pump			orbant Sock (circl	
Other:		O	ther:			from Skimmer: from Well:	
						ed:	
					Product Transf		10
Sample Time/D				AP 1	~ · · · · · · ·		
Approx. Flow F	Rate: 200	7.11 7-15	Water Color: Sediment De Vo Conductivity (µ\$/m\$ µmnos/cm) 317 324 324		Clear		Gauge DTW as parameters are recorded /2.19 /2.26 /2.31
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359	Volume (Liters)  3.6  4.2  4.8	mlpm yes, Time:  pH 7.11 7.15 7-15	Sediment De  Vo  Conductivity (µ\$/m\$ µmnos/cm)  317  324  329  LABORATOR	Temperature (C) / F)  /// /// /// /// /// /// /// /// ///	ltrs DTW @ S	Sampling:	Gauge DTW as parameters are recorded /2.19 /2.26
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359  SAMPLE ID	Rate: 200 ter? No If  Volume (Liters)  3.4 4.2 4.8	mlpm yes, Time:  pH 7.11 7.15 7-15 REFRIG.	Sediment De  Vo  Conductivity (µ\$/m\$ µmnos/cm)  317  324  329  LABORATOR  PRESERV. TYPE	Temperature (C / F )  /// /// /// /// /// /// /// /// ///	D.O. (mg/L)	Sampling: ORP (mV)  ANALYSES	Gauge DTW as parameters are recorded /2.19 /2.26 /2.31
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359	CONTAINER   X voa vial	mlpm yes, Time:  pH 7.11 7.15 7.15 7.17 REFRIG. YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  324  324  324  HOL	Temperature (C) / F) /// /// /// /// /// /// /// /// /// /	D.O. (mg/L)  NWTPH-Gx/BTEX+N	ORP (mV)  ANALYSES  ATBE(8260B)/1,2	Gauge DTW as parameters are recorded /2.19 /2.26 /2.31
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359  SAMPLE ID	Volume (Liters)   3.6   4.2   4.8     4.2   4.8     4.2   4.2   4.3     4.3   2   x 1 liter ambers	mlpm yes, Time:  pH  7.11  7.15  7.15  7.19  REFRIG. YES YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  329  LABORATOR  PRESERV. TYPE  HCL  HCL	Temperature (C / F )  /// /// /// /// /// /// /// /// ///	D.O. (mg/L)  NWTPH-Gx/BTEX+N NWTPH-Dx w/sgc/N	ORP (mV)  ANALYSES  ATBE(8260B)/1,2	Gauge DTW as parameters are recorded /2.19 /2.26 /2.31
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359  SAMPLE ID	Volume (Liters)   3.6   4.2   4.8     4.2   4.8     4.2   4.2   4.3     5.4   4.2   4.5     5.4     5.4     5.4     5.4	mlpm yes, Time:  pH 7.11 7.15 7.15 7.15 YES YES YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  329  LABORATOR  PRESERV. TYPE  HCL  HCL  Na2S2O3	Temperature (C / F )  11.7  11.6  Y INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+N NWTPH-Dx w/sgc/N EDB(8011)	ORP (mV)  ANALYSES ATBE(8260B)/1,2  VTPH-Dx	Gauge DTW as parameters are recorded /2.19 /2.26 /2.3/
Approx. Flow Find well de-water (2400 hr.)  1353 1356 1359	Volume (Liters)   3.4   4.2   4.8	mlpm yes, Time:  pH  7.11  7.15  7.15  7.19  REFRIG. YES YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  329  LABORATOR  PRESERV. TYPE  HCL  HCL	Temperature (C / F )  11-8  11-7  11-6  Y INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  N  NWTPH-Gx/BTEX+N  NWTPH-Dx w/sgc/N  EDB(8011)  NAPHTHALENE/2-M	ORP (mV)  ANALYSES ATBE(8260B)/1,2  VTPH-Dx	Gauge DTW as parameters are recorded /2.19 /2.26 /2.3/
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359  SAMPLE ID	Volume (Liters)   3.6   4.2   4.8     4.2   4.8     4.2   4.2   4.3     5.4   4.2   4.5     5.4     5.4     5.4     5.4	mlpm yes, Time:  pH 7.11 7.15 7.15 YES YES YES YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  324  329  LABORATOR  PRESERV. TYPE  HCL  HCL  Na2S2O3  NP	Temperature (C / F )  11.7  11.6  Y INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  NWTPH-Gx/BTEX+N NWTPH-Dx w/sgc/N EDB(8011)	ORP (mV)  ANALYSES ATBE(8260B)/1,2  VTPH-Dx	Gauge DTW as parameters are recorded /2.19 /2.26 /2.3/
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359	Volume (Liters)   3.4   4.2   4.8	mlpm yes, Time:  pH 7.11 7.15 7.15 YES YES YES YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  324  329  LABORATOR  PRESERV. TYPE  HCL  HCL  Na2S2O3  NP	Temperature (C / F )  11-8  11-7  11-6  Y INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  N  NWTPH-Gx/BTEX+N  NWTPH-Dx w/sgc/N  EDB(8011)  NAPHTHALENE/2-M	ORP (mV)  ANALYSES ATBE(8260B)/1,2  VTPH-Dx	Gauge DTW as parameters are recorded /2.19 /2.26 /2.3/
Approx. Flow Find well de-water (2400 hr.)  1353 1356 1359  SAMPLE ID MW-	Volume (Liters)   3.4   4.2   4.8	mlpm yes, Time:  pH  7.11  7.15  7.15  YES YES YES YES YES YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  329  LABORATOR  PRESERV. TYPE  HCL  HCL  Na2S2O3  NP  HNO3	Temperature (C / F )  11-8  11-7  11-6  Y INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  N  NWTPH-Gx/BTEX+N  NWTPH-Dx w/sgc/N  EDB(8011)  NAPHTHALENE/2-M	ORP (mV)  ANALYSES ATBE(8260B)/1,2  VTPH-Dx	Gauge DTW as parameters are recorded /2.19 /2.26 /2.3/
Approx. Flow R Did well de-wat  Time (2400 hr.)  1353 1356 1359  SAMPLE ID	Volume (Liters)   3.6   4.2   4.8	mlpm yes, Time:  pH  7.11  7.15  7.15  YES YES YES YES YES YES	Sediment De  Vo  Conductivity (µS/mS µmnos/cm)  317  329  LABORATOR  PRESERV. TYPE  HCL  HCL  Na2S2O3  NP  HNO3	Temperature (C / F )  11-8  11-7  11-6  Y INFORMATIO LABORATORY LANCASTER LANCASTER LANCASTER LANCASTER LANCASTER	D.O. (mg/L)  N  NWTPH-Gx/BTEX+N  NWTPH-Dx w/sgc/N  EDB(8011)  NAPHTHALENE/2-M	ORP (mV)  ANALYSES ATBE(8260B)/1,2  VTPH-Dx	Gauge DTW as parameters are recorded /2.19 /2.26 /2.3/



Client/Facility#:	Chevron #37	2654		Job Number:	385900		
Site Address:	3203 Main S	treet		Event Date:	12/8/1	8	(inclusive)
City:	Union Gap,	<b>N</b> A		Sampler:	34		
Well ID	mw-6			Date Monitored:	12/8/15	•	
Well Diameter	<b>2</b> in	<u>.</u>	Volu	me 3/4"= 0.0		0.17 3"= 0.38	
Total Depth	20.08 ft.	_	I	or (VF) 4"= 0.6		1.50 12"= 5.80	
Depth to Water	12-28 ft.	21 Marchael	Check if water colur				
Depth to Water	7.80 w/ 80% Recharge	_xVF	Vater Column v 0 20)	x3 case volume =	Estimated Purge Vol		
	oo /o / (oonalge	(rioigin oi i	, valer Goldmin x 0.20)	. D(W). <u>13.5.</u>		ted:	
Purge Equipment:		S	ampling Equipment	:		luct:	
Disposable Bailer			isposable Bailer		Depth to Wate	er:	ft
Stainless Steel Baile	r		ressure Bailer			Thickness:	
Stack Pump			letal Filters		Visual Confirm	nation/Description:	
Peristaltic Pump			eristaltic Pump		Chimmon / Ah		
QED Bladder Pump			ED Bladder Pump			sorbant Sock (circl I from Skimmer:	
Other:		C	ther:	<del></del>		f from Well:	
						ed:	
					Product Trans		
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-water	te: 1320 / 1 te: 200 m	mlpm yes, Time	Weather Color Water Color Sediment D Conductivity	r: Clean escription: olume:	itrs DTW @	Sampling:	<b>/2.42</b> Gauge DTW
Time (2400 hr.)	Volume (Liters)	pН	(LUS / mS µmhos/cm)	Temperature ( <b>Ø</b> / F )	D.O. (mg/L)	ORP (mV)	as parameters are recorded
	3.6	6.62	287	11.8	/		12.31
1301	4.2	6.67	290	11.8			12.35
1304	<u>4.8</u>	6.70	296	11.7			12.42
		<del> </del>					
·			LABORATO	RY INFORMATIO	ON		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE			ANALYSES	
MW- 6	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+I		DCE(8260B)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/N	IWTPH-Dx	
	2 x voa vial	YES	Na2S2O3	LANCASTER	EDB(8011)		
	2 x 250ml ambers x 250ml poly	YES YES	NP HNO2	LANCASTER	NAPHTHALENE/2-N		ALENE(8270)
	x 250iii põiy	159	HNO3	LANCASTER	TOTAL LEAD(6010)		<del></del>
COMMENTS:	Depth Pump S	et At: 1	5.00				
						<del></del>	
dd/Donloos d Coolest	د د	/Pontered D	- II	44/0			
ld/Replaced Gasket:	Add	/rteplaced B	olt: A	dd/Replaced Plug: _	Add/Rep	placed Lock:	

# Chevron Northwest Region Analysis Request/Chain of Custody

🔅 eurofins	Lancaster Laboratories		А	.cct.#_				(	Group	p#	urofins			Sa	ample	#								
1	Client Informat					4	Ma	trix	(A) (B)		(5)			Aı	nalys	ses	Req	uest	ed				SCR #:	
	ML G-R#385900	WBS																2		- John			30n #	
Site Address3202 Main Str	reet, UNION GAP,	, WA	-								Naphth					Ø		9 6010		8270	3		Results in Dry W	-
Chevron PMEH	LEIDOSRS	Lead Cons	<sup>sultant</sup> Rus	seil	Shro	pen	round	Surface		၂ မှ	Nag Nag				<u>a</u>			Method		THY			Must meet lowes	st detection
Consultant/Office Gettler-Ryan I	Inc., 6805 Sierra (	Court, Su	ite G, Dı	ıblin,	, CA	905	<b>66</b> 5	Š		Containers	8260	ITI			Clean	sel Cle		is.		MET			compounds 8021 MTBE Con	firmation
Consultant Project Mgr.  Deanna L. Ha	rding, (deanna@g	grinc.cor	n)							Cont	8021	DC.	ates		a Gel	Silica G	WA EPH	Diss.		12-1	1		Confirm MTBE +	
Consultant Phone # (925) 551-744	4 x180						Potable	NPDES	Ą	er of		1,2	Oxygenates		ith Silic	ithout §	W	Total 🔽	8011	che			Confirm all hits b	y 8260
Sampler	Jim Hes	22-		3	Composite					Total Number	+ MTBE	8260 <b>( F I B B B B B B B B B B</b>			NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	МА УРН □	Tot	$  \cdot  $	VaPH+Hal			. —	's on all hits
2		Col	llected	Grab	[ [	<u> </u>	6	Water	_	tal	BTEX +	<del>⊈</del> 00		NWTPH-Gx	直	直	VVP	ا ۾ ا	EDIS	He				
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Standard	5 day	4 day EDF/EI	DD.				25					18/19			100			7	1	00	m		12/16/15	10:45.
72 hour	48 hour	24 hour		Relind	quished	iby	2	L		j.	Date	PO/1	' I	Time			Recon	ved by	,				Date	Time
8 Data Package (circle	e if required)	DD (circle if	required)	Relir	nquishe	ed by	y Com	merci	al Ca	arrier:	P (#	0/1.					Recei	ived by	,—				Date	Time
Type I - Full	1	VX-RTBU-FI_0		L	JPS_			Fe	dEx	·		Otl	her_											
Type VI (Raw Data)	Ot	ther:			T€	emp/	eratu	ıre U	pon	Rec	ceipt		-		°C		Cı	ustoc	dy Se	eals	Intac	ct?	Yes	No

Appendix D: Laboratory Analytical Reports



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### ANALYTICAL RESULTS

Prepared by:

Prepared for:

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

Chevron L4310 6001 Bollinger Canyon Road San Ramon CA 94583

January 08, 2015

Project: 372654

Submittal Date: 12/16/2014 Group Number: 1526087 PO Number: 0015159072 Release Number: HETRICK State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
MW-6-20 Grab Soil	7714400
MW-6-12 Grab Soil	7714401
MW-5-20 Grab Soil	7714402
MW-5-9 Grab Soil	7714403
MW-5-11 Grab Soil	7714404
ER-1-121114 Grab Water	7714405
ER-2-121114 Grab Water	7714406
MW-4-9 Grab Soil	7714407
MW-4-12 Grab Soil	7714408
MW-4-14 Grab Soil	7714409
MW-3-20 Grab Soil	7714410
MW-3-12 Grab Soil	7714411
DUP-121114 Grab Soil	7714412
MW-3-15 Grab Soil	7714413
MW-3-10 Grab Soil	7714414
MW-2-20 Grab Soil	7714415
MW-2-9 Grab Soil	7714416
MW-2-12 Grab Soil	7714417
MW-1-20 Grab Soil	7714418
MW-1-12.5 Grab Soil	7714419
MW-1-14 Grab Soil	7714420
MW-1-11 Grab Soil	7714421
MW-4-20 Grab Soil	7714422
TB-1-121514 NA Water	7714423

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



## Analysis Report

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Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

ELECTRONIC COPY TO

Leidos

Attn: Russ Shropshire

Respectfully Submitted,

Lynn M. Frederiksen

Principal Specialist Group Leader

Lyn M. Frederiksen

(717) 556-7255



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714400

LL Group # 1526087 Account # 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/10/2014 11:35 by RO

Chevron

L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

Drv

#### UG620

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	0.89
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.89
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.89
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.89
10237			108-88-3	N.D.	0.001	0.89
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.89
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1	21.64
	croleum carbons	ECY 97- modifie	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.4	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1
	croleum carbons w/Si	ECY 97- modifie	602 NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.4	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
The :	reverse surrogate, ca	apric acid	, is present at <1	. ° .		
Metals	3	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.61	0.566	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	12.6	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.		_	-	1 0	

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143521AA	12/18/2014 18:08	Chelsea B Stong	0.89



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714400 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/10/2014 11:35 by RO

Chevron L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/10/2014	11:35	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/10/2014	11:35	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/10/2014	11:35	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	09:56	Joseph M Gambler	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	15:34	Angela D Sneeringer	21.64			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/10/2014	11:35	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	15:47	Christine E Dolman	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	17:22	Lisa A Reinert	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:28	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1			



# Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714401 LL Group # 1526087

# 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/10/2014 11:52 by RO Chevron

L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

#### UG612

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 82	260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	0.91
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.91
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.91
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.91
10237			108-88-3	N.D.	0.001	0.91
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.91
GC/MS	Semivolatiles	SW-846 82	270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.003	1
GC Vol	atiles	ECY 97-60	02 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.1	25.01
	roleum carbons	ECY 97-60	02 NWTPH-Dx	mg/kg	mg/kg	
-				N. D.	2 1	1
	Diesel Range Organic Heavy Range Organic		n.a.	N.D. 15	3.1 10	1 1
08272	Heavy Range Organic	s C24-C40	n.a.	15	10	Ţ
	roleum	ECY 97-60	02 NWTPH-Dx	mg/kg	mg/kg	
Hydrod	arbons w/Si	modified				
	DRO C12-C24 w/Si Ge		n.a.	N.D.	3.1	1
	HRO C24-C40 w/Si Ge		n.a.	14	10	1
The 1	reverse surrogate, ca	apric acid,	is present at <1	· 8 .		
Metals	3	SW-846 60	010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.76	0.513	1
Wet Ch	nemistry	SM 5310 H	3	% by wt.	% by wt.	
		modified-	-2000			
02079	TOC Solids/Sludges	Combustion	n.a.	N.D.	0.0106	1
Wet Ch	nemistry	SM 2540 (	G-1997	%	%	
00111	Moisture		n.a.	5.3	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.					

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.



## **Analysis Report**

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Sample Description: MW-6-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714401 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/10/2014 11:52 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
10237	BTEX, MTBE, EDB	SW-846 8260B	1	A143521AA	12/18/2014	18:31	Chelsea B Stong	0.91			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/10/2014	11:52	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/10/2014	11:52	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201435136443	12/10/2014	11:52	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201435136443	12/10/2014	11:52	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/10/2014	11:52	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	11:36	Joseph M Gambler	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	16:10	Angela D Sneeringer	25.01			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/10/2014	11:52	Client Supplied	n.a.			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	2	201435136445	12/10/2014	11:52	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	16:29	Christine E Dolman	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	17:43	Lisa A Reinert	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:32	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	14351049531A	12/18/2014	01:04	James S Mathiot	1			
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1			



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714402

LL Group # 1526087 Account # 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/10/2014 14:02 by RO

Chevron L4310

L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

Drv

#### UG520

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	0.92
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.92
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.92
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.92
10237			108-88-3	N.D.	0.001	0.92
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.92
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.1	25.78
	croleum carbons	ECY 97-	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.3	1
08272	Heavy Range Organic	s C24-C40	n.a.	12	11	1
	croleum carbons w/Si	ECY 97-	602 NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.3	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	12	11	1
The :	reverse surrogate, ca	apric acid,	, is present at <1	ે .		
Metals	3	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	3.17	0.543	1
Wet Cl	nemistry	SM 2540	G-1997	%	8	
00111	Moisture		n.a.	9.7	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.					

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143521AA	12/18/2014 18:54	Chelsea B Stong	0.92



## **Analysis Report**

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Sample Description: MW-5-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714402 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/10/2014 14:02 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/10/2014	14:02	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/10/2014	14:02	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/10/2014	14:02	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	12:01	Joseph M Gambler	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014		JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	16:45	Angela D Sneeringer	25.78			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/10/2014	14:02	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	16:50	Christine E Dolman	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	18:04	Lisa A Reinert	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:36	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1			



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-9 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714403

LL Group # 1526087 Account # 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/10/2014 14:30 by RO

Chevron

L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

#### UG509

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237			71-43-2	0.0007	0.0005	0.94
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.94
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.94
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.94
10237	Toluene		108-88-3	N.D.	0.001	0.94
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.94
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.003	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.0	24.65
	croleum carbons	ECY 97- modifie	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.1	1
08272	Heavy Range Organic	s C24-C40	n.a.	19	10	1
GC Pet	croleum	ECY 97-	602 NWTPH-Dx	mg/kg	mg/kg	
Hydrod	carbons w/Si	modifie	đ			
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.1	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	15	10	1
The :	reverse surrogate, ca	apric acid	, is present at <	18.		
Metals	3	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	6.38	0.500	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	3.9	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.					

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143521AA	12/18/2014 19:16	Chelsea B Stong	0.94



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-9 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714403 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/10/2014 14:30 by RO

Chevron L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/10/2014	14:30	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/10/2014	14:30	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/10/2014	14:30	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	12:26	Joseph M Gambler	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	17:21	Angela D Sneeringer	24.65			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/10/2014	14:30	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	19:17	Christine E Dolman	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	18:25	Lisa A Reinert	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:40	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1			



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-11 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714404

LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/10/2014 14:50 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	0.001	0.0005	1.01
10237	Bromodichloromethane	75-27-4	N.D.	0.001	1.01
10237	Bromoform	75-25-2	N.D.	0.001	1.01
10237	Bromomethane	74-83-9	N.D.	0.002	1.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	1.01
10237	Chlorobenzene	108-90-7	N.D.	0.001	1.01
10237	Chloroethane	75-00-3	N.D.	0.002	1.01
10237	Chloroform	67-66-3	N.D.	0.001	1.01
10237	Chloromethane	74-87-3	N.D.	0.002	1.01
10237	Dibromochloromethane	124-48-1	N.D.	0.001	1.01
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	1.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	1.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	1.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	1.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	1.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	1.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	1.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	1.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	1.01
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	1.01
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	1.01
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	1.01
10237	Freon 113	76-13-1	N.D.	0.002	1.01
10237	n-Hexane	110-54-3	0.010	0.001	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	1.01
10237	Methylene Chloride	75-09-2	N.D.	0.002	1.01
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	1.01
10237	Tetrachloroethene	127-18-4	N.D.	0.001	1.01
10237	Toluene	108-88-3	N.D.	0.001	1.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	1.01
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	1.01
10237	Trichloroethene	79-01-6	N.D.	0.001	1.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	1.01
10237	Vinyl Chloride	75-01-4	N.D.	0.001	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	1.01
GC/MS	Semivolatiles SW-846	8270C SIM	mg/kg	mg/kg	
10725	Benzo(a)anthracene	56-55-3	N.D.	0.00068	1
10725	Benzo(a)pyrene	50-32-8	N.D.	0.00068	1
10725	Benzo(b) fluoranthene	205-99-2	N.D.	0.00068	1
10725	Benzo(k)fluoranthene	207-08-9	N.D.	0.00068	1
10725	Chrysene	218-01-9	N.D.	0.00034	1
10725	Dibenz (a,h) anthracene	53-70-3	N.D.	0.00068	1
10725	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00068	1
10725	1-Methylnaphthalene	90-12-0	N.D.	0.00068	1
10725	2-Methylnaphthalene	91-57-6	N.D.	0.00068	1
10725	Naphthalene	91-20-3	N.D.	0.00068	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-11 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714404 LL Group # 1526087 Account # 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/10/2014 14:50 by RO Chevron

L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC Vo	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.0	25.08
Pesti	cides/PCBs	SW-846 808	2	mg/kg	mg/kg	
10736	PCB-1016		12674-11-2	N.D.	0.0037	1
10736	PCB-1221		11104-28-2	N.D.	0.0047	1
	PCB-1232		11141-16-5	N.D.	0.0082	1
	PCB-1242		53469-21-9	N.D.	0.0034	1
	PCB-1248		12672-29-6	N.D.	0.0034	1
	PCB-1254		11097-69-1	N.D.	0.0034	1
10736	PCB-1260		11096-82-5	N.D.	0.0050	1
GC Pe	troleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
Hydro	carbons	modified				
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.1	1
08272	Heavy Range Organic	s C24-C40	n.a.	15	10	1
GC Pe	troleum	ECY 97-602	WA EPH	mg/kg	mg/kg	
Hydro	carbons					
05970	>C10-C12 Aliphatic		n.a.	N.D.	1.0	1
05970	>C10-C12 Aromatic		n.a.	N.D.	1.0	1
05970	>C12-C16 Aliphatic		n.a.	N.D.	1.0	1
05970	>C12-C16 Aromatic		n.a.	N.D.	1.0	1
05970	>C16-C21 Aliphatic		n.a.	N.D.	3.1	1
05970	>C16-C21 Aromatic		n.a.	N.D.	2.1	1
05970	>C21-C34 Aliphatic		n.a.	N.D.	6.2	1
05970	>C21-C34 Aromatic		n.a.	N.D.	2.1	1
GC Pe	troleum	ECY 97-602	WA VPH	mg/kg	mg/kg	
Hydro	carbons					
05666	Benzene		71-43-2	N.D.	0.0495	47.73
05666	C5-C6 Aliphatic Hyd	rocarbons	n.a.	N.D.	2.48	47.73
	C6-C8 Aliphatic Hyd		n.a.	N.D.	2.48	47.73
05666	C8-C10 Aliphatic Hy	drocarbons	n.a.	N.D.	2.48	47.73
05666	C8-C10 Aromatic Hyd	rocarbons	n.a.	N.D.	2.48	47.73
05666	Ethylbenzene		100-41-4	N.D.	0.0495	47.73
05666	Methyl t-butyl ethe	r	1634-04-4	N.D.	0.0495	47.73
05666	Toluene		108-88-3	N.D.	0.0495	47.73
05666	o-Xylene		95-47-6	N.D.	0.0495	47.73
05666	m,p-Xylenes		179601-23-1	N.D.	0.0990	47.73
GC Pe	troleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
Hydro	carbons w/Si	modified				
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.1	1
12006	HRO C24-C40 w/Si Ge		n.a.	N.D.	10	1
	reverse surrogate, ca			1%.		
Metal	s	SW-846 601	.0В	mg/kg	mg/kg	



## Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-11 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714404 LL Group # 1526087

# 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/10/2014 14:50 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

UG511

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metal	S	SW-846 6010B	mg/kg	mg/kg	
06949	Cadmium	7440-43-9	0.153	0.0329	1
06951	Chromium	7440-47-3	24.0	0.110	1
06955	Lead	7439-92-1	4.14	0.499	1
06961	Nickel	7440-02-0	11.4	0.150	1
06972	Zinc	7440-66-6	52.7	0.259	1
Wet C	hemistry	SM 2540 G-1997	8	%	
00111	Moisture	n.a.	3.6	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	A143521AA	12/18/2014	17:46	Chelsea B Stong	1.01
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/10/2014	14:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/10/2014	14:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201435136443	12/10/2014	14:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201435136443	12/10/2014	14:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/10/2014	14:50	Client Supplied	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14354SLG026	12/26/2014	15:09	Linda M Hartenstine	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14354SLG026	12/22/2014	07:15	Joseph S Feister	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	18:32	Angela D Sneeringer	25.08
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/10/2014	14:50	Client Supplied	n.a.
06647	GC-5g Field Preserved MeOH	SW-846 5035A	2	201435136445	12/10/2014	14:50	Client Supplied	n.a.
10736	PCBs Soil 8082 Microwave	SW-846 8082	1	143510016A	12/18/2014	15:31	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	143510016A	12/17/2014	15:45	JoElla L Rice	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5-11 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714404

LL Group # 1526087 Account # 11255

Project Name: 372654

Collected: 12/10/2014 14:50 by RO

Chevron L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

Reported: 01/08/2015 14:23 San Ramon CA 94583

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	18:56	Christine E Dolman	1		
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	143540007A	12/23/2014	21:57	Heather E Williams	1		
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	143540007A	12/23/2014	22:37	Heather E Williams	1		
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14353A08A	12/19/2014	14:38	Nicholas R Rossi	47.73		
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	18:46	Lisa A Reinert	1		
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1		
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1		
11213	WA EPH Soils Extraction	ECY 97-602 WA EPH	1	143540007A	12/22/2014	08:20	Roman Kuropatkin	1		
00388	GC - Field Preserved (MA-VPH)	MA DEP VPH modified	1	201435136445	12/10/2014	14:50	Client Supplied	1		
00497	Silica Gel Fractionation	SW-846 3630C modified	1	143540007A	12/22/2014	14:45	Roman Kuropatkin	1		
06949	Cadmium	SW-846 6010B	1	143525708002	12/22/2014	14:44	Eric L Eby	1		
06951	Chromium	SW-846 6010B	1	143525708002	12/22/2014	14:44	Eric L Eby	1		
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:44	Eric L Eby	1		
06961	Nickel	SW-846 6010B	1	143525708002	12/22/2014	14:44	Eric L Eby	1		
06972	Zinc	SW-846 6010B	1	143525708002	12/22/2014	14:44	Eric L Eby	1		
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1		
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1		



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: ER-1-121114 Grab Water

Facility# 302095

3202 Main Street - Union Gap, WA

LL Sample # WW 7714405 LL Group # 1526087

Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 08:15 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

### UGER1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	3260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles ECY 97-6	02 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F143562AA	12/22/2014	13:06	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143562AA	12/22/2014	13:06	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14356A20A	12/23/2014	13:00	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14356A20A	12/23/2014	13:00	Miranda P	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: ER-2-121114 Grab Water

Facility# 302095

3202 Main Street - Union Gap, WA

LL Sample # WW 7714406

LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 08:30 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

UGER2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 82	260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles ECY 97-60	02 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F143571AA	12/23/2014	08:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143571AA	12/23/2014	08:21	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14356A20A	12/23/2014	13:27	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14356A20A	12/23/2014	13:27	Miranda P Tillinghast	1



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-9 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714407

LL Group # 1526087 Account # 11255

Project Name: 372654

Collected: 12/11/2014 10:24 by RO

Chevron L4310

Drv

Submitted: 12/16/2014 10:20 L4310 6001 Bollinger Canyon Road

Reported: 01/08/2015 14:23 San Ramon CA 94583

### UG409

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237			71-43-2	0.0008	0.0005	0.97
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.97
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.97
10237	Methyl Tertiary But	yl Ether		N.D.	0.0005	0.97
10237			108-88-3	N.D.	0.001	0.97
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.97
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	0.005	0.003	1
GC Vo	latiles	ECY 97-	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.1	26.55
	troleum carbons	ECY 97- modifie	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.1	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	10	1
	troleum carbons w/Si	ECY 97-	602 NWTPH-Dx	mg/kg	mg/kg	
-	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.1	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	10	1
The	reverse surrogate, ca	apric acid	, is present at <	1%.		
Metals	3	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	4.81	0.500	1
Wet Cl	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	3.8	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.		_	-	1 0	

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143521AA	12/18/2014 19:39	Chelsea B Stong	0.97



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-9 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714407 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 10:24 by RO

Chevron L4310

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	10:24	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	10:24	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	10:24	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	12:51	Joseph M Gambler	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014		JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	19:08	Angela D Sneeringer	26.55			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	10:24	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	18:14	Christine E Dolman	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	19:07	Lisa A Reinert	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:48	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1			



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714408 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 10:30 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.0005	0.92
10237	Bromodichloromethane	75-27-4	N.D.	0.001	0.92
10237	Bromoform	75-25-2	N.D.	0.001	0.92
10237	Bromomethane	74-83-9	N.D.	0.002	0.92
10237	Carbon Tetrachloride	56-23-5	N.D.	0.001	0.92
10237	Chlorobenzene	108-90-7	N.D.	0.001	0.92
10237	Chloroethane	75-00-3	N.D.	0.002	0.92
10237	Chloroform	67-66-3	N.D.	0.001	0.92
10237	Chloromethane	74-87-3	N.D.	0.002	0.92
10237	Dibromochloromethane	124-48-1	N.D.	0.001	0.92
10237	1,2-Dibromoethane	106-93-4	N.D.	0.001	0.92
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.92
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.92
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.92
10237	1,1-Dichloroethane	75-34-3	N.D.	0.001	0.92
10237	1,2-Dichloroethane	107-06-2	N.D.	0.001	0.92
10237	1,1-Dichloroethene	75-35-4	N.D.	0.001	0.92
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.001	0.92
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.001	0.92
10237	1,2-Dichloropropane	78-87-5	N.D.	0.001	0.92
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.001	0.92
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.001	0.92
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.92
10237	Freon 113	76-13-1	N.D.	0.002	0.92
10237	n-Hexane	110-54-3	N.D.	0.001	0.92
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.92
10237	Methylene Chloride	75-09-2	N.D.	0.002	0.92
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.001	0.92
10237	Tetrachloroethene	127-18-4	N.D.	0.001	0.92
10237	Toluene	108-88-3	N.D.	0.001	0.92
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.001	0.92
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.001	0.92
10237	Trichloroethene	79-01-6	N.D.	0.001	0.92
10237	Trichlorofluoromethane	75-69-4	N.D.	0.002	0.92
10237	Vinyl Chloride	75-01-4	N.D.	0.001	0.92
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.92
GC/MS	Semivolatiles SW-846	8270C SIM	mg/kg	mg/kg	
10725	Benzo(a) anthracene	56-55-3	N.D.	0.00073	1
10725	Benzo (a) pyrene	50-32-8	N.D.	0.00073	1
10725	Benzo(b) fluoranthene	205-99-2	N.D.	0.00073	1
10725	Benzo(k) fluoranthene	207-08-9	N.D.	0.00073	1
10725	Chrysene	218-01-9	N.D.	0.00073	1
10725	Dibenz (a, h) anthracene	53-70-3	N.D.	0.00037	1
10725	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00073	1
10725	1-Methylnaphthalene	90-12-0	0.0017	0.00073	1
10725	2-Methylnaphthalene	91-57-6	0.0017	0.00073	1
10725	Naphthalene	91-20-3	0.0025	0.00073	1
10,23	apcarciic	J1 20 J	0.0023	0.00073	-



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714408

LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 10:30 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC Vo	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	27	1.1	25.26
	cides/PCBs	SW-846 808	12	mg/kg	mg/kg	
10736	PCB-1016		12674-11-2	N.D.	0.0039	1
10736	PCB-1221		11104-28-2	N.D.	0.0050	1
	PCB-1232		11141-16-5	N.D.	0.0087	1
	PCB-1242		53469-21-9	N.D.	0.0036	1
	PCB-1248		12672-29-6	N.D.	0.0036	1
10736	PCB-1254		11097-69-1	N.D.	0.0036	1
10736	PCB-1260		11096-82-5	N.D.	0.0053	1
GC Pe	troleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
Hydro	carbons	modified				
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.3	1
	Heavy Range Organic		n.a.	N.D.	11	1
GC Pe	troleum	ECY 97-602	WA EPH	mg/kg	mg/kg	
Hydro	carbons					
05970	>C10-C12 Aliphatic		n.a.	N.D.	1.1	1
	>C10-C12 Aromatic		n.a.	N.D.	1.1	1
	>C12-C16 Aliphatic		n.a.	N.D.	1.1	1
	>C12-C16 Aromatic		n.a.	N.D.	1.1	1
	>C16-C21 Aliphatic		n.a.	N.D.	3.2	1
	>C16-C21 Aromatic		n.a.	N.D.	2.2	1
	>C21-C34 Aliphatic		n.a.	N.D.	6.5	1
05970	>C21-C34 Aromatic		n.a.	N.D.	2.2	1
GC Pe	troleum	ECY 97-602	WA VPH	mg/kg	mg/kg	
Hydro	carbons					
05666			71-43-2	N.D.	0.0562	51.1
05666	C5-C6 Aliphatic Hyd	rocarbons	n.a.	N.D.	2.81	51.1
	C6-C8 Aliphatic Hyd		n.a.	N.D.	2.81	51.1
	C8-C10 Aliphatic Hy		n.a.	N.D.	2.81	51.1
	C8-C10 Aromatic Hyd		n.a.	N.D.	2.81	51.1
	Ethylbenzene		100-41-4	N.D.	0.0562	51.1
	Methyl t-butyl ethe	r	1634-04-4	N.D.	0.0562	51.1
05666			108-88-3	N.D.	0.0562	51.1
05666	o-Xylene		95-47-6	N.D.	0.0562	51.1
05666	-		179601-23-1	N.D.	0.112	51.1
GC Pe	troleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
Hydro	carbons w/Si	modified				
12006		1	n.a.	N.D.	3.3	1
12006	HRO C24-C40 w/Si Ge		n.a.	N.D.	11	1
The	reverse surrogate, ca	apric acid, is	s present at <	1%.		
Metal	s	SW-846 601	.0в	mg/kg	mg/kg	



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714408 LL Group # 1526087

Account # 11255

Project Name: 372654

Collected: 12/11/2014 10:30 by RO

Chevron T<sub>1</sub>4310

Submitted: 12/16/2014 10:20

6001 Bollinger Canyon Road San Ramon CA 94583 Reported: 01/08/2015 14:23

UG412

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metal	s	SW-846 6010B	mg/kg	mg/kg	
06949	Cadmium	7440-43-9	0.102	0.0359	1
06951	Chromium	7440-47-3	18.5	0.120	1
06955	Lead	7439-92-1	5.57	0.545	1
06961	Nickel	7440-02-0	27.4	0.163	1
06972	Zinc	7440-66-6	44.7	0.283	1
Wet C	hemistry	SM 2540 G-1997	8	8	
00111	Moisture	n.a.	9.1	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	A143521AA	12/18/2014	20:02	Chelsea B Stong	0.92
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201435136443	12/11/2014	10:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201435136443	12/11/2014	10:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	10:30	Client Supplied	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14354SLG026	12/26/2014	15:43	Linda M Hartenstine	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14354SLG026	12/22/2014	07:15	Joseph S Feister	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	19:44	Angela D Sneeringer	25.26
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	10:30	Client Supplied	n.a.
06647	GC-5g Field Preserved MeOH	SW-846 5035A	2	201435136445	12/11/2014	10:30	Client Supplied	n.a.
10736	PCBs Soil 8082 Microwave	SW-846 8082	1	143510016A	12/18/2014	15:42	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	143510016A	12/17/2014	15:45	JoElla L Rice	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714408 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 10:30 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor	
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	17:32	Christine E Dolman	1	
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	143540007A	12/24/2014	03:17	Heather E Williams	1	
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	143540007A	12/24/2014	03:57	Heather E Williams	1	
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14353A08A	12/19/2014	15:19	Nicholas R Rossi	51.1	
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	19:28	Lisa A Reinert	1	
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1	
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1	
11213	WA EPH Soils Extraction	ECY 97-602 WA EPH	1	143540007A	12/22/2014	08:20	Roman Kuropatkin	1	
00388	GC - Field Preserved (MA-VPH)	MA DEP VPH modified	1	201435136445	12/11/2014	10:30	Client Supplied	1	
00497	Silica Gel Fractionation	SW-846 3630C modified	1	143540007A	12/22/2014	14:45	Roman Kuropatkin	1	
06949	Cadmium	SW-846 6010B	1	143525708002	12/22/2014	14:52	Eric L Eby	1	
06951	Chromium	SW-846 6010B	1	143525708002	12/22/2014	14:52	Eric L Eby	1	
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:52	Eric L Eby	1	
06961	Nickel	SW-846 6010B	1	143525708002	12/22/2014	14:52	Eric L Eby	1	
06972	Zinc	SW-846 6010B	1	143525708002	12/22/2014	14:52	Eric L Eby	1	
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1	
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1	



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-14 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714409 LL Group # 1526087

Account # 11255

Project Name: 372654

Collected: 12/11/2014 11:00 by RO

Chevron L4310

Drv

Submitted: 12/16/2014 10:20

6001 Bollinger Canyon Road San Ramon CA 94583 Reported: 01/08/2015 14:23

### UG414

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	0.001	0.0004	0.78
10237	1,2-Dibromoethane		106-93-4	N.D.	0.0008	0.78
10237	Ethylbenzene		100-41-4	N.D.	0.0008	0.78
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0004	0.78
10237	Toluene		108-88-3	0.0008	0.0008	0.78
10237	Xylene (Total)		1330-20-7	N.D.	0.0008	0.78
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-	-602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	12	0.9	20.21
	roleum carbons	ECY 97-	-602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C2	4 n.a.	N.D.	3.2	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1
	roleum carbons w/Si	ECY 97- modifie	-602 NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.2	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
The :	reverse surrogate, ca	apric acid	d, is present at <1	1%.		
Metals	3	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.66	0.523	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	7.1	0.50	1
	Moisture represents 103 - 105 degrees Cas-received basis.					

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 03.55	Stephanie A Selis	0.78



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-14 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714409 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 11:00 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

		Laborat	cory Sa	ample Analysi	s Record			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	11:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	11:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	11:00	Client Supplied	1
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	13:15	Joseph M Gambler	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	20:19	Angela D Sneeringer	20.21
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	11:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	18:35	Christine E Dolman	1
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	19:49	Lisa A Reinert	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	14:56	Eric L Eby	1
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714410

LL Group # 1526087 Account # 11255

Project Name: 372654

Collected: 12/11/2014 11:17 by RO

Chevron

L4310

Submitted: 12/16/2014 10:20 Reported: 01/08/2015 14:23

6001 Bollinger Canyon Road

San Ramon CA 94583

UG320

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	ЮB	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	0.9
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.9
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.9
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.9
10237		-	108-88-3	N.D.	0.001	0.9
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.9
GC/MS	Semivolatiles	SW-846 827	0C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	5.7	1.2	26.06
	troleum carbons	ECY 97-602 modified	NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.5	1
	Heavy Range Organic		n.a.	N.D.	12	1
	troleum carbons w/Si	ECY 97-602 modified	NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.5	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	12	1
The	reverse surrogate, ca	apric acid, is	present at <1	-8.		
Metals	5	SW-846 601	.0B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.35	0.570	1
Wet Cl	nemistry	SM 2540 G-	1997	8	%	
00111	Moisture		n.a.	14.8	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.			sample after oven drying at reported is on an		

#### General Sample Comments

State of Washington Lab Certification No. C457

Carcinogenic PAHs have been reported for this sample.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 04:26	Stephanie A Selis	0.9



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714410 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 11:17 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	11:17	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	11:17	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	11:17	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	13:40	Joseph M Gambler	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	13:37	Angela D Sneeringer	26.06			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	11:17	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	17:11	Christine E Dolman	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	20:10	Lisa A Reinert	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:00	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1			



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Group # 1526087 Account # 11255

LL Sample # SW 7714411

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 12:05 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	
10237	Benzene	71-43-2	N.D.	0.022	40.7
10237	Bromodichloromethane	75-27-4	N.D.	0.044	40.7
10237	Bromoform	75-25-2	N.D.	0.044	40.7
10237	Bromomethane	74-83-9	N.D.	0.088	40.7
10237	Carbon Tetrachloride	56-23-5	N.D.	0.044	40.7
10237	Chlorobenzene	108-90-7	N.D.	0.044	40.7
10237	Chloroethane	75-00-3	N.D.	0.088	40.7
10237	Chloroform	67-66-3	N.D.	0.044	40.7
10237	Chloromethane	74-87-3	N.D.	0.088	40.7
10237	Dibromochloromethane	124-48-1	N.D.	0.044	40.7
10237	1,2-Dibromoethane	106-93-4	N.D.	0.044	40.7
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.044	40.7
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.044	40.7
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.044	40.7
10237	1,1-Dichloroethane	75-34-3	N.D.	0.044	40.7
10237	1,2-Dichloroethane	107-06-2	N.D.	0.044	40.7
10237	1,1-Dichloroethene	75-35-4	N.D.	0.044	40.7
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.044	40.7
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.044	40.7
10237	1,2-Dichloropropane	78-87-5	N.D.	0.044	40.7
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.044	40.7
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.044	40.7
10237	Ethylbenzene	100-41-4	N.D.	0.044	40.7
10237	Freon 113	76-13-1	N.D.	0.088	40.7
10237	n-Hexane	110-54-3	N.D.	0.044	40.7
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.022	40.7
10237	Methylene Chloride	75-09-2	N.D.	0.088	40.7
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.044	40.7
10237	Tetrachloroethene	127-18-4	N.D.	0.044	40.7
10237	Toluene	108-88-3	N.D.	0.044	40.7
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.044	40.7
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.044	40.7
10237	Trichloroethene	79-01-6	N.D.	0.044	40.7
10237	Trichlorofluoromethane	75-69-4	N.D.	0.088	40.7
10237	Vinyl Chloride	75-01-4	N.D.	0.044	40.7
10237	Xylene (Total)	1330-20-7	N.D.	0.044	40.7
Repo	rting limits were raised due t	to interference from	om the sample mat	rix.	
GC/MS	Semivolatiles SW-846	8270C SIM	mg/kg	mg/kg	
10725	Benzo(a)anthracene	56-55-3	0.0017	0.00072	1
10725	Benzo(a)pyrene	50-32-8	N.D.	0.00072	1
10725	Benzo(b) fluoranthene	205-99-2	0.00088	0.00072	1
10725	Benzo(k)fluoranthene	207-08-9	N.D.	0.00072	1
10725	Chrysene	218-01-9	0.0018	0.00036	1
10725	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00072	1
10725	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00072	1
10725	1-Methylnaphthalene	90-12-0	0.024	0.00072	1
10725	2-Methylnaphthalene	91-57-6	0.0079	0.00072	1
10725	Naphthalene	91-20-3	N.D.	0.00072	1
	=				



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-12 Grab Soil

Facility# 372654

SW-846 6010B

3202 Main Street - Union Gap, WA

LL Sample # SW 7714411 LL Group # 1526087 Account # 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/11/2014 12:05 by RO Chevron

L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

### UG312

Metals

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC Vo	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	62	2.4	54.52
Pesti	cides/PCBs	SW-846 808	2	mg/kg	mg/kg	
10736	PCB-1016		12674-11-2	N.D.	0.0039	1
10736	PCB-1221		11104-28-2	N.D.	0.0049	1
10736	PCB-1232		11141-16-5	N.D.	0.0086	1
10736	PCB-1242		53469-21-9	N.D.	0.0035	1
10736	PCB-1248		12672-29-6	N.D.	0.0035	1
10736	PCB-1254		11097-69-1	N.D.	0.0035	1
10736	PCB-1260		11096-82-5	N.D.	0.0052	1
GC Pe	troleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
Hydro	carbons	modified				
08272	Diesel Range Organi	cs C12-C24	n.a.	9.8	3.2	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1
GC Pe	troleum	ECY 97-602	WA EPH	mg/kg	mg/kg	
	carbons				<u> </u>	
-	>C10-C12 Aliphatic		~ ~	N.D.	1.0	1
	>C10-C12 Ariphatic		n.a. n.a.	N.D.	1.0	1
	>C10-C12 Aromatic		n.a.	N.D. 2.7	1.0	1
	>C12-C16 Ariphatic		n.a.	1.3	1.0	1
	>C12-C16 Aliphatic		n.a.	N.D.	3.1	1
	>C16-C21 Ariphatic		n.a.	N.D.	2.1	1
	>C21-C34 Aliphatic		n.a.	N.D.	6.2	1
	>C21-C34 Aromatic		n.a.	N.D.	2.1	1
CC Do	troleum	ECY 97-602	WA VIDU	mg/kg	mg/kg	
		ECI 97-002	WA VFN	g/ 1.2g	g/ 1.2g	
-	carbons					
	Benzene		71-43-2	N.D.	0.0688	63.89
	C5-C6 Aliphatic Hyd		n.a.	N.D.	3.44	63.89
	C6-C8 Aliphatic Hyd		n.a.	6.31	3.44	63.89
	C8-C10 Aliphatic Hy		n.a.	20.0	3.44	63.89
	C8-C10 Aromatic Hyd	rocarbons	n.a.	7.98	3.44	63.89
	Ethylbenzene	20	100-41-4	N.D.	0.0688	63.89
	Methyl t-butyl ethe	ī	1634-04-4	N.D.	0.0688	63.89
	Toluene o-Xylene		108-88-3 95-47-6	N.D. N.D.	0.0688 0.0688	63.89 63.89
			179601-23-1	N.D.	0.0688	63.89
05666	m,p-Xylenes		1/9601-23-1	N.D.	0.138	63.89
GC Pe	troleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
Hydro	carbons w/Si	modified				
12006	DRO C12-C24 w/Si Ge	1	n.a.	9.2	3.2	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
The	reverse surrogate, ca	apric acid, is	present at <	1%.		
		arr 046 601	0.7	/1	/1	

mg/kg

mg/kg



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714411 LL Group # 1526087

Account # 11255

Project Name: 372654

Collected: 12/11/2014 12:05 by RO

Chevron L4310

Submitted: 12/16/2014 10:20 600

6001 Bollinger Canyon Road San Ramon CA 94583

Reported: 01/08/2015 14:23

#### UG312

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Metal	s	SW-846 6010B	mg/kg	mg/kg	
06949	Cadmium	7440-43-9	0.164	0.0349	1
06951	Chromium	7440-47-3	16.4	0.116	1
06955	Lead	7439-92-1	3.67	0.528	1
06961	Nickel	7440-02-0	23.4	0.158	1
06972	Zinc	7440-66-6	43.2	0.275	1
Wet C	hemistry	SM 2540 G-1997	%	%	
00111	Moisture	n.a.	7.2	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q143551AA	12/21/2014	13:28	Sarah A Guill	40.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201435136443	12/11/2014	12:05	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201435136443	12/11/2014	12:05	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	12:05	Client Supplied	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14354SLG026	12/26/2014	16:15	Linda M Hartenstine	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14354SLG026	12/22/2014	07:15	Joseph S Feister	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	21:30	Angela D Sneeringer	54.52
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	12:05	Client Supplied	n.a.
06647	GC-5g Field Preserved MeOH	SW-846 5035A	2	201435136445	12/11/2014	12:05	Client Supplied	n.a.
10736	PCBs Soil 8082 Microwave	SW-846 8082	1	143510016A	12/18/2014	15:54	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	143510016A	12/17/2014	15:45	JoElla L Rice	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Group # 1526087 Account # 11255

LL Sample # SW 7714411

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/11/2014 12:05 by RO

Chevron L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510027A	12/18/2014	17:53	Christine E Dolman	1		
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	143540007A	12/24/2014	04:37	Heather E Williams	1		
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	143540007A	12/24/2014	05:17	Heather E Williams	1		
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14353A08A	12/19/2014	15:59	Nicholas R Rossi	63.89		
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510028A	12/29/2014	20:31	Lisa A Reinert	1		
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510028A	12/18/2014	02:30	Sherry L Morrow	1		
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510027A	12/18/2014	02:30	Sherry L Morrow	1		
11213	WA EPH Soils Extraction	ECY 97-602 WA EPH	1	143540007A	12/22/2014	08:20	Roman Kuropatkin	1		
00388	GC - Field Preserved (MA-VPH)	MA DEP VPH modified	1	201435136445	12/11/2014	12:05	Client Supplied	1		
00497	Silica Gel Fractionation	SW-846 3630C modified	1	143540007A	12/22/2014	14:45	Roman Kuropatkin	1		
06949	Cadmium	SW-846 6010B	1	143525708002	12/22/2014	15:04	Eric L Eby	1		
06951	Chromium	SW-846 6010B	1	143525708002	12/22/2014	15:04	Eric L Eby	1		
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:04	Eric L Eby	1		
06961	Nickel	SW-846 6010B	1	143525708002	12/22/2014	15:04	Eric L Eby	1		
06972	Zinc	SW-846 6010B	1	143525708002	12/22/2014	15:04	Eric L Eby	1		
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1		
00111	Moisture	SM 2540 G-1997	1	14357820001A	12/23/2014	12:19	William C Schwebel	1		



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: DUP-121114 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714412 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 12:13 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

UGFD1

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg		mg/kg	
10237	Benzene		71-43-2	N.D.		0.023	42.59
10237	1,2-Dibromoethane		106-93-4	N.D.		0.046	42.59
10237	Ethylbenzene		100-41-4	N.D.		0.046	42.59
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		0.023	42.59
10237	Toluene		108-88-3	N.D.		0.046	42.59
10237	Xylene (Total)		1330-20-7	N.D.		0.046	42.59
Repo	rting limits were ra	ised due t	o interference fro	om the sample	matrix.		
GC/MS	Semivolatiles	SW-846	8270C	mg/kg		mg/kg	
10724	Naphthalene		91-20-3	N.D.		0.004	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	mg/kg		mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	76 E		2.2	51.32
hold	d not be repeated at time.  croleum carbons	5	602 NWTPH-Dx	mg/kg		mg/kg	
-	Diesel Range Organi			N.D.		3.2	1
	Heavy Range Organic			N.D.		11	1
00272	heavy kange Organic	5 C24-C40	II.a.	N.D.		11	1
GC Pet	roleum	ECY 97-	602 NWTPH-Dx	mg/kg		mg/kg	
Hydrod	carbons w/Si	modifie	ed				
12006	DRO C12-C24 w/Si Ge	1	n.a.	5.2		3.2	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.		11	1
	reverse surrogate, ca		l, is present at <1	-8.			
Metals	3	SW-846	6010B	mg/kg		mg/kg	
06955		J 0 - 0	7439-92-1	2.86		0.524	1
				0		0	
	nemistry	SM 2540	G-1997	%		%	
00111	Moisture		n.a.	7.4		0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.						

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: DUP-121114 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Group # 1526087 Account # 11255

LL Sample # SW 7714412

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 12:13 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

UGFD1

		Laborat	ory Sa	ample Analysi	is Record			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
10237	BTEX, MTBE, EDB	SW-846 8260B	1	Q143551AA	12/21/2014	16:34	Sarah A Guill	42.59
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	12:13	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	12:13	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	12:13	Client Supplied	1
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	18:27	Holly Berry	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	22:06	Angela D Sneeringer	51.32
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	12:13	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	20:41	Lisa A Reinert	1
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	13:42	Christine E Dolman	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:15	Eric L Eby	1
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-15 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714413 LL Group # 1526087

Account # 11255

Project Name: 372654

Collected: 12/11/2014 12:40 by RO

Chevron L4310

L431 Submitted: 12/16/2014 10:20 6001

6001 Bollinger Canyon Road San Ramon CA 94583

Reported: 01/08/2015 14:23

#### UG315

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0006	1.04
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	1.04
10237	Ethylbenzene		100-41-4	N.D.	0.001	1.04
	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0006	1.04
10237	Toluene		108-88-3	0.001	0.001	1.04
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1.04
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vo	latiles	ECY 97	-602 NWTPH-Gx	mg/kg	mg/kg	
	NWTPH-GX Soil C7-C1 rting limits were ra	_	n.a. to sample foaming.	N.D.	11	268.16
GC Pet	troleum	ECY 97	-602 NWTPH-Dx	mg/kg	mg/kg	
Hydro	carbons	modifie	ed			
08272	Diesel Range Organi	cs C12-C2	4 n.a.	N.D.	3.2	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1
	troleum carbons w/Si	ECY 97	-602 NWTPH-Dx	mg/kg	mg/kg	
	DRO C12-C24 w/Si Ge		n.a.	N.D.	3.2	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
The	reverse surrogate, ca	apric acio	d, is present at <	1%.		
Metals	5	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.12	0.524	1
Wet Cl	nemistry	SM 254	0 G-1997	%	%	
00111	Moisture		n.a.	6.5	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.					

#### General Sample Comments

State of Washington Lab Certification No.  ${\rm C457}$  Carcinogenic PAHs have been reported for this sample.

All QC is compliant unless otherwise noted. Please refer to the Quality

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Sample Analysis Record

CAT Analysis Name Method Trial# Batch# Analysis Analyst Dilution No. Date and Time Factor



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-15 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714413 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 12:40 by RO

Chevron L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
10237	BTEX, MTBE, EDB	SW-846 8260B	1	A143531AA	12/19/2014	04:48	Stephanie A Selis	1.04			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	12:40	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	12:40	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	12:40	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	18:52	Holly Berry	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	14:13	Angela D Sneeringer	268.16			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	12:40	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	21:23	Lisa A Reinert	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	09:51	Christine E Dolman	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:19	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1			



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-10 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714414

LL Group # 1526087 Account # 11255

Project Name: 372654

Collected: 12/11/2014 12:50 by RO

Chevron L4310

Drv

Submitted: 12/16/2014 10:20 L4310 6001 Bollinger Canyon Road

Reported: 01/08/2015 14:23 San Ramon CA 94583

#### UG310

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	50B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	1
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	1
10237	Ethylbenzene		100-41-4	N.D.	0.001	1
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	1
10237	Toluene		108-88-3	N.D.	0.001	1
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1
GC/MS	Semivolatiles	SW-846 82	70C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.003	1
GC Vo	latiles	ECY 97-602	2 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.1	25.21
	troleum carbons	ECY 97-602 modified	2 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.1	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	10	1
	troleum	ECY 97-602 modified	2 NWTPH-Dx	mg/kg	mg/kg	
-	carbons w/Si			N D	2 1	1
	DRO C12-C24 w/Si Ge HRO C24-C40 w/Si Ge		n.a.	N.D. N.D.	3.1 10	1 1
	reverse surrogate, ca		n.a. s present at <1		10	ı
Metals	3	SW-846 603	10в	mg/kg	mg/kg	
06955	Lead		7439-92-1	5.74	0.508	1
Wet Cl	nemistry	SM 2540 G	-1997	%	%	
	Moisture		n.a.	4.5	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.				drying at	

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 05:11	Stephanie A Selis	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-10 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714414 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 12:50 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	12:50	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	12:50	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	12:50	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	19:17	Holly Berry	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014		Angela D Sneeringer	25.21			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	12:50	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	21:44	Lisa A Reinert	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	10:12	Christine E Dolman	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:23	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014		Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1			



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714415

LL Group # 1526087 Account # 11255

Project Name: 372654

Collected: 12/11/2014 13:20 by RO

Chevron L4310

Submitted: 12/16/2014 10:20 L4310 6001 Bollinger Canyon Road

Reported: 01/08/2015 14:23 San Ramon CA 94583

UG220

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8	260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	0.82
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.82
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.82
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.82
10237	Toluene		108-88-3	N.D.	0.001	0.82
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.82
GC/MS	Semivolatiles	SW-846 8	270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.3	26.26
	croleum carbons	ECY 97-6 modified	02 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.6	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	12	1
	croleum carbons w/Si	ECY 97-6 modified	02 NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.6	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	12	1
The :	reverse surrogate, ca	apric acid,	is present at <	1%.		
Metals	3	SW-846 6	010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.82	0.588	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	16.6	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.					

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 05:33	Stephanie A Selis	0.82



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714415 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 13:20 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	13:20	Client Supplied	1			
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	13:20	Client Supplied	1			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	13:20	Client Supplied	1			
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	19:42	Holly Berry	1			
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1			
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14353A31A	12/19/2014	23:53	Angela D Sneeringer	26.26			
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	13:20	Client Supplied	n.a.			
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	22:05	Lisa A Reinert	1			
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	10:33	Christine E Dolman	1			
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1			
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1			
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:27	Eric L Eby	1			
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1			
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1			



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-9 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714416

LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 13:37 by RO

Chevron L4310

6001 Bollinger Canyon Road

Drv

San Ramon CA 94583

UG209

CAT No.	Analysis Name			CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	826	0В	mg/kg	mg/kg	
10237	Benzene			71-43-2	N.D.	0.0005	1
10237	1,2-Dibromoethane			106-93-4	N.D.	0.001	1
10237	Ethylbenzene			100-41-4	N.D.	0.001	1
10237	Methyl Tertiary But	yl Ether		1634-04-4	N.D.	0.0005	1
10237	Toluene			108-88-3	N.D.	0.001	1
10237	Xylene (Total)			1330-20-7	N.D.	0.001	1
GC/MS	Semivolatiles	SW-846	827	0C	mg/kg	mg/kg	
10724	Naphthalene			91-20-3	N.D.	0.003	1
GC Vol	latiles	ECY 97	-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2		n.a.	N.D.	1.1	27.34
	croleum carbons	ECY 97		NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C2	24	n.a.	N.D.	3.1	1
08272	Heavy Range Organic	s C24-C40	)	n.a.	N.D.	10	1
				NWTPH-Dx	mg/kg	mg/kg	
-	carbons w/Si	modifi					
	DRO C12-C24 w/Si Ge			n.a.	N.D.	3.1	1
	HRO C24-C40 w/Si Ge reverse surrogate, ca			<pre>n.a. present at &lt;1</pre>	N.D. %.	10	1
Metals	3	SW-846	601	0B	mg/kg	mg/kg	
06955	Lead			7439-92-1	2.91	0.510	1
Wet Ch	nemistry	SM 254	0 G-	1997	%	%	
	Moisture			n.a.	4.8	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.						

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 05:56	Stephanie A Selis	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-9 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714416 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 13:37 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record											
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	13:37	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	13:37	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201435136443	12/11/2014	13:37	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201435136443	12/11/2014	13:37	Client Supplied	1				
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	13:37	Client Supplied	1				
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	20:07	Holly Berry	1				
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1				
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	14:49	Angela D Sneeringer	27.34				
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	13:37	Client Supplied	n.a.				
06647	GC-5g Field Preserved MeOH	SW-846 5035A	2	201435136445	12/11/2014	13:37	Client Supplied	n.a.				
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	22:26	Lisa A Reinert	1				
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	11:36	Christine E Dolman	1				
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1				
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1				
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:31	Eric L Eby	1				
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1				
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1				



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714417 LL Group # 1526087

Account # 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/11/2014 14:13 by RO

Chevron L4310

Submitted: 12/16/2014 10:20

6001 Bollinger Canyon Road

Drv

San Ramon CA 94583

#### UG212

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	0.85
10237	1,2-Dibromoethane		106-93-4	N.D.	0.0009	0.85
10237	Ethylbenzene		100-41-4	N.D.	0.0009	0.85
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.85
10237			108-88-3	N.D.	0.0009	0.85
10237	Xylene (Total)		1330-20-7	N.D.	0.0009	0.85
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1	22.35
	croleum carbons	ECY 97-	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.3	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1
	croleum carbons w/Si	ECY 97-	602 NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.3	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
The :	reverse surrogate, ca	apric acid,	, is present at <1	- % .		
Metals	3	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	1.73	0.532	1
Wet Ch	nemistry	SM 2540	G-1997	%	8	
00111	Moisture		n.a.	9.6	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.					

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 06:18	Stephanie A Selis	0.85



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-12 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714417 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 14:13 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record											
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	14:13	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	14:13	Client Supplied	1				
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	14:13	Client Supplied	1				
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	20:32	Holly Berry	1				
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014		JoElla L Rice	1				
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	15:25	Angela D Sneeringer	22.35				
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	14:13	Client Supplied	n.a.				
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	22:47	Lisa A Reinert	1				
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	11:57	Christine E Dolman	1				
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1				
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1				
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:35	Eric L Eby	1				
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014	21:58	Annamaria Kuhns	1				
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1				



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714418

LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 15:50 by RO

Chevron

L4310

6001 Bollinger Canyon Road

Drv

San Ramon CA 94583

UG120

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0005	0.96
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.96
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.96
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.96
10237	Toluene		108-88-3	N.D.	0.001	0.96
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.96
GC/MS	Semivolatiles	SW-846	8270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.1	24.94
	roleum carbons	ECY 97- modifie	602 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.2	1
	Heavy Range Organic			N.D.	11	1
	croleum carbons w/Si	ECY 97- modifie	602 NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.2	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
The :	reverse surrogate, ca	apric acid	l, is present at <1	18.		
Metals	5	SW-846	6010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.13	0.532	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	7.9	0.50	1
	Moisture represents 103 - 105 degrees Cas-received basis.					

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 06:41	Stephanie A Selis	0.96



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714418 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 15:50 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

		Laborat	tory Sa	ample Analys:	is Record			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	15:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	15:50	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	15:50	Client Supplied	1
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	20:56	Holly Berry	1
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	16:01	Angela D Sneeringer	24.94
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	15:50	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	23:08	Lisa A Reinert	1
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	12:18	Christine E Dolman	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1
06955	Lead	SW-846 6010B	1	143525708002	12/22/2014	15:39	Eric L Eby	1
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143525708002	12/21/2014		Annamaria Kuhns	1
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-12.5 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714419

LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 16:00 by RO Chevron

L4310

6001 Bollinger Canyon Road

Drv

San Ramon CA 94583

#### UG112

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 83	260B	mg/kg	mg/kg	
10237	Benzene		71-43-2	0.0007	0.0005	0.98
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	0.98
10237	Ethylbenzene		100-41-4	N.D.	0.001	0.98
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0005	0.98
10237			108-88-3	N.D.	0.001	0.98
10237	Xylene (Total)		1330-20-7	N.D.	0.001	0.98
GC/MS	Semivolatiles	SW-846 83	270C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-6	02 NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.1	25.85
	troleum carbons	ECY 97-60 modified	02 NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C24	n.a.	N.D.	3.2	1
08272	Heavy Range Organic	s C24-C40	n.a.	N.D.	11	1
	troleum carbons w/Si	ECY 97-60 modified	02 NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.2	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
	reverse surrogate, c		is present at <	1%.		
Metals	5	SW-846 6	010B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.56	0.537	1
Wet Cl	nemistry	SM 2540	G-1997	%	%	
	Moisture		n.a.	6.9	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.					

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 07:04	Stephanie A Selis	0.98



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-12.5 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714419 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 16:00 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

Laboratory Sample Analysis Record												
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	16:00	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	16:00	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	3	201435136443	12/11/2014	16:00	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	4	201435136443	12/11/2014	16:00	Client Supplied	1				
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	16:00	Client Supplied	1				
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	21:21	Holly Berry	1				
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1				
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	16:37	Angela D Sneeringer	25.85				
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	16:00	Client Supplied	n.a.				
06647	GC-5g Field Preserved MeOH	SW-846 5035A	2	201435136445	12/11/2014	16:00	Client Supplied	n.a.				
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/18/2014	23:50	Lisa A Reinert	1				
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	12:39	Christine E Dolman	1				
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1				
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1				
06955	Lead	SW-846 6010B	1	143585708004	12/29/2014	06:52	Joanne M Gates	1				
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143585708004	12/28/2014	08:49	James L Mertz	1				
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1				



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-14 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714420

LL Group # 1526087 Account # 11255

Project Name: 372654

Collected: 12/11/2014 16:10 by RO

Chevron L4310

Submitted: 12/16/2014 10:20 L4310 6001 Bollinger Canyon Road

Reported: 01/08/2015 14:23 San Ramon CA 94583

#### UG114

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0B	mg/kg	mg/kg	
10237	Benzene		71-43-2	0.0008	0.0006	1.07
10237	1,2-Dibromoethane		106-93-4	N.D.	0.001	1.07
10237	Ethylbenzene		100-41-4	N.D.	0.001	1.07
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0006	1.07
10237	Toluene		108-88-3	N.D.	0.001	1.07
10237	Xylene (Total)		1330-20-7	N.D.	0.001	1.07
GC/MS	Semivolatiles	SW-846 827	0C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vol	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1.1	26.49
GC Pet	croleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
Hydrod	carbons	modified				
08272	Diesel Range Organi	cs C12-C24	n.a.	23	3.2	1
	Heavy Range Organic		n.a.	57	11	1
	croleum carbons w/Si	ECY 97-602 modified	NWTPH-Dx	mg/kg	mg/kg	
12006	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	3.2	1
12006	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	11	1
The :	reverse surrogate, ca	apric acid, is	present at <1	%.		
Metals	3	SW-846 601	0В	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.73	0.520	1
Wet Cl	nemistry	SM 2540 G-	1997	%	%	
00111	Moisture		n.a.	6.6	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.			sample after oven drying at reported is on an		

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 07:26	Stephanie A Selis	1.07



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-14 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714420 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 16:10 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record											
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	16:10	Client Supplied	1				
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	16:10	Client Supplied	1				
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	16:10	Client Supplied	1				
10724	PAH's 8270C Soil	SW-846 8270C	1	14357SLB026	12/24/2014	11:34	Linda M Hartenstine	1				
10814	BNA Soil Microwave PAH	SW-846 3546	2	14357SLB026	12/23/2014	14:30	Kelli M Barto	1				
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	17:49	Angela D Sneeringer	26.49				
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	16:10	Client Supplied	n.a.				
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/19/2014	09:04	Lisa A Reinert	1				
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	13:00	Christine E Dolman	1				
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1				
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1				
06955	Lead	SW-846 6010B	1	143585708004	12/29/2014	06:56	Joanne M Gates	1				
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143585708004	12/28/2014	08:49	James L Mertz	1				
00111	Moisture	SM 2540 G-1997	2	14358820002A	12/24/2014	09:37	William C Schwebel	1				



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-11 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714421 LL Group # 1526087

Account # 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/11/2014 16:15 by RO

Chevron L4310

Submitted: 12/16/2014 10:20

6001 Bollinger Canyon Road

Drv

San Ramon CA 94583

UG111

CAT No.	Analysis Name			CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	826	0В	mg/kg	mg/kg	
10237	Benzene			71-43-2	0.0007	0.0005	1.02
10237	1,2-Dibromoethane			106-93-4	N.D.	0.001	1.02
10237	Ethylbenzene			100-41-4	N.D.	0.001	1.02
10237	Methyl Tertiary But	yl Ether		1634-04-4	N.D.	0.0005	1.02
10237				108-88-3	N.D.	0.001	1.02
10237	Xylene (Total)			1330-20-7	N.D.	0.001	1.02
GC/MS	Semivolatiles	SW-846	827	0C	mg/kg	mg/kg	
10724	Naphthalene			91-20-3	N.D.	0.003	1
GC Vol	latiles	ECY 97	-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2		n.a.	N.D.	1.4	32.03
	roleum carbons	ECY 97		NWTPH-Dx	mg/kg	mg/kg	
08272	Diesel Range Organi	cs C12-C	24	n.a.	N.D.	3.1	1
08272	Heavy Range Organic	s C24-C4	)	n.a.	N.D.	10	1
	croleum carbons w/Si	ECY 97		NWTPH-Dx	mg/kg	mg/kg	
-	DRO C12-C24 w/Si Ge			n.a.	N.D.	3.1	1
	HRO C24-C40 w/Si Ge			n.a.	N.D.	10	1 1
	reverse surrogate, ca					10	1
Metals	3	SW-846	601	0В	mg/kg	mg/kg	
06955	Lead			7439-92-1	2.41	0.513	1
Wet Ch	nemistry	SM 254	0 G-	1997	%	%	
00111	Moisture			n.a.	5.3	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.						

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT	Analysis Name	Method	Trial#	Batch#	Analysis	Analyst	Dilution
No.					Date and Time		Factor
10237	BTEX. MTBE. EDB	SW-846 8260B	1	A143531AA	12/19/2014 07:49	Stephanie A Selis	1.02



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-11 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714421 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Collected: 12/11/2014 16:15 by RO

Chevron L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

Reported: 01/08/2015 14:23

	Laboratory Sample Analysis Record												
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor					
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	16:15	Client Supplied	1					
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	16:15	Client Supplied	1					
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	16:15	Client Supplied	1					
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	22:11	Holly Berry	1					
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1					
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	18:25	Angela D Sneeringer	32.03					
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	16:15	Client Supplied	n.a.					
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143510031A	12/19/2014	00:11	Lisa A Reinert	1					
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143510032A	12/24/2014	13:21	Christine E Dolman	1					
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143510032A	12/18/2014	11:10	Denise L Trimby	1					
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143510031A	12/18/2014	11:10	Denise L Trimby	1					
06955	Lead	SW-846 6010B	1	143585708004	12/29/2014	07:00	Joanne M Gates	1					
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143585708004	12/28/2014	08:49	James L Mertz	1					
00111	Moisture	SM 2540 G-1997	1	14357820001B	12/23/2014	12:19	William C Schwebel	1					



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714422 LL Group # 1526087

Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 10:00 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

UG420

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0B	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0004	0.78
10237	1,2-Dibromoethane		106-93-4	N.D.	0.0009	0.78
10237	Ethylbenzene		100-41-4	N.D.	0.0009	0.78
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.0004	0.78
	Toluene		108-88-3	N.D.	0.0009	0.78
10237	Xylene (Total)		1330-20-7	N.D.	0.0009	0.78
GC/MS	Semivolatiles	SW-846 827	'0C	mg/kg	mg/kg	
10724	Naphthalene		91-20-3	N.D.	0.004	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	mg/kg	mg/kg	
02005	NWTPH-GX Soil C7-C1	2	n.a.	N.D.	1	22.05
	croleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
-	carbons	modified				
	Diesel Range Organi		n.a.	N.D.	3.3	1 1
08272	Heavy Range Organic	S C24-C40	n.a.	N.D.	11	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	mg/kg	mg/kg	
_	carbons w/Si	${\tt modified}$				
	DRO C12-C24 w/Si Ge		n.a.	N.D.	3.3	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	11	1
The QC a corr The time	reverse surrogate, corecovery for the meticoceptance limits as rective action was talesample was re-extraction and the QC is completed trial. Similar restrictions	hod blank surn noted on the ( ken: ted outside thi iant. All res	rogate(s) is oun of the control of t	ntside the ne following red holding red from the		
Metals	3	SW-846 601	.0B	mg/kg	mg/kg	
06955	Lead		7439-92-1	2.23	0.537	1
Wet Cl	nemistry	SM 2540 G-	1997	%	%	
00111	Moisture		n.a.	11.4	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.			sample after oven drying at reported is on an		

#### General Sample Comments

State of Washington Lab Certification No.  ${\rm C457}$  Carcinogenic PAHs have been reported for this sample.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-20 Grab Soil

Facility# 372654

3202 Main Street - Union Gap, WA

LL Sample # SW 7714422 LL Group # 1526087 Account # 11255

Project Name: 372654

Submitted: 12/16/2014 10:20

Reported: 01/08/2015 14:23

Collected: 12/11/2014 10:00 by RO Chevron

L4310

6001 Bollinger Canyon Road

San Ramon CA 94583

	Laboratory Sample Analysis Record												
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor					
10237	BTEX, MTBE, EDB	SW-846 8260B	1	A143531AA	12/19/2014	08:11	Stephanie A Selis	0.78					
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201435136443	12/11/2014	10:00	Client Supplied	1					
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201435136443	12/11/2014	10:00	Client Supplied	1					
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201435136445	12/11/2014	10:00	Client Supplied	1					
10724	PAH's 8270C Soil	SW-846 8270C	1	14352SLE026	12/22/2014	22:35	Holly Berry	1					
10814	BNA Soil Microwave PAH	SW-846 3546	1	14352SLE026	12/20/2014	16:20	JoElla L Rice	1					
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14358A34A	12/24/2014	19:01	Angela D Sneeringer	22.05					
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201435136445	12/11/2014	10:00	Client Supplied	n.a.					
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	143520019A	12/19/2014	12:49	Lisa A Reinert	1					
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143520020A	12/30/2014	09:59	Christine E Dolman	1					
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143520020A	12/18/2014	19:00	Sally L Appleyard	1					
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143520019A	12/18/2014	19:00	Sally L Appleyard	1					
06955	Lead	SW-846 6010B	1	143585708004	12/29/2014	07:11	Joanne M Gates	1					
05708	ICP-ICPMS - SW, 3050B - U3	SW-846 3050B	1	143585708004	12/28/2014	08:49	James L Mertz	1					
00111	Moisture	SM 2540 G-1997	1	14357820002A	12/23/2014	10:54	William C Schwebel	1					



## Analysis Report

Account

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: TB-1-121514 NA Water

Facility# 302095

3202 Main Street - Union Gap, WA

LL Sample # WW 7714423 LL Group # 1526087

# 11255

Project Name: 372654

Reported: 01/08/2015 14:23

Collected: 12/15/2014 14:00

Chevron L4310

Submitted: 12/16/2014 10:20 6001 Bollinger Canyon Road

San Ramon CA 94583

#### UGTB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 83	260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	Latiles ECY 97-6	02 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143552AA	12/21/2014	17:59	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143552AA	12/21/2014	17:59	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14356A20A	12/23/2014	04:21	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14356A20A	12/23/2014	04:21	Miranda P Tillinghast	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM

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.

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD <b>Max</b>
Analysis Name	<u>Result</u>	MDL	UIIICS	SKEC	**REC	DIMICS	KFD	Max
Batch number: A143521AA		mber(s): 77						
Benzene	N.D.	0.0005	mg/kg	100	100	80-120	1	30
Bromodichloromethane	N.D.	0.001	mg/kg	97	95	75-120	3	30
Bromoform	N.D.	0.001	mg/kg	89	83	70-126	6	30
Bromomethane	N.D.	0.002	mg/kg	94	94	32-162	0	30
Carbon Tetrachloride	N.D.	0.001	mg/kg	112	110	69-130	2	30
Chlorobenzene	N.D.	0.001	mg/kg	102	101	80-120	1	30
Chloroethane	N.D.	0.002	mg/kg	90	91	17-171	1	30
Chloroform	N.D.	0.001	mg/kg	106	103	80-125	3	30
Chloromethane	N.D.	0.002	mg/kg	93	94	56-120	1	30
Dibromochloromethane	N.D.	0.001	mg/kg	97	96	77-120	2	30
1,2-Dibromoethane	N.D.	0.001	mg/kg	98	95	80-120	3	30
1,2-Dichlorobenzene	N.D.	0.001	mg/kg	96	97	80-120	1	30
1,3-Dichlorobenzene	N.D.	0.001	mg/kg	99	100	80-120	1	30
1,4-Dichlorobenzene	N.D.	0.001	mg/kg	100	101	80-120	1	30
1,1-Dichloroethane	N.D.	0.001	mg/kg	97	97	80-122	1	3.0
1,2-Dichloroethane	N.D.	0.001	mg/kg	108	105	77-130	3	30
1,1-Dichloroethene	N.D.	0.001	mg/kg	106	104	73-129	1	30
cis-1,2-Dichloroethene	N.D.	0.001	mg/kg	104	103	80-120	1	30
trans-1,2-Dichloroethene	N.D.	0.001	mg/kg	107	106	80-129	2	30
1,2-Dichloropropane	N.D.	0.001	mg/kg	95	95	80-120	0	30
cis-1,3-Dichloropropene	N.D.	0.001	mg/kg	91	92	74-120	0	30
trans-1,3-Dichloropropene	N.D.	0.001	mg/kg	95	95	76-120	0	30
Ethylbenzene	N.D.	0.001	mg/kg	103	102	80-120	2	30
Freon 113	N.D.	0.002	mg/kg	109	104	64-137	5	30
n-Hexane	N.D.	0.001	mg/kg	100	99	42-134	1	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	95	94	76-122	1	30
Methylene Chloride	N.D.	0.002	mg/kg	101	101	80-124	0	30
1,1,2,2-Tetrachloroethane	N.D.	0.002	mg/kg	87	86	71-123	1	30
Tetrachloroethene	N.D.	0.001	mg/kg	101	99	78-120	2	30
Toluene	N.D.	0.001	mg/kg	100	100	80-120	0	30
1,1,1-Trichloroethane	N.D.	0.001	mg/kg	95	95	63-135	1	30
1,1,2-Trichloroethane	N.D.	0.001	mg/kg	96	93	80-120	3	30
Trichloroethene	N.D.	0.001	mg/kg	105	104	80-125	1	30
Trichlorofluoromethane	N.D.	0.001	mg/kg	116	110	58-133	6	30
Vinyl Chloride	N.D.	0.002	mg/kg	102	101	59-120	1	30
							1	
Xylene (Total)	N.D.	0.001	mg/kg	103	102	80-120	Τ	30
Batch number: A143531AA	Sample num	mber(s): 77	14409-7714	410,7714	413-771442	2		
Benzene	N.D.	0.0005	mg/kg	88	85	80-120	3	30
1,2-Dibromoethane	N.D.	0.001	mg/kg	87	84	80-120	3	30
Ethylbenzene	N.D.	0.001	mg/kg	93	88	80-120	6	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	mg/kg	81	81	76-122	0	30
Toluene	N.D.	0.001	mg/kg	90	86	80-120	4	30

- (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.





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## Quality Control Summary

Client Name: Chevron Group Number: 1526087 Reported: 01/08/15 at 02:23 PM

Reported: 01/08/15 at 02:	23 PM							
	Blank	Blank	Report	LCS	LCSD	LCS/LCSD		RPD
Analysis Name	Result	MDL	<u>Units</u>	%REC	%REC	<u>Limits</u>	RPD	<u>Max</u>
Xylene (Total)	N.D.	0.001	mg/kg	92	88	80-120	4	30
<u>.</u>			5, 5					
Batch number: D143552AA	Sample num	ber(s): 77	14423					
Benzene	N.D.	0.5	uq/l	102	97	78-120	5	30
Ethylbenzene	N.D.	0.5	ug/1	100	97	79-120	3	30
	N.D.	0.5	ug/1	103	96	75-120	7	30
Methyl Tertiary Butyl Ether								
Toluene	N.D.	0.5	ug/1	101	97	80-120	4	30
Xylene (Total)	N.D.	0.5	ug/l	105	102	80-120	3	30
	_ 1							
Batch number: F143562AA		ber(s): 77						
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	93		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	99		80-120		
Xylene (Total)	N.D.	0.5	ug/l	91		80-120		
Batch number: F143571AA	Sample num	ber(s): 77	14406					
Benzene	N.D.	0.5	uq/l	101		78-120		
Ethylbenzene	N.D.	0.5	ug/l	98		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/1	97		75-120		
Toluene	N.D.	0.5	ug/l	104		80-120		
Xylene (Total)	N.D.	0.5	ug/1	97		80-120		
Aylene (10cal)	и.Б.	0.5	ug/ I	51		00 120		
Batch number: Q143551AA	Cample num	ber(s): 77	1//11 771/	1112				
Benzene	N.D.			99	88	00 100	12	30
		0.025	mg/kg			80-120		
Bromodichloromethane	N.D.	0.050	mg/kg	98	86	75-120	12	30
Bromoform	N.D.	0.050	mg/kg	92	82	70-126	10	30
Bromomethane	N.D.	0.10	mg/kg	112	102	32-162	9	30
Carbon Tetrachloride	N.D.	0.050	mg/kg	102	91	69-130	11	30
Chlorobenzene	N.D.	0.050	mg/kg	99	90	80-120	9	30
Chloroethane	N.D.	0.10	mg/kg	88	78	17-171	12	30
Chloroform	N.D.	0.050	mg/kg	105	94	80-125	11	30
Chloromethane	N.D.	0.10	mg/kg	86	74	56-120	15	30
Dibromochloromethane	N.D.	0.050	mg/kg	96	85	77-120	12	30
1,2-Dibromoethane	N.D.	0.050	mg/kg	100	89	80-120	11	30
1,2-Dichlorobenzene	N.D.	0.050	mg/kg	97	88	80-120	10	30
1,3-Dichlorobenzene	N.D.	0.050	mg/kg	100	90	80-120	10	30
1,4-Dichlorobenzene	N.D.	0.050	mg/kg	99	90	80-120	10	30
1,1-Dichloroethane	N.D.	0.050	mg/kg	103	91	80-122	12	30
1,2-Dichloroethane	N.D.	0.050	mg/kg	114	101	77-130	12	30
1,1-Dichloroethene	N.D.	0.050	mg/kg	93	84	73-129	10	30
cis-1,2-Dichloroethene	N.D.	0.050	mg/kg	99	89	80-120	11	30
trans-1,2-Dichloroethene	N.D.	0.050	mg/kg	100	89	80-129	12	30
	N.D.			99	88	80-120	12	30
1,2-Dichloropropane		0.050	mg/kg				10	
cis-1,3-Dichloropropene	N.D.	0.050	mg/kg	98	89	74-120		30
trans-1,3-Dichloropropene	N.D.	0.050	mg/kg	101	93	76-120	9	30
Ethylbenzene	N.D.	0.050	mg/kg	99	89	80-120	10	30
Freon 113	N.D.	0.10	mg/kg	81	70	64-137	14	30
n-Hexane	N.D.	0.050	mg/kg	76	66	42-134	14	30
Methyl Tertiary Butyl Ether	N.D.	0.025	mg/kg	105	93	76-122	11	30
Methylene Chloride	N.D.	0.10	mg/kg	102	90	80-124	12	30
1,1,2,2-Tetrachloroethane	N.D.	0.050	mg/kg	98	91	71-123	8	30
Tetrachloroethene	N.D.	0.050	mg/kg	99	89	78-120	11	30
Toluene	N.D.	0.050	mg/kg	97	89	80-120	9	30
1,1,1-Trichloroethane	N.D.	0.050	mg/kg	106	95	63-135	12	30
1,1,2-Trichloroethane	N.D.	0.050	mg/kg	98	89	80-120	10	30

<sup>\*-</sup> Outside of specification

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

<sup>(2)</sup> The unspiked result was more than four times the spike added.



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## Quality Control Summary

Client Name: Chevron Group Number: 1526087 Reported: 01/08/15 at 02:23 PM

Reported: 01/08/15 at 02:2								
	Blank	Blank	Report	LCS	LCSD	LCS/LCSD		RPD
<u>Analysis Name</u>	Result	MDL	<u>Units</u>	%REC	%REC	<u>Limits</u>	RPD	<u>Max</u>
Trichloroethene	N.D.	0.050	mg/kg	101	90	80-125	11	3.0
Trichlorofluoromethane	N.D.	0.10	mg/kg	89	83	58-133	7	30
Vinyl Chloride	N.D.	0.050	mg/kg	85	74	59-120	14	30
Xylene (Total)	N.D.	0.050	mg/kg	96	87	80-120	10	30
		( )						
Batch number: 14352SLE026	Sample numbe 7714419,7714	4421-77144	22		7,7714409		14412-	
Naphthalene	N.D.	0.003	mg/kg	93		77-115		
Batch number: 14354SLG026	Sample numbe	r(c) · 771	1101 7711	108 771111	1			
					- 1	04 106		
Benzo(a) anthracene	N.D.	0.00067	mg/kg	103		84-126		
Benzo(a)pyrene	N.D.	0.00067	mg/kg	102		80-117		
Benzo(b)fluoranthene	N.D.	0.00067	mg/kg	113		87-135		
Benzo(k)fluoranthene	N.D.	0.00067	mg/kg	101		79-123		
Chrysene	N.D.	0.00033	mg/kg	109		82-122		
	N.D.	0.00067		112		83-123		
Dibenz (a, h) anthracene			mg/kg					
Indeno(1,2,3-cd)pyrene	N.D.	0.00067	mg/kg	110		82-123		
1-Methylnaphthalene	N.D.	0.00067	mg/kg	94		78-119		
2-Methylnaphthalene	N.D.	0.00067	mq/kq	94		78-121		
Naphthalene	N.D.	0.00067	mg/kg	101		79-113		
naprioria zono		0.0000	9/ 129	101		,, 110		
Batch number: 14357SLB026	Sample numbe	er(s): 771	4420					
Naphthalene	N.D.	0.003	mg/kg	96		77-115		
-			3, 3					
Batch number: 14353A31A	Sample number 7714415	er(s): 771	4400-7714	404,771440	7-7714409	,7714411-77	14412,7	714414-
NWTPH-GX Soil C7-C12	N.D.	1.0	mg/kg	90	96	65-120	6	30
Batch number: 14356A20A	Sample numbe	er(s): 771	4405-7714	406.771442	23			
NWTPH-Gx water C7-C12	N.D.	50.	uq/1	103		75-135		
NWIFH-GX Water C/-C12	N.D.	50.	ug/ I	103		75-135		
Batch number: 14358A34A	Sample numbe	er(s): 771	4410,7714	413,771441	6-7714422			
NWTPH-GX Soil C7-C12	N.D.	1.0	mg/kg	90	99	65-120	9	30
			9/ 129	30		03 120		50
Batch number: 143510016A	Sample numbe	er(s): 771	4404,7714	408,771441	.1			
PCB-1016	N.D.	0.0036	mq/kq	99		76-121		
PCB-1221	N.D.	0.0046	mg/kg	,,,		70 121		
PCB-1232	N.D.	0.0080	mg/kg					
PCB-1242	N.D.	0.0033	mg/kg					
PCB-1248	N.D.	0.0033	mg/kg					
PCB-1254	N.D.	0.0033	mq/kq					
PCB-1260	N.D.	0.0049	mg/kg	117		79-132		
Batch number: 143510027A	Sample numbe	er(s): 771	4400-7714	404,771440	7-7714411			
Diesel Range Organics C12-C24	N.D.	3.0	mq/kq	86		71-115		
Heavy Range Organics C24-C40	N.D.	10.	mg/kg					
755			3/3					
Batch number: 143510031A	Sample numbe	er(s): 771	4412-7714	421				
Diesel Range Organics C12-C24	N.D.	3.0	mq/kq	78		71-115		
Heavy Range Organics C24-C40	N.D.	10.	mg/kg					
near, hange organico est eto			9/ 1.9					
Batch number: 143520019A	Sample numbe	er(s): 771	4422					
Diesel Range Organics C12-C24	N.D.	3.0	mq/kq	86		71-115		
	N.D.	10.	٥٠, ٥					
Heavy Range Organics C24-C40	и	<b>T</b> U.	mg/kg					
Batch number: 14353A08A	Sample numbe	r(s) · 771	4404 7714	408.771441	1			
Datem Mambel. 14555A00A	Sampre mambe	(5) - //1	1101,/11	100, / / 1441				

- (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.



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## Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM										
	Blank	Blank	Report	LCS	LCSD	LCS/LCSD				
Analysis Name	Result	MDL	<u>Units</u>	%REC	%REC	<u>Limits</u>	RPD			
Benzene	N.D.	0.0500	mg/kg	92	91	70-130	1			
C5-C6 Aliphatic Hydrocarbons	N.D.	2.50	mg/kg	103	101	70-130	2			
C6-C8 Aliphatic Hydrocarbons	N.D.	2.50	mg/kg	102	99	70-130	3			
C8-C10 Aliphatic Hydrocarbons	N.D.	2.50	mg/kg	101	101	70-130	0			
C8-C10 Aromatic Hydrocarbons	N.D.	2.50	mg/kg	94	93	70-130	1			
Ethylbenzene	N.D.	0.0500	mg/kg	94	93	70-130	1			
Methyl t-butyl ether	N.D.	0.0500	mg/kg	90	88	70-130	2			
Toluene	N.D.	0.0500	mg/kg	94	93	70-130	1			
o-Xylene	N.D.	0.0500	mg/kg	88	87	70-130	0			
m,p-Xylenes	N.D.	0.100	mg/kg	93	92	70-130	1			
m,p-xyrenes	N.D.	0.100	ilig/ kg	23	22	70-130	_			
Batch number: 143540007A	Sample numb	er(s) · 77	14404.7714	408.77144	11					
>C10-C12 Aliphatic	N.D.	1.0	mg/kg	91		31-137				
>C10-C12 Aromatic	N.D.	1.0	mg/kg	86		22-119				
>C12-C16 Aliphatic	N.D.	1.0	mg/kg	94		42-146				
>C12-C16 Ariphatic	N.D.	1.0	mg/kg	86		24-136				
>C16-C21 Aliphatic	N.D.	3.0	mg/kg	94		57-111				
	N.D.	2.0		92						
>C16-C21 Aromatic			mg/kg			34-143				
>C21-C34 Aliphatic	N.D.	6.0	mg/kg	91		50-124				
>C21-C34 Aromatic	N.D.	2.0	mg/kg	87		44-134				
Batch number: 143510028A	Sample numb	er(s) · 77	14400-7714	404 77144	07-771441	1				
DRO C12-C24 w/Si Gel	N.D.	3.0	mg/kg	96	0, ,,,,,,	50-133				
HRO C24-C40 w/Si Gel	N.D.	10.	mg/kg	50		30 133				
IINO CZ4-C40 W/BI GEI	N.D.	10.	ilig/ kg							
Batch number: 143510032A	Sample numb	er(s): 77	14412-7714	421						
DRO C12-C24 w/Si Gel	N.D.	3.0	mq/kq	83		50-133				
HRO C24-C40 w/Si Gel	N.D.	10.	mg/kg							
Batch number: 143520020A	Sample numb									
DRO C12-C24 w/Si Gel	N.D.	3.0	mg/kg	64		50-133				
HRO C24-C40 w/Si Gel	N.D.	10.	mg/kg							
Database 14250550000	G ]	()	14400 0014	404 88144	00 001441	0				
Batch number: 143525708002	Sample numb				0/-//1441					
Cadmium	N.D.	0.0330	mg/kg	101		80-120				
Chromium	N.D.	0.110	mg/kg	101		80-120				
Lead	N.D.	0.500	mg/kg	106		80-120				
Nickel	N.D.	0.150	mg/kg	103		80-120				
Zinc	N.D.	0.260	mg/kg	101		80-120				
Batch number: 143585708004	Sample numb	er(s) . 77	1//10_771/	122						
Lead	N.D.	0.500	mg/kg	105		80-120				
Leau	N.D.	0.500	ilig/ kg	105		80-120				
Batch number: 14351049531A	Sample numb	er(s): 77	14401							
TOC Solids/Sludges Combustion	N.D.	0.0100	% by	95		47-143				
,			wt.							
Batch number: 14357820001A	Sample numb	er(s): 77	14400-7714	404,77144	07-771441	1				
Moisture				100		99-101				
B . 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		( )		440 884	0.1					
Batch number: 14357820001B	Sample numb	er(s): 77	14412-7714		21	00 101				
Moisture				100		99-101				
Patah numbar, 142570200027	Cample numb	or(a) - 77	14422							
Batch number: 14357820002A Moisture	Sample numb	per(S): //.	14422	100		99-101				
LIOTOCATE				T 0 0		シシーエリエ				

- (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.



## Analysis Report

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### Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM

Blank Blank Report LCS LCSD LCS/LCSD RPD Result MDL %REC %REC <u>Limits</u> RPD Max Analysis Name <u>Units</u> Batch number: 14358820002A Sample number(s): 7714420

Moisture 100 99-101

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS <u>%REC</u>	MSD <u>%REC</u>	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: A143521AA	Sample	number(s)	. 7714400	-771440	4.7714	407-7714408	BKG: P71	1207	
Benzene	Dampio	11411201 (0)	. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,	-,	N.D.	N.D.	0 (1)	30
Bromodichloromethane						N.D.	N.D.	0 (1)	30
Bromoform						N.D.	N.D.	0 (1)	30
Bromomethane						N.D.	N.D.	0 (1)	30
Carbon Tetrachloride						N.D.	N.D.	0 (1)	30
Chlorobenzene						N.D.	N.D.	0 (1)	30
Chloroethane						N.D.	N.D.	0 (1)	30
Chloroform						N.D.	N.D.	0 (1)	30
Chloromethane						N.D.	N.D.	0 (1)	30
Dibromochloromethane						N.D.	N.D.	0 (1)	30
1,2-Dibromoethane						N.D.	N.D.	0 (1)	30
1,1-Dichloroethane						N.D.	N.D.	0 (1)	30
1,2-Dichloroethane						N.D.	N.D.	0 (1)	30
1,1-Dichloroethene						N.D.	N.D.	0 (1)	30
cis-1,2-Dichloroethene						N.D.	N.D.	0 (1)	30
trans-1,2-Dichloroethene						N.D.	N.D.	0 (1)	30
1,2-Dichloropropane						N.D.	N.D.	0 (1)	30
cis-1,3-Dichloropropene						N.D.	N.D.	0 (1)	30
trans-1,3-Dichloropropene						N.D.	N.D.	0 (1)	30
Ethylbenzene						N.D.	N.D.	0 (1)	30
Methylene Chloride						N.D.	N.D.	0 (1)	30
1,1,2,2-Tetrachloroethane						N.D.	N.D.	0 (1)	30
Tetrachloroethene						N.D.	N.D.	0 (1)	30
Toluene						N.D.	0.001	200* (1)	30
1,1,1-Trichloroethane						N.D.	N.D.	0 (1)	30
1,1,2-Trichloroethane						N.D.	N.D.	0 (1)	30
Trichloroethene						N.D.	N.D.	0 (1)	30
Trichlorofluoromethane						N.D.	N.D.	0 (1)	30
Vinyl Chloride						N.D.	N.D.	0 (1)	30
Xylene (Total)						N.D.	N.D.	0 (1)	30
Batch number: F143562AA		number(s)				95			
Benzene	101	94	72-134	7	30				
Ethylbenzene	98	95	71-134	3	30				
Methyl Tertiary Butyl Ether	93	128*	72-126	32*	30				
Toluene	102	92	80-125	10	30				
Xylene (Total)	95	95	79-125	0	30				
Batch number: F143571AA		number(s)				41			
Benzene	105	108	72-134	3	30				
Ethylbenzene	104	105	71-134	1	30				
Methyl Tertiary Butyl Ether	101	102	72-126	1	30				

- (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.



Analysis Report

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## Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name Toluene Xylene (Total)	MS %REC 106 101	MSD %REC 108 102	MS/MSD Limits 80-125 79-125	<b>RPD</b> 2 1	<b>RPD MAX</b> 30 30	BKG Conc	DUP Conc	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: 14352SLE026			: 7714400 -7714422 U			407,7714409	-7714410,773	14412-	
Naphthalene	95	93	44-142	0	30				
Batch number: 14354SLG026 Benzo(a) anthracene Benzo(a) pyrene Benzo(b) fluoranthene Benzo(k) fluoranthene Chrysene Dibenz(a,h) anthracene Indeno(1,2,3-cd) pyrene 1-Methylnaphthalene 2-Methylnaphthalene	Sample 95 89 87 83 94 109 107 81	99 95 92 88 99 115 112 84	7714404 54-149 40-154 26-142 49-144 43-141 24-138 26-139 69-121 63-130	,771440 5 6 6 7 5 5 5 4 4	08,7714 30 30 30 30 30 30 30 30 30 30 30	411 UNSPK: 1	2714098		
Naphthalene	91	94	44-148	3	30				
Batch number: 14357SLB026 Naphthalene	Sample 96	number(s) 94	7714420 44-142	UNSPK 2	30 30	11			
Batch number: 14356A20A NWTPH-Gx water C7-C12	Sample 118	number(s) 118	: 7714405 75-135	-771440 0	06,7714 30	423 UNSPK: 1	2711069		
Batch number: 143510016A PCB-1016 PCB-1260	Sample 92 108	number(s) 98 110	: 7714404 41-135 38-148	,771440 7 2	08,7714 50 50	411 UNSPK: 1	P712588		
Batch number: 143510027A Diesel Range Organics C12-C24 Heavy Range Organics C24-C40	Sample	number(s)	: 7714400	-77144	04,7714	407-7714411 N.D. N.D.	BKG: 77144 N.D. N.D.	100 0 (1) 0 (1)	20 20
Batch number: 143510031A Diesel Range Organics C12-C24 Heavy Range Organics C24-C40	Sample	number(s)	: 7714412	-771442	21 BKG	: 7714412 N.D. N.D.	3.6 N.D.	200* (1) 0 (1)	20 20
Batch number: 143520019A Diesel Range Organics C12-C24 Heavy Range Organics C24-C40	Sample	number(s)	: 7714422	BKG:	771442	2 N.D. N.D.	N.D. N.D.	0 (1) 0 (1)	20 20
Batch number: 143540007A >C10-C12 Aliphatic >C10-C12 Aromatic >C12-C16 Aliphatic >C12-C16 Aromatic >C16-C21 Aliphatic >C16-C21 Aromatic >C21-C34 Aliphatic >C21-C34 Aromatic >C21-C34 Aromatic	89 78 93 81 91 90 91 86		31-137 22-119 42-146 42-122 57-111 53-132 38-120 55-126			411 UNSPK: 'N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D	N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D.	0 (1) 0 (1) 0 (1) 0 (1) 0 (1) 0 (1) 0 (1) 0 (1)	25 25 25 25 25 25 25 25 25
Datell Humber, 143010020A	pampire	manwer (S)	. //14400	//144V	U-I, / / 14		DIG. //14	100	

- (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.



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### Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	MS <u>%REC</u>	MSD <u>%REC</u>	MS/MSD Limits	<u>RPD</u>	RPD <u>MAX</u>	BKG Conc N.D. N.D.	DUP Conc N.D. N.D.	DUP <u>RPD</u> 0 (1) 0 (1)	Dup RPD <u>Max</u> 20 20
Batch number: 143510032A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample	number(s)	: 7714412	-771442	21 BKG	: 7714412 4.8 N.D.	7.5 N.D.	44* (1) 0 (1)	20 20
Batch number: 143520020A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample	number(s)	: 7714422	BKG:	771442	2 N.D. N.D.	N.D. N.D.	0 (1) 0 (1)	20 20
Batch number: 143525708002 Cadmium Chromium Lead Nickel Zinc	Sample 96 140* 107 100 112	number(s) 96 146* 109 101 107	: 7714400 75-125 75-125 75-125 75-125 75-125	-771440 0 2 1 1 2	20 20 20 20 20 20 20 20	407-7714418 0.272 21.5 5.37 12.4 65.5	UNSPK: P713 0.259 23.7 5.84 12.8 66.8	3972 BKG: F 5 (1) 10 8 (1) 3 2	2713972 20 20 20 20 20 20 20
Batch number: 143585708004 Lead	Sample 99 (2)	number(s) 380 (2)		-771442 26*	22 UNSP 20	K: P720905 I 126	BKG: P720905 112	5 11	20
Batch number: 14351049531A TOC Solids/Sludges Combustion	Sample 108	number(s)	: 7714401 22-155	UNSPK:	77144	01 BKG: 7714 N.D.	1401 N.D.	0 (1)	13
Batch number: 14357820001A Moisture	Sample	number(s)	: 7714400	-771440	04,7714	407-7714411 3.8	BKG: 77144	107	5
Batch number: 14357820001B Moisture	Sample	number(s)	: 7714412	-771441	19,7714	421 BKG: P' 5.8	714420 5.0	14*	5
Batch number: 14357820002A Moisture	Sample	number(s)	: 7714422	BKG:	P71525	0 11.2	11.0	1	5
Batch number: 14358820002A Moisture	Sample	number(s)	: 7714420	BKG:	771442	0 6.6	6.5	1	5

### 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: VOCs- Solid by 8260B Batch number: A143521AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
7714400	108	105	94	98	_
7714401	110	109	94	95	
7714402	109	107	93	94	
7714403	109	107	93	96	
7714404	104	103	96	96	

- (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.



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## Quality Control Summary

	Name: Chevron ed: 01/08/15 at	. 02•23 PM	Group	Number: 1526087
керогес	za. 01/00/13 ac	. 02.25 111	Surrogate	Quality Control
7714407	108	104	93	95
7714408	109	107	88	107
Blank	105	101	96	96
DUP	108	100	92	93
LCS	105	101	100	102
LCSD	103	98	100	101
Limits:	50-141	54-135	52-141	50-131
	Name: BTEX, MTBE,	EDB		
Batch nu	mber: A143531AA	1.2 Diablaraathana d4	Taluana d0	4 Promofluorahanzana
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8 96	4-Bromofluorobenzene
7714409 7714410	104 101	105	98	101
7714413	103	107	97	101
7714414	105	108	97	96
7714415	104	105	96	95
7714416	106	106	97	97
7714417	106	106	97	98
7714418	106	106	96	98
7714419	106	109	96	96
7714420	102	101	97	99
7714421	107	108	97	97
7714422	105	107	97	98
Blank LCS	107 103	104 100	96 102	94 103
LCSD	104	101	101	102
Limits:	50-141	54-135	52-141	50-131
	Name: BTEX/MTBE			
Batch nu	mber: D143552AA	1.2 Diablaraathana d4	Taluana d0	4-Bromofluorobenzene
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	
7714423 Blank	106 106	101 100	95 95	95 94
LCS	103	101	95	105
LCSD	103	101	95	106
Limits:	80-116	77-113	80-113	78-113
	Name: BTEX/MTBE			
Batch nu	mber: F143562AA	1.2 Diablara - than and 4	Taluana do	4 Dromoflygrahanzana
7714405	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene 99
7714405 Blank	108 94	89 100	108 107	99 95
LCS	94	104	107	98
MS	95 95	104	106	97
MSD	98	98	101	104
Limits:	80-116	77-113	80-113	78-113
	Name: BTEX/MTBE			
Batch nu	mber: F143571AA	1.0 Diablamadhana -14	Taluana dO	A Drawell week comme
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7714406 Blank	92 92	102 100	105	96
Blank LCS	92	100	106 109	96 98
MS	93	101	105	99
MOD	20	100	105	

### \*- Outside of specification

MSD

- (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.



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## Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM

Surrogate Quality Control

Limits: 80-116 77-113 80-113 78-113

Analysis Name: VOCs- Solid by 8260B

Batch number: Q143551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7714411	92	93	96	94
7714412	81	82	84	83
Blank	88	90	92	91
LCS	98	98	100	97
LCSD	89	88	90	88
Limits:	50-141	54-135	52-141	50-131

Analysis Name: PAH's 8270C Soil

Batch number: 14352SLE026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7714400	95	88	114
7714401	92	90	109
7714402	90	89	107
7714403	88	90	107
7714407	65	86	107
7714409	69	86	108
7714410	91	90	112
7714412	86	86	108
7714413	98	91	114
7714414	89	86	107
7714415	91	85	106
7714416	86	86	109
7714417	89	85	108
7714418	91	89	114
7714419	61	85	106
7714421	82	87	105
7714422	92	86	106
Blank	94	92	110
LCS	94	91	107
MS	94	88	108
MSD	93	87	105
Limits:	54-123	63-124	61-142

Analysis Name: SIM SVOA (microwave)

Batch number: 14354SLG026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene- d10
7714404	91	138	85
7714408	89	111	87
7714411	89	115	95
Blank	85	105	84
LCS	90	117	91
MS	84	104	81
MSD	86	109	82
Limits:	58-128	55-144	62-121

Batch number: 14357SLB026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7714420	65	97	106

- (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.



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### Quality Control Summary

Client Name: Chevron Group Number: 1526087 Reported: 01/08/15 at 02:23 PM Surrogate Quality Control 85 Blank 82 LCS 89 93 106 MS 86 95 108 MSD 93 84 103 63-124 61-142 Limits: 54-123 Analysis Name: NWTPH-GX Soil C7-C12 Batch number: 14353A31A Trifluorotoluene-F 7714400 74 7714401 54 7714402 74 7714403 76 7714404 81 7714407 91 7714408 75 7714409 81 7714411 83 7714412 89 7714414 72 7714415 72 Blank 90 LCS 104 LCSD Limits: 50-142 Analysis Name: NWTPH-Gx water C7-C12 Batch number: 14356A20A Trifluorotoluene-F 7714405 86 7714406 90 7714423 89 Blank 89 LCS 96 MS 94 MSD 97 Limits: 63-135 Analysis Name: NWTPH-GX Soil C7-C12 Batch number: 14358A34A Trifluorotoluene-F 7714410 7714413 93 7714416 7714417 69 7714418 70 7714419 7714420 7714421 84 7714422 66 Blank 102 LCS 96 LCSD 103 50-142 Limits:

Analysis Name: PCBs Soil 8082 Microwave

- (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.

## Analysis Report

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## Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM

Surrogate Quality Control

	Tetrachloro-m-xylene	Decachlorobiphenyl		
7714404	107	111		
7714408	106	118		
7714411	98	113		
Blank	106	114		
LCS	107	113		
MS	100	101		
MSD	101	100		
Limits:	41-146	48-151		

Analysis Name: NWTPH-Dx soil Batch number: 143510027A Orthoterphenyl

	Orthotolphi
7714400	97
7714401	97
7714402	97
7714403	93
7714404	99
7714407	94
7714408	81
7714409	94
7714410	98
7714411	96
Blank	95
DUP	92
LCS	96
Limits:	50-150

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

Batch number: 143510028A Orthoterphenyl

	Ortinotorp
7714400	109
7714401	108
7714402	109
7714403	107
7714404	108
7714407	106
7714408	81
7714409	104
7714410	111
7714411	114
Blank	103
DUP	111
LCS	110

Limits: 50-150

Analysis Name: NWTPH-Dx soil Batch number: 143510031A Orthoterphenyl

Ortin
91
90
91
93
82

- (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.

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### Quality Control Summary

Client Name: Chevron Group Number: 1526087 Reported: 01/08/15 at 02:23 PM Surrogate Quality Control 7714417 90 7714418 95 7714419 99 7714420 95 7714421 94 89 Blank DUP 93 LCS Limits: 50-150 Analysis Name: NWTPH-Dx soil w/ 10g Si Gel Batch number: 143510032A Orthoterphenyl 7714412 107 7714413 107 7714414 90 7714415 100 7714416 102 7714417 86 7714418 118 7714419 116 7714420 106 7714421 112 Blank 101 DUP 108 LCS 100 Limits: 50-150 Analysis Name: NWTPH-Dx soil Batch number: 143520019A Orthoterphenyl 7714422 99 Blank 91 DUP 96 LCS 93 50-150 Limits: Analysis Name: NWTPH-Dx soil w/ 10g Si Gel Batch number: 143520020A Orthoterphenyl 7714422 65 Blank 31\* DUP 58 LCS Limits: 50-150 Analysis Name: WA- VPH soils Batch number: 14353A08A Trifluorotoluene-P Trifluorotoluene-F 7714404 85 7714408 81 88 7714411 89 99 Blank 105 LCS 96 LCSD 96 104

- \*- Outside of specification
- (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.



# Analysis Report

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## Quality Control Summary

Client Name: Chevron Group Number: 1526087

Reported: 01/08/15 at 02:23 PM

Surrogate Quality Control

Limits: 60-140 60-140

Analysis Name: WA EPH in Soil Batch number: 143540007A

200011 110			
	Orthoterphenyl	1-chlorooctadecane	
7714404	87	68	
7714408	84	67	
7714411	106	70	
Blank	85	73	
DUP	97	50	
LCS	86	79	
MS	83	68	
Limits:	50-142	33-122	

<sup>\*-</sup> Outside of specification

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

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# Chevron Northwest Region Analysis Request/Chain of Custody

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Lancaster Laboratories Acct. # 11955 For Lancaster Laboratories use only

Group # 1596087 Sample # 7714400-38

Instructions on reverse side correspond with circled numbers.

1) Client Information	on				4	Ма	trix	Egggs-com		(5)		SHOWN WITH	Aı	naly	ses	Requested				1886-555/gs.				
Facility# 372654	WBS							Cartinopy to Thi			5			Control Manager Control	2							SCR #:		
Site Address  3202 Main Street, Union Gap Chevron PM  Eric Hetrick Consultant/Office Leidos / Bothell, WA	Lead Consu				Sediment	Ground	Surface		of Containers	8021 🗌 8260 🕅 Naphili 🕅	100 X X X X X X X X X X X X X X X X X X	20103	0 2	Silica Gel Cleanup 🔯	☐ Method <u>CONOS</u>		Sar	K		MIS PL	5310B	Results in Dry J value reportin Must meet low limits possible compounds	ng needed . est detection	
Consultant Project Mgr.									ontai		D-hexan	8	1	за Ge	Diss.	МАЕРН ∭	-9	808	X	2	1	☐ 8021 MTBE Co☐ Confirm MTBE		
RUSS Shropshire Consultant Phone #						d)		Air	ပို	121		nate	CY	Silic		AEP			9	5	$\sim$	Confirm highes	t hit by 8260	
425-482-3323						Potable	NPDES	⋖	er o		15	Öxygenates	M	Ø	Total 💢	M	KN	b o	1	9	5	Confirm all hits		
sampler Ruth Otteman / Sulic Wa	rtes		3	Composite			ı		Total Number	BTEX + MTBE	8260 full scan	etall e	NWTPH GX	ă	Tota	$\boxtimes$	Napthakne	35	9	A Th	9	Runox		
2)		ected	Grab	duo	=	Water.			tal	+ X	0 Tul	1st	ТРН	NWTPH	р	МА∨РН 🔯	ap	PCB;	3		9			
Sample Identification	Date	Time	Ō	ပိ	Soil	Š	) }	ö	2	(E)	826	E	NN	NZ NZ	Lead	WA	Z	0	2	$\cup$	LL	6 Rem	arks	
MW-(0-20	12/0/14	1135	$\angle$		4				7					$\angle$	$\angle$		$\mathbb{Z}$		$\angle$			stall (a.	Cample	
MW-6-12 MW-5-20	12/10/14	1102			4				13		_		4	4	/							to also be analyzed moisture!	- Southes	
MW-5-20 $MW-5-9$	12/10/14	1402			$\leq$	-			+	4		-	$\angle$	$\angle$	4		$\angle$		$\angle$			to also b	e C. c	
Mussell	12/10/14	1450			$\overline{}$				17	/	<u> </u>			$\overline{}$	=				$\langle \cdot \rangle$			analyza	tor 2540	
ER-1-12/1/4	13/1/14	0815			$\dashv$				12					$\overline{/}$	$\overline{}$	$\overline{}$		$\leftarrow$				maisture !	5/1/2/10	
ER-2-121114	12/11/14	0830							6					$\overline{}$			$\overline{}$		$\overline{}$			C-1997		
MW-4-9	12/11/14	1024							7					=					$\overline{/}$			x do not s for EDB o and ER-	an analyze	
MW-4-12	12/11/14	1030							13		/			7	$\overline{}$	$\nearrow$			$\mathcal{I}$	$\overline{}$		X SEDRA	n FR-1-1211	
MW-4-14	12/11/14	100							7													PO LEP :	2-121114	
MW-3-20	12/11/14	1117							7													WMLKE	~	
MW - 3 - 12	12/11/14	1205							13		$\angle$		$\angle$					/						
DVP-12/114	12/11/14	1213				eco. Mariania			7		Section Confession													
Turnaround Time Requested (TAT)  Standard 5 day	) (please cir 4 day	cle)		uished (	ф	A				Date	15/1	- 1	Time 15	00		Receiv	ed by					Date	Time 9	
- Commence of the Commence of	·		Reling	uished	by	~				Date	1/1		Time			Receiv	ed by			and the same of th	CARPER STATE OF THE STATE OF TH	Date	Time	
72 hour 48 hour	24 hour		ç		and the same of th	allows translation and		Mary Carl Carl Color				usur cala comissione in market	SECONDO SECULOS (PRINCIPALISMO	ali del desegna di servizione y	Minings, .		Companyorganica	Name and Publisher of the Publisher of t	and the second second					
8 Data Package Options (please circle if required)			Relinquished by Commerical Carrier: Received by							Date	Time													
Type I - Full Type VI (Raw Data)			UPS FedEx Other						man i man ganggapatikan 1974 tahun sanggapatikan 1974 tahun sanggapatikan	= 12-16-14	1010													
				Temperature Upon Receipt 6.2.2.3 °C Cus					Custody Seals Intact? (Yes) No															

## Chevron Northwest Region Analysis Request/Chain of Custody

🔅 eurofins	Lancaster Laboratories		Acc	et.#_ <u>   </u>	<b>2</b> 55	5	G	Froup Ins	FC # <u>∫</u> *	or Lan 52( ns on re	caste 000 everse s	r Labo 3 7 ide corr	oratori _ Sar	ies us nple # I with ci	se onl # rcled n	y 71 umbers	44	DO-	- QC	3			
Tacility #	Client Informatio	n			4	)	Matrix			5			Ar	nalys	ses l	Requ	uest	ed	**************************************			SCR #:	
Site Address  3202 Main Schevron PM  Exic Hetrick  Consultant/Office  Lei dis Both  Consultant Project Mgr.  Consultant Phone #  425 - 482 -  Sampler  2  Sample Identificatio  MW - 3 - 15  MW - 3 - 10	3323 /Sulir Wartes	Lead Consi	ultant	X Grab	Composite Sediment	] : : !	Potable ☐ Ground ☐ Water NPDES ☐ Surface ☐	Oil Air	ナナ Total Number of Containers	87EX + MTBE 8021 ☐ 8260 ☒ NSPHIN ☒	8260 full sean n - hexa ne / VRC 5 826	Metals exygenates by 6010B	NWTPHGX BY ECY 97-602	NWTPH DX 🔯 Silica Gel Cleanup 🗵	Lead Total 🛱 Diss. 🗌 Method 💪 🛮 🖒 🖒	ма∨рн 🖄 маерн 💢	Napthalens by 8270	PCRS 64 3082	NWTPH-DX	CPAHS by SITUSTM	FOC By SM-5310B	Results in Dry We J value reporting Must meet lowest limits possible for compounds 8021 MTBE Conf Confirm MTBE + Confirm highest h Run oxy's Run oxy's	needed detection 8260  irmation Naphthalene iit by 8260 / 8260 s on highest hit s on all hits
MW-2-20 MW-2-9 MW-1-20 MW-1-125 MW-1-14 MW-1-14 MW-4-20 TB-1-1215	7	12/15/14	1320 1337 1413 1530 1600 1610 1615 1000 1400				×		チサテナナラタナリ													Samples Samples Be anch moistur by Moistur b	to seek for of sm 2540 malysechr 175-1-
Standard 72 hour	ne Requested (TAT) 5 day 48 hour  Options (please cire	4 day 24 hour cle if rec	quired)	Relinqu	uished by	by (	Commer Forature U	edE>	×	Date	//5// Ot	her _	Time	OU °C	)	Recei	ived by		eals	Intac	et?	Date  Date  Date  Ves	Time Time No



## **Explanation of Symbols and Abbreviations**

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	Ĺ	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than

ppm 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.

ppb parts per billion

**Dry weight**basis
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.

Data Qualifiers:

C - result confirmed by reanalysis.

**J** - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	E	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

### Analytical test results meet all requirements of NELAC 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. This report shall not be reproduced except in full, without the written approval of the laboratory.

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.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Chevron 6001 Bollinger Canyon Road L4310 San Ramon CA 94583

April 30, 2015

**Project: 372654** 

Submittal Date: 04/01/2015 Group Number: 1549955 PO Number: 0015164161 Release Number: HETRICK State of Sample Origin: WA

Client Sample Description	<u>Lancaster Labs (LL) #</u>
QA NA Water	7830311
MW-1 Grab Groundwater	7830312
MW-2 Grab Groundwater	7830313
MW-3 Grab Groundwater	7830314
MW-4 Grab Groundwater	7830315
MW-5 Grab Groundwater	7830316
MW-6 Grab Groundwater	7830317

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

ELECTRONIC Gettler-Ryan Inc. Attn: Gettler Ryan

COPY TO

ELECTRONIC Leidos Attn: Jamalyn Agyei

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ELECTRONIC Leidos Attn: Russ Shropshire

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Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: QA NA Water

QA NA Water LL Sample # WW 7830311 Facility# 372654 Job# 385900 LL Group # 1549955 3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

### MUPQA

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary E	Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	latiles	ECY 97-	-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7	7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P150991AA	04/09/2015 12:46	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P150991AA	04/09/2015 12:46	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15096A94A	04/06/2015 12:52	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15096A94A	04/06/2015 12:52	Brett W Kenyon	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Sample # WW 7830312 LL Group # 1549955 Account # 11260

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 12:40 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP01

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	_	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846	8270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-	-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C		n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846	8011	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
	croleum carbons	ECY 97-	-602 NWTPH-Dx	ug/l	ug/l	
08271	Diesel Range Organi	cs C12-C2	4 n.a.	N.D.	28	1
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	66	1
	croleum carbons w/Si	ECY 97-	-602 NWTPH-Dx	ug/l	ug/l	
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
Metals	3	SW-846	6010B	ug/l	ug/l	
07055			7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P150991AA	04/09/2015	16:55	Amanda K Richards	1
	Water							
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P150991AA	04/09/2015	16:55	Amanda K Richards	1
07805	PAHs 8270C Water	SW-846 8270C	1	15093WAA026	04/06/2015	02:21	Brian K Graham	1



## **Analysis Report**

LL Sample # WW 7830312 LL Group # 1549955 Account # 11260

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Sample Description: MW-1 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA

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Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 12:40 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP01

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	15093WAA026	04/03/2015	17:00	Seth A Farrier	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15093B20A	04/03/2015	19:14	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15093B20A	04/03/2015	19:14	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	150930028A	04/07/2015	01:30	Jessica L Miller	1
07786	EDB Extraction	SW-846 8011	1	150930028A	04/04/2015	16:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150960015A	04/07/2015	20:10	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150960014A	04/08/2015	11:45	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150960014A	04/06/2015	20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150960015A	04/06/2015	20:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	150941848003	04/10/2015	00:34	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150941848003	04/06/2015	09:10	James L Mertz	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830313

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 10:35 by JP Chevron

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MUP02

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846	8270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pestio	cides/PCBs	SW-846	8011	ug/l	ug/l	
	Ethylene dibromide		106-93-4	N.D.	0.0097	1
		ECY 97- modifie	602 NWTPH-Dx	ug/l	ug/l	
08271	Diesel Range Organio	cs C12-C24	n.a.	N.D.	29	1
	Heavy Range Organics			N.D.	67	1
		ECY 97- modifie	602 NWTPH-Dx	ug/l	ug/l	
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	29	1
	HRO C24-C40 w/Si Ge:		n.a.	N.D.	67	1
12003	1110 C24 C40 W/D1 Ge.	L	π.α.	и.р.	<b>0</b> /	±
Metals	3	SW-846	6010B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P150991AA	04/09/2015	17:18	Amanda K Richards	1
	Water							
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P150991AA	04/09/2015	17:18	Amanda K Richards	1
07805	PAHs 8270C Water	SW-846 8270C	1	15093WAA026	04/06/2015	02:50	Brian K Graham	1



## **Analysis Report**

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Sample Description: MW-2 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830313

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 10:35 by JP Chevron

6001 Bollinger Canyon Road

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MUP02

			-					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07807	BNA Water Extraction	SW-846 3510C	1	15093WAA026	04/03/2015	17:00	Seth A Farrier	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15093B20A	04/03/2015	19:42	Brett W Kenyon	1
		NWTPH-Gx						
01146	GC VOA Water Prep	SW-846 5030B	1	15093B20A	04/03/2015	19:42	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	150930028A	04/07/2015	01:46	Jessica L Miller	1
07786	EDB Extraction	SW-846 8011	1	150930028A	04/04/2015	16:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	150960015A	04/07/2015	20:31	Heather E Williams	1
		NWTPH-Dx modified						
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	150960014A	04/08/2015	12:06	Christine E Dolman	. 1
	Gel	NWTPH-Dx modified						
12007	NW Dx water w/ 10g column	ECY 97-602	1	150960014A	04/06/2015	20:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	150960015A	04/06/2015	20:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	150941848003	04/10/2015	00:00	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	150941848003	04/06/2015	09:10	James L Mertz	1
	U3							



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Sample # WW 7830314 LL Group # 1549955 Account # 11260

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 16:10 by JP Chevron

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San Ramon CA 94583

### MUP03

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
	Methyl Tertiary But	/l Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	•	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846	8270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-	-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846	8011	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
			-602 NWTPH-Dx	ug/l	ug/l	
	carbons	modifie				
	Diesel Range Organio			N.D.	29	1
08271	Heavy Range Organics	s C24-C40	n.a.	N.D.	67	1
			602 NWTPH-Dx	ug/l	ug/l	
		modifie	ed			
12005	DRO C12-C24 w/Si Ge	l	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Ge	L	n.a.	N.D.	67	1
Metals	3	SW-846	6010B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P150991AA	04/09/2015	17:41	Amanda K Richards	1
	Water							
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P150991AA	04/09/2015	17:41	Amanda K Richards	1
07805	PAHs 8270C Water	SW-846 8270C	1	15093WAA026	04/06/2015	03:20	Brian K Graham	1



## **Analysis Report**

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Sample Description: MW-3 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830314

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 16:10 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP03

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	15093WAA026	04/03/2015	17:00	Seth A Farrier	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15093B20A	04/03/2015	20:09	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15093B20A	04/03/2015	20:09	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	150930028A	04/07/2015	02:01	Jessica L Miller	1
07786	EDB Extraction	SW-846 8011	1	150930028A	04/04/2015	16:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150960015A	04/07/2015	20:53	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150960014A	04/08/2015	12:50	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150960014A	04/06/2015	20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150960015A	04/06/2015	20:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	150941848003	04/10/2015	00:36	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150941848003	04/06/2015	09:10	James L Mertz	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830315

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 15:00 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP04

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	_	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846	8270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-	-602 NWTPH-Gx	ug/l	ug/l	
	NWTPH-Gx water C7-C		n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846	8011	ug/l	ug/l	
	Ethylene dibromide		106-93-4	N.D.	0.0096	1
	roleum carbons	ECY 97-	-602 NWTPH-Dx	ug/l	ug/l	
08271	Diesel Range Organi	cs C12-C2	4 n.a.	N.D.	28	1
08271	Heavy Range Organic	s C24-C40	n.a.	N.D.	66	1
	croleum carbons w/Si	ECY 97-	-602 NWTPH-Dx	ug/l	ug/l	
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
Metals	3	SW-846	6010B	ug/l	ug/l	
07055			7439-92-1	N.D.	4.7	1

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P150991AA	04/09/2015	18:03	Amanda K Richards	1
	Water							
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P150991AA	04/09/2015	18:03	Amanda K Richards	1
07805	PAHs 8270C Water	SW-846 8270C	1	15093WAA026	04/06/2015	03:49	Brian K Graham	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830315

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 15:00 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP04

			_					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	.me		Factor
07807	BNA Water Extraction	SW-846 3510C	1	15093WAA026	04/03/2015	17:00	Seth A Farrier	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15093B20A	04/03/2015	21:05	Brett W Kenyon	1
		NWTPH-Gx						
01146	GC VOA Water Prep	SW-846 5030B	1	15093B20A	04/03/2015	21:05	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	150930028A	04/07/2015	02:17	Jessica L Miller	1
07786	EDB Extraction	SW-846 8011	1	150930028A	04/04/2015	16:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	150960015A	04/07/2015	21:14	Heather E Williams	1
		NWTPH-Dx modified						
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	150960014A	04/08/2015	12:28	Christine E Dolman	. 1
	Gel	NWTPH-Dx modified						
12007	NW Dx water w/ 10g column	ECY 97-602	1	150960014A	04/06/2015	20:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	150960015A	04/06/2015	20:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	150941848003	04/10/2015	00:39	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	150941848003	04/06/2015	09:10	James L Mertz	1
	U3							



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA

LL Group # 1549955 Account # 11260

LL Sample # WW 7830316

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 13:50 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP05

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846	8270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-	602 NWTPH-Gx	ug/l	ug/l	
	NWTPH-Gx water C7-C		n.a.	N.D.	50	1
Pestio	cides/PCBs	SW-846	8011	ug/l	ug/l	
	Ethylene dibromide		106-93-4	N.D.	0.0096	1
		ECY 97-	602 NWTPH-Dx	ug/l	ug/l	
08271	Diesel Range Organio	cs C12-C24	n.a.	N.D.	28	1
08271	Heavy Range Organics	s C24-C40	n.a.	N.D.	66	1
		ECY 97-	602 NWTPH-Dx	ug/l	ug/l	
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
12000	021 010, 01 00.	=		<b></b>		_
Metals	3	SW-846	6010B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P150991AA	04/09/2015	18:26	Amanda K Richards	1
	Water							
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P150991AA	04/09/2015	18:26	Amanda K Richards	1
07805	PAHs 8270C Water	SW-846 8270C	1	15093WAA026	04/06/2015	04:19	Brian K Graham	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830316

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 13:50 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP05

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07807	BNA Water Extraction	SW-846 3510C	1	15093WAA026	04/03/2015	17:00	Seth A Farrier	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15093B20A	04/03/2015	21:33	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15093B20A	04/03/2015	21:33	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	150930028A	04/07/2015	03:03	Jessica L Miller	1
07786	EDB Extraction	SW-846 8011	1	150930028A	04/04/2015	16:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150960015A	04/07/2015	21:35	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150960014A	04/08/2015	13:11	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150960014A	04/06/2015	20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150960015A	04/06/2015	20:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	150941848003	04/10/2015	00:41	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150941848003	04/06/2015	09:10	James L Mertz	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830317

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 11:35 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP06

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846	8270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
QC ac	recovery for the meth sceptance limits as r not available to repe	oted on t	he QC Summary. Su			
GC Vol	latiles	ECY 97-	-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pestic	ides/PCBs	SW-846	8011	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
	croleum carbons	ECY 97- modifie	-602 NWTPH-Dx ed	ug/l	ug/l	
08271	Diesel Range Organio	cs C12-C2	1 n.a.	N.D.	28	1
08271	Heavy Range Organics	s C24-C40	n.a.	N.D.	66	1
GC Pet	roleum	ECY 97-	-602 NWTPH-Dx	ug/l	ug/l	
Hydrod	arbons w/Si	modifie	ed			
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
Metals	3	SW-846	6010B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT Analysis Name Method Trial# Batch# Analysis Analyst Dilution No. Date and Time Factor



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1549955 Account # 11260

LL Sample # WW 7830317

Project Name: 372654

Submitted: 04/01/2015 10:00

Reported: 04/30/2015 19:20

Collected: 03/30/2015 11:35 by JP Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUP06

#### Laboratory Sample Analysis Record Method CAT Analysis Name Trial# Batch# Dilution Analyst No. Date and Time Factor 10945 8260 BTEX/MTBE/EDC -SW-846 8260B P150991AA 04/09/2015 18:49 Amanda K Richards Water 01163 GC/MS VOA Water Prep SW-846 5030B P150991AA 04/09/2015 18:49 Amanda K Richards 07805 PAHs 8270C Water Brian K Graham SW-846 8270C 15096WAH026 04/07/2015 07:40 04/06/2015 15:30 07807 BNA Water Extraction SW-846 3510C 1 15096WAH026 Seth A Farrier 1 ECY 97-602 Brett W Kenyon 08273 NWTPH-Gx water C7-C12 1 15093B20A 04/03/2015 22:00 1 NWTPH-Gx 01146 GC VOA Water Prep SW-846 5030B 1 15093B20A 04/03/2015 22:00 Brett W Kenyon 1 10398 EDB by 8011 SW-846 8011 1 150930028A 04/07/2015 03:19 Jessica L Miller 1 07786 EDB Extraction 04/04/2015 16:00 SW-846 8011 150930028A Roman Kuropatkin 1 1 08271 NWTPH-Dx water Heather E Williams 1 ECY 97-602 1 150960015A 04/07/2015 21:57 NWTPH-Dx modified 12005 NWTPH-Dx water w/ 10g Si ECY 97-602 1 150960014A 04/08/2015 13:33 Christine E Dolman 1 NWTPH-Dx modified Gel 12007 NW Dx water w/ 10g column ECY 97-602 150960014A 1 04/06/2015 20:00 Samantha L Bronder 1 NWTPH-Dx 06/97 11197 WA DRO NW DX Ext (Non SG) ECY 97-602 1 150960015A 04/06/2015 20:00 Samantha L Bronder 1 NWTPH-Dx 06/97 Elaine F Stoltzfus 1 07055 Lead SW-846 6010B 150941848003 04/10/2015 00:44 01848 ICP-WW, 3005A (tot rec) - SW-846 3005A 150941848003 04/06/2015 09:10 James L Mertz



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### Quality Control Summary

Client Name: Chevron Group Number: 1549955

Reported: 04/30/2015 19:20

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.

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: P150991AA Benzene	Sample numbe	er(s): 783 0.5	0311-7830 ug/l	101	97	78-120	4	30
1,2-Dichloroethane Ethylbenzene	N.D. N.D.	0.5 0.5	ug/l ug/l	99 92	96 90	72-127 80-120	3 3	30 30
Methyl Tertiary Butyl Ether Toluene	N.D. N.D.	0.5	ug/l ug/l	107 94	103 91	75-120 80-120	4	30
Xylene (Total)	N.D.	0.5	ug/l	95	92	80-120	3	30
Batch number: 15093WAA026	Sample numbe	er(s): 783	0312-7830	316				
2-Methylnaphthalene Naphthalene	N.D. N.D.	0.1	ug/l	83 87		69-103 75-108		
Naphcharene	N.D.	0.1	ug/l	8 /		75-108		
Batch number: 15096WAH026	Sample numbe							
2-Methylnaphthalene	N.D.	0.1	ug/l	88	85	69-103	3	30
Naphthalene	N.D.	0.1	ug/l	93	90	75-108	4	30
Batch number: 15093B20A	Sample numbe	er(s): 783	0312-7830	317				
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	99	99	80-123	0	30
Batch number: 15096A94A	Sample numbe	er(s): 783	0311					
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	94	95	80-123	0	30
Batch number: 150930028A	Sample numbe	er(s): 783	0312-7830	317				
Ethylene dibromide	N.D.	0.010	ug/l	108	110	60-140	2	20
Batch number: 150960015A	Sample numbe							
Diesel Range Organics C12-C24	N.D. N.D.	30. 70.	ug/l	62	65	50-113	4	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 150960014A	Sample numbe							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	57	59	32-117	3	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 150941848003	Sample numbe	er(s): 783	0312-7830	317				
Lead	N.D.	4.7	ug/l	104		80-120		

#### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

MS MSD MS/MSD RPD BKG DUP DUP Dup RPD

- (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.

<sup>\*-</sup> Outside of specification



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### Quality Control Summary

Client Name: Chevron Group Number: 1549955

Reported: 04/30/2015 19:20

Analysis Name	%REC	%REC	<u>Limits</u>	RPD	<u>MAX</u>	Conc	Conc	RPD	Max
Batch number: 15093WAA026 2-Methylnaphthalene Naphthalene	Sample 91 94	number(s) 90 95		4	30 30 30	PK: P832527			
Batch number: 150930028A Ethylene dibromide	Sample 120	number(s)		-78303 10	317 UNSE 20	PK: P830365			
Batch number: 150941848003 Lead	Sample		: 7830312 75-125			PK: 7830313 N.D.		313	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: 8260 BTEX/MTBE/EDC - Water

Batch number: P150991AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7830311	103	100	94	99
7830312	104	101	93	98
7830313	103	100	94	99
7830314	103	100	94	99
7830315	104	101	94	98
7830316	103	102	94	99
7830317	104	99	94	99
Blank	102	100	94	98
LCS	102	104	95	98
LCSD	103	104	94	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PAHs 8270C Water

Batch number: 15093WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Lerphenyl-d14
7830312	93	84	35
7830313	93	84	59
7830314	93	82	84
7830315	92	83	82
7830316	92	84	80
Blank	92	82	82
LCS	93	83	75
MS	99	87	70
MSD	99	87	80
Limits:	60-123	61-112	35-144

Analysis Name: PAHs 8270C Water

Batch number: 15096WAH026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7830317	93	82	86
Blank	28*	26*	78
LCS	100	86	67
LCSD	97	85	81
Limits:	60-123	61-112	35-144

- (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.

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**Environmental** 

### Quality Control Summary

Client Name: Chevron Group Number: 1549955 Reported: 04/30/2015 19:20

Surrogate Quality Control Analysis Name: NWTPH-Gx water C7-C12

Trifluorotoluene-F 7830312 7830313 95 7830314 94 7830315 95 7830316 93 7830317 Blank LCS 100 LCSD Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 15096A94A Trifluorotoluene-F

Batch number: 15093B20A

7830311 Blank 82 LCS 102 LCSD 101 63-135 Limits:

Analysis Name: EDB by 8011 Batch number: 150930028A

1,1,2,2-

#### Tetrachloroethane 7830312 109

Limits: 46-136

Analysis Name: NWTPH-Dx water w/ 10g Si Gel Batch number: 150960014A

Orthoterphenyl 7830312 7830313 7830314 86 7830315 80 7830316 89 7830317 78 Blank 85 LCS 87 LCSD

50-150 Limits:

Analysis Name: NWTPH-Dx water

- (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.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

## Quality Control Summary

Client Name: Chevron Group Number: 1549955

Reported: 04/30/2015 19:20

Surrogate Quality Control

Batch nur	mber: 150960015A
	Orthoterphenyl
7830312	83
7830313	84
7830314	70
7830315	81
7830316	85
7830317	83
Blank	76
LCS	84
LCSD	85
Limits:	50-150

<sup>\*-</sup> Outside of specification

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

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins !

eurofins	Lancaster		Ad	ct. # _	121	60		Grou	For Eu	rofins	Lanc 145	aster	Labo Sa	ratori mple	es us # <u> </u>	e only	031	11-1	1					
	Laboratories							l	nstructio	ns on re	everse	side cor	respon	d with c	ircled n	umbers			Market and them					
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Consultant Phone # <b>(925) 551-744</b>	4 x180						Potable NPDES		ber of		_	Oxygenates		/ith Sili	ithout	WA	Total	ENE	80/			Confirm all hits by	/ 8260 s on highe	st hit
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## **Explanation of Symbols and Abbreviations**

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

less than <

greater than

ppm 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.

ppb parts per billion

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight Dry weight basis

concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

#### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ 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.

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...

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.

#### Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) 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.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Chevron 6001 Bollinger Canyon Road L4310 San Ramon CA 94583

October 30, 2015

**Project: 372654** 

Submittal Date: 07/03/2015 Group Number: 1574333 PO Number: 0015164161 Release Number: HETRICK State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7954470
MW-1 Grab Water	7954471
MW-2 Grab Water	7954472
MW-3 Grab Water	7954473
MW-4 Grab Water	7954474
MW-5 Grab Water	7954475
MW-6 Grab Water	7954476
MW-3 Grab Water MW-4 Grab Water MW-5 Grab Water	7954473 7954474 7954475

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

ELECTRONIC Leidos Attn: Russ Shropshire

COPY TO

ELECTRONIC Leidos Attn: Jamalyn Agyei

COPY TO

ELECTRONIC Gettler-Ryan Inc. Attn: Gettler Ryan

COPY TO

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Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: QA NA Water

QA NA Water LL Sample # WW 7954470 Facility# 372654 Job# 385900 LL Group # 1574333 3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Collected: 07/01/2015 Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

Reported: 10/30/2015 12:48

Submitted: 07/03/2015 09:30

### MUGQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	Latiles ECY 97	-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D151932AA	07/12/2015	13:49	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D151932AA	07/12/2015	13:49	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15187A94A	07/06/2015	22:07	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15187A94A	07/06/2015	22:07	Marie D Beamenderfer	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1 Grab Water

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA

LL Group # 1574333 Account # 11260

LL Sample # WW 7954471

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 13:25 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG01

GC/MS   Volatiles   SW-846 8260B   vg/l   vg/l	CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
10945   Benzene	GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
10945   1,2-Dichloroethane	•				N.D.	0.5	1
10945   Methyl Tertiary Butyl Ether   1634-04-4   N.D.   0.5   1   10945   Toluene   108-88-3   N.D.   0.5   1   10945   Xylene (Total)   1330-20-7   N.D.   0.5   1   1   1   1   1   1   1   1   1	10945	1,2-Dichloroethane		107-06-2			
10945   Methyl Tertiary Butyl Ether   1634-04-4   N.D.   0.5   1   10945   Toluene   108-88-3   N.D.   0.5   1   10945   Xylene (Total)   1330-20-7   N.D.   0.5   1   1   1   1   1   1   1   1   1	10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945   Toluene   108-88-3   N.D.   0.5   1   1   1   1   1   1   1   1   1			vl Ether	1634-04-4	N.D.	0.5	1
GC/MS Semivolatiles SW-846 8270C ug/l ug/l  07805 2-Methylnaphthalene 91-57-6 N.D. 0.1 1  07805 Naphthalene 91-20-3 N.D. 0.1 1  GC Volatiles ECY 97-602 NWTPH-Gx ug/l ug/l  08273 NWTPH-Gx water C7-C12 n.a. N.D. 50 1  Pesticides/PCBs SW-846 8011 ug/l ug/l  10398 Ethylene dibromide 106-93-4 N.D. 0.0095 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons modified  08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1  08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons w/Si modified					N.D.	0.5	1
07805       2-Methylnaphthalene       91-57-6       N.D.       0.1       1         07805       Naphthalene       91-20-3       N.D.       0.1       1         GC Volatiles       ECY 97-602 NWTPH-Gx       ug/l       ug/l       ug/l         08273       NWTPH-Gx water C7-C12       n.a.       N.D.       50       1         Pesticides/PCBs       SW-846       8011       ug/l       ug/l       ug/l         10398       Ethylene dibromide       106-93-4       N.D.       0.0095       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons       modified       N.D.       28       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons w/Si       modified       ug/l       ug/l	10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
07805 Naphthalene       91-20-3       N.D.       0.1       1         GC Volatiles       ECY 97-602 NWTPH-Gx       ug/l       ug/l         Pesticides/PCBs       SW-846 8011       ug/l       ug/l         10398 Ethylene dibromide       106-93-4       N.D.       0.0095       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons w/Si       modified	GC/MS	Semivolatiles	SW-846 827	70C	ug/l	ug/l	
07805 Naphthalene       91-20-3       N.D.       0.1       1         GC Volatiles       ECY 97-602 NWTPH-Gx       ug/l       ug/l         Pesticides/PCBs       SW-846 8011       ug/l       ug/l         10398 Ethylene dibromide       106-93-4       N.D.       0.0095       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons w/Si       modified	07805	2-Methvlnaphthalene		91-57-6	N.D.	0.1	1
08273       NWTPH-Gx water C7-C12       n.a.       N.D.       50       1         Pesticides/PCBs       SW-846       8011       ug/l       ug/l       ug/l       1         10398       Ethylene dibromide       106-93-4       N.D.       0.0095       1         GC Petroleum       ECY 97-602       NWTPH-Dx       ug/l       ug/l         Hydrocarbons       modified       N.D.       28       1         08271       Diesel Range Organics C12-C24       n.a.       N.D.       66       1         GC Petroleum       ECY 97-602       NWTPH-Dx       ug/l       ug/l         Hydrocarbons w/Si       modified				91-20-3	N.D.		
08273 NWTPH-Gx water C7-C12       n.a.       N.D.       50       1         Pesticides/PCBs       SW-846 8011       ug/l       ug/l       ug/l         10398 Ethylene dibromide       106-93-4       N.D.       0.0095       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons       modified         08271 Diesel Range Organics C12-C24 n.a.       N.D.       28       1         08271 Heavy Range Organics C24-C40 n.a.       N.D.       66       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons w/Si       modified	GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
10398 Ethylene dibromide       106-93-4       N.D.       0.0095       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons       modified       state of the control of the contro	08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons modified  08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons w/Si modified	Pesti	cides/PCBs	SW-846 801	L1	ug/l	ug/l	
Hydrocarbons modified  08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l Hydrocarbons w/Si modified	10398	Ethylene dibromide		106-93-4	N.D.	0.0095	1
08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l Hydrocarbons w/Si modified	GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l Hydrocarbons w/Si modified	Hydro	carbons	modified				
08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons w/Si modified	08271	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1
Hydrocarbons w/Si modified		2 2			N.D.	66	
<u>.                                      </u>	GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
<u>.                                      </u>	Hydro	carbons w/Si	modified				
12005 DRO C12-C24 W/51 GE1	_	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
12005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1		•		n.a.	N.D.	66	
The reverse surrogate, capric acid, is present at <1%.		•			1%.		
Metals SW-846 6010B ug/l ug/l	Metals	3	SW-846 601	LOB	ug/l	ug/l	
07055 Lead 7439-92-1 N.D. 4.7 1	07055	Lead		7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D151941AA	07/13/2015 12:36	Amanda K Richards	1
	Water						
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D151941AA	07/13/2015 12:36	Amanda K Richards	1



## **Analysis Report**

LL Sample # WW 7954471

LL Group # 1574333

Account # 11260

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1 Grab Water

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 13:25 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG01

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15187WAB026	07/11/2015	01:24	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	15187WAB026	07/06/2015	18:00	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15187A94A	07/07/2015	00:40	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15187A94A	07/07/2015	00:40	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	151870016A	07/10/2015	13:46	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	151870016A	07/07/2015	17:15	Edwin Ortiz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151910010A	07/17/2015	10:34	Christine E Dolman	. 1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151910009A	07/16/2015	06:05	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151910009A	07/13/2015	21:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151910010A	07/13/2015	21:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	151871848003	07/08/2015	03:58	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151871848003	07/07/2015	11:57	James L Mertz	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Water

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Sample # WW 7954472 LL Group # 1574333 Account # 11260

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 10:45 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG02

No. Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS Volatiles SW-846 82	60B	ug/l	ug/l	
10945 Benzene	71-43-2	N.D.	0.5	1
10945 1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10945 Ethylbenzene	100-41-4	N.D.	0.5	1
10945 Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945 Toluene	108-88-3	N.D.	0.5	1
10945 Xylene (Total)	1330-20-7	N.D.	0.5	1
GC/MS Semivolatiles SW-846 82	70C	ug/l	ug/l	
07805 2-Methylnaphthalene	91-57-6	N.D.	0.1	1
07805 Naphthalene	91-20-3	N.D.	0.1	1
GC Volatiles ECY 97-60	2 NWTPH-Gx	ug/l	ug/l	
08273 NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
Pesticides/PCBs SW-846 80	11	ug/l	ug/l	
10398 Ethylene dibromide	106-93-4	N.D.	0.0096	1
GC Petroleum ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydrocarbons modified				
08271 Diesel Range Organics C12-C24	n.a.	N.D.	28	1
08271 Heavy Range Organics C24-C40		N.D.	66	1
GC Petroleum ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydrocarbons w/Si modified				
12005 DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
12005 HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, i				
Metals SW-846 60	10B	ug/l	ug/l	
07055 Lead	7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D151941AA	07/13/2015 14:08	Amanda K Richards	1
01163	Water	CM-846 5030D	1	D1519/177	07/13/2015 14:00	Amanda V Dichardo	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D151941AA	07/13/2015 14:08	Amanda K Richards	1



## **Analysis Report**

LL Sample # WW 7954472

LL Group # 1574333

Account # 11260

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Water

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 10:45 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG02

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15187WAB026	07/11/2015	01:54	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	15187WAB026	07/06/2015	18:00	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15187A94A	07/07/2015	01:06	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15187A94A	07/07/2015	01:06	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	151870016A	07/10/2015	14:17	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	151870016A	07/07/2015	17:15	Edwin Ortiz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151910010A	07/17/2015	10:56	Christine E Dolman	. 1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151910009A	07/16/2015	06:27	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151910009A	07/13/2015	21:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151910010A	07/13/2015	21:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	151871848003	07/08/2015	04:01	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151871848003	07/07/2015	11:57	James L Mertz	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Water

MW-3 Grab Water LL Sample # WW 7954473 Facility# 372654 Job# 385900 LL Group # 1574333 3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 17:05 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG03

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
•	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	L1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
08271	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1
	Heavy Range Organic		n.a.	N.D.	66	1
GC Pet	roleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca			1%.		
Metals	5	SW-846 601	LOB	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D151941AA	07/13/2015 14:31	Amanda K Richards	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	D151941AA	07/13/2015 14:31	Amanda K Richards	1



## **Analysis Report**

LL Sample # WW 7954473 LL Group # 1574333 Account # 11260

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Water

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 17:05 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG03

			-					
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15187WAB026		02:23	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	15187WAB026	07/06/2015	18:00	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15187A94A	07/07/2015	01:32	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15187A94A	07/07/2015	01:32	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	151870016A	07/10/2015	15:20	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	151870016A	07/07/2015	17:15	Edwin Ortiz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151910010A	07/17/2015	11:18	Christine E Dolman	. 1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151910009A	07/16/2015	06:48	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151910009A	07/13/2015	21:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151910010A	07/13/2015	21:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	151871848003	07/08/2015	04:04	Elaine F Stoltzfus	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151871848003	07/07/2015	11:57	James L Mertz	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax; 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Water

MW-4 Grab Water LL Sample # WW 7954474
Facility# 372654 Job# 385900 LL Group # 1574333
3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 15:55 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG04

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	_	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-602	2 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	11	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1
	Heavy Range Organic			N.D.	66	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydrod	carbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	66	1
	reverse surrogate, ca			1%.		
Metals	5	SW-846 601	10в	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D151941AA	07/13/2015 14:54	Amanda K Richards	1
01163	Water	CM-846 5030D	1	D1519/177	07/13/2015 14.54	Amanda V Dichardo	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	D151941AA	07/13/2015 14:54	Amanda K Richards	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Water

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1574333 Account # 11260

LL Sample # WW 7954474

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 15:55 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG04

			_					
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
			_					
07805	PAHs 8270C Water	SW-846 8270C	1	15187WAB026	07/11/2015	02:52	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	15187WAB026	07/06/2015	18:00	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15187A94A	07/07/2015	01:57	Marie D	1
		NWTPH-Gx			. , . ,		Beamenderfer	
01146	GC VOA Water Prep	SW-846 5030B	1	15187A94A	07/07/2015	01:57	Marie D	1
	-				. , . ,		Beamenderfer	
10398	EDB by 8011	SW-846 8011	1	151870016A	07/10/2015	15:35	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	151870016A	07/07/2015	17:15	Edwin Ortiz	1
08271	NWTPH-Dx water	ECY 97-602	1	151910010A	07/17/2015	11:39	Christine E Dolman	. 1
		NWTPH-Dx modified			, ,			
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	151910009A	07/16/2015	07:10	Christine E Dolman	. 1
	Gel	NWTPH-Dx modified			07,10,2015	07.10		
12007	NW Dx water w/ 10g column	ECY 97-602	1	151910009A	07/13/2015	21:00	Samantha L Bronder	. 1
12007	in bi nacci n, icg column	NWTPH-Dx 06/97	-	10101000	07/13/2013	21.00	Damarona E Bronaor	-
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	151910010A	07/13/2015	21:00	Samantha L Bronder	. 1
11177	mi bito im bi bito (non bo)	NWTPH-Dx 06/97	-	13131001011	07/13/2013	21.00	bamairena il bionaci	_
07055	Lead	SW-846 6010B	1	151871848004	07/08/2015	08:52	Joanne M Gates	1
								_
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	151871848004	07/07/2015	09:31	Katlin N Cataldi	1
	U3							



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax; 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Water

MW-5 Grab Water LL Sample # WW 7954475 Facility# 372654 Job# 385900 LL Group # 1574333 3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 14:40 by GM Chevron

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#### MUG05

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	•	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	70C	ug/l	ug/l	
	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	L1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1
	Heavy Range Organic		n.a.	N.D.	66	1
GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca		s present at <	1%.		
Metals	3	SW-846 601	LOB	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D151941AA	07/13/2015 15:17	Amanda K Richards	1
	Water						
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D151941AA	07/13/2015 15:17	Amanda K Richards	1



## **Analysis Report**

LL Sample # WW 7954475

LL Group # 1574333

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Water

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA

2 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 14:40 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG05

			_	_				
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti		Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15187WAB026	07/11/2015	03:22	William H Saadeh	1
07807	BNA Water Extraction	SW-846 3510C	1	15187WAB026		18:00	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15187A94A	07/07/2015		Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15187A94A	07/07/2015	02:23	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	151870016A	07/10/2015	15:51	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	151870016A	07/07/2015	17:15	Edwin Ortiz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151910010A	07/17/2015	12:23	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151910009A	07/16/2015	07:32	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151910009A	07/13/2015	21:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151910010A	07/13/2015	21:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	151871848005	07/07/2015	18:32	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151871848005	07/07/2015	09:31	Katlin N Cataldi	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Water

MW-6 Grab Water LL Sample # WW 7954476 Facility# 372654 Job# 385900 LL Group # 1574333 3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 12:10 by GM Chevron

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San Ramon CA 94583

MUG06

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	_	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	L1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0095	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1
	Heavy Range Organic		n.a.	N.D.	66	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydrod	carbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
The :	reverse surrogate, ca	apric acid, is	s present at <	1%.		
Metals	5	SW-846 601	L0B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	4.7	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D151941AA	07/13/2015 15:40	Amanda K Richards	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	D151941AA	07/13/2015 15:40	Amanda K Richards	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Water

MW-6 Grab Water LL Sample # WW 7954476 Facility# 372654 Job# 385900 LL Group # 1574333 3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 07/03/2015 09:30

Reported: 10/30/2015 12:48

Collected: 07/01/2015 12:10 by GM Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG06

			_					
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15187WAB026			William H Saadeh	
			1		07/11/2015	03:51		1
07807	BNA Water Extraction	SW-846 3510C	1	15187WAB026	07/06/2015	18:00	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15187A94A	07/07/2015	02:48	Marie D	1
		NWTPH-Gx					Beamenderfer	
01146	GC VOA Water Prep	SW-846 5030B	1	15187A94A	07/07/2015	02:48	Marie D	1
	-				,,		Beamenderfer	
10398	EDB by 8011	SW-846 8011	1	151870016A	07/10/2015	16:07	Richard A Shober	1
07786	EDB Extraction (8011)	SW-846 8011	1	151870016A	07/07/2015	17:15	Edwin Ortiz	1
08271	NWTPH-Dx water	ECY 97-602	1	151910010A	07/17/2015	12:01	Christine E Dolman	1
		NWTPH-Dx modified	_		0.72.72015	12.01		_
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	151910009A	07/16/2015	07:56	Christine E Dolman	1
12005	Gel	NWTPH-Dx modified	_	13131000311	07/10/2013	07.30	chilibethe il bolman	_
12007			1	1510100007	07/12/2015	01 00	Comenths I Dwender	1
12007	NW Dx water w/ 10g column	ECY 97-602	1	151910009A	07/13/2015	21:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	151910010A	07/13/2015	21:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	151891848002	07/13/2015	10:26	Eric L Eby	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	151891848002	07/10/2015	07:08	James L Mertz	1
01010	U3	2 010 000011	-	151651510002	07/10/2013	07.00	James E Herez	-
	US							



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### Quality Control Summary

Client Name: Chevron Group Number: 1574333

Reported: 10/30/2015 12:48

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.

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: D151932AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample numb N.D. N.D. N.D. N.D. N.D.	er(s): 795 0.5 0.5 0.5 0.5 0.5	ug/l ug/l ug/l ug/l ug/l ug/l	87 88 88 89 91		78-120 80-120 75-120 80-120 80-120		
Batch number: D151941AA Benzene 1,2-Dichloroethane Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample numb N.D. N.D. N.D. N.D. N.D. N.D.	er(s): 795 0.5 0.5 0.5 0.5 0.5 0.5	4471-7954 ug/1 ug/1 ug/1 ug/1 ug/1 ug/1 ug/1	476 90 93 85 86 87 87		78-120 72-127 80-120 75-120 80-120 80-120		
Batch number: 15187WAB026 2-Methylnaphthalene Naphthalene	Sample numb N.D. N.D.	er(s): 795 0.1 0.1	34471-7954 ug/l ug/l	476 84 91	87 93	69-103 75-108	3 3	3 0 3 0
Batch number: 15187A94A NWTPH-Gx water C7-C12	Sample numb N.D.	er(s): 795 50.	34470-7954 ug/l	476 83	90	75-135	8	30
Batch number: 151870016A Ethylene dibromide	Sample numb	er(s): 795 0.010	4471-7954 ug/l	176 107	108	60-140	0	20
Batch number: 151910010A Diesel Range Organics C12-C24 Heavy Range Organics C24-C40	Sample numb N.D. N.D.	er(s): 795 30. 70.	4471-7954 ug/l ug/l	476 62	75	50-113	19	20
Batch number: 151910009A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample numb N.D. N.D.	er(s): 795 30. 70.	4471-7954 ug/l ug/l	476 50	60	32-117	19	20
Batch number: 151871848003 Lead	Sample numb	er(s): 795 4.7	34471-7954 ug/l	473 104		80-120		
Batch number: 151871848004 Lead	Sample numb	er(s): 795 4.7	34474 ug/l	103		80-120		
Batch number: 151871848005 Lead	Sample numb	er(s): 795 4.7	34475 ug/l	103		80-120		
Batch number: 151891848002 Lead	Sample numb N.D.	er(s): 795 4.7	4476 ug/l	104		80-120		

- (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.



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### Quality Control Summary

Client Name: Chevron Group Number: 1574333

Reported: 10/30/2015 12:48

Blank Blank Report LCS LCSD LCS/LCSD RPD
<u>Analysis Name Result MDL Units %REC %REC Limits RPD Max</u>

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD <u>Limits</u>	<u>RPD</u>	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: D151932AA Benzene	Sample	number(s)	: 7954470 72-134	UNSPK:	P95442	26			
Ethylbenzene	89	105	71-134	16	30				
Methyl Tertiary Butyl Ether	78	94	72-126	19	30				
Toluene	88	104	80-125	17	30				
Xylene (Total)	89	105	79-125	17	30				
Batch number: D151941AA	Sample	number(s)	: 7954471	-795447	6 UNSP	K: 7954471			
Benzene	91	95	72-134	5	30				
1,2-Dichloroethane	92	97	63-142	5	30				
Ethylbenzene	90	94	71-134	5	30				
Methyl Tertiary Butyl Ether	86	91	72-126	5	30				
Toluene	90	95	80-125	6	30				
Xylene (Total)	91	96	79-125	5	30				
Batch number: 151870016A	Sample	number(s)	: 7954471	-795447	6 UNSP	K: 7954471 E	BKG: 7954472		
Ethylene dibromide	108		60-140			N.D.	N.D.	0 (1)	30
Batch number: 151871848003	Sample	number(s)	: 7954471	-795447	3 UNSP	K: P952101 E	BKG: P952101		
Lead	103	102	75-125	1	20	N.D.	N.D.	0 (1)	20
Batch number: 151871848004	Sample		: 7954474	UNSPK:	P9496	66 BKG: P949	9666		
Lead	100	97	75-125	3	20	N.D.	N.D.	0 (1)	20
Batch number: 151871848005	Sample	number(s)	: 7954475	UNSPK:	P9537	32 BKG: P953	3732		
Lead	100	107	75-125	7	20	N.D.	N.D.	0 (1)	20
Batch number: 151891848002	Sample	number(s)	: 7954476	UNSPK:	P9494	71 BKG: P949	9471		
Lead	96	91	75-125	3	20	99.9	90.5	10	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/MTBE Batch number: D151932AA

	Dibromofluoromethane	1.2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7954470	102	100	98	96
Blank	101	98	99	97
LCS	99	101	99	101
MS	100	99	99	103

- (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.

77-113



Analysis Report

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### Quality Control Summary

80-113

Client Name: Chevron Group Number: 1574333

Reported: 10/30/2015 12:48

80-116

Limits:

### Surrogate Quality Control

	Name: 8260 BTEX/I mber: D151941AA	MTBE/EDC - Water		
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7954471	101	99	98	98
7954472	101	99	97	97
7954473	101	99	97	97
7954474	101	99	98	97
7954475	102	97	97	97
7954476	103	100	98	97
Blank	101	99	98	97
LCS	101	102	96	102
MS	100	99	98	101
MSD	100	99	98	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PAHs 8270C Water

Batch number: 15187WAB026

Batch nu	mber: 1518/WAB026		
	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
7954471	83	81	72
7954472	81	81	66
7954473	84	85	69
7954474	82	84	69
7954475	75	76	73
7954476	81	86	78
Blank	88	87	48
LCS	86	87	80
LCSD	87	83	81
Limits:	60-123	61-112	35-144

Analysis Name: NWTPH-Gx water C7-C12

Batch number: 15187A94A Trifluorotoluene-F

TTITIAOTOTOTA
77
77
78
74
78
77
88
79
94
96

Limits: 63-135

Analysis Name: EDB by 8011 Batch number: 151870016A

1,1,2,2-

Tetrachloroethane

7954471 123 7954472 124 7954473 134 7954474 127

- (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.

## Analysis Report

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### Quality Control Summary

Client Name: Chevron Group Number: 1574333 Reported: 10/30/2015 12:48 Surrogate Quality Control 7954475 126 7954476 127 Blank 124 DUP 130 LCS 117 LCSD 119 122 MS Limits: 46-136 Analysis Name: NWTPH-Dx water w/ 10g Si Gel Batch number: 151910009A Orthoterphenyl 7954471 77 7954472 83 7954473 79 7954474 77 7954475 72 7954476 83 Blank LCS 75 LCSD Limits: 50-150 Analysis Name: NWTPH-Dx water Batch number: 151910010A Orthoterphenyl 7954471 88 7954472 95 7954473 91 7954474 91 7954475 89 7954476 82 Blank 93 LCS 89 LCSD 100 Limits:

- (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.

# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins   Lancaster Laboratories		Ac	cct. # _	116	<u> </u>	<u>,O</u>	G	F roup In:	For Eu	urofins 574 ons on re	Land 13. everse	aster 23 side cor	Labor Sar respond	ratorie mple d with c	eircled n	e only 95 jumbers	<u>44</u>	70	)-7	6		
Client Information	on				(4)	Mat	rix			(5)	Na cessonos	**************************************	Ar	nalys	ses l	Requ	uest	ed				SCR #:
Facility # SS#372654-OML G-R#385900	WBS										2 2002 00000						010		(45			30h #.
Site Address 3202 MAIN STREET, UNION GAI										ohth					<b>Ø</b>		0		82	1		☐ Results in Dry Weight ☐ J value reporting needed
Consultant/Office Gettler-Ryan Inc., 6805 Sierra Co	Lead Cons	ultant Rus	sell (	Shrd	pen	pugo.	Surface		S	8260 Kr Naphth				<b>₽</b>			Method		CAC	200		Must meet lowest detection limits possible for 8260
	ourt, Sui	te G, Du	blin,	CA	945(	5 58	S		Containers	8260				Cleanu	ael Cle			2603	STA AL	r		compounds  8021 MTBE Confirmation
Consultant Project Mgr.  Deanna L. Harding, (deanna@g	rinc.com	)								21		nates		ca Gel	Silica G	∆ EPH			ノモンや			☐ Confirm MTBE + Naphthalene☐ Confirm highest hit by 8260
Consultant Phone # (925) 551-7444 x180						Potable	NPDES	A	ber of	E 8021		Oxygenates		with Silic	vithout	WA		DCE (	サマフィ	80=	_	☐ Confirm all hits by 8260 ☐ Run oxy's on highest hit
Sampler GUBERT MEDINA		-11	3	Composite		1			Total Number	+ MTBE	8260 full scan		NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	표	To	2	NAPHTHALE	7		Run oxy's on all hits
② Sample Identification	Date	ected Time	Grab	mo.	Soil	Water	<u> </u>	ō	ota	ВТЕХ	260 f		IWTE	IWTE	IWTF	WA VPH	-ead	_`	X /	TI		(6) Remarks
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MW-1		1325	1,						13					X	×		X	X	X	V		Requesting results for both Dx and Dx with silica
Mw-2		1045																				gel cleanup.
Mw-3		1705																		$\prod$		
MW-Y		1555												Ш			Ш					
Mw-5		1440				$\sqcup$			Ш				$\perp \downarrow \downarrow$	Ш	Ш		Ш					
MW-10	$\perp V$	1210	V			V			4	V			V	$\square$	V		V	1		4		
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Data Package (circle if required)  ED	<b>D</b> (circle if r	equired)	Reliń	quish	ed by	/ Comn	nercial	l Car	rrier:	<u></u>	and forest constants on the second			-		Recei	ved by	_		$\overline{\bigcirc}$	0	Date Time
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eurofins |



## **Explanation of Symbols and Abbreviations**

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

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm 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.

ppb parts per billion

**Dry weight basis**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.

### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ 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.

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...

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.

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.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Chevron 6001 Bollinger Canyon Road L4310 San Ramon CA 94583

October 30, 2015

**Project: 372654** 

Submittal Date: 09/19/2015 Group Number: 1594231 PO Number: 0015164161 Release Number: HETRICK State of Sample Origin: WA

Client Sample Description	<u>Lancaster Labs (LL) #</u>
QA NA Water	8054787
MW-1 Grab Groundwater	8054788
MW-2 Grab Groundwater	8054789
MW-3 Grab Groundwater	8054790
MW-4 Grab Groundwater	8054791
MW-5 Grab Groundwater	8054792
MW-6 Grab Groundwater	8054793

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

ELECTRONIC Leidos Attn: Russ Shropshire

COPY TO

ELECTRONIC Leidos Attn: Jamalyn Agyei

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ELECTRONIC Gettler-Ryan Inc. Attn: Gettler Ryan

COPY TO

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Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



## Analysis Report

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Sample Description: QA NA Water

QA NA Water LL Sample # WW 8054787

Facility# 372654 Job# 385900 LL Group # 1594231

3202 Main Street - Union Gap, WA Account # 11260

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles ECY 97	-602 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152711AA	09/28/2015 10:51	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152711AA	09/28/2015 10:51	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15266A53A	09/24/2015 17:57	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15266A53A	09/24/2015 17:57	Brett W Kenyon	1



## Analysis Report

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Sample Description: MW-1 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Sample # WW 8054788 LL Group # 1594231 Account # 11260

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 13:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG01

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
•	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
	Methyl Tertiary But	vl Ether	1634-04-4	N.D.	0.5	1
	Toluene	1	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	L1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organi	cs C12-C24	n.a.	N.D.	29	1
	Heavy Range Organic			N.D.	67	1
GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
	DRO C12-C24 w/Si Ge		n.a.	N.D.	29	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	67	1
	reverse surrogate, ca				-	
Metals	5	SW-846 601	L0B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P152711AA	09/28/2015 17:26	Brett W Kenyon	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	P152711AA	09/28/2015 17:26	Brett W Kenyon	1
01103	GC/MS VOA Water Frep	5W-040 3U3UD		PISZ/IIAA	09/28/2015 1/:26	Diett W Kenyon	



## **Analysis Report**

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Sample Description: MW-1 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054788

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 13:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG01

			_					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15266WAG026	09/28/2015	17:04	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	15266WAG026	09/23/2015	16:30	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15264A53A	09/22/2015	17:17	Brett W Kenyon	1
		NWTPH-Gx						
01146	GC VOA Water Prep	SW-846 5030B	1	15264A53A	09/22/2015	17:17	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	152640006A	09/23/2015	08:20	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	152640006A	09/22/2015	11:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	152720023A	10/01/2015	10:30	Tracy A Cole	1
		NWTPH-Dx modified						
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	152720024A	10/14/2015	10:21	Christine E Dolman	1
	Gel	NWTPH-Dx modified						
12007	NW Dx water w/ 10g column	ECY 97-602	1	152720024A	09/30/2015	08:20	Olivia Arosemena	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	152720023A	09/30/2015	08:20	Olivia Arosemena	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	152711848003	09/30/2015	08:33	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	152711848003	09/29/2015	09:24	James L Mertz	1
	U3							



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Sample # WW 8054789 LL Group # 1594231 Account # 11260

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 09:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG02

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 82	60B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	=	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 82	70C	ug/l	ug/l	
	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vo	latiles	ECY 97-60	2 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 80	11	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
GC Pe	troleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
08271	Diesel Range Organi	cs C12-C24	n.a.	N.D.	29	1
	Heavy Range Organic			N.D.	67	1
GC Pe	troleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	29	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	67	1
	reverse surrogate, ca			1%.		
Metal	3	SW-846 60	10B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P152711AA	09/28/2015 17:53	Brett W Kenyon	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	P152711AA	09/28/2015 17:53	Brett W Kenyon	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054789

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 09:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG02

			_					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15266WAG026	09/28/2015	17:32	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	15266WAG026	09/23/2015	16:30	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15264A53A	09/22/2015	17:45	Brett W Kenyon	1
		NWTPH-Gx						
01146	GC VOA Water Prep	SW-846 5030B	1	15264A53A	09/22/2015	17:45	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	152640006A	09/23/2015	08:36	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	152640006A	09/22/2015	11:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	152720023A	10/01/2015	10:52	Tracy A Cole	1
		NWTPH-Dx modified						
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	152720024A	10/14/2015	10:42	Christine E Dolman	1
	Gel	NWTPH-Dx modified						
12007	NW Dx water w/ 10g column	ECY 97-602	1	152720024A	09/30/2015	08:20	Olivia Arosemena	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	152720023A	09/30/2015	08:20	Olivia Arosemena	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	152711848003	09/30/2015	08:41	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	152711848003	09/29/2015	09:24	James L Mertz	1
	U3							



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Sample # WW 8054790 LL Group # 1594231 Account # 11260

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 10:18 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG03

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
	Methyl Tertiary But	vl Ether	1634-04-4	N.D.	0.5	1
10945		•	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	0C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organio	cs C12-C24	n.a.	N.D.	28	1
	Heavy Range Organics			N.D.	66	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca					
Metals	5	SW-846 601	0В	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P152711AA	09/28/2015 18:19	Brett W Kenyon	1
	Water						
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152711AA	09/28/2015 18:19	Brett W Kenyon	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054790

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 10:18 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG03

			_					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15266WAG026	09/28/2015	18:00	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	15266WAG026	09/23/2015	16:30	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15264A53A	09/22/2015	18:13	Brett W Kenyon	1
		NWTPH-Gx						
01146	GC VOA Water Prep	SW-846 5030B	1	15264A53A	09/22/2015	18:13	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	152640006A	09/23/2015	09:24	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	152640006A	09/22/2015	11:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	152720023A	10/01/2015	11:13	Tracy A Cole	1
		NWTPH-Dx modified						
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	152720024A	10/14/2015	11:04	Christine E Dolman	. 1
	Gel	NWTPH-Dx modified						
12007	NW Dx water w/ 10g column	ECY 97-602	1	152720024A	09/30/2015	08:20	Olivia Arosemena	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	152720023A	09/30/2015	08:20	Olivia Arosemena	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	152711848003	09/30/2015	08:43	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	152711848003	09/29/2015	09:24	James L Mertz	1
	U3							



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054791

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 11:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG04

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	•	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vo	latiles	ECY 97-602	2 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	L1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organi		n.a.	N.D.	28	1
	Heavy Range Organic			N.D.	66	1
GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca					
Metals	5	SW-846 601	L0B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT Ar	nalysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945 82	260 BTEX/MTBE/EDC -	SW-846 8260B	1	P152711AA	09/28/2015 18:45	Brett W Kenyon	1
	Water GC/MS VOA Water Prep	SW-846 5030B	1	P152711AA	09/28/2015 18:45	Brett W Kenyon	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054791

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 11:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG04

			_					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15266WAG026	09/28/2015	18:28	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	15266WAG026	09/23/2015	16:30	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15264A53A	09/22/2015	18:41	Brett W Kenyon	1
		NWTPH-Gx						
01146	GC VOA Water Prep	SW-846 5030B	1	15264A53A	09/22/2015	18:41	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	152640006A	09/23/2015	09:40	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	152640006A	09/22/2015	11:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	152740005A	10/02/2015	09:43	Tracy A Cole	1
		NWTPH-Dx modified						
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	152740004A	10/14/2015	12:30	Christine E Dolman	1
	Gel	NWTPH-Dx modified						
12007	NW Dx water w/ 10g column	ECY 97-602	1	152740004A	10/01/2015	19:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	152740005A	10/01/2015	19:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	152671848006	09/27/2015	18:48	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	152671848006	09/27/2015	10:59	James L Mertz	1
	U3							



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Sample # WW 8054792 LL Group # 1594231 Account # 11260

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 07:50 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

#### MUG05

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 82	60B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	•	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 82	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-60	2 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 80	11	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
GC Pet	croleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
08271	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1
	Heavy Range Organic		n.a.	N.D.	66	1
GC Pet	roleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydrod	carbons w/Si	modified				
12005	DRO C12-C24 w/Si Ge	1	n.a.	N.D.	28	1
12005	HRO C24-C40 w/Si Ge	1	n.a.	N.D.	66	1
The :	reverse surrogate, ca	apric acid, i	is present at <	1%.		
Metals	3	SW-846 60	10B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P152711AA	09/28/2015 19:12	Brett W Kenyon	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	P152711AA	09/28/2015 19:12	Brett W Kenyon	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054792

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 07:50 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG05

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15266WAG026	09/28/2015	18:56	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	15266WAG026	09/23/2015	16:30	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15264A53A	09/22/2015	19:08	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15264A53A	09/22/2015	19:08	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	152640006A	09/23/2015	09:55	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	152640006A	09/22/2015	11:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152740005A	10/02/2015	10:04	Tracy A Cole	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152740004A	10/14/2015	12:51	Christine E Dolman	. 1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152740004A	10/01/2015	19:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152740005A	10/01/2015	19:00	Samantha L Bronder	1
07055	Lead	SW-846 6010B	1	152671848006	09/27/2015	18:52	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152671848006	09/27/2015	10:59	James L Mertz	1



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054793

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 12:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

#### MUG06

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	60B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	_	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 82	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-602	2 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 803	11	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
GC Pet	croleum	ECY 97-602	2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organi	cs C12-C24	n.a.	N.D.	28	1
	Heavy Range Organic			N.D.	66	1
GC Pet	croleum	ECY 97-602	2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca			1%.		
Metals	5	SW-846 603	10B	ug/l	ug/l	
07055	Lead		7439-92-1	N.D.	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	P152711AA	09/28/2015 19:38	Brett W Kenyon	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	P152711AA	09/28/2015 19:38	Brett W Kenyon	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main Street - Union Gap, WA LL Group # 1594231 Account # 11260

LL Sample # WW 8054793

Project Name: 372654

Submitted: 09/19/2015 09:10

Reported: 10/30/2015 12:47

Collected: 09/17/2015 12:20 by AW Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUG06

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15266WAG026	09/28/2015	19:24	Holly B Ziegler	1
07807	BNA Water Extraction	SW-846 3510C	1	15266WAG026	09/23/2015	16:30	Ryan A Schafran	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15264A53A	09/22/2015	19:36	Brett W Kenyon	1
		NWTPH-Gx						
01146	GC VOA Water Prep	SW-846 5030B	1	15264A53A	09/22/2015	19:36	Brett W Kenyon	1
10398	EDB by 8011	SW-846 8011	1	152640006A	09/23/2015	10:11	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	152640006A	09/22/2015	11:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	152740005A	10/02/2015	10:26	Tracy A Cole	1
		NWTPH-Dx modified						
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	152740004A	10/14/2015	13:13	Christine E Dolman	1
	Gel	NWTPH-Dx modified						
12007	NW Dx water w/ 10g column	ECY 97-602	1	152740004A	10/01/2015	19:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	152740005A	10/01/2015	19:00	Samantha L Bronder	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	152671848006	09/27/2015	19:01	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	152671848006	09/27/2015	10:59	James L Mertz	1
	U3							



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### Quality Control Summary

Client Name: Chevron Group Number: 1594231

Reported: 10/30/2015 12:47

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.

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: P152711AA Benzene 1,2-Dichloroethane Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample number N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D	er(s): 805 0.5 0.5 0.5 0.5 0.5 0.5	4787-8054 ug/1 ug/1 ug/1 ug/1 ug/1 ug/1	793 93 88 95 100 94 96		78-120 72-127 78-120 75-120 80-120 80-120		
Batch number: 15266WAG026 2-Methylnaphthalene Naphthalene	Sample number N.D.	er(s): 805 0.1 0.1	4788-8054 ug/l ug/l	793 87 85	87 87	69-103 69-109	0 2	3 0 3 0
Batch number: 15264A53A NWTPH-Gx water C7-C12	Sample number N.D.	er(s): 805 50.	4788-8054 ug/l	793 103	105	80-123	2	30
Batch number: 15266A53A NWTPH-Gx water C7-C12	Sample number N.D.	er(s): 805 50.	4787 ug/l	103	101	80-123	2	30
Batch number: 152640006A Ethylene dibromide	Sample number N.D.	er(s): 805 0.010	4788-8054 ug/l	793 93	92	60-140	1	20
Batch number: 152720023A Diesel Range Organics C12-C24 Heavy Range Organics C24-C40	Sample number N.D.	er(s): 805 30. 70.	4788-8054' ug/l ug/l	790 59	60	50-113	2	20
Batch number: 152740005A Diesel Range Organics C12-C24 Heavy Range Organics C24-C40	Sample number N.D.	er(s): 805 30. 70.	4791-8054 ug/l ug/l	793 56	62	50-113	10	20
Batch number: 152720024A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number N.D.	er(s): 805 30. 70.	4788-8054 ug/l ug/l	790 45	54	32-117	18	20
Batch number: 152740004A DRO C12-C24 w/Si Gel HRO C24-C40 w/Si Gel	Sample number N.D.	er(s): 805 30. 70.	4791-8054 ug/l ug/l	793 45	57	32-117	24*	20
Batch number: 152671848006 Lead	Sample number N.D.	er(s): 805 5.1	4791-8054 ug/l	793 104		80-120		
Batch number: 152711848003 Lead	Sample number N.D.	er(s): 805 5.1	4788-8054 ug/l	790 101		80-120		

- (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.



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### Quality Control Summary

Client Name: Chevron Group Number: 1594231

Reported: 10/30/2015 12:47

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DU RP		Dup RPD <u>Max</u>
Batch number: P152711AA	Sample	number(s)	: 8054787	-80547	93 UNSP	K: P055231				
Benzene	107	104	78-120	3	30					
1,2-Dichloroethane	94	93	72-127	1	30					
Ethylbenzene	107	105	78-120	3	30					
Methyl Tertiary Butyl Ether	106	104	75-120	2	30					
Toluene	105	103	80-120	2	30					
Xylene (Total)	108	105	80-120	3	30					
Batch number: 152640006A	Sample	number(s)	: 8054788	-80547	93 UNSP	K: P054178	BKG: P054179	)		
Ethylene dibromide	95		60-140			N.D.	N.D.	0	(1)	30
Batch number: 152671848006	Sample	number(s)	: 8054791	-80547	93 UNSP	K: P056342	BKG: P056342	2		
Lead	105	104	75-125	1	20	N.D.	N.D.	0	(1)	20
Batch number: 152711848003	Sample	number(s)	: 8054788	-80547	90 UNSP	K: P061689	BKG: P061689	)		
Lead	107	103	75-125	3	20	N.D.	N.D.		(1)	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: 8260 BTEX/MTBE/EDC - Water

Batch number: P152711AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8054787	102	99	98	97
8054788	100	102	97	96
8054789	100	100	99	98
8054790	99	101	99	96
8054791	100	101	98	97
8054792	100	103	98	97
8054793	99	100	98	97
Blank	101	103	98	98
LCS	99	103	99	99
MS	101	103	99	98
MSD	100	102	98	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PAHs 8270C Water

Batch number: 15266WAG026

Daggir man	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
8054788	72	78	69
8054789	78	85	77
8054790	78	84	73
8054791	74	81	73

- (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.



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### Quality Control Summary

Client Name: Chevron Group Number: 1594231 Reported: 10/30/2015 12:47 Surrogate Quality Control 8054792 73 83 8054793 79 76 69 77 72 Blank 68 LCS 74 82 82 LCSD 84 74 76 61-112 43-131 46-128 Limits: Analysis Name: NWTPH-Gx water C7-C12 Batch number: 15264A53A Trifluorotoluene-F 8054788 111 8054789 116 8054790 113 8054791 116 8054792 111 8054793 117 Blank 116 LCS 114 LCSD Limits: 63-135 Analysis Name: NWTPH-Gx water C7-C12 Batch number: 15266A53A Trifluorotoluene-F 8054787 116 Blank 113 LCS 115 LCSD 114 Limits: 63-135 Analysis Name: EDB by 8011 Batch number: 152640006A 1,1,2,2-Tetrachloroethane 8054788 100 8054789 103 8054790 103 8054791 102 8054792 100 8054793 101 Blank 104 DUP 102 LCS 101 LCSD 101 MS 102 Limits: 46-136 Analysis Name: NWTPH-Dx water Batch number: 152720023A Orthoterphenyl 8054788 96 8054789 96 8054790 96 Blank 87 LCS 92

- \*- Outside of specification
- (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.



## Analysis Report

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## Quality Control Summary

Client Name: Chevron Group Number: 1594231

Reported: 10/30/2015 12:47

### Surrogate Quality Control

	barrogate Quartey control								
LCSD	91								
Limits:	50-150								
	Name: NWTPH-Dx water w/ 10g Si Gel								
Batch nu	mber: 152720024A								
	Orthoterphenyl								
8054788	74								
8054789	78								
8054790	56								
Blank	78								
LCS	68								
LCSD	78								
Limits:	50-150								
Analysis	Analysis Name: NWTPH-Dx water w/ 10g Si Gel								
Batch nu	mber: 152740004A								
	Orthoterphenyl								
8054791	77								
8054792	70								
8054793	78								
Blank	78								
LCS	77								
LCSD	85								
Limits:	50-150								
7 7	Name Aligny December 1								
	Name: NWTPH-Dx water								
Batch nui	mber: 152740005A								
	Orthoterphenyl								
8054791	93								
8054792	84								
8054793	89								
Blank	92								
LCS	97								
LCSD	98								
Limits:	50-150								

- (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.

# Chevron Northwest Region Analysis Request/Chain of Custody

Eurofins  Lancaster Laboratories  Acct. # 11260  For Eurofins Lancaster Laboratories use only Group # 159431  Sample # 8054787-93  Instructions on reverse side correspond with circled numbers.																											
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② Sample Identification	1	ļ	Colle Date	ected Time	Grab	Comit	Soil	040,8	Water	lio	Total	втех -	8260 ft		NWTPH-Gx	NWTP	NWTP	WA VPH	Lead	1,2	500	MART		(6) Re	marks	s	
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# **Explanation of Symbols and Abbreviations**

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm 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.

ppb parts per billion

Dry weight basis 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.

### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ 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.

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...

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.

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.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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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### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Chevron 6001 Bollinger Canyon Road L4310 San Ramon CA 94583

January 07, 2016

**Project: 372654** 

Submittal Date: 12/12/2015 Group Number: 1616977 PO Number: 0015164161 Release Number: HETRICK State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA Water	8174652
MW-1 Grab Groundwater	8174653
MW-2 Grab Groundwater	8174654
MW-3 Grab Groundwater	8174655
MW-4 Grab Groundwater	8174656
MW-5 Grab Groundwater	8174657
MW-6 Grab Groundwater	8174658

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>.

ELECTRONIC Leidos Attn: Russ Shropshire

COPY TO

ELECTRONIC Leidos Attn: Jamalyn Agyei

COPY TO

ELECTRONIC Gettler-Ryan Inc. Attn: Gettler Ryan

COPY TO

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Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: QA Water

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Facility# 372654 Job# 385900

3202 Main St - Union Gap, WA

LL Sample # WW 8174652 LL Group # 1616977 Account # 11260

Project Name: 372654

Collected: 12/08/2015 Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846 8	260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles ECY 97-6	02 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of Washington Lab Certification No. C457

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D153494AA	12/15/2015	19:51	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D153494AA	12/15/2015	19:51	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15349B20A	12/16/2015	18:39	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15349B20A	12/16/2015	18:39	Marie D Beamenderfer	1



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main St - Union Gap, WA

LL Group # 1616977 Account # 11260

LL Sample # WW 8174653

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 12:25 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM1

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 82	60B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	=	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 82	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-60	2 NWTPH-Gx	ug/l	ug/l	
	NWTPH-Gx water C7-C		n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 80	11	ug/l	ug/l	
	Ethylene dibromide		106-93-4	N.D.	0.0097	1
GC Pet	croleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hvdro	carbons	modified				
-	Diesel Range Organi		n.a.	N.D.	28	1
	Heavy Range Organic			N.D.	66	1
GC Pet	croleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca			1%.		
Metals	5	SW-846 60	10B	ug/l	ug/l	
07055	Lead		7439-92-1	6.6	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D153494AA	12/15/2015 23:18	Hu Yang	1
01163	Water GC/MS VOA Water Prep	SW-846 5030B	1	D153494AA	12/15/2015 23:18	Hu Yang	1
01103	GC/MS VOA WALEL FLED	5W-040 3030D		DISSESTAN	12/15/2015 23:18	nu iany	



# **Analysis Report**

LL Sample # WW 8174653

LL Group # 1616977

Account # 11260

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1 Grab Groundwater

Project Name: 372654

Collected: 12/08/2015 12:25 by JH Chevron 6001 Bollinger Canyon Road

Submitted: 12/12/2015 09:15 L4310

Reported: 01/07/2016 11:27 San Ramon CA 94583

MUGM1

			_					
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15348WAC026	12/30/2015	16:50	Ankitaben A Patel	1
07807	BNA Water Extraction	SW-846 3510C	1	15348WAC026	12/15/2015	08:00	Jessica M Velez	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15349B20A		19:55	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15349B20A	12/16/2015	19:55	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	153480008A	12/15/2015	16:29	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	153480008A	12/15/2015	00:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153520034A	12/22/2015	04:32	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153520035A	12/29/2015	06:02	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153520035A	12/19/2015	16:45	JoElla L Rice	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153520034A	12/19/2015	16:45	JoElla L Rice	1
07055	Lead	SW-846 6010B	1	153511848003	01/06/2016	16:42	Eric L Eby	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	153511848003	12/19/2015	14:39	James L Mertz	1



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main St - Union Gap, WA LL Group # 1616977 Account # 11260

LL Sample # WW 8174654

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 17:05 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM2

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 826	0B	ug/l	ug/l	
•	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
	Methyl Tertiary Buty	vl Ether	1634-04-4	N.D.	0.5	1
	Toluene	•	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 827	'0C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
GC Vo	latiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 801	.1	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hvdro	carbons	modified				
-	Diesel Range Organi		n.a.	N.D.	28	1
	Heavy Range Organic			N.D.	66	1
GC Pet	troleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca					
Metals	5	SW-846 601	.0в	ug/l	ug/l	
07055	Lead		7439-92-1	6.5	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D153494AA	12/15/2015 23:41	Hu Yang	1
	Water						
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D153494AA	12/15/2015 23:41	Hu Yanq	1



# **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2 Grab Groundwater

LL Group # 1616977 Account # 11260

LL Sample # WW 8174654

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 17:05 by JH Chevron

6001 Bollinger Canyon Road

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San Ramon CA 94583

MUGM2

			_					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15348WAC026	12/30/2015	17:18	Ankitaben A Patel	1
07807	BNA Water Extraction	SW-846 3510C	1	15348WAC026	12/15/2015	08:00	Jessica M Velez	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15349B20A	12/16/2015	20:22	Marie D	1
		NWTPH-Gx					Beamenderfer	
01146	GC VOA Water Prep	SW-846 5030B	1	15349B20A	12/16/2015	20:22	Marie D	1
							Beamenderfer	
10398	EDB by 8011	SW-846 8011	1	153480008A	12/15/2015	17:00	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	153480008A	12/15/2015	00:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	153520034A	12/22/2015	04:54	Thomas C	1
		NWTPH-Dx modified					Wildermuth	
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	153520035A	12/29/2015	06:24	Thomas C	1
	Gel	NWTPH-Dx modified					Wildermuth	
12007	NW Dx water w/ 10g column	ECY 97-602	1	153520035A	12/19/2015	16:45	JoElla L Rice	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	153520034A	12/19/2015	16:45	JoElla L Rice	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	153511848003	01/06/2016	16:46	Eric L Eby	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	153511848003	12/19/2015	14:39	James L Mertz	1
	U3							



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main St - Union Gap, WA LL Sample # WW 8174655 LL Group # 1616977 Account # 11260

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 16:05 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM3

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 82	260B	ug/l	ug/l	
10945	Benzene	J 010 01	71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
	Ethylbenzene		100-41-4	N.D.	0.5	1
	Methyl Tertiary But	vl Ether		N.D.	0.5	1
10945		2	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 82	270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
	Naphthalene		91-20-3	N.D.	0.1	1
	<u>-</u>					_
GC Vol	latiles	ECY 97-60	2 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 80	)11	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
GC Pet	croleum	ECY 97-60	)2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons	modified				
-	Diesel Range Organio		n.a.	N.D.	28	1
	Heavy Range Organics		n.a.	N.D.	66	1
00272	neary names organize.	0 021 010				-
GC Pet	roleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydrod	carbons w/Si	modified				
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, ca					±
Metals	3	SW-846 60	)10B	ug/l	ug/l	
07055			7439-92-1	7.7	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D153501AA	12/17/2015 01:13	Hu Yang	1
	Water						
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D153501AA	12/17/2015 01:13	Hu Yang	1



# **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3 Grab Groundwater

LL Group # 1616977 Account # 11260

LL Sample # WW 8174655

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 16:05 by JH Chevron

6001 Bollinger Canyon Road

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San Ramon CA 94583

MUGM3

			-					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	.me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15348WAC026	12/30/2015	17:45	Ankitaben A Patel	1
07807	BNA Water Extraction	SW-846 3510C	1	15348WAC026	12/15/2015	08:00	Jessica M Velez	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15349B20A	12/16/2015	20:50	Marie D	1
		NWTPH-Gx					Beamenderfer	
01146	GC VOA Water Prep	SW-846 5030B	1	15349B20A	12/16/2015	20:50	Marie D	1
							Beamenderfer	
10398	EDB by 8011	SW-846 8011	1	153480008A	12/15/2015	17:31	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	153480008A	12/15/2015	00:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	153520034A	12/22/2015	05:15	Thomas C	1
		NWTPH-Dx modified					Wildermuth	
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	153520035A	12/29/2015	06:45	Thomas C	1
	Gel	NWTPH-Dx modified					Wildermuth	
12007	NW Dx water w/ 10g column	ECY 97-602	1	153520035A	12/19/2015	16:45	JoElla L Rice	1
	_	NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	153520034A	12/19/2015	16:45	JoElla L Rice	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	153511848003	01/06/2016	16:49	Eric L Eby	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	153511848003	12/19/2015	14:39	James L Mertz	1
	U3							



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main St - Union Gap, WA

Account

LL Group # 1616977 # 11260

LL Sample # WW 8174656

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 15:10 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM4

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 82	60B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 82	70C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-60	2 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 80	11	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0096	1
GC Pet	roleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hvdro	carbons	modified				
-	Diesel Range Organio	cs C12-C24	n.a.	N.D.	29	1
	Heavy Range Organics			N.D.	67	1
GC Pet	croleum	ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified				
	DRO C12-C24 w/Si Gel		n.a.	N.D.	29	1
	HRO C24-C40 w/Si Gel		n.a.	N.D.	67	1
	reverse surrogate, ca			1%.		
Metals	3	SW-846 60	10B	ug/l	ug/l	
07055	Lead		7439-92-1	7.1	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D153501AA	12/17/2015 01:36	Hu Yang	1	
	Water						_	
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D153501AA	12/17/2015 01:36	Hu Yanq	1	



# **Analysis Report**

LL Sample # WW 8174656

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4 Grab Groundwater

LL Group # 1616977 Account # 11260

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 15:10 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM4

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15348WAC026	12/30/2015	18:13	Ankitaben A Patel	1
07807	BNA Water Extraction	SW-846 3510C	1	15348WAC026	12/15/2015	08:00	Jessica M Velez	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15349B20A	12/16/2015	21:17	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15349B20A	12/16/2015	21:17	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	153480008A	12/15/2015	17:47	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	153480008A	12/15/2015	00:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153520034A	12/22/2015	05:37	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153520035A	12/29/2015	07:07	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153520035A	12/19/2015	16:45	JoElla L Rice	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153520034A	12/19/2015	16:45	JoElla L Rice	1
07055	Lead	SW-846 6010B	1	153511848003	01/06/2016	16:52	Eric L Eby	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	153511848003	12/19/2015	14:39	James L Mertz	1



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main St - Union Gap, WA LL Sample # WW 8174657 LL Group # 1616977 Account # 11260

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 14:15 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM5

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846 8	3260B	ug/l	ug/l	
10945			71-43-2	N.D.	0.5	1
10945	1,2-Dichloroethane		107-06-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1
10945		-	108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC/MS	Semivolatiles	SW-846 8	3270C	ug/l	ug/l	
07805	2-Methylnaphthalene		91-57-6	N.D.	0.1	1
07805	Naphthalene		91-20-3	N.D.	0.1	1
GC Vol	latiles	ECY 97-6	02 NWTPH-Gx	ug/l	ug/l	
08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
Pesti	cides/PCBs	SW-846 8	3011	ug/l	ug/l	
10398	Ethylene dibromide		106-93-4	N.D.	0.0095	1
GC Pet	troleum	ECY 97-6	02 NWTPH-Dx	ug/l	ug/l	
Hvdro	carbons	modified	l			
-	Diesel Range Organi			N.D.	28	1
	Heavy Range Organic		n.a.	N.D.	66	1
GC Pet	troleum	ECY 97-6	02 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si	modified	l			
-	DRO C12-C24 w/Si Ge		n.a.	N.D.	28	1
	HRO C24-C40 w/Si Ge		n.a.	N.D.	66	1
	reverse surrogate, c			1%.		
Metals	5	SW-846 6	010B	ug/l	ug/l	
07055	Lead		7439-92-1	8.9	5.1	1

### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D153501AA	12/17/2015 01:59	Hu Yang	1
	Water						
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D153501AA	12/17/2015 01:59	Hu Yang	1



# **Analysis Report**

LL Sample # WW 8174657

LL Group # 1616977

Account # 11260

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-5 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main St - Union Gap, WA

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 14:15 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM5

			_					
CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15348WAC026	12/30/2015	18:41	Ankitaben A Patel	1
07807	BNA Water Extraction	SW-846 3510C	1	15348WAC026	12/15/2015	08:00	Jessica M Velez	1
08273	NWTPH-Gx water C7-C12	ECY 97-602	1	15349B20A	12/16/2015	21:44	Marie D	1
		NWTPH-Gx					Beamenderfer	
01146	GC VOA Water Prep	SW-846 5030B	1	15349B20A	12/16/2015	21:44	Marie D	1
							Beamenderfer	
10398	EDB by 8011	SW-846 8011	1	153480008A	12/15/2015	18:03	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	153480008A	12/15/2015	00:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602	1	153520034A	12/22/2015	05:58	Thomas C	1
		NWTPH-Dx modified					Wildermuth	
12005	NWTPH-Dx water w/ 10g Si	ECY 97-602	1	153520035A	12/29/2015	07:28	Thomas C	1
	Gel	NWTPH-Dx modified					Wildermuth	
12007	NW Dx water w/ 10g column	ECY 97-602	1	153520035A	12/19/2015	16:45	JoElla L Rice	1
		NWTPH-Dx 06/97						
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602	1	153520034A	12/19/2015	16:45	JoElla L Rice	1
		NWTPH-Dx 06/97						
07055	Lead	SW-846 6010B	1	153511848003	01/06/2016	16:55	Eric L Eby	1
01848	ICP-WW, 3005A (tot rec) -	SW-846 3005A	1	153511848003	12/19/2015	14:39	James L Mertz	1
	U3				. ,			



# Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Groundwater

Facility# 372654 Job# 385900 3202 Main St - Union Gap, WA LL Sample # WW 8174658 LL Group # 1616977 Account # 11260

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 13:20 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM6

GC/MS   Volatiles   SW-846 8260B   ug/l   ug/l     10945   Renzene	CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
10945   Benzene	GC/MS	Volatiles	SW-846 826	50B	ug/l	ug/l	
10945   1,2-Dichloroethane	•				N.D.	0.5	1
10945   Ethylbenzene							
10945		,					
10945   Toluene   108-88-3   N.D.   0.5   1			vl Ether	1634-04-4	N.D.	0.5	1
GC/MS Semivolatiles SW-846 8270C ug/l ug/l  07805 2-Methylnaphthalene 91-57-6 N.D. 0.1 1  07805 Naphthalene 91-20-3 N.D. 0.1 1  GC Volatiles ECY 97-602 NWTPH-Gx ug/l  08273 NWTPH-Gx water C7-Cl2 n.a. N.D. 50 1  Pesticides/PCBs SW-846 801l ug/l  10398 Ethylene dibromide 106-93-4 N.D. 0.0097 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l  Hydrocarbons modified  08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l  Hydrocarbons w/Si modified  08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l  Hydrocarbons w/Si modified  12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1  12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1  The reverse surrogate, capric acid, is present at <18.					N.D.	0.5	1
07805       2-Methylnaphthalene       91-57-6 N.D. 0.1       1         07805       Naphthalene       91-20-3 N.D. 0.1       1         GC Volatiles       ECY 97-602 NWTPH-Gx ug/l       ug/l       ug/l         08273       NWTPH-Gx water C7-C12 n.a. N.D. 50       1         Pesticides/PCBs       SW-846 8011 ug/l       ug/l       ug/l         10398       Ethylene dibromide       106-93-4 N.D. 0.0097       1         GC Petroleum       ECY 97-602 NWTPH-Dx ug/l       ug/l         Hydrocarbons       modified         08271       Diesel Range Organics C12-C24 n.a. N.D. 66       1         GC Petroleum       ECY 97-602 NWTPH-Dx ug/l       ug/l         Hydrocarbons w/si modified         12005       DRO C12-C24 w/Si Gel n.a. N.D. 28       1         12005       HRO C24-C40 w/Si Gel n.a. N.D. 66       1         The reverse surrogate, capric acid, is present at <1%.	10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
OR805 Naphthalene 91-20-3 N.D. 0.1 1  GC Volatiles ECY 97-602 NWTPH-Gx ug/l ug/l 08273 NWTPH-Gx water C7-C12 n.a. N.D. 50 1  Pesticides/PCBs SW-846 8011 ug/l 10398 Ethylene dibromide 106-93-4 N.D. 0.0097 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l Hydrocarbons modified 08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l Hydrocarbons w/Si modified 12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1 12005 HRO C24-C40 w/Si Gel n.a. N.D. 28 1 112005 HRO C24-C40 w/Si Gel n.a. N.D. 28 1 112005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 1 The reverse surrogate, capric acid, is present at <1%.	GC/MS	Semivolatiles	SW-846 82	70C	ug/l	ug/l	
OR805 Naphthalene 91-20-3 N.D. 0.1 1  GC Volatiles ECY 97-602 NWTPH-Gx ug/l ug/l 08273 NWTPH-Gx water C7-C12 n.a. N.D. 50 1  Pesticides/PCBs SW-846 8011 ug/l 10398 Ethylene dibromide 106-93-4 N.D. 0.0097 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l Hydrocarbons modified 08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l Hydrocarbons w/Si modified 12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1 12005 HRO C24-C40 w/Si Gel n.a. N.D. 28 1 112005 HRO C24-C40 w/Si Gel n.a. N.D. 28 1 112005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 1 The reverse surrogate, capric acid, is present at <1%.	07805	2-Methvlnaphthalene		91-57-6	N.D.	0.1	1
08273 NWTPH-Gx water C7-C12       n.a.       N.D.       50       1         Pesticides/PCBs       SW-846 8011       ug/l       ug/l       ug/l       1         10398 Ethylene dibromide       106-93-4       N.D.       0.0097       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons       modified         08271 Heavy Range Organics C24-C40       n.a.       N.D.       28       1         66       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/l       ug/l         Hydrocarbons w/Si       modified         12005 DRO C12-C24 w/Si Gel       n.a.       N.D.       28       1         12005 HRO C24-C40 w/Si Gel       n.a.       N.D.       66       1         The reverse surrogate, capric acid, is present at <1%				91-20-3	N.D.		
08273 NWTPH-Gx water C7-C12       n.a.       N.D.       50       1         Pesticides/PCBs       SW-846 8011       ug/1       ug/1         10398 Ethylene dibromide       106-93-4       N.D.       0.0097       1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/1       ug/1         GC Petroleum       ECY 97-602 NWTPH-Dx       ug/1       ug/1         Hydrocarbons w/Si       modified         12005 DRO C12-C24 w/Si Gel       n.a.       N.D.       28       1         12005 HRO C24-C40 w/Si Gel       n.a.       N.D.       66       1         The reverse surrogate, capric acid, is present at <1%.	GC Vol	latiles	ECY 97-602	2 NWTPH-Gx	ug/l	ug/l	
10398   Ethylene dibromide   106-93-4   N.D.   0.0097   1	08273	NWTPH-Gx water C7-C	12	n.a.	N.D.	50	1
GC Petroleum	Pesti	cides/PCBs	SW-846 803	11	ug/l	ug/l	
### Hydrocarbons modified  08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  #################################	10398	Ethylene dibromide		106-93-4	N.D.	0.0097	1
08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons w/Si modified  12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1 12005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 The reverse surrogate, capric acid, is present at <1%.	GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
08271 Diesel Range Organics C12-C24 n.a. N.D. 28 1 08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons w/Si modified  12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1 12005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 The reverse surrogate, capric acid, is present at <1%.	Hydro	carbons	modified				
08271 Heavy Range Organics C24-C40 n.a. N.D. 66 1  GC Petroleum ECY 97-602 NWTPH-Dx ug/l ug/l  Hydrocarbons w/Si modified  12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1 12005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 The reverse surrogate, capric acid, is present at <1%.	-		cs C12-C24	n.a.	N.D.	28	1
Hydrocarbons w/Si modified         12005 DRO C12-C24 w/Si Gel n.a. N.D.       28       1         12005 HRO C24-C40 w/Si Gel n.a. N.D.       66       1         The reverse surrogate, capric acid, is present at <1%.		2 2					
12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1 12005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 The reverse surrogate, capric acid, is present at <1%.	GC Pet	croleum	ECY 97-602	NWTPH-Dx	ug/l	ug/l	
12005 DRO C12-C24 w/Si Gel n.a. N.D. 28 1 12005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 The reverse surrogate, capric acid, is present at <1%.	Hydro	carbons w/Si	modified				
12005 HRO C24-C40 w/Si Gel n.a. N.D. 66 1 The reverse surrogate, capric acid, is present at <1%.	-			n.a.	N.D.	28	1
The reverse surrogate, capric acid, is present at <1%.		•		n.a.	N.D.	66	
Metals SW-846 6010B ug/l ug/l		•			1%.		
70 COTTO 21 -21 -21 -21 -	Metals SW-846 6010B ug/				ug/l	ug/l	
07055 Lead 7439-92-1 6.5 5.1 1	07055	Lead		7439-92-1	6.5	5.1	1

#### General Sample Comments

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

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	8260 BTEX/MTBE/EDC -	SW-846 8260B	1	D153501AA	12/17/2015 02:22	Hu Yang	1
	Water						
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D153501AA	12/17/2015 02:22	Hu Yang	1



# **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-6 Grab Groundwater

LL Group # 1616977 Account # 11260

LL Sample # WW 8174658

Project Name: 372654

Submitted: 12/12/2015 09:15

Reported: 01/07/2016 11:27

Collected: 12/08/2015 13:20 by JH Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

MUGM6

			_					
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
07805	PAHs 8270C Water	SW-846 8270C	1	15348WAC026	12/30/2015	19:09	Ankitaben A Patel	1
07807	BNA Water Extraction	SW-846 3510C	1	15348WAC026	12/15/2015	08:00	Jessica M Velez	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15349B20A	12/16/2015	22:12	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15349B20A	12/16/2015	22:12	Marie D Beamenderfer	1
10398	EDB by 8011	SW-846 8011	1	153480008A	12/15/2015	18:49	Heather M Manns	1
07786	EDB Extraction (8011)	SW-846 8011	1	153480008A	12/15/2015	00:00	Roman Kuropatkin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	153520034A	12/22/2015	06:19	Thomas C Wildermuth	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	153520035A	12/29/2015	07:50	Thomas C Wildermuth	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	153520035A	12/19/2015	16:45	JoElla L Rice	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	153520034A	12/19/2015	16:45	JoElla L Rice	1
07055	Lead	SW-846 6010B	1	153511848003	01/06/2016	15:56	Eric L Eby	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	153511848003	12/19/2015	14:39	James L Mertz	1



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### Quality Control Summary

Client Name: Chevron Group Number: 1616977

Reported: 01/07/2016 11:27

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.

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD <u>Max</u>
Batch number: D153494AA	Sample numbe	er(s): 817	4652-8174	554				
Benzene	N.D.	0.5	ug/l	90		78-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	86		72-127		
Ethylbenzene	N.D.	0.5	ug/l	98		78-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	90		75-120		
Toluene	N.D.	0.5	ug/l	97		80-120		
Xylene (Total)	N.D.	0.5	ug/l	98		80-120		
Batch number: D153501AA	Sample numbe	er(s): 817	4655-8174	558				
Benzene	N.D.	0.5	ug/l	96		78-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	92		72-127		
Ethylbenzene	N.D.	0.5	ug/l	104		78-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		75-120		
Toluene	N.D.	0.5	ug/l	106		80-120		
Xylene (Total)	N.D.	0.5	ug/l	105		80-120		
Batch number: 15348WAC026	Sample numbe	er(s): 817	4653-8174	558				
2-Methylnaphthalene	N.D.	0.1	ug/l	95	93	69-103	3	30
Naphthalene	N.D.	0.1	ug/l	96	93	69-109	3	30
Batch number: 15349B20A	Sample numbe	er(s): 817	4652-8174	558				
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	95	94	80-123	1	30
Batch number: 153480008A	Sample numbe	er(s): 817	4653-81746	558				
Ethylene dibromide	N.D.	0.010	ug/l	107	112	60-140	4	20
Batch number: 153520034A	Sample numbe	er(s): 817	4653-8174	558				
Diesel Range Organics C12-C24	N.D.	30.	ug/l	74	72	50-113	2	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 153520035A	Sample numbe	er(s): 817	4653-81746	558				
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	68	63	32-117	8	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 153511848003	Sample numbe	er(s): 817	4653-81746	558				
Lead	N.D.	5.1	ug/l	109		80-120		
			-					

### Sample Matrix Quality Control

#### \*- Outside of specification

- (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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



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### Quality Control Summary

Client Name: Chevron Group Number: 1616977

Reported: 01/07/2016 11:27

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD <u>%REC</u>	MS/MSD Limits	RPD	RPD <u>MAX</u>	BKG Conc	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: D153494AA	Sample	number(s)	: 8174652	2-817465	4 UNSPI	K: P173535			
Benzene	102	89	78-120	13	30				
1,2-Dichloroethane	92	80	72-127	14	30				
Ethylbenzene	108	96	78-120	12	30				
Methyl Tertiary Butyl Ether	95	83	75-120	13	30				
Toluene	111	95	80-120	15	30				
Xylene (Total)	109	96	80-120	13	30				
Batch number: D153501AA	Sample	number(s)	: 8174655	-817465	8 UNSPI	K: P175297			
Benzene	100	103	78-120	3	30				
1,2-Dichloroethane	91	94	72-127	3	30				
Ethylbenzene	108	112	78-120	4	30				
Methyl Tertiary Butyl Ether	93	96	75-120	4	30				
Toluene	109	113	80-120	4	30				
Xylene (Total)	109	114	80-120	4	30				
Batch number: 153480008A	Sample	number(s)	: 8174653	8-817465	8 UNSPI	K: 8174653	BKG: 8174654	Į.	
Ethylene dibromide	107		60-140			N.D.	N.D.	0 (1)	30
Batch number: 153511848003	Sample	number(s)	: 8174653	8-817465	8 UNSPI	K: 8174658	BKG: 8174658	3	
Lead	107	107	75-125	0	20	6.5	6.7	3 (1)	20

# Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed  $% \left( 1\right) =\left( 1\right) \left( 1$ unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 BTEX/MTBE/EDC - Water

Batch number: D153494AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8174652	104	99	102	94
8174653	102	97	105	92
8174654	104	96	104	92
Blank	103	98	104	92
LCS	101	99	103	96
MS	100	97	105	96
MSD	102	102	105	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 BTEX/MTBE/EDC - Water

Batch number: D153501AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8174655	102	98	103	92
8174656	105	97	103	91
8174657	103	100	103	92
8174658	105	101	103	92

#### \*- Outside of specification

- (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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



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### Quality Control Summary

Client Name: Chevron Group Number: 1616977 Reported: 01/07/2016 11:27 Surrogate Quality Control Blank 103 100 LCS 101 99 104 96 MS 102 99 103 95 MSD 101 106 77-113 78-113 Limits: 80-116 80-113 Analysis Name: PAHs 8270C Water Batch number: 15348WAC026 Nitrobenzene-d5 2-Fluorobiphenyl Terphenyl-d14 8174653 90 83 93 8174654 88 90 88 87 8174655 92 89 8174656 91 90 93 8174657 90 89 90 8174658 89 87 88 85 79 Blank 86 93 91 91 LCS LCSD Limits: 46-128 61-112 43-131 Analysis Name: NWTPH-Gx water C7-C12 Batch number: 15349B20A Trifluorotoluene-F 8174652 87 8174653 89 8174654 86 8174655 88 8174656 86 8174657 88 8174658 87 Blank 86 LCS 96 LCSD Limits: 63-135 Analysis Name: EDB by 8011 Batch number: 153480008A 1,1,2,2-Tetrachloroethane 8174653 99 8174654 97 8174655 100 8174656 98 8174657 96 8174658 101 Blank 101 DIID 104 LCS 98 LCSD 99 MS 101

#### \*- Outside of specification

46-136

Limits:

- (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.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

# Analysis Report

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### Quality Control Summary

Client Name: Chevron Group Number: 1616977

Reported: 01/07/2016 11:27

Analysis Name: NWTPH-Dx water Batch number: 153520034A

Surrogate Quality Control

Orthoterphenyl
8174653 96
8174654 92
8174655 99
8174656 93
8174657 93
8174658 91
Blank 86
LCS 98
LCS 103

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

Batch number: 153520035A

50-150

#### Orthoterphenyl 8174653 80 8174654 79

Limits:

8174654 79 8174655 77 8174656 75 8174657 76 8174658 77 Blank 77 LCS 90 LCSD 88

Limits: 50-150

### \*- Outside of specification

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

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

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# Chevron Northwest Region Analysis Request/Chain of Custody

eurofins   Lancaster   Laborator			A	Acct.#	116	26	0		Grou I	For E p # <u>I</u> Instructi	urofin (0) ions on	s Land reverse	caster side corr	Labor _ Sar	ratorie mple d with c	es us # #circled r	e only	140 s.	05	2-4	58			<u> </u>
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Consultant Project Mgr.  Deanna L. Harding, (dean	ına@gr	inc.com	)							Cont		2	ates		a Gel C	NWTPH-Dx without Silica Gel Cleanup	EPH	Diss.		12-1		Principal Control of the Control of	Confirm MTBE + Naphtl	halene
Consultant Phone # (925) 551-7444 x180				-			Potable	NPDES	Air	oer of	8021	1,2	Oxygenates		th Silic	thout 5	WA	Total 🔀	110	CEE			Confirm all hits by 8260	
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② Sample Identification		Colle Date	ected Time	Grab	Comp	Soil	Water	עמובו	     	Total	BTEX +	3260		NWTPH-Gx	-IMTPI	WTPF	WA VPH	Lead	EDIS	JapH		-	6) Remarks	
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No



# **Explanation of Symbols and Abbreviations**

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

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

< less than

> greater than

ppm 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.

ppb parts per billion

**Dry weight basis**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.

### Laboratory Data Qualifiers:

B - Analyte detected in the blank

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ 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.

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...

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.

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.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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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Appendix E: MTCA Method B Calculations Using MTCATPH11.1





# **Technical Memorandum**

From: Ruth Otteman Little

Re: Evaluation of Soil Sampling Results Under Method B Using MTCATPH 11.1

La Bamba Restaurant / Former Unocal Service Station No. 372654

3202 Main Street, Union Gap, Washington (VCP #CE0394)

This memorandum presents the approach, input, and results of an evaluation of soil sampling results, which was performed for the above-referenced site using the Washington State Department of Ecology's MTCATPH 11.1 workbook tool. These calculations were performed in accordance with the Ecology's guidance document, Workbook Tool for Calculating Soil and Ground Water Cleanup Levels under the Model Toxics Control Act Cleanup Regulation: User's Guide for MTCATPH 11.1 & MTCASGL 11.0, dated December 2007 (Ecology Workbook).

## **Approach**

Analytical results from soil sample MW-3-12 (collected from soil boring MW-3) were input into the MTCATPH 11.1 workbook in order to evaluate the potential human health risk associated with exposure to the petroleum product composition existing under current conditions at the site. The sample selected for this analysis contained the highest concentrations of petroleum-range hydrocarbon contamination detected in soil during the December 2014 monitoring well installation event at the site.

The workbook was used to determine the total measured TPH soil concentration based on fractional analysis results, and to calculate and assess the Hazard Index and Total Risk for a soil direct contact exposure pathway as well as a the groundwater leaching pathway for the specific petroleum composition found in the sample.

### **Model Inputs/Assumptions**

The following inputs and assumptions were used in the MTCATPH11.1 calculation worksheet:

### **Soil Concentration Data**

- Half Detection Limits For concentrations that were below the detection limit but have been detected on the property in other samples, one-half the detection limit was used.
- o **Zero Values** A zero value was entered for petroleum fractions that have not been detected in any sample at the site.
- O Double Counting The petroleum fractions include hazardous substances that may also be individually quantified, depending upon the type of mixture(s) present at a site (e.g. naphthalene). If one or more hazardous substances are included in one of the TPH Equivalent Carbon (EC) fractions, then those fractions must be subtracted from the appropriate EC-fraction concentrations. Otherwise, the model is "double-counting" that particular substance. Double counting was avoided for EC fractions in the model. Table 3-3 of the Ecology Workbook provides information on the individual substances that are represented by a particular EC fraction.
- **Site-Specific Hydrogeological Data** The site-specific hydrogeological parameters are considered in calculating soil concentrations that are protective of groundwater. However, for this evaluation the MTCATPH workbook was used to evaluate the soil direct contact and the leaching exposure pathway. Therefore, the values entered for these parameters have bearing on the results of the analysis. Values were assigned using the following parameters:
  - o **Total Soil Porosity** The default value of "0.43" was used.
  - o **Volumetric Water Content** The default value of "0.30" was used.
  - o Soil Bulk Density The default value of "1.50" was used.
  - o **Fraction Organic Carbon** A site specific value for fraction soil organic carbon (FOC) was collected from soil sample MW-6-12. This sample was collected outside the area of contamination and below the root zone.
  - o **Dilution Factor** This parameter has two default values: "20" for soil within the unsaturated zone and "1" for soil within the saturated zone. The sample was collected above the saturated soil zone so a default value of "20" was used.

### Results

The following table provides a summary of results for the MTCATPH workbook analysis. As these data show, based on consideration of the site-specific petroleum compositions found in this sample, the Measured TPH Soil Concentration for sample MW-3-12 were significantly lower than the Protective TPH Soil Concentrations that were determined to be protective of human health for a direct contact exposure scenario as well as the leaching pathway for potable groundwater. The most stringent pathway, however is the leaching pathway with Protective TPH Soil Concentrations of 76 mg/kg. This soil sample passes the RISK and Hazard Index criteria established by MTCA for the direct contact and leaching exposure pathways.

Sample ID	Measured TPH Soil Conc. (mg/kg)	Exposure Pathway	Protective TPH Soil Conc. (mg/kg)	RISK @ Measured TPH Soil Conc.	HI @ Measured TPH Soil Conc.	Measured TPH Soil Conc. Pass or Fail?
MW-3-12	38.350	Soil Direct	3,118	3.27E-09	1.23E-02	Pass
		Contact				
		Potable GW:	76	2.97E-06	8.33E-01	Pass
		Human Health				
		Protection				

# **Attachments**

- A1 Soil Cleanup Levels: Worksheet for Soil Data Entry Sample MW-3-12
- A2 Soil Cleanup Levels: Calculation and Summary of Results Sample MW-3-12

# A1 Soil Cleanup Levels: Worksheet for Soil Data Entry: Refer to WAC 173-340-720, 740,745, 747, 750

### 1. Enter Site Information

Date: 05/06/16
Site Name: Chevron Site 372654 Union Gap, WA
Sample Name: MW-3-12

2 Enter Soil Concentration Maggared									
2. Enter Soil Concentration Measured Chemical of Concern Measured Soil Conc Composition									
		Composition							
or Equivalent Carbon Group	dry basis	Ratio							
	mg/kg	%							
Petroleum EC Fraction		1							
AL_EC >5-6	0	0.00%							
AL_EC >6-8	6.31	16.45%							
AL_EC >8-10	20	52.15%							
AL_EC >10-12	0	0.00%							
AL_EC >12-16	2.7	7.04%							
AL_EC >16-21	0	0.00%							
AL_EC >21-34	0	0.00%							
AR_EC >8-10	7.958	20.75%							
AR_EC >10-12	0	0.00%							
AR_EC >12-16	1.2681	3.31%							
AR_EC >16-21	0	0.00%							
AR_EC >21-34	0	0.00%							
Benzene	0.011	0.03%							
Toluene	0.022	0.06%							
Ethylbenzene Tatal Valence	0	0.00%							
Total Xylenes	0.022	0.06%							
Naphthalene	0.00036	0.00%							
1-Methyl Naphthalene	0.024	0.06%							
2-Methyl Naphthalene	0.0079	0.02%							
n-Hexane MTBE	0.022	0.06%							
	0	0.00%							
Ethylene Dibromide (EDB)	0	0.00%							
1,2 Dichloroethane (EDC)	0	0.00%							
Benzo(a)anthracene	0.0017	0.00%							
Benzo(b)fluoranthene	0.00088	0.00%							
Benzo(k)fluoranthene	0	0.00%							
Benzo(a)pyrene	0	0.00%							
Chrysene	0.0018	0.00%							
Dibenz(a,h)anthracene	0	0.00%							
Indeno(1,2,3-cd)pyrene	0	0.00%							
Sum	38.34974	100.00%							
3. Enter Site-Specific Hy		<u>ita</u>							
Total soil porosity:	0.43	Unitless							
Volumetric water content:	0.3	Unitless							
Volumetric air content:	0.13	Unitless							
Soil bulk density measured:	1.5	kg/L							
Fraction Organic Carbon:	0.000053	Unitless							
Dilution Factor:	20	Unitless							
4. Target TPH Ground Wa		f adjusted)							
If you adjusted the target TPH ground	und water	ا							
concentration, enter adjusted	800	ug/L							
value here:									

Notes for Data Entry	Set Default Hydrogeology					
Clear All Soil Concentration Data Entry Cells						
Restore All Soil Concentr	ation Data cleared previously					

#### :REMARK:

- 1) Toluene, Total Xylenes, and Naphthalene were entered at half of the method detection limit.
- 2) AL\_EC >5-6, AL\_EC >10-12, AL\_EC >16-21, AL\_EC >21-34, AR\_EC >10-12, AR\_EC >16-21, AR\_EC >16-21, AR\_EC >21-34, EDB, EDC, MTBE, Ethylbenzene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenz(a,h)anthracene, and Indeno(1,2,3-cd)pyrene have never been detected in any sample at the site and are not suspected of being present on the site, so a value of "0" was entered.
- 3) n-Hexane, Ethylbenzene and Xylenes, Naphthalene, 1-Methyl Naphthalene, 2-Methylnaphthalene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Chrysene, Dibenz(a,h)anthracene and Indeno(1,2,3-cd)pyrene were subtracted from their Equivalent Carbon to avoid double counting.
- 4) Default Hydrogeologic data were used, except for fraction organic carbon value of 0.000053. The FOC value came from sample MW-6-12.

### A2 Soil Cleanup Levels: Calculation and Summary of Results. Refer to WAC 173-340-720, 740, 745, 747, 750

### **Site Information**

Date: 5/6/2016

Site Name: Chevron Site 372654 Union Gap, WA

Sample Name: MW-3-12

Measured Soil TPH Concentration, mg/kg: 38.350

### 1. Summary of Calculation Results

E D-41	M-411/C1	Protective Soil	With Measu	red Soil Conc	Does Measured Soil
Exposure Pathway	Method/Goal	TPH Conc, mg/kg	RISK @	HI @	Conc Pass or Fail?
Protection of Soil Direct	Method B	3,118	3.27E-09	1.23E-02	Pass
Contact: Human Health	Method C	55,424	7.42E-10	6.92E-04	Pass
Protection of Method B Ground	Potable GW: Human Health Protection	76	2.97E-06	8.33E-01	Pass
Water Quality (Leaching)	Target TPH GW Conc. @ 800 ug/L	425	NA	NA	Pass

2. Results for Protection of Soil Direct Contact Pathway: Human Health

	Method B: Unrestricted Land Use	Method C: Industrial Land Use
Protective Soil Concentration, TPH mg/kg	3,117.68	55,424.39
Most Stringent Criterion	HI =1	HI =1

	Pro	otective Soil Concentra	Protective Soil Concentration @Method C					
Soil Criteria	Most Stringent?	TPH Conc, mg/kg	RISK @	НІ @	Most Stringent?	TPH Conc, mg/kg	RISK @	НІ @
HI =1	YES	3.12E+03	2.66E-07	1.00E+00	YES	5.54E+04	1.07E-06	1.00E+00
Total Risk=1E-5	NO	1.17E+05	1.00E-05	3.76E+01	NO	5.17E+05	1.00E-05	9.32E+00
Risk of Benzene= 1E-6	NO	6.33E+04	5.40E-06	2.03E+01				
Risk of cPAHs mixture= 1E-6	NO	1.44E+04	1.23E-06	4.62E+00		NIA		
EDB	NA	NA	NA	NA	NA			
EDC	NA	NA	NA	NA				

### 3. Results for Protection of Ground Water Quality (Leaching Pathway)

3.1. Protection of Potable Ground Water Quality (Method B): Human Health Protection

entransition of the state of th	-)
Most Stringent Criterion	HI=1
Protective Ground Water Concentration, ug/L	700.20
Protective Soil Concentration, mg/kg	76.26

Ground Water Criteria	Protective	Protective Potable Ground Water Concentration @Method B						
Ground water Criteria	Most Stringent?	TPH Conc, ug/L	RISK @	HI @	Conc, mg/kg			
HI=1	YES	7.00E+02	5.59E-06	1.00E+00	7.63E+01			
Total Risk = 1E-5	NO	7.55E+02	1.00E-05	1.17E+00	1.51E+02			
Total Risk = 1E-6	YES	3.70E+02	1.00E-06	5.14E-01	1.25E+01			
Risk of cPAHs mixture= 1E-5	NO	8.46E+02	5.02E-05	2.23E+00	100% NAPL			
Benzene MCL = 5 ug/L	NO	7.14E+02	6.29E-06	1.03E+00	8.71E+01			
MTBE = 20 ug/L	NA	NA	NA	NA	NA			

Note: 100% NAPL is 65000 mg/kg TPH.

3.2 Protection of Ground Water Quality for TPH Ground Water Concentration previously adjusted and entered

Ground Water Criteria	Protective Ground Water Concentration			Protective Soil
	TPH Conc, ug/L	Risk @	HI @	Conc, mg/kg
Target TPH GW Conc = 800 ug/L	8.00E+02	2.07E-05	1.47E+00	4.25E+02