NATURAL ATTENUATION ASSESSMENT FOR GROUNDWATER
COWLITZ BP / COWLITZ FOOD AND FUEL /
FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington

October 29, 2015

Prepared for:
Washington State Department of Ecology
Southwest Regional Office – Toxics Cleanup Program
P.O. Box 47775
Olympia, Washington 98504-7775

Prepared by:
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Bothell, Washington 98011

On Behalf of:
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, California 94583

leidos

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NATURAL ATTENUATION ASSESSMENT FOR GROUNDWATER
COWLITZ BP / COWLITZ FOOD AND FUEL /
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1. INTRODUCTION AND OBJECTIVE

Leidos Engineering, LLC (Leidos), on behalf of Chevron Environmental Management Company (CEMC), prepared this report to summarize the results of natural attenuation assessment activities performed at the above-referenced site (the Site) located at 101 Mulford Road in Toledo, Washington (Figure 1).

The objective of this assessment was to determine whether natural attenuation processes are occurring at the Site and, if so, to perform a preliminary feasibility screening for the use of natural attenuation as a cleanup action alternative. To perform this evaluation, Leidos used the framework provided in Section 3.2.1 of Washington State Department of Ecology (Ecology) Publication No. 05-09-091, "*Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation.*" This evaluation process is based upon the following questions:

1. What is the status of the groundwater plume at the site?
2. Is chemical or biological degradation a substantial mechanism of natural attenuation at the site?
3. What is the estimated restoration time frame?
4. Will the use of natural attenuation be protected of human health and the environment during the estimated restoration time frame?
5. Has source control been conducted to the maximum extent practicable?

To perform this assessment, Leidos used data from previous remedial investigation and assessment activities, results of interim remedial cleanup actions, long-term groundwater monitoring data, and recent data collected regarding geochemical indicators of natural attenuation in ground water.

2. BACKGROUND

2.1 SUMMARY OF CURRENT GROUNDWATER QUALITY AND HYDROGEOLOGIC CONDITIONS

Groundwater quality is well documented throughout the Site. A network of twenty-three monitoring wells has been installed, seventeen of which remain in place and are monitored on a routine basis (Figure 2). All monitoring wells (with the exception of MW-120) were installed prior to 1996 and have been regularly monitored since that time.

Groundwater is generally encountered at depths of approximately 7 to 8 feet below ground surface (bgs) across the Site, with a seasonal fluctuation of approximately 2 feet. Groundwater flow is generally to the southeast, toward the Cowlitz River. A potentiometric map which presents groundwater elevation data collected during the most recent quarterly monitoring event (August 2015) is included as Figure 3.

Recent groundwater sampling data indicate that groundwater quality throughout the Site is in compliance with MTCA Method A cleanup levels, with the exception of three monitoring wells (B-3, B-4, and MW-111) located immediately downgradient of the service station underground

storage tank (UST) basin and pump islands. At these locations, dissolved-phase petroleum hydrocarbons (primarily gasoline-range organics [GRO]) continue to routinely exceed the regulatory standard. At monitoring wells B-3 and B-4, GRO concentrations have declined over time such that recent sampling results routinely fluctuate above and below the cleanup level. GRO concentrations at monitoring well MW-111 are several times higher than those typically detected at monitoring wells B-3 and B-4, and consistently exceed the cleanup level. Dissolved lead is also routinely detected in groundwater samples from MW-111 at concentrations exceeding the Method A cleanup level.

In addition to GRO, diesel-range organics (DRO) are also routinely detected above Method A cleanup levels in monitoring wells B-3, B-4, and MW-111. However, recent sampling results indicate that only samples analyzed without use of a silica-gel cleanup prior to analysis contain DRO concentrations in excess of the cleanup level. Based on DRO analysis research conducted by Zemo and Associates (Zemo, 2013), Leidos believes that DRO detections in groundwater at monitoring wells B-3, B-4, and MW-111 are most likely the result of GRO biodegradation metabolites (polar, nonhydrocarbon compounds) that are detected by the DRO analysis, but which are not representative of diesel-range petroleum hydrocarbons in groundwater. This conclusion is also supported by the results of recent soil sampling performed in the vicinity of monitoring wells B-3, B-4, and MW-111 (Leidos, 2014), which confirmed the presence of GRO impacts to soil in this area, but found no evidence of DRO contamination in soil.

Groundwater throughout the Site currently meets drinking water quality standards for benzene, toluene, ethylbenzene, and xylenes (BTEX). Long-term groundwater sampling data for these compounds suggest that the more volatile and soluble fractions of the gasoline source have been degraded by weathering.

Current and historical groundwater monitoring data are presented in Table 1 and laboratory results for selected analytes are also presented on Figure 4, for the most recent four quarters of monitoring.

3. FEASIBILITY EVALUATION OF NATURAL ATTENUATION AS A CLEANUP ACTION ALTERNATIVE

To assess natural attenuation at the Site, Leidos used the framework provided in Section 3.2.1 of Washington State Department of Ecology (Ecology) Publication No. 05-09-091, *"Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation"*, which provides technical guidance on how to determine whether a cleanup action that relies on natural attenuation meets the minimum requirements for cleanup actions set forth in the Washington Administrative Code (WAC) 173-340-360(2) and the expectations for cleanup actions involving natural attenuation set forth in WAC 173-340-370(7). To make such a determination, the following five factors should be considered and evaluated:

1. What is the status of the groundwater plume at the site?
2. Is chemical or biological degradation a substantial mechanism of natural attenuation at the site?
3. What is the estimated restoration time frame?
4. Will the use of natural attenuation by protective of human health and the environment during the estimated restoration time frame?
5. Has source control been conducted to the maximum extent practicable?

3.1 WHAT IS THE STATUS OF THE GROUNDWATER PLUME AT THE SITE?

Per the Ecology guidance, in order for natural attenuation to be considered as a feasible cleanup action alternative, conditions at a site must currently indicate that natural attenuation has resulted in conditions where the contaminant plume is stable or shrinking. A plume is determined to be shrinking if selected monitoring wells within the contaminated plume that are above cleanup levels exhibit a trend of decreasing groundwater contaminant levels in the source, or most impacted area, and in the downgradient contaminant plume that is above cleanup levels (Ecology, 2005a)

To evaluate the contaminant plume status, Leidos analyzed long-term groundwater monitoring data for all monitoring wells within the contaminated plume (B-3, B-4, and MW-111). Temporal plots of groundwater contaminant concentration and depth-to-water data were created, which are included as Figures 5 through 7. In each plot, GRO and benzene concentration data are plotted versus time for groundwater sampling performed since at least August 1995.

Due to inconsistent methods in DRO analysis performed over this period, long-term historical DRO sampling results were not included, since they would not provide an "apples to apples" comparison of DRO concentrations over time. In addition, based on the predominance of GRO contamination in groundwater at the Site, detections of DRO are unlikely to impact the outcome of a plume status evaluation. Also, as previously discussed in Section 2.1, recent DRO detections at the Site are believed to be the result of natural degradation of GRO. Therefore, these data are considered indicators of GRO attenuation, instead of indicators of additional petroleum hydrocarbon impacts to groundwater.

As these data plots show, long-term historical data indicate trends of decreasing groundwater contaminant levels for GRO and benzene in all three of the source area monitoring wells. At each location, benzene concentrations have decreased to levels below the MTCA Method A cleanup level, and GRO concentrations have decreased by at least one order of magnitude in monitoring wells B-3 and B-4, such that recent GRO sampling results are frequently in compliance with the MTCA Method A level at these locations. GRO levels in monitoring well MW-111 also indicate a decreasing trend; however, GRO contaminant reductions at this location have been slower and concentrations remain significantly higher than at the other locations.

3.2 IS CHEMICAL OR BIOLOGICAL DEGRADATION A SUBSTANTIAL MECHANISM OF NATURAL ATTENUATION AT THE SITE?

Natural attenuation may be appropriate at sites where there is evidence that the destructive mechanisms of natural attenuation (i.e., chemical or biological degradation) that reduce the contaminant mass are occurring and are substantial contributors to contaminant reductions observed at the site. Natural attenuation may not be appropriate at sites where natural attenuation relies primarily on dilution and dispersion to reduce contaminant concentrations.

Evidence of biodegradation processes are commonly assessed qualitatively by analyzing changes in geochemical indicators within the groundwater plume over time. To perform this portion of the assessment, Leidos analyzed the results of geochemical indicator data collected from nine quarterly monitoring events performed between September 2013 and August 2015. Field measurements and groundwater samples were collected by Gettler-Ryan Inc. (Gettler-Ryan) for the following parameters:

Field Measurements:

The following parameters were measured in the field by a Gettler-Ryan sampling technician using a multi-parameter meter mounted in a flow-through cell, during low-flow purging of each monitoring well:

- Dissolved oxygen (DO)
- Oxidation reduction potential (ORP)
- pH
- Temperature
- Conductivity

Laboratory Analyses:

The following parameters were measured by laboratory analysis provided by Eurofins Lancaster Laboratories, Inc. using groundwater samples collected by Gettler-Ryan.

- Nitrate and sulfate by EPA 300.0
- Dissolved iron and dissolved manganese by SW846 6010B
- Sulfide by SM 4500-S2 D-2000
- Methane by RSKSOP-175 modified
- Alkalinity by SM 2320 B-1997

Samples submitted for dissolved iron, dissolved manganese, and alkalinity analyses were field filtered by Gettler-Ryan using a 0.45 micron in-line filter. Getter-Ryan field data sheets are included in Appendix A and laboratory analytical reports for each of the nine natural attenuation monitoring events are included in Appendix B.

Geochemical indicator data from within, and downgradient of, the source area were compared to upgradient (i.e., background) levels. The following set of 11 monitoring wells was used to represent a cross section of groundwater conditions across the Site:

- Monitoring wells B-1 and B-2: Selected to be representative of background groundwater conditions upgradient of the contaminant source area.
- Monitoring wells MW-117 and MW-119: Selected to be representative of background groundwater conditions crossgradient of the contaminant source area.
- Monitoring wells B-3, B-4, and MW-111: Selected to be representative of groundwater conditions within the contaminant source area.
- Monitoring wells MW-112, MW-113: Selected to be representative of groundwater conditions immediately downgradient of the contaminant source area.
- Monitoring wells MW-103 and MW-116: Selected to be representative of groundwater conditions within downgradient sentinel wells.

Results of the geochemical indicator monitoring are presented in Table 2, which also includes recent benzene, GRO, DRO, and heavy-range organics (HRO) groundwater sampling data. In order to visualize changes in groundwater conditions across the Site, data within this table are arranged based on well location, relative to the source area. As organized, it is relatively easy to see, for example, that GRO is consistently detected within the source area wells, but is not regularly detected in the upgradient, crossgradient, or downgradient monitoring wells. Similarly, corresponding changes associated with groundwater moving from background areas, through the impacted source zone, and into non-impacted downgradient areas are also evident for some of

the geochemical indicator parameters, most notably dissolved manganese, dissolved iron, sulfate, methane, alkalinity, and ORP.

Monitoring data for each of these six parameters are also shown relative to GRO concentration data in geochemical indicator response plots, which are included as Figures 8 through 13. As noted on the figures, the plotted data points represent the average value for each analyte based on the nine sampling events performed (when available). Where a laboratory result was non-detect, the value of the detection limit was used in the calculation of the average value. A discussion of each of the plots is provided below:

Dissolved Manganese

Anaerobic biodegradation of organic carbon can occur using Mn(IV) as an electron acceptor, which is reduced to Mn(II) in the process. Mn(II) is more soluble in water than Mn(IV); therefore, increases of dissolved manganese in groundwater may be an indicator that anaerobic degradation of petroleum hydrocarbons has occurred via Mn(IV) reduction.

As shown in Table 2 and on Figure 8, monitoring data from this assessment indicate significant increases of dissolved manganese within the source area wells (B-3, B-4, and MW-111) and monitoring well MW-112, in comparison to other wells located in the non-impacted areas of the Site.

Dissolved Iron

Similar to dissolved manganese, increases of dissolved iron in groundwater may be an indicator that anaerobic degradation of petroleum hydrocarbons has occurred via Fe(III) reduction to Fe(II), which is more soluble in water.

Data presented in Table 2 and Figure 9 indicate a strong correlation between GRO and dissolved iron concentrations, which suggests that anaerobic degradation via Fe(III) reduction has occurred in the vicinity of the source area monitoring wells.

Sulfate

After biologically available Mn(IV) and Fe(III) have been depleted in the microbiological treatment zone, sulfate may be used as an electron acceptor for anaerobic biodegradation via sulfate reduction. The occurrence of sulfate reduction is demonstrated by reductions in sulfate concentrations within the treatment zone.

Sulfate monitoring data presented in Table 2 and Figure 10 suggest some reduction of sulfate levels in monitoring wells B-4 and MW-111, compared to background levels. However, the correlation between sulfate levels relative to GRO concentrations is not as pronounced as for several of the other indicators. Additionally, the relatively high sulfate concentrations seen at monitoring well B-3 are currently unclear and are not consistent with expectations.

Methane

The presence of methane in groundwater is indicative of methanogenesis, which results in the production of methane during biodegradation of organic carbon. Methane can also be transported by advective groundwater flow; therefore, its presence in groundwater does not ensure that the immediate environment is methanogenic, only that methanogenic conditions exist in the vicinity.

Methane monitoring data presented in Table 2 and Figure 11 indicate a very strong correlation between GRO and methane concentrations in groundwater, which suggests that methanogenesis has occurred in the vicinity of the source area monitoring wells.

Alkalinity

Biologically active portions of a dissolved contaminant plume may be identified by increases in alkalinity resulting from the production of carbon dioxide during the biodegradation of organic carbon.

Alkalinity monitoring data presented in Table 2 and Figure 12 indicate increases of alkalinity that strongly correlate with detections of GRO in the source area monitoring wells.

ORP

The ORP of groundwater is a measure of electron activity and is an indicator of the relative tendency of a solution to accept or transfer electrons. In general, the lower the ORP of groundwater, the more reducing the environment. ORP measurements are typically measured in the field and should be considered as semi-quantitative results.

ORP monitoring data presented in Table 2 and Figure 13 indicate decreases of ORP levels in the source zone wells and near downgradient monitoring well MW-112.

In summary, the results of geochemical indicator monitoring indicate that the dissolved phase contaminant plume is degrading with distance along the groundwater flow path, and that anaerobic degradation is a substantial component of the contaminant reductions observed at the Site.

3.3 WHAT IS THE ESTIMATED RESTORATION TIME FRAME?

To estimate the restoration time frame, Leidos used Module 2 of Ecology's *Natural Attenuation Analysis Tool Package for Petroleum-Contaminated Ground Water* (Ecology, 2005b), which performs a linear regression analysis of temporal contaminant concentration data for each monitoring well to estimate restoration time frame based on an 85% confidence level. The Ecology tool package accepts up to 20 data points for each monitoring well location; therefore, Leidos filtered the available long-term groundwater sampling data to develop a dataset that is representative of the GRO concentration trends over the lifetime of each well. Early data for B-3 and B-4 was filtered out since sampling data was not available for MW-111 until August 1995. In general, at least one representative sampling round was selected for each year of monitoring performed between 1995 and 2015, except in cases where no monitoring was performed (e.g., 2006) or where sampling results were considered to be outliers due to sampling results that were uncharacteristically higher or lower than the general data trend (e.g., 11/19/1998 for MW-111). Additional rounds of more recent data (e.g., 2014 and 2015) were also included.

Model input and output is included in Appendix C. As the output shows, the GRO plume was determined to be shrinking at each of the source area monitoring wells, and there is sufficient evidence to support a significant linear correlation (from 99.999 to 100.000%) between sampling time and log concentration of GRO at each location.

On average (at 50% confidence level), the estimated point decay-rate constants ranged from 0.21 to 0.07 per year (half-lives of 3.3 to 9.5 years). Under this scenario, monitoring wells B-3 and B-4 would be expected to be in compliance with the cleanup level in 2015 and monitoring well MW-111 is estimated to be in compliance in approximately 24 years (2040).

At 85% confidence level, the lower boundary of confidence interval of point decay-rate constants ranged from 0.06 to 0.19 per year (half-lives of 3.6 to 11.4 years). The upper bound of the time

expected to reach the GRO cleanup goal is approximately 2 years for monitoring well B-3, 4 years for B-4, and 33 years for MW-111.

3.4 WILL THE USE OF NATURAL ATTENUATION BE PROTECTIVE OF HUMAN HEALTH AND THE ENVIRONMENT DURING THE ESTIMATED RESTORATION TIME FRAME?

To be considered a feasible cleanup action alternative, the cleanup action should not only be able to achieve cleanup standards within a reasonable restoration time frame, but also be able to adequately protect human and ecological receptors during that time frame. If receptors are impacted by the contaminant, then an active cleanup action will be necessary to remove or contain the contamination such that the receptor is adequately protected (Ecology, 2005a).

Under the current land use scenario and conditions at the Site, there are no complete exposure pathways from petroleum contaminated groundwater to human and/or ecological receptors, based on the following:

- The dissolved-phase plume of petroleum impacted groundwater is confined to a relatively small area in the southern portion of the active service station property that is overlain by a maintained asphalt cap.
- There is no current or projected use of, or demand for, groundwater at the Site and all monitoring wells located downgradient of MW-111 are in compliance with drinking water quality standards (MTCA Method A); therefore, groundwater leaving the Site is not impacted.

Therefore, conditions at the Site are currently considered to be protective of human health and the environment, and these conditions are expected to remain in place unless a change in land use occurs. Land use at the Site has remained unchanged since 1955 (approximately 60 years) and no change is anticipated in the foreseeable future.

3.5 HAS SOURCE CONTROL BEEN CONDUCTED TO THE MAXIMUM EXTENT PRACTICABLE?

To be considered a feasible cleanup action alternative, source control should be conducted as part of the cleanup action to the maximum extent practicable before relying on natural attenuation to achieve groundwater cleanup standards. Source control consists of any remedial action other than natural attenuation that reduces the source mass and the mass loading rate to acceptable levels. Source control may be conducted as part of an interim action and/or as part of the final cleanup action (Ecology, 2005a).

Per Section 3.2.1.5 of Ecology's natural attenuation guidance (Ecology, 2005a), the following source control actions should be conducted:

- Remove hazardous substances from any leaking UST to the maximum extent possible;
- Remove any free product to the maximum extent practicable; and
- Remove any readily accessible contaminated soils that may act as a long-term source of groundwater contamination.

WAC 173-340-200 defines Practicable as *"capable of being designed, constructed and implemented in a reliable and effective manner including consideration of cost. When considering cost under this analysis, an alternative shall not be considered practicable if the*

incremental costs of the alternative are disproportionate to the incremental degree of benefits provided by the alternative over other lower cost alternatives."

Under current land use conditions at the Site, previous cleanup actions are considered to have resulted in source control to the maximum extent practicable. These cleanup actions have included:

- UST upgrades and contaminated soil removal performed on the active service station portion of the Site in 1990 and the removal of USTs and contaminated soil excavation on the inactive service station portion of the Site in 1992.
- Removal of a former diesel UST and contaminated soil excavation on the active service station portion of the Site.
- In-situ source area remediation by injection of Oxygen Release Compound ® (ORC) in 2001.
- Interim remedial action excavations performed in 2010 to address readily accessible contaminated soils located in the vicinity of a former diesel UST on the active service station property and in the vicinity of the former UST basin on the former service station portion of the site, and the application of ORC to groundwater at the base of each excavation.

Contaminated soil and groundwater remaining at the Site is confined to a relatively small area located immediately downgradient of the UST basin and dispenser islands on the active service station area. Although additional source control measures have the potential to be implemented in this area, they are not considered practicable under current land use conditions because their cost, resource demands, and potential impact on current business operations at the Site would not be justified by the incremental degree of benefit provided by their implementation. In fact, due to the lack of a complete exposure pathway under the current land use scenario, there would be little benefit to the shorter restoration time frame that may be possible through implementation of additional active source control, except for reduced performance monitoring and administration costs.

4. CONCLUSIONS

Based on guidelines presented in Ecology's *Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation*, Leidos believes that current conditions at the Site are appropriate to consider the use of natural attenuation as a cleanup action alternative for petroleum contaminated groundwater at the Site.

Long-term sampling results from a robust groundwater monitoring program indicate that groundwater conditions throughout much of the Site are in compliance with drinking water quality standards. Remaining dissolved phase petroleum impacts are confined to a small area of the Site where the dissolved phase plume is shrinking due to natural attenuation. Within this area, results of recent monitoring of geochemical indicators in groundwater indicate that microbial degradation is a substantial mechanism of the natural attenuation occurring at the Site.

Regression analysis of temporal data using Ecology's natural attenuation tool package suggests that cleanup levels will be attained at monitoring wells B-3 and B-4 within approximately 2 to 4 years, and that the restoration time frame for monitoring well MW-111 is approximately 33 years. Although the restoration time frame for MW-111 using natural attenuation is longer than would be expected for an active cleanup action, groundwater impacts in this vicinity appear to be

highly localized. Due to a lack of complete exposure pathways from impacted groundwater to human or ecological receptors, there would be little if any benefit realized from a more active cleanup strategy. There is no current or projected use of, or demand for, groundwater at the Site during the estimated restoration time frame.

The conclusions drawn by this assessment were made based on an assumption that land use will remain as current during the restoration time frame, with an operating service station present and no use of groundwater on the Site. Land use at the Site has remained unchanged since 1955 (approximately 60 years) and no change is anticipated in the foreseeable future. However, future land use changes have the potential to create complete exposure pathways or to provide opportunities for cost-effective remedial actions that could be implemented during property redevelopment or station upgrades. It is expected that these contingencies could be addressed by institutional controls developed for the Site.

5. REFERENCES

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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.

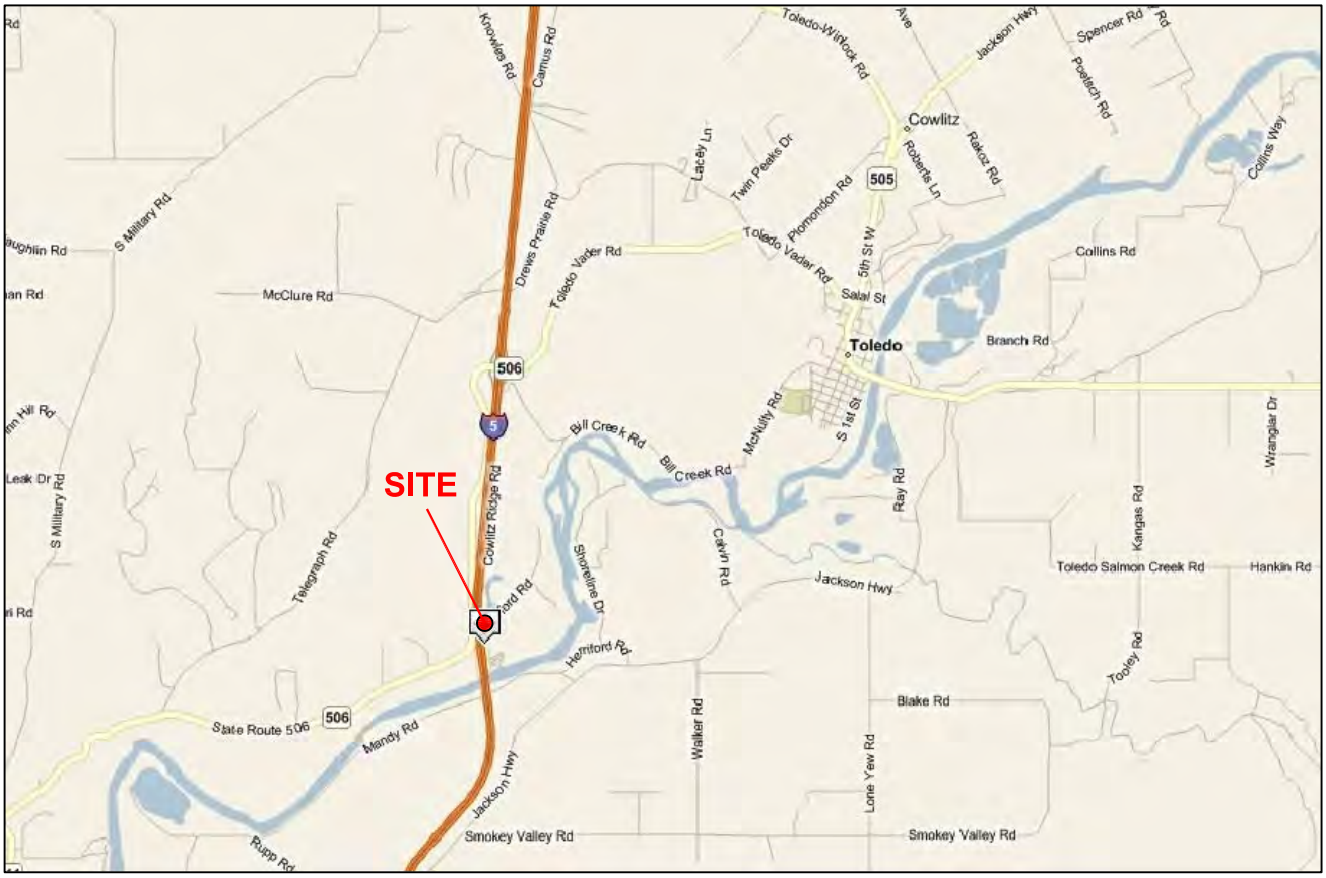
Site history and background information provided in this technical document are based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from 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.

Figures



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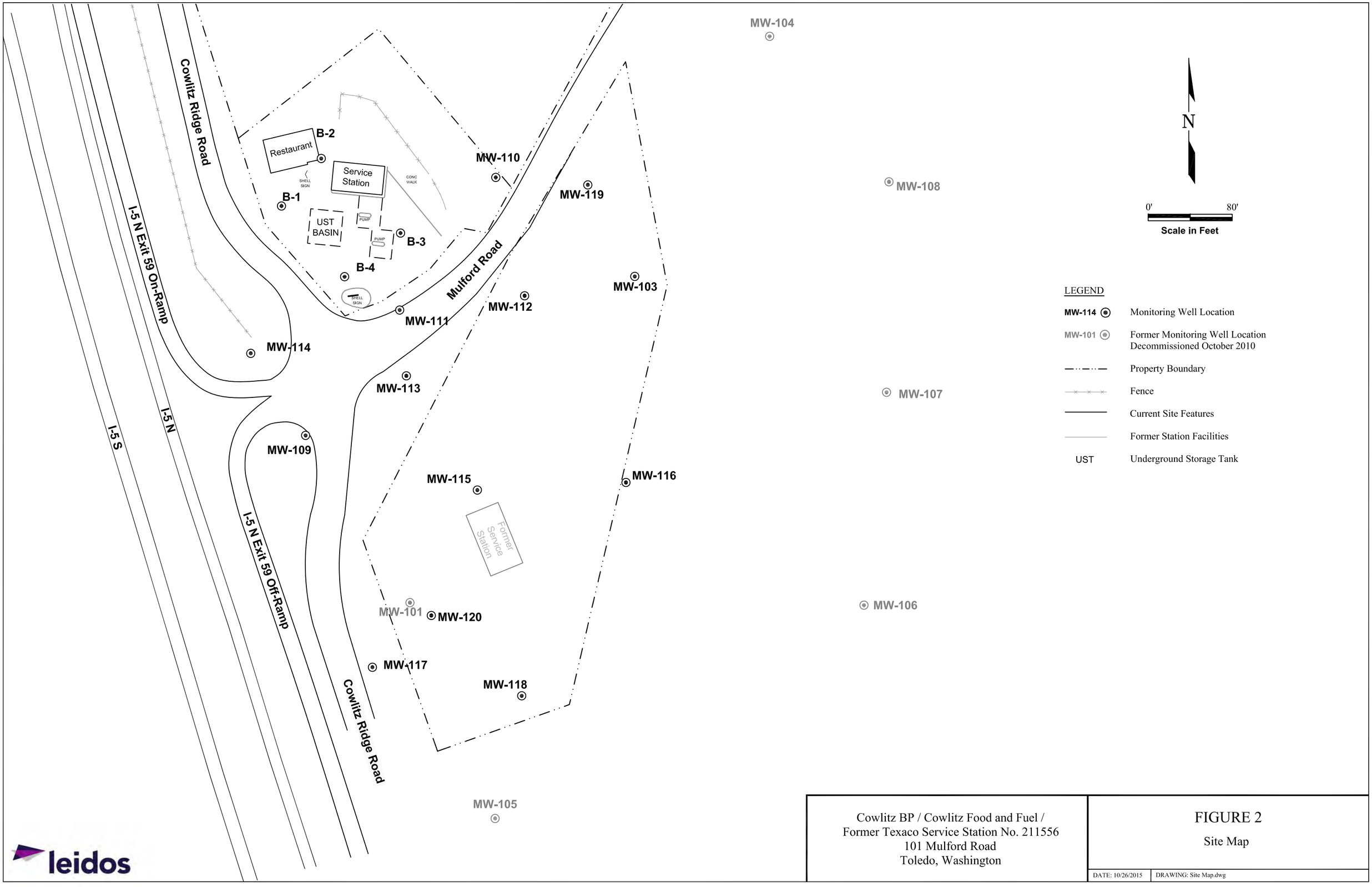
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556 101 Mulford Road Toledo, Washington	FIGURE 1 Vicinity Map
	DATE: 2/21/2014 | DRAWING: 211556_VM.dwg



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101 Mulford Road
Toledo, Washington

FIGURE 2

Site Map

DATE: 10/26/2015 | DRAWING: Site Map.dwg

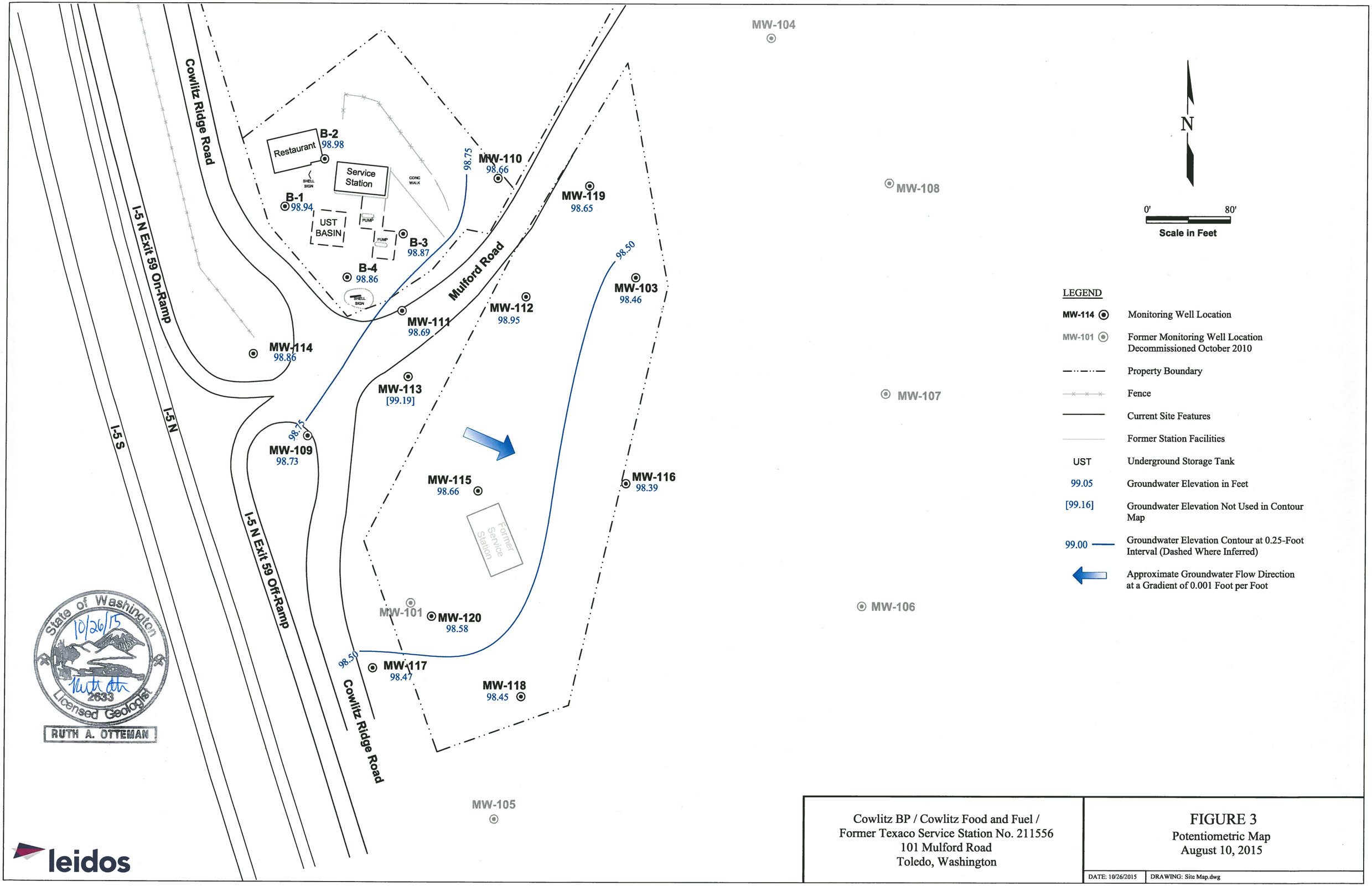

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FIGURE 3
Potentiometric Map
August 10, 2015

DATE: 10/26/2015 | DRAWING: Site Map.dwg

B-1

Date	11/20/2014	2/17/2015	5/13/2015	8/11/2015
GRO	<50	<50	<50	<50
DRO	<29	<28	<28	<28
DRO*	<29	<28	<28	89
HRO	<68	<66	<66	<66
HRO*	<68	<66	<66	74
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

B-2

Date	11/19/2014	2/17/2015	5/13/2015	8/11/2015
GRO	<50	<50	<50	<50
DRO	<29	<29	<28	<29
DRO*	<29	<29	<28	<29
HRO	<68	<67	<66	<67
HRO*	<68	<67	<66	<67
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-110

Date	11/20/2014	2/17/2015	5/11/2015	8/11/2015
GRO	<50	<50	<50	<50
DRO	<29	<30	<29	<28
DRO*	<29	<30	<29	<28
HRO	<67	<70	<68	<66
HRO*	<67	<70	<68	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-119

Date	11/19/2014	2/19/2015	5/11/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<29	<28	<28	<28
DRO*	<29	<28	<28	<28
HRO	<67	<66	<66	<66
HRO*	<67	<66	<66	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

B-4

Date	11/20/2014	2/20/2015	5/13/2015	8/11/2015
GRO	**1,300**	550	**940**	600
DRO	120	95	130	66
DRO*	270	290	210	500
HRO	<66	240	<66	<66
HRO*	<66	470	<66	340
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	2	<0.5	1	<0.5
Total Xylenes	<0.5	<0.5	<0.5	0.6

B-3

Date	11/19/2014	2/20/2015	5/13/2015	8/11/2015
GRO	**900**	650	**1,400**	660
DRO	130	150	120	130
DRO*	**1,400**	490	**690**	**2,000**
HRO	<67	<66	<66	<67
HRO*	160	180	<66	**550**
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	7	<0.5	33	5
Total Xylenes	<0.5	<0.5	0.9	0.5

MW-114

Date	11/20/2014	2/18/2015	5/12/2015	8/11/2015
GRO	<50	<50	<50	<50
DRO	<28	<30	<29	<29
DRO*	<28	<30	<29	130
HRO	<66	<69	<67	170
HRO*	140	<69	<67	**570**
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-103

Date	11/19/2014	2/19/2015	5/11/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<29	<29	<28	<28
DRO*	<29	<29	<28	<28
HRO	<67	<69	<66	<66
HRO*	<67	<69	<66	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-112

Date	11/19/2014	2/19/2015	5/11/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<29	<30	<28	<28
DRO*	<29	<30	<28	<28
HRO	<68	<69	<66	<66
HRO*	<68	<69	<66	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-109

Date	11/20/2014	2/18/2015	5/12/2015	8/11/2015
GRO	<50	<50	<50	<50
DRO	<29	<30	<29	<29
DRO*	<29	<30	<29	130
HRO	<67	<69	<67	210
HRO*	<67	<69	<67	**640**
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-111

Date	11/20/2014	2/20/2015	5/13/2015	8/11/2015
GRO	**6,000**	**3,600**	**4,400**	**4,500**
DRO	430	230	320	470
DRO*	**1,800**	**730**	**1,000**	**2,700**
HRO	<69	<68	<66	<67
HRO*	320	180	<66	93
Benzene	2	1	1	<3
Toluene	<0.5	<0.5	<0.5	<3
Ethylbenzene	120	44	71	31
Total Xylenes	11	3	5	6

MW-115

Date	11/20/2014	2/18/2015	5/12/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<28	<29	<29	<28
DRO*	<28	<29	<29	33
HRO	<66	<67	<68	<66
HRO*	<66	<67	<68	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-116

Date	11/19/2014	2/19/2015	5/12/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<28	<30	<29	<28
DRO*	<28	<30	<29	<28
HRO	<66	<69	<68	<66
HRO*	<66	<69	<68	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-120

Date	11/20/2014	2/18/2015	5/12/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<29	<29	<29	<28
DRO*	<29	<29	<29	<28
HRO	<67	<68	<68	<66
HRO*	<67	<68	<68	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-113

Date	11/19/2014	2/19/2015	5/13/2015	8/10/2015
GRO	<50	<50	75	<50
DRO	<29	<30	<29	<28
DRO*	<29	<30	<29	<28
HRO	<67	<70	<67	<66
HRO*	<67	<70	<67	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-117

Date	11/19/2014	2/19/2015	5/12/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<29	<29	<29	<28
DRO*	<29	<29	<29	<28
HRO	<67	<69	<67	<66
HRO*	<67	<69	<67	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-118

Date	11/20/2014	2/18/2015	5/12/2015	8/10/2015
GRO	<50	<50	<50	<50
DRO	<29	<29	75	<28
DRO*	<29	<29	69	<28
HRO	<68	<67	<67	<66
HRO*	<68	<67	<67	<66
Benzene	<0.5	<0.5	<0.5	<0.5
Toluene	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	<0.5	<0.5	<0.5	<0.5
Total Xylenes	<0.5	<0.5	<0.5	<0.5

MW-104
MW-110
MW-119
MW-108
B-2
Restaurant
B-1
Service Station
SHELL SIGN
CONC WALK
UST BASIN
PUMP
B-3
B-4
MW-103
MW-112
MW-111
MW-107
MW-114
MW-113
MW-109
MW-115
MW-116
Former Service Station
MW-101
MW-120
MW-106
MW-117
MW-118
MW-105
Mulford Road
I-5 N Exit 59 On-Ramp
I-5 S
I-5 N Exit 59 Off-Ramp
Cowlitz Ridge Road

N

0 80'

Scale in Feet

LEGEND:

MW-114	Monitoring Well Location
MW-101	Former Monitoring Well Location
	Property Boundary
	Fence
	Current Site Features
	Former Station Facilities
UST	Underground Storage Tank
	Estimated Horizontal Extent of Groundwater Containing Petroleum Hydrocarbon Contamination Above MTCA Method A Cleanup Levels
<0.5	Laboratory Analytical Result Less Than The Achievable Method Detection Limit
1	Laboratory Analytical Result Less Than The MTCA Method A Cleanup Level
5,500	Laboratory Analytical Result In Excess of the MTCA Method A Cleanup Level
--	Not Analyzed
*	Analyzed without Silica Gel Cleanup

All Concentration Data Reported in Micrograms per Liter

leidos

Cowlitz BP / Cowlitz Food and Fuel /
Former Texaco Service Station No. 211556
101 Mulford Road
Toledo, Washington

FIGURE 4
Groundwater Analytical Results -
November 2014 through August 2015

DATE: 10/26/2015 | DRAWING: Site Map.dwg

FIGURE 5
GW CONTAMINANT CONCENTRATIONS AND DEPTH TO WATER VS. TIME: B-3
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington

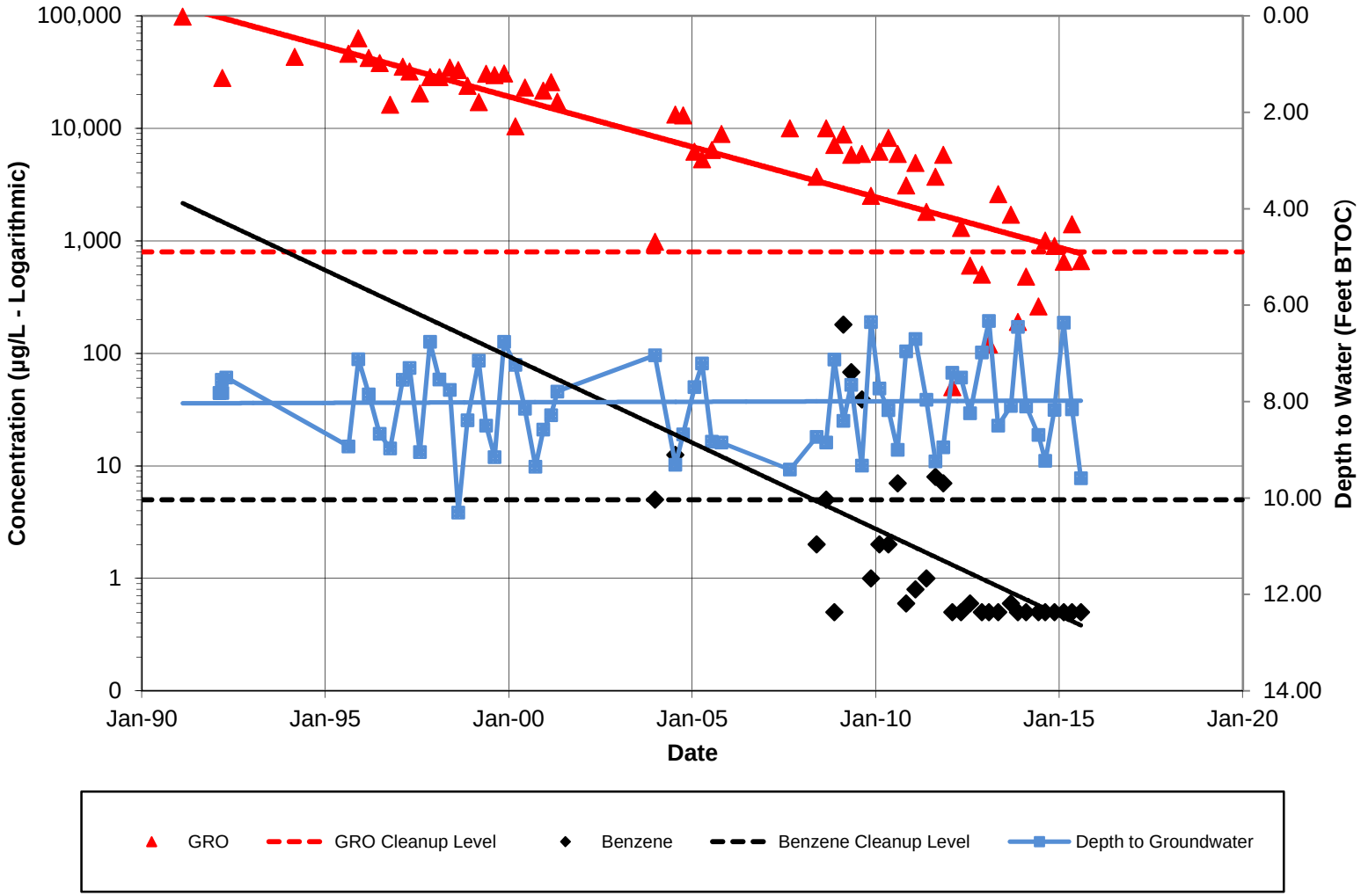


FIGURE 6
GW CONTAMINANT CONCENTRATIONS AND DEPTH TO WATER VS. TIME: B-4
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington

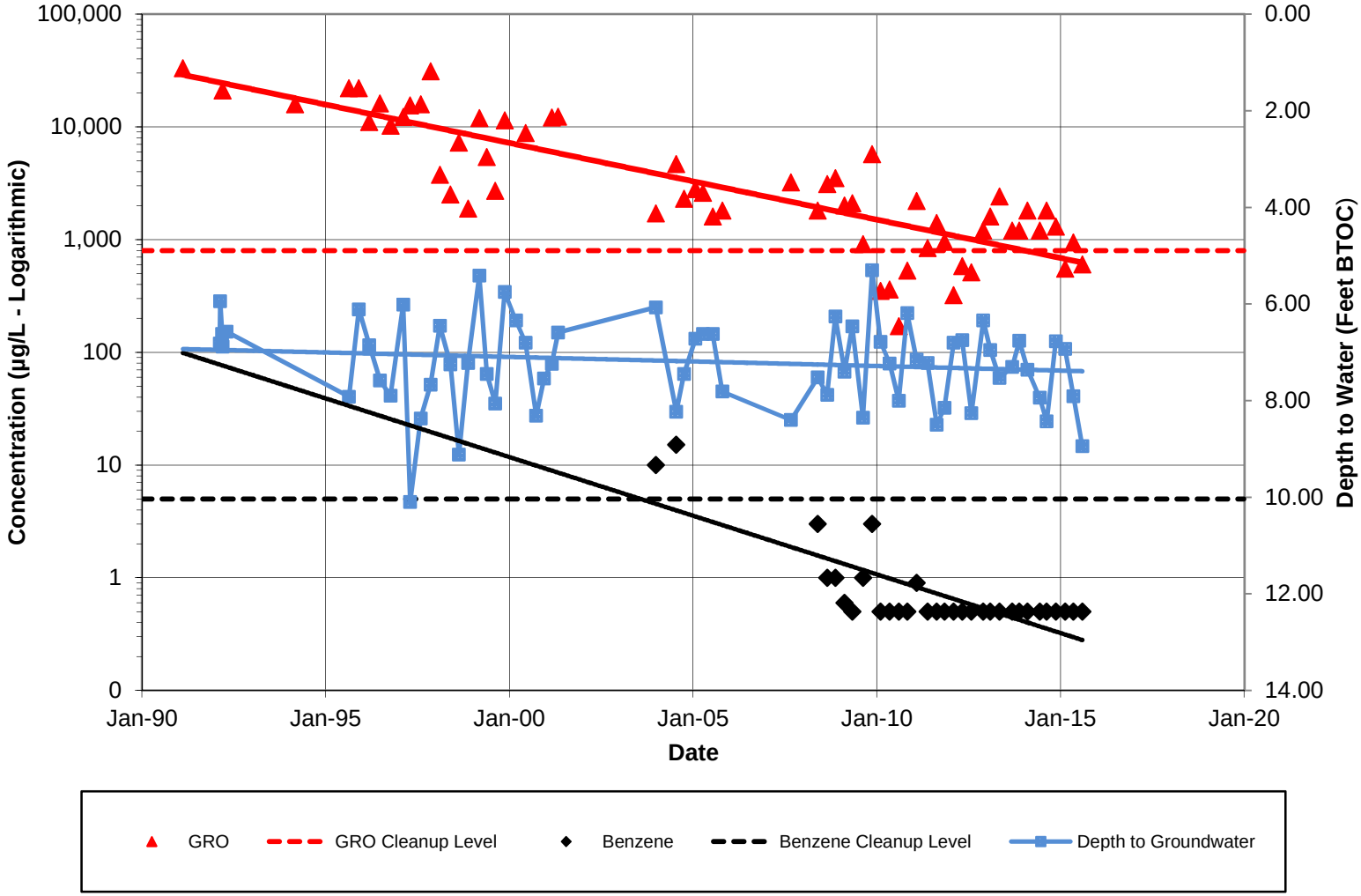


FIGURE 7
GW CONTAMINANT CONCENTRATIONS AND DEPTH TO WATER VS. TIME: MW-111
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington

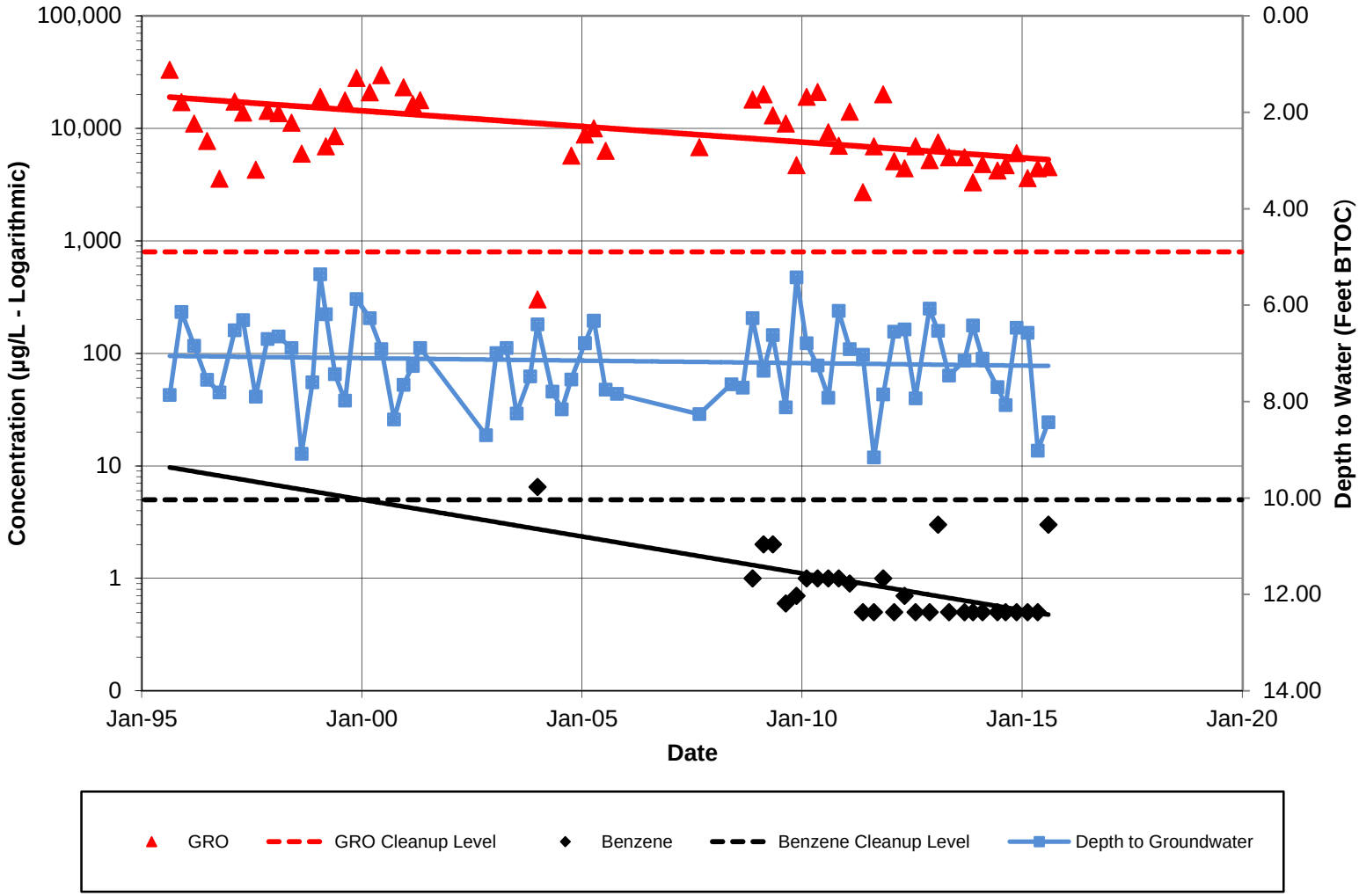
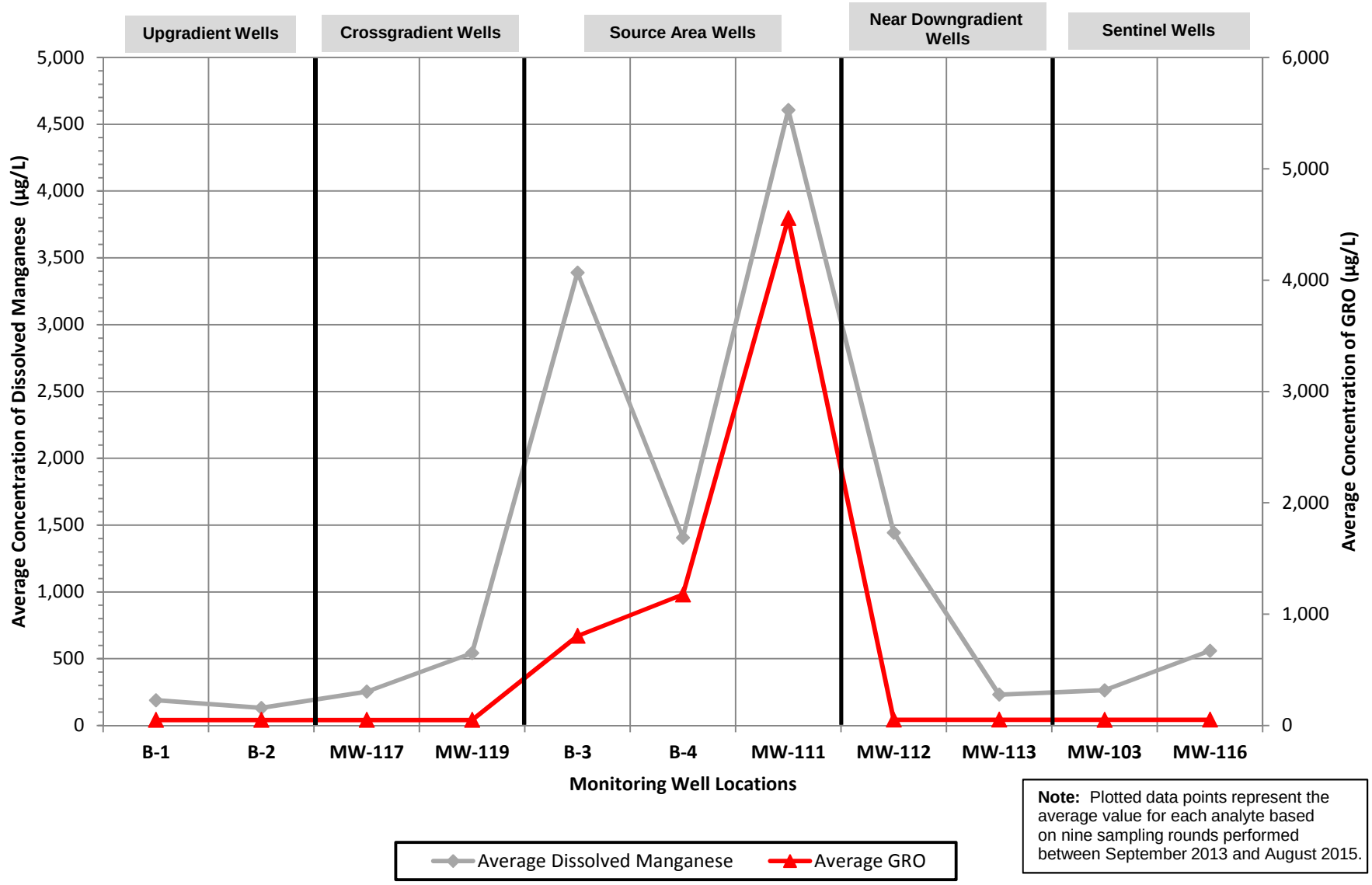
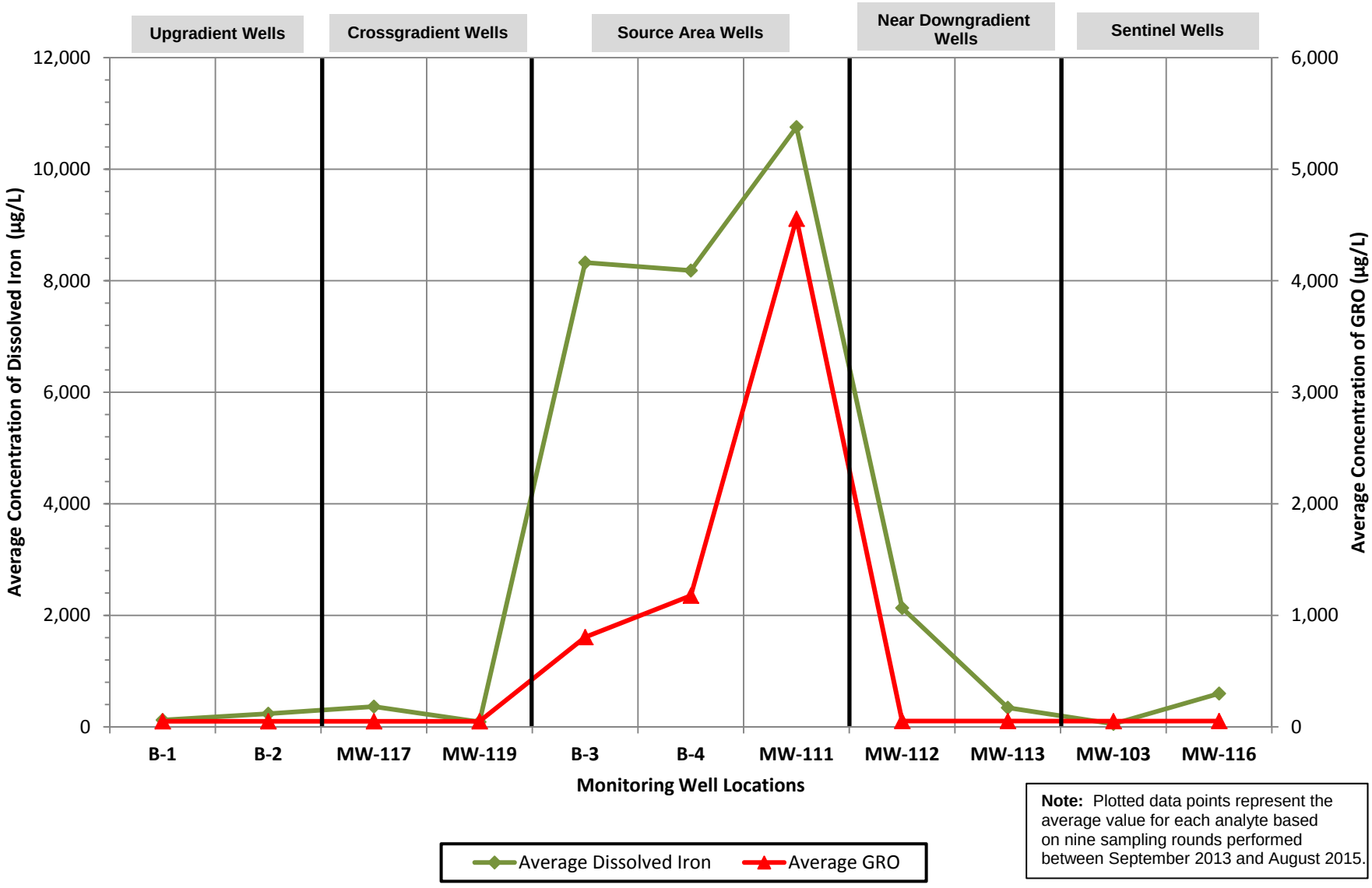


FIGURE 8
GEOCHEMICAL INDICATOR RESPONSE - DISSOVLED MANGANESE AND GRO VS. LOCATION
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington



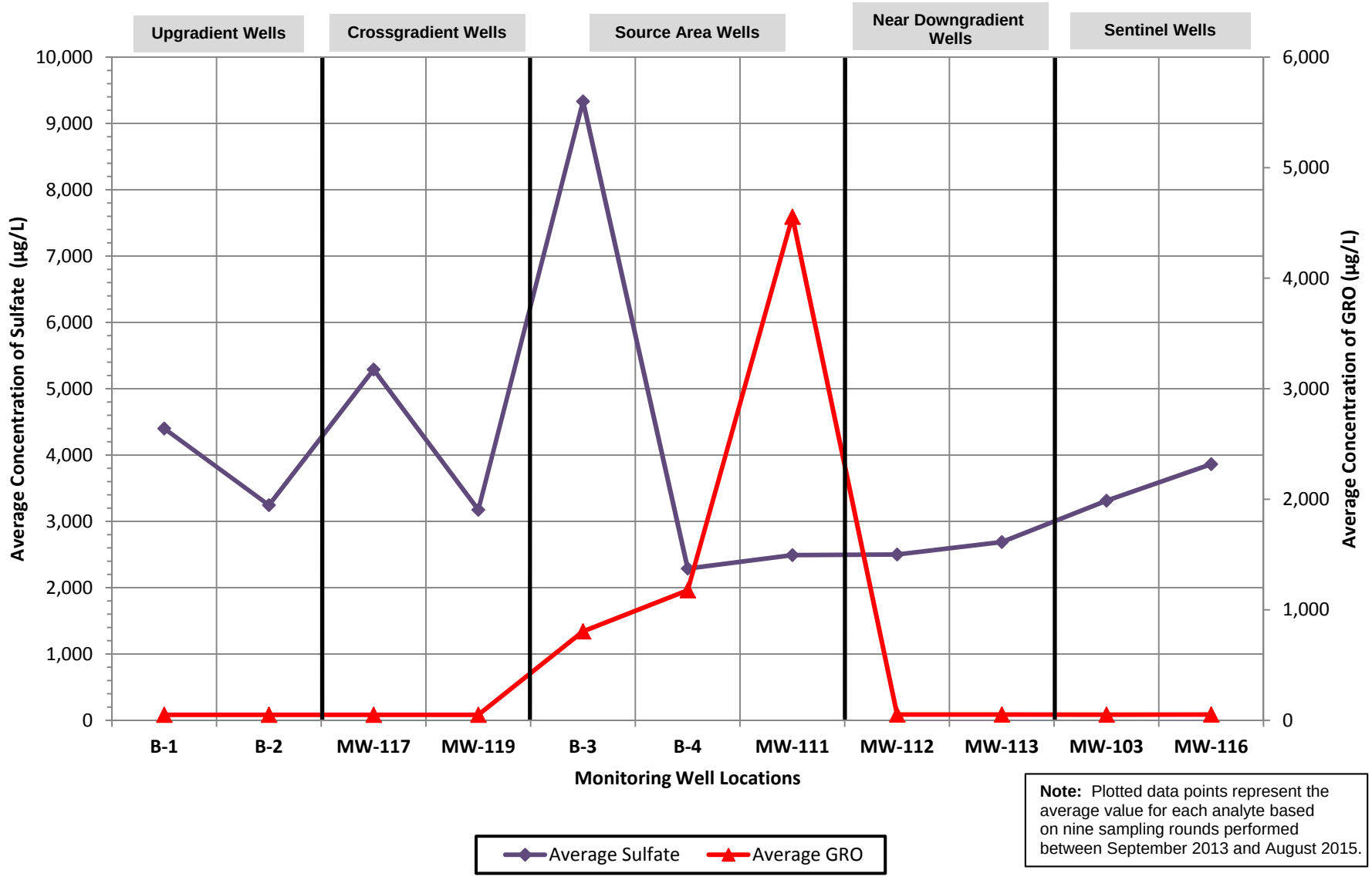
Note: Plotted data points represent the average value for each analyte based on nine sampling rounds performed between September 2013 and August 2015.

FIGURE 9
GEOCHEMICAL INDICATOR RESPONSE - DISSOVLED IRON AND GRO VS. LOCATION
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington



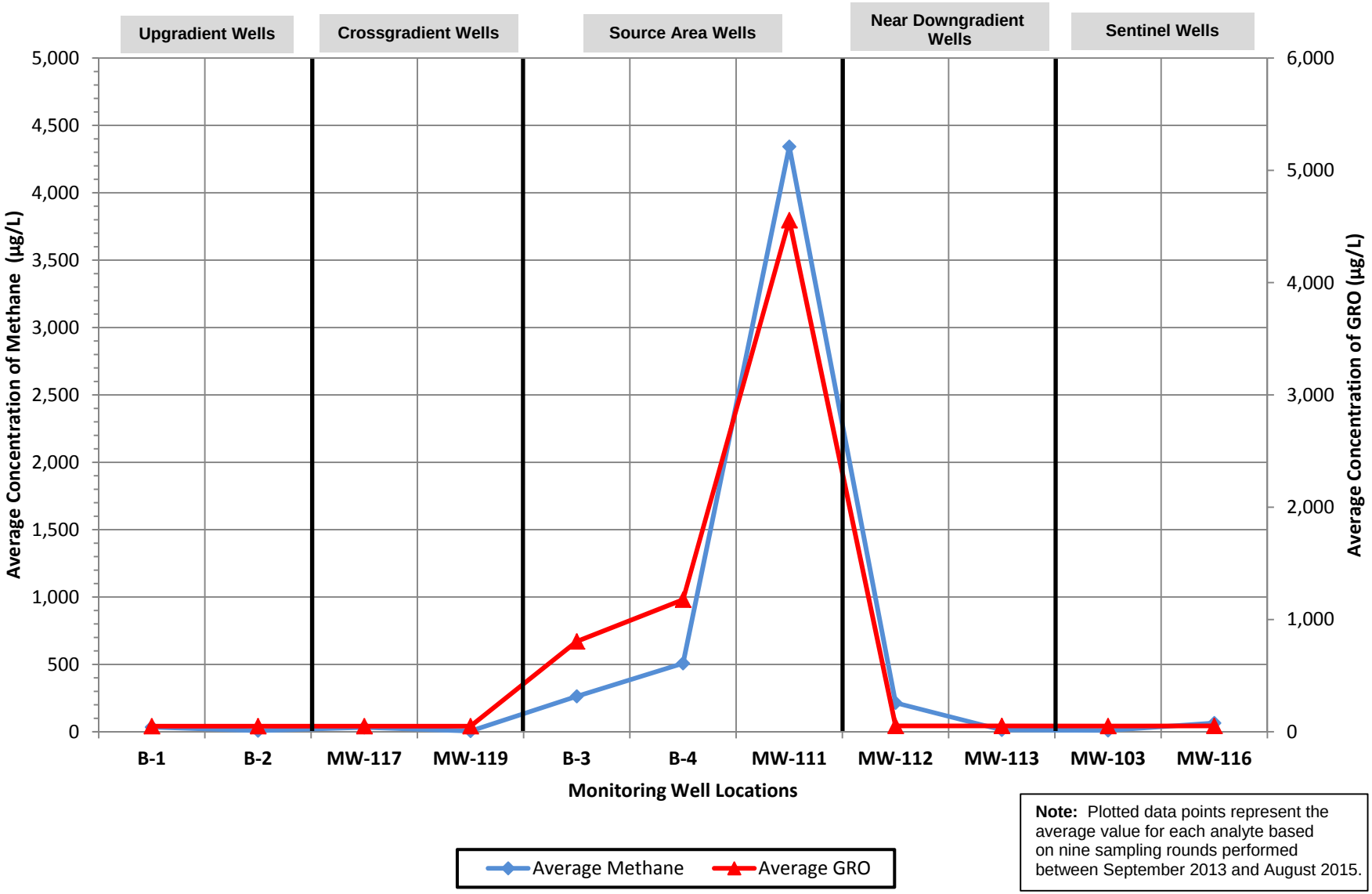
Note: Plotted data points represent the average value for each analyte based on nine sampling rounds performed between September 2013 and August 2015.

FIGURE 10
GEOCHEMICAL INDICATOR RESPONSE - SULFATE AND GRO VS. LOCATION
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington



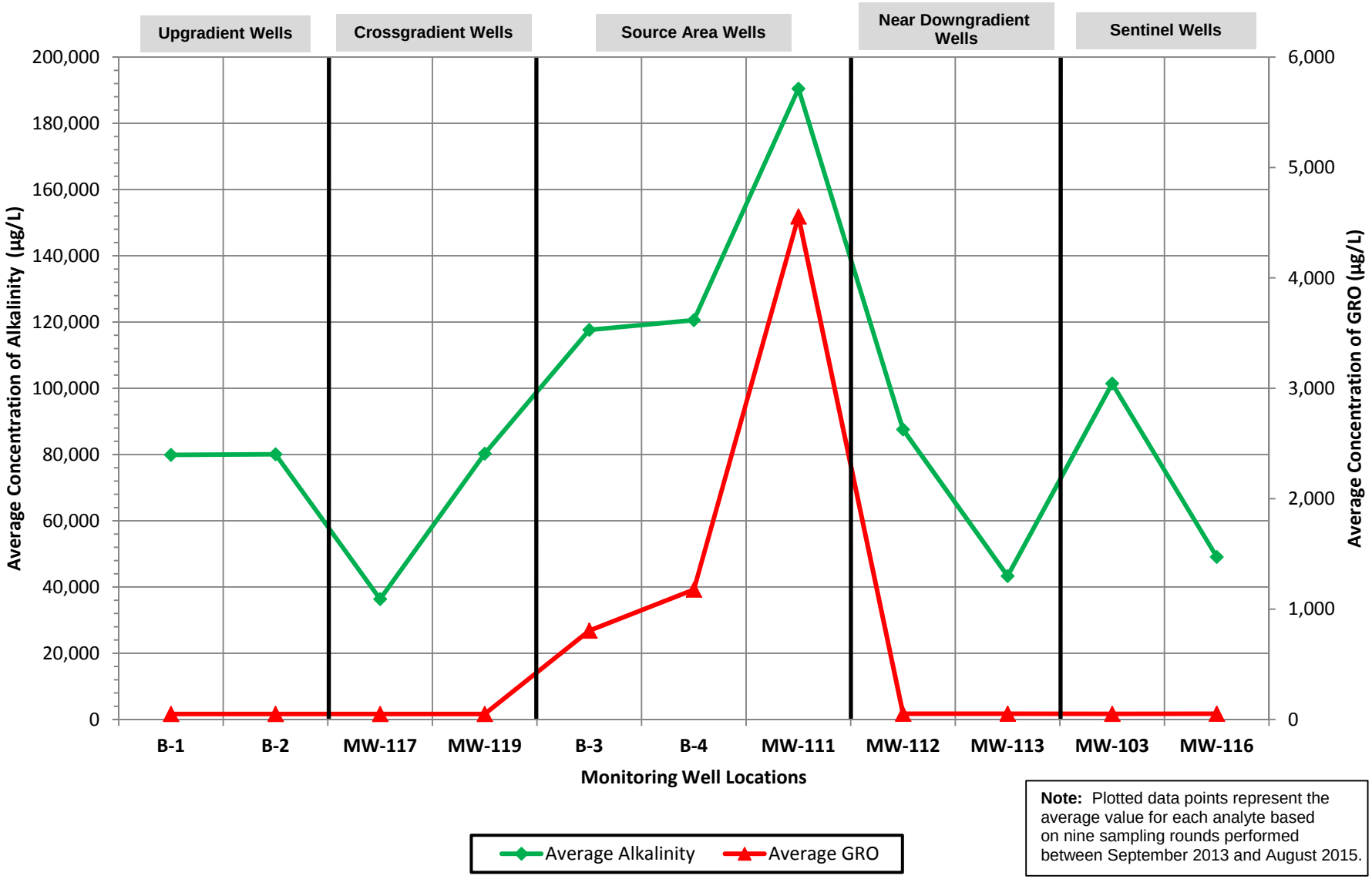
Note: Plotted data points represent the average value for each analyte based on nine sampling rounds performed between September 2013 and August 2015.

FIGURE 11
GEOCHEMICAL INDICATOR RESPONSE - METHANE AND GRO VS. LOCATION
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington



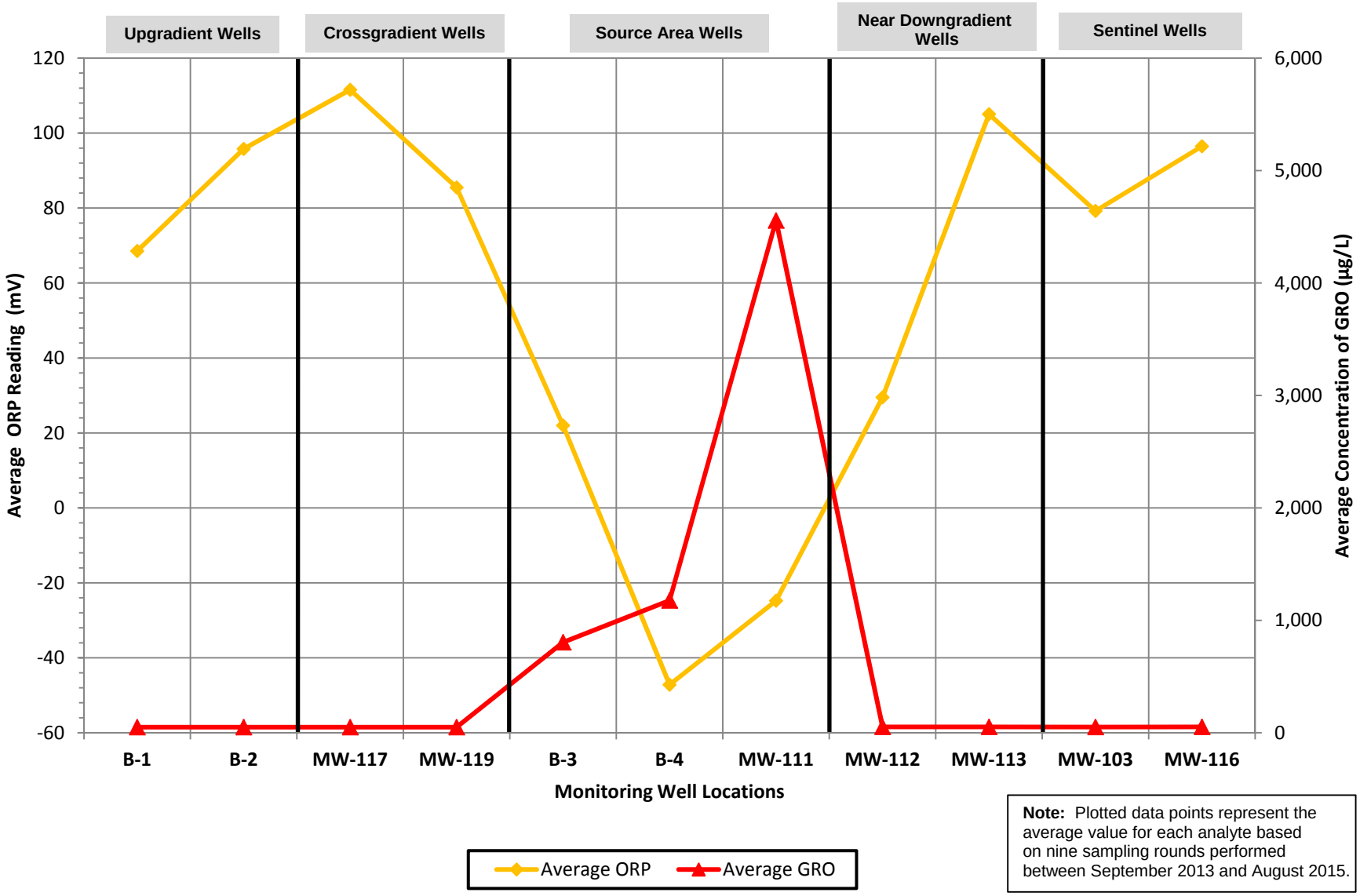
Note: Plotted data points represent the average value for each analyte based on nine sampling rounds performed between September 2013 and August 2015.

FIGURE 12
GEOCHEMICAL INDICATOR RESPONSE - ALKALINITY AND GRO VS. LOCATION
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington



Note: Plotted data points represent the average value for each analyte based on nine sampling rounds performed between September 2013 and August 2015.

FIGURE 13
GEOCHEMICAL INDICATOR RESPONSE - ORP AND GRO VS. LOCATION
Cowlitz BP / Cowlitz Food and Fuel / Former Texaco Service Station No. 211556
101 Mulford Road, Toledo, Washington



Note: Plotted data points represent the average value for each analyte based on nine sampling rounds performed between September 2013 and August 2015.

Tables

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-103															
2/14/91		107.81	--	8.08	--	99.73	--	--	--	--	--	--	--	--	--
2/18/92		107.81	--	8.08	--	99.73	--	--	--	--	--	--	--	--	--
3/9/92		107.81	--	7.80	--	100.01	--	<50	--	--	--	--	--	--	--
3/13/92		107.81	--	8.08	--	99.73	<250	<250	<50	--	--	--	--	--	--
4/21/92		107.81	--	7.78	--	100.03	--	--	<50	--	--	--	--	--	--
3/3/94		107.81	--	--	--	--	<250	<250	<50	<13	--	--	--	--	--
6/13/95		107.81	--	8.55	--	99.26	<250	<250	<50	--	--	--	--	--	<3.0
8/22/95		107.81	--	--	--	--	<250	<250	<50	--	--	--	--	--	<2.0
8/23/95		107.81	--	8.91	--	98.90	<250	<250	<50	--	--	--	--	--	<2.0
11/28/95		107.81	--	7.30	--	100.51	<250	<250	<50	--	--	--	--	--	<2.0
3/12/96		107.81	--	8.03	--	99.78	<250	<250	<50	--	--	--	--	--	<2.0
6/26/96		107.81	--	8.67	--	99.14	<250	<250	<50	--	--	--	--	--	<2.0
10/9/96		107.81	--	8.82	--	98.99	<250	<250	<50	--	--	--	--	--	<2.0
2/12/97		107.81	--	7.81	--	100.00	<250	<250	<50	--	--	--	--	--	<2.0
4/22/97		107.81	--	7.42	--	100.39	<250	<250	<50	--	--	--	--	--	<2.0
8/5/97		107.81	--	8.83	--	98.98	257	110	257	--	--	--	--	--	<2.0
11/11/97		107.81	--	9.01	--	98.80	<250	<250	<50	--	--	--	--	--	<2.0
2/11/98		107.81	--	8.03	--	99.78	<250	<250	<50	--	--	--	--	--	<2.0
5/28/98		107.81	--	8.17	--	99.64	<250	<250	<50	--	--	--	--	--	2.84
8/20/98		107.81	--	9.21	--	98.60	<250	<250	<50	--	--	--	--	--	<1.0
11/19/98		107.81	--	9.03	--	98.78	<250	<250	<50	--	--	--	--	--	<1.0
3/11/99		107.81	--	7.51	--	100.30	<250	<250	<50	--	--	--	--	--	<1.0
5/25/99		107.81	--	8.51	--	99.30	<250	<250	<50	--	--	--	--	--	--
8/17/99		107.81	--	8.93	--	98.88	<250	<250	<50	--	--	--	--	--	<1.0
11/19/99		107.81	--	7.18	--	100.63	<250	<250	<80	--	--	--	--	--	<1.0
3/9/00		107.81	--	7.48	--	100.33	<250	<250	<80	--	--	--	--	--	<1.0
6/13/00		107.81	--	8.29	--	99.52	<250	<250	<80	--	--	--	--	--	<1.0
9/26/00		107.81	--	9.05	--	98.76	<250	<250	--	--	--	--	--	--	<1.0
12/13/00		107.81	--	8.65	--	99.16	<250	<250	--	--	--	--	--	--	<1.0
2/28/01		107.81	--	8.34	--	99.47	<250	<250	89	--	--	--	--	--	<1.0
5/2/01		107.81	--	8.12	--	99.69	<250	<250	214	--	--	--	--	--	<1.0
10/30/02		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
4/18/03		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
7/11/03		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
10/31/03		107.81	UNABLE TO LOCATE - COVERED BY SOIL					--	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-103 (cont)															
12/30/03		107.81	--	7.32	0.00	100.49	<50	<85	<110	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		107.81	UNABLE TO LOCATE - COVERED BY SOIL					--	--	--	--	--	--	--	--
7/20/04		107.81	--	9.09	0.00	98.72	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
10/7/04		107.81	--	8.66	0.00	99.15	<160	<50	--	--	--	--	--	--	--
1/27/05		107.81	--	7.95	0.00	99.86	<83	<83	<48	--	--	--	--	--	--
4/12/05		107.81	--	7.65	0.00	100.16	<78	<78	<48	--	--	--	--	--	--
7/18/05		107.81	--	8.76	0.00	99.05	<79	<79	<48	--	--	--	--	--	--
10/21/05		107.81	--	8.87	0.00	98.94	<79	<79	<48	--	--	--	--	--	--
9/5/07		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
5/27-28/08		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
8/27-29/08		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
11/17-19/08		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
2/16-18/09		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
5/4-6/09		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
8/19-21/09		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
11/18-20/09		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
2/8-10/10		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
5/12-13/10		107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
08/12/10	LFP	107.81	--	8.90	0.00	98.91	30	120	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
11/3-4/10		107.81	--	7.69	0.00	100.12	<29	91	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.17
2/3-4/11	LFP	107.81	--	7.99	0.00	99.82	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
05/24/11	LFP	107.81	--	8.25	0.00	99.56	30	340	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.13
8/23-24/11	LFP	107.81	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
11/7-9/11	LFP	107.81	--	8.90	0.00	98.91	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.12
2/6-8/12	LFP	107.81	--	7.80	0.00	100.01	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	107.81	--	8.05	0.00	99.76	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.083
8/1-3/12	LFP	107.81	--	8.95	0.00	98.86	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.088
11/26-28/12	LFP	107.81	--	7.36	0.00	100.45	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	107.81	--	7.85	0.00	99.96	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.087
5/6-8//13	LFP	107.81	--	8.60	0.00	99.21	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.13
9/9-13/13	LFP	107.81	--	8.55	0.00	99.26	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
11/18-21/13	LFP	107.81	--	7.62	0.00	100.19	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.21
2/4-11/14	LFP	107.81	--	8.36	0.00	99.45	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
6/12-14/14	LFP	107.81	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-103 (cont)															
8/18-21/14	LFP	107.81	--	6.81	0.00	101.00	<29/<29	<68/<68	62	<0.5	<0.5	<0.5	<0.5	<0.5	0.18
11/19-20/14	LFP	107.81	--	8.41	0.00	99.40	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	107.81	--	7.83	0.00	99.98	<29/<29	<69/<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	107.81	--	8.77	0.00	99.04	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.12
8/10-11/15	LFP	107.81	--	9.35	0.00	98.46	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.13
MW-109															
3/13/92		107.35	--	7.72	0.00	99.63	--	--	<50	--	--	--	--	--	--
4/21/92		107.35	--	7.42	0.00	99.93	--	--	--	--	--	--	--	--	--
3/3/94		107.35	--	--	0.00	--	**900**	**1,500**	**4,900**	--	--	--	--	--	--
8/22/95		107.35	--	8.57	0.00	98.78	**2,900**	**2,400**	<50	--	--	--	--	--	--
11/28/95		107.35	--	5.87	0.00	101.48	480	**1,900**	72	--	--	--	--	--	<2.0
3/12/96		107.35	--	7.16	0.00	100.19	<250	<750	<50	--	--	--	--	--	<2.0
6/26/96		107.35	--	8.24	0.00	99.11	**554**	<750	<50	--	--	--	--	--	<2.0
10/9/96		107.35	--	8.54	0.00	98.81	405	<750	<50	--	--	--	--	--	<2.0
2/12/97		107.35	--	5.82	0.00	101.53	393	**1,290**	<50	--	--	--	--	--	<2.0
4/22/97		107.35	--	7.10	0.00	100.25	356	**1,270**	<50	--	--	--	--	--	<2.0
8/5/97		107.35	--	8.81	0.00	98.54	**560**	**1,690**	<50	--	--	--	--	--	<2.0
11/11/97		107.35	--	7.57	0.00	99.78	269	**780**	<50	--	--	--	--	--	<2.0
2/11/98		107.35	--	6.20	0.00	101.15	387	**1,700**	<50	--	--	--	--	--	<2.0
5/28/98		107.35	--	7.62	0.00	99.73	332	**920**	<50	--	--	--	--	--	2.25
8/20/98		107.35	--	9.00	0.00	98.35	**520**	**1,450**	<50	--	--	--	--	--	<1.0
11/19/98		107.35	--	8.21	0.00	99.14	409	**1,130**	<50	--	--	--	--	--	<1.3
3/11/99		107.35	--	6.94	0.00	100.41	**539**	**2,000**	<80	--	--	--	--	--	<1.0
5/25/99		107.35	--	8.13	0.00	99.22	**916**	--	<80	--	--	--	--	--	--
8/17/99		107.35	--	8.66	0.00	98.69	**1,520**	**7,770**	<80	--	--	--	--	--	<1.0
11/19/99		107.35	--	6.65	0.00	100.70	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		107.35	--	5.67	0.00	101.68	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		107.35	--	6.65	0.00	100.70	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		107.35	--	8.36	0.00	98.99	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		107.35	--	7.72	0.00	99.63	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		107.35	--	7.44	0.00	99.91	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		107.35	--	9.50	0.00	97.85	<250	<500	<80	--	--	--	--	--	<1.0
10/30/02		107.35	--	8.69	0.00	98.66	<250	<500	<80	<0.500	<0.500	<0.500	<1.0	--	6.44
1/23/03		107.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		107.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-109 (cont.)															
7/11/03		107.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		107.35	--	7.63	0.00	99.72	<250	<500	<50	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
12/31/03		107.35	--	6.42	0.00	100.93	<50	440	**2,300**	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		107.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		107.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/6/04		107.35	--	7.71	0.00	99.64	<81	110	<50	--	--	--	--	--	--
10/24/05		107.35	--	7.93	0.00	99.42	<81	<100	<48	--	--	--	--	--	--
9/5/07		107.35	--	8.45	0.00	98.90	<79	240	91	--	--	--	--	--	0.15
5/27-28/08		107.35	--	7.86	0.00	99.49	<79	<98	<50	<0.5	0.6	<0.5	<0.5	<0.5	<0.050
8/27-29/08	LFP	107.35	--	7.92	0.00	99.43	<79	<99	<50	<5	<5	<5	<5	<5	<0.050
11/17-19/08	LFP	107.35	--	6.60	0.00	100.75	35	110	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	107.35	--	7.59	0.00	99.76	53	130	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.093
5/4-6/09	LFP	107.35	--	7.09	0.00	100.26	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	107.35	--	8.35	0.00	99.00	49	290	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
11/18-20/09	LFP	107.35	--	5.74	0.00	101.61	98	340	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
2/8-10/10	LFP	107.35	--	7.04	0.00	100.31	31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
5/12-13/10	LFP	107.35	--	7.41	0.00	99.94	60	270	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
08/11/10	LFP	107.35	--	8.90	0.00	98.45	34	300	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.1
11/3-4/10	LFP	107.35	--	6.37	0.00	100.98	65	430	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
2/3-4/11	LFP	107.35	--	7.12	0.00	100.23	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
05/23/11	LFP	107.35	--	7.26	0.00	100.09	47	**520**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
8/23-24/11	LFP	107.35	--	8.35	0.00	99.00	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.12
11/7-9/11	LFP	107.35	--	8.00	0.00	99.35	<300	**890**	84	<0.5	<0.5	0.6	<0.5	<0.5	0.19
2/6-8/12	LFP	107.35	--	6.85	0.00	100.50	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	107.35	--	6.90	0.00	100.45	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	107.35	--	8.13	0.00	99.22	<30	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.034
11/26-28/12	LFP	107.35	--	6.42	0.00	100.93	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	107.35	--	6.95	0.00	100.40	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	107.35	--	7.35	0.00	100.00	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	107.35	--	7.34	0.00	100.01	<31/<31	<72/<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.62
11/18-22/13	LFP	107.35	--	8.12	0.00	99.23	<29/68	<67/170	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
02/4-11/14	LFP	107.35	--	7.33	0.00	100.02	<30/<30	<70/<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.20
6/12-14/14	LFP	107.35	--	7.31	0.00	100.04	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--[8]
8/18-21/14	LFP	107.35	--	9.93	0.00	97.42	INSUFFICIENT WATER								
11/19-20/14	LFP	107.35	--	7.38	0.00	99.97	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-109 (cont.)															
2/17-20/15	LFP	107.35	--	6.91	0.00	100.44	<30/<30	<69/<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	107.35	--	7.29	0.00	100.06	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.12
8/10-11/15	LFP	107.35	--	8.62	0.00	98.73	<29/130	210/**640**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	136
MW-110															
8/22/95		108.89	--	9.62	0.00	99.27	400	<750	**11,000**	--	--	--	--	--	--
11/28/95		108.89	--	8.08	0.00	100.81	**540**	<750	**6,000**	--	--	--	--	--	14
3/12/96		108.89	--	8.74	0.00	100.15	340	<750	**3,600**	--	--	--	--	--	14
6/26/96		108.89	--	9.41	0.00	99.48	274	<750	**2,750**	--	--	--	--	--	8.14
10/9/96		108.89	--	9.67	0.00	99.22	<250	<750	**1,160**	--	--	--	--	--	5.96
2/12/97		108.89	--	8.42	0.00	100.47	393	<750	**1,830**	--	--	--	--	--	11.7
4/22/97		108.89	--	8.18	0.00	100.71	371	<750	**1,950**	--	--	--	--	--	7.27
8/5/97		108.89	--	9.80	0.00	99.09	282	<750	**1,480**	--	--	--	--	--	3.16
11/11/97		108.89	--	8.57	0.00	100.32	**659**	<750	**2,330**	--	--	--	--	--	**22.9**
2/11/98		108.89	--	8.54	0.00	100.35	390	<750	**2,040**	--	--	--	--	--	**15.3**
5/28/98		108.89	--	8.69	0.00	100.20	324	<750	**1,350**	--	--	--	--	--	**15.5**
8/20/98		108.89	--	10.91	0.00	97.98	<250	<750	**812**	--	--	--	--	--	1.55
11/19/98		108.89	--	9.51	0.00	99.38	258	<750	637	--	--	--	--	--	7.27
3/11/99		108.89	--	8.09	0.00	100.80	486	<500	**2,350**	--	--	--	--	--	11
5/25/99		108.89	--	9.28	0.00	99.61	<250	--	**2,950**	--	--	--	--	--	--
8/17/99		108.89	--	9.81	0.00	99.08	<250	<500	749	--	--	--	--	--	2.2
11/19/99		108.89	--	7.77	0.00	101.12	453	--	**2,030**	--	--	--	--	--	**32.4**
3/9/00		108.89	--	8.15	0.00	100.74	<250	<500	**3,780**	--	--	--	--	--	9.59
6/13/00		108.89	--	8.81	0.00	100.08	<250	<500	**2,330**	--	--	--	--	--	5.45
9/26/00		108.89	--	9.98	0.00	98.91	<250	<500	--	--	--	--	--	--	2.83
12/13/00		108.89	--	9.37	0.00	99.52	<250	<500	**1,340**	--	--	--	--	--	4.15
2/28/01		108.89	--	9.07	0.00	99.82	<250	<500	**1,800**	--	--	--	--	--	6.32
5/2/01		108.89	--	8.62	0.00	100.27	<250	<500	**905**	--	--	--	--	--	4.23
10/30/02		108.89	--	10.28	0.00	98.61	<250	<500	**3,880**	<2.50	<2.50	22.5	108	--	6.36
1/23/03		108.89	--	8.74	0.00	100.15	<250	<500	**1,190**	0.902	0.585	9.83	13.9	--	**26.5**[5]
4/18/03		108.89	--	8.40	0.00	100.49	<250	<500	499	1.94	<0.500	0.799	1.65	--	**16.8**[5]
7/11/03		108.89	--	9.99	0.00	98.90	<250	<500	586	1.76	<0.500	1.08	1.11	--	2.11[5]
10/31/03		108.89	--	9.25	0.00	99.64	<250	<500	184	0.529	<0.500	<0.500	<1.0	--	<1.0[5]
12/31/03		108.89	--	7.94	0.00	100.95	**1,800**	410	<99	<10	<2.0	23	25	--	**17.3**
5/3/04		108.89	--	9.56	0.00	99.33	<250	<500	454	1.8	<0.500	<0.500	<1.0	--	3.86[5]

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COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-110 (cont)															
7/20/04		108.89	--	10.03	0.00	98.86	<250	<500	308	0.893	<0.500	<0.500	<1.0	--	<1.0[5]
10/6/04		108.89	--	9.38	0.00	99.51	<79	<99	160	--	--	--	--	--	--
1/27/05		108.89	--	8.65	0.00	100.24	<81	<100	150	--	--	--	--	--	--
4/12/05		108.89	--	8.22	0.00	100.67	370	<100	290	--	--	--	--	--	--
7/18/05		108.89	--	9.50	0.00	99.39	<79	<99	100	--	--	--	--	--	--
7/18/05 (D)		108.89	--	9.50	0.00	99.39	<79	<99	100	--	--	--	--	--	--
10/20/05		108.89	--	9.62	0.00	99.27	82	100	110	--	--	--	--	--	--
9/4/07		108.89	--	10.08	0.00	98.81	<150	220	290	--	--	--	--	--	5
5/27-28/08	LFP	108.89	--	9.52	0.00	99.37	<76	<96	210	<0.5	<0.5	9	0.7	<0.5	9.1
8/27-29/08	LFP	108.89	--	9.60	0.00	99.29	120	<100	240	<5	<5	<5	<5	<5	1.5
11/17-19/08	LFP	108.89	--	8.17	0.00	100.72	410	<68	150	<0.5	<0.5	<0.5	<0.5	<0.5	**34.1**
2/16-18/09	LFP	108.89	--	9.23	0.00	99.66	58	170	<50	<0.5	<0.5	<0.5	<0.5	<0.5	**27.7**
5/4-6/09	LFP	108.89	--	8.60	0.00	100.29	380	**670**	96	<0.5	<0.5	<0.5	<0.5	<0.5	5.4
8/19-21/09	LFP	108.89	--	9.98	0.00	98.91	<30	76	69	<0.5	<0.5	<0.5	<0.5	<0.5	0.63
11/18-20/09	LFP	108.89	--	6.97	0.00	101.92	200	<67	670	<0.5	<0.5	2	<0.5	<0.5	5
2/8-10/10	LFP	108.89	--	8.64	0.00	100.25	51	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	12.5
5/12-13/10	LFP	108.89	--	9.08	0.00	99.81	39	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	4.2
08/11/10	LFP	108.89	--	9.75	0.00	99.14	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.4
11/3-4/10	LFP	108.89	--	8.15	0.00	100.74	49	98	<50	<0.5	<0.5	<0.5	<0.5	<0.5	2.5
2/3-4/11	LFP	108.89	--	8.77	0.00	100.12	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.72
05/24/11	LFP	108.89	--	8.90	0.00	99.99	<29	180	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.43
8/23-24/11	LFP	108.89	--	9.96	0.00	98.93	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.62
11/7-9/11	LFP	108.89	--	9.30	0.00	99.59	<31	<72	95	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
2/6-8/12	LFP	108.89	--	8.40	0.00	100.49	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
5/2-4/12	LFP	108.89	--	8.40	0.00	100.49	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.23
8/1-3/12	LFP	108.89	--	8.46	0.00	100.43	50	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.093
11/26-28/12	LFP	108.89	--	7.95	0.00	100.94	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.30
02/4-6/13	LFP	108.89	--	8.38	0.00	100.51	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	108.89	--	9.52	0.00	99.37	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.23
9/9-13/13	LFP	108.89	--	9.03	0.00	99.86	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.39
11/18-21/13	LFP	108.89	--	8.22	0.00	100.67	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.33
02/4-11/14	LFP	108.89	--	8.98	0.00	99.91	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.16
6/12-14/14	LFP	108.89	--	9.50	0.00	99.39	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
8/18-21/14	LFP	108.89	--	8.53	0.00	100.36	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-110 (cont)															
11/19-20/14	LFP	108.89	--	9.08	0.00	99.81	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.94
2/17-20/15	LFP	108.89	--	8.39	0.00	100.50	<30/<30	<70/<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	108.89	--	9.51	0.00	99.38	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.46
8/10-11/15	LFP	108.89	--	10.23	0.00	98.66	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.88
MW-111															
8/22/95		107.12	--	7.86	0.00	99.26	360	<750	**33,000**	--	--	--	--	--	--
11/28/95		107.12	--	6.14	0.00	100.98	**640**	<750	**17,000**	--	--	--	--	--	10
3/12/96		107.12	--	6.84	0.00	100.28	290	<750	**11,000**	--	--	--	--	--	7.6
6/26/96		107.12	--	7.55	0.00	99.57	479	<750	**7,690**	--	--	--	--	--	4.8
10/9/96		107.12	--	7.81	0.00	99.31	256	<750	**3,560**	--	--	--	--	--	4.7
2/12/97		107.12	--	6.52	0.00	100.60	**631**	<750	**17,200**	--	--	--	--	--	8.7
4/22/97		107.12	--	6.31	0.00	100.81	**920**	<750	**13,800**	--	--	--	--	--	5.3
8/5/97		107.12	--	7.90	0.00	99.22	444	<750	**4,290**	--	--	--	--	--	3.5
11/11/97		107.12	--	6.70	0.00	100.42	**770**	<750	**14,300**	--	--	--	--	--	12.4
2/11/98		107.12	--	6.65	0.00	100.47	**587**	<750	**13,600**	--	--	--	--	--	8.3
5/28/98		107.12	--	6.89	0.00	100.23	**526**	<750	**11,200**	--	--	--	--	--	**16.6**
8/20/98		107.12	--	9.08	0.00	98.04	**637**	<750	**5,950**	--	--	--	--	--	1.7
11/19/98		107.12	--	7.60	0.00	99.52	**3,890**	<750	**10,500,000**	--	--	--	--	--	2.2
1/22/99		107.12	--	5.36	0.00	101.76	--	--	**19,000**	--	--	--	--	--	--
3/11/99		107.12	--	6.19	0.00	100.93	**611**	<500	**6,910**	--	--	--	--	--	6.3
5/25/99		107.12	--	7.43	0.00	99.69	388	--	**8,500**	--	--	--	--	--	4.2
8/17/99		107.12	--	7.98	0.00	99.14	**547**	<500	**17,600**	--	--	--	--	--	3
11/19/99		107.12	--	5.87	0.00	101.25	**547**	--	**27,900**	--	--	--	--	--	14.4
3/9/00		107.12	--	6.27	0.00	100.85	**12,400**	**646**	**20,800**	--	--	--	--	--	11.8
6/13/00		107.12	--	6.91	0.00	100.21	**7,670**	<500	**29,600**	--	--	--	--	--	12.8
9/26/00		107.12	--	8.37	0.00	98.75	--	--	--	--	--	--	--	--	--
12/13/00		107.12	--	7.65	0.00	99.47	**13,800**	<500	**23,100**	--	--	--	--	--	4.1
2/28/01		107.12	--	7.26	0.00	99.86	**3,740**	<500	**16,400**	--	--	--	--	--	5.6
5/2/01		107.12	--	6.89	0.00	100.23	**7,530**	<500	**17,700**	--	--	--	--	--	10.7
10/30/02		107.12	8.42	8.70	0.28	98.64	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					--	--	--	--
1/23/03		107.12	6.95	6.99	0.04	100.16	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					--	--	--	--
4/18/03		107.12	6.83	6.89	0.06	100.28	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					--	--	--	--
7/11/03		107.12	8.18	8.25	0.07	98.93	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					--	--	--	--
10/31/03		107.12	7.45	7.48	0.03	99.66	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					--	--	--	--
12/31/03		107.12	--	6.40	0.00	100.72	**50,000**	**2,800**	300	**8.3**	6.5	**1,100**	**3,300**	--	**15.2**

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-111 (cont)															
05/03/04		107.12	7.76	7.79	0.03	99.35	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					--	--	--	--
7/20/04		107.12	8.10	8.16	0.06	99.01	NOT SAMPLED DUE TO THE PRESENCE OF LNAPL					--	--	--	--
10/6/04		107.12	--	7.54	0.00	99.58	240	<100	**5,700**	--	--	--	--	--	--
1/27/05		107.12	--	6.79	0.00	100.33	310	<98	**8,800**	--	--	--	--	--	--
1/27/05(D)		107.12	--	6.79	0.00	100.33	310	<98	**9,100**	--	--	--	--	--	--
4/12/05		107.12	--	6.32	0.00	100.80	**820**	<100	**10,000**	--	--	--	--	--	--
4/12/05(D)		107.12	--	6.32	0.00	100.80	**850**	<110	**10,000**	--	--	--	--	--	--
7/18/05		107.12	--	7.75	0.00	99.37	460	<96	**6,300**	--	--	--	--	--	--
10/20/05		107.12	--	7.84	0.00	99.28	--	--	--	--	--	--	--	--	--
9/4/07		107.12	--	8.26	0.00	98.86	**1,100**	<220	**6,800**	--	--	--	--	--	2.8
9/4/07		107.12	--	--	0.00	--	<81	<100	<50	--	--	--	--	--	<0.047
5/27-28/08		107.12	--	7.64	0.00	99.48	NOT SAMPLED DUE TO OBSTRUCTION IN WELL @ 7 FEET						--	--	--
8/27-29/08		107.12	--	7.71	0.00	99.41	NOT SAMPLED DUE TO OBSTRUCTION IN WELL @ 8 FEET						--	--	--
11/17-19/08	LFP	107.12	--	6.27	0.00	100.85	**2,300**	<1,400	**18,000**	3	<1	300	220	<1	**36.8**
2/16-18/09	LFP	107.12	--	7.36	0.00	99.76	350	74	**20,000**	4	2	190	110	<1	8.5
5/4-6/09	LFP	107.12	--	6.62	0.00	100.50	**1,200**	<70	**13,000**	**8**	2	220	120	<0.5	**20.1**
8/19-21/09	LFP	107.12	--	8.12	0.00	99.00	**780**	<70	**11,000**	4	0.6	180	130	<0.5	5.3
11/18-20/09	LFP	107.12	--	5.42	0.00	101.70	400	<68	**4,700**	**5**	0.7	53	21	<0.5	6.3
2/08-10/10	LFP	107.12	--	6.79	0.00	100.33	**2,700**	<140	**19,000**	**16**	1	270	110	<0.5	**18.8**
5/11-13/10	LFP	107.12	--	7.25	0.00	99.87	**3,400**	380	**21,000**	**10**	1	300	110	<1	**22.6**
08/11/10	LFP	107.12	--	7.92	0.00	99.20	**1,300**	<700	**9,200**	4	<1	220	55	<1	**20.2**
11/3-4/10	LFP	107.12	--	6.12	0.00	101.00	**1,700**	**640**	**7,000**	4	<1	160	68	<1	**29.5**
2/3-4/11	LFP	107.12	--	6.91	0.00	100.21	**2,800**	<340	**14,000**	**10**	0.9	250	72	<0.5	**19.9**
05/24/11	LFP	107.12	--	7.03	0.00	100.09	**500**	130	**2,700**	<0.5	<0.5	65	15	<0.5	2.8
8/23-24/11	LFP	107.12	--	9.16	0.00	97.96	**1,600**	<69	**6,900**	3	<0.5	130	11	<0.5	12.2
11/7-9/11	LFP	107.12	--	7.85	0.00	99.27	**4,700**	<730	**20,000**	1	<1	140	26	<1	**45.8**
2/6-8/12	LFP	107.12	--	6.55	0.00	100.57	**690**	110	**5,100**	**5**	<0.5	140	<0.5	<0.5	**22.1**
5/2-4/12	LFP	107.12	--	6.50	0.00	100.62	420	<68	**4,400**	**5**	0.7	170	23	<0.5	8.9
8/1-3/12	LFP	107.12	--	7.93	0.00	99.19	**620**	140	**6,900**	0.6	<0.5	<0.5	12	<0.5	**22.9**
11/26-28/12	LFP	107.12	--	6.07	0.00	101.05	**15,000**	<3,500	**5,200**	4	<0.5	140	32	<0.5	**36.1**
02/4-6/13	LFP	107.12	--	6.53	0.00	100.59	**2,300**	**710**	**7,500**	<3	<3	120	24	<0.5	**17.8**
05/6-8/13	LFP	107.12	--	7.46	0.00	99.66	300	<67	**5,500**	2	<0.5	100	13	<0.5	**16.6**
9/9-13/13	LFP	107.12	--	7.15	0.00	99.97	330/**3,600**	<66/89	**5,500**	1	<0.5	110	39	<0.5	**59.4**
11/18-22/13	LFP	107.12	--	6.42	0.00	100.70	370/**1,000**	<66/<66	**3,300**	0.9	<0.5	77	13	<0.5	**17.8**
2/4-11/14	LFP	107.12	--	7.11	0.00	100.01	410/**1,000**	<68/<68	**4,800**	1	<0.5	75	7	<0.5	**27.3**
6/12-14/14	LFP	107.12	--	7.70	0.00	99.42	380/**1,200**	<67/83	**4,200**	2	<0.5	130	14	<0.5	**16.1**

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-111 (cont)															
8/18-21/14	LFP	107.12	--	8.07	0.00	99.05	310/**1,400**	<67/100	**4,700**	1	<0.5	49	1	<0.5	1.09
11/19-20/14	LFP	107.12	--	6.47	0.00	100.65	430/**1,800**	<69/320	**6,000**	2	<0.5	120	11	<0.5	**45.3**
2/17-20/15	LFP	107.12	--	6.57	0.00	100.55	230/**730**	<68/180	**3,600**	1	<0.5	44	3	<0.5	14.3
5/11-15/15	LFP	107.12	--	9.02	0.00	98.10	320/**1,000**	<66/<66	**4,400**	1	<0.5	71	5	<0.5	0.0202
8/10-11/15	LFP	107.12	--	8.43	0.00	98.69	470/**2,700**	<67/93	**4,500**	<3	<3	31	6	<3	12.5
MW-112															
8/22/95		107.58	--	8.42	0.00	99.16	<250	<750	480	--	--	--	--	--	--
11/28/95		107.58	--	6.73	0.00	100.85	<250	<750	150	--	--	--	--	--	5.8
3/12/96		107.58	--	7.43	0.00	100.15	<250	<750	250	--	--	--	--	--	<2.0
6/26/96		107.58	--	8.12	0.00	99.46	<250	<750	63.8	--	--	--	--	--	<2.0
10/9/96		107.58	--	8.36	0.00	99.22	<250	<750	93.1	--	--	--	--	--	2.62
2/12/97		107.58	--	7.11	0.00	100.47	322	<750	**1,250**	--	--	--	--	--	2.99
4/22/97		107.58	--	6.85	0.00	100.73	<250	<750	323	--	--	--	--	--	<2.0
8/5/97		107.58	--	8.45	0.00	99.13	<250	<750	124	--	--	--	--	--	<2.0
11/11/97		107.58	--	7.26	0.00	100.32	<250	<750	112	--	--	--	--	--	<2.0
2/11/98		107.58	--	7.25	0.00	100.33	<250	<750	658	--	--	--	--	--	<2.0
5/28/98		107.58	--	7.46	0.00	100.12	315	<750	713	--	--	--	--	--	10.4
8/20/98		107.58	--	9.64	0.00	97.94	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		107.58	--	8.20	0.00	99.38	<250	<750	367	--	--	--	--	--	<1.0
3/11/99		107.58	--	6.79	0.00	100.79	<250	<500	**1,370**	--	--	--	--	--	1.42
5/25/99		107.58	--	7.97	0.00	99.61	<250	--	<80	--	--	--	--	--	--
8/17/99		107.58	--	8.51	0.00	99.07	<250	<500	106	--	--	--	--	--	<1.6
11/19/99		107.58	--	6.46	0.00	101.12	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		107.58	--	6.85	0.00	100.73	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		107.58	--	7.48	0.00	100.10	<250	<500	**824**	--	--	--	--	--	2.14
9/26/00		107.58	--	8.66	0.00	98.92	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		107.58	--	8.07	0.00	99.51	<250	<500	<80	--	--	--	--	--	<1.0
2/28/01		107.58	--	7.77	0.00	99.81	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		107.58	--	7.31	0.00	100.27	<250	<500	710	--	--	--	--	--	1.44
10/30/02		107.58	--	8.95	0.00	98.63	<250	<500	95.7	<0.500	<0.500	<0.500	<1.00	--	2.63
1/23/03		107.58	--	7.39	0.00	100.19	<250	<500	178	<0.500	<0.500	0.730	<1.00	--	<1.0[5]
4/18/03		107.58	--	7.28	0.00	100.30	<250	<500	93.4	<0.500	<0.500	<0.500	<1.00	--	<1.0[5]
7/11/03		107.58	--	8.68	0.00	98.90	--	--	<50.0	<0.500	<0.500	<0.500	<1.00	--	<1.0[5]
10/31/03		107.58	--	8.04	0.00	99.54	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	<1.0[5]
12/30/03		107.58	--	6.62	0.00	100.96	<50	<77	<97	<0.5	<0.5	<0.5	<1.5	--	<1.2

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-112 (cont)															
5/3/04		107.58	--	8.22	0.00	99.36	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	<1.0[5]
7/20/04		107.58	--	8.69	0.00	98.89	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.00	--	--
10/7/04		107.58	--	8.06	0.00	99.52	<82	<100	<50	--	--	--	--	--	--
7/18/05		107.58	--	8.26	0.00	99.32	<77	<96	<48	--	--	--	--	--	--
10/21/05		107.58	--	8.25	0.00	99.33	<82	<100	48	--	--	--	--	--	--
9/5/07		107.58	--	8.79	0.00	98.79	<79	<99	<50	--	--	--	--	--	0.52
5/27-28/08	LFP	107.58	--	8.22	0.00	99.36	<80	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.24
8/27-29/08	LFP	107.58	--	8.26	0.00	99.32	<79	<99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.92
11/17-19/08	LFP	107.58	--	6.87	0.00	100.71	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.057
2/16-18/09	LFP	107.58	--	7.92	0.00	99.66	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.51
5/4-06/09	LFP	107.58	--	7.26	0.00	100.32	120	<69	380	2	<0.5	<0.5	<0.5	<0.5	2.1
8/19-21/09	LFP	107.58	--	8.67	0.00	98.91	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.27
11/18-20/09	LFP	107.58	--	5.58	0.00	102.00	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.36
2/8-10/10	LFP	107.58	--	7.35	0.00	100.23	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.46
5/12-13/10	LFP	107.58	--	7.77	0.00	99.81	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.58
08/12/10	LFP	107.58	--	8.45	0.00	99.13	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.29
11/3-4/10	LFP	107.58	--	6.85	0.00	100.73	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.19
2/3-4/11	LFP	107.58	--	8.21	0.00	99.37	49	89	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.56
05/24/11	LFP	107.58	--	7.58	0.00	100.00	<29	270	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.49
8/23-24/11	LFP	107.58	--	8.52	0.00	99.06	**860**	<66	72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
11/7-9/11	LFP	107.58	--	8.35	0.00	99.23	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.24
2/6-8/12	LFP	107.58	--	7.10	0.00	100.48	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
5/2-4/12	LFP	107.58	--	7.20	0.00	100.38	<30	<69	68	<0.5	<0.5	<0.5	<0.5	<0.5	1.5
8/1-3/12	LFP	107.58	--	8.45	0.00	99.13	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.39
11/26-28/12	LFP	107.58	--	6.67	0.00	100.91	<30	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.14
02/4-6/13	LFP	107.58	--	7.22	0.00	100.36	<28	<66	50	<0.5	<0.5	<0.5	<0.5	<0.5	0.64
5/6-8/13	LFP	107.58	--	8.00	0.00	99.58	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.47
9/9-13/13	LFP	107.58	--	7.71	0.00	99.87	<29/32	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.85
11/18-22/13	LFP	107.58	--	6.76	0.00	100.82	<29/33	<67/<67	68	<0.5	<0.5	<0.5	<0.5	<0.5	0.58
2/4-11/2014	LFP	107.58	--	7.67	0.00	99.91	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.38
6/12-14/14	LFP	107.58	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/18-21/14	LFP	107.58	--	8.63	0.00	98.95	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.36
11/19-20/14	LFP	107.58	--	7.71	0.00	99.87	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.13
2/17-20/15	LFP	107.58	--	7.33	0.00	100.25	<30/<30	<69/<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.083
5/11-15/15	LFP	107.58	--	8.19	0.00	99.39	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.460
8/10-11/15	LFP	107.58	--	8.90	0.00	98.68	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.200

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-113															
8/22/95		108.44	--	9.26	0.00	99.18	320	<750	**3,100**	--	--	--	--	--	--
11/28/95		108.44	--	7.55	0.00	100.89	<250	<750	180	--	--	--	--	--	<2.0
3/12/96		108.44	--	8.26	0.00	100.18	<250	<750	750	--	--	--	--	--	<2.0
6/26/96		108.44	--	8.95	0.00	99.49	<250	<750	**809**	--	--	--	--	--	2.43
10/9/96		108.44	--	9.21	0.00	99.23	<250	<750	494	--	--	--	--	--	2.95
2/12/97		108.44	--	7.93	0.00	100.51	<250	<750	**1,600**	--	--	--	--	--	<2.0
4/22/97		108.44	--	7.71	0.00	100.73	291	<750	748	--	--	--	--	--	<2.0
8/5/97		108.44	--	9.37	0.00	99.07	<250	<750	**876**	--	--	--	--	--	<2.0
11/11/97		108.44	--	8.04	0.00	100.40	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		108.44	--	8.02	0.00	100.42	<250	<750	76.10	--	--	--	--	--	<2.0
5/28/98		108.44	--	8.31	0.00	100.13	<250	<750	116	--	--	--	--	--	6.26
8/20/98		108.44	--	10.48	0.00	97.96	<250	<750	235	--	--	--	--	--	<1.0
11/19/98		108.44	--	9.02	0.00	99.42	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		108.44	--	7.59	0.00	100.85	<250	<750	162	--	--	--	--	--	<1.0
5/25/99		108.44	--	8.83	0.00	99.61	<250	--	321	--	--	--	--	--	--
8/17/99		108.44	--	9.34	0.00	99.10	<250	<500	265	--	--	--	--	--	1.2
11/19/99		108.44	--	7.27	0.00	101.17	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		108.44	--	7.66	0.00	100.78	<250	<500	96.70	--	--	--	--	--	<1.0
6/13/00		108.44	--	8.29	0.00	100.15	<250	<500	154	--	--	--	--	--	<1.0
9/26/00		108.44	--	9.51	0.00	98.93	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		108.44	--	8.91	0.00	99.53	<250	**588**	<80	--	--	--	--	--	<1.0
2/28/01		108.44	--	8.60	0.00	99.84	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		108.44	--	8.14	0.00	100.30	<250	<500	<80	--	--	--	--	--	<1.0
10/30/02		108.44	--	9.85	0.00	98.59	<250	<500	<80	<0.500	<0.500	<0.500	<1.0	--	1.55
1/23/03		108.44	--	8.29	0.00	100.15	<250	<500	<80	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
4/18/03		108.44	--	8.09	0.00	100.35	<250	<500	<50	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
7/11/03		108.44	--	9.51	0.00	98.93	<250	<500	<50	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
10/31/03		108.44	--	8.80	0.00	99.64	<250	<500	<50	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
12/31/03		108.44	--	7.44	0.00	101.00	<50	<77	<97	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		108.44	--	9.14	0.00	99.30	<250	<500	<50	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
7/20/04		108.44	--	9.58	0.00	98.86	<250	<500	<50	<0.500	<0.500	<0.500	<1.0	--	--
10/6/04		108.44	--	8.92	DRY	--	--	--	--	--	--	--	--	--	--
1/27/05		108.44	--	8.15	0.00	--	<84	<110	<48	--	--	--	--	--	--
4/12/05		108.44	--	7.76	0.00	--	<88	<110	<48	--	--	--	--	--	--
7/18/05		108.44	--	9.11	0.00	--	<79	<98	<48	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-113 (cont)															
10/26/05		108.44	--	9.10	0.00	--	<82	<100	<48	--	--	--	--	--	--
9/5/07		108.44	--	9.59	0.00	98.85	<82	<100	<50	--	--	--	--	--	0.32
9/5/07 (D)		108.44	--	9.59	0.00	98.85	<82	<100	<50	--	--	--	--	--	0.32
5/27-28/08	LFP	108.44	--	9.02	0.00	99.42	<82	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.16
8/27-29/08	LFP	108.44	--	9.10	0.00	99.34	<81	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.19
11/17-19/08	LFP	108.44	--	7.68	0.00	100.76	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	108.44	--	8.75	0.00	99.69	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.087
5/4-6/09	LFP	108.44	--	8.28	0.00	100.16	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	108.44	--	9.50	0.00	98.94	<31	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.14
11/18-20/09	LFP	108.44	--	6.39	0.00	102.05	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.16
2/8-10/10	LFP	108.44	--	8.15	0.00	100.29	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
5/12-13/10	LFP	108.44	--	8.60	0.00	99.84	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.093
08/12/10	LFP	108.44	--	9.29	0.00	99.15	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.077
11/3-4/10	LFP	108.44	--	7.65	0.00	100.79	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
2/3-4/11	LFP	108.44	--	8.26	0.00	100.18	<30	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
05/24/11	LFP	108.44	--	8.42	0.00	100.02	<30	330	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
8/23-24/11	LFP	108.44	--	9.32	0.00	99.12	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.096
11/7-9/11	LFP	108.44	--	9.20	0.00	99.24	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.12
2/6-8/12	LFP	108.44	--	7.95	0.00	100.49	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	108.44	--	8.00	0.00	100.44	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	108.44	--	9.30	0.00	99.14	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.048
11/26-28/12	LFP	108.44	--	7.49	0.00	100.95	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	108.44	--	8.06	0.00	100.38	30	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	108.44	--	8.83	0.00	99.61	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	108.44	--	8.56	0.00	99.88	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.12
11/18-21/13	LFP	108.44	--	7.74	0.00	100.70	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
2/4-11/14	LFP	108.44	--	6.56	0.00	101.88	<29/<29	<69/<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
6/12-14/14	LFP	108.44	--	8.79	0.00	99.65	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
8/18-21/14	LFP	108.44	--	9.39	0.00	99.05	<30/<30	<71/<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.35
11/19-20/14	LFP	108.44	--	8.59	0.00	99.85	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	108.44	--	8.01	0.00	100.43	<30/<30	<70/<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	108.44	--	9.08	0.00	99.36	<29/<29	<67/<67	75.00	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
8/10-11/15	LFP	108.44	--	9.28	0.00	99.16	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.13

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-114															
8/22/95		106.89	--	7.47	0.00	99.42	<250	<750	<50	--	--	--	--	--	--
11/28/95		106.89	--	58.30	0.00	48.59	<250	<750	<50	--	--	--	--	--	<2.0
3/12/96		106.89	--	6.39	0.00	100.50	<250	<750	<50	--	--	--	--	--	<2.0
6/26/96		106.89	--	7.11	0.00	99.78	<250	<750	<50	--	--	--	--	--	<2.0
10/9/96		106.89	--	7.42	0.00	99.47	<250	<750	<50	--	--	--	--	--	<2.0
2/12/97		106.89	--	5.47	0.00	101.42	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		106.89	--	14.30	0.00	92.59	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		106.89	--	7.65	0.00	99.24	<250	**1,410**	<50	--	--	--	--	--	<2.0
11/11/97		106.89	--	6.45	0.00	100.44	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		106.89	--	6.23	0.00	100.66	<250	<750	<50	--	--	--	--	--	<2.0
5/28/98		106.89	--	6.44	0.00	100.45	<250	<750	<50	--	--	--	--	--	5.91
8/20/98		106.89	--	8.75	0.00	98.14	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		106.89	--	7.05	0.00	99.84	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		106.89	--	5.90	0.00	100.99	<250	<500	<80	--	--	--	--	--	<1.0
5/25/99		106.89	--	7.10	0.00	99.79	<250	--	<80	--	--	--	--	--	--
8/17/99		106.89	--	7.59	0.00	99.30	<250	**607**	<80	--	--	--	--	--	<1.0
11/19/99		106.89	--	5.59	0.00	101.30	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		106.89	--	5.98	0.00	100.91	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		106.89	--	6.04	0.00	100.85	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		106.89	--	7.81	0.00	99.08	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		106.89	--	7.06	0.00	99.83	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		106.89	--	6.79	0.00	100.10	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		106.89	--	8.84	0.00	98.05	<250	**1,880**	<80	--	--	--	--	--	<1.0
10/30/02		106.89	--	8.32	0.00	98.57	<250	**1,090**	115	<0.500	<0.500	1.17	5.18	--	1.01
1/23/03		106.89	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		106.89	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		106.89	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		106.89	--	6.61	0.00	100.28	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
12/30/03		106.89	--	5.81	0.00	101.08	<50	480	**3,600**	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		106.89	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		106.89	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/6/04		106.89	--	6.98	0.00	99.91	<76	<95	<50	--	--	--	--	--	--
10/24/05		106.89	--	7.28	0.00	99.61	<79	<99	<48	--	--	--	--	--	--
9/5/07		106.89	--	7.87	0.00	99.02	94	**810**	<50	--	--	--	--	--	0.38
5/27-28/08	LFP	106.89	--	7.19	0.00	99.70	<1,600	**15,000**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.14

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-114 (cont)															
8/27-29/08	LFP	106.89	--	7.30	0.00	99.59	270	**2,200**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.25
11/17-19/08	LFP	106.89	--	6.01	0.00	100.88	330	**4,600**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.13
2/16-18/09	LFP	106.89	--	6.91	0.00	99.98	210	**1,900**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
5/4-6/09	LFP	106.89	--	6.42	0.00	100.47	180	**1,400**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.43
8/19-21/09	LFP	106.89	--	7.78	0.00	99.11	<30	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.79
11/18-20/09	LFP	106.89	--	5.10	0.00	101.79	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.34
2/8-10/10	LFP	106.89	--	6.38	0.00	100.51	110	**790**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.19
5/12-13/10	LFP	106.89	--	6.71	0.00	100.18	<30	80	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.23
08/11/10	LFP	106.89	--	7.45	0.00	99.44	<29	220	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
11/3-4/10	LFP	106.89	--	5.88	0.00	101.01	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.24
2/3-4/11	LFP	106.89	--	6.48	0.00	100.41	60	460	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
05/23/11	LFP	106.89	--	6.55	0.00	100.34	55	380	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.36
8/23-24/11	LFP	106.89	--	7.70	0.00	99.19	130	**1,500**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.41
11/7-9/11	LFP	106.89	--	7.35	0.00	99.54	120	**950**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.19
2/6-8/12	LFP	106.89	--	6.25	0.00	100.64	<29	180	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.088
5/2-4/12	LFP	106.89	--	5.95	0.00	100.94	<30	140	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.72
8/1-3/12	LFP	106.89	--	7.50	0.00	99.39	140	**910**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.084
11/26-28/12	LFP	106.89	--	5.88	0.00	101.01	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.19
02/4-6/13	LFP	106.89	--	6.27	0.00	100.62	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.13
05/6-8/13	LFP	106.89	--	6.97	0.00	99.92	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.20
9/9-13/13	LFP	106.89	--	6.96	0.00	99.93	<29/60	<67/260	<50	<0.5	<0.5	<0.5	<0.5	<0.5	2.3
11/18-22/13	LFP	106.89	--	8.36	0.00	98.53	200/99	<68/340	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
02/4-11/14	LFP	106.89	--	6.56	0.00	100.33	<29/<29	<67/71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.12
6/12-14/14	LFP	106.89	--	6.96	0.00	99.93	38/94	340/**820**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.18
8/18-21/14	LFP	106.89	--	7.57	0.00	99.32	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
11/19-20/14	LFP	106.89	--	6.75	0.00	100.14	<28/<28	<66/140	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.20
2/17-20/15	LFP	106.89	--	6.31	0.00	100.58	<30/<30	<69/<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	106.89	--	6.89	0.00	100.00	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.55
8/10-11/15	LFP	106.89	--	8.03	0.00	98.86	<29/130	170/**570**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	39.20

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-115															
8/22/95		107.94	--	8.79	0.00	99.15	<250	<750	**1,800**	--	--	--	--	--	--
11/28/95		107.94	--	7.05	0.00	100.89	<250	<750	460	--	--	--	--	--	<2.0
3/12/96		107.94	--	7.76	0.00	100.18	<250	<750	630	--	--	--	--	--	<2.0
6/26/96		107.94	--	8.45	0.00	99.49	<250	<750	706	--	--	--	--	--	<2.0
10/9/96		107.94	--	8.71	0.00	99.23	<250	<750	722	--	--	--	--	--	2.54
2/12/97		107.94	--	7.48	0.00	100.46	<250	<750	58	--	--	--	--	--	<2.0
4/22/97		107.94	--	7.25	0.00	100.69	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		107.94	--	8.77	0.00	99.17	<250	<750	611	--	--	--	--	--	2.0
11/11/97		107.94	--	7.71	0.00	100.23	<250	<750	57	--	--	--	--	--	<2.0
2/11/98		107.94	--	7.72	0.00	100.22	<250	<750	89.5	--	--	--	--	--	<2.0
5/28/98		107.94	--	7.92	0.00	100.02	<250	<750	<50	--	--	--	--	--	8.08
8/20/98		107.94	--	9.18	0.00	98.76	<250	<750	155	--	--	--	--	--	<1.0
11/19/98		107.94	--	8.58	0.00	99.36	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		107.94	--	7.12	0.00	100.82	<250	<750	<80	--	--	--	--	--	<1.0
5/25/99		107.94	--	8.33	0.00	99.61	<250	--	<80	--	--	--	--	--	--
8/17/99		107.94	--	8.87	0.00	99.07	<250	<500	163	--	--	--	--	--	1.4
11/19/99		107.94	--	6.82	0.00	101.12	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		107.94	--	7.20	0.00	100.74	<250	<500	103	--	--	--	--	--	<1.0
6/13/00		107.94	--	7.82	0.00	100.12	--	--	<80	--	--	--	--	--	<1.0
9/26/00		107.94	--	9.02	0.00	98.92	<250	<500	--	--	--	--	--	--	1.02
12/13/00		107.94	--	8.43	0.00	99.51	<250	<500	313	--	--	--	--	--	<1.0
2/28/01		107.94	--	8.13	0.00	99.81	<250	<500	177	--	--	--	--	--	<1.0
5/2/01		107.94	--	10.37	0.00	97.57	<250	<500	162	--	--	--	--	--	<1.0
10/30/02		107.94	--	9.33	0.00	98.61	<250	<500	175	<0.500	<0.500	<0.500	<1.0	--	4.36
1/23/03		107.94	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		107.94	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		107.94	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		107.94	--	8.30	0.00	99.64	<250	<500	78.9	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
12/31/03		107.94	--	6.98	0.00	100.96	<50	<79	<99	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		107.94	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		107.94	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/6/04		107.94	--	8.43	0.00	99.51	<160	<200	<50	--	--	--	--	--	--
10/21/05		107.94	--	8.67	0.00	99.27	<81	<100	<48	--	--	--	--	--	--
10/21/05(D)		107.94	--	8.67	0.00	99.27	<82	<100	<48	--	--	--	--	--	--
9/5/07		107.94	--	9.11	0.00	98.83	<76	<95	<50	--	--	--	--	--	0.37
5/27-28/08		107.94	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-115 (cont)															
8/27-29/08	LFP	107.94	--	8.63	0.00	99.31	<82	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.35
11/17-19/08	LFP	107.94	--	7.25	0.00	100.69	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.097
2/16-18/09	LFP	107.94	--	8.31	0.00	99.63	<31	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.17
5/4-6/09	LFP	107.94	--	7.66	0.00	100.28	42	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.36
8/19-21/09	LFP	107.94	--	9.04	0.00	98.90	320	**2,700**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.64
10/19/09	LFP	107.94	--	8.70	0.00	99.24	<29	<68	--	--	--	--	--	--	--
11/18-20/09	LFP	107.94	--	5.85	0.00	102.09	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.92
2/8-10/10	LFP	107.94	--	7.69	0.00	100.25	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.17
5/12-13/10	LFP	107.94	--	8.14	0.00	99.80	30	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.20
08/12/10	LFP	107.94	--	8.81	0.00	99.13	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.92
11/3-4/10	LFP	107.94	--	7.07	0.00	100.87	<30	<70	70	<0.5	<0.5	<0.5	<0.5	<0.5	0.83
2/3-4/11	LFP	107.94	--	7.81	0.00	100.13	33	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
05/24/11	LFP	107.94	--	7.95	0.00	99.99	42	220	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.53
8/23-24/11	LFP	107.94	--	9.05	0.00	98.89	68	74	73	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
11/7-9/11	LFP	107.94	--	8.70	0.00	99.24	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.60
2/6-8/12	LFP	107.94	--	7.55	0.00	100.39	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	107.94	--	7.55	0.00	100.39	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	107.94	--	8.82	0.00	99.12	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.63
11/26-28/12	LFP	107.94	--	7.04	0.00	100.90	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.052
02/4-6/13	LFP	107.94	--	7.58	0.00	100.36	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	107.94	--	8.34	0.00	99.60	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.41
9/9-13/13	LFP	107.94	--	8.09	0.00	99.85	<28/31	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.89
11/18-21/13	LFP	107.94	--	7.45	0.00	100.49	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.45
2/4-11/14	LFP	107.94	--	8.05	0.00	99.89	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.43
6/12-14/14	LFP	107.94	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/18-21/14	LFP	107.94	--	8.88	0.00	99.06	<29/36	<68/<68	66	<0.5	<0.5	<0.5	<0.5	<0.5	0.82
11/19-20/14	LFP	107.94	--	8.07	0.00	99.87	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.28
2/17-20/15	LFP	107.94	--	7.57	0.00	100.37	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	107.94	--	8.33	0.00	99.61	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.60
8/10-11/15	LFP	107.94	--	9.28	0.00	98.66	<28/33	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.71

TABLE 1

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COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-116															
8/22/95		107.56	--	8.82	0.00	98.74	<250	<750	<50	--	--	--	--	--	--
3/12/96		107.56	--	8.08	0.00	99.48	<250	<750	<50	--	--	--	--	--	<2.0
10/9/96		107.56	--	8.69	0.00	98.87	<250	<750	<50	--	--	--	--	--	<2.0
2/12/97		107.56	--	7.86	0.00	99.70	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		107.56	--	7.65	0.00	99.91	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		107.56	--	8.71	0.00	98.85	<250	<750	<50	--	--	--	--	--	<2.0
11/11/97		107.56	--	8.07	0.00	99.49	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		107.56	--	8.06	0.00	99.50	<250	<750	<50	--	--	--	--	--	<2.0
5/28/98		107.56	--	8.25	0.00	99.31	<250	<750	<50	--	--	--	--	--	4.66
8/20/98		107.56	--	9.05	0.00	98.51	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		107.56	--	9.16	0.00	98.40	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		107.56	--	7.64	0.00	99.92	<250	<750	<80	--	--	--	--	--	<1.0
5/25/99		107.56	--	8.40	0.00	99.16	<250	--	<80	--	--	--	--	--	--
8/17/99		107.56	--	8.78	0.00	98.78	<250	<500	<80	--	--	--	--	--	<1.0
11/19/99		107.56	--	7.60	0.00	99.96	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		107.56	--	7.70	0.00	99.86	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		107.56	--	8.37	0.00	99.19	--	--	<80	--	--	--	--	--	<1.0
9/26/00		107.56	--	8.88	0.00	98.68	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		107.56	--	8.52	0.00	99.04	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		107.56	--	8.25	0.00	99.31	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		107.56	--	10.84	0.00	96.72	<250	<500	<80	--	--	--	--	--	<1.0
10/30/02		107.56	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		107.56	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
4/18/03		107.56	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
7/11/03		107.56	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
10/31/03		107.56	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
12/30/03		107.56	--	7.54	0.00	100.02	<50	<79	<99	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		107.56	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
7/20/04		107.56	--	8.92	0.00	98.64	<284	<568	<50	<0.500	<0.500	<0.500	<1.00	--	--
10/7/04		107.56	--	7.54	0.00	100.02	<75	<94	<50	--	--	--	--	--	--
10/20/05		107.56	--	8.73	0.00	98.83	<81	<100	<48	--	--	--	--	--	--
9/6/07		107.56	--	9.00	0.00	98.56	<76	<95	<50	--	--	--	--	--	0.15
5/27-28/08		107.56	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	107.56	--	8.68	0.00	98.88	89	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	107.56	--	7.93	0.00	99.63	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	107.56	--	8.45	0.00	99.11	**590**	350	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-116 (cont)															
5/4-6/09	LFP	107.56	--	8.20	0.00	99.36	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	107.56	--	8.91	0.00	98.65	34	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/18-20/09	LFP	107.56	--	6.85	0.00	100.71	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
2/8-10/10	LFP	107.56	--	8.07	0.00	99.49	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
08/12/10	LFP	107.56	--	8.78	0.00	98.78	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
11/3-4/10	LFP	107.56	--	8.04	0.00	99.52	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
2/3-4/11	LFP	107.56	--	8.16	0.00	99.40	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
05/24/11		107.56	UNABLE TO LOCATE				--	--	--	--	--	--	--	--	--
8/23-24/11	LFP	107.56	--	9.00	0.00	98.56	<31	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
11/7-9/11	LFP	107.56	--	8.75	0.00	98.81	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
2/6-8/12	LFP	107.56	--	8.05	0.00	99.51	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	107.56	--	8.10	0.00	99.46	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	107.56	--	8.80	0.00	98.76	<30	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.034
11/26-28/12	LFP	107.56	--	7.84	0.00	99.72	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	107.56	--	8.04	0.00	99.52	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	107.56	--	8.51	0.00	99.05	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	107.56	--	8.61	0.00	98.95	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
11/18-21/13	LFP	107.56	--	8.15	0.00	99.41	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
2/4-11/14	LFP	107.56	--	8.28	0.00	99.28	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
6/12-14/14	LFP	107.56	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/18-21/14	LFP	107.56	--	8.83	0.00	98.73	<29/38	<67/<67	68	<0.5	<0.5	<0.5	<0.5	<0.5	0.78
11/19-20/14	LFP	107.56	--	8.38	0.00	99.18	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	107.56	--	8.08	0.00	99.48	<30/<30	<69/<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.17
5/11-15/15	LFP	107.56	--	8.71	0.00	98.85	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
8/10-11/15	LFP	107.56	--	9.17	0.00	98.39	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.42
MW-117															
8/22/95		106.57	--	7.45	0.00	99.12	<250	<750	<50	--	--	--	--	--	--
11/28/95		106.57	--	5.45	0.00	101.12	<250	<750	<50	--	--	--	--	--	<2.0
3/12/96		106.57	--	6.32	0.00	100.25	<250	<750	<50	--	--	--	--	--	<2.0
6/26/96		106.57	--	7.18	0.00	99.39	<250	<750	<50	--	--	--	--	--	<2.0
10/9/96		106.57	--	7.42	0.00	99.15	<250	<750	<50	--	--	--	--	--	7.1
2/12/97		106.57	--	5.93	0.00	100.64	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		106.57	--	5.78	0.00	100.79	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		106.57	--	7.58	0.00	98.99	<250	<750	<50	--	--	--	--	--	<2.0
11/11/97		106.57	--	6.21	0.00	100.36	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		106.57	--	6.21	0.00	100.36	<250	<750	<50	--	--	--	--	--	<2.0

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-117 (cont)															
5/28/98		106.57	--	6.44	0.00	100.13	<250	<750	<50	--	--	--	--	--	2.68
8/20/98		106.57	--	7.90	0.00	98.67	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		106.57	--	7.18	0.00	99.39	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		106.57	--	5.51	0.00	101.06	<250	<500	<80	--	--	--	--	--	<1.0
5/25/99		106.57	--	7.00	0.00	99.57	<250	--	<80	--	--	--	--	--	--
8/17/99		106.57	--	7.56	0.00	99.01	<250	<500	<80	--	--	--	--	--	<1.0
11/19/99		106.57	--	5.11	0.00	101.46	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		106.57	--	5.65	0.00	100.92	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		106.57	--	6.25	0.00	100.32	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		106.57	--	7.70	0.00	98.87	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		106.57	--	7.11	0.00	99.46	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		106.57	--	6.78	0.00	99.79	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		106.57	--	8.90	0.00	97.67	<250	<500	<80	--	--	--	--	--	<1.0
10/30/02		106.57	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		106.57	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		106.57	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		106.57	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		106.57	UNABLE TO LOCATE - POSSIBLY PAVED OVER						--	--	--	--	--	--	--
12/30/03		106.57	--	5.46	0.00	101.11	<50	<80	<100	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		106.57	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		106.57	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/6/04		106.57	--	7.07	0.00	99.50	<79	<98	<50	--	--	--	--	--	--
10/21/05		106.57	--	7.33	0.00	99.24	<81	<100	<48	--	--	--	--	--	--
9/5/07		106.57	--	7.92	0.00	98.65	<82	<100	<50	--	--	--	--	--	0.22
5/27-28/08	LFP	106.57	--	7.42	0.00	99.15	<80	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.056
8/27-29/08	LFP	106.57	--	7.38	0.00	99.19	<82	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	106.57	--	5.90	0.00	100.67	55	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	106.57	--	7.06	0.00	99.51	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.095
5/4-6/09	LFP	106.57	--	6.51	0.00	100.06	38	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	106.57	--	7.82	0.00	98.75	40	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.073
11/18-20/09	LFP	106.57	--	3.85	0.00	102.72	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/8-10/10	LFP	106.57	--	6.43	0.00	100.14	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
5/12-13/10	LFP	106.57	--	6.96	0.00	99.61	36	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
08/12/10	LFP	106.57	--	7.68	0.00	98.89	<29	210	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
11/3-4/10	LFP	106.57	--	5.97	0.00	100.60	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
2/3-4/11	LFP	106.57	--	6.5	0.00	100.07	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-117 (cont)															
05/24/11	LFP	106.57	--	6.77	0.00	99.80	<30	150	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
8/23-24/11	LFP	106.57	--	7.85	0.00	98.72	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
11/7-9/11	LFP	106.57	--	7.55	0.00	99.02	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
2/6-8/12	LFP	106.57	--	6.20	0.00	100.37	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	106.57	--	6.00	0.00	100.57	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	106.57	--	7.66	0.00	98.91	<32	<75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.034
11/26-28/12	LFP	106.57	--	5.60	0.00	100.97	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	106.57	--	6.29	0.00	100.28	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	106.57	--	7.18	0.00	99.39	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	106.57	--	8.11	0.00	98.46	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
11/18-21/13	LFP	106.57	--	5.99	0.00	100.58	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
2/4-11/14	LFP	106.57	--	6.85	0.00	99.72	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
6/12-14/14	LFP	106.57	--	7.11	0.00	99.46	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
8/18-21/14	LFP	106.57	--	7.71	0.00	98.86	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.37
11/19-20/14	LFP	106.57	--	6.91	0.00	99.66	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	106.57	--	6.26	0.00	100.31	<29/<29	<69/<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	106.57	--	6.91	0.00	99.66	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
8/10-11/15	LFP	106.57	--	8.10	0.00	98.47	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1.10
MW-118															
8/22/95		106.72	--	7.87	0.00	98.85	470	<750	<50	--	--	--	--	--	--
11/28/95		106.72	--	5.76	0.00	100.96	<250	<750	<50	--	--	--	--	--	<2.0
3/12/96		106.72	--	6.67	0.00	100.05	<250	<750	<50	--	--	--	--	--	<2.0
6/26/96		106.72	--	7.51	0.00	99.21	<250	<750	<50	--	--	--	--	--	<2.0
10/9/96		106.72	--	7.78	0.00	98.94	<250	<750	50.1	--	--	--	--	--	<2.0
2/12/97		106.72	--	6.35	0.00	100.37	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		106.72	--	5.98	0.00	100.74	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		106.72	--	7.85	0.00	98.87	<250	<750	<50	--	--	--	--	--	<2.0
11/11/97		106.72	--	6.52	0.00	100.20	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		106.72	--	6.56	0.00	100.16	<250	<750	<50	--	--	--	--	--	<2.0
5/28/98		106.72	--	6.85	0.00	99.87	<250	<750	<50	--	--	--	--	--	2.84
8/20/98		106.72	--	7.26	0.00	99.46	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		106.72	--	7.70	0.00	99.02	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		106.72	--	5.81	0.00	100.91	<250	<750	<80	--	--	--	--	--	<1.0
5/25/99		106.72	--	7.39	0.00	99.33	<250	--	<80	--	--	--	--	--	--
8/17/99		106.72	--	7.95	0.00	98.77	<250	<500	<80	--	--	--	--	--	<1.0
11/19/99		106.72	--	5.53	0.00	101.19	<250	--	<80	--	--	--	--	--	<1.0

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-118 (cont)															
3/9/00		106.72	--	5.99	0.00	100.73	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		106.72	--	7.08	0.00	99.64	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		106.72	--	8.07	0.00	98.65	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		106.72	--	7.53	0.00	99.19	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		106.72	--	7.17	0.00	99.55	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		106.72	--	6.81	0.00	99.91	<250	<500	<80	--	--	--	--	--	<1.0
10/30/02		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
4/18/03		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
7/11/03		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
10/31/03		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
12/30/03		106.72	--	5.71	0.00	101.01	<50	<400	<500	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
7/20/04		106.72	--	8.14	0.00	98.58	<250	<500	<50	<0.500	<0.500	<0.500	<1.00	--	--
10/7/04		106.72	--	7.55	0.00	99.17	<76	<96	<50	--	--	--	--	--	--
10/7/04(D)		106.72	--	7.55	0.00	99.17	<80	160	<50	--	--	--	--	--	--
10/20/05		106.72	--	7.78	0.00	98.94	<83	<100	<48	--	--	--	--	--	--
9/5/07		106.72	--	8.20	0.00	98.52	**980**	**710**	<50	--	--	--	--	--	0.13
5/27-28/08		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	106.72	--	7.64	0.00	99.08	260	230	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	106.72	--	6.20	0.00	100.52	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	106.72	--	7.29	0.00	99.43	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.068
5/4-6/09	LFP	106.72	--	6.70	0.00	100.02	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	106.72	--	8.04	0.00	98.68	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.23
11/18-20/09	LFP	106.72	--	4.45	0.00	102.27	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/8-10/10	LFP	106.72	--	6.65	0.00	100.07	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
5/12-13/10	LFP	106.72	--	7.21	0.00	99.51	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
08/12/10	LFP	106.72	--	7.90	0.00	98.82	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
11/3-4/10	LFP	106.72	--	6.39	0.00	100.33	<29	160	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
2/3-4/11	LFP	106.72	--	6.77	0.00	99.95	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
05/24/11		106.72	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
8/23-24/11	LFP	106.72	--	8.15	0.00	98.57	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
11/7-9/11	LFP	106.72	--	7.80	0.00	98.92	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
2/6-8/12	LFP	106.72	--	6.50	0.00	100.22	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	106.72	--	5.85	0.00	100.87	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	106.72	--	7.87	0.00	98.85	97	230	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.042

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-118 (cont)															
11/26-28/12	LFP	106.72	--	5.84	0.00	100.88	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	106.72	--	6.57	0.00	100.15	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	106.72	--	7.47	0.00	99.25	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	106.72	--	7.28	0.00	99.44	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
11/18-21/13	LFP	106.72	--	6.57	0.00	100.15	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
2/4-11/14	LFP	106.72	--	7.02	0.00	99.70	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
6/12-14/14	LFP	106.72	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/18-21/14	LFP	106.72	--	7.92	0.00	98.80	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.41
11/19-20/14	LFP	106.72	--	7.15	0.00	99.57	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	106.72	--	6.54	0.00	100.18	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.083
5/11-15/15	LFP	106.72	--	8.93	0.00	97.79	75/69	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.170
8/10-11/15	LFP	106.72	--	8.27	0.00	98.45	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.13
MW-119															
8/22/95		108.35	--	9.22	0.00	99.13	<250	<750	<50	--	--	--	--	--	--
11/28/95		108.35	--	7.54	0.00	100.81	<250	<750	100	--	--	--	--	--	<2.0
3/12/96		108.35	--	8.21	0.00	100.14	<250	<750	240	--	--	--	--	--	2.2
6/26/96		108.35	--	8.91	0.00	99.44	<250	<750	174	--	--	--	--	--	<2.0
10/9/96		108.35	--	9.14	0.00	99.21	<250	<750	78	--	--	--	--	--	2.16
2/12/97		108.35	--	7.84	0.00	100.51	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		108.35	--	7.67	0.00	100.68	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		108.35	--	9.15	0.00	99.20	<250	<750	53.6	--	--	--	--	--	<2.0
11/11/97		108.35	--	8.02	0.00	100.33	264	<750	<50	--	--	--	--	--	<2.0
2/11/98		108.35	--	8.02	0.00	100.33	<250	<750	<50	--	--	--	--	--	<2.0
5/28/98		108.35	--	8.20	0.00	100.15	<250	<750	102	--	--	--	--	--	3.33
8/20/98		108.35	--	10.40	0.00	97.95	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		108.35	--	8.98	0.00	99.37	<250	<750	78.5	--	--	--	--	--	1.82
3/11/99		108.35	--	7.61	0.00	100.74	<250	<750	<80	--	--	--	--	--	<1.0
5/25/99		108.35	--	8.77	0.00	99.58	<250	--	<80	--	--	--	--	--	--
8/17/99		108.35	--	9.29	0.00	99.06	<250	<500	<80	--	--	--	--	--	<1.0
11/19/99		108.35	--	7.25	0.00	101.10	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		108.35	--	7.63	0.00	100.72	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		108.35	--	8.28	0.00	100.07	<250	<500	413	--	--	--	--	--	2.64
9/26/00		108.35	--	9.44	0.00	98.91	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		108.35	--	8.86	0.00	99.49	<250	<500	--	--	--	--	--	--	1.79
2/28/01		108.35	--	8.56	0.00	99.79	<250	<500	227	--	--	--	--	--	2.64

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-119 (cont)															
5/2/01		108.35	--	8.10	0.00	100.25	<250	<500	104	--	--	--	--	--	1.56
10/30/02		108.35	--	9.76	0.00	98.59	<250	<500	<80	<0.500	<0.500	<0.500	<1.00	--	4.2
1/23/03		108.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		108.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		108.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		108.35	--	8.62	0.00	99.73	<250	<500	<50	<0.500	<0.500	<0.500	<1.00	--	1.31[5]
12/30/03		108.35	--	7.40	0.00	100.95	<50	<77	<96	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		108.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		108.35	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/7/04		108.35	--	8.85	0.00	99.50	<79	<98	<50	--	--	--	--	--	--
10/20/05		108.35	--	9.08	0.00	99.27	<80	<100	<48	--	--	--	--	--	--
9/5/07		108.35	--	9.53	0.00	98.82	<800	<1,000	<50	--	--	--	--	--	0.57
5/27-28/08		108.35	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	108.35	--	9.05	0.00	99.30	<79	<99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.52
11/17-19/08	LFP	108.35	--	7.65	0.00	100.70	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.29
2/16-18/09	LFP	108.35	--	8.70	0.00	99.65	45	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.44
5/4-6/09	LFP	108.35	--	8.06	0.00	100.29	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.74
8/19-21/09	LFP	108.35	--	9.45	0.00	98.90	36	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.25
11/18-20/09	LFP	108.35	--	6.41	0.00	101.94	32	<68	150	<0.5	<0.5	<0.5	<0.5	<0.5	1
2/8-10/10	LFP	108.35	--	8.11	0.00	100.24	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.33
5/12-13/10	LFP	108.35	--	8.56	0.00	99.79	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.69
08/12/10	LFP	108.35	--	9.22	0.00	99.13	<30	70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.36
11/3-4/10	LFP	108.35	--	7.52	0.00	100.83	38	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1.3
2/3-4/11	LFP	108.35	--	8.22	0.00	100.13	30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.30
05/24/11	LFP	108.35	--	8.37	0.00	99.98	<30	210	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.49
8/23-24/11	LFP	108.35	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
11/7-9/11	LFP	108.35	--	9.10	0.00	99.25	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.34
2/6-8/12	LFP	108.35	--	7.90	0.00	100.45	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	108.35	--	8.00	0.00	100.35	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.26
8/1-3/12	LFP	108.35	--	9.23	0.00	99.12	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.27
11/26-28/12	LFP	108.35	--	7.43	0.00	100.92	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
02/4-6/13	LFP	108.35	--	7.99	0.00	100.36	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.099
05/6-8/13	LFP	108.35	--	8.76	0.00	99.59	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
9/9-13/13	LFP	108.35	--	8.51	0.00	99.84	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.26
11/18-21/13	LFP	108.35	--	7.67	0.00	100.68	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.80

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COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-119 (cont)															
2/4-11/14	LFP	108.35	--	8.47	0.00	99.88	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.16
6/12-14/14	LFP	108.35	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/18-21/14	LFP	108.35	--	9.23	0.00	99.12	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.17
11/19-20/14	LFP	108.35	--	8.50	0.00	99.85	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.14
2/17-20/15	LFP	108.35	--	7.97	0.00	100.38	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.18
5/11-15/15	LFP	108.35	--	8.96	0.00	99.39	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.24
8/10-11/15	LFP	108.35	--	9.70	0.00	98.65	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.13
MW-120															
11/7-9/11	LFP	107.11	--	8.00	0.00	99.11	220	160	740	<0.5	<0.5	<0.5	<0.5	<0.5	1.8
2/6-8/12	LFP	107.11	--	6.80	0.00	100.31	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
5/2-4/12	LFP	107.11	--	6.20	0.00	100.91	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	107.11	--	8.11	0.00	99.00	59	75	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.29
11/26-28/12	LFP	107.11	--	6.21	0.00	100.90	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	107.11	--	6.84	0.00	100.27	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	107.11	--	7.64	0.00	99.47	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	107.11	--	7.36	0.00	99.75	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
11/18-21/13	LFP	107.11	--	6.61	0.00	100.50	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.088
2/4-11/14	LFP	107.11	--	7.32	0.00	99.79	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
6/12-14/14	LFP	107.11	--	7.70	0.00	99.41	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
8/18-21/14	LFP	107.11	--	8.13	0.00	98.98	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.32
11/19-20/14	LFP	107.11	--	7.37	0.00	99.74	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	107.11	--	6.83	0.00	100.28	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
5/11-15/15	LFP	107.11	--	7.71	0.00	99.40	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
8/10-11/15	LFP	107.11	--	8.53	0.00	98.58	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.13
B-1															
2/14/91		107.74	--	--	0.00	--	<250	--	**5,100**	--	--	--	--	--	--
2/14/92		107.74	--	6.90	0.00	100.84	--	--	--	--	--	--	--	--	--
2/18/92		107.74	--	6.72	0.00	101.02	--	--	--	--	--	--	--	--	--
3/13/92		107.74	--	6.93	0.00	100.81	--	--	<50	--	--	--	--	--	--
4/21/92		107.74	--	6.66	0.00	101.08	--	--	--	--	--	--	--	--	--
8/22/95		107.74	--	8.03	0.00	99.71	<250	<750	<50	--	--	--	--	--	--
11/28/95		107.74	--	6.13	0.00	101.61	<250	<750	<50	--	--	--	--	--	<2
3/11/96		107.74	--	6.99	0.00	100.75	<250	<750	<50	--	--	--	--	--	7.5
6/26/96		107.74	--	7.73	0.00	100.01	<250	<750	<50	--	--	--	--	--	<2
10/9/96		107.74	--	8.05	0.00	99.69	<250	<750	<50	--	--	--	--	--	<2

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-1 (cont)															
2/12/97		107.74	--	6.46	0.00	101.28	<250	<750	<50	--	--	--	--	--	<2
4/22/97		107.74	--	6.25	0.00	101.49	<250	<750	<50	--	--	--	--	--	<2
8/5/97		107.74	--	8.20	0.00	99.54	<250	<750	<50	--	--	--	--	--	<2
11/11/97		107.74	--	6.84	0.00	100.90	300	<750	<50	--	--	--	--	--	<2
2/11/98		107.74	--	6.70	0.00	101.04	<250	<750	<50	--	--	--	--	--	<2
5/28/98		107.74	--	6.85	0.00	100.89	<250	<750	<50	--	--	--	--	--	<1
8/20/98		107.74	--	9.42	0.00	98.32	<250	<750	<50	--	--	--	--	--	<1
11/19/98		107.74	--	7.43	0.00	100.31	<250	<750	<50	--	--	--	--	--	<1
3/11/99		107.74	--	6.34	0.00	101.40	<250	<750	<80	--	--	--	--	--	<1
5/25/99		107.74	--	7.60	0.00	100.14	<1,450	--	<80	--	--	--	--	--	--
8/17/99		107.74	--	8.28	0.00	99.46	<250	<500	<80	--	--	--	--	--	<1
11/19/99		107.74	--	5.90	0.00	101.84	<250	--	<80	--	--	--	--	--	<1
3/9/00		107.74	--	6.38	0.00	101.36	<250	<500	<80	--	--	--	--	--	<1
6/12/00		107.74	--	6.26	0.00	101.48	<250	<500	<80	--	--	--	--	--	<1
9/26/00		107.74	--	8.51	0.00	99.23	<250	<500	--	--	--	--	--	--	<1
12/13/00		107.74	--	7.69	0.00	100.05	<250	<500	--	--	--	--	--	--	<1
2/28/01		107.74	--	7.37	0.00	100.37	<250	<500	<80	--	--	--	--	--	<1
5/2/01		107.74	--	6.69	0.00	101.05	<250	<500	109	--	--	--	--	--	<1
10/30/02		107.74	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
1/23/03		107.74	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		107.74	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		107.74	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		107.74	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
12/30/03		107.74	--	6.11	0.00	101.63	<50	<78	<98	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		107.74	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		107.74	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/6/04		107.74	--	8.87	0.00	98.87	81	100	<50	--	--	--	--	--	--
10/24/05		107.74	--	7.96	0.00	99.78	<81	<100	<48	--	--	--	--	--	--
9/5/07		107.74	--	8.60	0.00	99.14	<80	<100	<50	--	--	--	--	--	0.13
5/27-28/08	LFP	107.74	--	7.85	0.00	99.89	<75	<94	<50	<0.5	0.6	<0.5	<0.5	<0.5	<0.050
8/27-29/08	LFP	107.74	--	8.00	0.00	99.74	<82	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	107.74	--	6.39	0.00	101.35	83	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	107.74	--	7.55	0.00	100.19	300	**2,000**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.098

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-1 (cont)															
5/4-6/09	LFP	107.74	--	6.47	0.00	101.27	39	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	107.74	--	8.54	0.00	99.20	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/18-20/09	LFP	107.74	--	5.35	0.00	102.39	60	<69	66	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
2/8-10/10	LFP	107.74	--	6.89	0.00	100.85	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
5/12-13/10	LFP	107.74	--	7.34	0.00	100.40	70	82	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
08/11/10	LFP	107.74	--	8.16	0.00	99.58	<30	83	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
11/3-4/10	LFP	107.74	--	6.02	0.00	101.72	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
2/3-4/11	LFP	107.74	--	7.03	0.00	100.71	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
05/24/11	LFP	107.74	--	7.10	0.00	100.64	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
8/23-24/11	LFP	107.74	--	8.46	0.00	99.28	<30	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
11/7-9/11	LFP	107.74	--	8.10	0.00	99.64	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
2/6-8/12	LFP	107.74	--	6.75	0.00	100.99	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
5/2-4/12	LFP	107.74	--	6.45	0.00	101.29	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	107.74	--	8.23	0.00	99.51	<30	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.034
11/26-28/12	LFP	107.74	--	6.29	0.00	101.45	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	107.74	--	6.81	0.00	100.93	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	107.74	--	8.66	0.00	99.08	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	107.74	--	7.18	0.00	100.56	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
11/18-22/13	LFP	107.74	--	6.64	0.00	101.10	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
2/4-11/14	LFP	107.74	--	7.25	0.00	100.49	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
6/12-14/14	LFP	107.74	--	7.87	0.00	99.87	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
8/18-21/14	LFP	107.74	--	8.40	0.00	99.34	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
11/19-20/14	LFP	107.74	--	7.43	0.00	100.31	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	107.74	--	6.79	0.00	100.95	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	107.74	--	8.77	0.00	98.97	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
8/10-11/15	LFP	107.74	--	8.80	0.00	98.94	<28/89	<66/74	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.13
B-2															
2/14/91		108.99	--	--	0.00	--	<250	--	180	--	--	--	--	--	--
2/14/92		108.99	--	8.08	0.00	100.91	--	--	--	--	--	--	--	--	--
2/18/92		108.99	--	7.97	0.00	101.02	--	--	--	--	--	--	--	--	--
3/9/92		108.99	--	7.88	0.00	101.11	--	--	--	--	--	--	--	--	--
3/13/92		108.99	--	8.12	0.00	100.87	--	--	--	--	--	--	--	--	--
4/21/92		108.99	--	7.82	0.00	101.17	--	--	--	--	--	--	--	--	--
8/22/95		108.99	--	9.30	0.00	99.69	<250	<750	<50	--	--	--	--	--	--
11/27/95		108.99	--	7.33	0.00	101.66	<250	<750	<50	--	--	--	--	--	<2
3/12/96		108.99	--	8.20	0.00	100.79	<250	<750	<50	--	--	--	--	--	<2

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-2 (cont)															
6/27/96		108.99	--	8.95	0.00	100.04	<250	<750	<50	--	--	--	--	--	<2
10/10/96		108.99	--	9.28	0.00	99.71	<250	<750	<50	--	--	--	--	--	<2
2/12/97		108.99	--	7.73	0.00	101.26	<250	<750	<50	--	--	--	--	--	<2
4/22/97		108.99	--	7.41	0.00	101.58	<250	<750	<50	--	--	--	--	--	2
8/5/97		108.99	--	9.40	0.00	99.59	<250	<750	<50	--	--	--	--	--	<2
11/11/97		108.99	--	8.00	0.00	100.99	<250	<750	<50	--	--	--	--	--	<2
2/11/98		108.99	--	7.90	0.00	101.09	<250	<750	<50	--	--	--	--	--	<2
5/28/98		108.99	--	8.03	0.00	100.96	<250	<750	<50	--	--	--	--	--	<1
8/20/98		108.99	--	10.64	0.00	98.35	<250	<750	<50	--	--	--	--	--	<1
11/19/98		108.99	--	8.67	0.00	100.32	<250	<750	<50	--	--	--	--	--	<1
3/11/99		108.99	--	7.56	0.00	101.43	<250	<500	<80	--	--	--	--	--	<1
5/25/99		108.99	--	8.82	0.00	100.17	<250	<1,600	<80	--	--	--	--	--	--
8/17/99		108.99	--	9.51	0.00	99.48	<250	<500	<80	--	--	--	--	--	<1
11/19/99		108.99	--	7.08	0.00	101.91	<250	<500	<80	--	--	--	--	--	<1
3/9/00		108.99	--	7.59	0.00	101.40	<250	<500	<80	--	--	--	--	--	<1
6/12/00		108.99	--	8.00	0.00	100.99	<250	<500	<80	--	--	--	--	--	<1
9/26/00		108.99	--	9.74	0.00	99.25	<250	<500	--	--	--	--	--	--	<1
12/13/00		108.99	--	8.91	0.00	100.08	<250	<500	--	--	--	--	--	--	<1
2/28/01		108.99	--	8.59	0.00	100.40	<250	<500	<80	--	--	--	--	--	<1
5/2/01		108.99	--	7.89	0.00	101.10	<250	<500	<80	--	--	--	--	--	<1
10/30/02		108.99	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
1/23/03		108.99	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		108.99	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		108.99	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		108.99	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
12/30/03		108.99	--	7.36	0.00	101.63	<50	--	--	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		108.99	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		108.99	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/6/04		108.99	--	7.65	0.00	101.34	<79	<99	<50	--	--	--	--	--	--
7/18/05		108.99	--	9.20	0.00	99.79	<77	<96	<48	--	--	--	--	--	--
10/21/05		108.99	--	9.17	0.00	99.82	<82	<100	<48	--	--	--	--	--	--
9/5/07		108.99	--	9.83	0.00	99.16	<81	<100	<50	--	--	--	--	--	0.1
5/27-28/08		108.99	UNABLE TO LOCATE				--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	108.99	--	9.28	0.00	99.71	<80	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	108.99	--	7.57	0.00	101.42	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	108.99	--	8.77	0.00	100.22	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.070
5/4-6/09	LFP	108.99	--	7.69	0.00	101.30	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	108.99	--	9.75	0.00	99.24	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-2 (cont)															
11/18-20/09	LFP	108.99	--	6.46	0.00	102.53	94	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.15
2/8-10/10	LFP	108.99	--	8.10	0.00	100.89	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
5/12-13/10	LFP	108.99	--	8.55	0.00	100.44	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
08/11/10	LFP	108.99	--	9.38	0.00	99.61	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
11/3-4/10	LFP	108.99	--	7.20	0.00	101.79	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
2/3-4/11	LFP	108.99	--	8.25	0.00	100.74	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
05/24/11	LFP	108.99	--	8.33	0.00	100.66	<30	140	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.052
8/23-24/11	LFP	108.99	--	9.70	0.00	99.29	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.26
11/7-9/11	LFP	108.99	--	9.30	0.00	99.69	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
2/6-8/12	LFP	108.99	--	7.95	0.00	101.04	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.10
5/2-4/12	LFP	108.99	--	7.40	0.00	101.59	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.080
8/1-3/12	LFP	108.99	--	8.20	0.00	100.79	<31	<72	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.034
11/26-28/12	LFP	108.99	--	7.47	0.00	101.52	<37	<86	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.047
02/4-6/13	LFP	108.99	--	8.04	0.00	100.95	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
05/6-8/13	LFP	108.99	--	8.89	0.00	100.10	<28	<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.073
9/9-13/13	LFP	108.99	--	8.41	0.00	100.58	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
11/18-22/13	LFP	108.99	--	7.77	0.00	101.22	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
2/4-11/14	LFP	108.99	--	8.47	0.00	100.52	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
6/12-14/14	LFP	108.99	--	8.91	0.00	100.08	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.085
8/18-21/14	LFP	108.99	--	9.53	0.00	99.46	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
11/19-20/14	LFP	108.99	--	8.54	0.00	100.45	<29/<29	<68/<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
2/17-20/15	LFP	108.99	--	7.93	0.00	101.06	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
5/11-15/15	LFP	108.99	--	8.91	0.00	100.08	<28/<28	<66/<66	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.082
8/10-11/15	LFP	108.99	--	10.01	0.00	98.98	<29/<29	<67/<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	1.20
B-3															
2/14/91		108.46	--	--	0.00	--	<250	--	**98,000**	--	--	--	--	--	--
2/14/92		108.46	--	7.82	0.00	100.64	--	--	--	--	--	--	--	--	--
2/18/92		108.46	--	7.82	0.00	100.64	--	--	--	--	--	--	--	--	--
3/9/92		108.46	--	7.55	0.00	100.91	--	--	--	--	--	--	--	--	--
3/13/92		108.46	--	7.82	0.00	100.64	**31,000**	--	**28,000**	--	--	--	--	--	--
4/21/92		108.46	--	7.50	0.00	100.96	--	--	--	--	--	--	--	--	--
3/3/94		108.46	--	--	0.00	--	**3,940**	<750	**43,000**	--	--	--	--	--	--
8/23/95		108.46	--	8.93	0.00	99.53	**2,600**	<750	**46,000**	--	--	--	--	--	--
11/28/95		108.46	--	7.12	0.00	101.34	**1,500**	<750	**63,000**	--	--	--	--	--	--
3/12/96		108.46	--	7.85	0.00	100.61	**900**	<750	**42,000**	--	--	--	--	--	--
6/27/96		108.46	--	8.67	0.00	99.79	**1,510**	**1,080**	**37,900**	--	--	--	--	--	--
10/10/96		108.46	--	8.97	0.00	99.49	**729**	<750	**16,200**	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-3 (cont)															
2/12/97		108.46	--	7.55	0.00	100.91	**4,060**	**986**	**35,200**	--	--	--	--	--	--
4/22/97		108.46	--	7.30	0.00	101.16	**3,980**	**767**	**31,900**	--	--	--	--	--	--
8/2/97		108.46	--	9.05	0.00	99.41	**3,370**	**1,270**	**20,400**	--	--	--	--	--	--
11/11/97		108.46	--	6.76	0.00	101.70	**3,230**	**777**	**28,400**	--	--	--	--	--	--
2/11/98		108.46	--	7.54	0.00	100.92	**3,240**	**1,460**	**28,400**	--	--	--	--	--	--
5/28/98		108.46	--	7.76	0.00	100.70	**3,360**	<750	**34,600**	--	--	--	--	**29.5**	--
8/20/98		108.46	--	10.30	0.00	98.16	**2,150**	<750	**32,900**	--	--	--	--	<1.89	--
11/19/98		108.46	--	8.39	0.00	100.07	**6,650**	<3,750	**23,800**	--	--	--	--	--	--
3/11/99		108.46	--	7.15	0.00	101.31	**2,920**	<5,000	**17,000**	--	--	--	--	--	--
5/25/99		108.46	--	8.50	0.00	99.96	**1,850**	--	**30,500**	--	--	--	--	--	--
8/17/99		108.46	--	9.15	0.00	99.31	**2,570**	**711**	**29,600**	--	--	--	--	--	--
11/19/99		108.46	--	6.76	0.00	101.70	**7,880**	--	**30,700**	--	--	--	--	--	--
3/9/00		108.46	--	7.24	0.00	101.22	<250	<500	**10,400**	--	--	--	--	--	--
6/13/00		108.46	--	8.15	0.00	100.31	<250	<500	**23,000**	--	--	--	--	--	--
9/26/00		108.46	--	9.35	0.00	99.11	<250	<500	--	--	--	--	--	--	--
12/13/00		108.46	--	8.58	0.00	99.88	<250	<500	**21,600**	--	--	--	--	--	--
2/28/01		108.46	--	8.28	0.00	100.18	<250	<500	**25,700**	--	--	--	--	--	--
5/2/01		108.46	--	7.79	0.00	100.67	<250	<500	**17,200**	--	--	--	--	--	--
10/30/02		108.46	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
1/23/03		108.46	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
4/18/03		108.46	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
7/11/03		108.46	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
10/31/03		108.46	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
12/30/03		108.46	--	7.04	0.00	101.42	**14,000**	**3,800**	<980	<5.0	1.9	130	61	--	**17.3**
5/3/04		108.46	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
7/20/04		108.46	--	9.31	0.00	99.15	**1,220**	<500	**13,200**	**12.5**	<10.0	874	204	--	**24.6**[5]
10/6/04		108.46	--	8.68	0.00	99.78	**1,200**	<500	**13,000**	--	--	--	--	--	--
1/27/05		108.46	--	7.70	0.00	100.76	**1,100**	<190	**6,200**	--	--	--	--	--	--
4/12/05		108.46	--	7.21	0.00	101.25	**1,200**	<100	**5,300**	--	--	--	--	--	--
7/18/05		108.46	--	8.83	0.00	99.63	**1,200**	<97	**6,400**	--	--	--	--	--	--
10/21/05		108.46	--	8.85	0.00	99.61	**2,400**	<510	**8,900**	--	--	--	--	--	--
9/4/07		108.46	--	9.41	0.00	99.05	**1,500**	<200	**10,000**	--	--	--	--	--	--
5/27-28/08	LFP	108.46	--	8.73	0.00	99.73	**2,400**	<540	**3,700**	2	2	98	3	<0.5	**20.2**
8/27-29/08	LFP	108.46	--	8.85	0.00	99.61	**2,400**	<98	**10,000**	**5**	2	230	17	<0.5	**21.5**
11/17-19/08	LFP	108.46	--	7.13	0.00	101.33	**1,700**	<690	**7,100**	<0.5	<0.5	57	2	<0.5	**20**
2/16-18/09	LFP	108.46	--	8.40	0.00	100.06	**1,900**	<340	**8,800**	**180**	130	130	21	<0.5	**19.5**

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-3 (cont)															
5/4-6/09	LFP	108.46	--	7.65	0.00	100.81	**2,400**	<340	**5,800**	**68**	15	120	7	<0.5	13.1
8/19-21/09	LFP	108.46	--	9.33	0.00	99.13	**2,900**	<360	**5,900**	**39**	10	170	16	<0.5	**19**
11/18-20/09	LFP	108.46	--	6.35	0.00	102.11	**2,200**	<340	**2,500**	1	<0.5	12	1	<0.5	**16.5**
2/8-10/10	LFP	108.46	--	7.73	0.00	100.73	**1,700**	140	**6,200**	2	<0.5	25	1	<0.5	9.9
5/12-13/10	LFP	108.46	--	8.18	0.00	100.28	**1,200**	<68	**8,200**	2	<0.5	47	2	<0.5	10.3
08/11/10	LFP	108.46	--	9.00	0.00	99.46	**2,700**	<340	**5,900**	**7**	1.0	270	20	<0.5	**19.3**
11/3-4/10	LFP	108.46	--	6.96	0.00	101.50	**2,500**	<350	**3,100**	0.60	<0.5	24	1	<0.5	13.3
2/3-4/11	LFP	108.46	--	6.70	0.00	101.76	**1,400**	<340	**4,900**	0.80	<0.5	53	2	<0.5	10.2
05/24/11	LFP	108.46	--	7.96	0.00	100.50	**1,200**	300	**1,800**	1	<0.5	76	3	<0.5	14
8/23-24/11	LFP	108.46	--	9.24	0.00	99.22	**960**	<72	**3,700**	**8**	2	160	8	<0.5	11.7
11/7-9/11	LFP	108.46	--	8.95	0.00	99.51	**1,500**	460	**5,800**	**7**	2	180	6	<0.5	12.3
2/6-8/12	LFP	108.46	--	7.40	0.00	101.06	<31	<71	<50	<0.5	<0.5	<0.5	<0.5	<0.5	4.4
5/2-4/12	LFP	108.46	--	7.50	0.00	100.96	53	<72	**1,300**	<0.5	<0.5	19	<0.5	0.7	3.9
8/1-3/12	LFP	108.46	--	8.24	0.00	100.22	460	110	600	0.6	<0.5	1	<0.5	<0.5	8.0
11/26-28/12	LFP	108.46	--	6.98	0.00	101.48	73	<68	500	<0.5	<0.5	0.8	<0.5	<0.5	7.4
2/4-6/13	LFP	108.46	--	6.33	0.00	102.13	45	<66	120	<0.5	<0.5	<0.5	<0.5	<0.5	5.6
05/6-8/13	LFP	108.46	--	8.50	0.00	99.96	150	<67	**2,600**	<0.5	<0.5	73	3	<0.5	8.9
9/9-13/13	LFP	108.46	--	8.09	0.00	100.37	160/**2,700**	<66/72	**1,700**	0.6	<0.5	37	0.9	<0.5	**16.0**
11/18-22/13	LFP	108.46	--	6.45	0.00	102.01	42/**1,600**	<67/180	190	<0.5	<0.5	<0.5	<0.5	<0.5	11.2
2/4-11/14	LFP	108.46	--	8.10	0.00	100.36	36/**730**	<67/<67	480	<0.5	<0.5	2	<0.5	<0.5	7.4
6/12-14/14	LFP	108.46	--	8.69	0.00	99.77	100/**780**	<66/100	260	<0.5	<0.5	1	<0.5	<0.5	8.3
8/18-21/14	LFP	108.46	--	9.23	0.00	99.23	180/**1,000**	<68/170	**1,000**	<0.5	<0.5	9	0.7	<0.5	8.9
11/19-20/14	LFP	108.46	--	8.17	0.00	100.29	130/**1,400**	<67/160	**900**	<0.5	<0.5	7	<0.5	<0.5	13.4
2/17-20/15	LFP	108.46	--	6.36	0.00	102.10	150/490	<66/180	650	<0.5	<0.5	<0.5	<0.5	<0.5	2.9
5/11-15/15	LFP	108.46	--	8.16	0.00	100.30	690/120	<66/<66	**1,400**	<0.5	<0.5	33	0.9	<0.5	0.0081
8/10-11/15	LFP	108.46	--	9.59	0.00	98.87	130/**2,000**	<67/**550**	660	<0.5	<0.5	5	0.5	<0.5	9.5
B-4															
2/14/91		107.68	--	--	0.00	--	<250	--	**33,000**	--	--	--	--	--	--
2/14/92		107.68	--	6.82	0.00	100.86	--	--	--	--	--	--	--	--	--
2/18/92		107.68	--	5.94	0.00	101.74	--	--	--	--	--	--	--	--	--
3/9/92		107.68	--	6.62	0.00	101.06	--	--	--	--	--	--	--	--	--
3/13/92		107.68	--	6.88	0.00	100.80	--	--	**21,000**	--	--	--	--	--	--
4/21/92		107.68	--	6.57	0.00	101.11	--	--	--	--	--	--	--	--	--
3/3/94		107.68	--	--	0.00	--	**1,040**	**1,250**	**15,800**	--	--	--	--	--	--
8/22/95		107.68	--	7.92	0.00	99.76	**840**	**820**	**22,000**	--	--	--	--	--	--
11/28/95		107.68	--	6.11	0.00	101.57	**1,900**	**990**	**22,000**	--	--	--	--	--	3.1

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-4 (cont)															
3/12/96		107.68	--	6.85	0.00	100.83	**3,200**	**2,500**	**11,000**	--	--	--	--	--	4.7
6/26/96		107.68	--	7.58	0.00	100.10	**757**	<750	**16,100**	--	--	--	--	--	2.83
10/9/96		107.68	--	7.90	0.00	99.78	**543**	<750	**10,200**	--	--	--	--	--	4.13
2/12/97		107.68	--	6.01	0.00	101.67	**4,710**	**4,830**	**12,200**	--	--	--	--	--	2.82
4/22/97		107.68	--	10.10	0.00	97.58	**5,840**	**1,191**	**15,500**	--	--	--	--	--	4.18
8/5/97		107.68	--	8.37	0.00	99.31	**2,560**	**3,160**	**15,800**	--	--	--	--	--	6.26
11/11/97		107.68	--	7.67	0.00	100.01	**2,080**	**1,040**	**31,100**	--	--	--	--	--	4.75
2/11/98		107.68	--	6.45	0.00	101.23	**1,340**	**1,630**	**3,750**	--	--	--	--	--	<2.0
5/28/98		107.68	--	7.25	0.00	100.43	**3,180**	**1,250**	**2,510**	--	--	--	--	--	4.69
8/20/98		107.68	--	9.12	0.00	98.56	**1,460**	**1,240**	**7,240**	--	--	--	--	--	1.17
11/19/98		107.68	--	7.22	0.00	100.46	**2,470**	**3,750**	**1,880**	--	--	--	--	--	<1.0
3/11/99		107.68	--	5.41	0.00	102.27	**1,130**	**585**	**11,900**	--	--	--	--	--	3.54
5/25/99		107.68	--	7.45	0.00	100.23	<1,450	--	**5,380**	--	--	--	--	--	--
8/17/99		107.68	--	8.06	0.00	99.62	**670**	**868**	**2,700**	--	--	--	--	--	2.3
11/19/99		107.68	--	5.75	0.00	101.93	**1,700**	--	**11,400**	--	--	--	--	--	**17.5**
3/9/00		107.68	--	6.34	0.00	101.34	<1,250	**2,830**	**105,000**	--	--	--	--	--	10.9
6/13/00		107.68	--	6.80	0.00	100.88	<250	**943**	**8,810**	--	--	--	--	--	6.92
9/26/00		107.68	--	8.31	0.00	99.37	<250	0.565	--	--	--	--	--	--	5
12/13/00		107.68	--	7.54	0.00	100.14	**1,250**	<500	--	--	--	--	--	--	5.98
2/28/01		107.68	--	7.24	0.00	100.44	<250	<500	**12,100**	--	--	--	--	--	5.34
5/2/01		107.68	--	6.59	0.00	101.09	**15,700**	**757**	**12,300**	--	--	--	--	--	5.75
10/30/02		107.68	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
1/23/03		107.68	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
4/18/03		107.68	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
7/11/03		107.68	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
10/31/03		107.68	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
12/30/03		107.68	--	6.07	0.00	101.61	**17,000**	**2,000**	**1,700**	<10	<5.0	310	370	--	7.5
5/3/04		107.68	UNABLE TO LOCATE - PAVED OVER					--	--	--	--	--	--	--	--
7/20/04		107.68	--	8.23	0.00	99.45	<250	<500	**4,660**	**15.1**	1.3	42.3	10.1	--	--
10/6/04		107.68	--	7.45	0.00	100.23	390	180	**2,300**	--	--	--	--	--	--
1/27/05		107.68	--	6.72	0.00	100.96	200	<195	**2,800**	--	--	--	--	--	--
4/12/05		107.68	--	6.62	0.00	101.06	340	<100	**2,600**	--	--	--	--	--	--
7/18/05		107.68	--	6.62	0.00	101.06	**560**	<1,100	**1,600**	--	--	--	--	--	--
10/21/05		107.68	--	7.81	0.00	99.87	190	260	**1,800**	--	--	--	--	--	--
9/4/07		107.68	--	8.40	0.00	99.28	310	<100	**3,200**	--	--	--	--	--	1.8
9/4/07 (D)		107.68	--	8.40	0.00	99.28	340	140	**3,300**	--	--	--	--	--	1.7

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
B-4 (cont)															
5/27-28/08	LFP	107.68	--	7.52	0.00	100.16	310	330	**1,800**	3	3	25	7	<0.5	2.9
8/27-29/08	LFP	107.68	--	7.88	0.00	99.80	330	**1,100**	**3,100**	1	0.9	22	4	<0.5	1.6
11/17-19/08	LFP	107.68	--	6.26	0.00	101.42	**700**	**2,600**	**3,500**	1	0.7	27	3	<0.5	2.3
2/16-18/09	LFP	107.68	--	7.40	0.00	100.28	440	480	**2,000**	0.6	<0.5	11	2	<0.5	2
5/4-6/09	LFP	107.68	--	6.46	0.00	101.22	**590**	**1,300**	**2,100**	<0.5	<0.5	20	2	<0.5	1.6
8/19-21/09	LFP	107.68	--	8.35	0.00	99.33	**590**	**810**	**910**	1	<0.5	5	1	<0.5	1.2
11/18-20/09	LFP	107.68	--	5.30	0.00	102.38	490	450	**5,700**	3	0.7	36	3	<0.5	5.2
2/8-10/10	LFP	107.68	--	6.78	0.00	100.90	400	**1,400**	350	<0.5	<0.5	4	<0.5	<0.5	0.46
5/12-13/10	LFP	107.68	--	7.23	0.00	100.45	**940**	**7,100**	360	<0.5	<0.5	1	<0.5	<0.5	0.15
08/11/10	LFP	107.68	--	8.00	0.00	99.68	**600**	**2,000**	170	<0.5	<0.5	1	<0.5	<0.5	0.26
11/3-4/10	LFP	107.68	--	6.19	0.00	101.49	400	**1,500**	530	<0.5	<0.5	4	0.7	<0.5	1
2/3-4/11	LFP	107.68	--	7.15	0.00	100.53	**1,400**	**4,700**	**2,200**	0.9	0.7	11	1	<0.5	2.9
05/24/11	LFP	107.68	--	7.22	0.00	100.46	300	**680**	**840**	<0.5	<0.5	0.8	<0.5	<0.5	1.2
8/23-24/11	LFP	107.68	--	8.50	0.00	99.18	230	<68	**1,400**	<0.5	<0.5	1	0.6	<0.5	1.4
11/7-9/11	LFP	107.68	--	8.15	0.00	99.53	120	360	**950**	<0.5	<0.5	1	0.5	<0.5	0.57
2/6-8/12	LFP	107.68	--	6.80	0.00	100.88	64	120	320	<0.5	<0.5	2	<0.5	<0.5	1.6
5/2-4/12	LFP	107.68	--	6.75	0.00	100.93	110	72	580	<0.5	<0.05	2	<0.5	<0.5	1.7
8/1-3/12	LFP	107.68	--	8.26	0.00	99.42	100	190	510	<0.5	<0.5	<0.5	<0.5	<0.5	0.83
11/26-28/12	LFP	107.68	--	6.34	0.00	101.34	320	210	**1,200**	<0.5	<0.5	8	0.7	<0.5	3.0
02/4-6/13	LFP	107.68	--	6.95	0.00	100.73	150	<69	**1,600**	<0.5	<0.5	4	<0.5	<0.5	2.5
05/6-8/13	LFP	107.68	--	7.53	0.00	100.15	140	<67	**2,400**	<0.5	<0.5	4	0.5	<0.5	2.4
9/9-13/13	LFP	107.68	--	7.30	0.00	100.38	130/250	<66/110	**1,200**	<0.5	<0.5	3	0.5	<0.5	1.6
11/18-22/13	LFP	107.68	--	6.76	0.00	100.92	120/150	<67/<67	**1,200**	<0.5	<0.5	3	<0.5	<0.5	1.9
2/4-11/14	LFP	107.68	--	7.36	0.00	100.32	140/170	<68/<68	**1,800**	<0.5	<0.5	3	<0.5	<0.5	2.4
6/12-14/14	LFP	107.68	--	7.94	0.00	99.74	120/260	<67/73	**1,200**	<0.5	<0.5	1	<0.5	<0.5	1.8
8/18-21/14	LFP	107.68	--	8.43	0.00	99.25	140/300	<67/88	**1,800**	<0.5	<0.5	1	0.5	<0.5	1.4
11/19-20/14	LFP	107.68	--	6.77	0.00	100.91	120/270	<66/<66	**1,300**	<0.5	<0.5	2	<0.5	<0.5	2.4
2/17-20/15	LFP	107.68	--	6.93	0.00	100.75	95/290	240/470	550	<0.5	<0.5	<0.5	<0.5	<0.5	0.73
5/11-15/15	LFP	107.68	--	7.91	0.00	99.77	210/130	<66/<66	**940**	<0.5	<0.5	1	<0.5	<0.5	0.0016
8/10-11/15	LFP	107.68	--	8.94	0.00	98.74	66/500	<66/340	600	<0.5	<0.5	<0.5	0.6	<0.5	0.89

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-101															
2/14/92		99.51	--	6.94	--	92.57	**33,000**	--	**45,000**	--	--	--	--	--	--
2/18/92		99.51	--	6.88	--	92.63	--	--	--	--	--	--	--	--	--
3/9/92		99.51	--	6.76	--	92.75	--	--	--	--	--	--	--	--	--
3/13/92		99.51	--	7.02	--	92.49	--	--	--	--	--	--	--	--	--
4/21/92		99.51	--	7.73	--	91.78	--	--	--	--	--	--	--	--	--
3/3/94		99.51	--	--	--	--	**1,730**	<750	**73,000**	--	--	--	--	--	--
8/22/95		99.51	--	7.90	--	91.61	**1,300**	<750	**12,000**	--	--	--	--	--	--
11/28/95		99.51	--	6.12	--	93.39	**1,400**	<750	**49,000**	--	--	--	--	--	**24**
3/12/96		99.51	--	6.86	--	92.65	**760**	<750	**43,000**	--	--	--	--	--	9.3
6/26/96		99.51	--	7.59	--	91.92	**656**	<750	**22,000**	--	--	--	--	--	8.22
10/9/96		99.51	--	7.85	--	91.66	309	<750	**5,800**	--	--	--	--	--	4.24
2/12/97		99.51	--	6.55	--	92.96	**1,090**	<750	**33,900**	--	--	--	--	--	7.04
4/22/97		99.51	--	6.31	--	93.20	**1,870**	**977**	**21,500**	--	--	--	--	--	7.41
11/11/97		99.51	--	6.76	--	92.75	**952**	<750	**23,400**	--	--	--	--	--	11.3
2/11/98		99.51	--	6.78	--	92.73	**793**	<750	**28,400**	--	--	--	--	--	6.51
5/28/98		99.51	--	6.91	--	92.60	**798**	<750	**11,900**	--	--	--	--	--	4.71
8/20/98		99.51	--	8.30	--	91.21	414	<750	**4,400**	--	--	--	--	--	1.6
11/19/98		99.51	--	7.69	--	91.82	**714**	<750	**5,820**	--	--	--	--	--	1.7
3/11/99		99.51	--	6.17	--	93.34	**1,200**	<500	**38,500**	--	--	--	--	--	6.82
5/25/99		99.51	--	7.47	--	92.04	**1,450**	--	**18,000**	--	--	--	--	--	--
8/17/99		99.51	--	7.99	--	91.52	**810**	**750**	**2,940**	--	--	--	--	--	2.9
11/19/99		99.51	--	5.84	--	93.67	**1,010**	--	**16,300**	--	--	--	--	--	**15.4**
3/9/00		99.51	--	6.25	--	93.26	<250	<500	**15,800**	--	--	--	--	--	13
6/13/00		99.51	--	6.98	--	92.53	<250	<500	**4,870**	--	--	--	--	--	4.3
9/26/00		99.51	--	8.15	--	91.36	--	<250	<500	--	--	--	--	--	1.88
12/13/00		99.51	--	7.65	--	91.86	**988**	442	<500	--	--	--	--	--	1.13
2/28/01		99.51	--	7.25	--	92.26	<250	<500	**2,710**	--	--	--	--	--	2.45
5/2/01		99.51	--	9.55	--	89.96	<250	<500	**2,280**	--	--	--	--	--	2.6
10/30/02		99.54	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		99.54	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
4/18/03		99.54	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
7/11/03		99.54	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
10/31/03		99.54	UNABLE TO LOCATE - POSSIBLY PAVED OVER						--	--	--	--	--	--	--
12/30/03		99.54	--	6.04	0.00	93.50	**13,000**	**890**	<96	<5.0	0.6	260	290	--	**27.9**
5/3/04		99.54	UNABLE TO LOCATE - POSSIBLY PAVED OVER						--	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-101 (cont)															
7/20/04		99.54	--	8.18	0.00	91.36	<250	<500	**1,040**	3.01	<0.500	0.822	1.21	--	<1.0[5]
10/6/04		99.51	--	7.54	0.00	91.97	<81	<100	<260	--	--	--	--	--	--
1/27/05		99.51	--	6.78	0.00	92.73	190	<100	**2,900**	--	--	--	--	--	--
4/12/05		99.51	--	6.32	0.00	93.19	160	<100	**1,700**	--	--	--	--	--	--
7/18/05		99.51	--	7.78	0.00	91.73	93	<99	240	--	--	--	--	--	--
10/21/05		99.51	--	7.75	0.00	91.76	110	<100	470	--	--	--	--	--	--
9/5/07		99.51	--	8.22	0.00	91.29	110	140	200	--	--	--	--	--	1.2
5/27-28/08	LFP	99.51	--	7.71	0.00	91.80	<80	<99	410	<0.5	<0.5	0.5	<0.5	<0.5	1.2
8/27-29/08	LFP	99.51	--	7.75	0.00	91.76	<79	<99	450	<0.5	<0.5	<0.5	<0.5	<0.5	0.39
11/17-19/08	LFP	99.51	--	6.33	0.00	93.18	74	<68	520	<0.5	<0.5	1	<0.5	<0.5	1.1
2/16-18/09	LFP	99.51	--	7.43	0.00	92.08	68	<67	590	<0.5	<0.5	<0.5	<0.5	<0.5	0.96
5/4-6/09	LFP	99.51	--	6.93	0.00	92.58	66	<68	370	<0.5	<0.5	<0.5	<0.5	<0.5	0.39
8/19-21/09	LFP	99.51	--	8.16	0.00	91.35	65	<70	510	<0.5	<0.5	<0.5	<0.5	<0.5	0.22
11/18-20/09	LFP	99.51	--	4.97	0.00	94.54	42	<69	84	<0.5	<0.5	<0.5	<0.5	<0.5	1
2/8-10/10	LFP	99.51	--	6.82	0.00	92.69	130	190	**970**	<0.5	<0.5	1	<0.5	<0.5	2.1
5/12-13/10	LFP	99.51	--	7.32	0.00	92.19	64	<70	470	<0.5	<0.5	<0.5	<0.5	<0.5	0.65
08/12/10	LFP	99.51	--	7.96	0.00	91.55	52	<68	370	<0.5	<0.5	<0.5	<0.5	<0.5	0.24
MONITORING WELL DECOMMISSIONED/SAMPLING DISCONTINUED															
MW-102															
2/14/92		--	--	6.94	0.00	--	--	--	--	--	--	--	--	--	--
2/18/92		--	--	6.88	0.00	--	--	--	--	--	--	--	--	--	--
3/9/92		--	--	6.76	0.00	--	--	--	--	--	--	--	--	--	--
3/13/92		--	--	7.02	0.00	--	--	--	150	--	--	--	--	--	--
4/21/92		--	--	7.72	0.00	--	--	--	--	--	--	--	--	--	--
NOT PART OF MONITORING/SAMPLING PROGRAM															
MW-104															
2/14/92		100.45	--	8.86	0.00	91.59	--	--	--	--	--	--	--	--	--
02/1892		100.45	--	8.84	0.00	91.61	--	--	--	--	--	--	--	--	--
3/9/92		100.45	--	8.73	0.00	91.72	--	--	--	--	--	--	--	--	--
3/13/92		100.45	--	8.84	0.00	91.61	--	--	<50	--	--	--	--	--	--
4/21/92		100.45	--	8.72	0.00	91.73	--	--	--	--	--	--	--	--	--
8/22/95		100.45	--	9.30	0.00	91.15	<250	<750	<50	--	--	--	--	--	--
11/27/95		100.45	--	8.39	0.00	92.06	--	--	--	--	--	--	--	--	--
3/12/96		100.45	--	8.78	0.00	91.67	--	--	--	--	--	--	--	--	--
6/27/96		100.45	--	9.00	0.00	91.45	--	--	--	--	--	--	--	--	--
10/10/96		100.45	--	9.18	0.00	91.27	--	--	--	--	--	--	--	--	--

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GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-104 (cont)															
2/12/97		100.45	--	8.65	0.00	91.80	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		100.45	--	8.50	0.00	91.95	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		100.45	--	9.20	0.00	91.25	<250	<750	<50	--	--	--	--	--	<2.0
11/11/97		100.45	--	8.81	0.00	91.64	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		100.45	--	8.83	0.00	91.62	<250	<750	<50	--	--	--	--	--	<2.0
5/28/98		100.45	--	8.97	0.00	91.48	<250	<750	<50	--	--	--	--	--	9.54
8/20/98		100.45	--	9.51	0.00	90.94	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		100.45	--	9.82	0.00	90.63	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		100.45	--	8.48	0.00	91.97	<250	<500	<80	--	--	--	--	--	<1.0
5/25/99		100.45	--	8.96	0.00	91.49	<250	--	<80	--	--	--	--	--	--
8/17/99		100.45	--	9.24	0.00	91.21	<250	<500	<80	--	--	--	--	--	<1.0
11/19/99		100.45	--	8.40	0.00	92.05	<250	--	<80	--	--	--	--	--	1.0
3/9/00		100.45	--	8.49	0.00	91.96	<250	<50	<80	--	--	--	--	--	<1.0
6/13/00		100.45	--	8.89	0.00	91.56	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		100.45	--	9.32	0.00	91.13	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		100.45	--	9.09	0.00	91.36	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		100.45	--	8.89	0.00	91.56	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		100.45	--	8.79	0.00	91.66	<250	<500	103	--	--	--	--	--	<1.0
10/30/02		100.44	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		100.44	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		100.44	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		100.44	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		100.44	--	9.15	0.00	91.29	<250	<500	<50	<0.500	<0.500	<0.500	<1.00	--	<1.0[5]
12/30/03		100.44	--	8.39	0.00	92.05	<50	<77	<96	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		100.44	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		100.44	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/7/04		100.45	--	9.09	0.00	91.36	<83	<100	<50	--	--	--	--	--	--
10/20/05		100.45	--	9.19	0.00	91.26	<82	<100	<48	--	--	--	--	--	--
9/6/07		100.45	--	9.42	0.00	91.03	<79	<98	<50	--	--	--	--	--	0.087
5/27-28/08		100.45	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	100.45	--	9.23	0.00	91.22	<79	<99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	100.46	--	8.75	0.00	91.71	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	100.46	--	9.01	0.00	91.45	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.1
5/4-6/09	LFP	100.46	--	8.88	0.00	91.58	38	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-104 (cont)															
8/19-21/09	LFP	100.46	--	9.32	0.00	91.14	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.057
11/18-20/09	LFP	100.46	--	8.08	0.00	92.38	<29	<68	98	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
2/8-10/10	LFP	100.46	--	8.76	0.00	91.70	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.053
MONITORING WELL DECOMMISSIONED/SAMPLING DISCONTINUED															
MW-105															
2/14/92		96.14	--	3.36	0.00	92.78	--	--	--	--	--	--	--	--	--
2/18/92		96.14	--	3.34	0.00	92.80	--	--	--	--	--	--	--	--	--
3/9/92		96.14	--	3.25	0.00	92.89	--	--	--	--	--	--	--	--	--
3/13/92		96.14	--	3.60	0.00	92.54	--	--	<50	--	--	--	--	--	--
4/21/92		96.14	--	3.40	0.00	92.74	--	--	--	--	--	--	--	--	--
8/22/95		96.14	--	5.08	0.00	91.06	<250	**900**	<50	--	--	--	--	--	--
11/28/95		96.14	--	2.53	0.00	93.61	--	--	--	--	--	--	--	--	--
3/12/96		96.14	--	3.37	0.00	92.77	--	--	--	--	--	--	--	--	--
6/26/96		96.14	--	4.74	0.00	91.40	--	--	--	--	--	--	--	--	--
10/9/96		96.14	--	4.93	0.00	91.21	--	--	--	--	--	--	--	--	--
2/12/97		96.14	--	3.19	0.00	92.95	<250	<750	<50	--	--	--	--	--	2
4/22/97		96.14	--	3.08	0.00	93.06	<250	<750	<50	--	--	--	--	--	2
8/5/97		96.14	--	4.85	0.00	91.29	<250	<750	<50	--	--	--	--	--	2
11/11/97		96.14	--	3.11	0.00	93.03	<250	<750	<50	--	--	--	--	--	2
2/11/98		96.14	--	3.24	0.00	92.90	<250	<750	<50	--	--	--	--	--	2
5/28/98		96.14	--	3.91	0.00	92.23	<250	<750	<50	--	--	--	--	--	6.62
8/20/98		96.14	--	5.28	0.00	90.86	<250	<750	<50	--	--	--	--	--	<1.00
11/19/98		96.14	--	5.37	0.00	90.77	<250	<750	<50	--	--	--	--	--	<1.00
3/11/99		96.14	--	2.43	0.00	93.71	<250	<500	<80	--	--	--	--	--	<1.00
5/25/99		96.14	--	4.29	0.00	91.85	<250	--	<80	--	--	--	--	--	--
8/17/99		96.14	--	5.06	0.00	91.08	<250	<500	<80	--	--	--	--	--	<1.00
11/19/99		96.14	--	3.08	0.00	93.06	<250	--	<80	--	--	--	--	--	<1.00
3/9/00		96.14	--	2.75	0.00	93.39	<250	<500	<80	--	--	--	--	--	<1.00
6/13/00		96.14	--	4.45	0.00	91.69	<250	<500	<80	--	--	--	--	--	<1.00
9/26/00		96.14	--	5.20	0.00	90.94	<250	<500	--	--	--	--	--	--	<1.00
12/13/00		96.14	--	4.67	0.00	91.47	<250	<500	--	--	--	--	--	--	1.37
2/28/01		96.14	--	3.92	0.00	92.22	<250	<500	<80	--	--	--	--	--	<1.00
5/2/01		96.14	--	3.53	0.00	92.61	<250	<750	87	--	--	--	--	--	<1.00
10/30/02		96.15	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		96.15	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-105 (cont)															
4/18/03		96.15	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		96.15	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		96.15	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
12/31/03		96.15	--	2.45	0.00	93.70	<50	<400	<500	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		96.15	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		96.15	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/7/04		96.14	--	4.71	0.00	91.43	<160	<200	<50	--	--	--	--	--	--
10/20/05		96.14	--	5.16	0.00	90.98	<82	<100	<48	--	--	--	--	--	--
9/6/07		96.14	--	5.34	0.00	90.80	<100	<81	<50	--	--	--	--	--	0.47
5/27-28/08		96.14	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	96.14	--	5.16	0.00	90.98	<81	<100	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	96.14	--	3.75	0.00	92.39	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	96.14	--	6.15	0.00	89.99	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.57
5/4-6/09	LFP	96.14	--	3.68	0.00	92.46	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	96.14	--	5.25	0.00	90.89	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.064
11/18-20/09	LFP	96.14	--	1.56	0.00	94.58	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.053
2/8-10/10	LFP	96.14	--	3.37	0.00	92.77	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.078
MONITORING WELL DECOMMISSIONED/SAMPLING DISCONTINUED															
MW-106															
2/14/92		99.71	--	8.18	0.00	91.53	--	--	--	--	--	--	--	--	--
2/18/92		99.71	--	8.20	0.00	91.51	--	--	--	--	--	--	--	--	--
3/9/92		99.71	--	8.04	0.00	91.67	--	--	--	--	--	--	--	--	--
3/13/92		99.71	--	8.18	0.00	91.53	--	--	<50	--	--	--	--	--	--
4/21/92		99.71	--	8.02	0.00	91.69	--	--	--	--	--	--	--	--	--
8/22/95		99.71	--	8.79	0.00	90.92	<250	<750	<50	--	--	--	--	--	--
11/28/95		99.71	--	7.63	0.00	92.08	--	--	--	--	--	--	--	--	--
3/12/96		99.71	--	8.04	0.00	91.67	<250	<750	<50	--	--	--	--	--	<2.0
6/26/96		99.71	--	8.61	0.00	91.10	<250	<750	<50	--	--	--	--	--	<2.0
10/9/96		99.71	--	8.65	0.00	91.06	<250	<750	<50	--	--	--	--	--	2.16
2/12/97		99.71	--	7.95	0.00	91.76	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		99.71	--	7.73	0.00	91.98	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		99.71	--	8.68	0.00	91.03	<250	<750	<50	--	--	--	--	--	<2.0
11/11/97		99.71	--	8.07	0.00	91.64	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		99.71	--	8.12	0.00	91.59	<250	<750	<50	--	--	--	--	--	<2.0
5/28/98		99.71	--	8.35	0.00	91.36	<250	<750	<50	--	--	--	--	--	4.53
8/20/98		99.71	--	8.96	0.00	90.75	<250	<750	<50	--	--	--	--	--	<1.0

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COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-106 (cont)															
11/19/98		99.71	--	9.37	0.00	90.34	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		99.71	--	7.70	0.00	92.01	<250	<50	<80	--	--	--	--	--	1.1
5/25/99		99.71	--	8.32	0.00	91.39	<250	--	<80	--	--	--	--	--	--
8/17/99		99.71	--	8.70	0.00	91.01	<250	<500	<80	--	--	--	--	--	<1.0
11/19/99		99.71	--	7.88	0.00	91.83	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		99.71	--	7.74	0.00	91.97	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		99.71	--	8.39	0.00	91.32	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		99.71	--	8.79	0.00	90.92	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		99.71	--	8.51	0.00	91.20	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		99.71	--	8.18	0.00	91.53	<250	<500	<80	--	--	--	--	--	<2.0
5/2/01		99.71	--	8.17	0.00	91.54	<250	<500	88	--	--	--	--	--	<1.0
10/30/02		99.73	--	8.98	0.00	90.75	<250	<500	<80	<0.500	<0.500	<0.500	<1.00	--	<1.0
1/23/03		99.73	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		99.73	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		99.73	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		99.73	--	8.52	0.00	91.21	<250	<500	<50	<0.500	<0.500	<0.500	<1.00	--	<1.0[5]
12/31/03		99.73	--	7.54	0.00	92.19	<50	<78	<98	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		99.73	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		99.73	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/7/04		99.71	--	8.50	0.00	91.21	<78	<97	<50	--	--	--	--	--	--
10/20/05		99.71	--	8.70	0.00	91.01	<82	<100	<48	--	--	--	--	--	--
9/6/07		99.71	--	8.88	0.00	90.83	<80	<100	<50	--	--	--	--	--	0.13
5/27-28/08		99.71	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	99.71	--	8.72	0.00	90.99	<79	<99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	99.71	--	8.18	0.00	91.53	30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	99.71	--	8.40	0.00	91.31	<29	<67	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.072
5/4-6/09	LFP	99.71	--	8.30	0.00	91.41	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	99.71	--	8.65	0.00	91.06	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/18-20/09	LFP	99.71	--	7.40	0.00	92.31	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.11
2/8-10/10	LFP	99.71	--	8.05	0.00	91.66	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
MONITORING WELL DECOMMISSIONED/SAMPLING DISCONTINUED															

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-107															
2/14/92		100.00	--	8.50	0.00	91.50	--	--	--	--	--	--	--	--	--
2/18/92		100.00	--	8.50	0.00	91.50	--	--	--	--	--	--	--	--	--
3/9/92		100.00	--	8.36	0.00	91.64	--	--	--	--	--	--	--	--	--
3/13/92		100.00	--	8.52	0.00	91.48	--	--	<50	--	--	--	--	--	--
4/21/92		100.00	--	8.36	0.00	91.64	--	--	--	--	--	--	--	--	--
8/22/95		100.00	--	9.06	0.00	90.94	<250	<750	<50	--	--	--	--	--	--
11/28/95		100.00	--	8.00	0.00	92.00	--	--	--	--	--	--	--	--	--
3/12/96		100.00	--	8.36	0.00	91.64	--	--	--	--	--	--	--	--	--
6/26/96		100.00	--	8.89	0.00	91.11	--	--	--	--	--	--	--	--	--
10/9/96		100.00	--	8.94	0.00	91.06	--	--	--	--	--	--	--	--	--
2/12/97		100.00	--	8.25	0.00	91.75	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		100.00	--	8.05	0.00	91.95	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		100.00	--	8.95	0.00	91.05	<250	<809	<50	--	--	--	--	--	<2.0
11/11/97		100.00	--	8.37	0.00	91.63	<250	**750**	<50	--	--	--	--	--	<2.0
2/11/98		100.00	--	8.44	0.00	91.56	351	**750**	<50	--	--	--	--	--	<2.0
5/28/98		100.00	--	8.73	0.00	91.27	<250	**754**	<50	--	--	--	--	--	--
8/20/98		100.00	--	9.24	0.00	90.76	<250	**750**	<50	--	--	--	--	--	1
11/19/98		100.00	--	9.65	0.00	90.35	<250	**750**	<50	--	--	--	--	--	<1.0
3/11/99		100.00	--	8.08	0.00	91.92	**539**	**750**	<80	--	--	--	--	--	<1.0
5/25/99		100.00	--	8.82	0.00	91.18	<250	<500	<80	--	--	--	--	--	--
8/17/99		100.00	--	8.10	0.00	91.90	<250	--	<80	--	--	--	--	--	<1.0
11/19/99		100.00	--	8.21	0.00	91.79	<250	<500	<80	--	--	--	--	--	<1.0
3/9/00		100.00	--	8.08	0.00	91.92	<250	--	<80	--	--	--	--	--	<1.0
6/13/00		100.00	--	8.88	0.00	91.12	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		100.00	--	9.07	0.00	90.93	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		100.00	--	8.78	0.00	91.22	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		100.00	--	8.63	0.00	91.37	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		100.00	--	8.63	0.00	91.37	<250	<500	88	--	--	--	--	--	<1.0
10/30/02		100.00	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
1/23/03		100.00	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		100.00	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		100.00	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		100.00	UNABLE TO LOCATE			--	--	--	--	--	--	--	--	--	--
12/31/03		100.00	--	7.92	0.00	92.08	<50	85	150	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		100.00	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--

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COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-107 (cont)															
7/20/04		100.00	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/7/04		100.00	--	8.78	0.00	91.22	<80	<100	<50	--	--	--	--	--	--
10/20/05		100.00	--	8.97	0.00	91.03	<81	<100	<48	--	--	--	--	--	--
9/6/07		100.00	--	9.18	0.00	90.82	<78	<98	<50	--	--	--	--	--	0.07
5/27-28/08		100.00	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	100.00	--	8.98	0.00	91.02	<79	<99	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	100.00	--	8.46	0.00	91.54	38	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	100.00	--	8.62	0.00	91.38	35	70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.068
5/4-6/09	LFP	100.00	--	8.95	0.00	91.05	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	100.00	--	9.11	0.00	90.89	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.27
11/18-20/09	LFP	100.00	--	7.77	0.00	92.23	99	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/8-10/10	LFP	100.00	--	8.25	0.00	91.75	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
MONITORING WELL DECOMMISSIONED/SAMPLING DISCONTINUED															
MW-108															
2/14/92		99.79	--	8.10	0.00	91.69	--	--	--	--	--	--	--	--	--
2/18/92		99.79	--	8.62	0.00	91.17	--	--	--	--	--	--	--	--	--
3/9/92		99.79	--	8.49	0.00	91.30	--	--	--	--	--	--	--	--	--
3/13/92		99.79	--	8.63	0.00	91.16	--	--	<50	--	--	--	--	--	--
4/21/92		99.79	--	8.47	0.00	91.32	--	--	--	--	--	--	--	--	--
8/22/95		99.79	--	9.04	0.00	90.75	<250	<750	<50	--	--	--	--	--	--
11/28/95		99.79	--	7.98	0.00	91.81	--	--	--	--	--	--	--	--	--
3/12/96		99.79	--	8.50	0.00	91.29	--	--	--	--	--	--	--	--	--
6/26/96		99.79	--	8.86	0.00	90.93	--	--	--	--	--	--	--	--	--
10/9/96		99.79	--	8.91	0.00	90.88	--	--	--	--	--	--	--	--	--
2/12/97		99.79	--	8.41	0.00	91.38	<250	<750	<50	--	--	--	--	--	<2.0
4/22/97		99.79	--	8.08	0.00	91.71	<250	<750	<50	--	--	--	--	--	<2.0
8/5/97		99.79	--	8.94	0.00	90.85	<250	**825**	<50	--	--	--	--	--	<2.0
11/11/97		99.79	--	8.53	0.00	91.26	<250	<750	<50	--	--	--	--	--	<2.0
2/11/98		99.79	--	8.59	0.00	91.20	<250	**873**	<50	--	--	--	--	--	<2.0
5/28/98		99.79	--	8.72	0.00	91.07	<250	<750	<50	--	--	--	--	--	4.27
8/20/98		99.79	--	9.20	0.00	90.59	<250	<750	<50	--	--	--	--	--	<1.0
11/19/98		99.79	--	9.60	0.00	90.19	<250	<750	<50	--	--	--	--	--	<1.0
3/11/99		99.79	--	8.16	0.00	91.63	<250	<500	<80	--	--	--	--	--	<1.0
5/25/99		99.79	--	8.69	0.00	91.10	<250	--	<80	--	--	--	--	--	--
8/17/99		99.79	--	8.96	0.00	90.83	<250	<500	<80	--	--	--	--	--	<1.0

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
MW-108 (cont)															
11/19/99		99.79	--	8.08	0.00	91.71	<250	--	<80	--	--	--	--	--	<1.0
3/9/00		99.79	--	8.16	0.00	91.63	<250	<500	<80	--	--	--	--	--	<1.0
6/13/00		99.79	--	8.69	0.00	91.10	<250	<500	<80	--	--	--	--	--	<1.0
9/26/00		99.79	--	9.04	0.00	90.75	<250	<500	--	--	--	--	--	--	<1.0
12/13/00		99.79	--	8.81	0.00	90.98	<250	<500	--	--	--	--	--	--	<1.0
2/28/01		99.79	--	8.60	0.00	91.19	<250	<500	<80	--	--	--	--	--	<1.0
5/2/01		99.79	--	8.53	0.00	91.26	<250	<500	<80	--	--	--	--	--	<1.0
10/30/02		99.79	--	9.24	0.00	90.55	<250	<500	<80	<0.500	<0.500	<0.500	<1.0	--	<1.0
1/23/03		99.79	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
4/18/03		99.79	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/11/03		99.79	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/31/03		99.79	--	8.82	0.00	90.97	<250	<500	<50.0	<0.500	<0.500	<0.500	<1.0	--	<1.0[5]
12/31/03		99.79	--	7.95	0.00	91.84	<50	<77	<97	<0.5	<0.5	<0.5	<1.5	--	<1.2
5/3/04		99.79	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
7/20/04		99.79	MONITORED/SAMPLED ANNUALLY					--	--	--	--	--	--	--	--
10/7/04		99.79	--	8.80	0.00	90.99	<80	<100	<50	--	--	--	--	--	--
10/20/05		99.79	--	8.89	0.00	90.90	<81	<100	<48	--	--	--	--	--	--
10/20/05(D)		99.79	--	8.89	0.00	90.90	<81	<100	<48	--	--	--	--	--	--
9/6/07		99.79	--	9.15	0.00	90.64	<80	<100	<50	--	--	--	--	--	0.12
5/27-28/08		99.79	INACCESSIBLE			--	--	--	--	--	--	--	--	--	--
8/27-29/08	LFP	99.79	--	9.00	0.00	90.79	<78	<98	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/17-19/08	LFP	99.79	--	8.48	0.00	91.31	<30	<70	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/16-18/09	LFP	99.79	--	8.74	0.00	91.05	**1,100**	230	<50	<0.5	<0.5	<0.5	<0.5	<0.5	0.070
5/4-6/09	LFP	99.79	--	8.62	0.00	91.17	<29	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
8/19-21/09	LFP	99.79	--	9.07	0.00	90.72	<30	<69	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
11/18-20/09	LFP	99.79	--	7.64	0.00	92.15	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
2/8-10/10	LFP	99.79	--	8.50	0.00	91.29	<29	<68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.050
MONITORING WELL DECOMMISSIONED/SAMPLING DISCONTINUED															

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
TRIP BLANK															
10/30/02		--	--	--	--	--	--	--	--	--	--	--	--	--	--
1/23/03		--	--	--	--	--	--	--	<80	<0.500	<0.500	<0.500	<1.0	--	--
4/18/03		--	--	--	--	--	--	--	<50	<0.500	<0.500	<0.500	<1.0	--	--
QA															
7/11/03		--	--	--	--	--	--	--	<50	<0.500	<0.500	<0.500	<1.00	--	--
10/31/03		--	--	--	--	--	--	--	<50	<0.500	<0.500	<0.500	<1.00	--	--
12/31/03		--	--	--	--	--	<50	--	--	<0.5	<0.5	<0.5	<1.5	--	--
5/3/04[6]		--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/20/04		--	--	--	--	--	--	--	<50	<0.500	<0.500	<0.500	<1.00	--	--
5/27-28/08		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
8/27-29/08		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/17-19/08		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
2/16-18/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
5/4-6/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
8/19-21/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/18-20/09		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
2/8-10/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
5/12-13/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
08/11/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/3-4/10		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
2/3-4/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/23/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
8/23-24/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/7-9/11		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
2/6-8/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
5/2-4/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
8/1-3/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/26-28/12		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/4-6/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
05/6-8/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--

TABLE 1

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS[1]
COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556
101 Mulford Road
Toledo, Washington
Concentrations reported in µg/L

Well ID/ Date	Purge Method	TOC[2] (ft.)	DTP (ft.)	DTW (ft.)	LNAPLT (ft.)	GWE[3] (ft.)	TPH-DRO[4]	TPH-HRO[4]	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	D. Lead
QA (cont)															
9/9-13/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/18-22/13		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
2/4-11/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
6/12-14/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
8/18-21/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/19-20/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
2/17-20/14		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
5/11-15/15		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
8/10-11/15		--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
Standard Laboratory Reporting Limits:							--	--	50	0.5	0.5	0.5	1.0	0.5	0.5
MTCA Method A Cleanup Levels:							500	500	800/1,000	5	1,000	700	1,000	20	15
Current Method:[7]							NWTPH-Dx Extended		NWTPH-Gx and USEPA 8260B						USEPA 6020

Abbreviations:

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes
(D) = Duplicate
D. Lead = Dissolved Lead
DTP = Depth to Product
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
LFP = Low Flow Purge
LNAPL = Light Non-Aqueous Phase Liquid
LNAPLT = LNAPL Thickness
(mg/L) = Milligrams per liter
MTBE = Methyl Tertiary Butyl Ether
MTCA = Model Toxics Control Act
QA = Quality Assurance/Trip Blank
T. Lead = Total Lead
TOC = Top of Casing
TPH = Total Petroleum Hydrocarbons
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
µg/L = Micrograms per liter
-- = Not Measured/Not Analyzed

Notes:

1 Analytical results in bold font indicate concentrations exceed MTCA Method A cleanup levels.
2 TOC elevations have been surveyed in feet relative to the 1988 North American Vertical Datum.
3 When LNAPL is present, GWE has been corrected using the following formula: GWE = [(TOC - DTW) + (LNAPLT x 0.80)].
4 TPH-DRO and TPH-HRO results with multiple values are reported as follows: with silica gel cleanup/without silica gel cleanup. TPH-DRO and TPH-HRO analyses for monitoring completed between October 2004 and May 2013 was performed with silica gel cleanup. The use of silica gel cleanup for samples collected prior to October 2004 has not been confirmed.
5 Laboratory report indicates this sample was laboratory filtered.
6 Laboratory indicates they did not receive a QA sample. No results were provided.
7 Laboratory analytical methods for historical data may not be consistent with list of current analytical methods. When necessary, consult original laboratory reports to verify methods used.
8 Insufficient groundwater to collect sample.

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
Laboratory Results (µg/L)											
Benzene											
9/9-13/13	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	1	<0.5	<0.5	<0.5	<0.5
11/18-22/13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5
2/4-11/14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5
6/12-14/14	<0.5	<0.5	<0.5	UTA	<0.5	<0.5	2	UTA	<0.5	UTA	UTA
8/18-21/14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5
11/19-20/14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2	<0.5	<0.5	<0.5	<0.5
2/17-20/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5
5/11-15/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5
8/10-11/15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3	<0.5	<0.5	<0.5	<0.5
TPH-GRO											
9/9-13/13	<50	<50	<50	<50	**1,700**	**1,200**	**5,500**	<50	<50	<50	<50
11/18-22/13	<50	<50	<50	<50	190	**1,200**	**3,300**	68	<50	<50	<50
2/4-11/14	<50	<50	<50	<50	480	**1,800**	**4,800**	<50	<50	<50	<50
6/12-14/14	<50	<50	<50	UTA	260	**1,200**	**4,200**	UTA	<50	UTA	UTA
8/18-21/14	<50	<50	<50	<50	**1,000**	**1,800**	**4,700**	<50	<50	62	68
11/19-20/14	<50	<50	<50	<50	**900**	**1,300**	**6,000**	<50	<50	<50	<50
2/17-20/15	<50	<50	<50	<50	650	550	**3,600**	<50	<50	<50	<50
5/11-15/15	<50	<50	<50	<50	**1,400**	**940**	**4,400**	<50	75	<50	<50
8/10-11/15	<50	<50	<50	<50	660	600	**4,500**	<50	<50	<50	<50

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
TPH-DRO without silica gel cleanup											
9/9-13/13	<29	<29	<29	<28	**2,700**	250	**3,600**	32	<28	<29	<28
11/18-22/13	<29	<29	<29	<29	**1,600**	150	**1,000**	33	<29	<29	<29
2/4-11/14	<29	<28	<29	<29	**730**	170	**1,000**	<29	<29	<29	<29
6/12-14/14	<28	<29	<28	UTA	**780**	260	**1,200**	UTA	<29	UTA	UTA
8/18-21/14	<28	<29	<29	<28	**1,000**	300	**1,400**	<29	<30	<29	38
11/19-20/14	<29	<29	<29	<29	**1,400**	270	**1,800**	<29	<29	<29	<28
2/17-20/15	<28	<29	<29	<28	490	290	**730**	<30	<30	<29	<30
5/11-15/15	<28	<28	<29	<28	**690**	210	**1,000**	<28	<29	<28	<29
8/10-11/15	<29	<29	<28	<28	**2,000**	500	**2,700**	<28	<28	<28	<28
TPH-DRO with silica gel cleanup											
9/9-13/13	<29	<29	<29	<28	160	130	330	<29	<28	<29	<28
11/18-22/13	<29	<29	<29	<29	42	120	370	<29	<29	<29	<29
2/4-11/14	<29	<28	<29	<29	36	140	410	<29	<29	<29	<29
6/12-14/14	<28	<29	<28	UTA	100	120	380	UTA	<29	UTA	UTA
8/18-21/14	<28	<29	<29	<28	180	140	310	<29	<30	<29	<29
11/19-20/14	<29	<29	<29	<29	130	120	430	<29	<29	<29	<28
2/17-20/15	<28	<29	<29	<28	150	95	230	<30	<30	<29	<30
5/11-15/15	<28	<28	<29	<28	120	130	320	<28	<29	<28	<29
8/10-11/15	<29	<29	<28	<28	130	66	470	<28	<28	<28	<28

leidos

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
TPH-HRO without silica gel cleanup											
9/9-13/13	<67	<67	<67	<66	<66	110	89	<67	<66	<67	<66
11/18-22/13	<67	<67	<67	<68	180	<67	<66	<67	<67	<67	<67
2/4-11/14	<68	<66	<67	<68	<67	<68	<68	<68	<69	<67	<68
6/12-14/14	<66	<67	<66	UTA	100	73	83	UTA	<67	UTA	UTA
8/18-21/14	<66	<68	<68	<66	170	88	100	<68	<71	<68	<67
11/19-20/14	<68	<68	<67	<67	160	<66	320	<68	<67	<67	<66
2/17-20/15	<66	<67	<69	<66	180	470	180	<69	<70	<69	<69
5/11-15/15	<66	<66	<67	<66	<66	<66	<66	<66	<67	<66	<68
8/10-11/15	<67	<67	<66	<66	550	340	<67	<66	<66	<66	<66
TPH-HRO with silica gel cleanup											
9/9-13/13	<67	<67	<67	<66	72	<66	<66	<67	<66	<67	<66
11/18-22/13	<67	<67	<67	<68	<67	<67	<66	<67	<67	<67	<67
2/4-11/14	<68	<66	<67	<68	<67	<68	<68	<68	<69	<67	<68
6/12-14/14	<66	<67	<66	UTA	<66	<67	<67	UTA	<67	UTA	UTA
8/18-21/14	<66	<68	<68	<66	<68	<67	<67	<68	<71	<68	<67
11/19-20/14	<68	<68	<67	<67	<67	<66	<69	<68	<67	<67	<66
2/17-20/15	<66	<67	<69	<66	<66	240	<68	<69	<70	<69	<69
5/11-15/15	<66	<66	<67	<66	<66	<66	<66	<66	<67	<66	<68
8/10-11/15	<67	<67	<66	<66	<67	<66	93	<66	<66	<66	<66
Nitrate											
9/9-13/13	<250	850	760	590	<250	<250	<250	<250	<250	<250	390
11/18-22/13	<250	580	580	<250	10,500	<250	<250	<250	<250	<250	790
2/4-11/14	660	1,000	440	490	21,100	<250	<250	370	440	<250	630
6/12-14/14	370	570	540	UTA	2,900	<250	<250	UTA	<250	UTA	UTA
8/18-21/14	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
11/19-20/14	<250	360	270	890	770	<250	<250	540	470	<250	350
2/17-20/15	2,200	2,200	<250	640	<250	<250	<250	<250	330	1,700	510
5/11-15/15	1,400	1,400	450	2,300	5,300	<250	<250	1,000	1,200	<250	420
8/10-11/15	510	610	<250	<250	<250	<250	<250	530	<250	<250	890

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
Sulfate											
9/9-13/13	4,600	3,300	5,400	4,200	9,000	<1,500	1,700	1,900	3,300	2,800	4,300
11/18-22/13	4,200	3,800	3,900	2,700	4,400	<1,500	<1,500	<1,500	2,100	1,700	4,100
2/4-11/14	4,400	3,400	6,500	3,500	6,900	<1,500	<1,500	2,500	2,900	2,800	3,700
6/12-14/14	3,300	3,000	5,900	UTA	7,000	<1,500	<1,500	UTA	3,700	UTA	UTA
8/18-21/14	3,500	2,100	3,500	2,500	10,500	1,600	<1,500	2,500	2,300	3,700	<1,500
11/19-20/14	7,500	2,600	4,300	2,600	14,100	2,600	<1,500	2,500	1,700	2,700	3,800
2/17-20/15	3,700	3,200	2,600	1,800	14,700	4,000	1,800	<1,500	<1,500	5,300	<1,500
5/11-15/15	3,600	3,800	7,600	4,700	7,600	3,900	1,500	3,800	3,400	4,100	7,000
8/10-11/15	4,800	4,000	7,900	3,400	9,800	2,500	9,920	3,800	3,300	3,400	5,000
Dissolved Iron											
9/9-13/13	102	<43.0	<43.0	<43.0	20,000	10,900	12,300	3,240	113	<43.0	628
11/18-22/13	45.6	<43.0	<43.0	<43.0	326	10,500	9,940	3,920	<43.0	<43.0	175
2/4-11/14	65.2	<43.0	<43.0	<43.0	2,440	11,400	9,100	1,730	<43.0	<43.0	<43.0
6/12-14/14	57.0	94.0	<43.0	UTA	8,330	10,900	11,200	UTA	<43.0	UTA	UTA
8/18-21/14	179	<33.4	144	<33.4	11,300	9,220	9,410	2,690	2,620	<33.4	1,450
11/19-20/14	454	<33.4	123	127	12,900	214	14,500	534	<33.4	<33.4	43.6
2/17-20/15	<33.4	<33.4	37.5	321	86.7	1,170	14,500	<33.4	106	161	510
5/11-15/15	<33.4	<33.4	<33.4	<33.4	6,750	10,000	12,100	2,190	<33.4	<33.4	<33.4
8/10-11/15	131	1,770	2,760	66.3	12,800	9,340	3,740	2,720	61.5	34.8	1,910
Dissolved Manganese											
9/9-13/13	104	278	2.9	50.6	6,070	2,300	4,740	2,490	76.1	1,460	29.0
11/18-22/13	314	287	3.0	11.1	4,200	2,290	4,310	2,600	1.1	178	13.2
2/4-11/14	221	34.3	2.5	38.4	3,890	2,480	4,750	1,750	4.6	111	5.4
6/12-14/14	225	75.6	2.8	UTA	4,620	2,310	5,330	UTA	11.9	UTA	UTA
8/18-21/14	319	41.7	2,170	82.6	4,600	1,990	3,820	2,000	1,960	115	4,270
11/19-20/14	369	91.7	5.6	34.4	4,590	5.2	7,080	645	1.5	80.1	3.3
2/17-20/15	9.8	14.4	2.0	24.2	2,530	1,280	6,370	11.6	8.9	1.1	40.5
5/11-15/15	9.7	11.4	<0.83	6.6	4,080	2,110	5,050	1,680.0	9.4	21	1.4
8/10-11/15	138	357	98.1	15	4,440	2,050	5,050	2,050	14.1	145	120

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
Sulfide											
9/9-13/13	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54
11/18-22/13	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54
2/4-11/14	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54
6/12-14/14	<54	<54	<54	UTA	<54	67	<54	UTA	<54	UTA	UTA
8/18-21/14	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54
11/19-20/14	<54	<54	<54	<54	55	<54	<54	<54	<54	<54	<54
2/17-20/15	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54
5/11-15/15	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54	<54
8/10-11/15	<54	<54	<54	<54	<54	71	<54	<54	<54	<54	<54
Methane											
9/9-13/13	36	15	<3.0	<3.0	360	370	3,000	310	<3.0	12	16
11/18-22/13	140	28	<3.0	14	170	600	3,500	810	<3.0	4.0	<3.0
2/4-11/14	5.2	<3.0	<3.0	<3.0	96	1,100	4,700	100	<3.0	6.5	<3.0
6/12-14/14	22	<3.0	<3.0	UTA	170	430	7,000	UTA	<3.0	UTA	UTA
8/18-21/14	28	<3.0	210	5.1	780	330	6,100	59	78	30	360
11/19-20/14	4.8	5.2	<3.0	<3.0	220	680	3,400	4.3	<3.0	7.5	<3.0
2/17-20/15	<3.0	<3.0	<3.0	<3.0	44	46	2,700	<3.0	<3.0	<3.0	<3.0
5/11-15/15	<3.0	<3.0	<3.0	<3.0	440	690	5,600	270	<3.0	<3.0	<3.0
8/10-11/15	<3.0	<3.0	<3.0	<3.0	450	570	1,700	15	<3.0	<3.0	<3.0
Alkalinity											
9/9-13/13	109,000	96,300	29,700	95,400	238,000	131,000	202,000	127,000	45,000	116,000	38,800
11/18-22/13	90,600	97,500	14,700	129,000	33,800	120,000	178,000	130,000	40,400	112,000	37,600
2/4-11/14	76,900	75,300	28,900	72,800	83,200	119,000	181,000	110,000	33,200	113,000	38,000
6/12-14/14	66,800	66,900	30,700	UTA	125,000	112,000	174,000	UTA	34,200	UTA	UTA
8/18-21/14	91,600	82,500	98,400	89,900	90,100	115,000	165,000	92,800	92,800	97,700	149,000
11/19-20/14	87,700	84,100	20,900	67,000	166,000	143,000	241,000	40,100	25,400	117,000	35,300
2/17-20/15	60,100	61,700	17,900	17,800	29,600	101,000	206,000	17,300	8,600	44,400	17,700
5/11-15/15	65,200	66,400	26,300	71,700	132,000	118,000	198,000	85,700	66,400	98,400	26,200
8/10-11/15	71,200	90,100	59,600	98,500	161,000	126,000	169,000	97,500	43,700	113,000	50,100

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
Field Parameters											
Dissolved Oxygen [DO] (mg/L)											
9/9-13/13	0.70	1.07	2.46	2.92	1.67	1.02	0.65	0.8	2.48	0.73	1.40
	0.68	1.05	3.74	2.98	0.96	0.95	0.63	0.79	2.50	0.68	1.34
	0.67	1.02	4.00	3.01	0.95	0.92	0.63	0.78	2.47	0.68	1.32
	--	0.8	4.51	--	--	--	--	--	--	--	--
11/18-22/13	0.42	0.72	4.2	0.81	0.83	0.33	0.58	0.59	2.04	1.09	1.81
	0.42	0.72	4.24	0.79	0.83	0.33	0.57	0.59	2.03	1.09	1.77
	0.42	0.71	4.27	0.78	0.82	0.32	0.55	0.58	2.04	1.06	1.76
	0.42	0.71	4.31	0.77	0.80	0.32	0.54	0.56	2.04	1.02	1.75
2/4-11/14	1.81	1.53	2.64	1.76	1.27	0.83	0.77	1.88	2.91	1.15	2.51
	1.79	1.52	2.60	1.75	1.22	0.83	0.76	1.84	2.87	1.15	2.46
	1.77	1.50	2.57	1.75	1.20	0.83	0.74	1.80	2.84	1.16	2.39
6/12-14/14	0.45	0.64	2.14	--	0.65	0.50	0.57	--	2.47	--	--
	0.46	0.67	2.20	--	0.69	0.56	0.59	--	2.55	--	--
	0.49	0.69	2.24	--	0.70	0.59	0.62	--	2.57	--	--
8/18-21/14	0.25	0.26	1.92	0.59	0.34	0.26	0.23	1.10	2.28	1.86	1.01
	0.25	0.26	2.01	0.66	--	0.26	0.25	1.20	2.33	--	1.11
	0.25	0.26	2.11	0.71	--	0.26	0.28	1.27	2.40	--	1.18
11/19-20/14	1.41	8.11	1.4	1.2	6.26	0.90	0.79	1.2	1.1	1.3	1.2
	1.38	8.13	1.4	1.2	6.11	0.88	0.77	1.3	1.1	1.2	1.3
	1.32	8.16	1.2	1.3	6.02	0.86	0.73	1.3	1.1	1.2	1.2
2/17-20/15	1.18	3.67	2.20	1.44	1.02	2.11	1.09	1.81	2.11	2.29	1.67
	1.13	3.66	2.24	1.49	1.06	2.09	1.12	1.76	2.09	2.18	1.64
	1.09	3.61	2.30	1.53	1.10	2.02	1.16	1.77	2.01	2.11	1.61
5/11-15/15	1.39	1.44	4.81	1.69	1.02	0.68	1.04	1.17	2.02	1.29	1.46
	1.36	1.41	4.83	1.72	1.00	0.69	1.01	1.20	2.00	1.31	1.49
	1.32	1.39	4.85	1.74	1.00	0.71	1.00	1.21	1.98	1.36	1.31
8/10-11/15	1.30	1.1	1.30	1.2	1.00	1.2	1.10	1.50	1.30	1.3	1.3
	1.20	1.2	1.50	1.1	1.00	1.2	1.20	1.50	1.20	1.4	1.3
	1.20	1.3	1.50	1.2	1.00	1.3	1.20	1.40	1.20	1.4	1.4

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
Oxidation Reduction Potential [ORP] (mV)											
9/9-13/13	99.5	126.3	156.3	90.3	-131.8	-197.0	-86.2	-15.1	260.4	85.9	97.3
	99.1	126.3	156.8	91.8	-138.9	-194.7	-82.0	15.2	258.1	87.1	96.3
	98.3	126.8	157.1	92.3	-139.5	-194.9	-82.0	-13.0	254.9	86.2	92.2
	--	130.4	159.2	--	--	--	--	--	--	--	--
11/18-22/13	59.9	110.7	110.4	126.3	-26.5	-48.4	-48.0	-91.3	124.0	100.0	111.9
	59.8	111.8	110.5	127.1	-27.1	-49.9	-47.6	-31.9	125.7	100.3	112.3
	59.5	112.4	111.2	127.9	-27.3	-50.7	-47.4	-32.0	127.2	100.7	113.2
	59.4	112.8	112.1	128.3	-28.1	-51.4	-47.2	-31.5	128.1	100.1	114.1
2/4-11/14	123.0	128.9	273.4	112.5	118.9	-57.2	-51.2	106.9	117.7	107.4	58.3
	123.4	128.9	272.1	113	119.6	-57.3	-51.3	107.1	118.6	107.7	59.8
	123.1	129.1	270.9	113.4	120.9	-57.5	-51.4	109.0	119.5	108.2	60.6
6/12-14/14	50.1	35.7	97.7	--	97.4	-87.9	-74.5	--	115.0	--	--
	49.0	37.0	99.1	--	99.0	-89.3	-76	--	117.3	--	--
	47.1	38.3	101.1	--	100.6	-91.2	-78.3	--	119.0	--	--
8/18-21/14	16.0	50.8	80.8	85.6	-67.8	-86.9	-91.2	-18.1	83.8	98.3	79.6
	15.3	50.6	82.7	88.3	--	-87.8	-89.1	-9.3	85.1	--	81.3
	14.8	50.7	84.3	89.9	--	-85.8	-86.3	-2.6	87.6	--	83.6
11/19-20/14	206.6	290.7	188	166	215.0	162.7	149.9	173	179	175	200
	204.5	288.3	187	160	217.3	161.0	148.1	180	179	180	200
	202.3	286.8	185	157	214.0	159.8	146.3	183	178	183	201
2/17-20/15	64.3	109.6	32.3	38.3	-21.9	-33.6	29.3	49.3	36.3	-11.9	51.0
	62.9	110.9	34.9	40.1	-19.3	-31.3	30.6	50.4	38.1	-9.8	52.6
	64.3	111.6	36.0	41.6	-18.0	-30.0	31.8	51.6	39.6	-7.9	53.8
5/11-15/15	9.2	9.0	18.2	19.7	24.0	-36.5	-51.4	-20.3	33.9	17.5	49.6
	9.9	10.2	19.0	20.9	24.6	-36.0	-50.7	-19.8	34.8	18.3	50.1
	10.8	11.1	20.2	21.8	24.9	-35.3	-49.9	-18.8	35.4	19.1	51.6
8/10-11/15	117	-2	35.0	44	-9.0	-35.0	-1	-17	-10.0	50	116
	121	-4	42.0	42	-9.0	-40.0	-3	-20	-10.0	53	120
	124	-5	47.0	41	-10.0	-42.0	-7	-24	-14.0	57	122

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TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
pH											
9/9-13/13	6.20	6.29	6.17	6.44	6.48	6.58	6.46	6.55	6.81	6.60	6.18
	6.22	6.29	6.25	6.45	6.51	6.56	6.44	6.54	6.81	6.60	6.16
	6.22	6.30	6.27	6.45	6.51	6.56	6.46	6.53	6.83	6.61	6.17
	--	6.31	6.25	--	--	--	--	--	--	--	--
11/18-22/13	6.51	6.59	6.55	6.49	6.35	6.60	6.55	6.76	6.36	6.79	6.57
	6.48	6.58	6.52	6.48	6.36	6.61	6.55	6.77	6.33	6.76	6.37
	6.48	6.57	6.51	6.47	6.36	6.61	6.55	6.77	6.32	6.76	6.36
	6.47	6.57	6.49	6.46	6.35	6.62	6.55	6.76	6.32	6.75	6.37
2/4-11/14	6.64	6.73	6.39	6.91	5.9	6.78	6.76	6.77	6.45	6.86	6.53
	6.62	6.74	6.39	6.88	6.01	6.79	6.74	6.76	6.44	6.84	6.51
	6.61	6.74	6.38	6.87	6.02	6.79	6.74	6.74	6.43	6.84	6.49
6/12-14/14	6.61	5.94	6.09	--	5.45	6.32	6.22	--	6.10	--	--
	6.04	6.00	6.12	--	5.47	6.35	6.25	--	6.12	--	--
	6.06	6.01	6.14	--	5.49	6.37	6.28	--	6.15	--	--
8/18-21/14	6.68	6.61	6.91	6.86	6.12	6.33	6.29	6.93	6.79	6.92	6.94
	6.70	6.64	6.94	6.88	--	6.36	6.32	6.91	6.83	--	6.96
	6.73	6.63	6.97	6.91	--	6.37	6.34	6.88	6.86	--	6.97
11/19-20/14	6.67	6.94	7.08	8.95	6.01	6.44	6.42	7.58	7.30	7.66	7.10
	6.64	6.96	7.07	8.91	6.03	6.47	6.44	7.51	7.31	7.63	7.08
	6.64	6.96	7.06	8.90	6.05	6.49	6.46	7.50	7.30	7.60	7.07
2/17-20/15	6.39	6.60	6.72	6.70	6.22	6.88	7.08	6.69	6.56	6.39	6.63
	6.41	6.60	6.72	6.71	6.24	6.90	7.07	6.71	6.58	6.41	6.64
	6.44	6.60	6.73	6.71	6.26	6.91	7.04	6.73	6.58	6.41	6.66
5/11-15/15	6.64	6.62	6.56	6.67	6.02	6.67	6.65	6.77	6.77	6.75	6.89
	6.64	6.62	6.56	6.69	6.02	6.68	6.65	6.77	6.77	6.75	6.90
	6.64	6.62	6.56	6.70	6.02	6.68	6.65	6.78	6.77	6.76	6.90
8/10-11/15	6.08	7.11	6.73	7.26	7.27	6.3	6.01	7.26	7.06	6.28	7.19
	6.05	7.10	6.77	7.24	7.28	6.32	6.07	7.24	7.05	6.30	7.22
	6.04	7.09	6.80	7.22	7.29	6.35	6.09	7.23	7.05	6.33	7.22

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**
Temperature (degrees Celsius)											
9/9-13/13	16.70	14.80	16.70	20.00	18.30	19.50	18.40	22.10	16.07	17.80	14.50
	16.70	14.80	16.80	19.90	18.90	19.50	18.40	22.00	16.05	17.80	14.60
	16.70	14.90	16.90	19.90	19.00	19.60	18.40	22.00	16.06	17.60	14.60
	--	14.90	17.09	--	--	--	--	--	--	--	--
11/18-22/13	12.62	8.79	11.81	8.10	15.30	14.50	14.61	9.70	13.08	10.17	12.29
	12.60	8.75	11.77	8.05	15.36	14.46	14.64	9.47	13.01	10.21	12.21
	12.56	8.66	11.72	8.01	15.41	14.41	14.67	9.33	13.00	10.26	12.18
	12.47	8.57	11.69	8.02	15.47	14.36	14.71	9.28	12.94	10.31	12.18
2/4-11/14	7.12	5.59	8.83	3.89	8.31	8.40	10.44	6.69	9.24	3.57	8.33
	7.20	5.66	8.90	3.96	8.26	8.32	10.52	6.77	9.32	3.46	8.22
	7.26	5.71	8.98	4.09	8.18	8.28	10.60	6.84	9.40	3.33	8.14
6/12-14/14	14.15	13.71	13.45	--	16.23	16.41	14.74	--	13.16	--	--
	14.21	13.79	13.53	--	16.27	16.50	14.82	--	13.24	--	--
	14.28	13.83	13.60	--	16.33	16.58	14.90	--	13.31	--	--
8/18-21/14	16.58	14.49	18.33	12.90	21.17	19.35	17.98	14.34	17.01	12.32	17.80
	16.53	14.56	18.40	13.01	--	19.42	18.08	14.41	17.12	--	17.88
	16.60	14.61	18.49	13.09	--	19.50	18.16	14.49	17.20	--	17.94
11/19-20/14	13.78	12.12	13.4	11.6	13.65	16.56	14.89	12.1	14.2	11.0	11.7
	13.83	12.01	13.4	11.8	13.59	16.48	14.78	12.2	14.1	11.1	11.7
	13.90	11.92	13.2	11.9	13.52	16.41	14.71	12.2	14.1	11.2	11.7
2/17-20/15	10.91	9.51	11.93	10.80	10.18	11.83	10.91	10.83	10.89	10.91	12.01
	10.84	9.49	11.88	10.83	10.24	11.90	10.84	10.74	10.81	10.83	11.83
	10.80	9.42	11.81	10.76	10.30	11.93	10.79	10.64	10.72	10.77	11.76
5/11-15/15	12.46	12.38	12.08	12.09	14.75	14.18	14.21	12.62	12.36	11.31	12.91
	12.50	12.42	12.14	12.14	14.81	14.23	14.24	12.68	12.41	11.36	12.99
	12.56	12.47	12.20	12.19	14.86	14.28	14.30	12.71	12.47	11.41	13.03
8/10-11/15	19.4	20.10	19.80	17.30	18.90	18.70	19.90	17.30	20.10	17.20	18.50
	19.5	20.00	19.90	17.20	19.00	18.80	20.10	17.10	20.10	17.30	18.70
	19.5	19.90	19.90	17.00	19.10	18.80	20.20	17.00	20.10	17.40	18.70

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TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	B-2	MW-117	MW-119	B-3	B-4	MW-111	MW-112	MW-113	MW-103	MW-116
Conductivity (µS)											
9/9-13/13	0.232	0.238	0.163	0.244	0.687	0.288	0.454	0.804	0.130	0.273	0.114
	0.233	0.236	0.123	0.244	0.97	0.287	0.454	0.803	0.130	0.272	0.114
	0.234	0.233	0.113	0.245	0.698	0.286	0.454	0.803	0.130	0.272	0.113
	--	0.221	0.116	--	--	--	--	--	--	--	--
11/18-22/13	0.180	0.131	0.072	0.209	0.439	0.230	0.338	0.210	0.089	0.215	0.004
	0.178	0.131	0.07	0.209	0.439	0.230	0.339	0.210	0.089	0.215	0.083
	0.176	0.131	0.068	0.209	0.438	0.230	0.339	0.209	0.089	0.215	0.083
	0.175	0.130	0.065	0.209	0.438	0.231	0.339	0.209	0.089	0.215	0.083
2/4-11/14	0.192	0.143	0.113	0.102	0.239	0.199	0.322	0.202	0.054	0.160	0.075
	0.191	0.143	0.113	0.102	0.240	0.199	0.322	0.202	0.054	0.160	0.072
	0.191	0.142	0.112	0.101	0.240	0.198	0.322	0.202	0.054	0.159	0.070
6/12-14/14	0.146	0.140	0.083	--	0.276	0.260	0.394	--	0.087	--	--
	0.149	0.144	0.086	--	0.280	0.263	0.396	--	0.089	--	--
	0.150	0.146	0.088	--	0.281	0.265	0.398	--	0.091	--	--
8/18-21/14	0.227	0.191	0.290	0.214	0.425	0.278	0.396	0.194	0.292	0.091	0.192
	0.224	0.187	0.292	0.216	--	0.28	0.392	0.196	0.301	--	0.194
	0.221	0.186	0.294	0.219	--	0.281	0.394	0.198	0.302	--	0.196
11/19-20/14	0.674	0.449	0.093	0.225	0.360	0.375	0.681	0.118	0.084	0.301	0.115
	0.677	0.452	0.092	0.231	0.363	0.377	0.684	0.125	0.084	0.304	0.115
	0.678	0.452	0.092	0.236	0.364	0.377	0.688	0.129	0.084	0.310	0.116
2/17-20/15	0.302	0.223	0.244	0.188	0.183	0.272	0.320	0.277	0.255	0.249	0.226
	0.304	0.225	0.245	0.190	0.186	0.274	0.322	0.274	0.255	0.251	0.227
	0.307	0.226	0.246	0.192	0.188	0.276	0.323	0.272	0.252	0.251	0.229
5/11-15/15	0.199	0.216	0.087	0.198	0.357	0.280	0.519	0.263	0.322	0.261	0.172
	0.201	0.216	0.089	0.201	0.359	0.280	0.519	0.263	0.326	0.261	0.172
	0.201	2.18	0.089	0.201	0.359	0.280	0.519	0.267	0.326	0.262	0.174
8/10-11/15	0.180	0.310	0.189	0.242	0.325	0.312	0.399	0.269	0.410	0.245	0.335
	0.183	0.310	0.194	0.24	0.327	0.321	0.404	0.269	0.411	0.251	0.342
	0.201	0.310	0.198	0.241	0.328	0.328	0.410	0.267	0.413	0.254	0.345

TABLE 2

NATURAL ATTENUATION MONITORING PARAMETERS[1]

COWLITZ BP / COWLITZ FOOD AND FUEL / FORMER TEXACO SERVICE STATION NO. 211556

101 Mulford Road

Toledo, Washington

	Upgradient Wells		Crossgradient Wells		Source Area Wells			Near Downgradient Wells		Sentinel Wells	
	B-1	**B-2**	**MW-117**	**MW-119**	**B-3**	**B-4**	**MW-111**	**MW-112**	**MW-113**	**MW-103**	**MW-116**

Abbreviations:

BTEX = Benzene, toluene, ethylbenzene, and total xylenes
(mg/L) = Milligrams per liter
(mV) = Millivolts
µg/L = Micrograms per liter
µg/S = Micrograms per siemen
MTCA = Model Toxics Control Act
TPH = Total Petroleum Hydrocarbons
TPH-DRO = TPH as Diesel-Range Organics
TPH-GRO = TPH as Gasoline-Range Organics
TPH-HRO = TPH as Heavy Oil-Range Organics
UTA = Unable to Access
-- = Not Measured/Not Analyzed

Notes:

1 Analytical results in bold font indicate concentrations exceed MTCA Method A cleanup levels.

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Appendix A:
Gettler-Ryan Field Data Sheets

GETTLER-RYAN INC.

TRANSMITTAL

September 23, 2013
G-R #386773

TO: Mr. Russell Shropshire
SAIC
18912 North Creek Parkway, Suite 101
Bothell, Washington 98011

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Former Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Third Quarter Event of September 9, 10, 11, 12 13, 2013**

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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 9.9 - 9.13.13 (inclusive)
City: Toledo, WA Sampler: J.P

Well ID MW-103 Date Monitored: 9.9.13
Well Diameter (2) 4 in.
Total Depth 18.84 ft.
Depth to Water 10.55 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.29 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.60

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1123 Weather Conditions: SUN
Sample Time/Date: 1151 / 9.11.13 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 100 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 9.18

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) ~~(µmhos/cm µS)~~	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1141	1.8	6.60	.273	17.8	.73	85.9	9.99
1144	2.1	6.60	.272	17.8	.68	87.1	9.01
1147	2.4	6.61	.272	17.6	.68	86.2	9.18

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-103	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
FF	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14-15'
AIR BUBBLES IN LINE

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: K Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-10D | Date Monitored: 9.9.13
Well Diameter: (2) 4 in.
Total Depth: 12.94 ft.
Depth to Water: 7.34 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.60 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.46

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1048 | Weather Conditions: OVERCAST
Sample Time/Date: 1116 / 9.12.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 8.11

Time (2400 hr.)	Volume (Liters)	pH	~~Conductivity~~ MS ~~(µmhos/cm µS)~~	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1106	1.8	6.06	.255	18.06	2.34	156.7	7.78
1109	2.1	6.00	.260	18.12	2.32	158.0	7.90
1112	2.4	6.00	.256	18.20	1.28	158.3	8.11

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 9-10'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11D | Date Monitored: 9.9.13
Well Diameter: 2 (4) in.
Total Depth: 20.01 ft.
Depth to Water: 9.03 ft. ☐ Check if water column is less then 0.50 ft.
10.98 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.22

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump: x
QED Bladder Pump
Other: YSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump: x
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1151 | Weather Conditions: OVERCAST
Sample Time/Date: 1320 / 9.12.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 9.29

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1310	1.9	6.51	.286	17.07	.68	51.8	9.29
1313	2.1	6.50	.285	17.12	.67	49.4	9.29
1316	2.4	6.50	.284	17.15	.666	47.7	9.29

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 16 - 17'

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: 1 Add/Replaced Lock: 1

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: (inclusive)
City: Toledo, WA Sampler: J.P

Well ID MW-111 Date Monitored: 9.9.13
Well Diameter 2 (4) in.
Total Depth 18.00 ft.
Depth to Water 7.15 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.85 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.32

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	x
Grundfos		QED Bladder Pump	
Peristaltic Pump	x	Other:	
QED Bladder Pump			
Other: YSI			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1045 Weather Conditions: RAIN
Sample Time/Date: 1115 / 9.13.13 Water Color: CLEAR Odor: (Y) / N MILD
Approx. Flow Rate: 100 mlpm Sediment Description: NONE
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 7.61

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1103	1.8	6.46	.454	18.4	.65	-86.2	7.51
1106	2.1	6.44	.454	18.4	.63	-82.0	7.51
1109	2.4	6.46	.454	18.4	.63	-80.0	7.51

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-111	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13'-14'

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 9.9.13 - 9.13.13 (inclusive)

City: **Toledo, WA** Sampler: JP

Well ID MW-11Z

Well Diameter (2) 4 in.

Total Depth 17.53 ft.

Depth to Water 7.71 ft.

9.82 xVF ~ = ~

Date Monitored: 9.8&9.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.67

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	x
Grundfos		QED Bladder Pump	
Peristaltic Pump	x	Other:	
QED Bladder Pump			
Other: YSI			

Start Time (purge): 1320 Weather Conditions: SUN

Sample Time/Date: 1350 / 9.11.13 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 8.11

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1330	1.8	6.66	.364	11.1	.80	-15.1	8.11
1341	2.1	6.64	.363	11.0	.79	-15.2	8.11
1344	2.4	6.63	.363	11.0	.78	-13.0	8.11

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11Z	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13' - 14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: _____ (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-113

Well Diameter 2 (4) in.

Total Depth 18.40 ft.

Depth to Water 8.56 ft.

9.84 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Date Monitored: 9.9.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ~~9.96~~ 10.52

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Start Time (purge): 0820 Weather Conditions: OVERCAST

Sample Time/Date: 0852 / 9.12.13 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 8.96

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (~~µmhos/cm~~ µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0830	1.0	6.81	.130	16.07	2.48	140.4	8.80
0841	2.1	6.81	.130	16.05	2.60	268.1	8.88
0844	2.4	6.83	.130	16.06	2.47	254.9	8.96	

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-113	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 15-16

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: L

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-114 | Date Monitored: 9.9.13
Well Diameter: (2) 4 in.
Total Depth: 17.04 ft.
Depth to Water: 10.96 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.08 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.97

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	X
Grundfos		QED Bladder Pump	
Peristaltic Pump	X	Other:	
QED Bladder Pump			
Other: VSI			

Start Time (purge): 0945 | Weather Conditions: OVERCAST
Sample Time/Date: 1013 / 9.12.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? No | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 7.68

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (~~µmhos/cm~~ mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1003	1.9	6.11	.164	16.7	1.68	88.0	7.47
1006	2.1	6.13	.156	16.8	1.75	89.6	7.57
1009	2.4	6.12	.157	16.8	1.86	90.8	7.68

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-114	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11S | Date Monitored: 9.9.13
Well Diameter: (4) in.
Total Depth: 17.73 ft.
Depth to Water: 8.09 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.64 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.01

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	X
Grundfos		QED Bladder Pump	
Peristaltic Pump	X	Other:	
QED Bladder Pump			
Other: YSI			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1023 | Weather Conditions: SUN
Sample Time/Date: 1052 9.11.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 8.22

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (~~umhos/cm~~ µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1041	1.8	6.70	.318	16.5	.80	14.1	8.22
1044	2.1	6.70	.318	16.6	.80	14.0	8.22
1047	2.4	6.69	.319	16.6	.79	11.3	8.22

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11S	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13 - 14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-116
Well Diameter: (2) 4 in.
Total Depth: 17.69 ft.
Depth to Water: 8.61 ft.
9.08 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.42

Date Monitored: 9.9.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump: x
QED Bladder Pump
Other: VSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump: x
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1154 | Weather Conditions: Overcast
Sample Time/Date: 1223 / 9.12.13 | Water Color: clear | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: None
Did well de-water? No | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 8.91

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1212	1.80	6.18	.114	14.5	1.40	97.3	8.91
1215	2.1	6.16	.114	14.6	1.34	96.3	8.91
1218	2.4	6.17	.113	14.6	1.32	92.7	8.91

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-116	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 15-14
SAMPLES COLLECTED ON 09-10-13 BOTTLES BROKE DURING SHIPMENT
RECOLLECTED ON 09-12-13

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11
Well Diameter: (2) 4 in.
Total Depth: 17.81 ft.
Depth to Water: 8.11 ft.
9.70 xVF ____ = ____ x3 case volume = Estimated Purge Volume: ____ gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.05

Date Monitored: 9.9.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): 0933 | Weather Conditions: OVERCAST
Sample Time/Date: 1002 / 9.10.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: - | Volume: - gal. | DTW @ Sampling: 7.86

Time (2400 hr.)	Volume (Liters)	pH	Conductivity ~~(µmhos/cm µS)~~ mS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0951	1.8	6.17	.163	16.7	2.46	156.3	7.86
0954	2.1	6.25	.129	16.8	3.74	156.8	7.86
0957	2.4	6.27	~~.113~~ .113	16.9	4.00	157.1	7.86
0959	2.7	6.25	.116	17.09	4.51	159.2	7.86

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	4 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13 - 14' J.Payne observed air bubbles in line

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: R Add/Replaced Lock: R

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: _____ (inclusive)
City: Toledo, WA Sampler: ~~9.9.13~~ J.P

Well ID MW-11B
Well Diameter (2) 4 in.
Total Depth 17.42 ft.
Depth to Water 7.28 ft.
10.14 xVF - = - x3 case volume = Estimated Purge Volume: - gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.30

Date Monitored: 9.9.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:
Disposable Bailer _____
Stainless Steel Bailer _____
Stack Pump _____
Suction Pump _____
Grundfos _____
Peristaltic Pump X
QED Bladder Pump _____
Other: YSI

Sampling Equipment:
Disposable Bailer _____
Pressure Bailer _____
Metal Filters _____
Peristaltic Pump X
QED Bladder Pump _____
Other: _____

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Start Time (purge): 1157 Weather Conditions: SUN
Sample Time/Date: 1225 / 9.9.13 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 100 mlpm Sediment Description: NONE
Did well de-water? No If yes, Time: - Volume: - gal. DTW @ Sampling: 7.88

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1215	1.8	6.28	.081	16.8	6.29	143.1	7.88
1218	2.1	6.12	.080	16.9	6.20	148.0	7.88
1221	2.4	6.12	.079	17.0	6.19	148.7	7.88
1223	2.7	6.12	.079	17.2	6.33	149.0	

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11G | Date Monitored: 9.11.13
Well Diameter: (2) 4 in.
Total Depth: 16.84 ft.
Depth to Water: 8.51 ft. ☐ Check if water column is less then 0.50 ft.
8.33 xVF - = - x3 case volume = Estimated Purge Volume: - gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.17

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump x
QED Bladder Pump
Other: YSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump x
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1218 | Weather Conditions: SUN
Sample Time/Date: 1247 / 9.11.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? No | If yes, Time: - | Volume: - gal. | DTW @ Sampling: 8.89

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS ~~µmhos/cm~~ µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1236	1.8	6.44	.244	20.0	2.92	96.3	8.89
1239	2.1	6.45	.244	19.9	2.98	91.8	8.89
1242	2.4	6.45	.245	19.9	3.01	92.3	8.89

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11G	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 12-13

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13-9.13.13 (inclusive)
City: Toledo, WA | Sampler: JP

Well ID: MW-12D | Date Monitored: 9-9-13
Well Diameter: (2) 4 in.
Total Depth: 17.06 ft.
Depth to Water: 7.36 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.70 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.34

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1323 | Weather Conditions: SUN
Sample Time/Date: 1350 / 9.9.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? No | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 7.89

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1341	1.0	6.55	.239	19.3	.76	89.0	7.89
1344	2.1	6.50	.238	19.0	.59	91.5	7.89
1347	2.4	6.50	.238	18.9	.59	91.0	7.89

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA | Sampler: V.P

Well ID: B-1
Well Diameter: (2) 4 in.
Total Depth: 19.90 ft.
Depth to Water: 7.18 ft.
12.72 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.72

Date Monitored: 9.9.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	x
Grundfos		QED Bladder Pump	
Peristaltic Pump	x	Other:	
QED Bladder Pump			
Other: YSI			

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): 0946 | Weather Conditions: RAIN
Sample Time/Date: 1015 / 9.13.13 | Water Color: CLEAR | Odor: Y (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 7.61

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) (~~µmhos/cm~~ µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1004	1.8	6.20	.232	16.7	.70	99.5	7.61
1007	2.1	6.21	.233	16.7	.68	99.1	7.61
1010	2.4	6.22	.234	16.7	.67	98.3	7.61

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
FF	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 15'-16'

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: N Add/Replaced Lock: N

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA Sampler: J.P

Well ID: B2 Date Monitored: 9.9.13
Well Diameter: (2) 4 in.
Total Depth: 19.23 ft.
Depth to Water: 8.41 ft. ☐ Check if water column is less then 0.50 ft.
10.82 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.57

Purge Equipment:
- Disposable Bailer ____
- Stainless Steel Bailer ____
- Stack Pump ____
- Suction Pump ____
- Grundfos ____
- Peristaltic Pump x
- QED Bladder Pump ____
- Other: YSI

Sampling Equipment:
- Disposable Bailer ____
- Pressure Bailer ____
- Metal Filters ____
- Peristaltic Pump x
- QED Bladder Pump ____
- Other: ____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): 0812 Weather Conditions: RAIN
Sample Time/Date: 0841 / 9.13.13 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 100 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 8.92

Time (2400 hr.)	Volume (Liters)	pH	Conductivity ~~(µmhos/cm µS)~~ mS	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0830	1.8	6.29	.238	14.8	1.07	125.3	8.92
0833	2.1	6.29	.236	14.8	1.05	126.3	8.92
0836	2.4	6.30	.233	14.9	1.02	128.8	8.92
		6.31	.211	14.9	[illegible]	132.4	

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14-15

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 9.9.13-9.13.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: B-3 | Date Monitored: 9.9.13
Well Diameter: (2) 4 in.
Total Depth: 13.79 ft.
Depth to Water: ~~8.09~~ 8.09 ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

5.70 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.23

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump x
QED Bladder Pump
Other: YSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump x
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1250 | Weather Conditions: RAIN
Sample Time/Date: 1332 / 9.13.13 | Water Color: CLEAR | Odor: (Y) / N MILD
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: ~ | Volume: ~ gal. | DTW @ Sampling: 8.68

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1316	1.8	6.48	.687	18.3	1.67	-131.8	8.41
1319	2.1	6.51	.697	18.9	.96	-138.9	8.56
1322	2.4	6.61	.699	19.0	.95	-139.5	8.68

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	4 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	(NP)	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11-12

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 9.9.13 - 9.13.13 (inclusive)
City: Toledo, WA Sampler: VP

Well ID B-4
Well Diameter 2 4 in.
Total Depth 14.74 ft.
Depth to Water 7.30 ft.
7.44 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.78

Date Monitored: 9.9.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump x
QED Bladder Pump
Other: YSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump x
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1148 Weather Conditions: RAIN
Sample Time/Date: 1223 / 9.13.13 Water Color: CLEAR Odor (Y) / N MILD
Approx. Flow Rate: 100 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.90

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (~~umhos/cm~~ µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1206	1.90	6.58	.288	19.5	1.02	-197.0	7.89
1209	2.1	6.56	.287	19.5	.95	-194.7	7.90
1212	2.4	6.56	.286	19.6	.92	-194.9	7.90

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 10-11

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: L Add/Replaced Lock: _____

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Please forward the lab ~~Client Information~~ and Consultant and cc: G-R

Facility # SS#211556-OML WBS G-R#386773
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO SAICRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x130
Consultant Phone # (425) 482-3323 x
Sampler J. PAWE

(4) Matrix: Soil ☐ Sediment ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Oil ☐ Air ☐

(5) Analyses Requested

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	(3) Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☑	8260 full scan	Oxygenates ___	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020	Nitrate / Sulfate / Sulfide	Dissolved Iron / Manganese	Methane	Alkalinity
R.A	9.10.13		x		2	x			x	~~x~~							
MW-117	↓	1002	x		16	x			x	x	x		x	x	x	x	x
MW-118	↓	1225	x		9	x			x	x	x		x				
MW-120	↓	1350	x		9	x			x	x	x		x				

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered

ALL SAMPLES WERE COLLECTED 9.10.13

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	9.10.13				
Relinquished by	Date	Time	Received by	Date	Time

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required) ~~EDF/EDD~~
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

(9)

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # _____ Group # _____ Sample # _____
For Eurofins Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

(1) Client Information — Please forward the lab results directly to the Lead Consultant and cc: G-R

Facility # SS#211556-OML WBS G-R#386773
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO SAICRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180
Consultant Phone # (425) 482-3323 x
Sampler J. PAYNE

SCR #: _____

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	(4) Matrix: Soil	Sediment	Potable Water	Ground Water	NPDES	Surface Water	Air	Oil	Total Number of Containers	(5) Analyses Requested: BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total	Lead Diss.	Method 6020	Nitrate Sulfate	Diss. Iron/Manganese (6010B)	Sulfide / Methane	Alkalinity
D.A	9.11.13		X					X					2	X						X											
MW-103		1151	X					X					16	X						X	X	X			X	X	X	X	X	X	X
MW-112		1360	X					X					16	X						X	X	X			X	X	X	X	X	X	X
MW-115		1052	X					X					9	X						X	X	X			X						
MW-116		1000	X					X					9	X						X	X	X							X		
MW-119		1247	X					X					16	X						X	X	X			X	X	X	X	X	X	X

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as alkalinity samples have been field filtered

AMEND COC:
ADD DIS. LEAD TO MW-115
~~ADD DIS. IRON & MANGANESE~~ TO ~~MW-116~~
MW-116
MWC 09-12-13

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	9.11.13	~~1600~~ 1700			

(8) Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required) EDD
CVX-RTBU-FL_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature Upon Receipt 1.3 °C

Received by _____ Date 9-12-13 Time 0945

Custody Seals Intact? Yes No

(9)

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information — Please forward the lab results directly to the Lead Consultant and cc: G-R

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO SAICRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180

Consultant Phone # (425) 482-3323 x

Sampler J. PAYNE

(4) Matrix: Soil ☐ Sediment ☐ | Water ☑ Ground ☐ Potable ☐ NPDES ☐ Surface ☐ | Oil ☐ Air ☐

(3) Grab / Composite

(5) Analyses Requested

(2) Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020	Nitrate · Sulfate	Dissolved Iron / Manganese	Sulfide · Methane	Alkalinity
MW	9.12.13		X		2	X			X								
MW-109		1116	X		9	X			X	X	X		X				
MW-110		1320	X		9	X			X	X	X		X				
MW-113		0852	X		16	X			X	X	X		X	X	X	X	X
MW-114		1013	X		9	X			X	X	X		X				
MW-116		1223	X		16	X			X	X	X		X	X	X	X	X

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as alkalinity samples have been field filtered

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	9.12.13	1630			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____			Received by	Date	Time

(9)

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required) FUTURE
CVX-RTBU-FI_05 (default)
Other: _____

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1418939 Sample # 7198300-15
Instructions on reverse side correspond with circled numbers.

SCR #: ____________

(1) Please forward the lab results directly to the Lead Consultant and cc: G-R — Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO SAICRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180

Consultant Phone # (425) 482-3323 x

Sampler J. PAYNE

(4) Matrix: Sediment ☐ Ground ☑ Surface ☐ / Soil ☐ Water: Potable ☐ NPDES ☐ / Oil ☐ Air ☐

(5) Analyses Requested: BTEX + MTBE (8021 ☐ 8260 ☑ Naphth ☐); 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐; WA EPH ☐; Lead Total ☐ Diss. ☑ Method 6020; NITRATE · SULFATE; DISS. IRON & MANGANESE; SULFIDE · METHANE; ALKALINITY

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	NITRATE · SULFATE	DISS. IRON & MANGANESE	SULFIDE · METHANE	ALKALINITY
QA	9.13		x			x		2	x			x								
B.1		1015	x			x		16	x			x	x	x		x	x	x	x	x
B.2		0841	x			x		16	x			x	x	x		x	x	x	x	x
B.3		1332	x			x		16	x			x	x	x		x	x	x	x	x
B.4		1223	x			x		16	x			x	x	x		x	x	x	x	x
MW.11		1115	x			x		16	x			x	x	x		x	x	x	x	x

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered

(7) Turnaround Time Requested (TAT) (please circle)
(Standard) 5 day 4 day
72 hour 48 hour 24 hour

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required) EDF/EDD
CVX-RTBU-FI_05 (default)
Other: ________

Relinquished by	Date	Time	Received by	Date	Time
[signature]	9.13.13	1630			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ___ Other ___			Received by [signature]	9/14/13	850

(9)

Temperature Upon Receipt 1.4-4.2 °C Custody Seals Intact? (Yes) No

GETTLER-RYAN INC.

TRANSMITTAL

December 6, 2013
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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Fourth Quarter Event of November 18, 19, 20, 21, 22, 2013**

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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.18/21.13 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-03

Well Diameter 2 4 in.

Total Depth 18.84 ft.

Depth to Water 7.62 ft.

11.22 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.86

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI MPS 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0900 Weather Conditions: SUN

Sample Time/Date: 0932 / 11.20.13 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 7.88

Time (2400 hr.)	Volume (Liters)	pH	Conductivity ~~(µmhos/cm - pS)~~ MS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0918	1.8	6.79	.215	10.17	1.09	106.0	7.73
0921	2.1	6.76	.215	10.21	1.09	100.3	7.77
0924	2.4	6.76	.215	10.26	1.06	100.7	7.81
0927	2.7	6.75	.215	10.31	1.02	101.1	7.88

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-03	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	FF HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	FF NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11-12

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.18/22.13 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-1R9

Well Diameter 2/4 in.

Total Depth 12.94 ft.

Depth to Water 8.12 ft.

4.82 xVF — = —

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.08

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0819 Weather Conditions: OVERCAST / FOG

Sample Time/Date: 0850 / 11.22.13 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 9.00

Time (2400 hr.)	Volume (Liters)	pH	Conductivity ~~(µmhos/cm - µS)~~ mS	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0837	1.90	7.00	.397	11.19	1.30	119.0	8.33
0840	2.1	7.00	.398	11.10	1.27	118.3	8.33
0843	2.4	7.06	.399	11.01	1.18	117.0	8.33
0846	2.7	7.04	.394	10.92	1.11	116.9	8.33

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1R9	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11.5 - 12.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.18/21.13 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11Φ

Well Diameter 2 (4) in.

Total Depth 1Φ.Φ1 ft.

Depth to Water 8.22 ft.

11.79 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 1Φ.57

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 13Φ7 Weather Conditions: SUN

Sample Time/Date: 134Φ / 11.2Φ.13 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 1ΦΦ mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: - Volume: - gal. DTW @ Sampling: 8.33

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) (~~µmhos/cm, µS~~)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1325	1.8	6.5Φ	.273	14.17	.46	113.4	8.33
1328	2.1	6.49	.273	14.1Φ	.45	113.6	8.33
1331	2.4	6.48	.272	14.ΦZ	.44	113.8	8.33
1334	2.7	6.48	.272	13.96	.43	113.8	8.33

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11Φ	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14'-15'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.18/22.13 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11

Well Diameter 2 (4) in.

Total Depth 18.00 ft.

Depth to Water 6.42 ft.

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.58 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.73

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1140 Weather Conditions: SUN

Sample Time/Date: 1212 / 11.21.13 Water Color: CLEAR Odor (Y) N MILD

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 6.77

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1158	1.8	6.55	.338	14.61	.58	-48.0	6.77
1201	2.1	6.55	.339	14.64	.57	-47.6	6.77
1204	2.4	6.55	.339	14.67	.55	-47.4	6.77
1207	2.7	6.55	.339	14.71	.54	-47.2	6.77

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	4 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	FF HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	1 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	FF NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14'-13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.18/21.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11R | Date Monitored: 11.18.13
Well Diameter: (2) 4 in.
Total Depth: 17.53 ft.
Depth to Water: 6.76 ft. ☐ Check if water column is less then 0.50 ft.
10.77 xVF - = - x3 case volume = Estimated Purge Volume: - gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.91

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1102 | Weather Conditions: SUN
Sample Time/Date: 1134 / 11.20.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: NONE
Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 7.23

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS) MS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1120	1.8	6.76	.210	9.70	.59	-31.3	6.90
1123	2.1	6.77	.210	9.47	.59	-31.9	7.03
1126	2.4	6.77	.209	9.33	.58	-32.0	7.12
1129	2.7	6.76	.209	9.28	.56	-31.5	7.23

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11R	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	FF HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	FF NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.18/21.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-113
Well Diameter: 2 (4) in.
Total Depth: 18.40 ft.
Depth to Water: 7.74 ft.
18.66 xVF — = —
Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.87

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1206
Sample Time/Date: 1226 / 11.20.13
Approx. Flow Rate: 100 mlpm
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 7.88

Weather Conditions: SUN
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) ~~(µmhos/cm µS)~~	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1224	1.8	6.36	.089	13.08	2.04	124.0	7.88
1227	2.1	6.33	.089	13.01	2.03	125.7	7.88
1230	2.4	6.32	.089	13.00	2.04	127.2	7.88
1233	2.7	6.32	.089	12.94	2.04	128.1	7.88

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-113	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	FF HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	FF NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 12'-13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.12/12.13 (inclusive)

City: **Toledo, WA** Sampler: J.F

Well ID MW-11H Date Monitored: 11.12.13

Well Diameter (2) 4 in.

Total Depth 17.04 ft.

Depth to Water 8.36 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.68 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.09

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0959 Weather Conditions: OVERCAST / FOG

Sample Time/Date: 1040 / 11.12.13 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 8.93

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm ~~µS~~) MS	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0957	1.0	7.12	.410	10.44	1.70	101.8	8.66
1030	2.0	7.09	.410	10.52	1.72	102.6	8.77
1035	2.5	7.07	.411	10.61	1.77	103.4	8.89
1040	3.0	7.05	.411	10.69	1.85	104.9	8.93

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11H	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At:

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: **11.18/21.13** (inclusive)

City: **Toledo, WA** Sampler: **J.P**

Well ID **MW-11S** Date Monitored: **11.18.13**

Well Diameter **2 (4)** in.

Total Depth **17.73** ft.

Depth to Water **7.45** ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.28 xVF **-** = **-** x3 case volume = Estimated Purge Volume: **-** gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: **9.50**

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Start Time (purge): **1050** Weather Conditions: **OVERCAST**

Sample Time/Date: **1131 / 11.19.13** Water Color: **CLEAR** Odor: Y / (N)

Approx. Flow Rate: **100** mlpm Sediment Description: **CLEAR**

Did well de-water? **NO** If yes, Time: **-** Volume: **-** gal. DTW @ Sampling: **7.58**

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1116	1.8	6.79	.246	13.19	.36	18.5	7.58
1119	2.1	6.79	.246	13.19	.06	17.9	7.58
1122	2.4	6.79	.246	13.19	.35	17.1	7.58
1125	2.7	6.79	.246	13.22	.35	16.7	7.58

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11S	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13'-14'
LEAD JUST TUBING TO SCREEN, 2. BROKEN FLANGES

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.18/21.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11C
Well Diameter: (2) 4 in.
Total Depth: 17.69 ft.
Depth to Water: 8.15 ft.
9.54 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.05

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:
Disposable Bailer: ____
Stainless Steel Bailer: ____
Stack Pump: ____
Suction Pump: ____
Grundfos: ____
Peristaltic Pump: X
QED Bladder Pump: ____
Other: ____

Sampling Equipment:
Disposable Bailer: ____
Pressure Bailer: ____
Metal Filters: X
Peristaltic Pump: X
QED Bladder Pump: ____
Other: ____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): 0955 | Weather Conditions: OVERCAST
Sample Time/Date: 1051 / 11.19.13 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: GREY TO CLEAR
Did well de-water? NO | If yes, Time: — | Volume: — gal. | DTW @ Sampling: 8.31

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~pmhos/cm~~ mS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1013	1.8	6.37	.084	12.29	1.81	111.9	8.31
1016	2.1	6.37	.083	12.21	1.77	112.3	8.31
1019	2.4	6.36	.083	12.18	1.76	113.2	8.31
1022	2.7	6.37	.083	12.18	1.75	114.1	8.31

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11C	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 " x 250ml poly	YES	F.F. HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	F.F. NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 15-14'

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556
Site Address: 101 Mulford Road
City: Toledo, WA
Job Number: 386773
Event Date: 11.18/21.13 (inclusive)
Sampler: J.P

Well ID: MW-117
Well Diameter: (2) 4 in.
Total Depth: 17.81 ft.
Depth to Water: 5.99 ft.
Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.82 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.35

Time Started: ______ (2400 hrs)
Time Completed: ______ (2400 hrs)
Depth to Product: ______ ft
Depth to Water: ______ ft
Hydrocarbon Thickness: ______ ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ______ gal
Amt Removed from Well: ______ gal
Water Removed: ______ gal
Product Transferred to: ______

Purge Equipment:
- Disposable Bailer ____
- Stainless Steel Bailer ____
- Stack Pump ____
- Suction Pump ____
- Grundfos ____
- Peristaltic Pump x
- QED Bladder Pump ____
- Other: ____

Sampling Equipment:
- Disposable Bailer ____
- Pressure Bailer ____
- Metal Filters x
- Peristaltic Pump x
- QED Bladder Pump ____
- Other: ____

Start Time (purge): 1200
Sample Time/Date: 1240 / 11.19.13
Approx. Flow Rate: 100 mlpm
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: ____
Weather Conditions: Sun
Water Color: Clear Odor: Y / (N)
Sediment Description: Clear

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm - µS~~) mS	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1224	1.8	6.55	.072	11.81	4.20	110.4	6.12
1227	2.1	6.52	.070	11.77	4.24	110.5	6.12
1230	2.4	6.51	.068	11.72	4.27	111.2	6.12
1233	2.7	6.49	.065	11.69	4.31	112.1	6.12

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	F.F. HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	F.F. NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 12'-13'
NEW MONUMENT 8" MORRIS x3

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ✓

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.18/21.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11B
Well Diameter: (2) 4 in.
Total Depth: 17.42 ft.
Depth to Water: 6.67 ft.
10.85 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.74

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0850 | Weather Conditions: OVERCAST
Sample Time/Date: 0921 / 11.19.13 | Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 100 mlpm | Sediment Description: GREY TO CLEAR
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 6.77

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) (~~µmhos/cm~~ µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0905	1.8	7.32	.255	11.15	.60	-90.4	6.62
0911	2.1	6.89	.090	11.71	2.73	-7.1	6.77
0914	2.4	6.85	.078	11.76	2.69	-7.8	6.77
0917	2.7	6.83	.076	11.81	2.65	-4.0	6.77
0919	3	6.78	.068	11.90	2.84	22.9	6.77

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 12'-13'
BROKEN FLANGE x1

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.18/21.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-119
Well Diameter: (2) 4 in.
Total Depth: 16.84 ft.
Depth to Water: 7.67 ft.
9.17 xVF - = - x3 case volume = Estimated Purge Volume: - gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.50

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MPS 556	

Sampling Equipment:

Disposable Bailer	
~~Pressure Bailer~~	x
Metal Filters	x
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1000
Sample Time/Date: 1040 / 11.20.13
Approx. Flow Rate: 100 mlpm
Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 7.83

Weather Conditions: SUN
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (~~µmhos/cm µS~~)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1026	1.8	6.49	.209	8.10	.81	126.3	7.83
1029	2.1	6.48	.209	8.05	.79	127.1	7.83
1032	2.4	6.47	.209	8.01	.78	127.9	7.83
1036	2.7	6.46	.209	8.02	.77	128.3	7.83

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-119	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	FF HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	FF NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 17' - 13' HEADJOINT TUBING
2 BROKEN FLANGES

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 11.18/21.13 (inclusive)
City: Toledo, WA Sampler: J.P

Well ID MW-12Φ
Well Diameter (2) 4 in.
Total Depth 17.Φ6 ft.
Depth to Water 6.61 ft.
10.45 xVF — = —
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.7Φ

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	~~6"= 1.50~~	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump x
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump x
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1312 Weather Conditions: SUN
Sample Time/Date: 1343 / 11.19.13 Water Color: CLEAR Odor (Y) / N MILD
Approx. Flow Rate: 1ΦΦ mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 6.88

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1330	1.8	6.71	.155	14.66	.38	94.2	6.88
1333	2.1	6.71	.154	14.69	.38	94.1	6.88
1336	2.4	6.71	.154	14.75	.36	93.9	6.88
1339	2.7	6.7Φ	.153	14.81	.36	94.2	6.88

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12Φ	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11-12'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.18/22.13 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-1 Date Monitored: 11.18.13

Well Diameter (2) 4 in.

Total Depth 19.90 ft.

Depth to Water 10.64 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

13.26 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.29

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	x
Grundfos		QED Bladder Pump	
Peristaltic Pump	x	Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0943 Weather Conditions: SUN

Sample Time/Date: 1014 / 11.21.13 Water Color: CLEAR Odor: Y / N

Approx. Flow Rate: 100 mlpm Sediment Description: ~~NONE~~ BROWNISH TO CLEAR

Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling:

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) (~~µmhos/cm~~ µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1001	1.8	6.51	.180	12.62	.42	59.9	6.88
1004	2.1	6.48	.178	12.60	.42	59.8	6.88
1007	2.4	6.48	.176	12.56	.42	59.5	6.88
1010	2.7	6.47	.175	12.47	.42	59.4	6.88

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	2 x 250ml poly	YES	#2 HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	#4 HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	#4 NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14'-13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.18/22.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: B-2
Well Diameter: (2) 4 in.
Total Depth: 19.23 ft.
Depth to Water: 7.77 ft.
Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.46 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.06

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0853
Sample Time/Date: 0924 / 11.21.13
Approx. Flow Rate: 100 mlpm
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.91

Weather Conditions: Sun
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS) MS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0911	1.9	6.59	.131	8.79	.72	110.7	7.91
0914	2.1	6.58	.131	8.75	.72	111.8	7.91
0917	2.4	6.57	.131	8.66	.71	112.4	7.91
0920	2.7	6.57	.130	8.57	.71	112.8	7.91

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 11.18/22.13 (inclusive)
City: **Toledo, WA** Sampler: J.P

Well ID: B-3
Well Diameter: (2) 4 in.
Total Depth: 13.79 ft.
Depth to Water: 6.45 ft.
7.34 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.91

Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	—
Suction Pump		Peristaltic Pump	X
Grundfos		QED Bladder Pump	
Peristaltic Pump	X	Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1241
Sample Time/Date: 1314 / 11.21.13
Approx. Flow Rate: 100 mlpm
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 6.99

Weather Conditions: SUN
Water Color: CLEAR Odor: (Y) / N MILD
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (µmhos/cm µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1249	1.9	6.35	.439	15.36	.83	-26.5	6.73
1301	2.1	6.36	.439	15.36	.83	-27.1	6.73
1305	2.4	6.36	.439	15.41	.82	-27.3	6.86
1308	2.7	6.35	.438	15.47	.80	-28.1	6.99

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	1 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	FP HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	1 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	FP NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11.12

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: —

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.18/22.13 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID B-4
Well Diameter (2)/4 in.
Total Depth 14.74 ft.
Depth to Water 6.76 ft.
7.98 xVF — = —
Date Monitored: 11.18.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.35

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Start Time (purge): 1040
Sample Time/Date: 1111 / 11.21.13
Approx. Flow Rate: 100 mlpm
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.10

Weather Conditions: SUN
Water Color: CLEAR Odor Y (N) MILD
Sediment Description: GREY TO CLEAR

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1050	1.9	6.60	.230	14.50	.33	-48.4	6.89
1101	2.1	6.61	.230	14.46	.33	-49.9	6.98
1104	2.4	6.61	.230	14.41	.32	-50.7	6.98
1107	2.7	6.62	.231	14.36	.32	-51.4	7.10

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 10-11 LEAKPROOF TUBING

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

Please forward the lab results directly to the Lead Consultant and cc: C.R.

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180
Consultant Phone # (425) 482-3323 x
Sampler J. PAYNE

4 Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Ground ☑ NPDES ☐ Surface ☐ Oil ☐ Air ☐

3 Grab / Composite

2 Sample Identification / Collected

5 Analyses Requested

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☑	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☐	NWTPH-Dx without Silica Gel Cleanup ☐	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020	NITRATE / SULFATE	DISSOLVED IRON / MANGANESE	SULFIDE / METHANE	ALKALINITY F.F.
Q.A	11.19.13		X		2	X			X								
MW-115		1131	X		9	X			X	X	X		X				
MW-116		1031	X		16	X			X	X	X		X	X	X	X	X
MW-117		1240	X		16	X			X	X	X		X	X	X	X	X
MW-118		0921	X		9	X			X	X	X		X				
MW-120		1343	X		9	X			X	X	X		X				

SCR #: _____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

Alka

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

EDF/EDD

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	11.19.13	1700			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____			Received by	Date	Time
Temperature Upon Receipt _____ °C			Custody Seals Intact? Yes No		

9

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

by Dept. 40 Management
7051.03

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

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1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Getter-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 945[illegible]
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x130
Consultant Phone # (425) 482-3323 x
Sampler J. Payne

4 Matrix

Soil ☐ Sediment ☐
Water ☑ Potable ☐ Ground ☑ NPDES ☐ Surface ☐
Oil ☐ Air ☐

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Total Number of Containers	BTEX + MTBE	8021	8260	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Total	Diss.	Method	Lead	NITRATE / SULFATE	DISSOLVED IRON/MANGANESE	SULFIDE / METHANE	ALKALINITY
T.A.	11.20.13		X		2	X					X												
MW-103		0932	X		16	X					X	X	X			X			X	X	X	X	X
MW-110		1340	X		9	X					X	X	X			X							
MW-112		1134	X		16	X					X	X	X			X			X	X	X	X	X
MW-113		1230	X		16	X					X	X	X			X			X	X	X	X	X
MW-119		1040	X		16	X					X	X	X			X			X	X	X	X	X

SCR #: _____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

EDF/EDD

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	11.20.13	1630			
Relinquished by	Date	Tim	Received by	Date	Time

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

Please forward the lab results directly to the Lead Consultant and cc G-R

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180
Consultant Phone # (425) 482-3323 x
Sampler J PAYNE

4 Matrix

Soil ☐ Sediment ☐
Water ☑ Potable ☐ Ground ☑
NPDES ☐ Surface ☐
Oil ☐ Air ☐

3 Grab / Composite

2 Sample Identification / Collected (Date, Time)

Sample Identification	Date	Time	Grab	Composite	Total Number of Containers
QA	11.21.13		X		2
B-1		1014	X		16
B-2		0924	X		16
B-3		1314	X		16
B-4		1111	X		16
MW-11	↓	1212	X		16

5 Analyses Requested

BTEX + MTBE ☐ 8021 ☐ 8260 ☑ Naphth ☑
8260 full scan
Oxygenates ____
NWTPH-Gx
NWTPH-Dx with Silica Gel Cleanup ☑
NWTPH-Dx without Silica Gel Cleanup ☑
WA VPH ☐ WA EPH ☐
Lead Total ☐ Diss. ☑ Method ____
Nitrate / Sulfate
Methane / Sulfides
Alkalinity
Diss Iron & Manganese

SCR #: _____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

Alka

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
	11.21.13	1630			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

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Issued

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: _____ Sample #: _____ SCR#: _____

Facility #: 35 # 211556 - OML G.R # 3806773
Site Address: 101 MILFORD ROAD, TOLEDO, WA
Chevron PM: MARK HORNE Lead Consultant: LFIDOS RG
Consultant/Office: GETTLER RYAN INC 6805 SIERRA CT DUBLIN CA
Consultant Prj. Mgr.: DEANNA L HARDING 925 551-7414
Consultant Phone #: 415 (487 9223 Fax #: _____
Sampler: J. PAYNE
Service Order #: _____ ☐ Non SAR: _____

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy s on highest hit
☐ Run ____ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water	Matrix: Oil	Matrix: Air	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421	#	NWTPH-Dx w/ Silica	#	NWTPH-Dx without Silica	#	DISSOLVED LEAD 6010B	O
RA	11.22.13		X			X			2	X						X						
MW-109	↓	0850	X			X			9	X						X	X	X	X			
MW-114	↓	0940	X			X			9	X						X	X	X	X			

Comments / Remarks
Dx SAMPLES TO BE RUN WITH & WITHOUT SILICA GEL

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I — Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Relinquished by:	Date	Time	Received by:	Date	Time
1		11.25.13	1300			
2						
3						
4	Relinquished by Commercial Carrier: (UPS) FedEx Other _____					
	Temperature Upon Receipt _____ C°			Custody Seals Intact? Yes No		

GETTLER-RYAN INC.

TRANSMITTAL

February 21, 2014
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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **First Quarter Event of February 4, 5, 6, 10, & 11, 2014**

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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4 | 5 | 6 | 7.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-103 Date Monitored: 2.4.14

Well Diameter (2) 4 in.

Total Depth 18.64 ft.

Depth to Water 8.36 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

10.28 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.41

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MPS 6600	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	x
Metal Filters	x
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1000 Weather Conditions: CLOUDY

Sample Time/Date: 1031 / 2.6.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 8.80

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) (~~µmhos/cm~~)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1018	3.6	6.86	.160	3.57	1.15	107.4	8.52
1021	4.2	6.84	.160	3.46	1.15	107.7	8.69
1024	4.6	6.84	.159	3.33	1.16	108.2	8.80

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-103	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14-15

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 12.4/5/6/10/11.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-10A Date Monitored: 12.4.14

Well Diameter (2) 4 in.

Total Depth 12.69 ft.

Depth to Water 7.83 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

5.86 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.40

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MP5 5560	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0930 Weather Conditions: RAIN

Sample Time/Date: 1005 / 12.11.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.83

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) ~~(µmhos/cm µS)~~	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0954	3.6	6.29	.567	11.13	1.97	158.1	7.58
0957	4.2	6.26	.566	11.20	1.95	158.1	7.70
1000	4.0	6.26	.565	11.26	1.91	158.9	7.83

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10A	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 10-11

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4 (2.5) 2.6 7.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11D

Well Diameter 2 (4) in.

Total Depth 19.83 ft.

Depth to Water 8.98 ft.

10.85 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 2.4.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.15

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MPS 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	NA
Metal Filters	NA
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0901 Weather Conditions: O'CAST

Sample Time/Date: 0931 / 2.6.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 9.51

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0919	3.6	6.77	.265	6.48	1.61	110.1	9.13
0922	4.2	6.76	.265	6.53	1.59	109.6	9.32
0925	4.8	6.76	.266	6.61	1.56	108.9	9.51

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 15-16'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 2.4/5/6/10/11.14 (inclusive)
City: **Toledo, WA** Sampler: V.P

Well ID: MW-111 Date Monitored: 2.4.14
Well Diameter: 2 / (4) in.
Total Depth: 17.80 ft.
Depth to Water: 7.11 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

10.69 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.24

Time Started:	(2400 hrs)
Time Completed:	(2400 hrs)
Depth to Product:	ft
Depth to Water:	ft
Hydrocarbon Thickness:	ft
Visual Confirmation/Description:	
Skimmer / Absorbant Sock (circle one)	
Amt Removed from Skimmer:	gal
Amt Removed from Well:	gal
Water Removed:	gal
Product Transferred to:	

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other:	YSI MPS 556

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	x
Metal Filters	x
Peristaltic Pump	x
QED Bladder Pump	
Other:	TUBING

Start Time (purge): 1147 Weather Conditions: SUN / SNOW
Sample Time/Date: 1216 / 2.5.14 Water Color: CLEAR Odor: (Y) / N MILD
Approx. Flow Rate: 200 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.63

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ µS) mS	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1205	3.6	6.76	.322	10.44	.77	-51.2	7.31
1208	4.2	6.74	.322	10.52	.76	-51.3	7.44
1211	4.8	6.74	.322	10.60	.74	-51.4	7.63

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-111	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	250 x 500ml poly	YES	HNO3 "	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x ~~500~~ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13'-14'

Add/Replaced Gasket: ________ Add/Replaced Bolt: ________ Add/Replaced Plug: ________ Add/Replaced Lock: ________

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 2.4/5/6/7.14 (inclusive)
City: **Toledo, WA** Sampler: J.P

Well ID MW-11R
Well Diameter (2)/4 in.
Total Depth 17.34 ft.
Depth to Water 7.67 ft.
9.67 xVF ~ = ~
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.60

Date Monitored: 2.4.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: ~ gal.

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump x
QED Bladder Pump
Other: YSI MPS 556

Sampling Equipment:
Disposable Bailer
Pressure Bailer x
Metal Filters x
Peristaltic Pump x
QED Bladder Pump
Other: TUBING

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1238
Sample Time/Date: 1307/ 2.6.14
Approx. Flow Rate: 200 mlpm
Did well de-water? NO If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 8.13

Weather Conditions: SNOW
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS - pS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1260	3.6	6.77	.202	6.69	1.88	106.9	7.83
1259	4.2	6.76	.202	6.77	1.84	107.1	7.98
1302	4.8	6.74	.202	6.84	1.80	109.0	8.13

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11R	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13' - 14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4/5/6/7.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-13 Date Monitored: 2.4.14

Well Diameter 2/(4) in.

Total Depth 16.83 ft.

Depth to Water 6.56 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	~~1 1/4"= 0.06~~	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

10.27 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.61

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI WQ 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	X
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1332 Weather Conditions: SNOW

Sample Time/Date: 1402/2.6.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.00

Time (2400 hr.)	Volume (Liters)	pH	~~Conductivity (umhos/cm µS)~~ NS	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1350	3.6	6.45	.064	9.24	2.91	117.7	6.79
1353	4.2	6.44	.064	9.32	2.87	118.6	6.90
1356	4.8	6.43	.064	9.40	2.84	119.5	7.00

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	4 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 12' - 13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4/5/6/10/11.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11 Date Monitored: 2.4.14

Well Diameter (2) 4 in.

Total Depth 16.83 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water 6.56 ft. ☐ Check if water column is less then 0.50 ft.

10.27 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.61

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI MPS 5560	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1022 Weather Conditions: RAIN

Sample Time/Date: 1051 / 2.11.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 7.13

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1040	3.6	6.04	0.480	16.26	4.60	159.7	6.83
1043	4.2	6.02	0.481	16.32	4.02	160.2	6.98
1046	4.8	6.02	0.481	16.40	4.04	160.4	7.13

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 2.4/5/6/10/11.14 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11S | Date Monitored: 2.4.14
Well Diameter: 2/(4) in.
Total Depth: 17.46 ft.
Depth to Water: 8.05 ft. ☐ Check if water column is less then 0.50 ft.
9.41 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.93

Volume Factor (VF)	3/4"= 0.02	(4"= 0.66)	1"= 0.04	5"= 1.02	2"= 0.17	6"= 1.50	3"= 0.38	12"= 5.80

Purge Equipment:
Disposable Bailer ____
Stainless Steel Bailer ____
Stack Pump ____
Suction Pump ____
Grundfos ____
Peristaltic Pump x
QED Bladder Pump ____
Other: YSI MP5 5566

Sampling Equipment:
Disposable Bailer ____
Pressure Bailer ____
Metal Filters ____
Peristaltic Pump ____
QED Bladder Pump ____
Other: TUBING

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): 1231 | Weather Conditions: SNOW RAIN WIND
Sample Time/Date: 1301 / 2.10.14 | Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 8.66

Time (2400 hr.)	Volume (Liters)	pH	Conductivity ~~(µmhos/cm µS)~~ mS	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1249	3.6	6.94	.239	10.64	1.69	57.1	8.21
1252	4.2	6.89	.238	10.72	1.56	58.3	8.40
1255	4.8	6.87	.236	10.91	1.49	59.1	8.66

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11S	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14'

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 2.4/6/6/10/11.14 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-116
Well Diameter: (2) 4 in.
Total Depth: 17.53 ft.
Depth to Water: 8.28 ft.
9.25 xVF ~ = ~

Date Monitored: 2.4.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.13

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI MP5 5560	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	X
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1132 | Weather Conditions: RAIN SNOW WIND
Sample Time/Date: ~~1207~~ 2.10.14 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 250 mlpm | Sediment Description: NONE
Did well de-water? No | If yes, Time: ~ | Volume: ~ gal. | DTW @ Sampling: 8.64

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS/cm)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1150	3.6	6.53	.075	8.33	2.51	58.3	8.43
1153	4.2	10.51	.078	8.22	2.46	59.8	8.51
1156	4.8	6.49	.070	8.14	2.39	60.6	8.64

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-116	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3 F.F.	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP F.F.	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4/5/6/10/11.14 (inclusive)

City: **Toledo, WA** Sampler: V.F

Well ID MW-11 7

Well Diameter (2) 4 in.

Total Depth 17.64 ft.

Depth to Water 6.85 ft.

10.79 xVF ~ = ~

Date Monitored: 2.4.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.00

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MP5 5560	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	x
Metal Filters	x
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0941 Weather Conditions: RAIN / SNOW

Sample Time/Date: 1012 / 2.10.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.01

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm ~~µS~~ mS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0959	3.6	6.39	.113	8.83	2.64	273.4	7.03
1002	4.2	6.39	.113	8.90	2.60	272.1	7.19
1005	4.8	6.58	.112	8.98	2.57	270.9	7.31

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	~~1~~ x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 2·4|5|6|10|11|14 (inclusive)
City: Toledo, WA Sampler: J.P

Well ID MW-11R Date Monitored: 2·4·14
Well Diameter (2) 4 in.
Total Depth 17.22 ft.
Depth to Water 7.02 ft. ☐ Check if water column is less then 0.50 ft.
10.20 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.06

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump x
QED Bladder Pump
Other: YSI MPS 5566

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump x
QED Bladder Pump
Other: TUBING

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1030 Weather Conditions: RAIN SNOW WIND
Sample Time/Date: 1110 / 2·10·14 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 200 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 7.53

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1056	3.6	7.66	.289	8.56	1.96	-106.9	7.31
1059	4.2	7.64	.287	8.63	1.90	-107.6	7.44
1102	4.8	7.62	.284	8.81	1.76	-109.1	7.53

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11R	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4/5/6/7.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11G Date Monitored: 2.4.14

Well Diameter (2) 4 in.

Total Depth 16.65 ft.

Depth to Water 8.47 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

8.18 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.10

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MPS E606	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	x
Metal Filters	x
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1146 Weather Conditions: SNOW

Sample Time/Date: 1214 / 2.6.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 8.96

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1202	3.6	6.91	.102	3.89	1.76	112.5	8.70
1205	4.2	6.88	.102	3.96	1.75	113.0	8.91
1208	4.8	6.87	.101	4.09	1.75	113.4	8.960	

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11G	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 12-13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4/0/6/10/11.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-12D Date Monitored: 2.4.14

Well Diameter (2) 4 in.

Total Depth 16.87 ft.

Depth to Water 7.32 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.55 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.23

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	X
Grundfos		QED Bladder Pump	
Peristaltic Pump	X	Other: TURBIDITY	
QED Bladder Pump			
Other: YSI MPS 556			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0853 Weather Conditions: RAIN/SNOW

Sample Time/Date: 0923 / 2.10.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 7.80

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (mS) (~~mmhos/cm~~ ~~µS~~)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0911	3.6	5.82	.182	7.44	1.54	149.4	7.61
0914	4.2	5.78	.182	7.51	1.50	149.7	7.66
0917	4.8	5.78	.181	7.59	1.46	149.9	7.80

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 2.4 | 3 | 6 | 10 | 11.14 (inclusive)
City: **Toledo, WA** Sampler: JF

Well ID 3.1
Well Diameter (2) 4 in.
Total Depth 19.78 ft.
Depth to Water 7.25 ft. ☐ Check if water column is less then 0.50 ft.
12.53 xVF - = - x3 case volume = Estimated Purge Volume: - gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.75

Date Monitored: 2.4.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	8"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump X
QED Bladder Pump
Other: YSI MPS 556

Sampling Equipment:
Disposable Bailer
Pressure Bailer X
Metal Filters X
Peristaltic Pump X
QED Bladder Pump
Other: TUBING

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1003 Weather Conditions: SUN / SNOW
Sample Time/Date: 1033 / 2.5.14 Water Color: CLEAR Odor: NO
Approx. Flow Rate: 200 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 7.44

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1021	3.6	6.64	.192	7.12	1.81	123.0	7.44
1024	4.2	6.602	.191	7.20	1.79	123.4	7.44
1027	4.8	6.61	.191	7.26	1.77	123.1	7.44

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B.1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3 F.F.	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP F.F.	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 16

Add/Replaced Gasket: N/A Add/Replaced Bolt: Add/Replaced Plug: ✓ Add/Replaced Lock: N/A

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4/5/6/10/11.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-2

Well Diameter (2) 4 in.

Total Depth 19.83 ft.

Depth to Water 8.47 ft.

Check if water column is less then 0.50 ft.

10.56 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.58

Date Monitored: 2.04.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MP5 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	x
Metal Filters	x
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0853
Sample Time/Date: 0925 / 2.5.14
Approx. Flow Rate: 100 mlpm
Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 9.10

Weather Conditions: SUN / SNOW
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) (~~µmhos/cm~~ - ~~µS~~)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0911	3.6	6.73	.143	5.59	1.53	128.9	8.79
0914	4.2	6.74	.143	5.66	1.52	128.9	8.92
0917	4.8	6.74	.142	5.71	1.50	129.1	9.10

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3 F.F.	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	~~1~~ 0 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x ~~500~~ ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP F.F.	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14' - 15'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4 (5/6/10/11.14 inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-3 Date Monitored: 2.4.14

Well Diameter (2) 4 in.

Total Depth 13.50 ft.

Depth to Water 90.10 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.46 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.19

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI MPS 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	X
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Start Time (purge): 1240 Weather Conditions: Sun / Windy

Sample Time/Date: 1310 / 12.5.14 Water Color: CLEAR Odor: (Y) N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: ~ Volume: ~ gal. DTW @ Sampling: 8.53

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (~~µmhos/cm~~ µS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1250	3.6	6.94	.239	8.31	1.27	118.9	8.50
1301	4.2	6.01	.240	8.26	1.22	119.6	8.41
1304	4.8	6.02	.240	8.18	1.20	120.9	8.53

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3 F.F.	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	250 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x ~~500~~ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	7 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11.12'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.4 | 5 | 6 | 10 | 11 . 14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-4 Date Monitored: 2.4.14

Well Diameter (2) 4 in.

Total Depth 14.69 ft.

Depth to Water 7.36 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

7.33 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.02

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI MPS 5560	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	X
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1050 Weather Conditions: SUN / SNOW

Sample Time/Date: 1124 / 2.5.14 Water Color: CLEAR Odor (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 7.78

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1113	3.6	6.78	.199	8.46	.83	-57.2	7.53
1116	4.2	6.79	.199	8.32	.83	-57.3	7.66
1119	4.8	6.79	.198	8.28	.83	-57.5	7.78

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	2 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x ~~500ml~~ clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 10-11'

Add/Replaced Gasket: ✓ Add/Replaced Bolt: Add/Replaced Plug: ✓ Add/Replaced Lock: ✓

Chevron Northwest Region Analysis Request/Chain of Custody

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Acct. # ______ Group # ______ Sample # ______
Instructions on reverse side correspond with circled numbers.

SCR #: ______

① Client Information

Facility #: SS#211556-OML G-R#386773
WBS:
Site Address: 101 Mulford Road, TOLEDO, WA
Chevron PM: MHO
Lead Consultant: LEIDOSRS Russell Shropshire
Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)
Consultant Phone #: (925) 551-7444 x180
Sampler: J. PAYNE

④ Matrix: ☐ Sediment ☑ Ground ☐ Surface; ☐ Potable ☐ NPDES ☐ Air; ☐ Soil; Water; Oil

⑤ Analyses Requested: BTEX + MTBE ☐ 8021 ☑ 8260 ☐ Naphth; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; ☐ WA VPH ☐ WA EPH; Lead ☐ Total ☑ Diss. Method 6020; NITRATE / SULFATE; DISSOLVED IRON / MANGANESE; SULFIDE / METHANE; ALKALINITY

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run ______ oxy's on highest hit
- ☐ Run ______ oxy's on all hits

② Sample Identification	Collected Date	Collected Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	Nitrate / Sulfate	Dissolved Iron / Manganese	Sulfide / Methane	Alkalinity
QA	2-5-14		X			X		2	X			X								
B-1	↓	1033	X			X		16	X			X	X	X		X	X	X	X	X
B-2		0925	X			X		16	X			X	X	X		X	X	X	X	X
B-3		1310	X			X		16	X			X	X	X		X	X	X	X	X
B-4		1124	X			X		16	X			X	X	X		X	X	X	X	X
MW-111	↓	1216	X			X		16	X			X	X	X		X	X	X	X	X

⑥ Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly.

⑦ Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour **EDF/EDD**

⑧ Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ______

Relinquished by	Date	Time	Received by	Date	Time ⑨
[signature]	2-5-14	~~1700~~ 1630			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ______			Received by	Date	Time

Temperature Upon Receipt ______ °C

Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

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Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

4 Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Grnd ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

3 Grab ☐ Composite ☐

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates _____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☐	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020	NITRATE / SULFATE 300.0	DISS. IRON / MANGANESE	SULFIDE / METHANE	ALKALINITY
Q.A	2.6.14		X		2	X			X								
MW-103	2.6.14	1031	X		16	X			X	X	X		X	X	X	X	X
MW-110		0931	X		9	X			X	X	X		✓				
MW-112		1307	X		16	X			X	X	X		X	X	X	X	X
MW-113		1402	X		16	X			X	X	X		X	X	X	X	X
MW-119	↓	1714	X		16	X			X	X	X		X	X	X	X	X

SCR #: _____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, ~~Iron~~ and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample ~~results should be forwarded directly~~

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
[signature]	2.6.14	~~1900~~ 1630	[signature]		
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____			Received by	Date	Time

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773
WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO
Lead Consultant: LEIDOSRS
Russell Shropshire

Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: J. PAYNE

2 Sample Identification

Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	4 Matrix: Soil	Water	Oil	Sediment	Potable	NPDES	Ground	Surface	Air	Total Number of Containers	5 Analyses Requested: BTEX + MTBE 8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method 6020	Nitrate/Sulfate	Diss. Iron/Manganese	Sulfide/Methane	Alkalinity
RA	2.10.14		X			X								2	X					X											
MW-115		1301	X			X								9	X					X	X	X			X						
MW-116		1202	X			X								16	X					X	X	X			X	X	X	X	X	X	X
MW-117		1012	X			X								16	X					X	X	X			X	X	X	X	X	X	X
MW-118		1110	X			X								9	X					X	X	X			X						
MW-120		0923	X			X								9	X					X	X	X			X						

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, ~~Lead~~ and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly.

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | 24 hour
EDF/EDD

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

9

Relinquished by	Date	Time	Received by	Date	Time
	2.10.14	1700			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____			Received by	Date	Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

4 Matrix

Soil ☐ Sediment ☐ Water ☒ Potable ☐ Groundwater ☒ NPDES ☐ Surface ☐ Oil ☐ Air ☐

3 Grab / Composite

5 Analyses Requested

BTEX + MTBE ☐ 8021 ☐ 8260 ☒ Naphth ☒ | 8260 full scan | Oxygenates ____ | NWTPH-Gx | NWTPH-Dx with Silica Gel Cleanup ☒ | NWTPH-Dx without Silica Gel Cleanup ☒ | WA VPH ☐ WA EPH ☐ | Lead Total ☐ Diss. ☒ Method 6020

2 Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers
QA.	2.11.14		X		2
MW-109	↓	1005	X		9
MW-114	↓	1051	X		9

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly.

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day
~~72 hour~~ | 48 hour | 24 hour

EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
	2.11.14	~~1430~~	1530		
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

GETTLER-RYAN INC.

TRANSMITTAL

June 24, 2014
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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Second Quarter Event of June 12, 13, 14, 2014**

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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: J.H

Well ID MW-103

Well Diameter 2/4 in.

Total Depth 0.36 ft.

Depth to Water UTA ft.

Date Monitored: 6.12.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

_____ xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
Stainless Steel Bailer _____
Stack Pump _____
Suction Pump _____
Grundfos _____
Peristaltic Pump _____
QED Bladder Pump _____
Other: _____

Sampling Equipment:

Disposable Bailer _____
Pressure Bailer _____
Metal Filters _____
Peristaltic Pump _____
QED Bladder Pump _____
Other: _____

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Start Time (purge): _____ Weather Conditions: _____

Sample Time/Date: _____ / _____ Water Color: _____ Odor: **Y / N** _____

Approx. Flow Rate: _____ mlpm Sediment Description: _____

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: UTA - due to Vegetation overgrowth

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 6-12/13/14.14 (inclusive)
City: **Toledo, WA** Sampler: VJ

Well ID MW-109 Date Monitored: 6-12-14
Well Diameter 2 1/4 in.
Total Depth 12.69 ft.
Depth to Water 7.31 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.38 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.388

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	X
Grundfos		QED Bladder Pump	
Peristaltic Pump	X	Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1012 Weather Conditions: Rain
Sample Time/Date: 1100 / 6.13.14 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 400 mlpm Sediment Description:
Did well de-water? YES If yes, Time: 1042 Volume: ~~gal.~~ 7.2 DTW @ Sampling: 7.21

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1042	~~7.2~~ 7.2	5.72	.452	14.32	1.66	94.9	7.21

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-109	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 6.5 - 7.5'
INSUF. WATER TO FILL DISSOLVED LEAD BOTTLE

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: R Add/Replaced Lock: R

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12 | 13 | 14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11

Well Diameter 2 (4) in.

Total Depth 19.83 ft.

Depth to Water 9.50 ft.

10.33 xVF — = —

Date Monitored: 6.12.14

Volume Factor (VF)	3/4"= 0.02	(4"= 0.66)	1"= 0.04	5"= 1.02	2"= 0.17	6"= 1.50	3"= 0.38	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.56

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MPS 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0920 Weather Conditions: RAIN

Sample Time/Date: 0950 / 6.12.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 10.11

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm~~ mS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0938	7.2	6.23	.274	13.23	.64	82.5	9.79
0941	8.4	6.26	.277	13.30	.66	54.1	9.96
0944	9.6	6.28	.279	13.38	.69	56.3	10.11

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 14' – 15'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: R Add/Replaced Lock: R

GETTLER - RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556   Job Number: 386773
Site Address: 101 Mulford Road   Event Date: 6.12/13/14.14 (inclusive)
City: Toledo, WA   Sampler: J.P

Well ID: MW-111   Date Monitored: 6.12.14
Well Diameter: 2/(4) in.
Total Depth: 17.80 ft.
Depth to Water: 7.70 ft.   ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

10.10 xVF – = – x3 case volume = Estimated Purge Volume: – gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.72

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Purge Equipment:
- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump: x
- QED Bladder Pump
- Other: YSI w/ps [illegible]

Sampling Equipment:
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump: x
- QED Bladder Pump
- Other: TUBING

Start Time (purge): 1022   Weather Conditions: RAIN
Sample Time/Date: 1051 / 6.12.14   Water Color: CLEAR   Odor: (Y) / N   MILD
Approx. Flow Rate: 400 mlpm   Sediment Description: NONE
Did well de-water? NO   If yes, Time: –   Volume: – gal.   DTW @ Sampling: 7.80

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1040	7.2	6.22	.394	14.74	.57	-74.5	7.80
1043	8.4	6.25	.396	14.82	.59	-76.0	7.80
1046	9.6	6.28	.398	14.90	.62	-78.3	7.80

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-111	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	FF HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	FF NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 4'

Add/Replaced Gasket: ____   Add/Replaced Bolt: ____   Add/Replaced Plug: R   Add/Replaced Lock: R

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11

Well Diameter (2) 4 in.

Total Depth 17.54 ft.

Depth to Water DTA ft.

Date Monitored: 6.12.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

____ xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:
- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): Weather Conditions:

Sample Time/Date: / Water Color: Odor: Y / N

Approx. Flow Rate: mlpm Sediment Description:

Did well de-water? If yes, Time: Volume: gal. DTW @ Sampling:

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: DTA - due to overgrown

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 6.12/13/14.14 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11B | Date Monitored: 6.12.14
Well Diameter: 2/4 in.
Total Depth: 10.10 ft.
Depth to Water: 8.79 ft. ☐ Check if water column is less then 0.50 ft.
9.39 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.60

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump x
QED Bladder Pump
Other: YSI MPS 556

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump x
QED Bladder Pump
Other: TUBING

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1246 | Weather Conditions: RAIN
Sample Time/Date: 1315 / 10.13.14 | Water Color: CLEAR | Odor: Y (N)
Approx. Flow Rate: 400 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: — | Volume: — | DTW @ Sampling: 9.13

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS) MS	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1304	7.2	6.10	.087	13.16	2.47	115.0	8.91
1307	8.4	10.12	.089	13.24	2.55	117.3	9.06
1310	9.6	10.15	.091	13.31	2.57	119.0	9.13

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13.5 - 14.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11H

Well Diameter (2) 4 in.

Total Depth 16.83 ft.

Depth to Water 6.96 ft.

9.87 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.93

Date Monitored: 6.12.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI mps 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 0920 Weather Conditions: RAIN

Sample Time/Date: 0950 / 6.13.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 400 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 7.61

Time (2400 hr.)	Volume (Liters)	pH	Conductivity MS (~~µmhos/cm~~ µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0930	7.2	6.42	.216	13.27	.56	.1	7.30
0941	8.4	6.46	.210	13.34	.59	0.3	7.47
0944	9.6	6.48	.220	13.40	.61	4.1	7.61

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11H	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11.5 - 12.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: D.F

Well ID MW-11S Date Monitored: 6.12.14

Well Diameter 2 (4) in.

Total Depth 17.46 ft.

Depth to Water NTA ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

____ xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:
- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): Weather Conditions:

Sample Time/Date: / Water Color: Odor: Y / N

Approx. Flow Rate: mlpm Sediment Description:

Did well de-water? If yes, Time: Volume: gal. DTW @ Sampling:

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: NTA -due to overgrowth

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: JH

Well ID MW-11G

Well Diameter 2/4 in.

Total Depth 17.53 ft.

Depth to Water VTA ft.

Date Monitored: 6.12.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

_____ xVF _____ = _____ x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

Disposable Bailer _____
Stainless Steel Bailer _____
Stack Pump _____
Suction Pump _____
Grundfos _____
Peristaltic Pump _____
QED Bladder Pump _____
Other: _____

Sampling Equipment:

Disposable Bailer _____
Pressure Bailer _____
Metal Filters _____
Peristaltic Pump _____
QED Bladder Pump _____
Other: _____

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Start Time (purge): _____ Weather Conditions: _____

Sample Time/Date: _____ / _____ Water Color: _____ Odor: **Y / N** _____

Approx. Flow Rate: _____ mlpm Sediment Description: _____

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: VTA - due to overgrowth

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 6.12/13/14.14 (inclusive)
City: Toledo, WA Sampler: [illegible]

Well ID: MW-117 Date Monitored: 6.12.14
Well Diameter: (2) / 4 in.
Total Depth: 17.64 ft.
Depth to Water: 7.11 ft. ☐ Check if water column is less then 0.50 ft.
10.53 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Volume Factor (VF)				
	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.21

Purge Equipment:
- Disposable Bailer: ____
- Stainless Steel Bailer: ____
- Stack Pump: ____
- Suction Pump: ____
- Grundfos: ____
- Peristaltic Pump: x
- QED Bladder Pump: ____
- Other: YSI MPS 556

Sampling Equipment:
- Disposable Bailer: ____
- Pressure Bailer: ____
- Metal Filters: ____
- Peristaltic Pump: x
- QED Bladder Pump: ____
- Other: TUBING

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): 1133 Weather Conditions: Rain
Sample Time/Date: 1202 / 6.12.14 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 400 mlpm Sediment Description: NONE
Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 7.51

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~µmhos/cm - µS~~) mS	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1151	7.2	6.69	.083	13.45	2.14	97.7	7.29
1154	8.4	6.12	.0010	13.58	2.20	99.1	7.37
1157	9.6	6.14	.0090	13.60	2.24	101.1	7.51

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13.5' - 14.5'

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6-12/13/14-14 (inclusive)

City: **Toledo, WA** Sampler: JH

Well ID MW-11R Date Monitored: 6-12-14

Well Diameter (2) 4 in.

Total Depth 9.22 ft.

Depth to Water UTA ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

____ xVF ____ = ____ x3 case volume = Estimated Purge Volume: ____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ____

Purge Equipment:

- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:

- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): ____ Weather Conditions: ____

Sample Time/Date: ____ / ____ Water Color: ____ Odor: **Y / N** ____

Approx. Flow Rate: ____ mlpm Sediment Description: ____

Did well de-water? ____ If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: ____

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: UTA - due to overgrowth

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: DH

Well ID MW-11G Date Monitored: 6.12.14

Well Diameter (2) 4 in.

Total Depth 16.16 ft.

Depth to Water VTA ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

____ xVF ____ = ____ x3 case volume = Estimated Purge Volume: ____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ____

Purge Equipment:

- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:

- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____ gal
Product Transferred to: ____

Start Time (purge): ____ Weather Conditions: ____

Sample Time/Date: ____ / ____ Water Color: ____ Odor: **Y / N** ____

Approx. Flow Rate: ____ mlpm Sediment Description: ____

Did well de-water? ____ If yes, Time: ____ Volume: ____ gal. DTW @ Sampling: ____

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: VTA - due to overgrowth

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11D

Well Diameter (2) 4 in.

Total Depth 16.07 ft.

Depth to Water 7.70 ft.

9.17 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 6.12.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.53

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	x
Grundfos		QED Bladder Pump	
Peristaltic Pump	x	Other: TURBIDITY	
QED Bladder Pump			
Other: YSI meter			

Start Time (purge): 0933

Sample Time/Date: 0902 6.14.14

Approx. Flow Rate: 400 mlpm

Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 7.88

Weather Conditions: Rain

Water Color: clear Odor: Y / (N)

Sediment Description: None

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (mmhos/cm µS) MS	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0851	7.2	6.42	.292	13.56	1.12	89.3	7.88
0853	9.4	6.44	.292	13.62	1.16	91.0	7.88
0857	9.6	6.46	.292	13.70	1.17	91.9	7.88

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 13.5 - 14.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-1 Date Monitored: 6.12.14

Well Diameter (2) 4 in.

Total Depth 19.78 ft.

Depth to Water 7.87 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

11.91 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.25

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MPS 6820	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____ gal
Product Transferred to: _____

Start Time (purge): 1120 Weather Conditions: RAIN

Sample Time/Date: 1150 / 6.12.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 400 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — gal. DTW @ Sampling: 7.92

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) ~~(µmhos/cm µS)~~	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1138	7.2	6.61	.146	14.15	.45	56.1	7.93
1141	8.4	6.64	.149	14.21	.46	49.0	7.92
1144	9.6	6.66	.150	14.28	.49	47.1	7.92

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 16.5' - 16.5'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773

Site Address: 101 Mulford Road Event Date: 6.12/13/14.14 (inclusive)

City: Toledo, WA Sampler: [illegible]

Well ID: B-1 Date Monitored: 6.12.14

Well Diameter: (2) 4 in.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	~~6"= 1.50~~	12"= 5.80

Total Depth: 19.03 ft.

Depth to Water: 8.91 ft. ☐ Check if water column is less then 0.50 ft.

10.12 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.93

Time Started:	(2400 hrs)
Time Completed:	(2400 hrs)
Depth to Product:	ft
Depth to Water:	ft
Hydrocarbon Thickness:	ft
Visual Confirmation/Description:	
Skimmer / Absorbant Sock (circle one)	
Amt Removed from Skimmer:	gal
Amt Removed from Well:	gal
Water Removed:	gal
Product Transferred to:	

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other:	YSI MPS 666

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	TUBING

Start Time (purge): 1424 Weather Conditions: RAIN

Sample Time/Date: 1450 / 6.12.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 400 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 9.23

Time (2400 hr.)	Volume (Liters)	pH	Conductivity ~~(µmhos/cm - µS)~~ mS	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1442	7.2	5.94	.146	13.71	.64	35.7	9.03
1446	8.4	6.00	.144	13.79	.67	37.0	9.14
1448	9.6	6.01	.146	13.83	.69	38.3	9.23

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 15.5 - 16.5

Add/Replaced Gasket: ______ Add/Replaced Bolt: ______ Add/Replaced Plug: ______ Add/Replaced Lock: ______

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID 3.3 Date Monitored: 6.12.14

Well Diameter (2) 4 in.

Total Depth 13.56 ft.

Depth to Water 9.69 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

4.07 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.66

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI WQPC SONDE	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ gal
Amt Removed from Well: ___ gal
Water Removed: ___ gal
Product Transferred to: ___

Start Time (purge): 1321 Weather Conditions: RAIN

Sample Time/Date: 1350 / 6.12.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 150 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: - Volume: - gal. DTW @ Sampling: 9.98

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) (~~µmhos/cm~~ µS)	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1339	2.7	5.45	.276	16.03	.65	97.4	9.93
1342	3.2	5.47	.280	16.27	.69	99.0	9.89
1345	3.7	5.49	.286	16.33	.70	100.6	8.990

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
3.3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 11.5 - 12.5

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 6.12/13/14.14 (inclusive)

City: **Toledo, WA** Sampler: -J.P

Well ID B.4

Well Diameter (2) 4 in.

Total Depth 14.69 ft.

Depth to Water 7.94 ft.

Date Monitored: 6.12.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.75 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.29

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MP5 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed: gal
Product Transferred to:

Start Time (purge): 1224 Weather Conditions: Rain

Sample Time/Date: 1252 / 6.12.14 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 160 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — gal. DTW @ Sampling: 8.33

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (MS) (~~umhos/cm~~ ~~µS~~)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1241	2.7	6.32	.260	16.41	.50	-87.9	8.11
1245	3.2	6.36	.263	16.50	.56	-89.3	8.26
1248	3.7	6.37	.265	16.59	.59	-91.2	8.33

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B.4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD (6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)
FF	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)
	1 x 500ml clear glass	YES	NaOH & ZnAc	LANCASTER	SULFIDE (SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE (RSKOP-175)
FF	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY (SM20 2320B)

COMMENTS: Depth Pump Set At: 12.5 - 13.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1481697 Sample # 7498023-35
Instructions on reverse side correspond with circled numbers.

SCR #: ______

① Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

④ Matrix

☐ Sediment / Soil ☐
☑ Ground / Potable ☐ / Water
☐ Surface / NPDES ☐
☐ Air / Oil

⑤ Analyses Requested

BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☑ Method 6020; NITRATE / SULFATE; DISS. IRON / MANGANESE; SULFIDE / METHANE; ALKALINITY

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

② Sample Identification	Collected Date	Collected Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	Nitrate / Sulfate	Diss. Iron / Manganese	Sulfide / Methane	Alkalinity
QA	6.12.14		X			X		2	X			X								
B.1	↓	1150	X			X		16	X			X	X	X		X	X	X	X	X
B.2		1455	X			X		16	X			X	X	X		X	X	X	X	X
B.3		1350	X			X		16	X			X	X	X		X	X	X	X	X
B.4		1252	X			X		16	X			X	X	X		X	X	X	X	X
MW.110		0950						9	X			X	X	X		X				
MW.111	↓	1051	X			X		16	X			X	X	X		X	X	X	X	X

⑥ Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Amended JLM 6/13/14

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Doug Lee (dlee@grinc.com)

⑦ Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour
EDF/EDD

⑧ Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ______

⑨

Relinquished by	Date	Time	Received by	Date	Time
[signature]	6.12.14	1700			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier:
UPS ✓ FedEx ______ Other ______

Received by [signature] Date 6/13/14 Time 0945

Temperature Upon Receipt 1.1-4.3 °C

Custody Seals Intact? (Yes) No

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Getler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

2 Sample Identification

3 Grab / Composite

4 Matrix

Soil / Sediment / Groundwater / Potable Water / NPDES Surface Water / Oil / Air / Total Number of Containers

5 Analyses Requested

BTEX + MTBE / 8021 / 8260 / Naphth / 8260 full scan / Oxygenates ____ / NWTPH-Gx / NWTPH-Dx with Silica Gel Cleanup / NWTPH-Dx without Silica Gel Cleanup / WA VPH / WA EPH / Lead / Total / Diss. / Method 6020 / NITRATE / Diss Iron / Sulfide / Alkalinity

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method 6020	NITRATE	Diss Iron	Sulfide	Alkalinity
MW-109	6-13-14	1100	X			X		9	X			X	X	X				X						
MW-113		1315	X			X		16	X			X	X	X				X	X	X	X	X	X	X
MW-114		0950	X			X		16	X			X	X	X				X	X	X	X	X	X	X
MW-117		1202	X			X		16	X			X	X	X				X	X	X	X	X	X	X

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Doug Lee (dlee@grinc.com).

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run ____ oxy's on highest hit
- ☐ Run ____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD
~~72 hour~~ | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	6-13-14	1600			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____			Received by	Date	Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. Payne

2 Sample Identification

3 Grab / Composite

4 Matrix

Soil ☐ Water ☐ Oil ☐ Sediment ☐ Potable ☐ NPDES ☐ Groundwater ☐ Surface ☐ Air ☐

Total Number of Containers

5 Analyses Requested

BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐ | 8260 full scan | Oxygenates ____ | NWTPH-Gx | NWTPH-Dx with Silica Gel Cleanup ☑ | NWTPH-Dx without Silica Gel Cleanup ☑ | WA VPH ☐ WA EPH ☐ | Lead Total ☐ Diss ☐ Method 6020 | | | | |

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021 / 8260 / Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead Total / Diss / Method 6020
MW-12D	6.14.14	0902	X			X		9	X			X	X	X		X

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Doug Lee (dlee@grinc.com).

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD
72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

9

Relinquished by	Date	Time	Received by	Date	Time
	6.16.14	1300			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

GETTLER-RYAN INC.

TRANSMITTAL

September 2, 2014
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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Third Quarter Event of August 18, 19, 20, & 21, 2014**

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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20&21.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-1B3

Well Diameter (2)4 in.

Total Depth 6.36 ft.

Depth to Water 6.81 ft.

Date Monitored: 8.18.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

1.55 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.12

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: YSI MP5 556		Other: TUBING	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 0846 Weather Conditions: SUN

Sample Time/Date: 0915/ 8.21.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? (YES) If yes, Time: 0904 Volume: 2.0 ltrs DTW @ Sampling: 7.10

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature ((C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0904	2.0	6.92	.091	12.30	1.86	98.3	8.30

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1B3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: WELL REWATERED SEVERAL TIMES

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: dlf

Well ID MW-1B9 Date Monitored: 8.18.14

Well Diameter 2|4 in.

Total Depth 12.69 ft.

Depth to Water 9.93 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

2.76 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.48

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: XSF MP56B		Other: TURBID	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0800 Weather Conditions: SUN

Sample Time/Date: — / — Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? YES If yes, Time: 0830 Volume: 2 ltrs DTW @ Sampling: x

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0830	2.0	6.99	.496	19.08	1.33	77.9	12.66

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: x MW-1B9 DID NOT RECOVER. NO SAMPLE COLLECTED

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-10

Well Diameter 2 (4) in.

Total Depth 19.83 ft.

Depth to Water 8.53 ft.

11.30 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 8.18.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.79

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	x
QED Bladder Pump	
Other: YSI MPO 6560	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1240 Weather Conditions: SUN

Sample Time/Date: 1310 / 8.20.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.03

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1240	3.6	6.76	.326	17.76	.31	63.5	8.77
1301	4.2	6.78	.330	17.83	.36	64.9	8.91
1304	4.8	6.80	.332	17.98	.40	66.1	9.03

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 16'

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8·18/19/20/21·14 (inclusive)

City: **Toledo, WA** Sampler: J·P

Well ID MW-11

Well Diameter 2/4 in.

Total Depth 17.80 ft.

Depth to Water 8.07 ft.

Date Monitored: 8·18·14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.73 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.01

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: YSI MPS 556		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1120 Weather Conditions: SUN

Sample Time/Date: 1157 / 8·19·14 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: - Volume: - ltrs DTW @ Sampling: 8.91

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1146	3.6	6.29	.596	17.98	.25	-91.0	8.44
1149	4.2	6.32	.592	18.08	.05	-89.1	8.63
1152	4.8	6.54	.394	18.16	.08	-86.3	8.91

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11Z Date Monitored: 8.18.14

Well Diameter (2) 4 in.

Total Depth 17.34 ft.

Depth to Water 8.63 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.71 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.37

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: x5E MP0 5616		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0943 Weather Conditions: SUN

Sample Time/Date: 1012/8.21.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.18

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1001	3.6	6.93	.194	14.34	1.10	-18.1	8.89
1004	4.2	6.91	.196	14.41	1.20	-9.5	9.01
1007	4.8	6.88	.198	14.49	1.27	-2.6	9.18

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11Z	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13'-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: V.P

Well ID MW-13 Date Monitored: 8.18.14

Well Diameter 2/(4) in.

Total Depth 18.18 ft.

Depth to Water 9.39 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.79 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.14

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: XSE MPS 556		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1040 Weather Conditions: SUN

Sample Time/Date: 1110 / 8.21.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 10.16

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1058	3.6	6.79	.292	17.01	2.28	83.8	9.83
1101	4.2	6.83	.301	17.17	2.33	85.1	10.00
1104	4.8	10.816	.302	17.20	2.40	87.6	10.16

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-13	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14-15'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: JH

Well ID MW-11 Date Monitored: 8.18.14

Well Diameter (2) 4 in.

Total Depth 16.83 ft.

Depth to Water 7.57 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.26 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.42

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other: YSI MPS FOR H2O		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1352 Weather Conditions: SUN

Sample Time/Date: 1420 / 8.20.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.29

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1410	3.6	6.94	.322	16.90	2.12	69.7	7.92
1413	4.2	6.95	.326	17.81	2.30	71.8	8.11
1416	4.8	6.97	.329	17.10	2.38	73.1	8.29

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	2 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 12'-13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11S Date Monitored: 8.18.14

Well Diameter 2/4 in.

Total Depth 17.46 ft.

Depth to Water 8.88 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.58 xVF 17 = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.69

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other: TEFLON TUBING		Other: TOBING	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1140 Weather Conditions: SUN

Sample Time/Date: 1200 / 8.21.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.22

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1148	3.6	6.01	.362	16.25	.602	-1.3	9.03
1201	4.2	6.04	.306	16.30	.70	2.6	9.13
1204	4.8	6.10	.308	16.39	.76	4.1	9.22

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11S	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13'-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: J.F

Well ID MW-11C

Well Diameter (2)4 in.

Total Depth 17.53 ft.

Depth to Water 8.83 ft.

8.70 xVF ___ = ___

Date Monitored: 8.18.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.57

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI MP5 556	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 1230 Weather Conditions: SUN

Sample Time/Date: 1300 / 8.21.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: ___ Volume: ___ ltrs DTW @ Sampling: 9.30

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1248	3.6	6.94	.192	17.90	1.01	79.6	9.03
1261	4.2	6.96	.194	17.88	1.11	81.3	9.18
1264	4.8	6.97	.196	17.94	1.18	83.6	9.30

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11C	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13 - 14

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8·18/19/20/21·14 (inclusive)

City: **Toledo, WA** Sampler: VP

Well ID MW-117 Date Monitored: 8·18·14

Well Diameter (2) 4 in.

Total Depth 17.64 ft.

Depth to Water 7.71 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

9.93 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.69

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: YSI MP5 556		Other: TUBING	

Start Time (purge): 1149 Weather Conditions: Sun

Sample Time/Date: 1210 / 8·21·14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.22

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1159	3.6	6.91	.290	18.33	1.98	80.9	7.93
1202	4.2	6.94	.292	18.40	2.01	82.7	8.10
1205	4.8	6.97	.294	18.49	2.11	84.3	8.22

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: V.P

Well ID: MW-11B Date Monitored: 8.18.14

Well Diameter: (2)/4 in.

Total Depth: 17.22 ft.

Depth to Water: 7.92 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

9.30 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.78

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ ltr
Amt Removed from Well: ____ ltr
Water Removed: ____ ltr
Product Transferred to: ____

Purge Equipment:
- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Peristaltic Pump: x
- QED Bladder Pump
- Other: YSI MPS 556

Sampling Equipment:
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump: x
- QED Bladder Pump
- Other: TUBING

Start Time (purge): 1042 Weather Conditions: Sun

Sample Time/Date: 1111 / 8.20.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.64

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1100	3.6	6.91	.277	19.66	1.72	78.3	8.28
1103	4.2	6.94	.280	19.74	1.80	80.1	8.42
1106	4.8	6.96	.281	19.83	1.84	82.3	8.64

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)
City: **Toledo, WA** Sampler: J.P

Well ID MW-11 9 Date Monitored: 8.18.14
Well Diameter (2)/4 in.
Total Depth 16.65 ft.
Depth to Water 9.13 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

7.42 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.71

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other: YSI MP6 6600		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0750 Weather Conditions: SUN
Sample Time/Date: 0820 / 8.21.14 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 200 mlpm Sediment Description: NONE
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.66

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
~~0800~~	3.6	6.86	.214	12.90	.59	86.6	9.38
0811	4.2	6.90	.216	13.01	.66	88.3	9.51
0814	4.8	6.91	.219	13.09	.71	89.9	9.66

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11 9	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 12-13

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-12D

Well Diameter (2)/4 in.

Total Depth 16.87 ft.

Depth to Water 8.13 ft.

8.74 xVF .— = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 8.18.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.87

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: XSF MP5 5556		Other: TUBING	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 0948 Weather Conditions: SUN

Sample Time/Date: 1017 / 8.20.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.33

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1006	3.6	6.86	260	20.66	.27	53.3	8.33
1009	4.2	6.89	.264	20.12	.32	54.9	8.33
1012	4.8	6.91	.266	20.20	.36	56.1	8.33

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 12-13

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21-14 (inclusive)

City: **Toledo, WA** Sampler: V.P

Well ID B-1 Date Monitored: 8.18.14

Well Diameter (2) 4 in.

Total Depth 19.78 ft.

Depth to Water 8.40 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

11.38 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.67

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: YSI MP6 5X6		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0936 Weather Conditions: SUN

Sample Time/Date: 1005 / 8.19.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: - Volume: - ltrs DTW @ Sampling: 8.46

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0954	3.6	6.68	.227	16.58	.25	16.0	8.46
0957	4.2	6.70	.224	16.53	.25	15.3	8.46
1000	4.8	6.73	.221	16.60	.29	14.8	8.46

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21-14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-2

Well Diameter (2) 4 in.

Total Depth 19.83 ft.

Depth to Water 9.53 ft.

9.50 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 8.18.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.16)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.43

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: YSI mps 556		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0845 Weather Conditions: SUN

Sample Time/Date: 0915 / 8.19.14 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.60

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0903	3.6	6.61	.191	14.49	.26	50.8	9.60
0906	4.2	6.64	.187	14.56	.26	50.6	9.60
0909	4.8	6.63	.186	14.61	.26	50.7	9.60

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14'-15'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8/18 - 8/21/14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-3

Well Diameter (2) 4 in.

Total Depth 13.56 ft.

Depth to Water 9.23 ft.

4.33 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 8.18.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.09

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: XSI mp5 5506		Other: TUBING	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1245 Weather Conditions: Sun

Sample Time/Date: 1330 / 8.19.14 Water Color: CLEAR Odor: (Y) MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? YES If yes, Time: 1300 Volume: 4 ltrs DTW @ Sampling: 10.07

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1300	4	6.12	.425	21.17	.54	-67.8	10.33

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 12.5 - 13.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.18/19/20/21 -1(inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID 8.4

Well Diameter (2) 4 in.

Total Depth 14.69 ft.

Depth to Water 8.43 ft.

Date Monitored: 8.18.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.26 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.68

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other: XDF MPS 5560		Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1040 Weather Conditions: SUN

Sample Time/Date: 1050 / 8.19.14 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: ~ Volume: ~ ltrs DTW @ Sampling: 8.75

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1046	3.6	6.33	.278	19.55	.26	-86.9	8.73
1049	4.2	6.36	.280	19.42	.26	-87.8	8.73
1050	4.8	6.37	.281	19.50	.26	-85.8	8.73

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
8.4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 11.12'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

2 Sample Identification | Collected: Date | Time | **3** Grab | Composite

4 Matrix: Soil ☐ | Water ☑ (Groundwater ☐, Potable ☐, NPDES ☐, Surface ☐) | Oil ☐ | Air ☐ | Sediment ☐

5 Analyses Requested

Sample Identification	Date	Time	Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates ___	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☐ Method 6020	NITRATE / SULFATE	DISSOLVED IRON & MANGANESE	SULFIDE / METHANE	ALKALINITY
	8.20		X			X		2	X			X	X	X						
MW-103	8.21	0915	X			X		16	X			X	X	X		X	X	X	X	X
MW-110	8.20	1310	X			X		9	X			X	X	X		X	X	X	X	X
MW-112	8.21	1012	X			X		16	X			X	X	X		X	X	X	X	X
MW-113	8.21	1110	X			X		16	X			X	X	X		X	X	X	X	X
MW-114	8.20	1420	X			X		9	X			X	X	X		X				
MW-115	8.20	1208	X			X		9	X			X	X	X		X				
MW-116	8.21	1300	X			X		16	X			X	X	X		X	X	X	X	X
MW-117	8.21	1210	X			X		16	X			X	X	X		X	X	X	X	X
MW-118	8.20	1111	X			X		9	X			X	X	X		X				
MW-119	8.21	0820	X			X		16	X			X	X	X		X	X	X	X	X
MW-120	8.20	1017	X			X		9	X			X	X	X		X				

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD
72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	8.21.14	1630			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by	Date	Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler J. PAYNE

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	4 Matrix: Soil	Sediment	Potable Water	Ground Water	NPDES	Surface Water	Oil	Air	Total Number of Containers	5 Analyses Requested: BTEX + MTBE 8021	Naphth 8260	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total	Lead Diss.	Method 6020	NITRATE SULFATE	ALKALINITY METHANE	SULFIDE	D.ISS. IRON & MANGANESE
Q.A	8.19.14		X				X						2	X				X											
MW-11		1157	X				X						16	X				X	X	X			X		X	X	X	X	X
B-1		1005	X				X						16	X				X	X	X			X		X	X	X	X	X
B-2		0915	X				X						16	X				X	X	X			X		X	X	X	X	X
B-3		1330	X				X						16	X				X	X	X			X		X	X	X	X	X
B-4		1058	X				X						16	X				X	X	X			X		X	X	X	X	X

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | EDF/EDD | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	8.19.14	1630			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

9

GETTLER-RYAN INC.

TRANSMITTAL

December 3, 2014
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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Fourth Quarter Event of November 19 & 20, 2014**

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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11/19/14 (inclusive)

City: **Toledo, WA** Sampler: AW

Well ID MW-103 Date Monitored: 11-19-14

Well Diameter 2 in.

Total Depth 18.36 ft.

Depth to Water 8.41 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.95 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.40

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0945 Weather Conditions: Cloudy

Sample Time/Date: 1040 / 11-19-14 Water Color: Cloudy Odor: (Y) N / Slight

Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy

Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.52

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1003	3.6	7.66	301	11.0	1.3	175	8.45
1006	4.2	7.63	304	11.1	1.2	180	8.49
1009	4.8	7.60	310	11.2	1.2	183	8.52

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-103	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 13.5 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 11/19 - 11/20/14 (inclusive)
City: **Toledo, WA** Sampler: GM

Well ID MW-109 Date Monitored: 11-19-14
Well Diameter 2 | 4 in.
Total Depth 12.69 ft.
Depth to Water 7.38 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.31 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump X
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump X
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0830 Weather Conditions: RAIN
Sample Time/Date: 0915 / 11/20/14 Water Color: BROWN Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.54

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS (µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0848	3.6	6.77	495	16.2	1.1	179	7.52
0851	4.2	6.77	496	16.1	1.1	180	7.53
0954	4.8	6.79	496	16.2	1.0	181	7.54

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-109	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 10.00

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.14.14 (inclusive)

City: **Toledo, WA** Sampler: JG

Well ID MW-11R Date Monitored: 11.14.14

Well Diameter 2 4 in.

Total Depth 19.75 ft.

Depth to Water 9.21 ft. ☐ Check if water column is less then 0.50 ft.

10.75 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.23

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0900 Weather Conditions: O'CAST

Sample Time/Date: 0940 / 11.14.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 100 ml/m Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.21

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0900	3.8	6.76	.629	12.91	1.53	298.1	9.21
0922	4.2	6.78	.633	12.83	1.50	296.3	9.21
0934	4.8	6.79	.634	12.77	1.47	294.1	9.21

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11R	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 16'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.19-20.14 (inclusive)

City: **Toledo, WA** Sampler: JP

Well ID MW-11 Date Monitored: 11.19.14

Well Diameter 2 (4) in.

Total Depth 17.00 ft.

Depth to Water 6.47 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.33 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.73

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1000 Weather Conditions: Coast

Sample Time/Date: 1020 / 11.20.14 Water Color: CLEAR Odor (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 6.61

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1019	3.6	6.44	.681	14.89	.79	149.9	6.61
1022	4.1	6.42	.684	14.78	.77	148.1	6.61
1026	4.8	6.46	.688	14.71	.73	146.3	6.61

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 11/19/14 (inclusive)
City: **Toledo, WA** Sampler: AW

Well ID MW-12
Well Diameter (2) 4 in.
Total Depth 17.34 ft.
Depth to Water 7.71 ft.
9.63 xVF — = —

Date Monitored: 11-19-14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.63

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump ✓
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters ✓
Peristaltic Pump ✓
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1055
Sample Time/Date: 1155 / 11-19-14
Approx. Flow Rate: 200 mlpm
Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.82

Weather Conditions: Cloudy
Water Color: Cloudy Odor: Y / (N)
Sediment Description: Cloudy

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1113	3.6	7.58	118	12.1	1.2	173	7.75
1116	4.2	7.51	125	12.2	1.3	180	7.79
1119	4.8	7.50	129	12.2	1.3	183	7.82

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~13.0ft

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11/19-20/14 (inclusive)

City: **Toledo, WA** Sampler: GM

Well ID MW-113 Date Monitored: 11/19/14

Well Diameter 2 (4) in.

Total Depth 18.18 ft.

Depth to Water 8.59 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.59 xVF ~ = ~ x3 case volume = Estimated Purge Volume: ~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ~

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	X
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0835 Weather Conditions: Cloud

Sample Time/Date: 0930 / 11/19/14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: SL SILT

Did well de-water? NO If yes, Time: ~ Volume: ~ ltrs DTW @ Sampling: 8.71

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0853	3.6	7.30	84	14.2	1.1	179	8.70
0856	4.2	7.31	84	14.1	1.1	179	8.71
0859	4.8	7.30	84	14.1	1.1	178	8.71

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-113	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 17.00

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11/19 - 11/20/14 (inclusive)

City: **Toledo, WA** Sampler: AW / GM

Well ID MW-114 Date Monitored: 11-19-14

Well Diameter (2) 4 in.

Total Depth 16.83 ft.

Depth to Water 6.75 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

1008 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.76

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 0940 Weather Conditions: Cloudy

Sample Time/Date: 1025 / 11-20-14 Water Color: Cloudy Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy

Did well de-water? ✓ If yes, Time: — Volume: — ltrs DTW @ Sampling: 6.83

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0958	3.6	6.89	141	10.4	1.0	163	6.78
1001	4.2	6.91	144	10.6	1.0	170	6.81
1004	4.8	6.91	150	10.7	1.1	171	6.83

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-114	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 12.0ft.

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 11/19-11/20/14 (inclusive)
City: **Toledo, WA** Sampler: GM

Well ID MW-115 Date Monitored: 11/19/14
Well Diameter 2 (4) in.
Total Depth 17.46 ft.
Depth to Water 8.07 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.39 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 0725 Weather Conditions: RAIN
Sample Time/Date: 0810 / 11/20/14 Water Color: CLEAR Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: SL SILT
Did well de-water? NO If yes, Time: ___ Volume: ___ ltrs DTW @ Sampling: 8.16

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS)/ mS µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0740	3.6	6.96	297	14.5	1.1	198	8.16
0743	4.2	6.94	299	14.4	1.0	200	8.16
0746	4.8	6.93	298	14.3	1.0	201	8.16

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-115	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 12.50

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11/19-20/14 (inclusive)

City: **Toledo, WA** Sampler: GM

Well ID MW-116 Date Monitored: 11/19/14

Well Diameter (2)4 in.

Total Depth 17.53 ft.

Depth to Water 8.38 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

9.15 xVF ~ = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1100 Weather Conditions: COLD

Sample Time/Date: 1158 / 11/19/14 Water Color: TAN Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: SILT

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.49

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS mS µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1118	3.6	7.10	115	11.7	1.2	200	8.49
1121	4.2	7.09	115	11.7	1.3	200	8.49
1124	4.8	7.07	116	11.7	1.2	201	8.49

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-116	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 13.00

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 11/19-20/14 (inclusive)
City: **Toledo, WA** Sampler: GM

Well ID MW-117 Date Monitored: 11/19/14
Well Diameter (2) 4 in.
Total Depth 17.64 ft.
Depth to Water 6.91 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.73 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0950 Weather Conditions: COLD
Sample Time/Date: 1040 / 11/19/14 Water Color: CLOUDY Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: SC SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.04

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS/ mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1008	3.6	7.08	93	13.4	1.4	188	7.04
1011	4.2	7.07	92	13.4	1.4	187	7.04
1014	4.8	7.06	92	13.2	1.2	185	7.04

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 12.50

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 11/19 - 11/20/14 (inclusive)
City: **Toledo, WA** Sampler: AW

Well ID MW-18 Date Monitored: 11-19-14
Well Diameter (2) 4 in.
Total Depth 17.22 ft.
Depth to Water 7.15 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

10.07 xVF ~~—~~ = ~~—~~ x3 case volume = Estimated Purge Volume: ~~—~~ gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.16

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 0730 Weather Conditions: Cloudy
Sample Time/Date: 0825 / 11-20-14 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: 200 mlpm Sediment Description: / Cloudy
Did well de-water? N If yes, Time: ~~—~~ Volume: ~~—~~ ltrs DTW @ Sampling: 7.22

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0748	3.6	7.28	77	12.5	1.3	202	7.18
0751	4.2	7.29	83	12.6	1.2	210	7.20
0755	4.8	7.31	85	12.6	1.2	213	7.22

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-18	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 13.0 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 11-19-14 (inclusive)
City: **Toledo, WA** Sampler: AW

Well ID MW-11
Well Diameter (2) 4 in.
Total Depth 16.65 ft.
Depth to Water 8.50 ft.
8.15 xVF .17 = 1.38 x3 case volume = Estimated Purge Volume: ~~4.15~~ gal.

Date Monitored: 11-19-14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.13

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	•
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0830 Weather Conditions: Sunny
Sample Time/Date: 0930 / 11-19-14 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy
Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.59

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µs / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0848	3.6	8.95	225	11.6	1.2	166	8.53
0851	4.2	8.91	231	11.8	1.2	160	8.56
0854	4.8	8.90	236	11.9	1.3	157	8.59

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 14.0 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11/19 - 11/20/14 (inclusive)

City: **Toledo, WA** Sampler: AW

Well ID MW-20 Date Monitored: 11-19-14

Well Diameter (2) 4 in.

Total Depth 16.87 ft.

Depth to Water 7.37 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.50 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.27

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0840 Weather Conditions: Cloudy

Sample Time/Date: 0930 / 11-2014 Water Color: Cloudy Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: / Cloudy

Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.44

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS/ mS µmhos/cm)	Temperature (C/ F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0858	3.6	6.83	272	11.9	0.9	217	7.40
0901	4.2	6.87	278	12.3	1.0	221	7.41
0904	4.8	6.89	284	12.0	1.1	224	7.44

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-20	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 12.5 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.19.14 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-1 Date Monitored: 11.19.14

Well Diameter 2/4 in.

Total Depth 19.78 ft.

Depth to Water 7.43 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

12.35 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.90

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0939 Weather Conditions: SUN

Sample Time/Date: 1010 / 11.19.14 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.93

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS) µmhos/cm	Temperature (C) / F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0957	3.6	6.67	.679	13.78	1.41	196.6	7.67
1000	4.2	6.64	.677	13.88	1.38	204.5	7.77
1003	4.8	6.64	.678	13.90	1.32	192.3	7.93

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15-16

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 11.19/20.14 (inclusive)
City: Toledo, WA | Sampler: N.P

Well ID: B-7
Well Diameter: (2) 4 in.
Total Depth: 19.03 ft.
Depth to Water: 8.54 ft.
10.49 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.63

Date Monitored: 11.19.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump x
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump x
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0836
Sample Time/Date: 0905 / 11.19.14
Approx. Flow Rate: 200 mlpm
Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.73

Weather Conditions: SUN
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0854	3.6	11.94	.449	11.17	8.11	209.7	8.73
0857	4.2	6.96	.452	11.81	8.13	198.3	8.73
0900	4.8	6.96	.452	11.92	8.16	196.8	8.73

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-7	4 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15-16

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.19.14 (inclusive)

City: **Toledo, WA** Sampler:

Well ID B-3

Well Diameter (2) 4 in.

Total Depth 13.56 ft.

Depth to Water 8.17 ft.

Date Monitored: 11.19.14

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.39 xVF - = - x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.24

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1050 Weather Conditions: SUN

Sample Time/Date: 1120 / 11.19.14 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: - Volume: - ltrs DTW @ Sampling: 8.60

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1100	3.6	6.91	.560	13.65	6.06	215.0	8.33
1111	4.2	6.93	.362	13.59	6.11	217.3	8.49
1114	4.8	6.95	.364	13.62	6.02	214.0	8.60

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 11'-12'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 11.19/20.14 (inclusive)

City: **Toledo, WA** Sampler: J.

Well ID: 6.4 Date Monitored: 11.19.14

Well Diameter: (2)/4 in.

Total Depth: 19.69 ft.

Depth to Water: 6.77 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

7.92 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.35

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1102 Weather Conditions: GHOST

Sample Time/Date: 1130 / 11.20.14 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 6.93

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1120	3.80	6.44	.375	16.56	.96	162.7	6.93
1123	4.2	6.47	.377	16.49	.88	161.0	6.93
1126	4.80	6.49	.377	16.41	.86	159.8	6.93

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
6.4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	1 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 10-11

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. Payne · Alex · Gilbert

(4) Matrix

Soil ☐ Sediment ☐ Water ☒ Groundwater ☐ Potable ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

(5) Analyses Requested

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	(3) Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☒ Naphth ☐	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☒	NWTPH-Dx without Silica Gel Cleanup ☒	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☒ Method 6020	Nitrate / Sulfate	Dissolved Iron / Manganese	Sulfide SM4500 S2D	Methane / Alkalinity
B-1 R.A	11.19.14				2	X			X								
B-2		1010	X		16	X			X	X	X		X	X	X	X	X
B-2		0905	X		16	X			X	X	X		X	X	X	X	X
B-3		1120	X		16	X			X	X	X		X	X	X	X	X
MW-103		1010	X		16	X			X	X	X		X	X	X	X	X
MW-112		1155	X		16	X			X	X	X		X	X	X	X	X
MW-113		0930	X		16	X			X	X	X		X	X	X	X	X
MW-116		1150	X		16	X			X	X	X		X	X	X	X	X
MW-117		1040	X		16	X			X	X	X		X	X	X	X	X
MW-119		0930	X		16	X			X	X	X		X	X	X	X	X

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD | ~~72 hour~~ | 48 hour | 24 hour

(8) Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	11.19.14	1430			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS X FedEx ____ Other ____			Received by	Date	Time
Temperature Upon Receipt ____ °C			Custody Seals Intact? Yes No		

(9)

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAINE / GILBERT / ALEX

2 Sample Identification

Sample Identification	Collected Date	Collected Time	3 Grab	Composite	4 Matrix: Soil	Potable Water	NPDES	Surface Water	Air	Oil	Sediment	Total Number of Containers	5 Analyses Requested: BTEX + MTBE 8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total	Lead Diss.	Method 6020	Dissolved Iron / Manganese	Sulfide / Methane	Alkalinity / Nitrate / Sulfate
QA	11.10.14		X			X						1	X					X										
B-4		1130	X			X						16	X					X	X	X			X	X	X	X	X	X
MW-109		0915	X			X						9	X					X	X	X			X					
MW-110		0940	X			X						9	X					X	X	X			X					
MW-111		1030	X			X						16	X					X	X	X			X	X	X	X	X	X
MW-114		1015	X			X						9	X					X	X	X			X					
MW-116		0810	X			X						9	X					X	X	X			X					
MW-119		0825	X			X						9	X					X	X	X			X					
MW-120	↓	0930	X			X						9	X					X	X	X			X					

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

AMEND COC:
ADD ANALYSIS FOR QA SAMPLES.
MNC 11-26-14

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD
72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

9

Relinquished by	Date	Time	Received by	Date	Time
	11.10.14	1600			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____			Received by	Date	Time
Temperature Upon Receipt _____ °C			Custody Seals Intact? Yes No		

GETTLER-RYAN INC.

TRANSMITTAL

March 2, 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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **First Quarter Event of February 17, 18, 19 & 20, 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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2-17-15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-1B3

Well Diameter (2) 4 in.

Total Depth 16.35 ft.

Depth to Water 7.03 ft.

10.32 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 2-17-15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.93

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	✓
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0917 Weather Conditions: O'CAST

Sample Time/Date: 0945 / 2-19-15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.60

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0925	3.10	6.39	.249	10.91	2.29	-11.9	8.11
0933	4.92	6.41	.251	10.63	2.18	-9.6	8.51
0941	4.96	10.41	.251	10.77	2.11	-7.9	8.60

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1B3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14'-15'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2-17-720-15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-10g

Well Diameter (2)4 in.

Total Depth 12.60 ft.

Depth to Water 6.91 ft.

Date Monitored: 2-17-15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.69 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ~~5.69~~ 6.91

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	x
QED Bladder Pump	
Other: VOA	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0803 Weather Conditions: CLOUDY

Sample Time/Date: 0917 / 2-18-15 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.97

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0911	3.6	6.77	.302	10.23	2.63	26.9	7.93
0914	4.2	6.78	.304	10.18	2.64	21.5	8.02
0917	4.8	6.79	.305	10.11	2.70	22.6	8.08

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10g	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: LET REHARGE — SAMPLE 11.5'-12.5'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.17-2.20.15 (inclusive)

City: **Toledo, WA** Sampler: V.F

Well ID MW-11D Date Monitored: 2.17.15

Well Diameter 2 (4) in.

Total Depth 19.82 ft.

Depth to Water 9.39 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.42 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.67

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1110 Weather Conditions: CLOUDY

Sample Time/Date: 1200 / 2.17.15 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.90

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C / (F))	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1136	3.60	6.74	.309	11.31	2.24	-26.3	9.63
1139	4.2	6.76	.311	11.24	2.06	-24.9	9.79
1157	4.60	6.76	.313	11.18	2.33	-22.6	9.90

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11D	4 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 16'-11'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.17-2.20.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-111 Date Monitored: 2.17.15

Well Diameter 2 (4) in.

Total Depth 17.77 ft.

Depth to Water 6.57 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.20 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.81

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 0850 Weather Conditions: CLOUDY

Sample Time/Date: 0909 / 2.20.15 Water Color: CLEAR Odor (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.21

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0857	3.6	7.00	.320	10.91	1.09	89.3	6.71
0903	4.2	7.07	.322	10.84	1.12	36.6	6.93
0909	4.8	7.04	.323	10.79	1.10	31.9	7.21

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-111	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 8.17-726.15 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-11R | Date Monitored: 8.17.15
Well Diameter: (2) 4 in.
Total Depth: 17.29 ft.
Depth to Water: 7.33 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.96 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.32

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other: XXX		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1136 | Weather Conditions: SUN
Sample Time/Date: 1200 / 8.19.15 | Water Color: CLEAR | Odor: Y / (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: NONE
Did well de-water? NO | If yes, Time: — | Volume: — ltrs | DTW @ Sampling: 8.11

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1154	3.6	6.69	.277	10.83	1.81	49.3	7.69
1157	4.2	6.74	.274	10.74	1.76	50.9	7.900
1200	4.8	6.33	.272	10.64	1.77	51.6	8.11

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11R	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.17-7~~8~~.15 (inclusive)

City: **Toledo, WA** Sampler: JP

Well ID MW-11B Date Monitored: 8.17.15

Well Diameter 2 (4) in.

Total Depth 100.11 ft.

Depth to Water 83.01 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

16.10 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.63

Purge Equipment:

Disposable Bailer	~~X~~
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	✓
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1241 Weather Conditions: Coast

Sample Time/Date: 1310 / 8.19.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.63

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1241	3.2	6.56	.253	10.89	2.11	96.3	8.29
1302	4.2	6.58	.253	10.81	2.09	98.1	8.46
1305	4.6	6.58	.252	10.72	2.11	99.16	8.63

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14-16

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.17 - 2.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11

Well Diameter 2 | 4 in.

Total Depth 16.01 ft.

Depth to Water 6.31 ft.

10.70 xVF — = —

Date Monitored: 2.17.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.41

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0702 Weather Conditions: CLEAR

Sample Time/Date: 0910 2-18-15 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 6.89

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0910	3.0	6.88	.419	11.13	1.83	-56.0	6.66
0913	4.2	6.86	.422	11.01	1.79	-55.3	6.73
0916	4.80	6.88	.422	10.93	1.71	-57.0	6.89

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14'-15'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.17-7.20.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11S

Well Diameter 4 in.

Total Depth 17.47 ft.

Depth to Water 7.67 ft.

9.90 xVF — = —

Date Monitored: 8.17.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.45

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1220 Weather Conditions: O'CAST

Sample Time/Date: 1300 / 8.18.15 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.19

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1246	3.6	6.90	.122	11.91	2.24	72.4	7.83
1249	4.2	6.92	.122	11.93	2.14	72.6	8.01
1252	4.8	6.91	.124	11.77	2.11	73.3	8.29

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11S	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 12'-13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 2.17 → 2.19.15 (inclusive)
City: Toledo, WA Sampler: J.P

Well ID MW-11G Date Monitored: 2.17.15
Well Diameter (2) 4 in.
Total Depth 17.58 ft.
Depth to Water 8.00 ft.
9.98 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.98

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump X
QED Bladder Pump
Other: YSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters ✓
Peristaltic Pump X
QED Bladder Pump
Other: TUBING

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0813 Weather Conditions: O'CAST
Sample Time/Date: 0844 2.19.15 Water Color: CLEAR Odor: Y / (N)
Approx. Flow Rate: 200 mlpm Sediment Description: NONE
Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.63

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0831	3.6	6.63	.226	12.01	1.67	51.9	8.29
0837	4.2	6.64	.227	11.23	1.64	52.16	8.41
0837	4.8	6.66	.229	11.36	1.61	53.8	8.63

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11G	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2.17—2.19.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-117 Date Monitored: 2.17.15

Well Diameter (2) 4 in.

Total Depth 17.63 ft.

Depth to Water 6.26 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.37 xVF - = - x3 case volume = Estimated Purge Volume: - gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.63

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0711 Weather Conditions: CLOUDY

Sample Time/Date: 0740 / 2.19.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: - Volume: - ltrs DTW @ Sampling: 6.91

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0729	3.6	6.72	.244	11.93	2.26	132.3	6.44
0735	4.2	6.72	.245	11.88	2.24	34.9	6.63
0735	4.8	6.73	.246	11.81	2.24	36.0	6.91

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8.17-720.16 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11B

Well Diameter (2) 4 in.

Total Depth 17.21 ft.

Depth to Water 10.54 ft.

10.67 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 8.17.16

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.67

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other: TUBING	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0957 Weather Conditions: OVAST

Sample Time/Date: 1011 / 8.18.16 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 6.97

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS/ (mS) µmhos/cm)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1016	3.6	6.64	.216	11.89	2.09	99.6	6.73
1018	4.2	6.72	.219	11.74	2.12	41.3	6.84
1021	4.8	6.74	.224	11.71	2.16	43.9	6.97

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2-17-15 (inclusive)

City: **Toledo, WA** Sampler: JL

Well ID MW-119 Date Monitored: 2-17-15

Well Diameter (2) 4 in.

Total Depth 16.69 ft.

Depth to Water 7.97 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.72 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.71

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	✓
Peristaltic Pump	X
QED Bladder Pump	
Other: TOBIN6	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1019 Weather Conditions: Sun

Sample Time/Date: 1057 / 2-19-15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.09

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1047	3.6	6.70	.188	10.88	1.44	38.3	8.33
1050	4.2	6.71	.190	10.83	1.49	40.1	8.01
1053	4.80	6.71	.192	10.76	1.53	41.6	8.09	

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-119	(6) x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 12'-13'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 2-17-720.15 (inclusive)
City: Toledo, WA | Sampler: J.P

Well ID: MW-12D
Well Diameter: (2) 4 in.
Total Depth: 16.83 ft.
Depth to Water: 16.83 ft.
10.00 xVF — = —
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.83

Date Monitored: 2.17.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump: x
QED Bladder Pump
Other: YSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump: x
QED Bladder Pump
Other: TUBING

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1069
Sample Time/Date: 1120 / 2.18.15
Approx. Flow Rate: 200 mlpm
Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.40

Weather Conditions: O'CAST
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1117	3.6	6.76	.190	11.01	1.69	33.9	7.63
1120	4.2	6.77	.190	11.11	1.73	34.6	7.21
1123	4.8	6.79	.192	11.19	1.77	36.1	7.40

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 12-13

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2-17-726.15 (inclusive)

City: **Toledo, WA** Sampler: V.P

Well ID B-1

Well Diameter (2) 4 in.

Total Depth 19.77 ft.

Depth to Water 6.79 ft.

12.98 xVF — = —

Date Monitored: 2-17-16

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.382

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	✓
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1017 Weather Conditions: CLOUDY

Sample Time/Date: 1040 2-17-16 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.38

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1030	3.6	6.39	.382	10.91	1.18	64.3	10.94
1033	4.2	6.41	.384	10.84	1.13	68.9	7.13
1036	4.8	6.44	.387	10.87	1.09	64.3	7.38

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15'-16'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 12.17/18/19/20.15 (inclusive)

City: **Toledo, WA** Sampler: VP

Well ID B-2 Date Monitored: 12.17.15

Well Diameter (2)4 in.

Total Depth 19.02 ft.

Depth to Water 7.93 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.09 xVF ~ = ~ x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.14

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Start Time (purge): 0913 Weather Conditions: Sunny

Sample Time/Date: 0940 / 12.17.15 Water Color: clear Odor: Y (N)

Approx. Flow Rate: 100 mlpm Sediment Description: None

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.63

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0931	3.6	6.66	.225	9.51	3.67	109.6	8.22
0934	4.2	6.66	.225	9.49	3.66	110.9	8.48
0937	4.8	6.66	.226	9.43	3.61	111.16	8.63

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 16'-16'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 2.17 ~~-2.20~~.15 (inclusive)
City: Toledo, WA | Sampler: DP

Well ID: B-3
Well Diameter: (2) 4 in.
Total Depth: 13.61 ft.
Depth to Water: 6.36 ft.
7.15 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Date Monitored: 2.17.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.79

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump: X
QED Bladder Pump
Other: YSI

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters: ✓
Peristaltic Pump: X
QED Bladder Pump
Other: TUBING

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1041
Sample Time/Date: 1110 / 2.~~20~~.15
Approx. Flow Rate: ~~200~~ mlpm
Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.11

Weather Conditions: CLOUDY
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / ~~mS~~ µmhos/cm)	Temperature ((C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1044	3.6	6.22	.183	16.18	1.02	-21.9	6.71
1102	4.2	6.27	.186	16.24	1.00	-19.3	6.90
1105	4.8	6.20	.188	16.36	1.10	-18.0	7.11

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~~10~~-11'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 2-17-720.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-4

Well Diameter (2) 4 in.

Total Depth 14.16 ft.

Depth to Water 6.93 ft.

Date Monitored: 2-17-15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.73 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.47

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0941 Weather Conditions: COAST

Sample Time/Date: 1040 / 2-20.15 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.55

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0959	3.6	6.99	.272	11.83	2.11	-33.6	7.19
1002	4.2	6.98	.274	11.90	2.09	-31.3	7.31
1005	4.8	6.91	.276	11.93	2.02	-30.4	7.55

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 10'-11'

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # ________ Group # ________ Sample # ________
Instructions on reverse side correspond with circled numbers.

SCR #: ________

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

(4) Matrix

Soil ☐ / Sediment; Water: Potable ☐, Ground ☒, Surface ☐, NPDES ☐; Oil ☐; Air ☐

(5) Analyses Requested

BTEX + MTBE 8260 ☒ 8021 ☐ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☒; NWTPH-Dx without Silica Gel Cleanup ☒; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☒ Method; NITRATE / SULFATE; DISSOLVED IRON / MANGANESE; SULFIDE / METHANE; ALKALINITY

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

(2) Sample Identification

Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8260	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	NITRATE / SULFATE	DISSOLVED IRON / MANGANESE	SULFIDE / METHANE	ALKALINITY
QA	2.19		X			X		2	X			X								
MW-103	2.19	0945	X			X		16	X			X	X	X		X	X	X	X	X
MW-109	2.18	0920	X			X		9	X			X	X	X		X				
MW-112	2.19	1205	X			X		16	X			X	X	X		X	X	X	X	X
MW-113	2.19	1310	X			X		16	X			X	X	X		X	X	X	X	X
MW-114	2.18	0820	X			X		9	X			X	X	X		X				
MW-115	2.18	1300	X			X		9	X			X	X	X		X				
MW-116	2.19	0840	X			X		16	X			X	X	X		X	X	X	X	X
MW-117	2.19	0740	X			X		16	X			X	X	X		X	X	X	X	X
MW-118	2.18	1010	X			X		9	X			X	X	X		X				
MW-119	2.19	1057	X			X		16	X			X	X	X		X	X	X	X	X
MW-120	2.18	1130	X			X		9	X			X	X	X		X				

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

sample results
Deanna Harding

(7) Turnaround Time Requested (TAT) (please circle)

(Standard) 72 hour | 5 day 48 hour | 4 day 24 hour

EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
[signature]	2.19.15	1700			
Relinquished by			Received by	D	

Relinquished by Commercial Carrier:
UPS X FedEx ______ Other ______

Received by | Date | Time

Temperature Upon Receipt ________ °C

Custody Seals Intact? Yes No

(8) Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ________

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR # _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180 J. PAYNE
Sampler

2 Sample Identification

3 Collected / Grab / Composite

4 Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Groud ☑ Oil ☐ NPDES ☐ Surface ☐ Air ☐

5 Analyses Requested

Sample Identification	Date	Time	Grab	Composite	Soil	Sediment	Water	Potable	Groud	Oil	NPDES	Surface	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method	Nitrate / Sulfate	Dissolved Iron / Manganese	Sulfide / Methane	Alkalinity
QA	2.17.15		X				X							2	X						X												
B-1	1	1040	X				X							16	X						X	X	X				X			X	X	X	X
B-2	1	0940	X				X							16	X						X	X	X				X			X	X	X	X
MW-1R	↓	1100	X				X			9				18	X						X	X	X				X						

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Amended COC JLH 3/2/15

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☑ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD
72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

9

Relinquished by	Date	Time	Received by	Date	Time
[signature]	2.17.15	1500			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____			Received by	Date	Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # ______ Group # ______ Sample # ______
Instructions on reverse side correspond with circled numbers.

SCR #: ______

① Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

④ Matrix

☐ Sediment ☐ Ground ☐ Surface ☐ Soil
Water: ☐ Potable ☐ NPDES
☐ Oil ☐ Air

⑤ Analyses Requested

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

② Sample Identification	Collected Date	Collected Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE ☐ 8021 ☐ 8260 ☐ Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☐ Method	NITRATE/SULFATE	DISSOLVED IRON/MANGANESE	SULFIDE/METHANE	ALKALINITY
QA	1-20		X			X		2	X			X								
B-3	↓	1110	X			X		16	X			X	X	X		X	X	X	X	X
B-4	↓	1010	X			X		16	X			X	X	X		X	X	X	X	X
MW-111	↓	0909	X			X		16	X			X	X	X		X	X	X	X	X

⑥ Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Harding

⑦ Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour
EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
[signature]	2-20-15	1700			

⑧ Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ______

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ______

Received by ____ Date ____ Time ____

Temperature Upon Receipt ______ °C

Custody Seals Intact? Yes No

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
Issued
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

GETTLER-RYAN INC.

TRANSMITTAL

May 22, 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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Second Quarter Event of May 11, 12, 13, & 14, 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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: JP

Well ID MW-103 Date Monitored: 5.11.15

Well Diameter (2) 4 in.

Total Depth 19.33 ft.

Depth to Water 8.77 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	~~6"= 1.50~~	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.66 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.690

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1157 Weather Conditions: RAIN

Sample Time/Date: 1230 / 5.11.15 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: ~~200~~ mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.91

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1216	3.6	6.75	.261	11.31	1.29	17.5	8.91
1218	4.2	6.75	.261	11.36	1.31	18.3	8.91
1221	4.8	6.76	.262	11.41	1.36	19.1	8.91

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-103	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15.5 - 16.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: ✓ Add/Replaced Lock: ✓

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: JP

Well ID MW-109 Date Monitored: 5.11.15

Well Diameter (2) 4 in.

Total Depth 12.66 ft.

Depth to Water 7.29 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.37 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.31

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1455 Weather Conditions: RAIN

Sample Time/Date: 1525 / 5.12.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.44

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1513	3.6	6.80	.177	12.89	1.39	39.1	7.44
1516	4.2	6.80	.174	12.94	1.35	38.3	7.44
1519	4.80	6.80	.174	13.00	1.31	37.7	7.44

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-109	8 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 10.5 – 11.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 — 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-10 Date Monitored: 5.11.15

Well Diameter 2 | 4 in.

Total Depth 19.90 ft.

Depth to Water 9.90 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.30 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.57

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 0933 Weather Conditions: RAIN

Sample Time/Date: 1000 / 5.11.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: ~~200~~ mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.90

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0961	3.6	6.61	.402	13.54	2.43	16.8	9.65
0954	4.2	6.62	.401	13.39	2.47	12.3	9.81
0957	4.8	6.60	.401	13.42	2.50	10.1	9.90

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15-16

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: N Add/Replaced Lock: N

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11

Well Diameter 2 (4) in.

Total Depth 17.37 ft.

Depth to Water 9.07 ft.

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

0.75 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.77

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1337 Weather Conditions: RAIN

Sample Time/Date: 1400 / 5.13.15 Water Color: CLEAR Odor (Y) N MILD

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.21

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1340	3.6	6.65	.519	14.21	1.04	-51.4	9.21
1353	4.2	6.65	.520	14.24	1.01	-59.7	9.21
1360	4.8	6.65	.520	14.30	1.00	-41.9	9.21

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13-14

REMOVED WATER FROM WELL BOX AND CLEARED FLOODED AREA. PHOTO

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5-11-15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11R

Well Diameter (2) 4 in.

Total Depth 19.19 ft.

Depth to Water 8.19 ft.

9.19 xVF — = —

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.01

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1310
Sample Time/Date: 1340 / 5.11.15
Approx. Flow Rate: 200 mlpm
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.41

Weather Conditions: RAIN
Water Color: CLEAR Odor: Y / (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1330	3.6	6.77	.265	12.62	1.17	-26.3	8.41
1341	4.2	6.77	.265	12.68	1.26	-19.8	8.41
1344	4.8	6.78	.267	12.71	1.21	-18.8	8.41

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11R	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15.5 - 16.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: N Add/Replaced Lock: N

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11→14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11B Date Monitored: 5.11.15

Well Diameter 2 (4) in.

Total Depth 18.11 ft.

Depth to Water 9.00 ft.

9.23 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.80

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 0940 Weather Conditions: RAIN

Sample Time/Date: 1000 / 5.13.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.23

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0950	3.6	6.77	.312	12.36	2.02	33.9	9.23
1001	4.2	6.77	.3210	12.41	2.04	34.3	9.23
1004	4.8	6.77	.3216	12.47	1.98	35.4	9.23

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14-15

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: OP

Well ID MW-114 Date Monitored: 5.11.15

Well Diameter (2) 4 in.

Total Depth 16.81 ft.

Depth to Water 6.99 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.82 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.87

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1100 Weather Conditions: RAIN

Sample Time/Date: 1030 / 5.12.15 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.03

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1019	3.6	6.80	.177	12.41	1.86	-39.6	7.03
1022	4.2	6.81	.177	12.48	1.83	-38.9	7.03
1025	4.8	6.81	.178	12.54	1.80	-38.0	7.03	

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-114	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 13.5-14.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11S Date Monitored: 5.11.15

Well Diameter 2 (1/4) in.

Total Depth 17.47 ft.

Depth to Water 8.33 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	(4"= 0.66)	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.14 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.15

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	x	Peristaltic Pump	x
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1300 Weather Conditions: RAIN

Sample Time/Date: 1410 / 5.12.15 Water Color: MEDIUM Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.54

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1350	3.6	6.88	.380	13.01	1.13	37.3	8.54
1401	4.2	6.89	.381	13.07	1.19	38.1	8.54
1404	4.8	6.89	.381	13.1	1.22	39.1	8.54

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11S	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14.5 – 16.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: VP

Well ID MW-116 Date Monitored: 5.11.15

Well Diameter (2) 4 in.

Total Depth 17.50 ft.

Depth to Water 9.07 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.87 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.48

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0942 Weather Conditions: RAIN

Sample Time/Date: 1010 / 5.12.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.13

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / (mS) µmhos/cm)	Temperature ((C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1000	3.6	6.89	.172	12.91	1.46	49.6	8.94
1003	4.2	6.90	.172	12.99	1.49	50.1	8.99
1006	4.80	6.90	.174	13.03	1.61	50.6	9.13

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-116	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15.5 — 16.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-117 Date Monitored: 5.11.15

Well Diameter 2 4 in.

Total Depth 17.63 ft.

Depth to Water 6.90 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.73 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.04

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0910 Weather Conditions: RAIN

Sample Time/Date: 0940 / 5.12.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 7.11

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0926	3.6	6.56	.087	12.08	4.81	180.2	7.11
0933	4.2	6.46	.089	12.14	4.83	19.4	7.11
0940	4.8	6.56	.089	12.20	4.85	19.2	7.11

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 16.5 — 16.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: 2 Add/Replaced Lock: 2

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-11D

Well Diameter (2) 4 in.

Total Depth 17.21 ft.

Depth to Water 8.93 ft.

8.28 xVF — = —

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.58

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1119 Weather Conditions: Rain

Sample Time/Date: 1150 / 5.12.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.22

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS / µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1137	3.4	6.93	.102	12.89	2.66	57.6	9.22
1140	4.2	6.93	.103	12.94	2.69	58.3	9.22
1143	4.8	6.94	.103	13.01	2.23	59.1	9.22

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11D	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15.5 — 16.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID MW-119 Date Monitored: 5.11.15

Well Diameter 2/4 in.

Total Depth 16.69 ft.

Depth to Water 9.96 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

7.73 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.50

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1040 Weather Conditions: RAIN

Sample Time/Date: 1115 / 5.11.15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.23

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1104	3.6	6.67	.198	12.69	1.69	19.7	9.23
1107	4.2	6.69	.201	12.14	1.78	20.9	9.23
1110	4.8	6.70	.201	12.19	1.74	21.8	9.23

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-119	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14.5 – 15.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: 1 Add/Replaced Lock: 1

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 5.14.15 (inclusive)

City: **Toledo, WA** Sampler: JP

Well ID MW-12Ø

Well Diameter (2) 4 in.

Total Depth 16.83 ft.

Depth to Water 7.71 ft.

9.12 xVF — = —

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.53

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1239 Weather Conditions: RAIN

Sample Time/Date: 1305 / 6.12.15 Water Color: CLEAR Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.Ø3

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1247	3Ø	10.69	.11Ø	13.Ø9	.73	5.4	8.Ø3
1300	4.2	6.7Ø	.22Ø	13.13	.71	6.Ø	9Ø.Ø3
1303	4.8Ø	6.7Ø	.221	13.17	.69	6.9	9Ø.Ø3

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12Ø	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14.5 – 15.5

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: ✓ Add/Replaced Lock: ✓

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID: B.1

Well Diameter: (2) 4 in.

Total Depth: 19.77 ft.

Depth to Water: 9.77 ft.

11.00 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.97

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	(2"= 0.17)	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 1040 Weather Conditions: RAIN

Sample Time/Date: 1130 / 5.13.15 Water Color: MEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.91

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1116	3.6	6.64	.199	12.416	1.39	9.2	9.91
1119	4.2	6.64	.200	12.530	1.36	9.9	9.91
1122	4.80	6.64	.201	12.516	1.32	10.8	9.91

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B.1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15-16

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11 → 14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B.2

Well Diameter 2 4 in.

Total Depth 14.07 ft.

Depth to Water 9.9 ft.

14.1 xVF — = —

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.93

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other: YSI WQ15 H2O	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0815
Sample Time/Date: 0845 / 5.13.15
Approx. Flow Rate: 200 mlpm
Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.03

Weather Conditions: Rain
Water Color: CLEAR Odor: Y (N)
Sediment Description: NONE

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS (mS) µmhos/cm)	Temperature (C) F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0833	3.6	10.62	.210	12.38	1.44	9.0	9.03
0840	4.2	10.62	.210	12.41	1.41	10.2	9.03
0845	4.80	10.62	.210	12.47	1.39	11.1	9.03

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B.2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3 FF	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP FF	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 15-16

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11-7 14.15 (inclusive)

City: **Toledo, WA** Sampler: JP

Well ID B-3

Well Diameter 2 4 in.

Total Depth 17.51 ft.

Depth to Water 10.11 ft.

5.35 xVF — = —

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.23

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	x
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1442 Weather Conditions: Rain

Sample Time/Date: 1510 / 5.13.15 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 200 mlpm Sediment Description: NONE

Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.23

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1500	3.6	6.92	.357	14.75	1.92	21.0	8.23
1503	4.2	6.92	.359	14.91	1.00	24.6	8.23
1506	4.8	6.92	.359	14.86	1.00	24.9	8.23

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 11.5 – 12.5 DEWATERED DURING SAMPLE COLLECTION. WAIT FOR RECHARGE

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 5.11-7.14.15 (inclusive)

City: **Toledo, WA** Sampler: J.P

Well ID B-4

Well Diameter (2) 4 in.

Total Depth 14.66 ft.

Depth to Water 7.91 ft.

6.75 xVF — = —

Date Monitored: 5.11.15

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.26

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1212 Weather Conditions: RAIN

Sample Time/Date: 1250 / 5.13.15 Water Color: CLEAR Odor: (Y) / N MILD

Approx. Flow Rate: 100 mlpm Sediment Description: NONE

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.13

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1240	3.6	6.67	.280	14.18	.68	-36.5	8.13
1243	4.2	6.688	.280	14.03	.69	-36.4	8.13
1246	4.8	6.690	.280	14.28	.71	-35.3	8.13

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-4	4 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 11.5 - 12.5

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler J. PAYNE

2 Sample Identification

Sample Identification	Collected Date	Collected Time	3 Grab	Composite	4 Matrix: Soil	Water	Oil	Sediment	Ground	Potable	NPDES	Surface	Air	Total Number of Containers
Q.A	5.1.15		X			X								2
MW-103		1230	X			X								16
MW-110		1000	X			X								9
MW-112		1350	X			X								16
MW-119		1115	X			X								16

4 Matrix

Soil ☐ Water ☒ Oil ☐ Sediment ☐ Ground ☒ Potable ☐ NPDES ☐ Surface ☐ Air ☐

5 Analyses Requested

BTEX + MTBE 8021 ☐ 8260 ☐	Naphth ☐	8260 full scan	Oxygenates ___	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH ☐	WA EPH ☐	Lead Total ☐ Diss. ☒	Method 6020	Nitrate Sulfate	Dissolved Iron & Manganese	Sulfide SM4500S2	Methane	Alkalinity
				X											
X				X	X	X			X		X	X	X	X	X
X				X	X	X			X						
X				X	X	X			X		X	X	X	X	X
X				X	X	X			X		X	X	X	X	X

- ☐ Result in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	5.1.15	1500			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by | Date | Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

2 Sample Identification

3 Collected / Grab / Composite

4 Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Groundwater ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

5 Analyses Requested

Total Number of Containers

BTEX + MTBE ☐ 8021 ☐ 8260 ☐ Naphth ☐

8260 full scan

Oxygenates (8260) ____

NWTPH-Gx

NWTPH-Dx with Silica Gel Cleanup ☑

NWTPH-Dx without Silica Gel Cleanup ☑

WA VPH ☐ WA EPH ☐

Lead Total ☐ Diss. ☐ Method 6020

Nitrate / Sulfate

Dissolved Iron / Manganese

Sulfide / Methane

Alkalinity

Sample Identification	Date	Time	Grab	Composite	Soil	Sediment	Water	Potable	Groundwater	NPDES	Surface	Oil	Air	Total Number of Containers	BTEX + MTBE 8021 8260 Naphth	8260 full scan	Oxygenates (8260)	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total Diss. Method 6020	Nitrate / Sulfate	Dissolved Iron / Manganese	Sulfide / Methane	Alkalinity
QA	5.12.15		X				X							8	X			X									
MW-109		1525	X				X							9	X			X	X	X			X				
MW-114		1630	X				X							9	X			X	X	X			X				
MW-115		1410	X				X							9	X			X	X	X			X				
MW-116		1010	X				X							16	X			X	X	X			X	X	X	X	X
MW-117		0850	X				X							16	X			X	X	X			X	X	X	X	X
MW-118		1150	X				X							9	X			X	X	X			X				
MW-120		1305	X				X							9	X			X	X	X			X				

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD
72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	5.12.15	1700			
Relinquished by	Da	Time	Received by	Date	Time
Relinquished by			Received by	Date	Time

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler J. PAYNE

2 Sample Identification

Sample Identification	Collected Date	Collected Time	3 Grab	Composite	4 Matrix: Soil	Water	Sediment	Potable	Ground	NPDES	Surface	Air	Oil	Total Number of Containers	5 Analyses Requested: BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Total	Diss.	Lead	Method 6020	NITRATE/SULFATE/METHANE	Dissolved Iron/Manganese	SULFIDE SM4500 S2D	ALKALINITY
QA	5.13.15		X			X								2	X			X												
B-1		1130	X			X								16	X			X	X	X			X	X	X	X	X	X	X	X
B-2		0845	X			X								16	X			X	X	X			X	X	X	X	X	X	X	X
B-3		1310	X			X								16	X			X	X	X			X	X	X	X	X	X	X	X
B-4		1250	X			X								16	X			X	X	X			X	X	X	X	X	X	X	X
MW-111		1400	X			X								16	X			X	X	X			X	X	X	X	X	X	X	X
MW-113		1010	X			X								16	X			X	X	X			X	X	X	X	X	X	X	X

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

AMEND COC:
PLEASE ADD BTEX & MTBE TO B-3, B-4 MW-111 & MW-113

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

05-14-15 SMW

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day
72 hour | 48 hour | EDF/EDD 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	5.13.15	1700			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS X FedEx _____ Other _____

Received by: [signature] Date 5/14/15 Time 0935

Temperature Upon Receipt 0.3 - 2.1 °C

Custody Seals Intact? Yes No

GETTLER-RYAN INC.

TRANSMITTAL

August 21, 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 Texaco Service Station
#211556/Cowlitz BP
101 Mulford Road
Toledo, Washington
UST Site#10669

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Third Quarter Event of August 10 and 11, 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

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™ (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 (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8/10 - 8/11/15 (inclusive)
City: **Toledo, WA** Sampler: AW

Well ID MW-103 Date Monitored: 8-10-15
Well Diameter (2) 4 in.
Total Depth 18.35 ft.
Depth to Water 9.35 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.00 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump ✓
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters ✓
Peristaltic Pump ✓
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0730 Weather Conditions: Sunny
Sample Time/Date: 0820 / 8-10-15 Water Color: Clear Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: Clear
Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.51

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0748	3.6	6.28	245	17.2	1.3	60	9.42
0751	4.2	6.30	251	17.3	1.4	53	9.47
0754	4.8	6.33	254	17.4	1.4	57	9.51

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-103	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 1400 ft.

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8/10-11/15 (inclusive)

City: **Toledo, WA** Sampler: GM

Well ID MW-109 Date Monitored: 8/10/15

Well Diameter (2)4 in.

Total Depth 12.66 ft.

Depth to Water 8.62 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

4.04 xVF ~ = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		**Sampling Equipment:**	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:

Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0705 Weather Conditions: SUNNY

Sample Time/Date: 0745 / 8/11/15 Water Color: CLOUDY Odor: Y (N)

Approx. Flow Rate: 200 mlpm Sediment Description: SILT

Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.70

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS/ mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0723	3.6	6.76	206	20.1	1.0	-15	8.68
0726	4.2	6.74	205	20.0	1.0	-16	8.69
0729	4.8	6.73	204	19.9	1.0	-19	8.70

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-109	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 10.50 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**

Site Address: **101 Mulford Road** Event Date: 8/10-11/15 (inclusive)

City: **Toledo, WA** Sampler: GM

Well ID MW-10 Date Monitored: 8/10/15

Well Diameter 2 (4) in.

Total Depth 19.81 ft.

Depth to Water 10.23 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

9.58 xVF ____ = ____ x3 case volume = Estimated Purge Volume: ____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ____

Purge Equipment:

Disposable Bailer	____
Stainless Steel Bailer	____
Stack Pump	____
Peristaltic Pump	X
QED Bladder Pump	____
Other:	____

Sampling Equipment:

Disposable Bailer	____
Pressure Bailer	____
Metal Filters	____
Peristaltic Pump	X
QED Bladder Pump	____
Other:	____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ~~0~~ ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ ltr
Amt Removed from Well: ____ ltr
Water Removed: ____ ltr
Product Transferred to: ____

Start Time (purge): 0940 Weather Conditions: Sunny

Sample Time/Date: 1018 / 8/10/15 Water Color: CLEAR Odor: Y / (N)

Approx. Flow Rate: 200 mlpm Sediment Description: SL SILT

Did well de-water? NO If yes, Time: ____ Volume: ____ ltrs DTW @ Sampling: 10.25

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS/ mS µmhos/cm)	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0958	3.6	7.36	271	18.1	1.1	65	10.25
1001	4.2	7.39	272	18.0	1.1	66	10.25
1004	4.8	7.38	274	18.0	1.0	68	10.25

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	[x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	# x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 15.00ft.

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 8/10-8/11/15 (inclusive)
City: Toledo, WA | Sampler: AW

Well ID: MW-111 | Date Monitored: 8-10-15
Well Diameter: 2 (4) in.
Total Depth: 17.77 ft.
Depth to Water: 8.43 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.34 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0905 | Weather Conditions: Sunny
Sample Time/Date: 1000 / 8-11-15 | Water Color: Cloudy | Odor: (Y) / N Moderate
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? N | If yes, Time: — | Volume: — ltrs | DTW @ Sampling: 8.54

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (~~uS~~ mS umhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0923	3.6	6.01	399	19.9	1.1	-1	8.47
0926	4.2	6.07	404	20.1	1.2	-3	8.50
0929	4.8	6.09	410	20.2	1.2	-7	8.54

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-111	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 13.0 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8/10-11/15 (inclusive)
City: **Toledo, WA** Sampler: GM

Well ID MW-112 Date Monitored: 8/10/15
Well Diameter (2)4 in.
Total Depth 17.29 ft.
Depth to Water 8.90 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.39 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	X
Peristaltic Pump	X	Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: (0) ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0840 Weather Conditions: Sunny
Sample Time/Date: 0925 / 8/10/15 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: 200 mlpm Sediment Description: SL SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.00

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm	Temperature (C) F	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0858	3.6	7.26	269	17.3	1.5	-17	8.99
0901	4.2	7.24	269	17.1	1.5	-20	8.99
0904	4.8	7.23	267	17.0	1.4	-24	9.00

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-112	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~13.00

Add/Replaced Gasket: Add/Replaced Bolt: Add/Replaced Plug: Add/Replaced Lock:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8/10/15 (inclusive)
City: **Toledo, WA** Sampler: Cm

Well ID MW-13 Date Monitored: 8/10/15
Well Diameter 2 (4) in.
Total Depth 13.11 ft.
Depth to Water 9.28 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

3.83 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	X
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0948 Weather Conditions: Sunny
Sample Time/Date: 1037 / 8/10/15 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: 200 mlpm Sediment Description: Sl Silt
Did well de-water? No If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.33

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1006	3.6	7.06	410	20.1	1.3	-10	9.32
1009	4.2	7.05	411	20.1	1.2	-10	9.32
1012	4.8	7.05	413	20.1	1.2	-14	9.33

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-13	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~13.50ft

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8/10 - 8/11/15 (inclusive)
City: **Toledo, WA** Sampler: AW

Well ID MW-114 Date Monitored: 8-10-15
Well Diameter 2 4 in.
Total Depth 16.81 ft.
Depth to Water 8.03 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

8.78 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1015 Weather Conditions: Sunny
Sample Time/Date: 1108 / 8-11-15 Water Color: Cloudy Odor: (Y) / N / Slight
Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy
Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.17

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1033	3.6	6.40	190	20.0	1.2	-5	8.09
1036	4.2	6.46	194	20.2	1.1	-10	8.12
1039	4.8	6.50	199	20.2	1.1	-13	8.17

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-114	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~12.50

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8/10/15 (inclusive)
City: **Toledo, WA** Sampler: GM

Well ID MW-11S Date Monitored: 8/10/15
Well Diameter 2/4 in.
Total Depth 17.47 ft.
Depth to Water 9.28 ft. ☐ Check if water column is less then 0.50 ft.
8.19 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer ___
Stainless Steel Bailer ___
Stack Pump ___
Peristaltic Pump X
QED Bladder Pump ___
Other: ___

Sampling Equipment:
Disposable Bailer ___
Pressure Bailer ___
Metal Filters ___
Peristaltic Pump X
QED Bladder Pump ___
Other: ___

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 1055 Weather Conditions: Sunny
Sample Time/Date: 1133 / 8/10/15 Water Color: Clear Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: Slight
Did well de-water? No If yes, Time: ___ Volume: ___ ltrs DTW @ Sampling: 9.41

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C) / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1113	3.6	6.67	307	18.4	1.4	70	9.40
1116	4.2	6.65	305	18.5	1.4	73	9.41
1119	4.8	6.63	304	18.7	1.2	74	9.41

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11S	6x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 13.50 ft

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 8/10-8/11/15 (inclusive)
City: Toledo, WA | Sampler: AW

Well ID: MW-116 | Date Monitored: 8-10-15
Well Diameter: (2) 4 in.
Total Depth: 17.58 ft.
Depth to Water: 9.17 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.41 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
- Disposable Bailer: ____
- Stainless Steel Bailer: ____
- Stack Pump: ____
- Peristaltic Pump: ✓
- QED Bladder Pump: ____
- Other: ____

Sampling Equipment:
- Disposable Bailer: ____
- Pressure Bailer: ✓
- Metal Filters: ✓
- Peristaltic Pump: ✓
- QED Bladder Pump: ____
- Other: ____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ ltr
Amt Removed from Well: ____ ltr
Water Removed: ____ ltr
Product Transferred to: ____

Start Time (purge): 0835 | Weather Conditions: Sunny
Sample Time/Date: 0925 / 8-10-15 | Water Color: Cloudy | Odor: Y / N
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? N | If yes, Time: — | Volume: — ltrs | DTW @ Sampling: 9.27

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0853	3.6	7.19	335	18.5	1.3	116	9.20
0856	4.3	7.22	342	18.7	1.3	120	9.24
0859	4.8	7.22	345	18.7	1.4	122	9.27

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-116	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 14.0 ft

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 8/10-8/11/15 (inclusive)
City: Toledo, WA | Sampler: AW

Well ID: MW-117 | Date Monitored: 8-10-15
Well Diameter: (2)4 in.
Total Depth: 17.63 ft.
Depth to Water: 8.10 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.53 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 1140 | Weather Conditions: Sunny
Sample Time/Date: 1230 / 8-10-15 | Water Color: Cloudy | Odor: Y / (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? ✓ If yes, Time: — Volume: ✓ ltrs DTW @ Sampling: 8.20

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1158	3.6	6.73	189	19.8	1.3	35	8.14
1201	4.2	6.77	194	19.9	1.5	42	8.19
1204	4.8	6.80	198	19.9	1.5	47	8.20

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-117	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	3 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 13.0 ft.

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 8/10 - 8/11/15 (inclusive)
City: Toledo, WA Sampler: AW

Well ID MW-11B Date Monitored: 8-10-15
Well Diameter (2) 4 in.
Total Depth 17.21 ft.
Depth to Water 8.27 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.94 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 0940 Weather Conditions: Sunny
Sample Time/Date: 1020 / 8-10-15 Water Color: Cloudy Odor: Y / N
Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy
Did well de-water? N If yes, Time: — Volume: — ltrs DTW @ Sampling: 8.36

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmbos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0958	3.6	7.31	98	17.6	1.0	-27	8.30
1001	4.2	7.32	102	17.7	1.1	-30	8.32
1004	4.8	7.32	104	17.7	1.1	-33	8.36

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11B	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~13.0 ft

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8/10-11/15 (inclusive)
City: **Toledo, WA** Sampler: GM

Well ID MW-119 Date Monitored: 8/10/15
Well Diameter (2) 4 in.
Total Depth 16.69 ft.
Depth to Water 9.70 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.99 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	X
Peristaltic Pump	X	Peristaltic Pump	X
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: Ø ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 0735 Weather Conditions: Sunny
Sample Time/Date: 0823 / 8/10/15 Water Color: Cloudy Odor: Y (N)
Approx. Flow Rate: 200 mlpm Sediment Description: SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.95

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0753	3.6	7.26	242	17.3	1.2	44	9.84
0756	4.2	7.24	240	17.2	1.1	42	9.84
0759	4.8	7.22	241	17.0	1.2	41	9.95

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-119	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 13.00

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 8/10 - 8/11/15 (inclusive)
City: Toledo, WA | Sampler: AW

Well ID: MW-120 | Date Monitored: 8-10-15
Well Diameter: (2) 4 in.
Total Depth: 16.83 ft.
Depth to Water: 8.53 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.30 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 1040 | Weather Conditions: Sunny
Sample Time/Date: 1125 / 8-10-15 | Water Color: Cloudy | Odor: Y / N
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? ✓ | If yes, Time: — | Volume: — ltrs | DTW @ Sampling: 8.66

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (uS / mS umhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1058	3.6	7.09	244	18.4	1.2	74	8.57
1101	4.2	7.11	250	18.5	1.3	80	8.61
1104	4.8	7.14	259	18.5	1.3	88	8.66

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-120	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: 213.0 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 | Job Number: 386773
Site Address: 101 Mulford Road | Event Date: 8/10 - 8/11/15 (inclusive)
City: Toledo, WA | Sampler: AW

Well ID: B-1 | Date Monitored: 8-10-15
Well Diameter: (2)/4 in.
Total Depth: 19.77 ft.
Depth to Water: 8.80 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.97 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr
Product Transferred to:

Start Time (purge): 0700 | Weather Conditions: Sunny
Sample Time/Date: 0745 / 8-11-15 | Water Color: Cloudy | Odor: Y / (N)
Approx. Flow Rate: 200 mlpm | Sediment Description: Cloudy
Did well de-water? N | If yes, Time: — | Volume: — ltrs | DTW @ Sampling: 8.91

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0718	3.6	6.08	180.2	19.4	1.3	117	8.83
0721	4.2	6.05	182.3	19.5	1.2	121	8.87
0724	4.8	6.04	182.9	19.5	1.2	124	8.91

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-1	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~15.0ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #211556** Job Number: **386773**
Site Address: **101 Mulford Road** Event Date: 8/10-11/15 (inclusive)
City: **Toledo, WA** Sampler: GM

Well ID B-2 Date Monitored: 8/10/15
Well Diameter 2/4 in.
Total Depth 19.02 ft.
Depth to Water 10.01 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

9.01 xVF — = — x3 case volume = Estimated Purge Volume: _____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	X
Peristaltic Pump	X	Peristaltic Pump	
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: 6 ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ ltr
Amt Removed from Well: _____ ltr
Water Removed: _____ ltr
Product Transferred to: _____

Start Time (purge): 0805 Weather Conditions: SUNNY
Sample Time/Date: 0843 / 8/11/15 Water Color: CLOUDY Odor: Y / N SLIGHT
Approx. Flow Rate: 200 mlpm Sediment Description: SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 10.10

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0823	3.6	7.11	310	20.1	1.1	-2	10.09
0826	4.2	7.10	310	20.0	1.2	-4	10.10
0829	4.8	7.09	310	19.9	1.3	-5	10.10

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-2	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	1 x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 14.50 ft.

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Plug: _____ Add/Replaced Lock: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 8/10-11/15 (inclusive)
City: Toledo, WA Sampler: GM

Well ID B-3 Date Monitored: 8/10/15
Well Diameter (2) 4 in.
Total Depth 13.51 ft.
Depth to Water 9.59 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

3.92 3.93 mve xVF ____ = ____ x3 case volume = Estimated Purge Volume: ____ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ____

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Metal Filters	X
Peristaltic Pump	X
QED Bladder Pump	
Other:	

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ ltr
Amt Removed from Well: ____ ltr
Water Removed: ____ ltr
Product Transferred to: ____

Start Time (purge): 0855 Weather Conditions: SUNNY
Sample Time/Date: 0922 / 8/11/15 Water Color: CLOUDY Odor: Y N SLIGHT
Approx. Flow Rate: 200 mlpm Sediment Description: SILT
Did well de-water? NO If yes, Time: — Volume: — ltrs DTW @ Sampling: 9.65

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	~~Temperature~~ (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0913	3.6	7.27	325	18.9	1.0	-9	9.65
0916	4.2	7.28	327	19.0	1.0	-9	9.65
0919	4.8	7.29	328	19.1	1.0	-10	9.65

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-3	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	1 x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	1 x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	1 x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	1 x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ≈ 11.50ft.

Add/Replaced Gasket: ____ Add/Replaced Bolt: ____ Add/Replaced Plug: ____ Add/Replaced Lock: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #211556 Job Number: 386773
Site Address: 101 Mulford Road Event Date: 8/10-8/11/15 (inclusive)
City: Toledo, WA Sampler: AW

Well ID B-4 Date Monitored: 8-10-15
Well Diameter 2 1/4 in.
Total Depth 14.66 ft.
Depth to Water 8.82 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.84 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:		Sampling Equipment:	
Disposable Bailer		Disposable Bailer	
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	✓
Peristaltic Pump	✓	Peristaltic Pump	✓
QED Bladder Pump		QED Bladder Pump	
Other:		Other:	

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr
Product Transferred to: ___

Start Time (purge): 0800 Weather Conditions: Sunny
Sample Time/Date: 0850 / 8-11-15 Water Color: Cloudy Odor: (Y) / N Moderate
Approx. Flow Rate: 200 mlpm Sediment Description: Cloudy
Did well de-water? N If yes, Time: - Volume: - ltrs DTW @ Sampling: 8.94

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS) mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
0818	3.6	6.30	312	18.7	1.2	-35	8.88
0821	4.2	6.32	321	18.8	1.2	-40	8.92
0824	4.8	6.35	328	18.8	1.3	-42	8.94

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
B-4	6 x voa vial	YES	HCL	LANCASTER	NWTPH-Gx/BTEX+MTBE(8260)
	2 x 1 liter ambers	YES	HCL	LANCASTER	NWTPH-Dx w/sgc/NWTPH-Dx
	x 250ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	x 500ml poly	YES	NP	LANCASTER	DISSOLVED LEAD(6020 ICP/MS)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE(EPA 300.0)
	x 250ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 500ml poly	YES	HNO3	LANCASTER	DISSOLVED IRON/DISSOLVED MAGANGESE(6010B)
	x 250ml clear glass	YES	NAOH & ZnAc	LANCASTER	SULFIDE(SM20 4500 S2D)
	2 x voa vial	YES	HCL	LANCASTER	METHANE(RSKOP-175)
	x 250ml poly	YES	NP	LANCASTER	ALKALINITY(SM20 2320B)

COMMENTS: Depth Pump Set At: ~ 12.0 ft.

Add/Replaced Gasket: ___ Add/Replaced Bolt: ___ Add/Replaced Plug: ___ Add/Replaced Lock: ___

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # _____ Group # _____ Sample # _____
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler GM/AW

4 Matrix

Soil ☐ Sediment ☐ Water ☒ Potable ☐ Ground ☒ NPDES ☐ Surface ☐ Oil ☐ Air ☐

3 Grab / Composite

2 Sample Identification / Collected (Date, Time)

5 Analyses Requested

Total Number of Containers; BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☒; 8260 full scan; Oxygenates ____; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☒; NWTPH-Dx without Silica Gel Cleanup ☒; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☒ Method 6020 MS; NITRATE/SULFATE (EPA 300.0); METHANE (RSK SOP-175); DISSOLVED IRON/DISSOLVED MANGANESE (6010B); SULFIDE SM20 4500 S2D; ALKALINITY SM20 (2320B)

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Oil	Total Containers	BTEX+MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	NITRATE/SULFATE	METHANE	DISSOLVED IRON/MANGANESE	SULFIDE	ALKALINITY
QA	8/10/15	—	X			W		2	X			X										
MW-103		0820						16					X	X			X	X	X	X	X	X
MW-112		0925																				
MW-113		1037						9														
MW-115		1133																				
MW-116		0925						16										X	X	X	X	X
MW-117		12.30																				
MW-118		1020						9														
MW-119		0823						16										X	X	X	X	X
MW-120	↓	1125	↓			↓		9	↓			↓	↓	↓			↓					

6 Remarks

Please report results for Dx with & without sgc. Dissolved iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run ____ oxy's on highest hit
- ☐ Run ____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

~~Standard~~ 5 day 4 day EDF/EDD
72 hour 48 hour 24 hour

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8/10/15	—			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required) / EDD (circle if required)

Type I - Full
Type VI (Raw Data)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ~~X~~ FedEx _____ Other _____

Received by / Date / Time

Temperature Upon Receipt _____ °C

Custody Seals Intact? Yes No

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # ________ Group # ________ Sample # ________
Instructions on reverse side correspond with circled numbers.

SCR #: ________

① Client Information

Facility #: SS#211556-OML G-R#386773 WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO LEIDOSRS Lead Consultant: Russell Shropshire

Consultant/Office: Gettler-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: GM/AW

④ Matrix: ☐ Sediment ☒ Ground ☐ Surface; Water: ☐ Potable ☐ NPDES; ☐ Soil; ☐ Air; ☐ Oil

⑤ Analyses Requested: BTEX + MTBE 8021 ☐ 8260 ☒ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☒; NWTPH-Dx without Silica Gel Cleanup ☒; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☒ Method 6020 ICP/MS; Dissolved Iron/Dissolved Manganese (6010B); Sulfide (SM20 4500 S2D) Nitrate/Sulfate (EPA 300.0) Methane (RSK0P-175); Alkalinity SM20 (2320B)

② Sample Identification	Date	Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	Dissolved Iron/Dissolved Manganese (6010B)	Sulfide / Nitrate/Sulfate / Methane	Alkalinity SM20 (2320B)	
QA	8/11/15	—	X			W		2	X			X								
MW-109	↓	0745	↓			↓		9	↓			↓	X	X		X				
MW-110	↓	1018	↓			↓		↓	↓			↓	↓	↓		↓				
MW-111	↓	1000	↓			↓		16	↓			↓	↓	↓		↓	X	X	X	
MW-114	↓	1108	↓			↓		9	↓			↓	↓	↓		↓				
B-1	↓	0745	↓			↓		16	↓			↓	↓	↓		↓	X	X	X	
B-2	↓	0843	↓			↓		↓	↓			↓	↓	↓		↓	↓	↓	↓	
B-3	↓	0922	↓			↓		↓	↓			↓	↓	↓		↓	↓	↓	↓	
B-4	↓	0850	↓			↓		↓	↓			↓	↓	↓		↓	↓	↓	↓	

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

⑥ Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding.

⑦ Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour
EDF/EDD

⑧ Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ________

Relinquished by	Date	Time	Received by	Date	Time
[signature]					
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS X FedEx ____ Other ________ | Received by | Date | Time ⑨

Temperature Upon Receipt ________ °C | Custody Seals Intact? Yes No

Appendix B:
Laboratory Analytical Reports

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

September 22, 2013

Project: 211556

Submittal Date: 09/11/2013
Group Number: 1417939
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7192960
MW-117 Grab Water	7192961
MW-117 Filtered Grab Water	7192962
MW-118 Grab Water	7192963
MW-118 Filtered Grab Water	7192964
MW-120 Grab Water	7192965
MW-120 Filtered Grab Water	7192966

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

ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192960
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132632AA	09/20/2013 08:46	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132632AA	09/20/2013 08:46	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13260B20A	09/17/2013 20:17	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13260B20A	09/17/2013 20:17	Marie D Beamenderfer	1

Sample Description: MW-117 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192961
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013 10:02 by JP

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	760	250	5
00228	Sulfate	14808-79-8	5,400	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	29,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: MW-117 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192961
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013 10:02 by JP

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132622AA	09/20/2013 00:19	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132622AA	09/20/2013 00:19	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13260B20A	09/18/2013 00:13	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13260B20A	09/18/2013 00:13	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132590004A	09/16/2013 22:53	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132550025A	09/17/2013 10:36	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132550023A	09/17/2013 18:28	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132550023A	09/13/2013 11:30	Katheryne V Sponheimer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132550025A	09/13/2013 11:30	Katheryne V Sponheimer	1
00368	Nitrate Nitrogen	EPA 300.0	1	13254347901A	09/11/2013 18:26	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13254347901A	09/11/2013 18:26	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13255002105A	09/13/2013 01:32	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13255023001A	09/12/2013 10:20	Susan E Hibner	1

Sample Description: MW-117 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192962
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013 10:02 by JP

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	2.9	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132561848006	09/16/2013 18:55	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	132561848006	09/16/2013 18:55	Katlin N Cataldi	1
06035	Lead	SW-846 6020	1	132566050004A	09/16/2013 07:46	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132561848006	09/15/2013 09:00	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132566050004	09/15/2013 08:27	James L Mertz	1

Sample Description: MW-118 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192963
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013 12:25 by JP

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT18

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

General Sample Comments

State of Washington Lab Certification No. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132632AA	09/20/2013 09:10	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132632AA	09/20/2013 09:10	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13260B20A	09/18/2013 00:40	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13260B20A	09/18/2013 00:40	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132550025A	09/17/2013 10:59	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132550023A	09/17/2013 18:48	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132550023A	09/13/2013 11:30	Katheryne V Sponheimer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132550025A	09/13/2013 11:30	Katheryne V Sponheimer	1

Sample Description: MW-118 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192964
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013 12:25 by JP

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132566050005A	09/16/2013 12:05	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132566050005	09/15/2013 08:22	James L Mertz	1

Sample Description: MW-120 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192965
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013 13:50 by JP

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

General Sample Comments

State of Washington Lab Certification No. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F132611AA	09/18/2013 08:44	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F132611AA	09/18/2013 08:44	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13260B20A	09/18/2013 01:06	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13260B20A	09/18/2013 01:06	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132550025A	09/17/2013 11:22	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132550023A	09/17/2013 19:07	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132550023A	09/13/2013 11:30	Katheryne V Sponheimer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132550025A	09/13/2013 11:30	Katheryne V Sponheimer	1

Sample Description: MW-120 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7192966
LL Group # 1417939
Account # 11260

Project Name: 211556

Collected: 09/10/2013 13:50 by JP

Submitted: 09/11/2013 09:45
Reported: 09/22/2013 13:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.15	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132566050005A	09/16/2013 12:15	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132566050005	09/15/2013 08:22	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1417939
Reported: 09/22/13 at 01:24 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 Max
Batch number: F132611AA	Sample number(s): 7192965							
Benzene	N.D.	0.5	ug/l	94		78-120		
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	95		75-120		
Toluene	N.D.	0.5	ug/l	95		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: Z132622AA	Sample number(s): 7192961							
Benzene	N.D.	0.5	ug/l	88		78-120		
Ethylbenzene	N.D.	0.5	ug/l	89		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	87		75-120		
Toluene	N.D.	0.5	ug/l	89		80-120		
Xylene (Total)	N.D.	0.5	ug/l	89		80-120		
Batch number: Z132632AA	Sample number(s): 7192960,7192963							
Benzene	N.D.	0.5	ug/l	86		78-120		
Ethylbenzene	N.D.	0.5	ug/l	91		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	97		75-120		
Toluene	N.D.	0.5	ug/l	90		80-120		
Xylene (Total)	N.D.	0.5	ug/l	92		80-120		
Batch number: 13260B20A	Sample number(s): 7192960-7192961,7192963,7192965							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	98	103	75-135	5	30
Batch number: 132590004A	Sample number(s): 7192961							
Methane	N.D.	3.0	ug/l	103		80-120		
Batch number: 132550025A	Sample number(s): 7192961,7192963,7192965							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	80	78	50-113	3	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 132550023A	Sample number(s): 7192961,7192963,7192965							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	71	67	32-117	7	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 132561848006	Sample number(s): 7192962							
Iron	N.D.	43.0	ug/l	101		90-112		
Manganese	N.D.	0.83	ug/l	101		90-110		
Batch number: 132566050004A	Sample number(s): 7192962							
Lead	N.D.	0.085	ug/l	103		90-115		
Batch number: 132566050005A	Sample number(s): 7192964,7192966							
Lead	N.D.	0.085	ug/l	103		90-115		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1417939
Reported: 09/22/13 at 01:24 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13254347901A	Sample number(s): 7192961							
Nitrate Nitrogen	N.D.	50.	ug/l	102		90-110		
Sulfate	N.D.	300.	ug/l	102		90-110		
Batch number: 13255002105A	Sample number(s): 7192961							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 13255023001A	Sample number(s): 7192961							
Sulfide	N.D.	54.	ug/l	93		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F132611AA	Sample number(s): 7192965 UNSPK: 7192965								
Benzene	96	97	72-134	2	30				
Ethylbenzene	96	97	71-134	0	30				
Methyl Tertiary Butyl Ether	99	103	72-126	3	30				
Toluene	96	97	80-125	1	30				
Xylene (Total)	98	99	79-125	1	30				
Batch number: Z132622AA	Sample number(s): 7192961 UNSPK: 7192961								
Benzene	94	95	72-134	1	30				
Ethylbenzene	96	97	71-134	1	30				
Methyl Tertiary Butyl Ether	95	95	72-126	0	30				
Toluene	97	98	80-125	0	30				
Xylene (Total)	97	96	79-125	0	30				
Batch number: Z132632AA	Sample number(s): 7192960,7192963 UNSPK: 7192963								
Benzene	91	90	72-134	0	30				
Ethylbenzene	93	92	71-134	1	30				
Methyl Tertiary Butyl Ether	94	95	72-126	1	30				
Toluene	94	94	80-125	0	30				
Xylene (Total)	94	93	79-125	0	30				
Batch number: 132590004A	Sample number(s): 7192961 UNSPK: P192406								
Methane	-9186 (2)	-6949 (2)	35-157	17	20				
Batch number: 132561848006	Sample number(s): 7192962 UNSPK: P194599 BKG: P194599								
Iron	101	101	75-125	1	20	N.D.	N.D.	0 (1)	20
Manganese	99	99	75-125	0	20	16.3	16.4	1 (1)	20
Batch number: 132566050004A	Sample number(s): 7192962 UNSPK: P192464 BKG: P192464								
Lead	109	108	83-120	1	20	N.D.	N.D.	0 (1)	20
Batch number: 132566050005A	Sample number(s): 7192964,7192966 UNSPK: P193500 BKG: P193500								
Lead	105	104	83-120	1	20	0.57	0.58	1 (1)	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1417939
Reported: 09/22/13 at 01:24 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13254347901A	Sample number(s): 7192961 UNSPK: 7192961 BKG: 7192961								
Nitrate Nitrogen	106		90-110			760	720	5 (1)	20
Sulfate	104		90-110			5,400	5,400	1 (1)	20
Batch number: 13255002105A	Sample number(s): 7192961 UNSPK: P192447 BKG: P192447								
Total Alkalinity	72	73	10-159	0	5	274,000	280,000	2	5
Batch number: 13255023001A	Sample number(s): 7192961 UNSPK: P192415 BKG: P192415								
Sulfide	50	69	42-131	18*	16	220	230	3 (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: UST VOCs by 8260B - Water
Batch number: F132611AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7192965	99	100	101	92
Blank	98	98	100	93
LCS	98	97	99	95
MS	99	99	99	94
MSD	99	98	100	94
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z132622AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7192961	101	94	101	99
Blank	99	98	100	99
LCS	99	99	101	101
MS	100	99	100	100
MSD	99	99	100	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z132632AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7192960	99	96	101	99
7192963	100	97	100	98
Blank	99	98	100	98
LCS	99	100	100	100
MS	101	100	100	100

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1417939
Reported: 09/22/13 at 01:24 PM

Surrogate Quality Control

MSD	100	99	100	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13260B20A

	Trifluorotoluene-F
7192960	88
7192961	88
7192963	89
7192965	88
Blank	87
LCS	92
LCSD	94
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 132550023A

	Orthoterphenyl
7192961	87
7192963	92
7192965	89
Blank	86
LCS	97
LCSD	92
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 132550025A

	Orthoterphenyl
7192961	103
7192963	99
7192965	98
Blank	100
LCS	107
LCSD	105
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 132590004A

	Propene
7192961	98
Blank	90
LCS	95
MS	66
MSD	70
Limits:	42-131

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1417939
Reported: 09/22/13 at 01:24 PM

Surrogate 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1417939 Sample # 7192960-66
Instructions on reverse side correspond with circled numbers.

SCR #: ______

(1) Please forward the lab Client Info to the Lead Consultant and cc: G-R

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO SAICRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180

Consultant Phone # (425) 482-3323 x

Sampler J. Payne

(4) Matrix: Sediment ☐ Ground ☐ Surface ☐ Potable ☐ NPDES ☐ Air ☐ Soil ☐ Water Oil ☐

(5) Analyses Requested: BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐; WA EPH ☐; Lead Total ☐ Diss. ☑ Method 6020; NITRATE / SULFATE / SULFIDE; DISSOLVED IRON / MANGANESE; METHANE; ALKALINITY

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

Dissolved iron & manganese by 6010 per H. Chalender 09/12/13

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Nitrate/Sulfate/Sulfide	Dissolved Iron/Manganese	Methane	Alkalinity
QA	9.10.13		x			x		2	x			x									
MW-117		1002	x			x		16	x			x	x	x			x	x	x	x	x
MW-118		1225	x			x		9	x			x	x	x			x				
MW-120	↓	1350	x			x		9	x			x	x	x			x				

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered

ALL SAMPLES WERE COLLECTED 9.10.13

(7) Turnaround Time Requested (TAT) (please circle)
(Standard) 5 day 4 day
72 hour 48 hour 24 hour

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required) EDF/EDD
CVX-RTBU-FI_05 (default)
Other: ______

Relinquished by	Date	Time	Received by	Date	Time
[signature]	9.10.13				
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____			[signature]	9-11-13	0945

(9)

Temperature Upon Receipt 1.1 °C   Custody Seals Intact? (Yes) No

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7051.03

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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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

September 25, 2013

Project: 211556

Submittal Date: 09/12/2013
Group Number: 1418365
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7194850
MW-103 Grab Groundwater	7194851
MW-103 Filtered Grab Groundwater	7194852
MW-112 Grab Groundwater	7194853
MW-112 Filtered Grab Groundwater	7194854
MW-115 Grab Groundwater	7194855
MW-115 Filtered Grab Groundwater	7194856
MW-119 Grab Groundwater	7194859
MW-119 Filtered Grab Groundwater	7194860

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

ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194850
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

QAMRT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132661AA	09/23/2013 12:02	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132661AA	09/23/2013 12:02	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13261A07A	09/19/2013 13:06	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13261A07A	09/19/2013 13:06	Marie D Beamenderfer	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194851
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 11:51 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	12	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	116,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194851
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 11:51 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132661AA	09/23/2013 12:26	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132661AA	09/23/2013 12:26	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13261A07A	09/19/2013 14:49	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13261A07A	09/19/2013 14:49	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620002A	09/19/2013 12:16	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 12:39	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 11:49	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13255347602A	09/12/2013 23:07	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13255347602A	09/13/2013 07:32	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13256002104B	09/13/2013 19:41	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13259023001A	09/16/2013 11:40	Michele L Graham	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194852
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 11:51 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	1,460	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.11	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132601848009	09/20/2013 18:09	John P Hook	1
07058	Manganese	SW-846 6010B	1	132601848009	09/20/2013 18:09	John P Hook	1
06035	Lead	SW-846 6020	1	132606050001A	09/19/2013 17:27	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132601848009	09/18/2013 10:56	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050001	09/18/2013 23:30	Annamaria Stipkovits	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194853
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 13:50 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	310	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	32	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	1,900	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	127,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194853
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 13:50 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132661AA	09/23/2013 17:13	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132661AA	09/23/2013 17:13	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13261A07A	09/19/2013 15:14	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13261A07A	09/19/2013 15:14	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620002A	09/19/2013 13:11	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 12:59	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 12:09	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13255347602A	09/12/2013 23:56	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13255347602A	09/13/2013 15:05	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13256002104A	09/13/2013 19:52	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13259023001A	09/16/2013 11:40	Michele L Graham	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194854
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 13:50 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	3,240	43.0	1
07058	Manganese	7439-96-5	2,490	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.85	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132601848009	09/20/2013 18:31	John P Hook	1
07058	Manganese	SW-846 6010B	1	132601848009	09/20/2013 18:31	John P Hook	1
06035	Lead	SW-846 6020	1	132606050001A	09/19/2013 17:28	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132601848009	09/18/2013 10:56	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050001	09/18/2013 23:30	Annamaria Stipkovits	1

Sample Description: MW-115 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194855
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 10:52 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	31	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

General Sample Comments

State of Washington Lab Certification No. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132661AA	09/23/2013 17:37	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132661AA	09/23/2013 17:37	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13261A07A	09/19/2013 15:40	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13261A07A	09/19/2013 15:40	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 13:19	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 12:28	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194856
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 10:52 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.89	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132606050001A	09/19/2013 17:30	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050001	09/18/2013 23:30	Annamaria Stipkovits	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194859
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 12:47 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	590	250	5
00228	Sulfate	14808-79-8	4,200	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	95,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194859
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 12:47 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z132661AA	09/23/2013 18:01	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z132661AA	09/23/2013 18:01	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13261A07A	09/19/2013 16:06	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13261A07A	09/19/2013 16:06	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 00:28	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 14:32	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 12:48	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13255347602A	09/13/2013 00:12	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13255347602A	09/13/2013 15:21	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13256002105A	09/13/2013 20:25	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13260023001A	09/17/2013 09:25	Michele L Graham	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7194860
LL Group # 1418365
Account # 11260

Project Name: 211556

Collected: 09/11/2013 12:47 by JP

Submitted: 09/12/2013 09:45
Reported: 09/25/2013 14:36

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	50.6	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.26	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132601848009	09/20/2013 18:34	John P Hook	1
07058	Manganese	SW-846 6010B	1	132601848009	09/20/2013 18:34	John P Hook	1
06035	Lead	SW-846 6020	1	132606050001A	09/19/2013 17:32	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132601848009	09/18/2013 10:56	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050001	09/18/2013 23:30	Annamaria Stipkovits	1

Quality Control Summary

Client Name: Chevron Group Number: 1418365
Reported: 09/25/13 at 02:36 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 Max
Batch number: Z132661AA	Sample number(s): 7194850-7194851,7194853,7194855,7194859							
Benzene	N.D.	0.5	ug/l	87		78-120		
Ethylbenzene	N.D.	0.5	ug/l	90		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	91		80-120		
Xylene (Total)	N.D.	0.5	ug/l	91		80-120		
Batch number: 13261A07A	Sample number(s): 7194850-7194851,7194853,7194855,7194859							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	92		75-135		
Batch number: 132620002A	Sample number(s): 7194851,7194853							
Methane	N.D.	3.0	ug/l	101		80-120		
Batch number: 132620032A	Sample number(s): 7194859							
Methane	N.D.	3.0	ug/l	108		80-120		
Batch number: 132600030A	Sample number(s): 7194851,7194853,7194855,7194859							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	79	85	50-113	7	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 132600031A	Sample number(s): 7194851,7194853,7194855,7194859							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	87	32-117	14	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 132601848009	Sample number(s): 7194852,7194854,7194860							
Iron	N.D.	43.0	ug/l	99		90-112		
Manganese	1.6	0.83	ug/l	102		90-110		
Batch number: 132606050001A	Sample number(s): 7194852,7194854,7194856,7194860							
Lead	N.D.	0.085	ug/l	106		90-115		
Batch number: 13255347602A	Sample number(s): 7194851,7194853,7194859							
Nitrate Nitrogen	N.D.	50.	ug/l	102		90-110		
Sulfate	N.D.	300.	ug/l	102		90-110		
Batch number: 13256002104A	Sample number(s): 7194853							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 13256002104B	Sample number(s): 7194851							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 13256002105A	Sample number(s): 7194859							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1418365
Reported: 09/25/13 at 02:36 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Total Alkalinity	N.D.	700.	ug/l as CaCO3	99		90-110		
Batch number: 13259023001A	Sample number(s): 7194851,7194853							
Sulfide	N.D.	54.	ug/l	99		90-110		
Batch number: 13260023001A	Sample number(s): 7194859							
Sulfide	N.D.	54.	ug/l	91		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: Z132661AA	Sample number(s): 7194850-7194851,7194853,7194855,7194859 UNSPK: 7194851								
Benzene	76	88	72-134	14	30				
Ethylbenzene	80	95	71-134	17	30				
Methyl Tertiary Butyl Ether	79	93	72-126	16	30				
Toluene	80	95	80-125	17	30				
Xylene (Total)	81	97	79-125	18	30				
Batch number: 13261A07A	Sample number(s): 7194850-7194851,7194853,7194855,7194859 UNSPK: P198551								
NWTPH-Gx water C7-C12	99	103	75-135	4	30				
Batch number: 132620002A	Sample number(s): 7194851,7194853 UNSPK: 7194851								
Methane	68	60	35-157	10	20				
Batch number: 132620032A	Sample number(s): 7194859 UNSPK: P199193								
Methane	-3706 (2)	-3394 (2)	35-157	8	20				
Batch number: 132601848009	Sample number(s): 7194852,7194854,7194860 UNSPK: 7194852 BKG: 7194852								
Iron	104	103	75-125	1	20	N.D.	N.D.	0 (1)	20
Manganese	87	90	75-125	1	20	1,460	1,400	4	20
Batch number: 132606050001A	Sample number(s): 7194852,7194854,7194856,7194860 UNSPK: P195309 BKG: P195309								
Lead	119	108	83-120	7	20	4.6	4.8	2 (1)	20
Batch number: 13255347602A	Sample number(s): 7194851,7194853,7194859 UNSPK: 7194851 BKG: 7194851								
Nitrate Nitrogen	105		90-110			N.D.	N.D.	0 (1)	20
Sulfate	104		90-110			2,800	2,600	8 (1)	20
Batch number: 13256002104A	Sample number(s): 7194853 UNSPK: P194474 BKG: P194474								
Total Alkalinity	99		10-159			880	N.D.	200* (1)	5
Batch number: 13256002104B	Sample number(s): 7194851 UNSPK: P194474 BKG: 7194851								
Total Alkalinity	99		10-159			116,000	117,000	1	5
Batch number: 13256002105A	Sample number(s): 7194859 UNSPK: 7194859 BKG: 7194859								
Total Alkalinity	94		10-159			95,400	96,400	1	5

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1418365
Reported: 09/25/13 at 02:36 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 13259023001A	Sample number(s): 7194851,7194853 UNSPK: P197764 BKG: P197764								
Sulfide	77	77	42-131	0	16	N.D.	N.D.	0 (1)	5
Batch number: 13260023001A	Sample number(s): 7194859 UNSPK: P197771 BKG: P197771								
Sulfide	71	70	42-131	1	16	N.D.	N.D.	0 (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: UST VOCs by 8260B - Water
Batch number: Z132661AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7194850	98	100	100	96
7194851	98	98	99	95
7194853	98	97	100	96
7194855	97	98	100	94
7194859	97	99	101	95
Blank	98	97	99	95
LCS	98	101	99	97
MS	98	100	99	96
MSD	97	98	100	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13261A07A

	Trifluorotoluene-F
7194850	94
7194851	82
7194853	91
7194855	87
7194859	86
Blank	90
LCS	94
MS	94
MSD	94
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 132600030A

	Orthoterphenyl
7194851	102
7194853	106

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1418365
Reported: 09/25/13 at 02:36 PM

Surrogate Quality Control

7194855	104
7194859	103
Blank	102
LCS	109
LCSD	113
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 132600031A

	Orthoterphenyl
7194851	96
7194853	99
7194855	99
7194859	97
Blank	95
LCS	108
LCSD	120
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 132620002A

	Propene
7194851	55
7194853	62
Blank	90
LCS	91
MS	56
MSD	51
Limits:	42-131

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 132620032A

	Propene
7194859	90
Blank	91
LCS	103
MS	79
MSD	92
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories AMENDED

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1418365 Sample # 7194850-60

Instructions on reverse side correspond with circled numbers.

(1) Please forward the lab results directly to the Lead Consultant and cc: G-R Client Information

Facility #: SS#211556-OML G-R#386773 WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO SAICRS Lead Consultant: Russell Shropshire

Consultant/Office: Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180

Consultant Phone #: (425) 482-3323 x

Sampler: J. Payne

(4) Matrix: Sediment ☐ Ground ☑ Surface ☐ / Potable ☐ NPDES ☐ Air ☐

(5) Analyses Requested: BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☑ Method 6020; NITRATE SULFATE; DISS. IRON / MANGANESE 6010B; SULFIDE / METHANE; ALKALINITY

(2) Sample Identification	Date	Time	Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	Lead	NITRATE SULFATE	DISS. IRON/MANGANESE	SULFIDE/METHANE	ALKALINITY
QA	9.11.13		X			X		2	X			X								
MW-103		1151	X			X		16	X			X	X	X		X	X	X	X	X
MW-112		1350	X			X		16	X			X	X	X		X	X	X	X	X
MW-115		1052	X			X		9	X			X	X	X		X				
MW-116		1000	X			X		9	X			X	X	X				X		
MW-119		1247	X			X		16	X			X	X	X		X	X	X	X	X

SCR #:

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

MW-116 will be reported separately. JMP 9/13/13

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as alkalinity samples have been field filtered

AMEND COC:
ADD DIS. LEAD TO MW-115
ADD DIS. IRON & MANGANESE TO MW-116
MWC 09-12-13

(7) Turnaround Time Requested (TAT) (please circle): (Standard) 5 day 4 day / 72 hour 48 hour 24 hour

(8) Data Package (circle if required): Type I - Full; Type VI (Raw Data)

EDD (circle if required) EDF/EDD: CVX-RTBU-FI_05 (default); Other:

Relinquished by	Date	Time	Received by	Date	Time
[signature]	9.11.13	1600			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ___ Other ___			Received by [signature]	9-12-13	0945

Temperature Upon Receipt 1.3 °C

Custody Seals Intact? (Yes) No (9)

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management 7051.03

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1418365 Sample # 7194850-60
Instructions on reverse side correspond with circled numbers.

SCR #: ______

(1) Client Information — Please forward the lab results directly to the Lead Consultant and cc: G-R

Facility #: SS#211556-OML G-R#386773
WBS:
Site Address: 101 Mulford Road, TOLEDO, WA
Chevron PM: MHO SAICRS
Lead Consultant: Russell Shropshire
Consultant/Office: Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180
Consultant Phone #: (425) 482-3323 x
Sampler: J. Payne

(4) Matrix: ☐ Sediment ☑ Ground ☐ Surface; ☐ Potable ☐ NPDES ☐ Air; ☐ Soil; Water; Oil

(5) Analyses Requested: BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☑ Method 6020; Nitrate Sulfate; Diss. Iron/Manganese; Sulfide/Methane; Alkalinity

(2) Sample Identification

Sample Identification	Date	Time	Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	Nitrate Sulfate	Diss. Iron/Manganese	Sulfide/Methane	Alkalinity
QA	9.11.13		X			X		2	X			X								
MW-103		1151	X			X		16	X			X	X	X		X	X	X	X	X
MW-112		1350	X			X		16	X			X	X	X		X	X	X	X	X
MW-115		1052	X			X		9	X			X	X	X						
MW-116		1000	X			X		9	X			X	X	X						
MW-119		1247	X			X		16	X			X	X	X		X	X	X	X	X

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered

(7) Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required) EDF/EDD
CVX-RTBU-FI_05 (default)
Other: ______

(9)

Relinquished by	Date	Time	Received by	Date	Time
[signature]	9.11.13	1600 (~~1700~~)			
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____			Received by [signature]	9-12-13	0945

Temperature Upon Receipt 1.3 °C Custody Seals Intact? (Yes) No

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
Issued by Dept. 40 Management
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.
7051.03

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

September 25, 2013

Project: 211556

Submittal Date: 09/13/2013
Group Number: 1418631
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7196411
MW-109 Grab Groundwater	7196412
MW-109 Filtered Grab Groundwater	7196413
MW-110 Grab Groundwater	7196414
MW-110 Filtered Grab Groundwater	7196415
MW-113 Grab Groundwater	7196416
MW-113 Filtered Grab Groundwater	7196417
MW-114 Grab Groundwater	7196418
MW-114 Filtered Grab Groundwater	7196419
MW-116 Grab Groundwater	7196420
MW-116 Filtered Grab Groundwater	7196421

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

ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196411
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTQA-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132661AA	09/23/2013 22:33	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132661AA	09/23/2013 22:33	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13261B20A	09/19/2013 15:15	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13261B20A	09/19/2013 15:15	Marie D Beamenderfer	1

Sample Description: MW-109 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196412
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 11:16 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	31	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	72	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	31	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	72	1

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

General Sample Comments

State of Washington Lab Certification No. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132661AA	09/23/2013 23:19	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132661AA	09/23/2013 23:19	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13261B20A	09/19/2013 17:22	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13261B20A	09/19/2013 17:22	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 17:42	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 13:08	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1

Sample Description: MW-109 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196413
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 11:16 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.62	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132606050005A	09/19/2013 05:21	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050005	09/18/2013 10:10	James L Mertz	1

Sample Description: MW-110 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196414
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 13:20 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

General Sample Comments

State of Washington Lab Certification No. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132661AA	09/24/2013 00:27	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132661AA	09/24/2013 00:27	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13263B94A	09/21/2013 13:38	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13263B94A	09/21/2013 13:38	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 16:28	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 13:28	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196415
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 13:20 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.39	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132606050005A	09/19/2013 05:30	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050005	09/18/2013 10:10	James L Mertz	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196416
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 08:52 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	45,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196416
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 08:52 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132661AA	09/24/2013 00:49	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132661AA	09/24/2013 00:49	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13262A07A	09/20/2013 14:07	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13262A07A	09/20/2013 14:07	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 00:47	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 16:48	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 13:48	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13256347601A	09/13/2013 21:32	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13256347601A	09/13/2013 21:32	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13260005101A	09/17/2013 09:16	Susan A Engle	1
00230	Sulfide	SM 4500-S2 D-2000	1	13260023002A	09/17/2013 09:25	Michele L Graham	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196417
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 08:52 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	113	43.0	1
07058	Manganese	7439-96-5	76.1	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.12	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132601848010	09/22/2013 04:55	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	132601848010	09/22/2013 04:55	Tara L Snyder	1
06035	Lead	SW-846 6020	1	132606050005A	09/19/2013 05:32	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132601848010	09/18/2013 11:00	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050005	09/18/2013 10:10	James L Mertz	1

Sample Description: MW-114 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196418
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 10:13 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	60	29	1
08271	Heavy Range Organics C24-C40	n.a.	260	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

General Sample Comments

State of Washington Lab Certification No. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132661AA	09/24/2013 01:35	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132661AA	09/24/2013 01:35	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13262A07A	09/20/2013 14:33	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13262A07A	09/20/2013 14:33	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 18:22	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 14:27	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196419
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 10:13 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.3	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132606050005A	09/19/2013 05:33	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050005	09/18/2013 10:10	James L Mertz	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196420
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 12:23 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

16MRT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	16	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	390	250	5
00228	Sulfate	14808-79-8	4,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	38,800	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196420
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 12:23 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

16MRT

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132661AA	09/24/2013 01:58	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132661AA	09/24/2013 01:58	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13262A07A	09/20/2013 16:42	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13262A07A	09/20/2013 16:42	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 01:05	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132600030A	09/19/2013 17:22	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132600031A	09/24/2013 14:07	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132600031A	09/18/2013 10:00	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132600030A	09/18/2013 10:00	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13256347601A	09/13/2013 22:21	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13256347601A	09/13/2013 22:21	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13260005101A	09/17/2013 09:21	Susan A Engle	1
00230	Sulfide	SM 4500-S2 D-2000	1	13260023002A	09/17/2013 09:25	Michele L Graham	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7196421
LL Group # 1418631
Account # 11260

Project Name: 211556

Collected: 09/12/2013 12:23 by JP

Submitted: 09/13/2013 09:20
Reported: 09/25/2013 16:07

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	628	43.0	1
07058	Manganese	7439-96-5	29.0	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132601848010	09/22/2013 05:43	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	132601848010	09/22/2013 05:43	Tara L Snyder	1
06035	Lead	SW-846 6020	1	132606050005A	09/19/2013 05:35	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132601848010	09/18/2013 11:00	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132606050005	09/18/2013 10:10	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1418631
Reported: 09/25/13 at 04:07 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 Max
Batch number: D132661AA	Sample number(s): 7196411-7196412,7196414,7196416,7196418,7196420							
Benzene	N.D.	0.5	ug/l	91		78-120		
Ethylbenzene	N.D.	0.5	ug/l	89		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	92		75-120		
Toluene	N.D.	0.5	ug/l	92		80-120		
Xylene (Total)	N.D.	0.5	ug/l	91		80-120		
Batch number: 13261B20A	Sample number(s): 7196411-7196412							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	103	103	75-135	1	30
Batch number: 13262A07A	Sample number(s): 7196416,7196418,7196420							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	96		75-135		
Batch number: 13263B94A	Sample number(s): 7196414							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	108		75-135		
Batch number: 132620032A	Sample number(s): 7196416,7196420							
Methane	N.D.	3.0	ug/l	108		80-120		
Batch number: 132600030A	Sample number(s): 7196412,7196414,7196416,7196418,7196420							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	79	85	50-113	7	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 132600031A	Sample number(s): 7196412,7196414,7196416,7196418,7196420							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	87	32-117	14	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 132601848010	Sample number(s): 7196417,7196421							
Iron	N.D.	43.0	ug/l	102		90-112		
Manganese	1.6	0.83	ug/l	101		90-110		
Batch number: 132606050005A	Sample number(s): 7196413,7196415,7196417,7196419,7196421							
Lead	N.D.	0.085	ug/l	104		90-115		
Batch number: 13256347601A	Sample number(s): 7196416,7196420							
Nitrate Nitrogen	N.D.	50.	ug/l	103		90-110		
Sulfate	N.D.	300.	ug/l	105		90-110		
Batch number: 13260005101A	Sample number(s): 7196416,7196420							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 13260023002A	Sample number(s): 7196416,7196420							
Sulfide	N.D.	54.	ug/l	90		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1418631
Reported: 09/25/13 at 04:07 PM

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

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D132661AA	Sample number(s): 7196411-7196412,7196414,7196416,7196418,7196420 UNSPK: 7196412								
Benzene	104	106	72-134	2	30				
Ethylbenzene	104	104	71-134	0	30				
Methyl Tertiary Butyl Ether	101	101	72-126	0	30				
Toluene	106	108	80-125	2	30				
Xylene (Total)	105	107	79-125	1	30				
Batch number: 13262A07A	Sample number(s): 7196416,7196418,7196420 UNSPK: P197109								
NWTPH-Gx water C7-C12	101	106	75-135	5	30				
Batch number: 13263B94A	Sample number(s): 7196414 UNSPK: P199193								
NWTPH-Gx water C7-C12	96	95	75-135	1	30				
Batch number: 132620032A	Sample number(s): 7196416,7196420 UNSPK: P199193								
Methane	-3706 (2)	-3394 (2)	35-157	8	20				
Batch number: 132601848010	Sample number(s): 7196417,7196421 UNSPK: 7196417 BKG: 7196417								
Iron	101	103	75-125	1	20	113	117	4 (1)	20
Manganese	98	100	75-125	2	20	76.1	78.6	3	20
Batch number: 132606050005A	Sample number(s): 7196413,7196415,7196417,7196419,7196421 UNSPK: P198085 BKG: P198085								
Lead	104	103	83-120	1	20	0.34	0.37	7 (1)	20
Batch number: 13256347601A	Sample number(s): 7196416,7196420 UNSPK: 7196416 BKG: 7196416								
Nitrate Nitrogen	103		90-110			N.D.	N.D.	0 (1)	20
Sulfate	106		90-110			3,300	3,200	5 (1)	20
Batch number: 13260005101A	Sample number(s): 7196416,7196420 UNSPK: P196728 BKG: P196728								
Total Alkalinity	93		10-159			145,000	147,000	2	5
Batch number: 13260023002A	Sample number(s): 7196416,7196420 UNSPK: P197759 BKG: P197759								
Sulfide	67	78	42-131	11	16	92	85	8* (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: UST VOCs by 8260B - Water
Batch number: D132661AA

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1418631
Reported: 09/25/13 at 04:07 PM

Surrogate Quality Control

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7196411	101	100	99	98
7196412	101	99	98	99
7196414	99	95	99	99
7196416	100	99	99	99
7196418	101	100	99	99
7196420	100	100	99	99
Blank	99	97	100	99
LCS	100	101	100	99
MS	99	103	100	100
MSD	99	102	100	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13261B20A

	Trifluorotoluene-F
7196411	88
7196412	85
Blank	87
LCS	93
LCSD	94
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13262A07A

	Trifluorotoluene-F
7196416	90
7196418	90
7196420	87
Blank	92
LCS	101
MS	96
MSD	97
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13263B94A

	Trifluorotoluene-F
7196414	87
Blank	85
LCS	81
MS	81
MSD	80
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 132600030A

	Orthoterphenyl

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1418631
Reported: 09/25/13 at 04:07 PM

Surrogate Quality Control

7196412	102
7196414	100
7196416	100
7196418	93
7196420	95
Blank	102
LCS	109
LCSD	113
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 132600031A

Orthoterphenyl

7196412	95
7196414	99
7196416	107
7196418	91
7196420	99
Blank	95
LCS	108
LCSD	120
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 132620032A

Propene

7196416	72
7196420	80
Blank	91
LCS	103
MS	79
MSD	92
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1418631 Sample # 719641I-21

Instructions on reverse side correspond with circled numbers.

(1) Client Information — Please forward the lab results directly to the Lead Consultant and cc: G-R

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO SAICRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180

Consultant Phone # (425) 482-3323 x

Sampler J. PAYNE

SCR #: _____

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	(4) Matrix: Soil	Sediment	Water	Ground	Potable	Surface	NPDES	Oil	Air	Total Number of Containers	(5) Analyses Requested: BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method 6020	Nitrate · Sulfate	Dissolved Iron / Manganese	Sulfide · Methane	Alkalinity
TRIP BLANK	9.12.13		X				X							2	X						X											
MW-109		1116	X				X							9	X						X	X	X			X						
MW-110		1320	X				X							9	X						X	X	X			X						
MW-113		0852	X				X							16	X						X	X	X			X	X	X	X	X		
MW-114		1013	X				X							9	X						X	X	X			X						
MW-116		1223	X				X							16	X						X	X	X			X	X	X	X	X		

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(6) Remarks

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

(8) Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle one) EDF/EDD

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	9.12.13	1630			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature Upon Receipt 1.2 °C

Received by	Date	Time
	9-13-13	0920

Custody Seals Intact? Yes No

(9)

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

September 26, 2013

Project: 211556

Submittal Date: 09/14/2013
Group Number: 1418939
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7198300
B-1 Grab Groundwater	7198301
B-1 Filtered Grab Groundwater	7198302
B-1 Filtered Grab Groundwater	7198303
B-2 Grab Groundwater	7198304
B-2 Filtered Grab Groundwater	7198305
B-2 Filtered Grab Groundwater	7198306
B-3 Grab Groundwater	7198307
B-3 Filtered Grab Groundwater	7198308
B-3 Filtered Grab Groundwater	7198309
B-4 Grab Groundwater	7198310
B-4 Filtered Grab Groundwater	7198311
B-4 Filtered Grab Groundwater	7198312
MW-111 Grab Groundwater	7198313
MW-111 Filtered Grab Groundwater	7198314
MW-111 Filtered Grab Groundwater	7198315

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

ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198300
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQ-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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. C259

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132662AA	09/23/2013 22:22	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132662AA	09/23/2013 22:22	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13262A07A	09/20/2013 13:16	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13262A07A	09/20/2013 13:16	Marie D Beamenderfer	1

Sample Description: **B-1 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198301
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 10:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	36	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	4,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	109,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198301
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 10:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132662AA	09/24/2013 00:15	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132662AA	09/24/2013 00:15	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13262A07A	09/20/2013 22:42	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13262A07A	09/20/2013 22:42	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 01:23	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132620025A	09/26/2013 12:01	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132620024A	09/24/2013 17:42	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132620024A	09/20/2013 09:45	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132620025A	09/20/2013 09:45	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13257655601A	09/14/2013 14:35	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13257655601A	09/14/2013 14:35	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13260006104A	09/17/2013 14:45	Susan A Engle	1
00230	Sulfide	SM 4500-S2 D-2000	1	13261023002A	09/18/2013 14:40	Susan E Hibner	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198302
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 10:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	102	43.0	1
07058	Manganese	7439-96-5	404	0.83	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved iron and manganese.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132611848004	09/21/2013 02:12	John W Yanzuk II	1
07058	Manganese	SW-846 6010B	1	132611848004	09/21/2013 02:12	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848004	09/19/2013 09:22	James L Mertz	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198303
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 10:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132626050001A	09/21/2013 01:59	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132626050001	09/20/2013 05:05	James L Mertz	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198304
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 08:41 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	15	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	850	250	5
00228	Sulfate	14808-79-8	3,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	96,300	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198304
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 08:41 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132662AA	09/24/2013 00:38	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132662AA	09/24/2013 00:38	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13263B94A	09/21/2013 14:03	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13263B94A	09/21/2013 14:03	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 01:42	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132620025A	09/26/2013 12:21	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132620024A	09/24/2013 18:02	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132620024A	09/20/2013 09:45	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132620025A	09/20/2013 09:45	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13257655601A	09/14/2013 15:24	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13257655601A	09/14/2013 15:24	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13260006104A	09/17/2013 14:50	Susan A Engle	1
00230	Sulfide	SM 4500-S2 D-2000	1	13261023002A	09/18/2013 14:40	Susan E Hibner	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198305
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 08:41 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	278	0.83	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved iron and manganese.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132611848004	09/21/2013 02:15	John W Yanzuk II	1
07058	Manganese	SW-846 6010B	1	132611848004	09/21/2013 02:15	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848004	09/19/2013 09:22	James L Mertz	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198306
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 08:41 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132626050001A	09/21/2013 02:01	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132626050001	09/20/2013 05:05	James L Mertz	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198307
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 13:32 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	0.6	0.5	1
10943	Ethylbenzene	100-41-4	37	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	0.9	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,700	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	360	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	2,700	28	1
08271	Heavy Range Organics C24-C40	n.a.	72	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	160	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	9,000	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	238,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198307
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 13:32 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132662AA	09/24/2013 01:01	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132662AA	09/24/2013 01:01	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13263B94A	09/21/2013 14:29	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13263B94A	09/21/2013 14:29	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 02:00	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132620025A	09/26/2013 13:02	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132620024A	09/24/2013 18:21	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132620024A	09/20/2013 09:45	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132620025A	09/20/2013 09:45	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13257655601A	09/14/2013 15:40	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13257655601A	09/14/2013 15:40	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13260006104A	09/17/2013 14:56	Susan A Engle	1
00230	Sulfide	SM 4500-S2 D-2000	1	13261023002A	09/18/2013 14:40	Susan E Hibner	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198308
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 13:32 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		ug/l	ug/l	
01754	Iron	7439-89-6	20,000	43.0	1
07058	Manganese	7439-96-5	6,070	0.83	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved iron and manganese.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132611848004	09/21/2013 02:19	John W Yanzuk II	1
07058	Manganese	SW-846 6010B	1	132611848004	09/21/2013 02:19	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848004	09/19/2013 09:22	James L Mertz	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198309
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 13:32 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	16.0	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132626050001A	09/21/2013 02:04	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132626050001	09/20/2013 05:05	James L Mertz	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198310
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 12:23 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	3	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	0.5	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,200	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	370	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	250	28	1
08271	Heavy Range Organics C24-C40	n.a.	110	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	130	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	131,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198310
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 12:23 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132662AA	09/24/2013 01:23	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132662AA	09/24/2013 01:23	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13263B94A	09/21/2013 14:54	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13263B94A	09/21/2013 14:54	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 02:18	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132620025A	09/26/2013 13:42	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132620024A	09/24/2013 18:41	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132620024A	09/20/2013 09:45	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132620025A	09/20/2013 09:45	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13257655601A	09/14/2013 15:56	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13257655601A	09/14/2013 15:56	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13260006104A	09/17/2013 15:21	Susan A Engle	1
00230	Sulfide	SM 4500-S2 D-2000	1	13261023002A	09/18/2013 14:40	Susan E Hibner	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198311
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 12:23 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	10,900	43.0	1
07058	Manganese	7439-96-5	2,300	0.83	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved iron and manganese.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132611848004	09/21/2013 02:23	John W Yanzuk II	1
07058	Manganese	SW-846 6010B	1	132611848004	09/21/2013 02:23	John W Yanzuk II	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848004	09/19/2013 09:22	James L Mertz	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198312
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 12:23 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.6	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132626050001A	09/21/2013 02:05	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132626050001	09/20/2013 05:05	James L Mertz	1

Sample Description: **MW-111 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198313
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 11:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	110	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	39	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	5,500	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	3,000	60	20
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	3,600	28	1
08271	Heavy Range Organics C24-C40	n.a.	89	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	330	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	1,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	202,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for Alkalinity.

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

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198313
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 11:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D132662AA	09/24/2013 01:46	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D132662AA	09/24/2013 01:46	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13263B94A	09/21/2013 15:19	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13263B94A	09/21/2013 15:19	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	132620032A	09/20/2013 15:43	Elizabeth J Marin	20
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	132620025A	09/26/2013 13:22	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	132620024A	09/24/2013 19:01	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	132620024A	09/20/2013 09:45	Anna E Stager	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	132620025A	09/20/2013 09:45	Anna E Stager	1
00368	Nitrate Nitrogen	EPA 300.0	1	13257655601A	09/14/2013 16:12	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13257655601A	09/14/2013 16:12	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13260006104A	09/17/2013 15:26	Susan A Engle	1
00230	Sulfide	SM 4500-S2 D-2000	1	13261023002A	09/18/2013 14:40	Susan E Hibner	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198314
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 11:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	12,300	43.0	1
07058	Manganese	7439-96-5	4,740	0.83	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was field filtered for dissolved iron and manganese.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	132611848001	09/19/2013 19:14	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	132611848001	09/19/2013 19:14	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	132611848001	09/19/2013 09:40	James L Mertz	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7198315
LL Group # 1418939
Account # 11260

Project Name: 211556

Collected: 09/13/2013 11:15 by JP

Submitted: 09/14/2013 08:50
Reported: 09/26/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	59.4	0.085	1

General Sample Comments

State of Washington Lab Certification No. C259
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	132626050001A	09/21/2013 02:07	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132626050001	09/20/2013 05:05	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1418939
Reported: 09/26/13 at 03:20 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 Max
Batch number: D132662AA	Sample number(s): 7198300-7198301,7198304,7198307,7198310,7198313							
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	93		75-120		
Toluene	N.D.	0.5	ug/l	95		80-120		
Xylene (Total)	N.D.	0.5	ug/l	94		80-120		
Batch number: 13262A07A	Sample number(s): 7198300-7198301							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	96		75-135		
Batch number: 13263B94A	Sample number(s): 7198304,7198307,7198310,7198313							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	108		75-135		
Batch number: 132620032A	Sample number(s): 7198301,7198304,7198307,7198310,7198313							
Methane	N.D.	3.0	ug/l	108		80-120		
Batch number: 132620025A	Sample number(s): 7198301,7198304,7198307,7198310,7198313							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	80	88	50-113	10	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 132620024A	Sample number(s): 7198301,7198304,7198307,7198310,7198313							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	54	66	32-117	21*	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 132611848001	Sample number(s): 7198314							
Iron	68.2	43.0	ug/l	103		90-112		
Manganese	N.D.	0.83	ug/l	102		90-110		
Batch number: 132611848004	Sample number(s): 7198302,7198305,7198308,7198311							
Iron	N.D.	43.0	ug/l	100		90-112		
Manganese	N.D.	0.83	ug/l	101		90-110		
Batch number: 132626050001A	Sample number(s): 7198303,7198306,7198309,7198312,7198315							
Lead	N.D.	0.085	ug/l	102		90-115		
Batch number: 13257655601A	Sample number(s): 7198301,7198304,7198307,7198310,7198313							
Nitrate Nitrogen	N.D.	50.	ug/l	99		90-110		
Sulfate	N.D.	300.	ug/l	99		90-110		
Batch number: 13260006104A	Sample number(s): 7198301,7198304,7198307,7198310,7198313							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	97		90-110		
Batch number: 13261023002A	Sample number(s): 7198301,7198304,7198307,7198310,7198313							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1418939
Reported: 09/26/13 at 03:20 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sulfide	N.D.	54.	ug/l	92		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D132662AA	Sample number(s): 7198300-7198301,7198304,7198307,7198310,7198313 UNSPK: P199193								
Benzene	104	104	72-134	1	30				
Ethylbenzene	102	101	71-134	1	30				
Methyl Tertiary Butyl Ether	91	98	72-126	7	30				
Toluene	104	104	80-125	1	30				
Xylene (Total)	103	103	79-125	1	30				
Batch number: 13262A07A	Sample number(s): 7198300-7198301 UNSPK: P197109								
NWTPH-Gx water C7-C12	101	106	75-135	5	30				
Batch number: 13263B94A	Sample number(s): 7198304,7198307,7198310,7198313 UNSPK: P199193								
NWTPH-Gx water C7-C12	96	95	75-135	1	30				
Batch number: 132620032A	Sample number(s): 7198301,7198304,7198307,7198310,7198313 UNSPK: P199193								
Methane	-3706 (2)	-3394 (2)	35-157	8	20				
Batch number: 132611848001	Sample number(s): 7198314 UNSPK: P200857 BKG: P200857								
Iron	123	122	75-125	0	20	1,830	1,980	8	20
Manganese	101	101	75-125	0	20	29.7	30.7	3	20
Batch number: 132611848004	Sample number(s): 7198302,7198305,7198308,7198311 UNSPK: P197126 BKG: P197126								
Iron	101	104	75-125	1	20	1,230	1,240	0	20
Manganese	121 (2)	134 (2)	75-125	1	20	4,380	4,460	2	20
Batch number: 132626050001A	Sample number(s): 7198303,7198306,7198309,7198312,7198315 UNSPK: P202468 BKG: P202468								
Lead	109	106	83-120	2	20	13.0	13.4	3	20
Batch number: 13257655601A	Sample number(s): 7198301,7198304,7198307,7198310,7198313 UNSPK: 7198301 BKG: 7198301								
Nitrate Nitrogen	98		90-110			N.D.	N.D.	0 (1)	20
Sulfate	98		90-110			4,600	4,700	3 (1)	20
Batch number: 13260006104A	Sample number(s): 7198301,7198304,7198307,7198310,7198313 UNSPK: P198371 BKG: P198371								
Total Alkalinity	95		10-159			163,000	165,000	1	5
Batch number: 13261023002A	Sample number(s): 7198301,7198304,7198307,7198310,7198313 UNSPK: P200931 BKG: P200931								
Sulfide	85	85	42-131	1	16	140	120	14* (1)	5

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1418939
Reported: 09/26/13 at 03:20 PM

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: UST VOCs by 8260B - Water
Batch number: D132662AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7198300	99	98	99	99
7198301	99	96	99	98
7198304	98	96	99	99
7198307	99	97	99	102
7198310	100	99	100	102
7198313	100	98	99	101
Blank	100	95	101	101
LCS	99	103	101	100
MS	100	98	100	99
MSD	100	102	99	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13262A07A

	Trifluorotoluene-F
7198300	91
7198301	86
Blank	92
LCS	101
MS	96
MSD	97
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13263B94A

	Trifluorotoluene-F
7198304	74
7198307	100
7198310	91
7198313	97
Blank	85
LCS	81
MS	81
MSD	80
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 132620024A

	Orthoterphenyl
7198301	89
7198304	83

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1418939
Reported: 09/26/13 at 03:20 PM

Surrogate Quality Control

7198307	76
7198310	90
7198313	78
Blank	79
LCS	76
LCSD	93

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 132620025A

Orthoterphenyl

7198301	101
7198304	108
7198307	120
7198310	104
7198313	138
Blank	109
LCS	105
LCSD	114

Limits: 50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 132620032A

Propene

7198301	83
7198304	83
7198307	76
7198310	84
7198313	104
Blank	91
LCS	103
MS	79
MSD	92

Limits: 42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1418939 Sample # 7198300-15

Instructions on reverse side correspond with circled numbers.

(1) Please forward the lab results directly to the Lead Consultant and cc: G-R — Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO SAICRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180

Consultant Phone # (425) 482-3323 x

Sampler J. PAYNE

(4) Matrix

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Sediment	Potable Water	Ground Water	Surface Water	NPDES	Air	Oil	Total Number of Containers
QA	9.13		x					x					2
B-1		0915	x					x					16
B-2		0841	x					x					16
B-3		1332	x					x					16
B-4		1223	x					x					16
MW-11		1115	x					x					16

(5) Analyses Requested

BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method 8270	NITRATE · SULFATE	DISS. IRON & MANGANESE	SULFIDE · METHANE	ALKALINITY
						x												
x						x	x	x				x			x	x	x	x
x						x	x	x				x			x	x	x	x
x						x	x	x				x			x	x	x	x
x						x	x	x				x			x	x	x	x
x						x	x	x				x			x	x	x	x

SCR #: _____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as alkalinity samples have been field filtered

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

(8) Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required) EDF/EDD

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	9.13.13	1630			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____			Received by	Date 9/14/13	Time 850

Temperature Upon Receipt 14-4.2 °C

Custody Seals Intact? (Yes) No

(9)

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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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

December 10, 2013

Project: 211556

Submittal Date: 11/26/2013
Group Number: 1436827
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7293155
MW-109 Grab Water	7293156
MW-109 Filtered Grab Water	7293157
MW-114 Grab Water	7293158
MW-114 Filtered Grab Water	7293159

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7293155
LL Group # 1436827
Account # 11260

Project Name: 211556

Collected: 11/22/2013

Submitted: 11/26/2013 09:15
Reported: 12/10/2013 08:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTQA-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133384AA	12/04/2013 18:59	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133384AA	12/04/2013 18:59	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13336A07A	12/02/2013 12:56	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13336A07A	12/02/2013 12:56	Marie D Beamenderfer	1

Sample Description: MW-109 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7293156
LL Group # 1436827
Account # 11260

Project Name: 211556

Collected: 11/22/2013 08:50 by JP

Submitted: 11/26/2013 09:15
Reported: 12/10/2013 08:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

109MT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	68	29	1
08271	Heavy Range Organics C24-C40	n.a.	170	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133384AA	12/04/2013 19:21	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133384AA	12/04/2013 19:21	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13336A07A	12/02/2013 17:09	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13336A07A	12/02/2013 17:09	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133370025A	12/06/2013 16:01	Nicholas R Rossi	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133370024A	12/06/2013 14:53	Nicholas R Rossi	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133370024A	12/04/2013 12:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133370025A	12/04/2013 12:30	Kelli M Barto	1

Sample Description: MW-109 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7293157
LL Group # 1436827
Account # 11260

Project Name: 211556

Collected: 11/22/2013 08:50 by JP

Submitted: 11/26/2013 09:15
Reported: 12/10/2013 08:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133386050005A	12/06/2013 11:55	Deborah A Krady	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133386050005	12/05/2013 11:27	James L Mertz	1

Sample Description: MW-114 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7293158
LL Group # 1436827
Account # 11260

Project Name: 211556

Collected: 11/22/2013 09:40 by JP

Submitted: 11/26/2013 09:15
Reported: 12/10/2013 08:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

114MT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	99	29	1
08271	Heavy Range Organics C24-C40	n.a.	340	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	200	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133384AA	12/04/2013 20:27	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133384AA	12/04/2013 20:27	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13336A07A	12/02/2013 17:33	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13336A07A	12/02/2013 17:33	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133370025A	12/06/2013 16:26	Nicholas R Rossi	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133370024A	12/06/2013 15:15	Nicholas R Rossi	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133370024A	12/04/2013 12:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133370025A	12/04/2013 12:30	Kelli M Barto	1

Sample Description: MW-114 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7293159
LL Group # 1436827
Account # 11260

Project Name: 211556

Collected: 11/22/2013 09:40 by JP

Submitted: 11/26/2013 09:15
Reported: 12/10/2013 08:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.10	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133386050005A	12/09/2013 20:57	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133386050005	12/05/2013 11:27	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1436827
Reported: 12/10/13 at 08:05 AM

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 Max
Batch number: F133384AA	Sample number(s): 7293155-7293156,7293158							
Benzene	N.D.	0.5	ug/l	95		78-120		
Ethylbenzene	N.D.	0.5	ug/l	93		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	96		75-120		
Toluene	N.D.	0.5	ug/l	92		80-120		
Xylene (Total)	N.D.	0.5	ug/l	94		80-120		
Batch number: 13336A07A	Sample number(s): 7293155-7293156,7293158							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	107		75-135		
Batch number: 133370025A	Sample number(s): 7293156,7293158							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	75	75	50-113	0	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 133370024A	Sample number(s): 7293156,7293158							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	68	71	32-117	5	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133386050005A	Sample number(s): 7293157,7293159							
Lead	N.D.	0.085	ug/l	102		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F133384AA	Sample number(s): 7293155-7293156,7293158 UNSPK: 7293156								
Benzene	100	103	72-134	3	30				
Ethylbenzene	104	103	71-134	1	30				
Methyl Tertiary Butyl Ether	101	101	72-126	0	30				
Toluene	102	102	80-125	0	30				
Xylene (Total)	104	103	79-125	1	30				
Batch number: 13336A07A	Sample number(s): 7293155-7293156,7293158 UNSPK: P292979								
NWTPH-Gx water C7-C12	114	111	75-135	2	30				
Batch number: 133386050005A	Sample number(s): 7293157,7293159 UNSPK: P293711 BKG: P293711								
Lead	104	105	89-120	0	20	6.4	6.3	3	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1436827
Reported: 12/10/13 at 08:05 AM

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: UST VOCs by 8260B - Water
Batch number: F133384AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7293155	100	99	100	96
7293156	98	95	98	97
7293158	99	101	99	98
Blank	99	100	99	96
LCS	100	103	99	98
MS	100	105	100	101
MSD	101	102	100	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13336A07A

	Trifluorotoluene-F
7293155	101
7293156	85
7293158	99
Blank	96
LCS	113
MS	99
MSD	99
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 133370024A

	Orthoterphenyl
7293156	84
7293158	77
Blank	86
LCS	87
LCSD	91
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 133370025A

	Orthoterphenyl
7293156	93
7293158	92
Blank	94
LCS	99
LCSD	100

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1436827
Reported: 12/10/13 at 08:05 AM

Surrogate Quality Control

Limits: 50-150

*- 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.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11260 Sample #: 7293155-60 SCR#:

Grp # 1436827

Facility #: SS # 211566 - OML G-R # 386773
Site Address: 101 MULFORD ROAD, TOLEDO, WA
Chevron PM: MARK HORNE Lead Consultant: LEIDOS RS
Consultant/Office: GETTLER-RYAN INC 6805 SIERRA CT DUBLIN CA
Consultant Prj. Mgr.: DEANNA L HARDING 925 551-7444
Consultant Phone #: 925 551 7555 Fax #:
Sampler: J. PAYNE
Service Order #: ☐ Non SAR:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water	Matrix: Oil	Matrix: Air	Total Number of Containers	Preservation Codes #	Analyses Requested: BTEX + MTBE 8260 ☐ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐	NWTPH-Dx	NWTPH-Dx w/ Silica	NWTPH-Dx without Silica	DISSOLVED LEAD 6010B
Q.A	11.22.13		X			X			2		X						X			
MW-109	↓	0850	X			X			9		X						X	X	X	X
MW-114	↓	0940	X			X			9		X						X	X	X	X

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy s on highest hit
☐ Run ____ oxy s on all hits

Comments / Remarks
Dx SAMPLES TO BE RUN WITH & WITHOUT SILICA GEL

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I — Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Relinquished by:	Date	Time	Received by:	Date	Time
		11.25.13	1300			
	Relinquished by:	Date	Time	Received by:	Date	Time
	Relinquished by:	Date	Time	Received by:	Date	Time
	Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	Date 11/26/13	Time 915
	Temperature Upon Receipt 0.5-2.2 °C			Custody Seals Intact? Yes No		

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

December 09, 2013

Project: 211556

Submittal Date: 11/22/2013
Group Number: 1436001
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7288838
B-1 Grab Groundwater	7288839
B-1 Filtered Grab Groundwater	7288840
B-1 Filtered Grab Groundwater	7288841
B-2 Grab Groundwater	7288842
B-2 Filtered Grab Groundwater	7288843
B-3 Grab Groundwater	7288844
B-3 Filtered Grab Groundwater	7288845
B-3 Filtered Grab Groundwater	7288846
B-4 Grab Groundwater	7288847
B-4 Filtered Grab Groundwater	7288848
B-4 Filtered Grab Groundwater	7288849
MW-111 Grab Groundwater	7288850
MW-111 Filtered Grab Groundwater	7288851
MW-111 Filtered Grab Groundwater	7288852

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288838
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT-QA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z133361AA	12/02/2013 17:53	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z133361AA	12/02/2013 17:53	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326B07A	11/25/2013 13:16	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326B07A	11/25/2013 13:16	Catherine J Schwarz	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288839
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 10:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	140	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	4,200	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	90,600	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z133361AA	12/02/2013 18:17	Brett W Kenyon	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288839
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 10:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z133361AA	12/02/2013 18:17	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326B07A	11/25/2013 14:57	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326B07A	11/25/2013 14:57	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133370032A	12/04/2013 02:59	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 14:39	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/03/2013 00:35	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1
00368	Nitrate Nitrogen	EPA 300.0	1	13326987131A	11/22/2013 21:30	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	13326987131A	11/22/2013 21:30	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	2	13338003101A	12/04/2013 18:25	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13329023002A	11/25/2013 12:00	Susan E Hibner	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288840
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 10:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133376050007A	12/05/2013 14:38	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133376050007	12/04/2013 12:26	James L Mertz	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288841
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 10:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	45.6	43.0	1
07058	Manganese	7439-96-5	314	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133381848003	12/05/2013 20:55	Maria A Orrs	1
07058	Manganese	SW-846 6010B	1	133381848003	12/05/2013 20:55	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133381848003	12/05/2013 10:16	James L Mertz	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288842
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 09:24 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	28	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	580	250	5
00228	Sulfate	14808-79-8	3,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	97,500	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z133372AA	12/03/2013 18:57	Brett W Kenyon	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288842
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 09:24 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z133372AA	12/03/2013 18:57	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326B07A	11/25/2013 15:22	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326B07A	11/25/2013 15:22	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133370032A	12/04/2013 03:17	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 15:02	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/03/2013 00:58	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1
00368	Nitrate Nitrogen	EPA 300.0	1	13326987131A	11/22/2013 22:55	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	13326987131A	11/22/2013 22:55	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	13329005102A	11/25/2013 21:19	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13329023002A	11/25/2013 12:00	Susan E Hibner	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288843
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 09:24 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	287	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133381848003	12/05/2013 21:06	Maria A Orrs	1
07058	Manganese	SW-846 6010B	1	133381848003	12/05/2013 21:06	Maria A Orrs	1
06035	Lead	SW-846 6020	1	133386050003A	12/05/2013 22:36	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133381848003	12/05/2013 10:16	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133386050003	12/05/2013 11:05	James L Mertz	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288844
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 13:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	190	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	170	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,600	29	1
08271	Heavy Range Organics C24-C40	n.a.	180	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	42	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	10,500	250	5
00228	Sulfate	14808-79-8	4,400	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	33,800	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z133372AA	12/03/2013 20:09	Brett W Kenyon	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288844
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 13:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z133372AA	12/03/2013 20:09	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326B07A	11/25/2013 15:47	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326B07A	11/25/2013 15:47	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133370032A	12/04/2013 03:34	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133370025A	12/06/2013 15:15	Nicholas R Rossi	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133370024A	12/06/2013 13:45	Nicholas R Rossi	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133370024A	12/04/2013 12:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133370025A	12/04/2013 12:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	13326987131A	11/22/2013 23:11	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	13326987131A	11/22/2013 23:11	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	13329005102A	11/25/2013 21:29	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13329023002A	11/25/2013 12:00	Susan E Hibner	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288845
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 13:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	11.2	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133386050003A	12/05/2013 22:38	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133386050003	12/05/2013 11:05	James L Mertz	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288846
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 13:14 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	326	43.0	1
07058	Manganese	7439-96-5	4,200	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133381848003	12/05/2013 21:10	Maria A Orrs	1
07058	Manganese	SW-846 6010B	1	133381848003	12/05/2013 21:10	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133381848003	12/05/2013 10:16	James L Mertz	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288847
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 11:11 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	3	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,200	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	600	15	5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	150	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	120	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	120,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133381AA	12/04/2013 14:46	Anita M Dale	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288847
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 11:11 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133381AA	12/04/2013 14:46	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326B07A	11/25/2013 16:12	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326B07A	11/25/2013 16:12	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133370032A	12/04/2013 12:42	Elizabeth J Marin	5
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133370025A	12/06/2013 14:30	Nicholas R Rossi	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133370024A	12/06/2013 14:07	Nicholas R Rossi	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133370024A	12/04/2013 12:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133370025A	12/04/2013 12:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	13326987131A	11/22/2013 23:28	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	13326987131A	11/22/2013 23:28	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	2	13338003102A	12/04/2013 20:25	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13329023002A	11/25/2013 12:00	Susan E Hibner	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288848
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 11:11 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.9	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133386050003A	12/05/2013 22:43	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133386050003	12/05/2013 11:05	James L Mertz	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288849
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 11:11 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	10,500	43.0	1
07058	Manganese	7439-96-5	2,290	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133381848003	12/05/2013 21:14	Maria A Orrs	1
07058	Manganese	SW-846 6010B	1	133381848003	12/05/2013 21:14	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133381848003	12/05/2013 10:16	James L Mertz	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288850
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 12:12 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	0.9	0.5	1
10943	Ethylbenzene	100-41-4	77	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	13	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	3,300	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	3,500	60	20
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,000	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	370	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	178,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133381AA	12/04/2013 15:08	Anita M Dale	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288850
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 12:12 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133381AA	12/04/2013 15:08	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326B07A	11/25/2013 20:24	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326B07A	11/25/2013 20:24	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133370032A	12/04/2013 13:00	Elizabeth J Marin	20
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133370025A	12/06/2013 14:53	Nicholas R Rossi	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133370024A	12/06/2013 14:30	Nicholas R Rossi	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133370024A	12/04/2013 12:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133370025A	12/04/2013 12:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	13326987131A	11/22/2013 23:45	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	13326987131A	11/22/2013 23:45	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	2	13338003102A	12/04/2013 20:38	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13329023002A	11/25/2013 12:00	Susan E Hibner	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288851
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 12:12 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	17.8	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133386050003A	12/05/2013 22:45	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133386050003	12/05/2013 11:05	James L Mertz	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7288852
LL Group # 1436001
Account # 11260

Project Name: 211556

Collected: 11/21/2013 12:12 by JP

Submitted: 11/22/2013 09:00
Reported: 12/09/2013 14:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	9,940	43.0	1
07058	Manganese	7439-96-5	4,310	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133381848003	12/05/2013 21:17	Maria A Orrs	1
07058	Manganese	SW-846 6010B	1	133381848003	12/05/2013 21:17	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133381848003	12/05/2013 10:16	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1436001
Reported: 12/09/13 at 02:04 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 Max
Batch number: F133381AA	Sample number(s): 7288847,7288850							
Benzene	N.D.	0.5	ug/l	98		78-120		
Ethylbenzene	N.D.	0.5	ug/l	96		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		75-120		
Toluene	N.D.	0.5	ug/l	95		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: Z133361AA	Sample number(s): 7288838-7288839							
Benzene	N.D.	0.5	ug/l	94		78-120		
Ethylbenzene	N.D.	0.5	ug/l	91		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	89		75-120		
Toluene	N.D.	0.5	ug/l	96		80-120		
Xylene (Total)	N.D.	0.5	ug/l	96		80-120		
Batch number: Z133372AA	Sample number(s): 7288842,7288844							
Benzene	N.D.	0.5	ug/l	101		78-120		
Ethylbenzene	N.D.	0.5	ug/l	99		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	96		75-120		
Toluene	N.D.	0.5	ug/l	104		80-120		
Xylene (Total)	N.D.	0.5	ug/l	105		80-120		
Batch number: 13326B07A	Sample number(s): 7288838-7288839,7288842,7288844,7288847,7288850							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 133370032A	Sample number(s): 7288839,7288842,7288844,7288847,7288850							
Methane	N.D.	3.0	ug/l	101		80-120		
Batch number: 133310027A	Sample number(s): 7288839,7288842							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	78	73	50-113	6	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 133370025A	Sample number(s): 7288844,7288847,7288850							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	75	75	50-113	0	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 133310028A	Sample number(s): 7288839,7288842							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	76	32-117	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133370024A	Sample number(s): 7288844,7288847,7288850							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	68	71	32-117	5	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133376050007A	Sample number(s): 7288840							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1436001
Reported: 12/09/13 at 02:04 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Lead	N.D.	0.085	ug/l	103		90-110		
Batch number: 133381848003	Sample number(s): 7288841,7288843,7288846,7288849,7288852							
Iron	N.D.	43.0	ug/l	104		90-112		
Manganese	N.D.	0.83	ug/l	100		90-110		
Batch number: 133386050003A	Sample number(s): 7288843,7288845,7288848,7288851							
Lead	N.D.	0.085	ug/l	98		90-110		
Batch number: 13326987131A	Sample number(s): 7288839,7288842,7288844,7288847,7288850							
Nitrate Nitrogen	N.D.	50.	ug/l	100		90-110		
Sulfate	N.D.	300.	ug/l	101		90-110		
Batch number: 13329005102A	Sample number(s): 7288842,7288844							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	97		90-110		
Batch number: 13329023002A	Sample number(s): 7288839,7288842,7288844,7288847,7288850							
Sulfide	N.D.	54.	ug/l	95		90-110		
Batch number: 13338003101A	Sample number(s): 7288839							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	96		90-110		
Batch number: 13338003102A	Sample number(s): 7288847,7288850							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	95		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F133381AA	Sample number(s): 7288847,7288850 UNSPK: P289074								
Benzene	102	104	72-134	2	30				
Ethylbenzene	102	102	71-134	0	30				
Methyl Tertiary Butyl Ether	92	94	72-126	1	30				
Toluene	103	103	80-125	0	30				
Xylene (Total)	104	103	79-125	1	30				
Batch number: Z133361AA	Sample number(s): 7288838-7288839 UNSPK: 7288839								
Benzene	108	102	72-134	6	30				
Ethylbenzene	105	100	71-134	5	30				
Methyl Tertiary Butyl Ether	93	87	72-126	6	30				
Toluene	110	105	80-125	5	30				
Xylene (Total)	109	105	79-125	4	30				
Batch number: Z133372AA	Sample number(s): 7288842,7288844 UNSPK: 7288842								
Benzene	113	104	72-134	8	30				
Ethylbenzene	114	103	71-134	10	30				
Methyl Tertiary Butyl Ether	98	90	72-126	9	30				

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1436001
Reported: 12/09/13 at 02:04 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Toluene	119	109	80-125	9	30				
Xylene (Total)	118	107	79-125	10	30				
Batch number: 133370032A	Sample number(s): 7288839,7288842,7288844,7288847,7288850 UNSPK: P288890								
Methane	-406 (2)	-1776 (2)	35-157	13	20				
Batch number: 133376050007A	Sample number(s): 7288840 UNSPK: P288626 BKG: P288626								
Lead	103	103	89-120	0	20	N.D.	N.D.	0 (1)	20
Batch number: 133381848003	Sample number(s): 7288841,7288843,7288846,7288849,7288852 UNSPK: P289074 BKG: P289074								
Iron	131 (2)	144 (2)	75-125	2	20	4,450	4,700	5	20
Manganese	100	99	75-125	1	20	52.0	53.3	2	20
Batch number: 133386050003A	Sample number(s): 7288843,7288845,7288848,7288851 UNSPK: P288595 BKG: P288595								
Lead	102	105	89-120	3	20	0.18	0.18	2 (1)	20
Batch number: 13326987131A	Sample number(s): 7288839,7288842,7288844,7288847,7288850 UNSPK: 7288839 BKG: 7288839								
Nitrate Nitrogen	102		90-110			N.D.	N.D.	0 (1)	20
Sulfate	99		90-110			4,200	4,100	3 (1)	20
Batch number: 13329005102A	Sample number(s): 7288842,7288844 UNSPK: P287850 BKG: P287850								
Total Alkalinity	98	99	10-159	1	5	9,800	10,600	8* (1)	5
Batch number: 13329023002A	Sample number(s): 7288839,7288842,7288844,7288847,7288850 UNSPK: P288516 BKG: P288516								
Sulfide	85	83	42-131	1	16	460	430	8* (1)	5
Batch number: 13338003101A	Sample number(s): 7288839 UNSPK: P288890 BKG: P288890								
Total Alkalinity	94	92	10-159	1	5	56,900	56,400	1	5
Batch number: 13338003102A	Sample number(s): 7288847,7288850 UNSPK: P298854 BKG: P298854								
Total Alkalinity	93		10-159			259,000	264,000	2	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: UST VOCs by 8260B - Water
Batch number: F133381AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7288847	102	102	100	101
7288850	100	98	100	103
Blank	99	95	99	96
LCS	100	100	99	99

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1436001
Reported: 12/09/13 at 02:04 PM

Surrogate Quality Control

MS	98	99	100	100
MSD	99	100	98	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z133361AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7288838	100	102	100	92
7288839	99	100	100	92
Blank	99	101	101	93
LCS	97	103	100	97
MS	97	99	100	97
MSD	97	99	100	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z133372AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7288842	99	99	100	92
7288844	98	99	102	97
Blank	100	100	101	92
LCS	97	101	101	97
MS	98	102	102	97
MSD	98	102	101	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13326B07A

	Trifluorotoluene-F
7288838	96
7288839	90
7288842	89
7288844	94
7288847	130
7288850	133
Blank	95
LCS	108
LCSD	105
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 133310027A

	Orthoterphenyl
7288839	101
7288842	101
Blank	96
LCS	105
LCSD	96

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1436001
Reported: 12/09/13 at 02:04 PM

Surrogate Quality Control

Limits: 50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 133310028A

	Orthoterphenyl
7288839	86
7288842	93
Blank	98
LCS	101
LCSD	99

Limits: 50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 133370024A

	Orthoterphenyl
7288844	86
7288847	76
7288850	92
Blank	86
LCS	87
LCSD	91

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 133370025A

	Orthoterphenyl
7288844	111
7288847	86
7288850	97
Blank	94
LCS	99
LCSD	100

Limits: 50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 133370032A

	Propene
7288839	81
7288842	83
7288844	79
7288847	83
7288850	97
Blank	98
LCS	96
MS	81
MSD	87

Limits: 42-131

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1436001
Reported: 12/09/13 at 02:04 PM

Surrogate 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1436001 Sample # 7288838-52
Instructions on reverse side correspond with circled numbers.

Please forward the lab results directly to the Lead Consultant and cc: G-R

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180
Consultant Phone # (425) 482-3323 x
Sampler J PAYNE

SCR #:

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	(4) Matrix: Soil	Sediment	Potable Water	Ground Water	NPDES	Surface Water	Air	Oil	Total Number of Containers	(5) Analyses Requested: BTEX + MTBE 8021	8260 Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total	Lead Diss.	Method	Nitrate / Sulfate	Methane / Sulfides	Alkalinity	Diss Iron & Manganese
QA	11.21.13		X				X						2	X				X											
B.1		1014	X				X						16	X				X	X	X			X			X	X	X	X
B.2		0924	X				X						16	X				X	X	X			X			X	X	X	X
B.3		1314	X				X						16	X				X	X	X			X			X	X	X	X
B.4		1111	X				X						16	X				X	X	X			X			X	X	X	X
MW.111	↓	1212	X				X						16	X				X	X	X			X			X	X	X	X

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered.

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	11.21.13	1630			
Relinquished by	Date	Time	Received by	Date	Time

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: EDF/EDD

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by: [signature] Date 11/22/13 Time 0900

Temperature Upon Receipt 1.5 °C

Custody Seals Intact? Yes No

(9)

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

December 04, 2013

Project: 211556

Submittal Date: 11/21/2013
Group Number: 1435589
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7286242
MW-103 Grab Groundwater	7286243
MW-103 Filtered Grab Groundwater	7286244
MW-103 Filtered Grab Groundwater	7286245
MW-110 Grab Groundwater	7286246
MW-110 Filtered Grab Groundwater	7286247
MW-112 Grab Groundwater	7286248
MW-112 Filtered Grab Groundwater	7286249
MW-112 Filtered Grab Groundwater	7286250
MW-113 Grab Groundwater	7286251
MW-113 Filtered Grab Groundwater	7286252
MW-113 Filtered Grab Groundwater	7286253
MW-119 Grab Groundwater	7286254
MW-119 Filtered Grab Groundwater	7286255
MW-119 Filtered Grab Groundwater	7286256

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286242
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

QAMRT

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D133352AA	12/01/2013 17:34	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D133352AA	12/01/2013 17:34	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 12:53	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 12:53	Catherine J Schwarz	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286243
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 09:32 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	4.0	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	1,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	112,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D133352AA	12/01/2013 22:31	Daniel H Heller	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286243
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 09:32 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D133352AA	12/01/2013 22:31	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 21:25	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 21:25	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133330001A	11/29/2013 20:57	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 11:56	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/02/2013 22:42	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1
00368	Nitrate Nitrogen	EPA 300.0	1	13325987901A	11/21/2013 16:02	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13325987901A	11/21/2013 16:02	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13326004203B	11/22/2013 21:09	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13325023003A	11/21/2013 15:55	Susan E Hibner	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286244
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 09:32 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.21	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050005A	12/04/2013 02:24	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050005	12/02/2013 11:50	James L Mertz	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286245
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 09:32 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	178	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133261848003	11/26/2013 10:12	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	133261848003	11/26/2013 10:12	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133261848003	11/25/2013 10:55	Denise K Conners	1

Sample Description: MW-110 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286246
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 13:40 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D133352AA	12/01/2013 22:54	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D133352AA	12/01/2013 22:54	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 21:50	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 21:50	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 12:18	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/02/2013 23:05	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286247
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 13:40 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.33	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050005A	12/04/2013 02:26	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050005	12/02/2013 11:50	James L Mertz	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286248
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 11:34 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	68	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	810	15	5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	33	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	130,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D133352AA	12/01/2013 23:17	Daniel H Heller	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286248
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 11:34 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D133352AA	12/01/2013 23:17	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 22:15	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 22:15	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133330001A	11/30/2013 11:59	Nicholas R Rossi	5
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 12:41	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/02/2013 23:28	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1
00368	Nitrate Nitrogen	EPA 300.0	1	13325987901A	11/21/2013 17:23	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13325987901A	11/21/2013 17:23	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13326004203A	11/22/2013 20:00	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13325023003A	11/21/2013 15:55	Susan E Hibner	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286249
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 11:34 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.58	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050005A	12/04/2013 02:28	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050005	12/02/2013 11:50	James L Mertz	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286250
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 11:34 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	3,920	43.0	1
07058	Manganese	7439-96-5	2,600	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133261848002	11/26/2013 15:21	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	133261848002	11/26/2013 15:21	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133261848002	11/25/2013 10:35	Denise K Conners	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286251
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 12:36 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,100	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	40,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D133352AA	12/01/2013 23:40	Daniel H Heller	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286251
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 12:36 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D133352AA	12/01/2013 23:40	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13329A07A	11/26/2013 10:52	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13329A07A	11/26/2013 10:52	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133330001A	11/29/2013 21:33	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 13:04	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/02/2013 23:50	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1
00368	Nitrate Nitrogen	EPA 300.0	1	13325987901A	11/21/2013 17:39	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13325987901A	11/21/2013 17:39	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13326004203A	11/22/2013 19:48	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13329023001A	11/25/2013 08:50	Susan E Hibner	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286252
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 12:36 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.11	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050005A	12/04/2013 02:41	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050005	12/02/2013 11:50	James L Mertz	1

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Analysis Report

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286253
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 12:36 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	1.1	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133261848002	11/26/2013 15:25	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	133261848002	11/26/2013 15:25	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133261848002	11/25/2013 10:35	Denise K Conners	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286254
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 10:40 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	14	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	129,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D133352AA	12/02/2013 00:03	Daniel H Heller	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286254
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 10:40 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D133352AA	12/02/2013 00:03	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13329A07A	11/26/2013 11:17	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13329A07A	11/26/2013 11:17	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133330001A	11/29/2013 21:50	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 14:08	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/03/2013 00:13	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1
00368	Nitrate Nitrogen	EPA 300.0	1	13325987901A	11/21/2013 17:55	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13325987901A	11/21/2013 17:55	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13326004203A	11/22/2013 20:14	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13329023001A	11/25/2013 08:50	Susan E Hibner	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286255
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 10:40 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.80	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050005A	12/04/2013 02:43	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050005	12/02/2013 11:50	James L Mertz	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7286256
LL Group # 1435589
Account # 11260

Project Name: 211556

Collected: 11/20/2013 10:40 by JP

Submitted: 11/21/2013 09:05
Reported: 12/04/2013 15:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	11.1	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133261848002	11/26/2013 15:29	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	133261848002	11/26/2013 15:29	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133261848002	11/25/2013 10:35	Denise K Conners	1

Quality Control Summary

Client Name: Chevron Group Number: 1435589
Reported: 12/04/13 at 03:20 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 Max
Batch number: D133352AA	Sample number(s): 7286242-7286243,7286246,7286248,7286251,7286254							
Benzene	N.D.	0.5	ug/l	104		78-120		
Ethylbenzene	N.D.	0.5	ug/l	93		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	110		75-120		
Toluene	N.D.	0.5	ug/l	97		80-120		
Xylene (Total)	N.D.	0.5	ug/l	96		80-120		
Batch number: 13326A07A	Sample number(s): 7286242-7286243,7286246,7286248							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	95	99	75-135	5	30
Batch number: 13329A07A	Sample number(s): 7286251,7286254							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	93		75-135		
Batch number: 133330001A	Sample number(s): 7286243,7286248,7286251,7286254							
Methane	N.D.	3.0	ug/l	100		80-120		
Batch number: 133310027A	Sample number(s): 7286243,7286246,7286248,7286251,7286254							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	78	73	50-113	6	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 133310028A	Sample number(s): 7286243,7286246,7286248,7286251,7286254							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	76	32-117	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133261848002	Sample number(s): 7286250,7286253,7286256							
Iron	N.D.	43.0	ug/l	98		90-112		
Manganese	N.D.	0.83	ug/l	99		90-110		
Batch number: 133261848003	Sample number(s): 7286245							
Iron	N.D.	43.0	ug/l	94		90-112		
Manganese	N.D.	0.83	ug/l	102		90-110		
Batch number: 133316050005A	Sample number(s): 7286244,7286247,7286249,7286252,7286255							
Lead	N.D.	0.085	ug/l	104		90-110		
Batch number: 13325987901A	Sample number(s): 7286243,7286248,7286251,7286254							
Nitrate Nitrogen	N.D.	50.	ug/l	100		90-110		
Sulfate	N.D.	300.	ug/l	100		90-110		
Batch number: 13325023003A	Sample number(s): 7286243,7286248							
Sulfide	N.D.	54.	ug/l	99		90-110		
Batch number: 13326004203A	Sample number(s): 7286248,7286251,7286254							
Total Alkalinity	1,300	700.	ug/l as	100		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1435589
Reported: 12/04/13 at 03:20 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
			CaCO3					
Batch number: 13326004203B	Sample number(s): 7286243							
Total Alkalinity	1,300	700.	ug/l as CaCO3	100		90-110		
Batch number: 13329023001A	Sample number(s): 7286251,7286254							
Sulfide	N.D.	54.	ug/l	99		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D133352AA	Sample number(s): 7286242-7286243,7286246,7286248,7286251,7286254 UNSPK: P289107								
Benzene	121	108	72-134	11	30				
Ethylbenzene	110	97	71-134	12	30				
Methyl Tertiary Butyl Ether	123	110	72-126	11	30				
Toluene	112	101	80-125	11	30				
Xylene (Total)	112	99	79-125	12	30				
Batch number: 13329A07A	Sample number(s): 7286251,7286254 UNSPK: P290271								
NWTPH-Gx water C7-C12	107	107	75-135	0	30				
Batch number: 133330001A	Sample number(s): 7286243,7286248,7286251,7286254 UNSPK: P284547								
Methane	-3004 (2)	-2045 (2)	35-157	23*	20				
Batch number: 133261848002	Sample number(s): 7286250,7286253,7286256 UNSPK: P283786 BKG: P283786								
Iron	100	99	75-125	2	20	92.0	81.4	12 (1)	20
Manganese	96	95	75-125	0	20	492	478	3	20
Batch number: 133261848003	Sample number(s): 7286245 UNSPK: P283961 BKG: P283961								
Iron	151 (2)	125 (2)	75-125	5	20	4,030	3,970	1	20
Manganese	100	101	75-125	1	20	113	111	2	20
Batch number: 133316050005A	Sample number(s): 7286244,7286247,7286249,7286252,7286255 UNSPK: P285128 BKG: P285128								
Lead	106	104	89-120	1	20	0.090	N.D.	200* (1)	20
Batch number: 13325987901A	Sample number(s): 7286243,7286248,7286251,7286254 UNSPK: 7286243 BKG: 7286243								
Nitrate Nitrogen	100		90-110			N.D.	N.D.	0 (1)	20
Sulfate	100		90-110			1,700	1,700	3 (1)	20
Batch number: 13325023003A	Sample number(s): 7286243,7286248 UNSPK: P285668 BKG: P285668								
Sulfide	103	96	42-131	5	16	110	110	4 (1)	5
Batch number: 13326004203A	Sample number(s): 7286248,7286251,7286254 UNSPK: P287595 BKG: P287595								
Total Alkalinity	98		10-159			81,900	81,500	0	5
Batch number: 13326004203B	Sample number(s): 7286243 UNSPK: P287595 BKG: 7286243								

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1435589
Reported: 12/04/13 at 03:20 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Total Alkalinity	98		10-159			112,000	113,000	0	5
Batch number: 13329023001A	Sample number(s): 7286251,7286254 UNSPK: P287936 BKG: P287936								
Sulfide	89	95	42-131	6	16	N.D.	N.D.	0 (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: UST VOCs by 8260B - Water
Batch number: D133352AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7286242	99	94	94	98
7286243	97	94	94	98
7286246	96	92	93	98
7286248	97	94	94	98
7286251	98	96	93	97
7286254	97	94	92	97
Blank	99	96	94	99
LCS	97	92	94	99
MS	96	99	94	100
MSD	96	97	93	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13326A07A

	Trifluorotoluene-F
7286242	97
7286243	95
7286246	93
7286248	102
Blank	98
LCS	104
LCSD	105
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13329A07A

	Trifluorotoluene-F
7286251	88
7286254	91
Blank	93
LCS	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.

Quality Control Summary

Client Name: Chevron
Group Number: 1435589
Reported: 12/04/13 at 03:20 PM

Surrogate Quality Control

MS	114
MSD	115
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 133310027A

	Orthoterphenyl
7286243	97
7286246	107
7286248	96
7286251	100
7286254	90
Blank	96
LCS	105
LCSD	96
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 133310028A

	Orthoterphenyl
7286243	95
7286246	99
7286248	99
7286251	86
7286254	88
Blank	98
LCS	101
LCSD	99
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 133330001A

	Propene
7286243	72
7286248	89
7286251	76
7286254	74
Blank	90
LCS	90
MS	68
MSD	64
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1435589 Sample # 7286242-56
Instructions on reverse side correspond with circled numbers.

Please forward the lab results directly to the Lead Consultant and cc: G-R

SCR #: ______

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180

Consultant Phone # (425) 482-3323 x

Sampler J. Payne

(4) Matrix: ☐ Sediment ☑ Ground ☐ Surface; Water: ☐ Potable ☐ NPDES; ☐ Soil ☐ Oil ☐ Air

(5) Analyses Requested: ☐ BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☑ Method; NITRATE / SULFATE; DISSOLVED IRON / DISSOLVED MANGANESE; SULFIDE / METHANE; ALKALINITY

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	Nitrate / Sulfate	Dissolved Iron / Dissolved Manganese	Sulfide / Methane	Alkalinity
Q.A.	11-20-13		x			x		2	x			x								
MW-103	↓	0932	x			x		16	x			x	x	x		x	x	x	x	x
MW-110		1340	x			x		9	x			x	x	x		x				
MW-112		1134	x			x		16	x			x	x	x		x	x	x	x	x
MW-113		1236	x			x		16	x			x	x	x		x	x	x	x	x
MW-119		1040	x			x		16	x			x	x	x		x	x	x	x	x

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

(6) Remarks

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered.

(7) Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required) EDF/EDD
CVX-RTBU-FI_05 (default)
Other: ______

Relinquished by	Date	Time	Received by	Date	Time
[signature]	11-20-13	1630			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____			[signature]	11-21-13	0905

Temperature Upon Receipt 0.7-2.1 °C

Custody Seals Intact? (Yes) No

(9)

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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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

December 04, 2013

Project: 211556

Submittal Date: 11/20/2013
Group Number: 1435217
PO Number: 0015119898
Release Number: SHRILL HOPKINS
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7284330
MW-115 Grab Groundwater	7284331
MW-115 Filtered Grab Groundwater	7284332
MW-116 Grab Groundwater	7284333
MW-116 Filtered Grab Groundwater	7284334
MW-116 Filtered Grab Groundwater	7284335
MW-117 Grab Groundwater	7284336
MW-117 Filtered Grab Groundwater	7284337
MW-117 Filtered Grab Groundwater	7284338
MW-118 Grab Groundwater	7284339
MW-118 Filtered Grab Groundwater	7284340
MW-120 Grab Groundwater	7284341
MW-120 Filtered Grab Groundwater	7284342

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284330
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133301AA	11/26/2013 07:03	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133301AA	11/26/2013 07:03	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 15:32	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 15:32	Catherine J Schwarz	1

Sample Description: MW-115 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284331
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 11:31 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133301AA	11/26/2013 07:24	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133301AA	11/26/2013 07:24	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 19:19	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 19:19	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133290033A	11/27/2013 14:30	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133290034A	12/03/2013 11:33	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133290034A	11/26/2013 08:15	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133290033A	11/26/2013 08:15	Kerrie A Freeburn	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284332
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 11:31 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.45	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050004A	12/04/2013 02:41	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050004	12/02/2013 11:36	James L Mertz	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284333
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 10:31 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	790	250	5
00228	Sulfate	14808-79-8	4,100	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	37,600	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133301AA	11/26/2013 08:29	Anita M Dale	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284333
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 10:31 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133301AA	11/26/2013 08:29	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 19:44	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 19:44	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133330001A	11/29/2013 15:02	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133290033A	11/27/2013 14:52	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133290034A	12/03/2013 11:56	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133290034A	11/26/2013 08:15	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133290033A	11/26/2013 08:15	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	13324347602B	11/20/2013 15:16	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13324347602B	11/20/2013 15:16	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13325003102A	11/21/2013 13:26	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13325023001A	11/21/2013 08:50	Susan E Hibner	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284334
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 10:31 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.10	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050004A	12/04/2013 02:43	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050004	12/02/2013 11:36	James L Mertz	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284335
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 10:31 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	175	43.0	1
07058	Manganese	7439-96-5	13.2	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved iron and manganese.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133261848003	11/26/2013 09:57	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	133261848003	11/26/2013 09:57	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133261848003	11/25/2013 10:55	Denise K Conners	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284336
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 12:40 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	580	250	5
00228	Sulfate	14808-79-8	3,900	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	14,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133301AA	11/26/2013 08:50	Anita M Dale	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284336
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 12:40 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133301AA	11/26/2013 08:50	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 20:09	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 20:09	Catherine J Schwarz	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	133330001A	11/29/2013 15:20	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 10:48	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/02/2013 21:34	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1
00368	Nitrate Nitrogen	EPA 300.0	1	13324347602B	11/20/2013 16:37	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	13324347602B	11/20/2013 16:37	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	13325003102A	11/21/2013 13:31	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	13325023001A	11/21/2013 08:50	Susan E Hibner	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284337
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 12:40 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050004A	12/04/2013 02:45	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050004	12/02/2013 11:36	James L Mertz	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284338
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 12:40 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	3.0	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved iron and manganese.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	133261848003	11/26/2013 10:08	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	133261848003	11/26/2013 10:08	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	133261848003	11/25/2013 10:55	Denise K Conners	1

Sample Description: MW-118 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284339
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 09:21 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT18

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133301AA	11/26/2013 09:12	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133301AA	11/26/2013 09:12	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 20:34	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 20:34	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 11:10	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/02/2013 21:57	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1

Sample Description: MW-118 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284340
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 09:21 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.15	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050004A	12/04/2013 02:47	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050004	12/02/2013 11:36	James L Mertz	1

Sample Description: MW-120 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284341
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 13:43 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F133301AA	11/26/2013 09:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133301AA	11/26/2013 09:34	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13326A07A	11/23/2013 21:00	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13326A07A	11/23/2013 21:00	Catherine J Schwarz	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	133310027A	12/03/2013 11:33	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	133310028A	12/02/2013 22:20	Michele D Hamilton	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	133310028A	11/29/2013 19:00	Elaine F Stoltzfus	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	133310027A	11/29/2013 19:00	Elaine F Stoltzfus	1

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7284342
LL Group # 1435217
Account # 11260

Project Name: 211556

Collected: 11/19/2013 13:43 by JP

Submitted: 11/20/2013 09:05
Reported: 12/04/2013 20:51

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.088	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved lead.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	133316050004A	12/04/2013 02:49	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	133316050004	12/02/2013 11:36	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1435217
Reported: 12/04/13 at 08:51 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 Max
Batch number: F133301AA	Sample number(s): 7284330-7284331,7284333,7284336,7284339,7284341							
Benzene	N.D.	0.5	ug/l	88		78-120		
Ethylbenzene	N.D.	0.5	ug/l	85		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	82		75-120		
Toluene	N.D.	0.5	ug/l	89		80-120		
Xylene (Total)	N.D.	0.5	ug/l	86		80-120		
Batch number: 13326A07A	Sample number(s): 7284330-7284331,7284333,7284336,7284339,7284341							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	95	99	75-135	5	30
Batch number: 133330001A	Sample number(s): 7284333,7284336							
Methane	N.D.	3.0	ug/l	100		80-120		
Batch number: 133290033A	Sample number(s): 7284331,7284333							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	73	70	50-113	4	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 133310027A	Sample number(s): 7284336,7284339,7284341							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	78	73	50-113	6	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 133290034A	Sample number(s): 7284331,7284333							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	67	75	32-117	12	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133310028A	Sample number(s): 7284336,7284339,7284341							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	76	32-117	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 133261848003	Sample number(s): 7284335,7284338							
Iron	N.D.	43.0	ug/l	94		90-112		
Manganese	N.D.	0.83	ug/l	102		90-110		
Batch number: 133316050004A	Sample number(s): 7284332,7284334,7284337,7284340,7284342							
Lead	N.D.	0.085	ug/l	104		90-110		
Batch number: 13324347602B	Sample number(s): 7284333,7284336							
Nitrate Nitrogen	N.D.	50.	ug/l	102		90-110		
Sulfate	N.D.	300.	ug/l	101		90-110		
Batch number: 13325003102A	Sample number(s): 7284333,7284336							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1435217
Reported: 12/04/13 at 08:51 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13325023001A	Sample number(s): 7284333,7284336							
Sulfide	N.D.	54.	ug/l	97		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F133301AA	Sample number(s): 7284330-7284331,7284333,7284336,7284339,7284341 UNSPK: 7284331								
Benzene	94	94	72-134	1	30				
Ethylbenzene	90	92	71-134	1	30				
Methyl Tertiary Butyl Ether	78	83	72-126	5	30				
Toluene	93	93	80-125	0	30				
Xylene (Total)	92	94	79-125	2	30				
Batch number: 133330001A	Sample number(s): 7284333,7284336 UNSPK: P284547								
Methane	-3004 (2)	-2045 (2)	35-157	23*	20				
Batch number: 133261848003	Sample number(s): 7284335,7284338 UNSPK: P283961 BKG: P283961								
Iron	151 (2)	125 (2)	75-125	5	20	4,030	3,970	1	20
Manganese	100	101	75-125	1	20	113	111	2	20
Batch number: 133316050004A	Sample number(s): 7284332,7284334,7284337,7284340,7284342 UNSPK: P285114 BKG: P285114								
Lead	100	103	89-120	3	20	0.62	0.64	3 (1)	20
Batch number: 13324347602B	Sample number(s): 7284333,7284336 UNSPK: 7284333 BKG: 7284333								
Nitrate Nitrogen	136*		90-110			790	750	5 (1)	20
Sulfate	134*		90-110			4,100	3,900	5 (1)	20
Batch number: 13325003102A	Sample number(s): 7284333,7284336 UNSPK: P284547 BKG: P284547								
Total Alkalinity	77	101	10-159	9*	5	339,000	341,000	1	5
Batch number: 13325023001A	Sample number(s): 7284333,7284336 UNSPK: P279698 BKG: P279698								
Sulfide	92	105	42-131	11	16	140	170	19* (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: UST VOCs by 8260B - Water
Batch number: F133301AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7284330	99	97	98	94
7284331	96	95	99	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.

Quality Control Summary

Client Name: Chevron Group Number: 1435217
Reported: 12/04/13 at 08:51 PM

Surrogate Quality Control

7284333	101	92	99	95
7284336	103	101	96	94
7284339	106	99	98	94
7284341	95	93	99	94
Blank	97	96	98	92
LCS	100	97	100	97
MS	97	102	98	95
MSD	103	102	99	95
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13326A07A

	Trifluorotoluene-F
7284330	93
7284331	94
7284333	91
7284336	95
7284339	95
7284341	95
Blank	98
LCS	104
LCSD	105
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 133290033A

	Orthoterphenyl
7284331	96
7284333	106
Blank	102
LCS	104
LCSD	98
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 133290034A

	Orthoterphenyl
7284331	86
7284333	90
Blank	86
LCS	86
LCSD	94
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 133310027A

	Orthoterphenyl
7284336	99

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1435217
Reported: 12/04/13 at 08:51 PM

Surrogate Quality Control

7284339	100
7284341	94
Blank	96
LCS	105
LCSD	96
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 133310028A
Orthoterphenyl

7284336	90
7284339	96
7284341	91
Blank	98
LCS	101
LCSD	99
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 133330001A
Propene

7284333	83
7284336	79
Blank	90
LCS	90
MS	68
MSD	64
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1435217 Sample # 7284330-42
Instructions on reverse side correspond with circled numbers.

(1) Client Information — Please forward the lab results directly to the Lead Consultant and cc: G-R

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com), (925) 551-7444 x180
Consultant Phone # (425) 482-3323 x
Sampler J. PAYNE

SCR #:

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	(4) Matrix: Soil	Water	Sediment	Potable	Ground	NPDES	Surface	Oil	Air	Total # Containers	(5) Analyses: BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method 6020	NITRATE / SULFATE	DISSOLVED IRON / MANGANESE	SULFIDE / METHANE	ALKALINITY F.F.
QA	11.19.13		X			X								2	X			X												
MW-115		1131	X			X								9	X			X	X	X			X							
MW-116		1031	X			X								16	X			X	X	X			X		X	X	X	X	X	
MW-117		1240	X			X								16	X			X	X	X			X		X	X	X	X	X	
MW-118		0921	X			X								9	X			X	X	X			X							
MW-120		1343	X			X								9	X			X	X	X			X							

(6) **Remarks**

Please report results for Dx with and without silica gel cleanup. Dissolved iron & manganese, as well as Alkalinity samples have been field filtered.

(7) **Turnaround Time Requested (TAT)** (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	11.19.13	1700			(9)
Relinquished by	Date	Time	Received by	Date	Time

(8) **Data Package** (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required) EDF/EDD
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by: [signature] Date 11-20-13 Time 0905

Temperature Upon Receipt 1.2-2.2 °C

Custody Seals Intact? (Yes) No

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

February 19, 2014

Project: 211556

Submittal Date: 02/06/2014
Group Number: 1450644
PO Number: 0015119898
Release Number: HOPKINS/HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7355985
B-1 Grab Groundwater	7355986
B-1 Filtered Grab Groundwater	7355987
B-1 Filtered Grab Groundwater	7355988
B-2 Grab Groundwater	7355989
B-2 Filtered Grab Groundwater	7355990
B-2 Filtered Grab Groundwater	7355991
B-3 Grab Groundwater	7355992
B-3 Filtered Grab Groundwater	7355993
B-3 Filtered Grab Groundwater	7355994
B-4 Grab Groundwater	7355995
B-4 Filtered Grab Groundwater	7355996
B-4 Filtered Grab Groundwater	7355997
MW-111 Grab Groundwater	7355998
MW-111 Filtered Grab Groundwater	7355999
MW-111 Filtered Grab Groundwater	7356000

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355985
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140421AA	02/11/2014 10:14	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140421AA	02/11/2014 10:14	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 12:46	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 12:46	Marie D Beamenderfer	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355986
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 10:33 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	5.2	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	660	250	5
00228	Sulfate	14808-79-8	4,400	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	76,900	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140411AA	02/10/2014 13:35	Daniel H Heller	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355986
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 10:33 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140411AA	02/10/2014 13:35	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 13:39	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 13:39	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140410004A	02/10/2014 14:53	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 13:36	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/14/2014 15:44	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14037987601A	02/06/2014 15:29	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14037987601A	02/06/2014 15:29	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003104A	02/11/2014 23:35	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14038023001A	02/07/2014 10:30	Michele L Graham	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355987
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 10:33 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	65.2	43.0	1
07058	Manganese	7439-96-5	221	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140381848003	02/11/2014 04:03	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	140381848003	02/11/2014 04:03	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140381848003	02/10/2014 12:02	James L Mertz	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355988
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 10:33 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140386050001A	02/12/2014 18:06	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140386050001	02/10/2014 12:23	James L Mertz	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355989
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 09:25 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	1,000	250	5
00228	Sulfate	14808-79-8	3,400	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	75,300	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140411AA	02/10/2014 14:44	Daniel H Heller	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355989
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 09:25 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140411AA	02/10/2014 14:44	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 14:06	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 14:06	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140410004A	02/10/2014 15:11	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 13:59	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/14/2014 16:06	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14037987601A	02/06/2014 16:17	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14037987601A	02/06/2014 16:17	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003104A	02/12/2014 00:54	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14038023001A	02/07/2014 10:30	Michele L Graham	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355990
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 09:25 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	34.3	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140381848003	02/11/2014 04:07	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	140381848003	02/11/2014 04:07	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140381848003	02/10/2014 12:02	James L Mertz	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355991
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 09:25 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140386050001A	02/12/2014 18:07	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140386050001	02/10/2014 12:23	James L Mertz	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355992
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 13:10 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	2	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	480	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	96	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	730	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	36	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	21,100	500	10
00228	Sulfate	14808-79-8	6,900	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	83,200	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140411AA	02/10/2014 15:07	Daniel H Heller	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355992
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 13:10 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140411AA	02/10/2014 15:07	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 14:33	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 14:33	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140410004A	02/10/2014 15:29	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 16:15	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/19/2014 09:21	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14037987601A	02/07/2014 12:27	Sandra J Miller	10
00228	Sulfate	EPA 300.0	1	14037987601A	02/06/2014 16:33	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003104A	02/12/2014 00:11	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14038023001A	02/07/2014 10:30	Michele L Graham	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355993
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 13:10 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	2,440	43.0	1
07058	Manganese	7439-96-5	3,890	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140381848003	02/11/2014 04:11	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	140381848003	02/11/2014 04:11	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140381848003	02/10/2014 12:02	James L Mertz	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355994
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 13:10 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	7.4	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140386050001A	02/12/2014 18:09	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140386050001	02/10/2014 12:23	James L Mertz	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355995
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 11:24 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	3	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,800	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	1,100	15	5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	170	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	140	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	119,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z140421AA	02/11/2014 19:28	Daniel H Heller	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355995
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 11:24 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTWB4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z140421AA	02/11/2014 19:28	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 15:00	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 15:00	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140410004A	02/10/2014 19:00	Elizabeth J Marin	5
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 16:37	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/18/2014 10:49	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14037987601A	02/06/2014 16:49	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14037987601A	02/06/2014 16:49	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003103A	02/11/2014 21:04	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14038023001A	02/07/2014 10:30	Michele L Graham	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355996
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 11:24 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	11,400	43.0	1
07058	Manganese	7439-96-5	2,480	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140381848003	02/11/2014 04:15	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	140381848003	02/11/2014 04:15	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140381848003	02/10/2014 12:02	James L Mertz	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355997
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 11:24 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.4	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140386050001A	02/12/2014 18:11	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140386050001	02/10/2014 12:23	James L Mertz	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355998
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 12:16 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTW11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	75	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	7	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	4,800	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	4,700	60	20
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,000	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	410	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	181,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140411AA	02/10/2014 15:53	Daniel H Heller	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355998
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 12:16 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MTW11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140411AA	02/10/2014 15:53	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 15:27	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 15:27	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140410004A	02/10/2014 19:17	Elizabeth J Marin	20
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 17:17	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/18/2014 11:11	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14037987601A	02/06/2014 17:06	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14037987601A	02/06/2014 17:06	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003103A	02/11/2014 20:43	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14038023001A	02/07/2014 10:30	Michele L Graham	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7355999
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 12:16 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	9,100	43.0	1
07058	Manganese	7439-96-5	4,750	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140431848002	02/13/2014 03:31	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	140431848002	02/13/2014 03:31	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140431848002	02/12/2014 18:00	Annamaria Kuhns	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7356000
LL Group # 1450644
Account # 11260

Project Name: 211556

Collected: 02/05/2014 12:16 by JP

Submitted: 02/06/2014 09:15
Reported: 02/19/2014 13:20

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	27.3	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140386050001A	02/12/2014 18:13	Parker D Lindstrom	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140386050001	02/10/2014 12:23	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1450644
Reported: 02/19/14 at 01:20 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 Max
Batch number: D140411AA	Sample number(s): 7355986,7355989,7355992,7355998							
Benzene	N.D.	0.5	ug/l	116		78-120		
Ethylbenzene	N.D.	0.5	ug/l	106		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	119		75-120		
Toluene	N.D.	0.5	ug/l	110		80-120		
Xylene (Total)	N.D.	0.5	ug/l	109		80-120		
Batch number: F140421AA	Sample number(s): 7355985							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	91		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	92		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: Z140421AA	Sample number(s): 7355995							
Benzene	N.D.	0.5	ug/l	96	97	78-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	93	93	79-120	0	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	90	92	75-120	3	30
Toluene	N.D.	0.5	ug/l	101	101	80-120	1	30
Xylene (Total)	N.D.	0.5	ug/l	98	97	80-120	1	30
Batch number: 14041A53A	Sample number(s): 7355985-7355986,7355989,7355992,7355995,7355998							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	104	105	75-135	2	30
Batch number: 140410004A	Sample number(s): 7355986,7355989,7355992,7355995,7355998							
Methane	N.D.	3.0	ug/l	99		80-120		
Batch number: 140410020A	Sample number(s): 7355986,7355989,7355992,7355995,7355998							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	73	73	50-113	1	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 140410021A	Sample number(s): 7355986,7355989,7355992,7355995,7355998							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	79	69	32-117	14	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 140381848003	Sample number(s): 7355987,7355990,7355993,7355996							
Iron	N.D.	43.0	ug/l	103		90-112		
Manganese	N.D.	0.83	ug/l	105		90-110		
Batch number: 140386050001A	Sample number(s): 7355988,7355991,7355994,7355997,7356000							
Lead	N.D.	0.085	ug/l	102		90-110		
Batch number: 140431848002	Sample number(s): 7355999							
Iron	N.D.	43.0	ug/l	101		90-112		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1450644
Reported: 02/19/14 at 01:20 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Manganese	N.D.	0.83	ug/l	103		90-110		
Batch number: 14037987601A	Sample number(s): 7355986,7355989,7355992,7355995,7355998							
Nitrate Nitrogen	N.D.	50.	ug/l	102		90-110		
Sulfate	N.D.	300.	ug/l	99		90-110		
Batch number: 14038023001A	Sample number(s): 7355986,7355989,7355992,7355995,7355998							
Sulfide	N.D.	54.	ug/l	99		90-110		
Batch number: 14042003103A	Sample number(s): 7355995,7355998							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	97		90-110		
Batch number: 14042003104A	Sample number(s): 7355986,7355989,7355992							
Total Alkalinity	1,200	700.	ug/l as CaCO3	97		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D140411AA	Sample number(s): 7355986,7355989,7355992,7355998 UNSPK: 7355986								
Benzene	119	114	72-134	4	30				
Ethylbenzene	105	105	71-134	0	30				
Methyl Tertiary Butyl Ether	105	121	72-126	14	30				
Toluene	100	118	80-125	17	30				
Xylene (Total)	112	107	79-125	4	30				
Batch number: F140421AA	Sample number(s): 7355985 UNSPK: P357317								
Benzene	101	98	72-134	3	30				
Ethylbenzene	98	98	71-134	0	30				
Methyl Tertiary Butyl Ether	96	91	72-126	5	30				
Toluene	99	100	80-125	0	30				
Xylene (Total)	104	103	79-125	1	30				
Batch number: 140410004A	Sample number(s): 7355986,7355989,7355992,7355995,7355998 UNSPK: P354805								
Methane	111	77	35-157	8	20				
Batch number: 140381848003	Sample number(s): 7355987,7355990,7355993,7355996 UNSPK: P354281 BKG: P354281								
Iron	554*	513*	75-125	6	20	1,380	5,900	124*	20
Manganese	104	102	75-125	2	20	38.8	44.1	13	20
Batch number: 140386050001A	Sample number(s): 7355988,7355991,7355994,7355997,7356000 UNSPK: P354264 BKG: P354264								
Lead	94	99	89-120	4	20	6.2	4.9	24* (1)	20
Batch number: 140431848002	Sample number(s): 7355999 UNSPK: P361047 BKG: P361047								
Iron	100	109	75-125	4	20	1,140	1,130	1	20
Manganese	101	103	75-125	2	20	24.8	25.5	3 (1)	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1450644
Reported: 02/19/14 at 01:20 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14037987601A	Sample number(s): 7355986,7355989,7355992,7355995,7355998 UNSPK: 7355986 BKG: 7355986								
Nitrate Nitrogen	95		90-110			660	650	1 (1)	20
Sulfate	94		90-110			4,400	4,400	1 (1)	20
Batch number: 14038023001A	Sample number(s): 7355986,7355989,7355992,7355995,7355998 UNSPK: 7355986 BKG: 7355986								
Sulfide	74	79	42-131	7	16	N.D.	N.D.	0 (1)	5
Batch number: 14042003103A	Sample number(s): 7355995,7355998 UNSPK: P356778 BKG: P356778								
Total Alkalinity	46		10-159			663,000	658,000	1	5
Batch number: 14042003104A	Sample number(s): 7355986,7355989,7355992 UNSPK: P357325 BKG: P357325								
Total Alkalinity	94		10-159			33,200	34,000	2	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: UST VOCs by 8260B - Water
Batch number: D140411AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7355986	106	106	102	98
7355989	100	98	99	100
7355992	110	109	88	113
7355998	105	105	99	101
Blank	102	100	94	99
LCS	105	103	101	102
MS	99	106	90	112
MSD	105	106	105	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: F140421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7355985	107	100	94	94
Blank	108	97	97	94
LCS	107	102	96	94
MS	106	108	95	94
MSD	107	100	96	96
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z140421AA

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1450644
Reported: 02/19/14 at 01:20 PM

Surrogate Quality Control

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7355995	98	95	101	96
Blank	106	102	99	89
LCS	104	100	98	99
LCSD	104	100	97	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14041A53A

	Trifluorotoluene-F
7355985	69
7355986	68
7355989	71
7355992	73
7355995	102
7355998	100
Blank	69
LCS	75
LCSD	76
Limits:	63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 140410004A

	Propene
7355986	76
7355989	73
7355992	75
7355995	82
7355998	94
Blank	93
LCS	95
MS	81
MSD	76
Limits:	42-131

Analysis Name: NWTPH-Dx water
Batch number: 140410020A

	Orthoterphenyl
7355986	98
7355989	93
7355992	96
7355995	90
7355998	92
Blank	100
LCS	97
LCSD	97
Limits:	50-150

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1450644
Reported: 02/19/14 at 01:20 PM

Surrogate Quality Control

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 140410021A

	Orthoterphenyl
7355986	100
7355989	81
7355992	89
7355995	100
7355998	119
Blank	52
LCS	99
LCSD	84
Limits:	50-150

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1450644 Sample # 7355985-6000
Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO Lead Consultant: LEIDOSRS Russell Shropshire

Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: J. PAYNE

(4) Matrix

Soil ☐ Water ☑ Oil ☐ Sediment ☐ Potable ☐ Groundwater ☑ NPDES ☐ Surface ☐ Air ☐

(3)

Grab / Composite

(5) Analyses Requested

(2) Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☑	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA EPH ☐ WA VPH ☐	Lead Total ☐ Diss: ☑ Method 6020	Nitrate / Sulfate	Dissolved Iron / Manganese	Sulfide / Methane	Alkalinity
QA	2.5.14		X		7	X			X								
B.1		1033	X		16	X			X	X	X		X	X	X	X	X
B.2		0925	X		16	X			X	X	X		X	X	X	X	X
B.3		1310	X		16	X			X	X	X		X	X	X	X	X
B.4		1124	X		16	X			X	X	X		X	X	X	X	X
MW-111	↓	1216	X		16	X			X	X	X		X	X	X	X	X

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, [redacted], and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
	2.5.14	1700			

(8) Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by: _____ Date: 2/6/14 Time: 0915

Temperature Upon Receipt 1.3-1.5 °C

Custody Seals Intact? Yes 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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

February 19, 2014

Project: 211556

Submittal Date: 02/07/2014
Group Number: 1450998
PO Number: 0015119898
Release Number: HOPKINS/HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7357316
MW-103 Grab Groundwater	7357317
MW-103 Filtered Grab Groundwater	7357318
MW-103 Filtered Grab Groundwater	7357319
MW-110 Grab Groundwater	7357320
MW-110 Filtered Grab Groundwater	7357321
MW-112 Grab Groundwater	7357322
MW-112 Filtered Grab Groundwater	7357323
MW-112 Filtered Grab Groundwater	7357324
MW-113 Grab Groundwater	7357325
MW-113 Filtered Grab Groundwater	7357326
MW-113 Filtered Grab Groundwater	7357327
MW-119 Grab Groundwater	7357328
MW-119 Filtered Grab Groundwater	7357329
MW-119 Filtered Grab Groundwater	7357330

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357316
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT-Q

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140421AA	02/11/2014 10:36	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140421AA	02/11/2014 10:36	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 13:13	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 13:13	Marie D Beamenderfer	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357317
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 10:31 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	6.5	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	113,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140421AA	02/11/2014 10:57	Anita M Dale	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357317
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 10:31 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140421AA	02/11/2014 10:57	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 16:20	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 16:20	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140420002A	02/11/2014 14:48	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 14:21	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/14/2014 17:37	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14038987601A	02/07/2014 18:06	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14038987601A	02/07/2014 18:06	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003103A	02/11/2014 21:31	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14042023001A	02/11/2014 07:55	Susan E Hibner	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357318
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 10:31 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	111	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140421848002	02/12/2014 19:25	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	140421848002	02/12/2014 19:25	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140421848002	02/12/2014 13:08	James L Mertz	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357319
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 10:31 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.11	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140446050001A	02/17/2014 20:00	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140446050001	02/16/2014 10:12	James L Mertz	1

Sample Description: MW-110 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357320
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 09:31 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140421AA	02/11/2014 12:47	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140421AA	02/11/2014 12:47	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 16:47	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 16:47	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 14:44	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/14/2014 18:00	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357321
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 09:31 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.16	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140446050001A	02/17/2014 20:02	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140446050001	02/16/2014 10:12	James L Mertz	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357322
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 13:07 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	100	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	370	250	5
00228	Sulfate	14808-79-8	2,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	110,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140421AA	02/11/2014 13:09	Anita M Dale	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357322
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 13:07 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140421AA	02/11/2014 13:09	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14041A53A	02/11/2014 17:14	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14041A53A	02/11/2014 17:14	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140420002A	02/11/2014 15:06	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 15:07	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/19/2014 09:45	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14038987601A	02/07/2014 18:22	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14038987601A	02/07/2014 18:22	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003103B	02/11/2014 20:30	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14042023001A	02/11/2014 07:55	Susan E Hibner	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357323
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 13:07 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	1,730	43.0	1
07058	Manganese	7439-96-5	1,750	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140421848002	02/12/2014 19:29	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	140421848002	02/12/2014 19:29	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140421848002	02/12/2014 13:08	James L Mertz	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357324
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 13:07 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.38	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140446050001A	02/17/2014 20:03	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140446050001	02/16/2014 10:12	James L Mertz	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357325
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 14:02 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	440	250	5
00228	Sulfate	14808-79-8	2,900	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	33,200	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140421AA	02/11/2014 13:31	Anita M Dale	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357325
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 14:02 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140421AA	02/11/2014 13:31	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14045A53A	02/14/2014 12:34	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14045A53A	02/14/2014 12:34	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140420002A	02/11/2014 15:23	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 15:29	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/14/2014 18:46	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14038987601A	02/07/2014 18:38	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14038987601A	02/07/2014 18:38	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003104A	02/11/2014 22:50	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14042023001A	02/11/2014 07:55	Susan E Hibner	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357326
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 14:02 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	4.6	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140421848002	02/12/2014 19:32	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	140421848002	02/12/2014 19:32	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140421848002	02/12/2014 13:08	James L Mertz	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357327
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 14:02 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140436050002A	02/17/2014 22:17	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140436050002	02/12/2014 18:30	Annamaria Kuhns	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357328
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 12:14 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	490	250	5
00228	Sulfate	14808-79-8	3,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	72,800	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140421AA	02/11/2014 13:52	Anita M Dale	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357328
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 12:14 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140421AA	02/11/2014 13:52	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14045A53A	02/14/2014 13:01	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14045A53A	02/14/2014 13:01	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140420002A	02/11/2014 15:41	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140410020A	02/12/2014 15:52	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140410021A	02/14/2014 19:08	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140410021A	02/11/2014 11:30	Kelli M Barto	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140410020A	02/11/2014 11:30	Kelli M Barto	1
00368	Nitrate Nitrogen	EPA 300.0	1	14038987601A	02/07/2014 18:55	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14038987601A	02/07/2014 18:55	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14042003103A	02/11/2014 22:22	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14042023001A	02/11/2014 07:55	Susan E Hibner	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357329
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 12:14 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	38.4	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140421848002	02/12/2014 19:36	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	140421848002	02/12/2014 19:36	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140421848002	02/12/2014 13:08	James L Mertz	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7357330
LL Group # 1450998
Account # 11260

Project Name: 211556

Collected: 02/06/2014 12:14 by JP

Submitted: 02/07/2014 09:20
Reported: 02/19/2014 13:21

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.16	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140436050002A	02/17/2014 21:36	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140436050002	02/12/2014 18:30	Annamaria Kuhns	1

Quality Control Summary

Client Name: Chevron Group Number: 1450998
Reported: 02/19/14 at 01:21 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 Max
Batch number: F140421AA	Sample number(s): 7357316-7357317,7357320,7357322,7357325,7357328							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	91		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	92		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: 14041A53A	Sample number(s): 7357316-7357317,7357320,7357322							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	104	105	75-135	2	30
Batch number: 14045A53A	Sample number(s): 7357325,7357328							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	109	111	75-135	2	30
Batch number: 140420002A	Sample number(s): 7357317,7357322,7357325,7357328							
Methane	N.D.	3.0	ug/l	100		80-120		
Batch number: 140410020A	Sample number(s): 7357317,7357320,7357322,7357325,7357328							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	73	73	50-113	1	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 140410021A	Sample number(s): 7357317,7357320,7357322,7357325,7357328							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	79	69	32-117	14	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 140421848002	Sample number(s): 7357318,7357323,7357326,7357329							
Iron	N.D.	43.0	ug/l	102		90-112		
Manganese	N.D.	0.83	ug/l	103		90-110		
Batch number: 140436050002A	Sample number(s): 7357327,7357330							
Lead	N.D.	0.085	ug/l	102		90-110		
Batch number: 140446050001A	Sample number(s): 7357319,7357321,7357324							
Lead	N.D.	0.085	ug/l	107		90-110		
Batch number: 14038987601A	Sample number(s): 7357317,7357322,7357325,7357328							
Nitrate Nitrogen	N.D.	50.	ug/l	101	101	90-110	0	20
Sulfate	N.D.	300.	ug/l	97	100	90-110	3	20
Batch number: 14042003103A	Sample number(s): 7357317,7357328							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	97		90-110		
Batch number: 14042003103B	Sample number(s): 7357322							
Total Alkalinity	N.D.	700.	ug/l as	97		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1450998
Reported: 02/19/14 at 01:21 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
			CaCO3					
Batch number: 14042003104A	Sample number(s): 7357325							
Total Alkalinity	1,200	700.	ug/l as CaCO3	97		90-110		
Batch number: 14042023001A	Sample number(s): 7357317,7357322,7357325,7357328							
Sulfide	N.D.	54.	ug/l	102		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F140421AA	Sample number(s): 7357316-7357317,7357320,7357322,7357325,7357328 UNSPK: 7357317								
Benzene	101	98	72-134	3	30				
Ethylbenzene	98	98	71-134	0	30				
Methyl Tertiary Butyl Ether	96	91	72-126	5	30				
Toluene	99	100	80-125	0	30				
Xylene (Total)	104	103	79-125	1	30				
Batch number: 140420002A	Sample number(s): 7357317,7357322,7357325,7357328 UNSPK: P356182								
Methane	-10346 (2)	-8482 (2)	35-157	11	20				
Batch number: 140421848002	Sample number(s): 7357318,7357323,7357326,7357329 UNSPK: P358108 BKG: P358108								
Iron	137*	148*	75-125	6	20	591	846	36* (1)	20
Manganese	117	127*	75-125	5	20	262	331	23*	20
Batch number: 140436050002A	Sample number(s): 7357327,7357330 UNSPK: P360395 BKG: P360395								
Lead	100	99	89-120	1	20	0.59	0.64	8 (1)	20
Batch number: 140446050001A	Sample number(s): 7357319,7357321,7357324 UNSPK: P361408 BKG: P361408								
Lead	106	106	89-120	0	20	0.61	0.67	9 (1)	20
Batch number: 14038987601A	Sample number(s): 7357317,7357322,7357325,7357328 UNSPK: P356855 BKG: P356855								
Nitrate Nitrogen	114*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	112*		90-110			57,300	59,100	3	20
Batch number: 14042003103A	Sample number(s): 7357317,7357328 UNSPK: P356778 BKG: P356778								
Total Alkalinity	46		10-159			663,000	658,000	1	5
Batch number: 14042003103B	Sample number(s): 7357322 UNSPK: P356778 BKG: 7357322								
Total Alkalinity	46		10-159			110,000	111,000	1	5
Batch number: 14042003104A	Sample number(s): 7357325 UNSPK: 7357325 BKG: 7357325								
Total Alkalinity	94		10-159			33,200	34,000	2	5
Batch number: 14042023001A	Sample number(s): 7357317,7357322,7357325,7357328 UNSPK: P357795 BKG: P357795								
Sulfide	101	108	42-131	6	16	N.D.	N.D.	0 (1)	5

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1450998
Reported: 02/19/14 at 01:21 PM

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: UST VOCs by 8260B - Water
Batch number: F140421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7357316	108	99	96	93
7357317	108	100	96	94
7357320	108	103	95	93
7357322	107	97	95	94
7357325	111	97	97	95
7357328	106	101	97	96
Blank	108	97	97	94
LCS	107	102	96	94
MS	106	108	95	94
MSD	107	100	96	96
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14041A53A

	Trifluorotoluene-F
7357316	68
7357317	68
7357320	68
7357322	73
Blank	69
LCS	75
LCSD	76
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14045A53A

	Trifluorotoluene-F
7357325	71
7357328	71
Blank	71
LCS	77
LCSD	78
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 140410020A

	Orthoterphenyl
7357317	97
7357320	92
7357322	94

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1450998
Reported: 02/19/14 at 01:21 PM

Surrogate Quality Control

7357325	87
7357328	97
Blank	100
LCS	97
LCSD	97
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 140410021A

Orthoterphenyl

7357317	75
7357320	75
7357322	96
7357325	104
7357328	78
Blank	52
LCS	99
LCSD	84
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 140420002A

Propene

7357317	71
7357322	77
7357325	73
7357328	77
Blank	93
LCS	93
MS	60
MSD	67
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1450998 Sample # 7357316-30

Instructions on reverse side correspond with circled numbers.

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. Payne

4 Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

3 Grab / Composite

2 Sample Identification | Collected Date | Time

5 Analyses Requested

Total Number of Containers | BTEX + MTBE ☐ 8021 ☐ 8260 ☐ Napht | 8260 full scan | Oxygenates ____ | NWTPH-Gx | NWTPH-Dx with Silica Gel Cleanup ☑ | NWTPH-Dx without Silica Gel Cleanup ☑ | WA VPH ☐ WA EPH ☐ | Lead Total ☐ Diss. ☑ Method 6020 | Nitrate / Sulfate 300.0 | Diss. Iron / Manganese | Sulfide / Methane | Alkalinity

Sample Identification	Date	Time	Grab	Composite	Containers	BTEX	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx Si Gel	NWTPH-Dx no Si Gel	WA VPH	WA EPH	Lead	Nitrate/Sulfate	Diss. Iron/Mn	Sulfide/Methane	Alkalinity
Q.A	2.6.14		X		2	X			X									
MW-103	2.6.14	1031	X		16	X			X	X	X			X	X	X	X	X
MW-110	"	0931	X		9	X			X	X	X			X				
MW-112	"	1307	X		16	X			X	X	X			X	X	X	X	X
MW-113	"	1402	X		16	X			X	X	X			X	X	X	X	X
MW-119	↓	1214	X		16	X			X	X	X			X	X	X	X	X

SCR #: _____

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, [redacted] and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
	2.6.14	1700			

9

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by _____ Date 2/7/14 Time 0920

Temperature Upon Receipt 0.4-0.5 °C

Custody Seals Intact? Yes No

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

February 20, 2014

Project: 211556

Submittal Date: 02/11/2014
Group Number: 1451708
PO Number: 0015119898
Release Number: HOPKINS/HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7360245
MW-115 Grab Groundwater	7360246
MW-115 Filtered Grab Groundwater	7360247
MW-116 Grab Groundwater	7360248
MW-116 Filtered Grab Groundwater	7360249
MW-116 Filtered Grab Groundwater	7360250
MW-117 Grab Groundwater	7360251
MW-117 Filtered Grab Groundwater	7360252
MW-117 Filtered Grab Groundwater	7360253
MW-118 Grab Groundwater	7360254
MW-118 Filtered Grab Groundwater	7360255
MW-120 Grab Groundwater	7360256
MW-120 Filtered Grab Groundwater	7360257

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360245
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT-QA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140491AA	02/18/2014 13:03	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140491AA	02/18/2014 13:03	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14045A53A	02/14/2014 12:07	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14045A53A	02/14/2014 12:07	Marie D Beamenderfer	1

Sample Description: MW-115 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360246
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 13:01 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT115

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140491AA	02/18/2014 19:13	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140491AA	02/18/2014 19:13	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14045A53A	02/14/2014 13:28	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14045A53A	02/14/2014 13:28	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140430020A	02/15/2014 00:26	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140430021A	02/17/2014 14:07	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140430021A	02/12/2014 21:00	Karen L Beyer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140430020A	02/12/2014 21:00	Karen L Beyer	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360247
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 13:01 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.43	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140436050002A	02/17/2014 22:09	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140436050002	02/12/2014 18:30	Annamaria Kuhns	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360248
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 12:02 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT116

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	630	250	5
00228	Sulfate	14808-79-8	3,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	38,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140491AA	02/18/2014 19:36	Daniel H Heller	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360248
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 12:02 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT116

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140491AA	02/18/2014 19:36	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14045A53A	02/14/2014 13:55	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14045A53A	02/14/2014 13:55	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140480001A	02/17/2014 11:46	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140430020A	02/14/2014 23:41	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140430021A	02/17/2014 14:29	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140430021A	02/12/2014 21:00	Karen L Beyer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140430020A	02/12/2014 21:00	Karen L Beyer	1
00368	Nitrate Nitrogen	EPA 300.0	1	14043347601A	02/12/2014 06:49	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14043347601A	02/12/2014 06:49	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14048002202A	02/17/2014 18:10	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14043023001A	02/12/2014 08:05	Susan E Hibner	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360249
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 12:02 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	5.4	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140431848006	02/14/2014 12:38	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	140431848006	02/14/2014 12:38	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140431848006	02/13/2014 08:00	James L Mertz	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360250
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 12:02 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140436050002A	02/17/2014 22:11	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140436050002	02/12/2014 18:30	Annamaria Kuhns	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360251
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 10:12 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT117

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	440	250	5
00228	Sulfate	14808-79-8	6,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	28,900	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140491AA	02/18/2014 19:59	Daniel H Heller	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360251
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 10:12 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT117

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140491AA	02/18/2014 19:59	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14045A53A	02/14/2014 14:22	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14045A53A	02/14/2014 14:22	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	140480001A	02/17/2014 12:03	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140430020A	02/15/2014 00:04	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140430021A	02/17/2014 14:52	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140430021A	02/12/2014 21:00	Karen L Beyer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140430020A	02/12/2014 21:00	Karen L Beyer	1
00368	Nitrate Nitrogen	EPA 300.0	1	14043347601A	02/12/2014 07:38	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14043347601A	02/12/2014 07:38	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14048002202A	02/17/2014 18:26	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	14043023001A	02/12/2014 08:05	Susan E Hibner	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360252
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 10:12 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	2.5	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	140431848006	02/14/2014 12:42	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	140431848006	02/14/2014 12:42	Joanne M Gates	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140431848006	02/13/2014 08:00	James L Mertz	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360253
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 10:12 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140436050002A	02/17/2014 22:13	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140436050002	02/12/2014 18:30	Annamaria Kuhns	1

Sample Description: MW-118 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360254
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 11:10 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT118

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140491AA	02/18/2014 20:22	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140491AA	02/18/2014 20:22	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14048A94A	02/18/2014 13:26	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14048A94A	02/18/2014 13:26	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140430020A	02/15/2014 00:49	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140430021A	02/17/2014 15:17	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140430021A	02/12/2014 21:00	Karen L Beyer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140430020A	02/12/2014 21:00	Karen L Beyer	1

Sample Description: MW-118 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360255
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 11:10 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140436050002A	02/17/2014 22:15	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140436050002	02/12/2014 18:30	Annamaria Kuhns	1

Sample Description: MW-120 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360256
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 09:23 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT120

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D140491AA	02/18/2014 20:45	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D140491AA	02/18/2014 20:45	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14048A94A	02/18/2014 13:51	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14048A94A	02/18/2014 13:51	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140430020A	02/15/2014 01:11	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140430021A	02/17/2014 15:39	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140430021A	02/12/2014 21:00	Karen L Beyer	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140430020A	02/12/2014 21:00	Karen L Beyer	1

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7360257
LL Group # 1451708
Account # 11260

Project Name: 211556

Collected: 02/10/2014 09:23 by JP

Submitted: 02/11/2014 09:40
Reported: 02/20/2014 16:10

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140446050001A	02/17/2014 20:05	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140446050001	02/16/2014 10:12	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1451708
Reported: 02/20/14 at 04:10 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 Max
Batch number: D140491AA	Sample number(s): 7360245-7360246,7360248,7360251,7360254,7360256							
Benzene	N.D.	0.5	ug/l	94		78-120		
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	95		75-120		
Toluene	N.D.	0.5	ug/l	97		80-120		
Xylene (Total)	N.D.	0.5	ug/l	96		80-120		
Batch number: 14045A53A	Sample number(s): 7360245-7360246,7360248,7360251							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	109	111	75-135	2	30
Batch number: 14048A94A	Sample number(s): 7360254,7360256							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	108	109	75-135	0	30
Batch number: 140480001A	Sample number(s): 7360248,7360251							
Methane	N.D.	3.0	ug/l	101		80-120		
Batch number: 140430020A	Sample number(s): 7360246,7360248,7360251,7360254,7360256							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	73	71	50-113	3	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 140430021A	Sample number(s): 7360246,7360248,7360251,7360254,7360256							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	72	81	32-117	12	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 140431848006	Sample number(s): 7360249,7360252							
Iron	N.D.	43.0	ug/l	101		90-112		
Manganese	N.D.	0.83	ug/l	103		90-110		
Batch number: 140436050002A	Sample number(s): 7360247,7360250,7360253,7360255							
Lead	N.D.	0.085	ug/l	102		90-110		
Batch number: 140446050001A	Sample number(s): 7360257							
Lead	N.D.	0.085	ug/l	107		90-110		
Batch number: 14043347601A	Sample number(s): 7360248,7360251							
Nitrate Nitrogen	N.D.	50.	ug/l	101		90-110		
Sulfate	N.D.	300.	ug/l	100		90-110		
Batch number: 14043023001A	Sample number(s): 7360248,7360251							
Sulfide	N.D.	54.	ug/l	104		90-110		
Batch number: 14048002202A	Sample number(s): 7360248,7360251							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1451708
Reported: 02/20/14 at 04:10 PM

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

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D140491AA	Sample number(s): 7360245-7360246,7360248,7360251,7360254,7360256 UNSPK: P360436								
Benzene	87	99	72-134	3	30				
Ethylbenzene	97	102	71-134	5	30				
Methyl Tertiary Butyl Ether	93	100	72-126	6	30				
Toluene	100	106	80-125	6	30				
Xylene (Total)	100	106	79-125	5	30				
Batch number: 140480001A	Sample number(s): 7360248,7360251 UNSPK: P360925								
Methane	-70 (2)	24 (2)	35-157	13	20				
Batch number: 140431848006	Sample number(s): 7360249,7360252 UNSPK: P356308 BKG: P356308								
Iron	109	102	75-125	6	20	73.8	62.0	17 (1)	20
Manganese	100	96	75-125	2	20	313	338	8	20
Batch number: 140436050002A	Sample number(s): 7360247,7360250,7360253,7360255 UNSPK: P360395 BKG: P360395								
Lead	100	99	89-120	1	20	0.59	0.64	8 (1)	20
Batch number: 140446050001A	Sample number(s): 7360257 UNSPK: P361408 BKG: P361408								
Lead	106	106	89-120	0	20	0.61	0.67	9 (1)	20
Batch number: 14043347601A	Sample number(s): 7360248,7360251 UNSPK: 7360248 BKG: 7360248								
Nitrate Nitrogen	103		90-110			630	640	1 (1)	20
Sulfate	103		90-110			3,700	3,600	4 (1)	20
Batch number: 14043023001A	Sample number(s): 7360248,7360251 UNSPK: 7360251 BKG: 7360251								
Sulfide	92	90	42-131	2	16	N.D.	N.D.	0 (1)	5
Batch number: 14048002202A	Sample number(s): 7360248,7360251 UNSPK: 7360248 BKG: 7360248								
Total Alkalinity	99		10-159			38,000	38,200	0	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: UST VOCs by 8260B - Water
Batch number: D140491AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7360245	100	96	100	100
7360246	100	99	99	100
7360248	101	97	99	99

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1451708
Reported: 02/20/14 at 04:10 PM

Surrogate Quality Control

7360251	101	96	99	99
7360254	102	95	98	99
7360256	100	100	98	100
Blank	99	97	99	100
LCS	102	101	99	100
MS	101	103	99	103
MSD	100	102	101	104
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14045A53A

	Trifluorotoluene-F
7360245	71
7360246	70
7360248	70
7360251	71
Blank	71
LCS	77
LCSD	78
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14048A94A

	Trifluorotoluene-F
7360254	87
7360256	87
Blank	95
LCS	91
LCSD	92
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 140430020A

	Orthoterphenyl
7360246	93
7360248	98
7360251	98
7360254	97
7360256	97
Blank	102
LCS	99
LCSD	95
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 140430021A

	Orthoterphenyl
7360246	91

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1451708
Reported: 02/20/14 at 04:10 PM

Surrogate Quality Control

7360248	103
7360251	97
7360254	74
7360256	96
Blank	95
LCS	97
LCSD	101

Limits: 50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 140480001A

	Propene
7360248	83
7360251	83
Blank	97
LCS	98
MS	188*
MSD	209*

Limits: 42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1451708 Sample # 736 0245-257
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler J. PAYNE

2 Sample Identification

Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite
R.A	2.10.14		X	
MW-115		1301	X	
MW-116		1202	X	
MW-117		1012	X	
MW-118		1110	X	
MW-120	↓	0923	X	

4 Matrix

Soil ☐ Water ☑ Sediment ☐ Potable ☐ Grnd ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

5 Analyses Requested

Total Number of Containers: 2, 9, 16, 16, 9, 9

Sample Identification	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total	Lead Diss.	Method 6020	NITRATE/SULFATE	Diss. IRON/MANGANESE	SULFIDE/METHANE	ALKALINITY
R.A	x			x											
MW-115	x			x	x	x			x						
MW-116	x			x	x	x			x			x	x	x	x
MW-117	x			x	x	x			x			x	x	x	x
MW-118	x			x	x	x			x						
MW-120	x			x	x	x			x						

8021 ☐ 8260 ☑ Naphth ☐

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, [redacted], and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly

7 Turnaround Time Requested (TAT) (please circle)

Standard 5 day 4 day
72 hour 48 hour 24 hour EDF/EDD

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	2.10.14	1700			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by _____ Date 2/11/14 Time 0749

Temperature Upon Receipt 0.4-0.7 °C

Custody Seals Intact? Yes No

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

February 25, 2014

Project: 211556

Submittal Date: 02/14/2014
Group Number: 1452665
PO Number: 0015119898
Release Number: HOPKINS/HORNE

State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7364298
MW-109 Grab Groundwater	7364299
MW-109 Filtered Grab Groundwater	7364300
MW-114 Grab Groundwater	7364301
MW-114 Filtered Grab Groundwater	7364302

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7364298
LL Group # 1452665
Account # 11260

Project Name: 211556

Collected: 02/11/2014

Submitted: 02/14/2014 10:00
Reported: 02/25/2014 15:28

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140512AA	02/20/2014 08:26	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140512AA	02/20/2014 08:26	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14052A94A	02/24/2014 11:51	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14052A94A	02/24/2014 11:51	Marie D Beamenderfer	1

Sample Description: **MW-109 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7364299
LL Group # 1452665
Account # 11260

Project Name: 211556

Collected: 02/11/2014 10:05 by JP

Submitted: 02/14/2014 10:00
Reported: 02/25/2014 15:28

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	70	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140514AA	02/20/2014 21:22	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140514AA	02/20/2014 21:22	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14052A94A	02/24/2014 18:59	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14052A94A	02/24/2014 18:59	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140490013A	02/19/2014 19:55	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140490014A	02/21/2014 22:31	Heather E Williams	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140490014A	02/19/2014 03:00	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140490013A	02/19/2014 03:00	Sherry L Morrow	1

Sample Description: MW-109 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7364300
LL Group # 1452665
Account # 11260

Project Name: 211556

Collected: 02/11/2014 10:05 by JP

Submitted: 02/14/2014 10:00
Reported: 02/25/2014 15:28

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.20	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140506050002A	02/20/2014 22:43	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140506050002	02/20/2014 09:19	James L Mertz	1

Sample Description: MW-114 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7364301
LL Group # 1452665
Account # 11260

Project Name: 211556

Collected: 02/11/2014 10:51 by JP

Submitted: 02/14/2014 10:00
Reported: 02/25/2014 15:28

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR114

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	71	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F140514AA	02/20/2014 21:44	Brett W Kenyon	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F140514AA	02/20/2014 21:44	Brett W Kenyon	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14052A94A	02/24/2014 19:49	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14052A94A	02/24/2014 19:49	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	140490013A	02/19/2014 22:08	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	140490014A	02/21/2014 23:15	Heather E Williams	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	140490014A	02/19/2014 03:00	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	140490013A	02/19/2014 03:00	Sherry L Morrow	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7364302
LL Group # 1452665
Account # 11260

Project Name: 211556

Collected: 02/11/2014 10:51 by JP

Submitted: 02/14/2014 10:00
Reported: 02/25/2014 15:28

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.12	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	140506050002A	02/20/2014 22:46	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	140506050002	02/20/2014 09:19	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1452665
Reported: 02/25/14 at 03:28 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 Max
Batch number: F140512AA	Sample number(s): 7364298							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	94		75-120		
Toluene	N.D.	0.5	ug/l	94		80-120		
Xylene (Total)	N.D.	0.5	ug/l	94		80-120		
Batch number: F140514AA	Sample number(s): 7364299,7364301							
Benzene	N.D.	0.5	ug/l	92		78-120		
Ethylbenzene	N.D.	0.5	ug/l	89		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	91		80-120		
Xylene (Total)	N.D.	0.5	ug/l	91		80-120		
Batch number: 14052A94A	Sample number(s): 7364298-7364299,7364301							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	114	108	75-135	5	30
Batch number: 140490013A	Sample number(s): 7364299,7364301							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	66	72	50-113	10	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 140490014A	Sample number(s): 7364299,7364301							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	59	70	32-117	17	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 140506050002A	Sample number(s): 7364300,7364302							
Lead	N.D.	0.085	ug/l	103		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F140512AA	Sample number(s): 7364298 UNSPK: P364248								
Benzene	99	98	72-134	1	30				
Ethylbenzene	99	98	71-134	2	30				
Methyl Tertiary Butyl Ether	95	95	72-126	0	30				
Toluene	101	98	80-125	2	30				
Xylene (Total)	100	99	79-125	1	30				

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1452665
Reported: 02/25/14 at 03:28 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F140514AA	Sample number(s): 7364299,7364301 UNSPK: P364260								
Benzene	94	96	72-134	2	30				
Ethylbenzene	94	92	71-134	2	30				
Methyl Tertiary Butyl Ether	89	91	72-126	2	30				
Toluene	97	95	80-125	2	30				
Xylene (Total)	106	93	79-125	8	30				
Batch number: 140506050002A	Sample number(s): 7364300,7364302 UNSPK: P364441 BKG: P364441								
Lead	118	121*	89-120	1	20	16.5	18.2	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: UST VOCs by 8260B - Water
Batch number: F140512AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7364298	100	100	100	99
Blank	101	101	101	98
LCS	100	101	100	99
MS	99	100	100	101
MSD	98	102	100	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: F140514AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7364299	102	102	99	97
7364301	100	101	99	97
Blank	100	101	100	99
LCS	98	103	98	98
MS	99	100	98	99
MSD	101	102	99	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14052A94A

	Trifluorotoluene-F
7364298	88
7364299	87
7364301	87
Blank	89

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1452665
Reported: 02/25/14 at 03:28 PM

Surrogate Quality Control

LCS	92
LCSD	90
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 140490013A

	Orthoterphenyl
7364299	107
7364301	98
Blank	109
LCS	102
LCSD	111
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 140490014A

	Orthoterphenyl
7364299	99
7364301	88
Blank	106
LCS	90
LCSD	102
Limits:	50-150

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1452606 Sample # 364298-302

Instructions on reverse side correspond with circled numbers.

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO Lead Consultant: LEIDOSRS Russell Shropshire

Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: J. PAYNE

4 Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Groundwater ☑ NPDES ☐ Surface ☐ Oil ☐ Air ☐

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020
QA.	2.11.14		X		2	X			X				
MW-109	↓	1005	X		9	X			X	X	X		X
MW-114	↓	1051	X		9	X			X	X	X		X

SCR #: _____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, [redacted], and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly

7 Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day

~~72 hour~~ 48 hour 24 hour EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
[signature]	2.11.14	1430			
[signature]			[signature]		

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Temperature Upon Receipt 1.2 °C

Received by [signature] Date 2/14/14 Time 1000

Custody Seals Intact? ~~Yes~~ No

9

Received by	Date	Time
[signature]		

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

June 25, 2014

Project: 211556

Submittal Date: 06/13/2014
Group Number: 1481697
PO Number: 0015146917
Release Number: HORNE

State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7498023
B-1 Grab Groundwater	7498024
B-1 Filtered Grab Groundwater	7498025
B-2 Grab Groundwater	7498026
B-2 Filtered Grab Groundwater	7498027
B-3 Grab Groundwater	7498028
B-3 Filtered Grab Groundwater	7498029
B-4 Grab Groundwater	7498030
B-4 Filtered Grab Groundwater	7498031
MW-110 Grab Groundwater	7498032
MW-110 Filtered Grab Groundwater	7498033
MW-111 Grab Groundwater	7498034
MW-111 Filtered Grab Groundwater	7498035

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498023
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL-QA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141692AA	06/18/2014 09:11	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141692AA	06/18/2014 09:11	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14168A94A	06/18/2014 22:55	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14168A94A	06/18/2014 22:55	Miranda P Tillinghast	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498024
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 11:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB1-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	22	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	370	250	5
00228	Sulfate	14808-79-8	3,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	66,800	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141692AA	06/18/2014 09:33	Anita M Dale	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498024
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 11:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB1-

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141692AA	06/18/2014 09:33	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14168A94A	06/19/2014 01:28	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14168A94A	06/19/2014 01:28	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	141680031A	06/17/2014 23:29	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700017A	06/20/2014 15:40	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700016A	06/23/2014 12:47	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700016A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700017A	06/20/2014 02:30	Sherry L Morrow	1
00368	Nitrate Nitrogen	EPA 300.0	1	14164987601A	06/13/2014 20:55	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14164987601A	06/13/2014 20:55	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14168002103A	06/17/2014 21:29	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14167023002A	06/16/2014 11:40	Michele L Graham	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498025
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 11:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB1F

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	57.0	43.0	1
07058	Manganese	7439-96-5	225	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	141681848003	06/18/2014 20:34	John P Hook	1
07058	Manganese	SW-846 6010B	1	141681848003	06/18/2014 20:34	John P Hook	1
06035	Lead	SW-846 6020	1	141686050001A	06/18/2014 18:47	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	141681848003	06/18/2014 09:16	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141686050001	06/18/2014 10:20	James L Mertz	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498026
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 14:55 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB2-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	570	250	5
00228	Sulfate	14808-79-8	3,000	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	66,900	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141691AA	06/18/2014 09:23	Anita M Dale	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498026
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 14:55 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB2-

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141691AA	06/18/2014 09:23	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14168A94A	06/19/2014 02:19	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14168A94A	06/19/2014 02:19	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	141680031A	06/18/2014 00:03	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700017A	06/20/2014 16:02	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700016A	06/23/2014 13:08	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700016A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700017A	06/20/2014 02:30	Sherry L Morrow	1
00368	Nitrate Nitrogen	EPA 300.0	1	14164987601A	06/13/2014 21:11	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14164987601A	06/13/2014 21:11	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14168002103A	06/17/2014 20:40	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14167023002A	06/16/2014 11:40	Michele L Graham	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498027
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 14:55 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB2F

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	94.0	43.0	1
07058	Manganese	7439-96-5	75.6	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	141681848003	06/18/2014 20:38	John P Hook	1
07058	Manganese	SW-846 6010B	1	141681848003	06/18/2014 20:38	John P Hook	1
06035	Lead	SW-846 6020	1	141686050001A	06/18/2014 18:49	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	141681848003	06/18/2014 09:16	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141686050001	06/18/2014 10:20	James L Mertz	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498028
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 13:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB3-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	1	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	260	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	170	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	780	28	1
08271	Heavy Range Organics C24-C40	n.a.	100	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	100	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	2,900	250	5
00228	Sulfate	14808-79-8	7,000	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	125,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141692AA	06/18/2014 11:01	Anita M Dale	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498028
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 13:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB3-

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141692AA	06/18/2014 11:01	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14168A94A	06/19/2014 02:44	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14168A94A	06/19/2014 02:44	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	141680031A	06/18/2014 00:20	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700017A	06/20/2014 17:29	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700016A	06/23/2014 13:30	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700016A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700017A	06/20/2014 02:30	Sherry L Morrow	1
00368	Nitrate Nitrogen	EPA 300.0	1	14164987601A	06/13/2014 21:59	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14164987601A	06/13/2014 21:59	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14168002103A	06/17/2014 21:47	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14167023002A	06/16/2014 11:40	Michele L Graham	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498029
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 13:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB3F

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	8,330	43.0	1
07058	Manganese	7439-96-5	4,620	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	8.3	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	141681848003	06/18/2014 20:42	John P Hook	1
07058	Manganese	SW-846 6010B	1	141681848003	06/18/2014 20:42	John P Hook	1
06035	Lead	SW-846 6020	1	141686050001A	06/18/2014 18:51	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	141681848003	06/18/2014 09:16	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141686050001	06/18/2014 10:20	James L Mertz	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498030
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 12:52 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB4-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	1	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,200	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	430	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	260	29	1
08271	Heavy Range Organics C24-C40	n.a.	73	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	120	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	112,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	67	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141692AA	06/18/2014 11:22	Anita M Dale	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498030
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 12:52 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB4-

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141692AA	06/18/2014 11:22	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14168A94A	06/19/2014 03:10	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14168A94A	06/19/2014 03:10	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	141680031A	06/18/2014 00:36	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700017A	06/20/2014 17:50	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700016A	06/25/2014 13:23	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700016A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700017A	06/20/2014 02:30	Sherry L Morrow	1
00368	Nitrate Nitrogen	EPA 300.0	1	14164987601B	06/13/2014 22:16	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14164987601B	06/13/2014 22:16	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14168002103A	06/17/2014 21:41	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14167023002A	06/16/2014 11:40	Michele L Graham	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498031
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 12:52 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB4F

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	10,900	43.0	1
07058	Manganese	7439-96-5	2,310	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.8	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	141681848003	06/18/2014 20:46	John P Hook	1
07058	Manganese	SW-846 6010B	1	141681848003	06/18/2014 20:46	John P Hook	1
06035	Lead	SW-846 6020	1	141686050001A	06/18/2014 18:53	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	141681848003	06/18/2014 09:16	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141686050001	06/18/2014 10:20	James L Mertz	1

Sample Description: MW-110 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498032
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 09:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL110

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141692AA	06/18/2014 11:44	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141692AA	06/18/2014 11:44	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14168A94A	06/19/2014 06:09	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14168A94A	06/19/2014 06:09	Miranda P Tillinghast	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700017A	06/20/2014 16:23	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700016A	06/23/2014 14:12	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700016A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700017A	06/20/2014 02:30	Sherry L Morrow	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498033
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 09:50 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

T110F

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.22	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	141686050001A	06/18/2014 18:54	John P Hook	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141686050001	06/18/2014 10:20	James L Mertz	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498034
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 10:51 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL111

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	2	0.5	1
10943	Ethylbenzene	100-41-4	130	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	14	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	4,200	250	5
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	7,000	150	50
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,200	29	1
08271	Heavy Range Organics C24-C40	n.a.	83	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	380	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	174,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141692AA	06/18/2014 12:06	Anita M Dale	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498034
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 10:51 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL111

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141692AA	06/18/2014 12:06	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14171B94A	06/24/2014 17:33	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	14171B94A	06/24/2014 17:33	Laura M Krieger	5
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	141680031A	06/18/2014 18:46	Elizabeth J Marin	50
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700017A	06/20/2014 17:07	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700016A	06/23/2014 14:33	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700016A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700017A	06/20/2014 02:30	Sherry L Morrow	1
00368	Nitrate Nitrogen	EPA 300.0	1	14164987601A	06/13/2014 20:39	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14164987601A	06/13/2014 20:39	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14168002103A	06/17/2014 21:35	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14167023002A	06/16/2014 11:40	Michele L Graham	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7498035
LL Group # 1481697
Account # 11260

Project Name: 211556

Collected: 06/12/2014 10:51 by JP

Submitted: 06/13/2014 09:45
Reported: 06/25/2014 14:44

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

T111F

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	11,200	43.0	1
07058	Manganese	7439-96-5	5,330	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	16.1	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	141681848003	06/18/2014 20:50	John P Hook	1
07058	Manganese	SW-846 6010B	1	141681848003	06/18/2014 20:50	John P Hook	1
06035	Lead	SW-846 6020	1	141686050001A	06/18/2014 18:56	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	141681848003	06/18/2014 09:16	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	141686050001	06/18/2014 10:20	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1481697
Reported: 06/25/14 at 02:44 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 Max
Batch number: F141691AA	Sample number(s): 7498026							
Benzene	N.D.	0.5	ug/l	96		78-120		
Ethylbenzene	N.D.	0.5	ug/l	92		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	90		75-120		
Toluene	N.D.	0.5	ug/l	94		80-120		
Xylene (Total)	N.D.	0.5	ug/l	94		80-120		
Batch number: F141692AA	Sample number(s): 7498023-7498024,7498028,7498030,7498032,7498034							
Benzene	N.D.	0.5	ug/l	90		78-120		
Ethylbenzene	N.D.	0.5	ug/l	87		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	92		75-120		
Toluene	N.D.	0.5	ug/l	91		80-120		
Xylene (Total)	N.D.	0.5	ug/l	89		80-120		
Batch number: 14168A94A	Sample number(s): 7498023-7498024,7498026,7498028,7498030,7498032							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	103		75-135		
Batch number: 14171B94A	Sample number(s): 7498034							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	103	102	75-135	1	30
Batch number: 141680031A	Sample number(s): 7498024,7498026,7498028,7498030,7498034							
Methane	N.D.	3.0	ug/l	106		80-120		
Batch number: 141700017A	Sample number(s): 7498024,7498026,7498028,7498030,7498032,7498034							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	75	69	50-113	8	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 141700016A	Sample number(s): 7498024,7498026,7498028,7498030,7498032,7498034							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	58	66	32-117	14	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 141681848003	Sample number(s): 7498025,7498027,7498029,7498031,7498035							
Iron	N.D.	43.0	ug/l	110		90-112		
Manganese	N.D.	0.83	ug/l	109		90-110		
Batch number: 141686050001A	Sample number(s): 7498025,7498027,7498029,7498031,7498033,7498035							
Lead	N.D.	0.085	ug/l	100		90-110		
Batch number: 14164987601A	Sample number(s): 7498024,7498026,7498028,7498034							
Nitrate Nitrogen	N.D.	50.	ug/l	95	95	90-110	1	20
Sulfate	N.D.	300.	ug/l	96	95	90-110	1	20
Batch number: 14164987601B	Sample number(s): 7498030							
Nitrate Nitrogen	N.D.	50.	ug/l	95	95	90-110	1	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1481697
Reported: 06/25/14 at 02:44 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sulfate	N.D.	300.	ug/l	96	95	90-110	1	20
Batch number: 14167023002A	Sample number(s): 7498024,7498026,7498028,7498030,7498034							
Sulfide	N.D.	54.	ug/l	96		90-110		
Batch number: 14168002103A	Sample number(s): 7498024,7498026,7498028,7498030,7498034							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	92		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F141691AA	Sample number(s): 7498026 UNSPK: 7498026								
Benzene	102	102	72-134	0	30				
Ethylbenzene	98	99	71-134	2	30				
Methyl Tertiary Butyl Ether	92	96	72-126	4	30				
Toluene	100	101	80-125	0	30				
Xylene (Total)	97	99	79-125	1	30				
Batch number: F141692AA	Sample number(s): 7498023-7498024,7498028,7498030,7498032,7498034 UNSPK: 7498024								
Benzene	103	100	72-134	3	30				
Ethylbenzene	97	95	71-134	2	30				
Methyl Tertiary Butyl Ether	94	91	72-126	3	30				
Toluene	99	96	80-125	3	30				
Xylene (Total)	98	97	79-125	1	30				
Batch number: 14168A94A	Sample number(s): 7498023-7498024,7498026,7498028,7498030,7498032 UNSPK: P498126								
NWTPH-Gx water C7-C12	105	110	75-135	2	30				
Batch number: 141680031A	Sample number(s): 7498024,7498026,7498028,7498030,7498034 UNSPK: P496299								
Methane	89	77	35-157	10	20				
Batch number: 141681848003	Sample number(s): 7498025,7498027,7498029,7498031,7498035 UNSPK: P499015 BKG: P499015								
Iron	126 (2)	340 (2)	75-125	6	20	32,200	30,300	6	20
Manganese	148 (2)	41 (2)	75-125	6	20	8,640	8,210	5	20
Batch number: 141686050001A	Sample number(s): 7498025,7498027,7498029,7498031,7498033,7498035 UNSPK: P498316 BKG: P498316								
Lead	101	100	89-120	1	20	0.59	0.56	5 (1)	20
Batch number: 14164987601A	Sample number(s): 7498024,7498026,7498028,7498034 UNSPK: P498218 BKG: P498218								
Nitrate Nitrogen	87*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	88*		90-110			460	340	29* (1)	20
Batch number: 14164987601B	Sample number(s): 7498030 UNSPK: 7498030 BKG: 7498030								
Nitrate Nitrogen	94		90-110			N.D.	N.D.	0 (1)	20
Sulfate	95		90-110			N.D.	N.D.	0 (1)	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1481697
Reported: 06/25/14 at 02:44 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14167023002A	Sample number(s): 7498024,7498026,7498028,7498030,7498034 UNSPK: 7498034 BKG: 7498034								
Sulfide	79	79	42-131	0	16	N.D.	N.D.	0 (1)	5
Batch number: 14168002103A	Sample number(s): 7498024,7498026,7498028,7498030,7498034 UNSPK: P493899 BKG: P493899								
Total Alkalinity	93		17-146			58,100	61,600	6*	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: UST VOCs by 8260B - Water
Batch number: F141691AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7498026	98	98	100	98
Blank	96	97	102	98
LCS	98	101	98	96
MS	97	102	99	97
MSD	97	102	100	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: F141692AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7498023	97	102	98	95
7498024	99	104	97	95
7498028	101	100	99	97
7498030	96	99	99	99
7498032	97	97	99	96
7498034	98	98	98	100
Blank	99	103	98	96
LCS	100	104	97	96
MS	98	105	97	96
MSD	100	101	100	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14168A94A

	Trifluorotoluene-F
7498023	82
7498024	82
7498026	83

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1481697
Reported: 06/25/14 at 02:44 PM

Surrogate Quality Control

7498028	90
7498030	109
7498032	81
Blank	83
LCS	90
MS	100
MSD	100

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14171B94A
Trifluorotoluene-F

7498034	85
Blank	81
LCS	89
LCSD	89

Limits: 63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 141680031A
Propene

7498024	67
7498026	74
7498028	66
7498030	63
7498034	99
Blank	96
LCS	87
MS	86
MSD	77

Limits: 42-131

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 141700016A
Orthoterphenyl

7498024	91
7498026	86
7498028	90
7498030	82
7498032	94
7498034	95
Blank	81
LCS	100
LCSD	101

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 141700017A
Orthoterphenyl

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1481697
Reported: 06/25/14 at 02:44 PM

Surrogate Quality Control

7498024	100
7498026	100
7498028	111
7498030	104
7498032	99
7498034	114
Blank	94
LCS	114
LCSD	106
Limits:	50-150

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1481697 Sample # 7498023-35

Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x160

Sampler J. PAYNE

(4) Matrix

Soil ☐ Sediment ☐ Potable ☐ Groundwater ☒ NPDES ☐ Surface ☐ Air ☐ Oil ☐

(3) Grab / Composite

(2) Sample Identification / Collected Date & Time

(5) Analyses Requested

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☒	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☒ Method 6020	NITRATE / SULFATE	Diss. IRON / MANGANESE	SULFIDE / METHANE	ALKALINITY
BA	6.12.14		X		2	X			X								
B.1	↓	1150	X		16	X			X	X	X		X	X	X	X	X
B.2		1455	X		16	X			X	X	X		X	X	X	X	X
B.3		1360	X		16	X			X	X	X		X	X	X	X	X
B.4		1252	X		16	X			X	X	X		X	X	X	X	X
MW-11BD		0950			9	X			X	X	X		X	X	X	X	X
MW-111	↓	1051	X		16	X			X	X	X		X	X	X	X	X

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Amended JLH 6/13/14

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Doug Lee (dlee@grinc.com)

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day

72 hour | 48 hour | EDF/EDD 24 hour

Relinquished by	Date	Time	Received by	Date	Time (9)
	6.12.14	1700			
Relinquished by	Date	Time	Received by	Date	Time

(8) Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Temperature Upon Receipt 1.1-4.3 °C

Received by _____ Date 6/13/14 Time 0945

Custody Seals Intact? Yes No

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management 7051.03

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

June 26, 2014

Project: 211556

Submittal Date: 06/14/2014
Group Number: 1481949
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
MW-109 Grab Groundwater	7499464
MW-113 Grab Groundwater	7499466
MW-113 Filtered Grab Groundwater	7499467
MW-114 Grab Groundwater	7499469
MW-114 Filtered Grab Groundwater	7499470
MW-117 Grab Groundwater	7499471
MW-117 Filtered Grab Groundwater	7499472

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: MW-109 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499464
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 11:00 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

General Sample Comments

State of Washington Lab Certification No. C457
Trip blank vials were not received by the laboratory for this sample group.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F141702AA	06/19/2014 07:57	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F141702AA	06/19/2014 07:57	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14170B20A	06/20/2014 15:34	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B20A	06/20/2014 15:34	Miranda P Tillinghast	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700017A	06/20/2014 16:45	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700016A	06/23/2014 14:55	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700016A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700017A	06/20/2014 02:30	Sherry L Morrow	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499466
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 13:15 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR113

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,700	1,500	5
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C457
Trip blank vials were not received by the laboratory for this sample group.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D141691AA	06/18/2014 11:48	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D141691AA	06/18/2014 11:48	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14170B20A	06/20/2014 16:02	Miranda P Tillinghast	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499466
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 13:15 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR113

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	14170B20A	06/20/2014 16:02	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	141700030A	06/19/2014 20:47	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700019A	06/20/2014 19:38	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700018A	06/23/2014 16:42	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700018A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700019A	06/20/2014 02:30	Sherry L Morrow	1
00368	Nitrate Nitrogen	EPA 300.0	1	14165987601A	06/14/2014 19:17	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14165987601A	06/14/2014 19:17	Sandra J Miller	5
00230	Sulfide	SM 4500-S2 D-2000	1	14170023001A	06/19/2014 10:15	Susan E Hibner	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499467
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 13:15 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	11.9	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1
Wet Chemistry	**SM 2320 B-1997**		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	34,200	700	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	141681848003	06/18/2014 20:55	John P Hook	1
07058	Manganese	SW-846 6010B	1	141681848003	06/18/2014 20:55	John P Hook	1
06035	Lead	SW-846 6020	1	141686050002A	06/19/2014 07:12	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	141681848003	06/18/2014 09:16	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	141686050002	06/18/2014 10:38	James L Mertz	1
12150	Total Alkalinity	SM 2320 B-1997	1	14168002103A	06/17/2014 21:19	Kenneth A Bell	1

Sample Description: MW-114 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499469
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 09:50 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR114

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	94	29	1
08271	Heavy Range Organics C24-C40	n.a.	820	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	38	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	340	67	1

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

General Sample Comments

State of Washington Lab Certification No. C457
Trip blank vials were not received by the laboratory for this sample group.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D141691AA	06/18/2014 12:11	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D141691AA	06/18/2014 12:11	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14170B20A	06/20/2014 16:31	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B20A	06/20/2014 16:31	Miranda P Tillinghast	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700019A	06/20/2014 21:05	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700018A	06/23/2014 17:03	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700018A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700019A	06/20/2014 02:30	Sherry L Morrow	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499470
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 09:50 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.18	0.085	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	141686050002A	06/19/2014 07:14	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	141686050002	06/18/2014 10:38	James L Mertz	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499471
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 12:02 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR117

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	540	250	5
00228	Sulfate	14808-79-8	5,900	1,500	5
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C457
Trip blank vials were not received by the laboratory for this sample group.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D141691AA	06/18/2014 12:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D141691AA	06/18/2014 12:34	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14170B20A	06/20/2014 16:59	Miranda P Tillinghast	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499471
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 12:02 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR117

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01146	GC VOA Water Prep	SW-846 5030B	1	14170B20A	06/20/2014 16:59	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	141700030A	06/19/2014 21:04	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700019A	06/20/2014 20:00	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700018A	06/23/2014 17:24	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700018A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700019A	06/20/2014 02:30	Sherry L Morrow	1
00368	Nitrate Nitrogen	EPA 300.0	1	14165987601A	06/14/2014 20:06	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14165987601A	06/14/2014 20:06	Sandra J Miller	5
00230	Sulfide	SM 4500-S2 D-2000	1	14170023001A	06/19/2014 10:15	Susan E Hibner	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7499472
LL Group # 1481949
Account # 11260

Project Name: 211556

Collected: 06/13/2014 12:02 by JP

Submitted: 06/14/2014 10:10
Reported: 06/26/2014 09:05

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	43.0	1
07058	Manganese	7439-96-5	2.8	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.085	1
Wet Chemistry	**SM 2320 B-1997**		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	30,700	700	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	141681848003	06/18/2014 20:59	John P Hook	1
07058	Manganese	SW-846 6010B	1	141681848003	06/18/2014 20:59	John P Hook	1
06035	Lead	SW-846 6020	1	141686050002A	06/19/2014 07:21	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	141681848003	06/18/2014 09:16	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	141686050002	06/18/2014 10:38	James L Mertz	1
12150	Total Alkalinity	SM 2320 B-1997	1	14168002103A	06/17/2014 20:46	Kenneth A Bell	1

Quality Control Summary

Client Name: Chevron Group Number: 1481949
Reported: 06/26/14 at 09:05 AM

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 Max
Batch number: D141691AA	Sample number(s): 7499466,7499469,7499471							
Benzene	N.D.	0.5	ug/l	96		78-120		
Ethylbenzene	N.D.	0.5	ug/l	99		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	96		75-120		
Toluene	N.D.	0.5	ug/l	98		80-120		
Xylene (Total)	N.D.	0.5	ug/l	100		80-120		
Batch number: F141702AA	Sample number(s): 7499464							
Benzene	N.D.	0.5	ug/l	90		78-120		
Ethylbenzene	N.D.	0.5	ug/l	86		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	86		80-120		
Xylene (Total)	N.D.	0.5	ug/l	87		80-120		
Batch number: 14170B20A	Sample number(s): 7499464,7499466,7499469,7499471							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	101	101	75-135	0	30
Batch number: 141700030A	Sample number(s): 7499466,7499471							
Methane	N.D.	3.0	ug/l	103		80-120		
Batch number: 141700017A	Sample number(s): 7499464							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	75	69	50-113	8	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 141700019A	Sample number(s): 7499466,7499469,7499471							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	72	71	50-113	2	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 141700016A	Sample number(s): 7499464							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	58	66	32-117	14	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 141700018A	Sample number(s): 7499466,7499469,7499471							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	63	70	32-117	11	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 141681848003	Sample number(s): 7499467,7499472							
Iron	N.D.	43.0	ug/l	110		90-112		
Manganese	N.D.	0.83	ug/l	109		90-110		
Batch number: 141686050002A	Sample number(s): 7499467,7499470,7499472							
Lead	N.D.	0.085	ug/l	98		90-110		
Batch number: 14165987601A	Sample number(s): 7499466,7499471							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1481949
Reported: 06/26/14 at 09:05 AM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Nitrate Nitrogen	N.D.	50.	ug/l	95	93	90-110	3	20
Sulfate	N.D.	300.	ug/l	96	93	90-110	3	20
Batch number: 14168002103A	Sample number(s): 7499467,7499472							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	92		90-110		
Batch number: 14170023001A	Sample number(s): 7499466,7499471							
Sulfide	N.D.	54.	ug/l	92		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D141691AA	Sample number(s): 7499466,7499469,7499471 UNSPK: P499499								
Benzene	106	108	72-134	1	30				
Ethylbenzene	109	109	71-134	1	30				
Methyl Tertiary Butyl Ether	101	102	72-126	2	30				
Toluene	108	108	80-125	1	30				
Xylene (Total)	110	109	79-125	0	30				
Batch number: F141702AA	Sample number(s): 7499464 UNSPK: 7499464								
Benzene	100	100	72-134	0	30				
Ethylbenzene	98	97	71-134	0	30				
Methyl Tertiary Butyl Ether	99	95	72-126	4	30				
Toluene	101	100	80-125	1	30				
Xylene (Total)	98	98	79-125	1	30				
Batch number: 141700030A	Sample number(s): 7499466,7499471 UNSPK: P501998								
Methane	82	81	35-157	1	20				
Batch number: 141681848003	Sample number(s): 7499467,7499472 UNSPK: P499015 BKG: P499015								
Iron	126 (2)	340 (2)	75-125	6	20	32,200	30,300	6	20
Manganese	148 (2)	41 (2)	75-125	6	20	8,640	8,210	5	20
Batch number: 141686050002A	Sample number(s): 7499467,7499470,7499472 UNSPK: P495786 BKG: P495786								
Lead	106	103	89-120	3	20	0.14	0.15	3 (1)	20
Batch number: 14165987601A	Sample number(s): 7499466,7499471 UNSPK: 7499466 BKG: 7499466								
Nitrate Nitrogen	99		90-110			N.D.	N.D.	0 (1)	20
Sulfate	96		90-110			3,700	3,700	0 (1)	20
Batch number: 14168002103A	Sample number(s): 7499467,7499472 UNSPK: P493899 BKG: P493899								
Total Alkalinity	93		17-146			58,100	61,600	6*	5
Batch number: 14170023001A	Sample number(s): 7499466,7499471 UNSPK: P499437 BKG: P499437								
Sulfide	81	90	42-131	4	16	7,400	6,700	9* (1)	5

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1481949
Reported: 06/26/14 at 09:05 AM

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: UST VOCs by 8260B - Water
Batch number: D141691AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7499466	100	99	99	98
7499469	99	96	99	98
7499471	100	98	99	97
Blank	100	97	99	98
LCS	99	100	99	99
MS	100	99	98	99
MSD	100	100	98	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: F141702AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7499464	100	102	99	100
Blank	101	99	100	99
LCS	101	105	100	98
MS	100	105	98	98
MSD	101	104	98	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14170B20A

	Trifluorotoluene-F
7499464	91
7499466	91
7499469	90
7499471	90
Blank	90
LCS	92
LCSD	92
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 141700016A

	Orthoterphenyl
7499464	94
Blank	81
LCS	100
LCSD	101
Limits:	50-150

*- 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.

Quality Control Summary

Client Name: Chevron
Reported: 06/26/14 at 09:05 AM

Group Number: 1481949

Surrogate Quality Control

Analysis Name: NWTPH-Dx water
Batch number: 141700017A

	Orthoterphenyl
7499464	97
Blank	94
LCS	114
LCSD	106
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 141700018A

	Orthoterphenyl
7499466	88
7499469	85
7499471	87
Blank	89
LCS	91
LCSD	104
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 141700019A

	Orthoterphenyl
7499466	97
7499469	104
7499471	101
Blank	103
LCS	106
LCSD	104
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 141700030A

	Propene
7499466	79
7499471	87
Blank	102
LCS	102
MS	81
MSD	81
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 — For Eurofins Lancaster Laboratories use only: Group # 1481949 Sample # 7499464-73

Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # SS#211556-OML G-R#386773 — WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO — Lead Consultant: LEIDOSRS — Russell Shropshire

Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: J. PAYNE

(4) Matrix

Soil ☐ — Potable ☐ — NPDES ☐ — Air ☐ — Oil ☐ — Sediment ☐ — Groundwater ☑ — Surface Water ☐

(5) Analyses Requested

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☑ Naphth	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☐	NWTPH-Dx without Silica Gel Cleanup ☐	WA EPH ☐ WA VPH ☐	Lead Total ☐ Diss. ☑ Method 6020	NITRATE SULFATE	D55 Iron / MANGANESE	SULFIDE / METHANE	ALKALINITY
MW-109	6-18-14	1100	X		9	X			X	X	X		X				
MW-113		1315	X		16	X			X	X	X		X	X	X	X	X
MW-114		0950	X		16	X			X	X	X		X				
MW-117	↓	1202	X		16	X			X	X	X		X	X	X	X	X

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

COC AMENDED ON 06-17-14 MWC

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Doug Lee (dlee@gettler.com)

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

(7) Turnaround Time Requested (TAT) (please circle)

Standard (72 hour) — 5 day (48 hour) — 4 day EDF/EDD (24 hour)

Relinquished by	Date	Time	Received by	Date	Time (9)
	6.13.14	1600			
Relinquished by	Date	Time	Received by	Date	Time

(8) Data Package (circle if required): Type I - Full; Type VI (Raw Data)

EDD (circle if required): CVX-RTBU-FI_05 (default); Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by: — Date: 6/14/14 — Time: 1010

Temperature Upon Receipt 1.1-3.3 °C

Custody Seals Intact? Yes / No

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

June 26, 2014

Project: 211556

Submittal Date: 06/17/2014
Group Number: 1482431
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7501459
MW-120 Grab Groundwater	7501460
MW-120 Filtered Grab Groundwater	7501461

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	SAIC	Attn: Jamalyn Green
ELECTRONIC COPY TO	SAIC	Attn: Russ Shropshire
ELECTRONIC COPY TO	Gettler-Ryan	Attn: Doug Lee

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7501459
LL Group # 1482431
Account # 11260

Project Name: 211556

Collected: 06/14/2014

Submitted: 06/17/2014 09:35
Reported: 06/26/2014 09:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D141711AA	06/20/2014 07:45	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D141711AA	06/20/2014 07:45	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14170B20A	06/20/2014 14:38	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B20A	06/20/2014 14:38	Miranda P Tillinghast	1

Sample Description: MW-120 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7501460
LL Group # 1482431
Account # 11260

Project Name: 211556

Collected: 06/14/2014 09:02 by JP

Submitted: 06/17/2014 09:35
Reported: 06/26/2014 09:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR120

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D141711AA	06/20/2014 08:08	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D141711AA	06/20/2014 08:08	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14170B20A	06/20/2014 17:27	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14170B20A	06/20/2014 17:27	Miranda P Tillinghast	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	141700019A	06/20/2014 20:22	Glorines Suarez-Rivera	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	141700018A	06/23/2014 17:46	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	141700018A	06/20/2014 02:30	Sherry L Morrow	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	141700019A	06/20/2014 02:30	Sherry L Morrow	1

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7501461
LL Group # 1482431
Account # 11260

Project Name: 211556

Collected: 06/14/2014 09:02 by JP

Submitted: 06/17/2014 09:35
Reported: 06/26/2014 09:04

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	141756050004A	06/25/2014 17:39	Maria A Orrs	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	141756050004	06/25/2014 09:13	Micaela L Dishong	1

Quality Control Summary

Client Name: Chevron Group Number: 1482431
Reported: 06/26/14 at 09:04 AM

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 Max
Batch number: D141711AA	Sample number(s): 7501459-7501460							
Benzene	N.D.	0.5	ug/l	100		78-120		
Ethylbenzene	N.D.	0.5	ug/l	99		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	103		75-120		
Toluene	N.D.	0.5	ug/l	101		80-120		
Xylene (Total)	N.D.	0.5	ug/l	100		80-120		
Batch number: 14170B20A	Sample number(s): 7501459-7501460							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	101	101	75-135	0	30
Batch number: 141700019A	Sample number(s): 7501460							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	72	71	50-113	2	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 141700018A	Sample number(s): 7501460							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	63	70	32-117	11	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 141756050004A	Sample number(s): 7501461							
Lead	N.D.	0.082	ug/l	105		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D141711AA	Sample number(s): 7501459-7501460 UNSPK: 7501460								
Benzene	106	100	72-134	6	30				
Ethylbenzene	105	99	71-134	5	30				
Methyl Tertiary Butyl Ether	103	97	72-126	6	30				
Toluene	106	99	80-125	6	30				
Xylene (Total)	106	100	79-125	6	30				
Batch number: 141756050004A	Sample number(s): 7501461 UNSPK: P502028 BKG: P502028								
Lead	102	101	89-120	1	20	0.10	0.096	4 (1)	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1482431
Reported: 06/26/14 at 09:04 AM

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: UST VOCs by 8260B - Water
Batch number: D141711AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7501459	104	99	97	96
7501460	103	101	97	97
Blank	104	99	97	99
LCS	101	102	98	99
MS	103	99	98	99
MSD	103	101	98	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14170B20A

	Trifluorotoluene-F
7501459	89
7501460	89
Blank	90
LCS	92
LCSD	92
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 141700018A

	Orthoterphenyl
7501460	100
Blank	89
LCS	91
LCSD	104
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 141700019A

	Orthoterphenyl
7501460	103
Blank	103
LCS	106
LCSD	104
Limits:	50-150

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1482431 Sample # 747501459-61
Instructions on reverse side correspond with circled numbers. JH 6/17/14

SCR #:

① Client Information

Facility #: SS#211556-OML G-R#386773 | WBS:

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO LEIDOSRS | Lead Consultant: Russell Shropshire

Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: J. Payne

④ Matrix: Sediment ☐; Ground ☒; Surface ☐; Potable ☐; NPDES ☐; Air ☐

⑤ Analyses Requested: BTEX + MTBE (8021 ☐, 8260 ☐, Naphth ☐); 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☒; NWTPH-Dx without Silica Gel Cleanup ☒; WA VPH ☐; WA EPH ☐; Lead (Total ☐, Diss. ☒, Method 6020)

② Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	Lead
MW-12D	6.14.14	0902	X			X		9	X			X	X	X		X

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

⑥ Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Doug Lee (dlee@grinc.com).

⑦ Turnaround Time Requested (TAT) (please circle)

Standard (circled) | 5 day | 4 day
72 hour | 48 hour | 24 hour

EDF/EDD

⑧ Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ______

⑨

Relinquished by	Date	Time	Received by	Date	Time
[signature]	6.16.14	1300			
Relinquished by Commercial Carrier: UPS ✓ FedEx ___ Other ___			[signature]	6/17/14	0935

Temperature Upon Receipt 0.9 °C

Custody Seals Intact? Yes (circled) No

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7051.03

eurofins | Lancaster Laboratories Environmental

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
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TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	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 - The number following the sign is the limit of quantitation, 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:

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B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
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U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

September 02, 2014

Project: 211556

Submittal Date: 08/20/2014
Group Number: 1497326
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7571286
MW-111 Grab Groundwater	7571287
MW-111 Filtered Grab Groundwater	7571288
B-1 Grab Groundwater	7571289
B-1 Filtered Grab Groundwater	7571290
B-2 Grab Groundwater	7571291
B-2 Filtered Grab Groundwater	7571292
B-3 Grab Groundwater	7571293
B-3 Filtered Grab Groundwater	7571294
B-4 Grab Groundwater	7571295
B-4 Filtered Grab Groundwater	7571296

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Leidos	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571286
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D142331AA	08/21/2014 13:21	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D142331AA	08/21/2014 13:21	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/25/2014 21:21	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/25/2014 21:21	Miranda P Tillinghast	1

Sample Description: **MW-111 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571287
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 11:52 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	1	0.5	1
10943	Ethylbenzene	100-41-4	49	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	1	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	4,700	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	6,100	60	20
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,400	29	1
08271	Heavy Range Organics C24-C40	n.a.	100	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	310	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	165,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D142332AA	08/21/2014 13:32	Daniel H Heller	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571287
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 11:52 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D142332AA	08/21/2014 13:32	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/26/2014 04:04	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/26/2014 04:04	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142390030A	08/28/2014 19:22	Elizabeth J Marin	20
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142370030A	08/27/2014 20:46	Elizabeth J Marin	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142370031A	08/29/2014 13:56	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142370031A	08/26/2014 08:45	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142370030A	08/26/2014 08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	14233347601A	08/21/2014 05:45	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14233347601A	08/21/2014 05:45	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003106A	08/27/2014 09:34	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14237023001A	08/25/2014 12:45	Michele L Graham	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571288
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 11:52 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	9,410	33.4	1
07058	Manganese	7439-96-5	3,820	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.0109	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142321848001	08/21/2014 18:56	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	142321848001	08/21/2014 18:56	Katlin N Cataldi	1
06035	Lead	SW-846 6020	1	142326050002A	08/21/2014 08:34	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142321848001	08/20/2014 22:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	142326050002	08/20/2014 22:00	Annamaria Kuhns	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571289
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 10:05 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	28	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	91,600	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D142332AA	08/21/2014 14:46	Daniel H Heller	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571289
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 10:05 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D142332AA	08/21/2014 14:46	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/26/2014 00:02	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/26/2014 00:02	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142390030A	08/28/2014 01:04	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142370030A	08/27/2014 19:19	Elizabeth J Marin	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142370031A	08/29/2014 14:18	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142370031A	08/26/2014 08:45	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142370030A	08/26/2014 08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	14233347601A	08/21/2014 06:01	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14233347601A	08/21/2014 06:01	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003105A	08/27/2014 07:32	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14237023001A	08/25/2014 12:45	Michele L Graham	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571290
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 10:05 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	179	33.4	1
07058	Manganese	7439-96-5	319	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142321848001	08/21/2014 19:00	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	142321848001	08/21/2014 19:00	Katlin N Cataldi	1
06035	Lead	SW-846 6020	1	142326050002A	08/21/2014 07:53	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142321848001	08/20/2014 22:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	142326050002	08/20/2014 22:00	Annamaria Kuhns	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571291
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 09:15 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,100	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	82,500	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D142332AA	08/21/2014 15:09	Daniel H Heller	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571291
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 09:15 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D142332AA	08/21/2014 15:09	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/26/2014 00:29	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/26/2014 00:29	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142390030A	08/28/2014 01:23	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142370030A	08/27/2014 19:41	Elizabeth J Marin	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142370031A	08/29/2014 14:40	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142370031A	08/26/2014 08:45	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142370030A	08/26/2014 08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	14233347601A	08/21/2014 06:17	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14233347601A	08/21/2014 06:17	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003105A	08/27/2014 07:38	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14237023001A	08/25/2014 12:45	Michele L Graham	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571292
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 09:15 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	41.7	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142321848001	08/21/2014 19:03	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	142321848001	08/21/2014 19:03	Katlin N Cataldi	1
06035	Lead	SW-846 6020	1	142326050002A	08/21/2014 08:36	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142321848001	08/20/2014 22:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	142326050002	08/20/2014 22:00	Annamaria Kuhns	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571293
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 13:30 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	9	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	0.7	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,000	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	780	15	5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,000	29	1
08271	Heavy Range Organics C24-C40	n.a.	170	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	180	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	10,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	90,100	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D142332AA	08/21/2014 15:32	Daniel H Heller	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571293
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 13:30 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D142332AA	08/21/2014 15:32	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/26/2014 00:56	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/26/2014 00:56	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142390030A	08/28/2014 19:40	Elizabeth J Marin	5
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142370030A	08/27/2014 21:30	Elizabeth J Marin	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142370031A	08/29/2014 15:02	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142370031A	08/26/2014 08:45	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142370030A	08/26/2014 08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	14233347601A	08/21/2014 06:33	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14233347601A	08/21/2014 06:33	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003105A	08/27/2014 06:14	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14237023002A	08/25/2014 14:30	Michele L Graham	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571294
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 13:30 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	11,300	33.4	1
07058	Manganese	7439-96-5	4,600	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.0089	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142321848001	08/21/2014 19:07	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	142321848001	08/21/2014 19:07	Katlin N Cataldi	1
06035	Lead	SW-846 6020	1	142326050002A	08/21/2014 08:38	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142321848001	08/20/2014 22:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	142326050002	08/20/2014 22:00	Annamaria Kuhns	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571295
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 10:58 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	1	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	0.5	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,800	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	330	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	300	29	1
08271	Heavy Range Organics C24-C40	n.a.	88	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	140	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	1,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	115,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	D142332AA	08/21/2014 15:55	Daniel H Heller	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571295
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 10:58 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D142332AA	08/21/2014 15:55	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/26/2014 01:50	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/26/2014 01:50	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142390030A	08/28/2014 01:59	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142370030A	08/27/2014 21:08	Elizabeth J Marin	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142370031A	08/29/2014 15:23	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142370031A	08/26/2014 08:45	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142370030A	08/26/2014 08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	14233347601A	08/21/2014 06:49	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14233347601A	08/21/2014 06:49	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14240003103A	08/28/2014 22:56	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14237023002A	08/25/2014 14:30	Michele L Graham	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7571296
LL Group # 1497326
Account # 11260

Project Name: 211556

Collected: 08/19/2014 10:58 by JP

Submitted: 08/20/2014 09:30
Reported: 09/02/2014 15:18

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	9,220	33.4	1
07058	Manganese	7439-96-5	1,990	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.0014	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142321848001	08/21/2014 19:18	Katlin N Cataldi	1
07058	Manganese	SW-846 6010B	1	142321848001	08/21/2014 19:18	Katlin N Cataldi	1
06035	Lead	SW-846 6020	1	142326050002A	08/21/2014 08:39	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142321848001	08/20/2014 22:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	142326050002	08/20/2014 22:00	Annamaria Kuhns	1

Quality Control Summary

Client Name: Chevron Group Number: 1497326
Reported: 09/02/14 at 03:18 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 Max
Batch number: D142331AA	Sample number(s): 7571286							
Benzene	N.D.	0.5	ug/l	97		78-120		
Ethylbenzene	N.D.	0.5	ug/l	99		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		75-120		
Toluene	N.D.	0.5	ug/l	100		80-120		
Xylene (Total)	N.D.	0.5	ug/l	101		80-120		
Batch number: D142332AA	Sample number(s): 7571287,7571289,7571291,7571293,7571295							
Benzene	N.D.	0.5	ug/l	87		78-120		
Ethylbenzene	N.D.	0.5	ug/l	95		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	90		75-120		
Toluene	N.D.	0.5	ug/l	96		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: 14234B20A	Sample number(s): 7571286-7571287,7571289,7571291,7571293,7571295							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	105	106	75-135	1	30
Batch number: 142390030A	Sample number(s): 7571287,7571289,7571291,7571293,7571295							
Methane	N.D.	3.0	ug/l	108		80-120		
Batch number: 142370030A	Sample number(s): 7571287,7571289,7571291,7571293,7571295							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	84	79	50-113	7	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 142370031A	Sample number(s): 7571287,7571289,7571291,7571293,7571295							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	78	32-117	1	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 142321848001	Sample number(s): 7571288,7571290,7571292,7571294,7571296							
Iron	N.D.	33.4	ug/l	105		90-112		
Manganese	N.D.	0.83	ug/l	102		90-110		
Batch number: 142326050002A	Sample number(s): 7571288,7571290,7571292,7571294,7571296							
Lead	N.D.	0.00008 2	mg/l	100		90-110		
Batch number: 14233347601A	Sample number(s): 7571287,7571289,7571291,7571293,7571295							
Nitrate Nitrogen	N.D.	50.	ug/l	100		90-110		
Sulfate	N.D.	300.	ug/l	99		90-110		
Batch number: 14237023001A	Sample number(s): 7571287,7571289,7571291							
Sulfide	N.D.	54.	ug/l	107		90-110		
Batch number: 14237023002A	Sample number(s): 7571293,7571295							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1497326
Reported: 09/02/14 at 03:18 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sulfide	N.D.	54.	ug/l	106		90-110		
Batch number: 14238003105A	Sample number(s): 7571289,7571291,7571293							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	94		90-110		
Batch number: 14238003106A	Sample number(s): 7571287							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	95		90-110		
Batch number: 14240003103A	Sample number(s): 7571295							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	95		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D142331AA	Sample number(s): 7571286 UNSPK: P571435								
Benzene	94	96	72-134	1	30				
Ethylbenzene	98	99	71-134	0	30				
Methyl Tertiary Butyl Ether	87	89	72-126	2	30				
Toluene	99	99	80-125	1	30				
Xylene (Total)	100	97	79-125	3	30				
Batch number: D142332AA	Sample number(s): 7571287,7571289,7571291,7571293,7571295 UNSPK: 7571287								
Benzene	93	91	72-134	2	30				
Ethylbenzene	155*	123	71-134	8	30				
Methyl Tertiary Butyl Ether	91	88	72-126	3	30				
Toluene	106	103	80-125	2	30				
Xylene (Total)	108	105	79-125	2	30				
Batch number: 142390030A	Sample number(s): 7571287,7571289,7571291,7571293,7571295 UNSPK: 7571287								
Methane	-3382 (2)	-4074 (2)	35-157	11	20				
Batch number: 142321848001	Sample number(s): 7571288,7571290,7571292,7571294,7571296 UNSPK: P570333 BKG: P570333								
Iron	126*	126*	75-125	0	20	753	810	7 (1)	20
Manganese	101	103	75-125	1	20	11.4	11.5	1 (1)	20
Batch number: 142326050002A	Sample number(s): 7571288,7571290,7571292,7571294,7571296 UNSPK: 7571290 BKG: 7571290								
Lead	101	101	89-120	0	20	N.D.	N.D.	0 (1)	20
Batch number: 14233347601A	Sample number(s): 7571287,7571289,7571291,7571293,7571295 UNSPK: 7571287 BKG: 7571287								
Nitrate Nitrogen	98		90-110			N.D.	N.D.	0 (1)	20
Sulfate	98		90-110			N.D.	N.D.	0 (1)	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1497326
Reported: 09/02/14 at 03:18 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 14237023001A	Sample number(s): 7571287,7571289,7571291 UNSPK: P570230 BKG: P570230								
Sulfide	81	82	42-131	2	16	N.D.	N.D.	0 (1)	5
Batch number: 14237023002A	Sample number(s): 7571293,7571295 UNSPK: P572376 BKG: P572376								
Sulfide	73	74	42-131	0	16	N.D.	N.D.	0 (1)	5
Batch number: 14238003105A	Sample number(s): 7571289,7571291,7571293 UNSPK: P575153 BKG: P575153								
Total Alkalinity	20		17-146			120,000	121,000	1	5
Batch number: 14238003106A	Sample number(s): 7571287 UNSPK: 7571287 BKG: 7571287								
Total Alkalinity	86		17-146			165,000	166,000	1	5
Batch number: 14240003103A	Sample number(s): 7571295 UNSPK: P577610 BKG: P577610								
Total Alkalinity	92		17-146			277,000	272,000	2	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: UST VOCs by 8260B - Water
Batch number: D142331AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7571286	100	99	104	93
Blank	103	102	102	90
LCS	100	101	103	95
MS	100	102	104	94
MSD	101	103	102	93
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: D142332AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7571287	101	94	104	96
7571289	102	97	104	92
7571291	103	100	104	90
7571293	101	96	104	94
7571295	101	97	104	95
Blank	102	94	104	92
LCS	101	99	103	93
MS	102	101	104	97
MSD	100	101	104	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1497326
Reported: 09/02/14 at 03:18 PM

Surrogate Quality Control

Batch number: 14234B20A

	Trifluorotoluene-F
7571286	92
7571287	126
7571289	92
7571291	91
7571293	104
7571295	113
Blank	93
LCS	96
LCSD	95
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 142370030A

	Orthoterphenyl
7571287	132
7571289	87
7571291	86
7571293	102
7571295	99
Blank	82
LCS	107
LCSD	98
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 142370031A

	Orthoterphenyl
7571287	80
7571289	78
7571291	91
7571293	82
7571295	96
Blank	85
LCS	105
LCSD	98
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 142390030A

	Propene
7571287	83
7571289	70
7571291	73
7571293	72
7571295	77
Blank	87
LCS	87

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1497326
Reported: 09/02/14 at 03:18 PM

Surrogate Quality Control

MS	78
MSD	59
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1497326 Sample # 7571286-96
Instructions on reverse side correspond with circled numbers.

SCR #: ____

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

(4) Matrix: Sediment ☐ Ground ☑ Surface ☐; Soil ☐; Potable ☐ NPDES ☐ Water; Air ☐ Oil ☐

(5) Analyses Requested: BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐; 8260 full scan; Oxygenates; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐ WA EPH ☐; Lead Total ☐ Diss. ☑ Method 6020; NITRATE SULFATE; ALKALINITY METHANE; SULFIDE; DISS. IRON & MANGANESE

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH / WA EPH	Lead	Nitrate Sulfate	Alkalinity Methane	Sulfide	Diss. Iron & Manganese
QA	8.19.14		X			X		2	X			X								
MW-111	↓	1157	X			X		16	X			X	X	X		X	X	X	X	X
B-1		1005	X			X		16	X			X	X	X		X	X	X	X	X
B-2		0915	X			X		16	X			X	X	X		X	X	X	X	X
B-3		1330	X			X		16	X			X	X	X		X	X	X	X	X
B-4	↓	1058	X			X		16	X			X	X	X		X	X	X	X	X

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

(7) Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
EDF/EDD
72 hour 48 hour 24 hour

(9)

Relinquished by	Date	Time	Received by	Date	Time
[signature]	8.19.14	1630			

(8) Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ____

Relinquished by Commercial Carrier:
UPS ✓ FedEx ____ Other ____

Received by [signature] Date 8.20.14 Time 0930

Temperature Upon Receipt 1.8 - 3.7 °C

Custody Seals Intact? (Yes) No

eurofins | Lancaster Laboratories Environmental

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

September 05, 2014

Project: 211556

Submittal Date: 08/22/2014
Group Number: 1497991
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7574518
MW-103 Grab Groundwater	7574519
MW-103 Filtered Grab Groundwater	7574520
MW-110 Grab Groundwater	7574521
MW-110 Filtered Grab Groundwater	7574522
MW-112 Grab Groundwater	7574523
MW-112 Filtered Grab Groundwater	7574524
MW-113 Grab Groundwater	7574525
MW-113 Filtered Grab Groundwater	7574526
MW-114 Grab Groundwater	7574527
MW-114 Filtered Grab Groundwater	7574528
MW-115 Grab Groundwater	7574529
MW-115 Filtered Grab Groundwater	7574530
MW-116 Grab Groundwater	7574531
MW-116 Filtered Grab Groundwater	7574532
MW-117 Grab Groundwater	7574533
MW-117 Filtered Grab Groundwater	7574534
MW-118 Grab Groundwater	7574535
MW-118 Filtered Grab Groundwater	7574536
MW-119 Grab Groundwater	7574537
MW-119 Filtered Grab Groundwater	7574538
MW-120 Grab Groundwater	7574539
MW-120 Filtered Grab Groundwater	7574540

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

ELECTRONIC Gettler-Ryan Inc. Attn: Gettler Ryan

COPY TO		
ELECTRONIC	Leidos	Attn: Jamalyn Agyei
COPY TO		
ELECTRONIC	Leidos	Attn: Russ Shropshire
COPY TO		

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574518
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT-Q

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F142381AA	08/26/2014 07:29	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F142381AA	08/26/2014 07:29	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/25/2014 22:15	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/25/2014 22:15	Miranda P Tillinghast	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574519
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 09:15 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	62	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	30	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	97,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F142381AA	08/26/2014 07:51	Anita M Dale	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574519
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 09:15 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F142381AA	08/26/2014 07:51	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 13:17	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 13:17	Laura M Krieger	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142410016A	08/30/2014 06:10	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142370030A	08/27/2014 20:02	Elizabeth J Marin	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142370031A	08/29/2014 15:45	Glorines Suarez-Rivera	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142370031A	08/26/2014 08:45	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142370030A	08/26/2014 08:45	Kerrie A Freeburn	1
00368	Nitrate Nitrogen	EPA 300.0	1	14234987901A	08/22/2014 14:58	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14234987901A	08/22/2014 14:58	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003104A	08/27/2014 04:59	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14238023001A	08/26/2014 11:20	Michele L Graham	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574520
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 09:15 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	115	0.83	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.18	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142371848003	08/26/2014 10:37	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	142371848003	08/26/2014 10:37	Eric L Eby	1
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:41	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142371848003	08/25/2014 23:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-110 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574521
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 13:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F142372AA	08/25/2014 07:26	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F142372AA	08/25/2014 07:26	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/25/2014 22:42	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/25/2014 22:42	Miranda P Tillinghast	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142370030A	08/27/2014 20:24	Elizabeth J Marin	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142370031A	09/04/2014 20:42	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142370031A	08/26/2014 08:45	Kerrie A Freeburn	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142370030A	08/26/2014 08:45	Kerrie A Freeburn	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574522
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 13:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.10	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:43	Maria A Orrs	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574523
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 10:12 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	59	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	92,800	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	F142371AA	08/25/2014 07:16	Anita M Dale	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574523
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 10:12 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F142371AA	08/25/2014 07:16	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 13:44	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 13:44	Laura M Krieger	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142410016A	08/30/2014 06:28	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 19:11	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 00:16	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	14234987901A	08/22/2014 15:15	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14234987901A	08/22/2014 15:15	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003105A	08/27/2014 05:29	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14238023001A	08/26/2014 11:20	Michele L Graham	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574524
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 10:12 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	2,690	33.4	1
07058	Manganese	7439-96-5	2,000	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.36	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142371848003	08/26/2014 10:40	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	142371848003	08/26/2014 10:40	Eric L Eby	1
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:44	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142371848003	08/25/2014 23:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574525
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 11:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	78	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	71	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	71	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	92,800	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 12:21	Daniel H Heller	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574525
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 11:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 12:21	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 14:10	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 14:10	Laura M Krieger	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142410016A	08/30/2014 06:46	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 19:33	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 00:38	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	14234987901B	08/22/2014 16:03	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14234987901B	08/22/2014 16:03	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003104A	08/27/2014 05:06	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14238023002A	08/26/2014 13:20	Michele L Graham	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574526
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 11:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	2,620	33.4	1
07058	Manganese	7439-96-5	1,960	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.35	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142371848003	08/26/2014 10:44	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	142371848003	08/26/2014 10:44	Eric L Eby	1
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:46	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142371848003	08/25/2014 23:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-114 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574527
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 14:20 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 13:33	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 13:33	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14234B20A	08/25/2014 23:09	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14234B20A	08/25/2014 23:09	Miranda P Tillinghast	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 19:54	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 01:00	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574528
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 14:20 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.10	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:51	Maria A Orrs	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-115 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574529
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 12:08 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	66	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	36	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 13:57	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 13:57	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 14:37	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 14:37	Laura M Krieger	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 20:16	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 01:22	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574530
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 12:08 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.82	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:14	Maria A Orrs	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574531
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 13:00 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	68	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	360	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	38	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	149,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 14:21	Daniel H Heller	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574531
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 13:00 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 14:21	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 15:04	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 15:04	Laura M Krieger	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142410016A	08/30/2014 07:04	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 20:38	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 01:44	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	14234987901A	08/22/2014 16:19	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14234987901A	08/22/2014 16:19	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003105A	08/27/2014 06:21	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14238023002A	08/26/2014 13:20	Michele L Graham	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574532
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 13:00 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	1,450	33.4	1
07058	Manganese	7439-96-5	4,270	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.78	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142371848003	08/26/2014 10:48	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	142371848003	08/26/2014 10:48	Eric L Eby	1
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:53	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142371848003	08/25/2014 23:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574533
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 12:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	210	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	98,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 14:45	Daniel H Heller	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574533
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 12:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 14:45	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 15:31	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 15:31	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142410016A	08/30/2014 07:23	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 21:00	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 02:05	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	14234987901A	08/22/2014 16:36	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14234987901A	08/22/2014 16:36	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003105A	08/27/2014 06:08	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14238023002A	08/26/2014 13:20	Michele L Graham	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574534
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 12:10 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	144	33.4	1
07058	Manganese	7439-96-5	2,170	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.37	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142371848003	08/26/2014 10:51	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	142371848003	08/26/2014 10:51	Eric L Eby	1
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:55	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142371848003	08/25/2014 23:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-118 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574535
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 11:11 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT18

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 15:09	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 15:09	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 15:58	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 15:58	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 21:22	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 02:27	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1

Sample Description: MW-118 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574536
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 11:11 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.41	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:57	Maria A Orrs	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574537
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 08:20 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	5.1	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	89,900	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 15:33	Daniel H Heller	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574537
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 08:20 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 15:33	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14240A20A	09/02/2014 15:02	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14240A20A	09/02/2014 15:02	Miranda P Tillinghast	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	142410016A	08/30/2014 07:41	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 21:43	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 02:49	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	14234987901A	08/22/2014 16:52	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14234987901A	08/22/2014 16:52	Clinton M Wilson	5
12150	Total Alkalinity	SM 2320 B-1997	1	14238003104A	08/27/2014 05:22	Yolunder Y Bunch	1
00230	Sulfide	SM 4500-S2 D-2000	1	14238023002A	08/26/2014 13:20	Michele L Graham	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574538
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/21/2014 08:20 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	82.6	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.17	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	142371848003	08/26/2014 10:55	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	142371848003	08/26/2014 10:55	Eric L Eby	1
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 16:58	Maria A Orrs	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	142371848003	08/25/2014 23:00	Annamaria Kuhns	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Sample Description: MW-120 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574539
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 10:17 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	Z142372AA	08/25/2014 15:57	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142372AA	08/25/2014 15:57	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14241B20A	08/29/2014 16:25	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	14241B20A	08/29/2014 16:25	Laura M Krieger	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	142390016A	09/02/2014 22:05	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142390017A	09/03/2014 03:11	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142390017A	08/27/2014 20:45	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142390016A	08/27/2014 20:45	David V Hershey Jr	1

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7574540
LL Group # 1497991
Account # 11260

Project Name: 211556

Collected: 08/20/2014 10:17 by JP

Submitted: 08/22/2014 09:45
Reported: 09/05/2014 11:34

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.32	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	142376050003A	08/28/2014 17:00	Maria A Orrs	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	142376050003	08/25/2014 22:00	Annamaria Kuhns	1

Quality Control Summary

Client Name: Chevron Group Number: 1497991
Reported: 09/05/14 at 11:34 AM

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 Max
Batch number: F142371AA	Sample number(s): 7574523							
Benzene	N.D.	0.5	ug/l	102		78-120		
Ethylbenzene	N.D.	0.5	ug/l	102		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	102		75-120		
Toluene	N.D.	0.5	ug/l	100		80-120		
Xylene (Total)	N.D.	0.5	ug/l	102		80-120		
Batch number: F142372AA	Sample number(s): 7574521							
Benzene	N.D.	0.5	ug/l	102		78-120		
Ethylbenzene	N.D.	0.5	ug/l	99		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	101		75-120		
Toluene	N.D.	0.5	ug/l	102		80-120		
Xylene (Total)	N.D.	0.5	ug/l	102		80-120		
Batch number: F142381AA	Sample number(s): 7574518-7574519							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	95		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	97		75-120		
Toluene	N.D.	0.5	ug/l	94		80-120		
Xylene (Total)	N.D.	0.5	ug/l	94		80-120		
Batch number: Z142372AA	Sample number(s): 7574525,7574527,7574529,7574531,7574533,7574535,7574537,7574539							
Benzene	N.D.	0.5	ug/l	97		78-120		
Ethylbenzene	N.D.	0.5	ug/l	97		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	97		75-120		
Toluene	N.D.	0.5	ug/l	97		80-120		
Xylene (Total)	N.D.	0.5	ug/l	101		80-120		
Batch number: 14234B20A	Sample number(s): 7574518,7574521,7574527							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	105	106	75-135	1	30
Batch number: 14240A20A	Sample number(s): 7574537							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	105	106	75-135	1	30
Batch number: 14241B20A	Sample number(s): 7574519,7574523,7574525,7574529,7574531,7574533,7574535,7574539							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	112	110	75-135	2	30
Batch number: 142410016A	Sample number(s): 7574519,7574523,7574525,7574531,7574533,7574537							
Methane	N.D.	3.0	ug/l	110		80-120		
Batch number: 142370030A	Sample number(s): 7574519,7574521							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	84	79	50-113	7	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1497991
Reported: 09/05/14 at 11:34 AM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 142390016A	Sample number(s): 7574523,7574525,7574527,7574529,7574531,7574533,7574535,7574537,7574539							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	103	99	50-113	4	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 142370031A	Sample number(s): 7574519,7574521							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	76	78	32-117	1	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 142390017A	Sample number(s): 7574523,7574525,7574527,7574529,7574531,7574533,7574535,7574537,7574539							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	73	95	32-117	25*	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 142371848003	Sample number(s): 7574520,7574524,7574526,7574532,7574534,7574538							
Iron	N.D.	33.4	ug/l	104		90-112		
Manganese	N.D.	0.83	ug/l	103		90-110		
Batch number: 142376050003A	Sample number(s): 7574520,7574522,7574524,7574526,7574528,7574530,7574532,7574534,7574536,7574538,7574540							
Lead	N.D.	0.082	ug/l	104		90-110		
Batch number: 14234987901A	Sample number(s): 7574519,7574523,7574531,7574533,7574537							
Nitrate Nitrogen	N.D.	50.	ug/l	98	99	90-110	1	20
Sulfate	N.D.	300.	ug/l	102	102	90-110	0	20
Batch number: 14234987901B	Sample number(s): 7574525							
Nitrate Nitrogen	N.D.	50.	ug/l	98	99	90-110	1	20
Sulfate	N.D.	300.	ug/l	102	102	90-110	0	20
Batch number: 14238003104A	Sample number(s): 7574519,7574525,7574537							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	92		90-110		
Batch number: 14238003105A	Sample number(s): 7574523,7574531,7574533							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	94		90-110		
Batch number: 14238023001A	Sample number(s): 7574519,7574523							
Sulfide	N.D.	54.	ug/l	107		90-110		
Batch number: 14238023002A	Sample number(s): 7574525,7574531,7574533,7574537							
Sulfide	N.D.	54.	ug/l	105		90-110		

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

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1497991
Reported: 09/05/14 at 11:34 AM

Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Max
Batch number: F142371AA	Sample number(s): 7574523 UNSPK: 7574523								
Benzene	104	104	72-134	0	30				
Ethylbenzene	104	103	71-134	1	30				
Methyl Tertiary Butyl Ether	103	103	72-126	1	30				
Toluene	104	102	80-125	2	30				
Xylene (Total)	104	104	79-125	0	30				
Batch number: F142372AA	Sample number(s): 7574521 UNSPK: 7574521								
Benzene	104	106	72-134	2	30				
Ethylbenzene	100	102	71-134	2	30				
Methyl Tertiary Butyl Ether	103	103	72-126	0	30				
Toluene	102	105	80-125	4	30				
Xylene (Total)	102	103	79-125	1	30				
Batch number: F142381AA	Sample number(s): 7574518-7574519 UNSPK: 7574519								
Benzene	98	100	72-134	2	30				
Ethylbenzene	101	105	71-134	3	30				
Methyl Tertiary Butyl Ether	100	100	72-126	0	30				
Toluene	100	101	80-125	0	30				
Xylene (Total)	102	105	79-125	4	30				
Batch number: Z142372AA	Sample number(s): 7574525,7574527,7574529,7574531,7574533,7574535,7574537,7574539 UNSPK: 7574525								
Benzene	100	103	72-134	2	30				
Ethylbenzene	102	105	71-134	3	30				
Methyl Tertiary Butyl Ether	98	101	72-126	3	30				
Toluene	101	105	80-125	4	30				
Xylene (Total)	105	108	79-125	3	30				
Batch number: 142410016A	Sample number(s): 7574519,7574523,7574525,7574531,7574533,7574537 UNSPK: P578231								
Methane	102	110	35-157	7	20				
Batch number: 142371848003	Sample number(s): 7574520,7574524,7574526,7574532,7574534,7574538 UNSPK: P573822 BKG: P573822								
Iron	184 (2)	156 (2)	75-125	1	20	23,400	23,900	2	20
Manganese	-118 (2)	-22 (2)	75-125	1	20	35,100	35,200	0	20
Batch number: 142376050003A	Sample number(s): 7574520,7574522,7574524,7574526,7574528,7574530,7574532,7574534,7574536,7574538, 7574540 UNSPK: 7574530 BKG: 7574530								
Lead	104	104	89-120	0	20	0.82	0.85	3 (1)	20
Batch number: 14234987901A	Sample number(s): 7574519,7574523,7574531,7574533,7574537 UNSPK: 7574523 BKG: 7574523								
Nitrate Nitrogen	92		90-110			N.D.	N.D.	0 (1)	20
Sulfate	99		90-110			2,500	2,500	3 (1)	20
Batch number: 14234987901B	Sample number(s): 7574525 UNSPK: 7574525 BKG: 7574525								
Nitrate Nitrogen	97		90-110			N.D.	N.D.	0 (1)	20
Sulfate	99		90-110			2,300	2,700	15 (1)	20
Batch number: 14238003104A	Sample number(s): 7574519,7574525,7574537 UNSPK: P574639 BKG: P574639								
Total Alkalinity	73 (2)	69 (2)	17-146	0	5	1,820,000	1,820,000	0	5
Batch number: 14238003105A	Sample number(s): 7574523,7574531,7574533 UNSPK: P575153 BKG: P575153								

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1497991
Reported: 09/05/14 at 11:34 AM

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Total Alkalinity	20		17-146			120,000	121,000	1	5
Batch number: 14238023001A	Sample number(s): 7574519,7574523 UNSPK: 7574519 BKG: 7574519								
Sulfide	80	77	42-131	4	16	N.D.	N.D.	0 (1)	5
Batch number: 14238023002A	Sample number(s): 7574525,7574531,7574533,7574537 UNSPK: 7574537 BKG: 7574537								
Sulfide	75	71	42-131	5	16	N.D.	N.D.	0 (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: UST VOCs by 8260B - Water
Batch number: F142371AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7574523	103	97	98	99
Blank	103	101	100	101
LCS	104	102	100	101
MS	101	97	98	100
MSD	103	103	98	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: F142372AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7574521	100	103	101	104
Blank	101	101	99	101
LCS	104	102	100	101
MS	100	103	97	98
MSD	101	105	98	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: F142381AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7574518	101	97	100	97
7574519	100	97	101	100
Blank	101	96	101	100
LCS	100	99	100	99
MS	102	98	99	98
MSD	101	99	101	101
Limits:	80-116	77-113	80-113	78-113

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1497991
Reported: 09/05/14 at 11:34 AM

Surrogate Quality Control

Analysis Name: UST VOCs by 8260B - Water
Batch number: Z142372AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7574525	105	98	98	97
7574527	103	98	98	99
7574529	104	98	99	99
7574531	104	99	99	98
7574533	105	98	98	98
7574535	105	100	98	98
7574537	104	98	98	98
7574539	105	100	98	98
Blank	106	98	97	99
LCS	103	99	98	102
MS	102	99	98	102
MSD	102	100	98	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14234B20A

	Trifluorotoluene-F
7574518	91
7574521	92
7574527	89
Blank	93
LCS	96
LCSD	95
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14240A20A

	Trifluorotoluene-F
7574537	90
Blank	92
LCS	95
LCSD	97
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14241B20A

	Trifluorotoluene-F
7574519	90
7574523	91
7574525	89
7574529	95
7574531	93
7574533	92
7574535	92
7574539	89

*- 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.

Quality Control Summary

Client Name: Chevron
Reported: 09/05/14 at 11:34 AM

Group Number: 1497991

Surrogate Quality Control

Blank	91
LCS	96
LCSD	96

Limits: 63-135

Analysis Name: NWTPH-Dx water
Batch number: 142370030A

	Orthoterphenyl
7574519	87
7574521	87
Blank	82
LCS	107
LCSD	98

Limits: 50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 142370031A

	Orthoterphenyl
7574519	81
7574521	89
Blank	85
LCS	105
LCSD	98

Limits: 50-150

Analysis Name: NWTPH-Dx water
Batch number: 142390016A

	Orthoterphenyl
7574523	122
7574525	126
7574527	103
7574529	114
7574531	107
7574533	107
7574535	123
7574537	113
7574539	115
Blank	111
LCS	136
LCSD	129

Limits: 50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 142390017A

	Orthoterphenyl
7574523	105
7574525	138
7574527	95

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1497991
Reported: 09/05/14 at 11:34 AM

Surrogate Quality Control

7574529	109
7574531	112
7574533	120
7574535	116
7574537	111
7574539	108
Blank	125
LCS	101
LCSD	126
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 142410016A

	Propene
7574519	67
7574523	74
7574525	77
7574531	82
7574533	77
7574537	84
Blank	85
LCS	83
MS	75
MSD	74
Limits:	42-131

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1497991 Sample # 575518-40

Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO Lead Consultant: LEIDOSRS Russell Shropshire

Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: J. Payne

(2) Sample Identification

(3) Collected / Grab / Composite

(4) Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

(5) Analyses Requested

Total Number of Containers; BTEX + MTBE; 8021 ☐ 8260 ☑ Naphth ☑; 8260 full scan; Oxygenates ____; NWTPH-Gx; NWTPH-Dx with Silica Gel Cleanup ☑; NWTPH-Dx without Silica Gel Cleanup ☑; WA VPH ☐ WA EPH ☐; Lead; Total ☐ Diss. ☑ Method 6020; Nitrate / Sulfate; Dissolved Iron & Manganese; Sulfide / Methane; Alkalinity

Sample Identification	Date	Time	Grab	Composite	Total Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Nitrate / Sulfate	Dissolved Iron & Manganese	Sulfide / Methane	Alkalinity
QA	8.20		X		2	X			X	X	X			X				
MW-103	8.21	0915	X		16	X			X	X	X			X	X	X	X	X
MW-110	8.20	1310	X		9	X			X	X	X			X	~~X~~	~~X~~	~~X~~	~~X~~
MW-112	8.21	1012	X		16	X			X	X	X			X	X	X	X	X
MW-113	8.21	1110	X		16	X			X	X	X			X	X	X	X	X
MW-114	8.20	1420	X		9	X			X	X	X			X				
MW-115	8.20	1208	X		9	X			X	X	X			X				
MW-116	8.21	1300	X		16	X			X	X	X			X	X	X	X	X
MW-117	8.21	1210	X		16	X			X	X	X			X	X	X	X	X
MW-118	8.20	1111	X		9	X			X	X	X			X				
MW-119	8.21	0820	X		16	X			X	X	X			X	X	X	X	X
MW-120	8.20	1017	X		9	X			X	X	X			X				

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, ~~Lead~~, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

(7) Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

(8) Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	8.21.14	1630			
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by: [signature] Date: 8/22/14 Time: 0945

Temperature Upon Receipt 0.7-3.6 °C

Custody Seals Intact? Yes 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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

December 03, 2014

Project: 211556

Submittal Date: 11/20/2014
Group Number: 1520101
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7682985
B-1 Grab Groundwater	7682986
B-1 Filtered Grab Groundwater	7682987
B-2 Grab Groundwater	7682988
B-2 Filtered Grab Groundwater	7682989
B-3 Grab Groundwater	7682990
B-3 Filtered Grab Groundwater	7682991
MW-103 Grab Groundwater	7682992
MW-103 Filtered Grab Groundwater	7682993
MW-112 Grab Groundwater	7682994
MW-112 Filtered Grab Groundwater	7682995
MW-113 Grab Groundwater	7682996
MW-113 Filtered Grab Groundwater	7682997
MW-116 Grab Groundwater	7682998
MW-116 Filtered Grab Groundwater	7682999
MW-117 Grab Groundwater	7683000
MW-117 Filtered Grab Groundwater	7683001
MW-119 Grab Groundwater	7683002
MW-119 Filtered Grab Groundwater	7683003

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC	Leidos	Attn: Russ Shropshire

COPY TO

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682985
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F143281AA	11/24/2014 07:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143281AA	11/24/2014 07:21	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14326A20A	11/23/2014 23:07	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14326A20A	11/23/2014 23:07	Brett W Kenyon	1

Sample Description: **B-1 Grab Groundwater**
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682986
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:10 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	4.8	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	7,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	87,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F143281AA	11/24/2014 07:42	Anita M Dale	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682986
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:10 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
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San Ramon CA 94583

MRTB1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143281AA	11/24/2014 07:42	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14326A20A	11/24/2014 00:01	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14326A20A	11/24/2014 00:01	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 19:56	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 18:28	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 16:20	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901A	11/20/2014 14:50	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901A	11/20/2014 14:50	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002202A	11/24/2014 22:29	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682987
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:10 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	454	33.4	1
07058	Manganese	7439-96-5	369	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143281848001	11/28/2014 14:16	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143281848001	11/28/2014 14:16	Eric L Eby	1
06035	Lead	SW-846 6020	1	143286050002A	11/29/2014 14:02	Deborah A Krady	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143281848001	11/25/2014 10:31	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143286050002	11/25/2014 09:15	Micaela L Dishong	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682988
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:05 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	5.2	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	360	250	5
00228	Sulfate	14808-79-8	2,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	84,100	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143292AA	11/25/2014 14:03	Daniel H Heller	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682988
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:05 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143292AA	11/25/2014 14:03	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14326A20A	11/24/2014 00:29	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14326A20A	11/24/2014 00:29	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 20:46	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 18:50	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 16:42	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901A	11/20/2014 15:06	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901A	11/20/2014 15:06	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002202A	11/24/2014 22:22	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682989
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:05 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	91.7	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143281848001	11/28/2014 12:37	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143281848001	11/28/2014 12:37	Eric L Eby	1
06035	Lead	SW-846 6020	1	143286050002A	11/29/2014 14:05	Deborah A Krady	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143281848001	11/25/2014 10:31	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143286050002	11/25/2014 09:15	Micaela L Dishong	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682990
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:20 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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	7	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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	900	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	220	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,400	29	1
08271	Heavy Range Organics C24-C40	n.a.	160	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	130	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	770	250	5
00228	Sulfate	14808-79-8	14,100	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	166,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	55	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F143282AA	11/24/2014 15:27	Anita M Dale	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682990
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:20 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143282AA	11/24/2014 15:27	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14328D20A	11/25/2014 16:50	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14328D20A	11/25/2014 16:50	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 21:03	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 21:22	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 17:04	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901B	11/20/2014 15:22	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901B	11/20/2014 15:22	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002202A	11/24/2014 22:53	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682991
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:20 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	12,900	33.4	1
07058	Manganese	7439-96-5	4,590	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.0134	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143281848001	11/28/2014 14:20	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143281848001	11/28/2014 14:20	Eric L Eby	1
06035	Lead	SW-846 6020	1	143286050002A	11/29/2014 14:07	Deborah A Krady	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143281848001	11/25/2014 10:31	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143286050002	11/25/2014 09:15	Micaela L Dishong	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682992
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:40 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	7.5	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	117,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F143282AA	11/24/2014 07:52	Anita M Dale	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682992
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:40 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143282AA	11/24/2014 07:52	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14328D20A	11/25/2014 17:56	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14328D20A	11/25/2014 17:56	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 21:20	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 19:12	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 17:25	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901B	11/20/2014 15:38	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901B	11/20/2014 15:38	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002202A	11/24/2014 22:17	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682993
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:40 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	80.1	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143281848001	11/28/2014 14:25	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143281848001	11/28/2014 14:25	Eric L Eby	1
06035	Lead	SW-846 6020	1	143286050002A	11/29/2014 14:09	Deborah A Krady	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143281848001	11/25/2014 10:31	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143286050002	11/25/2014 09:15	Micaela L Dishong	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682994
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:55 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	4.3	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	540	250	5
00228	Sulfate	14808-79-8	2,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	40,100	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F143282AA	11/24/2014 08:57	Anita M Dale	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682994
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:55 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143282AA	11/24/2014 08:57	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14328D20A	11/25/2014 18:18	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14328D20A	11/25/2014 18:18	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 21:37	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 21:00	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 17:47	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901B	11/20/2014 16:27	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901B	11/20/2014 16:27	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002203A	11/25/2014 01:39	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682995
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:55 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	534	33.4	1
07058	Manganese	7439-96-5	645	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.00013	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143281848001	11/28/2014 14:29	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143281848001	11/28/2014 14:29	Eric L Eby	1
06035	Lead	SW-846 6020	1	143286050002A	11/29/2014 14:12	Deborah A Krady	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143281848001	11/25/2014 10:31	Micaela L Dishong	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143286050002	11/25/2014 09:15	Micaela L Dishong	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682996
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:30 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	470	250	5
00228	Sulfate	14808-79-8	1,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	25,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z143312AA	11/27/2014 09:02	Anita M Dale	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682996
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:30 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z143312AA	11/27/2014 09:02	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14328D20A	11/25/2014 19:02	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14328D20A	11/25/2014 19:02	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 22:11	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 19:33	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 18:09	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901B	11/20/2014 16:43	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901B	11/20/2014 16:43	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002202A	11/24/2014 22:41	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682997
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:30 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	1.5	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143251848001	11/23/2014 12:32	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143251848001	11/23/2014 12:32	Eric L Eby	1
06035	Lead	SW-846 6020	1	143256050004A	11/24/2014 05:26	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143251848001	11/22/2014 13:18	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143256050004	11/23/2014 06:28	James L Mertz	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682998
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:58 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	350	250	5
00228	Sulfate	14808-79-8	3,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	35,300	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z143312AA	11/27/2014 10:18	Anita M Dale	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682998
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:58 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z143312AA	11/27/2014 10:18	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14328D20A	11/25/2014 19:24	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14328D20A	11/25/2014 19:24	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 22:27	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 20:17	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 18:30	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901B	11/20/2014 16:59	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901B	11/20/2014 16:59	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002204A	11/25/2014 05:32	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7682999
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 11:58 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	43.6	33.4	1
07058	Manganese	7439-96-5	3.3	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143251848001	11/23/2014 12:45	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143251848001	11/23/2014 12:45	Eric L Eby	1
06035	Lead	SW-846 6020	1	143256050004A	11/24/2014 05:28	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143251848001	11/22/2014 13:18	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143256050004	11/23/2014 06:28	James L Mertz	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7683000
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:40 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	270	250	5
00228	Sulfate	14808-79-8	4,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	20,900	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z143312AA	11/27/2014 10:42	Anita M Dale	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7683000
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:40 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z143312AA	11/27/2014 10:42	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14328D20A	11/25/2014 19:46	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14328D20A	11/25/2014 19:46	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 22:44	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 20:39	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 18:51	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901B	11/20/2014 17:16	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901B	11/20/2014 17:16	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002203A	11/25/2014 01:22	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7683001
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 10:40 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	123	33.4	1
07058	Manganese	7439-96-5	5.6	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143251848001	11/23/2014 12:49	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143251848001	11/23/2014 12:49	Eric L Eby	1
06035	Lead	SW-846 6020	1	143256050004A	11/24/2014 05:29	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143251848001	11/22/2014 13:18	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143256050004	11/23/2014 06:28	James L Mertz	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7683002
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:30 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	890	250	5
00228	Sulfate	14808-79-8	2,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	67,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z143312AA	11/27/2014 11:06	Anita M Dale	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7683002
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:30 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z143312AA	11/27/2014 11:06	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14328D20A	11/25/2014 20:08	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14328D20A	11/25/2014 20:08	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143350034A	12/01/2014 23:01	Elizabeth J Marin	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143250031A	11/24/2014 19:55	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143250032A	12/01/2014 19:13	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143250032A	11/23/2014 09:00	David S Schrum	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143250031A	11/23/2014 09:00	David S Schrum	1
00368	Nitrate Nitrogen	EPA 300.0	1	14324347901B	11/20/2014 17:32	Sandra J Miller	5
00228	Sulfate	EPA 300.0	1	14324347901B	11/20/2014 17:32	Sandra J Miller	5
12150	Total Alkalinity	SM 2320 B-1997	1	14328002203A	11/25/2014 01:09	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	14325023001A	11/21/2014 12:00	Michele L Graham	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Milford Rd - Toledo, WA

LL Sample # WW 7683003
LL Group # 1520101
Account # 11260

Project Name: 211556

Collected: 11/19/2014 09:30 by JP

Submitted: 11/20/2014 09:40
Reported: 12/03/2014 13:37

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	127	33.4	1
07058	Manganese	7439-96-5	34.4	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.00014	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143251848001	11/23/2014 12:54	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	143251848001	11/23/2014 12:54	Eric L Eby	1
06035	Lead	SW-846 6020	1	143256050004A	11/24/2014 05:35	Choon Y Tian	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143251848001	11/22/2014 13:18	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3020A	1	143256050004	11/23/2014 06:28	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1520101
Reported: 12/03/14 at 01:37 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 Max
Batch number: D143292AA	Sample number(s): 7682988							
Benzene	N.D.	0.5	ug/l	92		78-120		
Ethylbenzene	N.D.	0.5	ug/l	96		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	95		80-120		
Xylene (Total)	N.D.	0.5	ug/l	99		80-120		
Batch number: F143281AA	Sample number(s): 7682985-7682986							
Benzene	N.D.	0.5	ug/l	95		78-120		
Ethylbenzene	N.D.	0.5	ug/l	98		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		75-120		
Toluene	N.D.	0.5	ug/l	100		80-120		
Xylene (Total)	N.D.	0.5	ug/l	96		80-120		
Batch number: F143282AA	Sample number(s): 7682990,7682992,7682994							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	98		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	97		80-120		
Xylene (Total)	N.D.	0.5	ug/l	93		80-120		
Batch number: Z143312AA	Sample number(s): 7682996,7682998,7683000,7683002							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	100		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	90		75-120		
Toluene	N.D.	0.5	ug/l	100		80-120		
Xylene (Total)	N.D.	0.5	ug/l	101		80-120		
Batch number: 14326A20A	Sample number(s): 7682985-7682986,7682988							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	97	96	75-135	1	30
Batch number: 14328D20A	Sample number(s): 7682990,7682992,7682994,7682996,7682998,7683000,7683002							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	97	97	75-135	1	30
Batch number: 143350034A	Sample number(s): 7682986,7682988,7682990,7682992,7682994,7682996,7682998,7683000,7683002							
Methane	N.D.	3.0	ug/l	99		85-115		
Batch number: 143250031A	Sample number(s): 7682986,7682988,7682990,7682992,7682994,7682996,7682998,7683000,7683002							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	64	64	50-113	0	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 143250032A	Sample number(s):							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520101
Reported: 12/03/14 at 01:37 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	7682986,7682988,7682990,7682992,7682994,7682996,7682998,7683000,7683002							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	59	65	32-117	11	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 143251848001	Sample number(s): 7682997,7682999,7683001,7683003							
Iron	N.D.	33.4	ug/l	99		80-120		
Manganese	1.3	0.83	ug/l	96		80-120		
Batch number: 143256050004A	Sample number(s): 7682997,7682999,7683001,7683003							
Lead	N.D.	0.00008 2	mg/l	99		80-120		
Batch number: 143281848001	Sample number(s): 7682987,7682989,7682991,7682993,7682995							
Iron	N.D.	33.4	ug/l	99		80-120		
Manganese	N.D.	0.83	ug/l	101		80-120		
Batch number: 143286050002A	Sample number(s): 7682987,7682989,7682991,7682993,7682995							
Lead	N.D.	0.00008 2	mg/l	102		80-120		
Batch number: 14324347901A	Sample number(s): 7682986,7682988							
Nitrate Nitrogen	N.D.	50.	ug/l	106		90-110		
Sulfate	N.D.	300.	ug/l	105		90-110		
Batch number: 14324347901B	Sample number(s): 7682990,7682992,7682994,7682996,7682998,7683000,7683002							
Nitrate Nitrogen	N.D.	50.	ug/l	106		90-110		
Sulfate	N.D.	300.	ug/l	105		90-110		
Batch number: 14325023001A	Sample number(s): 7682986,7682988,7682990,7682992,7682994,7682996,7682998,7683000,7683002							
Sulfide	N.D.	54.	ug/l	100		90-110		
Batch number: 14328002202A	Sample number(s): 7682986,7682988,7682990,7682992,7682996							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	97		90-110		
Batch number: 14328002203A	Sample number(s): 7682994,7683000,7683002							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	97		90-110		
Batch number: 14328002204A	Sample number(s): 7682998							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D143292AA	Sample number(s): 7682988 UNSPK: P681332								
Benzene	113	103	72-134	10	30				

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520101
Reported: 12/03/14 at 01:37 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Ethylbenzene	115	103	71-134	11	30				
Methyl Tertiary Butyl Ether	103	93	72-126	9	30				
Toluene	113	103	80-125	9	30				
Xylene (Total)	116	105	79-125	10	30				
Batch number: F143281AA	Sample number(s): 7682985-7682986 UNSPK: 7682986								
Benzene	102	103	72-134	1	30				
Ethylbenzene	104	105	71-134	1	30				
Methyl Tertiary Butyl Ether	96	98	72-126	2	30				
Toluene	106	106	80-125	1	30				
Xylene (Total)	102	102	79-125	1	30				
Batch number: F143282AA	Sample number(s): 7682990,7682992,7682994 UNSPK: 7682992								
Benzene	105	105	72-134	1	30				
Ethylbenzene	110	107	71-134	3	30				
Methyl Tertiary Butyl Ether	97	97	72-126	0	30				
Toluene	109	105	80-125	3	30				
Xylene (Total)	102	100	79-125	2	30				
Batch number: Z143312AA	Sample number(s): 7682996,7682998,7683000,7683002 UNSPK: 7682996								
Benzene	93	84	72-134	10	30				
Ethylbenzene	101	90	71-134	11	30				
Methyl Tertiary Butyl Ether	85	77	72-126	10	30				
Toluene	100	90	80-125	11	30				
Xylene (Total)	101	90	79-125	12	30				
Batch number: 143350034A	Sample number(s): 7682986,7682988,7682990,7682992,7682994,7682996,7682998,7683000,7683002 UNSPK: 7682986								
Methane	96	98	46-129	2	20				
Batch number: 143251848001	Sample number(s): 7682997,7682999,7683001,7683003 UNSPK: P682896 BKG: P682896								
Iron	102	103	75-125	1	20	N.D.	N.D.	0 (1)	20
Manganese	100	102	75-125	1	20	8.1	8.0	1 (1)	20
Batch number: 143256050004A	Sample number(s): 7682997,7682999,7683001,7683003 UNSPK: P683824 BKG: P683824								
Lead	102	104	75-125	2	20	N.D.	N.D.	0 (1)	20
Batch number: 143281848001	Sample number(s): 7682987,7682989,7682991,7682993,7682995 UNSPK: 7682989 BKG: 7682989								
Iron	104	104	75-125	0	20	N.D.	N.D.	0 (1)	20
Manganese	103	105	75-125	2	20	91.7	95.7	4	20
Batch number: 143286050002A	Sample number(s): 7682987,7682989,7682991,7682993,7682995 UNSPK: P681643 BKG: P681643								
Lead	112	110	75-125	1	20	0.0146	0.0145	1	20
Batch number: 14324347901A	Sample number(s): 7682986,7682988 UNSPK: P681643 BKG: P681643								
Nitrate Nitrogen	99		90-110			N.D.	N.D.	0 (1)	20
Sulfate	100		90-110			14,700	13,800	7 (1)	20
Batch number: 14324347901B	Sample number(s): 7682990,7682992,7682994,7682996,7682998,7683000,7683002 UNSPK:								

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520101
Reported: 12/03/14 at 01:37 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
	P683187 BKG: P683187								
Nitrate Nitrogen	119*		90-110			N.D.	N.D.	0 (1)	20
Sulfate	121*		90-110			N.D.	N.D.	0 (1)	20
Batch number: 14325023001A	Sample number(s): 7682986,7682988,7682990,7682992,7682994,7682996,7682998,7683000,7683002 UNSPK: 7682986 BKG: 7682986								
Sulfide	66	70	42-131	5	16	N.D.	N.D.	0 (1)	5
Batch number: 14328002202A	Sample number(s): 7682986,7682988,7682990,7682992,7682996 UNSPK: P683638 BKG: P683638								
Total Alkalinity	58		17-146			321,000	322,000	0	5
Batch number: 14328002203A	Sample number(s): 7682994,7683000,7683002 UNSPK: P683967 BKG: P683967								
Total Alkalinity	85	86	17-146	1	5	N.D.	N.D.	0 (1)	5
Batch number: 14328002204A	Sample number(s): 7682998 UNSPK: P685978 BKG: P685978								
Total Alkalinity	66	63	17-146	1	5	225,000	223,000	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: BTEX/MTBE
Batch number: D143292AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7682988	104	99	99	93
Blank	105	101	99	93
LCS	99	98	99	103
MS	100	100	99	104
MSD	98	99	100	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: F143281AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7682985	95	101	108	101
7682986	95	102	108	101
Blank	95	100	108	101
LCS	92	99	108	103
MS	94	101	109	104
MSD	93	102	109	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: F143282AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520101
Reported: 12/03/14 at 01:37 PM

Surrogate Quality Control

7682990	93	101	108	106
7682992	94	101	108	102
7682994	93	99	107	102
Blank	94	100	108	103
LCS	95	102	107	105
MS	95	101	107	104
MSD	93	103	108	104
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: Z143312AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7682996	97	96	98	94
7682998	98	98	98	94
7683000	98	96	98	95
7683002	98	96	99	95
Blank	97	96	98	95
LCS	95	94	99	102
MS	95	97	98	102
MSD	96	94	97	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14326A20A

	Trifluorotoluene-F
7682985	88
7682986	89
7682988	88
Blank	88
LCS	95
LCSD	93
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14328D20A

	Trifluorotoluene-F
7682990	99
7682992	77
7682994	91
7682996	89
7682998	89
7683000	88
7683002	89
Blank	89
LCS	94
LCSD	93
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 143250031A

	Orthoterphenyl
7682986	89
7682988	91
7682990	104
7682992	91

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520101
Reported: 12/03/14 at 01:37 PM

Surrogate Quality Control

7682994	86
7682996	91
7682998	89
7683000	87
7683002	92
Blank	89
LCS	97
LCSD	97
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 143250032A

	Orthoterphenyl
7682986	82
7682988	81
7682990	75
7682992	85
7682994	84
7682996	89
7682998	82
7683000	87
7683002	81
Blank	82
LCS	82
LCSD	90
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 143350034A

	Propene
7682986	97
7682988	89
7682990	74
7682992	74
7682994	78
7682996	86
7682998	92
7683000	80
7683002	72
Blank	109
LCS	105
MS	85
MSD	87
Limits:	47-116

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1520101 Sample # 7682985-3003
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler J. Payne · Alex Gilbert

2 Sample Identification | Collected Date | Collected Time | **3** Grab | Composite | **4 Matrix** Soil | Water | Sediment | Potable | NPDES | Grnd | Surface | Oil | Air | Total Number of Containers | **5 Analyses Requested** BTEX + MTBE | 8021 | 8260 | Naphth | 8260 full scan | Oxygenates | NWTPH-Gx | NWTPH-Dx with Silica Gel Cleanup | NWTPH-Dx without Silica Gel Cleanup | WA VPH | WA EPH | Total | Diss. | Method 6020 | Lead | Nitrate & Sulfate | Dissolved Iron / Manganese | Sulfide SM4500 S2O | Methane / Alkalinity

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Sediment	Potable	NPDES	Grnd	Surface	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Total	Diss.	Method 6020	Lead	Nitrate & Sulfate	Dissolved Iron / Manganese	Sulfide SM4500 S2O	Methane / Alkalinity
Q.A	11.19.14					X							2	X						X												
B-1		1010	X			X							16	X						X	X	X				X		X	X	X	X	X
B-2		0905	X			X							16	X						X	X	X				X		X	X	X	X	X
B-3		1120	X			X							16	X						X	X	X				X		X	X	X	X	X
MW-103		1040	X			X							16	X						X	X	X				X		X	X	X	X	X
MW-112		1155	X			X							16	X						X	X	X				X		X	X	X	X	X
MW-113		0930	X			X							16	X						X	X	X				X		X	X	X	X	X
MW-116		1158	X			X							16	X						X	X	X				X		X	X	X	X	X
MW-117		1040	X			X							16	X						X	X	X				X		X	X	X	X	X
MW-119		0930	X			X							16	X						X	X	X				X		X	X	X	X	X

- [ ] Results in Dry Weight
- [ ] J value reporting needed
- [ ] Must meet lowest detection limits possible for 8260 compounds
- [ ] 8021 MTBE Confirmation
- [ ] Confirm MTBE + Naphthalene
- [ ] Confirm highest hit by 8260
- [ ] Confirm all hits by 8260
- [ ] Run _____ oxy's on highest hit
- [ ] Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

7 Turnaround Time Requested (TAT) (please circle)
Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

Relinquished by	Date	Time	Received by	Date	Time
	11.19.14	1430			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS X FedEx _____ Other _____
Temperature Upon Receipt 0.1-2.9 °C

Received by	Date	Time
	11.20.14	940

Custody Seals Intact? Yes No

9

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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)
C	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 - The number following the sign is the limit of quantitation, 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

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

December 10, 2014

Project: 211556

Submittal Date: 11/22/2014
Group Number: 1520705
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7686494
B-4 Grab Groundwater	7686495
B-4 Filtered Grab Groundwater	7686496
MW-109 Grab Groundwater	7686497
MW-109 Filtered Grab Groundwater	7686498
MW-110 Grab Groundwater	7686499
MW-110 Filtered Grab Groundwater	7686500
MW-111 Grab Groundwater	7686501
MW-111 Filtered Grab Groundwater	7686502
MW-114 Grab Groundwater	7686503
MW-114 Filtered Grab Groundwater	7686504
MW-115 Grab Groundwater	7686505
MW-115 Filtered Grab Groundwater	7686506
MW-118 Grab Groundwater	7686507
MW-118 Filtered Grab Groundwater	7686508
MW-120 Grab Groundwater	7686509
MW-120 Filtered Grab Groundwater	7686510

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Leidos	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686494
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTTR

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143332AA	11/29/2014 08:07	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143332AA	11/29/2014 08:07	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14336B20A	12/03/2014 00:24	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14336B20A	12/03/2014 00:24	Brett W Kenyon	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686495
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 11:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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	2	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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,300	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	680	15	5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	270	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	120	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,600	1,500	5
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143332AA	11/29/2014 16:33	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143332AA	11/29/2014 16:33	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14336B20A	12/03/2014 01:18	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14336B20A	12/03/2014 01:18	Brett W Kenyon	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686495
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 11:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143360026A	12/03/2014 17:34	Elizabeth J Marin	5
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143290016A	11/26/2014 12:08	Lisa A Reinert	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143290015A	12/02/2014 13:56	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143290015A	11/25/2014 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143290016A	11/25/2014 18:30	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	14326987151A	11/22/2014 14:02	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14326987151A	11/22/2014 14:02	Clinton M Wilson	5
00230	Sulfide	SM 4500-S2 D-2000	1	14328023001A	11/24/2014 14:30	Michele L Graham	1

Sample Description: **B-4 Filtered Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686496
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 11:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	214	33.4	1
07058	Manganese	7439-96-5	5.2	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.4	0.082	1
Wet Chemistry	**SM 2320 B-1997**		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	143,000	700	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143301848001	12/01/2014 11:36	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	143301848001	12/01/2014 11:36	Joanne M Gates	1
06035	Lead	SW-846 6020	1	143306050003A	12/02/2014 02:24	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143301848001	11/30/2014 06:52	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050003	11/30/2014 07:48	James L Mertz	1
12150	Total Alkalinity	SM 2320 B-1997	1	14328002204A	11/25/2014 03:50	Kenneth A Bell	1

Sample Description: MW-109 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686497
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 09:15 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143332AA	11/29/2014 10:02	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143332AA	11/29/2014 10:02	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14336B20A	12/03/2014 07:10	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14336B20A	12/03/2014 07:10	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143290016A	12/02/2014 16:50	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143290015A	12/02/2014 14:18	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143290015A	11/25/2014 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143290016A	11/25/2014 18:30	Samantha L Bronder	1

Sample Description: MW-109 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686498
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 09:15 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	143306050003A	12/02/2014 02:26	Tara L Snyder	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050003	11/30/2014 07:48	James L Mertz	1

Sample Description: MW-110 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686499
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 09:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR110

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143332AA	11/29/2014 10:25	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143332AA	11/29/2014 10:25	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14336B20A	12/03/2014 07:37	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14336B20A	12/03/2014 07:37	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143290016A	11/26/2014 11:03	Lisa A Reinert	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143290015A	12/02/2014 14:40	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143290015A	11/25/2014 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143290016A	11/25/2014 18:30	Samantha L Bronder	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686500
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 09:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.94	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	143306050003A	12/02/2014 02:28	Tara L Snyder	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050003	11/30/2014 07:48	James L Mertz	1

Sample Description: **MW-111 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686501
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 10:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR111

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	2	0.5	1
10945	Ethylbenzene	100-41-4	120	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	11	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	6,000	250	5
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	3,400	60	20
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,800	30	1
08271	Heavy Range Organics C24-C40	n.a.	320	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	430	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143332AA	11/29/2014 10:48	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143332AA	11/29/2014 10:48	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14337D20A	12/04/2014 15:26	Brett W Kenyon	5
01146	GC VOA Water Prep	SW-846 5030B	1	14337D20A	12/04/2014 15:26	Brett W Kenyon	5

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686501
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 10:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR111

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	143360026A	12/03/2014 17:51	Elizabeth J Marin	20
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143290016A	11/26/2014 12:51	Lisa A Reinert	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143290015A	12/02/2014 15:02	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143290015A	11/25/2014 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143290016A	11/25/2014 18:30	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	14326987151A	11/22/2014 13:07	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	14326987151A	11/22/2014 13:07	Clinton M Wilson	5
00230	Sulfide	SM 4500-S2 D-2000	1	14328023001A	11/24/2014 14:30	Michele L Graham	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686502
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 10:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	14,500	33.4	1
07058	Manganese	7439-96-5	7,080	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	45.3	0.082	1
Wet Chemistry	**SM 2320 B-1997**		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity	n.a.	241,000	700	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	143301848001	12/01/2014 11:40	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	143301848001	12/01/2014 11:40	Joanne M Gates	1
06035	Lead	SW-846 6020	1	143306050003A	12/02/2014 02:29	Tara L Snyder	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	143301848001	11/30/2014 06:52	James L Mertz	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050003	11/30/2014 07:48	James L Mertz	1
12150	Total Alkalinity	SM 2320 B-1997	1	14328002204A	11/25/2014 05:05	Kenneth A Bell	1

Sample Description: MW-114 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686503
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 10:25 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR114

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	28	1
08271	Heavy Range Organics C24-C40	n.a.	140	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143332AA	11/29/2014 08:30	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143332AA	11/29/2014 08:30	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14337D20A	12/04/2014 15:54	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14337D20A	12/04/2014 15:54	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143290016A	12/02/2014 17:12	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143290015A	12/02/2014 15:23	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143290015A	11/25/2014 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143290016A	11/25/2014 18:30	Samantha L Bronder	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686504
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 10:25 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.20	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	143306050003A	12/02/2014 02:31	Tara L Snyder	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050003	11/30/2014 07:48	James L Mertz	1

Sample Description: MW-115 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686505
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 08:10 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR115

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143331AA	11/29/2014 07:56	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143331AA	11/29/2014 07:56	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14337D20A	12/04/2014 16:21	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14337D20A	12/04/2014 16:21	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143290016A	11/26/2014 11:25	Lisa A Reinert	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143290015A	12/02/2014 15:45	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143290015A	11/25/2014 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143290016A	11/25/2014 18:30	Samantha L Bronder	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686506
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 08:10 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.28	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	143306050003A	12/02/2014 02:33	Tara L Snyder	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050003	11/30/2014 07:48	James L Mertz	1

Sample Description: **MW-118 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686507
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 08:25 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR118

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143331AA	11/29/2014 09:05	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143331AA	11/29/2014 09:05	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14337D20A	12/04/2014 16:49	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14337D20A	12/04/2014 16:49	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143370013A	12/05/2014 00:24	Lisa A Reinert	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143420008A	12/10/2014 11:44	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	2	143420008A	12/03/2014 00:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	2	143370013A	12/03/2014 18:30	Samantha L Bronder	1

Sample Description: MW-118 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686508
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 08:25 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	143306050005A	12/04/2014 10:21	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050005	12/01/2014 09:05	Micaela L Dishong	1

Sample Description: MW-120 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686509
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 09:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR120

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D143331AA	11/29/2014 09:28	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D143331AA	11/29/2014 09:28	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14337D20A	12/04/2014 17:16	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14337D20A	12/04/2014 17:16	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	143290016A	11/26/2014 12:29	Lisa A Reinert	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	143290015A	12/02/2014 16:29	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	143290015A	11/25/2014 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	143290016A	11/25/2014 18:30	Samantha L Bronder	1

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7686510
LL Group # 1520705
Account # 11260

Project Name: 211556

Collected: 11/20/2014 09:30 by JP

Submitted: 11/22/2014 08:45
Reported: 12/10/2014 15:30

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	143306050005A	12/04/2014 10:23	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	143306050005	12/01/2014 09:05	Micaela L Dishong	1

Quality Control Summary

Client Name: Chevron Group Number: 1520705
Reported: 12/10/14 at 03:30 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 Max
Batch number: D143331AA	Sample number(s): 7686505,7686507,7686509							
Benzene	N.D.	0.5	ug/l	88		78-120		
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	91		75-120		
Toluene	N.D.	0.5	ug/l	92		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: D143332AA	Sample number(s): 7686494-7686495,7686497,7686499,7686501,7686503							
Benzene	N.D.	0.5	ug/l	88		78-120		
Ethylbenzene	N.D.	0.5	ug/l	93		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	90		75-120		
Toluene	N.D.	0.5	ug/l	91		80-120		
Xylene (Total)	N.D.	0.5	ug/l	98		80-120		
Batch number: 14336B20A	Sample number(s): 7686494-7686495,7686497,7686499							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	102	99	75-135	2	30
Batch number: 14337D20A	Sample number(s): 7686501,7686503,7686505,7686507,7686509							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	100	99	75-135	1	30
Batch number: 143360026A	Sample number(s): 7686495,7686501							
Methane	N.D.	3.0	ug/l	107		85-115		
Batch number: 143290016A	Sample number(s): 7686495,7686497,7686499,7686501,7686503,7686505,7686509							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	68	77	50-113	12	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 143370013A	Sample number(s): 7686507							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	74	81	50-113	10	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 143290015A	Sample number(s): 7686495,7686497,7686499,7686501,7686503,7686505,7686509							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	66	62	32-117	7	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 143420008A	Sample number(s): 7686507							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	63	60	32-117	4	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 143301848001	Sample number(s): 7686496,7686502							
Iron	N.D.	33.4	ug/l	105		80-120		
Manganese	N.D.	0.83	ug/l	105		80-120		
Batch number: 143306050003A	Sample number(s): 7686496,7686498,7686500,7686502,7686504,7686506							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520705
Reported: 12/10/14 at 03:30 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Lead	N.D.	0.082	ug/l	104		80-120		
Batch number: 143306050005A	Sample number(s): 7686508,7686510							
Lead	N.D.	0.082	ug/l	102		80-120		
Batch number: 14326987151A	Sample number(s): 7686495,7686501							
Nitrate Nitrogen	N.D.	50.	ug/l	100	99	90-110	0	20
Sulfate	N.D.	300.	ug/l	101	101	90-110	0	20
Batch number: 14328002204A	Sample number(s): 7686496,7686502							
Total Alkalinity	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 14328023001A	Sample number(s): 7686495,7686501							
Sulfide	N.D.	54.	ug/l	93		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D143331AA	Sample number(s): 7686505,7686507,7686509 UNSPK: 7686507								
Benzene	105	98	72-134	7	30				
Ethylbenzene	106	101	71-134	5	30				
Methyl Tertiary Butyl Ether	104	98	72-126	7	30				
Toluene	108	101	80-125	6	30				
Xylene (Total)	111	103	79-125	8	30				
Batch number: D143332AA	Sample number(s): 7686494-7686495,7686497,7686499,7686501,7686503 UNSPK: 7686503								
Benzene	87	106	72-134	19	30				
Ethylbenzene	91	107	71-134	16	30				
Methyl Tertiary Butyl Ether	83	103	72-126	21	30				
Toluene	91	109	80-125	18	30				
Xylene (Total)	96	111	79-125	14	30				
Batch number: 143360026A	Sample number(s): 7686495,7686501 UNSPK: P688940								
Methane	75	83	46-129	8	20				
Batch number: 143301848001	Sample number(s): 7686496,7686502 UNSPK: P688397 BKG: P688397								
Iron	125 (2)	142 (2)	75-125	3	20	4,050	3,990	1	20
Manganese	105	112	75-125	3	20	760	749	2	20
Batch number: 143306050003A	Sample number(s): 7686496,7686498,7686500,7686502,7686504,7686506 UNSPK: P687853 BKG: P687853								
Lead	102	103	75-125	1	20	0.98	0.88	12 (1)	20
Batch number: 143306050005A	Sample number(s): 7686508,7686510 UNSPK: P686372 BKG: P686372								
Lead	102	104	75-125	1	20	2.9	3.1	6 (1)	20
Batch number: 14326987151A	Sample number(s): 7686495,7686501 UNSPK: 7686495 BKG: 7686495								
Nitrate Nitrogen	102		90-110			N.D.	N.D.	0 (1)	20

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520705
Reported: 12/10/14 at 03:30 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	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Sulfate	100		90-110			2,600	2,400	7 (1)	20
Batch number: 14328002204A	Sample number(s): 7686496,7686502 UNSPK: P685978 BKG: P685978								
Total Alkalinity	66	63	17-146	1	5	225,000	223,000	1	5
Batch number: 14328023001A	Sample number(s): 7686495,7686501 UNSPK: P685603 BKG: P685603								
Sulfide	60	71	42-131	17*	16	N.D.	N.D.	0 (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: BTEX/MTBE
Batch number: D143331AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7686505	110	104	102	91
7686507	111	102	99	91
7686509	112	105	99	92
Blank	108	102	98	93
LCS	104	103	98	103
MS	104	103	98	103
MSD	106	101	99	104
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: D143332AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7686494	109	102	98	92
7686495	99	97	100	100
7686497	111	105	98	94
7686499	108	105	100	93
7686501	101	97	101	103
7686503	110	102	98	91
Blank	108	102	98	93
LCS	104	102	97	103
MS	103	101	97	104
MSD	103	101	96	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14336B20A

	Trifluorotoluene-F
7686494	90
7686495	100
7686497	75
7686499	89
Blank	87

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1520705
Reported: 12/10/14 at 03:30 PM

Surrogate Quality Control

LCS	92
LCSD	92
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14337D20A

	Trifluorotoluene-F
7686501	90
7686503	88
7686505	90
7686507	87
7686509	82
Blank	89
LCS	93
LCSD	93
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 143290015A

	Orthoterphenyl
7686495	100
7686497	87
7686499	83
7686501	96
7686503	83
7686505	92
7686509	86
Blank	84
LCS	94
LCSD	84
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 143290016A

	Orthoterphenyl
7686495	101
7686497	85
7686499	91
7686501	117
7686503	92
7686505	95
7686509	94
Blank	92
LCS	91
LCSD	98
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 143360026A

	Propene
7686495	90
7686501	102
Blank	108
LCS	109
MS	61

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1520705
Reported: 12/10/14 at 03:30 PM

Surrogate Quality Control

MSD	67
Limits:	47-116

Analysis Name: NWTPH-Dx water
Batch number: 143370013A

	Orthoterphenyl
7686507	96
Blank	92
LCS	99
LCSD	106
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 143420008A

	Orthoterphenyl
7686507	76
Blank	79
LCS	84
LCSD	78
Limits:	50-150

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1520705 Sample # 7686494-510
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler J. PAYNE / GILBERT / ALEX

4 Matrix

Soil ☐ Sediment ☐ Water ☑ Groundwater ☐ Potable ☐ NPDES ☐ Surface ☐ Oil ☐ Air ☐

5 Analyses Requested

2 Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates ____	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020	Dissolved Iron / Manganese	Sulfide / Methane	Alkalinity	Nitrate / Sulfate
QA	11.10.14		X		2												
B-4		1130	X		16	X			X	X	X		X	X	X	X	X
MW-109		0915	X		9	X			X	X	X		X				
MW-110		0940	X		9	X			X	X	X		X				
MW-111		1030	X		16	X			X	X	X		X	X	X	X	X
MW-114		1015	X		9	X			X	X	X		X				
MW-115		0810	X		9	X			X	X	X		X				
MW-116		0825	X		9	X			X	X	X		X				
MW-120		0930	X		9	X			X	X	X		X				

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

7 Turnaround Time Requested (TAT) (please circle)

Standard 5 day 4 day
72 hour 48 hour EDF/EDD 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	11.10.14	1500			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by Commercial Carrier: UPS ✓ FedEx _____ Other _____

Received by — Date 11/22/14 Time 845

Temperature Upon Receipt 0.9-2.1 °C

Custody Seals Intact? (Yes) No

9

Date _____ Time _____

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)
C	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 - The number following the sign is the limit of quantitation, 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	
A	TIC is a possible aldol-condensation product	**B**	Value is <CRDL, but ≥IDL
B	Analyte was also detected in the blank	**E**	Estimated due to interference
C	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 the instrument	**S**	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	**U**	Compound was not detected
P	Concentration difference between primary and confirmation columns >25%	**W**	Post digestion spike out of control limits
U	Compound was not detected	*****	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	**+**	Correlation coefficient for MSA <0.995

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

February 27, 2015

Project: 211556

Submittal Date: 02/19/2015
Group Number: 1539587
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7777523
B-1 Grab Groundwater	7777524
B-1 Filtered Grab Groundwater	7777525
B-2 Grab Groundwater	7777526
B-2 Filtered Grab Groundwater	7777527
MW-110 Grab Groundwater	7777528
MW-110 Filtered Grab Groundwater	7777529

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Leidos	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777523
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150541AA	02/23/2015 07:29	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150541AA	02/23/2015 07:29	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 14:43	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 14:43	Marie D Beamenderfer	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777524
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 10:40 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	2,200	250	5
00228	Sulfate	14808-79-8	3,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	60,100	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150541AA	02/23/2015 07:51	Anita M Dale	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777524
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 10:40 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150541AA	02/23/2015 07:51	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 16:08	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 16:08	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150550015A	02/24/2015 17:53	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 16:58	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 15:08	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15050667151A	02/19/2015 11:01	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15050667151A	02/19/2015 11:01	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15051007203A	02/20/2015 22:12	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023001A	02/23/2015 08:30	Susan E Hibner	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777525
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 10:40 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	9.8	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150511848005	02/24/2015 18:07	Suzanne M Will	1
07058	Manganese	SW-846 6010B	1	150511848005	02/24/2015 18:07	Suzanne M Will	1
06035	Lead	SW-846 6020	1	150516050009A	02/24/2015 07:51	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150511848005	02/23/2015 10:21	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	150516050009	02/23/2015 08:31	Christopher M Klumpp	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777526
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 09:40 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	2,200	100	2
	The holding time was not met. The sample was submitted to the laboratory with insufficient time remaining in the holding time.				
00228	Sulfate	14808-79-8	3,200	600	2
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	61,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777526
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 09:40 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150542AA	02/23/2015 11:17	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150542AA	02/23/2015 11:17	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 16:35	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 16:35	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150550015A	02/24/2015 18:11	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 17:20	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 15:31	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15050667151A	02/19/2015 13:16	Drew M Gerhart	2
00228	Sulfate	EPA 300.0	1	15050667151A	02/19/2015 13:16	Drew M Gerhart	2
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15051007203A	02/21/2015 00:15	Kenneth A Bell	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777527
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 09:40 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	14.4	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150511848005	02/24/2015 18:11	Suzanne M Will	1
07058	Manganese	SW-846 6010B	1	150511848005	02/24/2015 18:11	Suzanne M Will	1
06035	Lead	SW-846 6020	1	150516050009A	02/24/2015 07:52	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150511848005	02/23/2015 10:21	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	150516050009	02/23/2015 08:31	Christopher M Klumpp	1

Sample Description: **MW-110 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777528
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 12:00 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	70	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150542AA	02/23/2015 11:39	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150542AA	02/23/2015 11:39	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 17:04	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 17:04	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 17:43	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 15:53	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7777529
LL Group # 1539587
Account # 11260

Project Name: 211556

Collected: 02/17/2015 12:00 by JP

Submitted: 02/19/2015 08:00
Reported: 02/27/2015 14:22

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	150516050009A	02/24/2015 07:54	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	150516050009	02/23/2015 08:31	Christopher M Klumpp	1

Quality Control Summary

Client Name: Chevron Group Number: 1539587
Reported: 02/27/15 at 02:22 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 Max
Batch number: F150541AA	Sample number(s): 7777523-7777524							
Benzene	N.D.	0.5	ug/l	94		78-120		
Ethylbenzene	N.D.	0.5	ug/l	94		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	96		75-120		
Toluene	N.D.	0.5	ug/l	96		80-120		
Xylene (Total)	N.D.	0.5	ug/l	94		80-120		
Batch number: F150542AA	Sample number(s): 7777526,7777528							
Benzene	N.D.	0.5	ug/l	94		78-120		
Ethylbenzene	N.D.	0.5	ug/l	94		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	99		75-120		
Toluene	N.D.	0.5	ug/l	98		80-120		
Xylene (Total)	N.D.	0.5	ug/l	95		80-120		
Batch number: 15056A53A	Sample number(s): 7777523-7777524,7777526,7777528							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	108	108	80-123	0	30
Batch number: 150550015A	Sample number(s): 7777524,7777526							
Methane	N.D.	3.0	ug/l	101		85-115		
Batch number: 150550013A	Sample number(s): 7777524,7777526,7777528							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	54	52	50-113	4	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 150550012A	Sample number(s): 7777524,7777526,7777528							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	65	65	32-117	1	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 150511848005	Sample number(s): 7777525,7777527							
Iron	N.D.	33.4	ug/l	103		80-120		
Manganese	N.D.	0.83	ug/l	105		80-120		
Batch number: 150516050009A	Sample number(s): 7777525,7777527,7777529							
Lead	N.D.	0.00008 2	mg/l	109		80-120		
Batch number: 15050667151A	Sample number(s): 7777524,7777526							
Nitrate Nitrogen	N.D.	50.	ug/l	103	100	90-110	2	20
Sulfate	N.D.	300.	ug/l	105	103	90-110	2	20
Batch number: 15051007203A	Sample number(s): 7777524,7777526							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	98		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1539587
Reported: 02/27/15 at 02:22 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 15054023001A	Sample number(s): 7777524							
Sulfide	N.D.	54.	ug/l	106		90-110		
Batch number: 15054023002A	Sample number(s): 7777526							
Sulfide	N.D.	54.	ug/l	107		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F150541AA	Sample number(s): 7777523-7777524 UNSPK: 7777524								
Benzene	99	99	72-134	0	30				
Ethylbenzene	97	98	71-134	0	30				
Methyl Tertiary Butyl Ether	95	94	72-126	1	30				
Toluene	100	100	80-125	0	30				
Xylene (Total)	97	97	79-125	0	30				
Batch number: F150542AA	Sample number(s): 7777526,7777528 UNSPK: P777531								
Benzene	97	95	72-134	2	30				
Ethylbenzene	97	95	71-134	1	30				
Methyl Tertiary Butyl Ether	98	96	72-126	2	30				
Toluene	100	98	80-125	2	30				
Xylene (Total)	98	98	79-125	0	30				
Batch number: 150550015A	Sample number(s): 7777524,7777526 UNSPK: P773201								
Methane	76	27*	46-129	14	20				
Batch number: 150511848005	Sample number(s): 7777525,7777527 UNSPK: P779370 BKG: P779370								
Iron	126*	98	75-125	6	20	3,710	3,700	0	20
Manganese	111	100	75-125	5	20	639	633	1	20
Batch number: 150516050009A	Sample number(s): 7777525,7777527,7777529 UNSPK: P773229 BKG: P773229								
Lead	106	112	75-125	5	20	0.00059	0.00061	4 (1)	20
Batch number: 15050667151A	Sample number(s): 7777524,7777526 UNSPK: 7777526 BKG: 7777526								
Nitrate Nitrogen	97		90-110			2,200	2,200	0	20
Sulfate	95		90-110			3,200	3,200	0 (1)	20
Batch number: 15051007203A	Sample number(s): 7777524,7777526 UNSPK: 7777524 BKG: 7777524								
Total Alkalinity to pH 4.5	96		17-146			60,100	61,000	1	5
Batch number: 15054023001A	Sample number(s): 7777524 UNSPK: P775844 BKG: P775844								
Sulfide	48	52	42-131	7	16	N.D.	N.D.	0 (1)	5
Batch number: 15054023002A	Sample number(s): 7777526 UNSPK: 7777526 BKG: 7777526								
Sulfide	91	101	42-131	10	16	N.D.	N.D.	0 (1)	5

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1539587
Reported: 02/27/15 at 02:22 PM

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: F150541AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7777523	99	98	106	97
7777524	101	100	106	98
Blank	99	98	106	97
LCS	97	103	106	100
MS	99	100	106	98
MSD	101	102	107	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: F150542AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7777526	101	99	104	98
7777528	100	99	103	96
Blank	101	103	104	98
LCS	99	104	106	100
MS	99	102	106	101
MSD	102	100	105	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15056A53A

	Trifluorotoluene-F
7777523	114
7777524	98
7777526	97
7777528	97
Blank	115
LCS	105
LCSD	105
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 150550012A

	Orthoterphenyl
7777524	92
7777526	83
7777528	89
Blank	87
LCS	92
LCSD	93
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 150550013A

	Orthoterphenyl
7777524	71
7777526	74
7777528	74
Blank	75

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1539587
Reported: 02/27/15 at 02:22 PM

Surrogate Quality Control

LCS	78
LCSD	73
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 150550015A

	Propene
7777524	86
7777526	83
Blank	101
LCS	90
MS	47
MSD	52
Limits:	47-116

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1539587 Sample # 7777523-29
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180 J. PAYNE
Sampler

2 Sample Identification / 3 Collected / 4 Matrix / Analyses Requested

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil	Matrix: Potable Ground Water	Matrix: NPDES Surface Water	Matrix: Air	Matrix: Oil	Total Number of Containers	BTEX + MTBE 8021 Naphth 8260	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total Diss. Method	Nitrate/Sulfate	Dissolved Iron/Manganese	Sulfide/Methane	Alkalinity
QA	2.17.15		X			X				2	X			X									
B-1	↓	1040	X			X				16	X			X	X	X			X	X	X	X	X
B-2		0940	X			X				16	X			X	X	X			X	X	X	X	X
MW-1W	↓	900	X			X				8	X			X	X	X			X				

Results in Dry Weight
J value reporting needed
Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
Confirm MTBE + Naphthalene
Confirm highest hit by 8260
Confirm all hits by 8260
Run _____ oxy's on highest hit
Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD | 72 hour | 48 hour | 24 hour

8 Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

9

Relinquished by	Date	Time	Received by	Date	Time
	2.17.15	1600			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____			Received by	Date 2/19/15	Time 0950 0800
Temperature Upon Receipt 0.5-1.0 °C			Custody Seals Intact? Yes (3) No		

KM 2/19/15

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)
C	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, 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.

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

March 04, 2015

Project: 211556

Submittal Date: 02/20/2015
Group Number: 1540073
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7779762
MW-103 Grab Groundwater	7779763
MW-103 Filtered Grab Groundwater	7779764
MW-109 Grab Groundwater	7779765
MW-109 Filtered Grab Groundwater	7779766
MW-112 Grab Groundwater	7779767
MW-112 Filtered Grab Groundwater	7779768
MW-113 Grab Groundwater	7779769
MW-113 Filtered Grab Groundwater	7779770
MW-114 Grab Groundwater	7779771
MW-114 Filtered Grab Groundwater	7779772
MW-115 Grab Groundwater	7779773
MW-115 Filtered Grab Groundwater	7779774
MW-116 Grab Groundwater	7779775
MW-116 Filtered Grab Groundwater	7779776
MW-117 Grab Groundwater	7779777
MW-117 Filtered Grab Groundwater	7779778
MW-118 Grab Groundwater	7779779
MW-118 Filtered Grab Groundwater	7779780
MW-119 Grab Groundwater	7779781
MW-119 Filtered Grab Groundwater	7779782
MW-120 Grab Groundwater	7779783
MW-120 Filtered Grab Groundwater	7779784

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Leidos	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779762
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT-QA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/24/2015 21:09	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/24/2015 21:09	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 15:11	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 15:11	Marie D Beamenderfer	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779763
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 09:45 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT103

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	1,700	250	5
00228	Sulfate	14808-79-8	5,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	44,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/24/2015 22:59	Kevin A Sposito	1

Sample Description: MW-103 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779763
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 09:45 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT103

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/24/2015 22:59	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 18:27	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 18:27	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 14:46	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 18:05	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 16:15	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15051987151A	02/20/2015 19:25	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	15051987151A	02/20/2015 19:25	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011203A	02/23/2015 22:54	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779764
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 09:45 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	161	33.4	1
07058	Manganese	7439-96-5	1.1	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:13	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:13	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:25	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-109 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779765
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 09:20 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT109

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/24/2015 23:20	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/24/2015 23:20	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 19:23	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 19:23	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 18:27	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 16:37	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1

Sample Description: MW-109 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779766
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 09:20 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:27	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779767
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 12:05 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT112

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	17,300	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/24/2015 23:42	Kevin A Sposito	1

Sample Description: MW-112 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779767
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 12:05 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT112

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/24/2015 23:42	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 19:50	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 19:50	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 15:04	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 18:49	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 16:59	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15051987151A	02/20/2015 19:41	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	15051987151A	02/20/2015 19:41	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011202B	02/23/2015 19:37	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779768
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 12:05 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	11.6	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.083	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:17	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:17	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:29	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779769
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 13:10 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT113

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	70	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	70	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	330	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	8,600	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 00:04	Kevin A Sposito	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779769
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 13:10 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT113

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 00:04	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 20:18	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 20:18	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 15:22	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 19:11	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 17:21	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15051987151A	02/20/2015 19:56	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	15051987151A	02/20/2015 19:56	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011201A	02/23/2015 17:38	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779770
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 13:10 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	106	33.4	1
07058	Manganese	7439-96-5	8.9	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:21	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:21	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 05:58	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: **MW-114 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779771
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 08:20 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT114

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 00:26	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 00:26	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 20:46	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 20:46	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 19:34	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 17:43	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779772
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 08:20 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:30	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-115 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779773
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 13:00 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT115

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 00:48	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 00:48	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 21:13	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 21:13	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 19:56	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 18:06	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779774
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 13:00 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:35	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779775
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 08:40 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT116

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	30	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	30	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	510	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	17,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 01:10	Kevin A Sposito	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779775
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 08:40 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT116

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 01:10	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056A53A	02/25/2015 21:41	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056A53A	02/25/2015 21:41	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 15:39	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150550013A	02/25/2015 20:18	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150550012A	02/26/2015 18:28	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150550012A	02/24/2015 17:50	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150550013A	02/24/2015 17:50	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15051987151A	02/20/2015 20:11	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	15051987151A	02/20/2015 20:11	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011203A	02/24/2015 00:01	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779776
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 08:40 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	510	33.4	1
07058	Manganese	7439-96-5	40.5	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.17	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:33	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:33	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:37	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779777
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 07:40 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT117

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	69	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	69	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	17,900	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 01:31	Kevin A Sposito	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779777
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 07:40 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT117

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 01:31	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056B53A	02/26/2015 17:54	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056B53A	02/26/2015 17:54	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 15:57	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150560001A	02/26/2015 23:16	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150560002A	02/26/2015 20:18	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150560002A	02/25/2015 10:30	Denise L Trimby	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150560001A	02/25/2015 10:30	Denise L Trimby	1
00368	Nitrate Nitrogen	EPA 300.0	1	15051987151A	02/20/2015 20:26	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	15051987151A	02/20/2015 20:26	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011203A	02/23/2015 21:48	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779778
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 07:40 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	37.5	33.4	1
07058	Manganese	7439-96-5	2.0	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:37	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:37	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:39	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-118 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779779
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 10:25 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT118

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 01:53	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 01:53	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056B53A	02/26/2015 18:23	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056B53A	02/26/2015 18:23	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150560001A	02/26/2015 23:38	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150560002A	02/26/2015 20:41	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150560002A	02/25/2015 10:30	Denise L Trimby	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150560001A	02/25/2015 10:30	Denise L Trimby	1

Sample Description: MW-118 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779780
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 10:25 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.083	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	150546050002A	02/27/2015 09:19	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050002	02/24/2015 08:10	Christopher M Klumpp	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779781
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 10:57 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT119

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	640	250	5
00228	Sulfate	14808-79-8	1,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	17,800	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 02:15	Kevin A Sposito	1

Sample Description: MW-119 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779781
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 10:57 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT119

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 02:15	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056B53A	02/26/2015 18:51	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056B53A	02/26/2015 18:51	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 16:15	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150560001A	02/27/2015 00:00	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150560002A	02/26/2015 21:03	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150560002A	02/25/2015 10:30	Denise L Trimby	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150560001A	02/25/2015 10:30	Denise L Trimby	1
00368	Nitrate Nitrogen	EPA 300.0	1	15051987151A	02/20/2015 20:41	Clinton M Wilson	5
00228	Sulfate	EPA 300.0	1	15051987151A	02/20/2015 20:41	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011203A	02/23/2015 23:00	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779782
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/19/2015 10:57 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	321	33.4	1
07058	Manganese	7439-96-5	24.2	0.83	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.18	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:41	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:41	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150546050002A	02/27/2015 09:20	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050002	02/24/2015 08:10	Christopher M Klumpp	1

Sample Description: MW-120 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779783
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 11:30 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MT120

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F150553AA	02/25/2015 02:37	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F150553AA	02/25/2015 02:37	Kevin A Sposito	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15056B53A	02/26/2015 19:19	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15056B53A	02/26/2015 19:19	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150560001A	02/27/2015 00:22	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150560002A	02/26/2015 21:25	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150560002A	02/25/2015 10:30	Denise L Trimby	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150560001A	02/25/2015 10:30	Denise L Trimby	1

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Analysis Report

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7779784
LL Group # 1540073
Account # 11260

Project Name: 211556

Collected: 02/18/2015 11:30 by JP

Submitted: 02/20/2015 10:25
Reported: 03/04/2015 10:54

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.22	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	150546050002A	02/27/2015 09:22	Deborah A Krady	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050002	02/24/2015 08:10	Christopher M Klumpp	1

Quality Control Summary

Client Name: Chevron Group Number: 1540073
Reported: 03/04/15 at 10:54 AM

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 Max
Batch number: F150553AA	Sample number(s): 7779762-7779763,7779765,7779767,7779769,7779771,7779773,7779775,7779777,7779779,7779781,7779783							
Benzene	N.D.	0.5	ug/l	94	93	78-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	93	95	80-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	95	93	75-120	2	30
Toluene	N.D.	0.5	ug/l	95	96	80-120	1	30
Xylene (Total)	N.D.	0.5	ug/l	92	92	80-120	0	30
Batch number: 15056A53A	Sample number(s): 7779762-7779763,7779765,7779767,7779769,7779771,7779773,7779775							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	108	108	80-123	0	30
Batch number: 15056B53A	Sample number(s): 7779777,7779779,7779781,7779783							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	110	109	80-123	1	30
Batch number: 150560013A	Sample number(s): 7779763,7779767,7779769,7779775,7779777,7779781							
Methane	N.D.	3.0	ug/l	96		85-115		
Batch number: 150550013A	Sample number(s): 7779763,7779765,7779767,7779769,7779771,7779773,7779775							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	54	52	50-113	4	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 150560001A	Sample number(s): 7779777,7779779,7779781,7779783							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	68	64	50-113	6	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 150550012A	Sample number(s): 7779763,7779765,7779767,7779769,7779771,7779773,7779775							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	65	65	32-117	1	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 150560002A	Sample number(s): 7779777,7779779,7779781,7779783							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	56	69	32-117	21*	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 150541848003	Sample number(s): 7779764,7779768,7779770,7779776,7779778,7779782							
Iron	N.D.	33.4	ug/l	105		80-120		
Manganese	N.D.	0.83	ug/l	102		80-120		
Batch number: 150546050002A	Sample number(s): 7779780,7779782,7779784							
Lead	N.D.	0.082	ug/l	108		80-120		
Batch number: 150616050002A	Sample number(s): 7779764,7779766,7779768,7779770,7779772,7779774,7779776,7779778							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1540073
Reported: 03/04/15 at 10:54 AM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Lead	N.D.	0.082	ug/l	104		80-120		
Batch number: 15051987151A	Sample number(s): 7779763,7779767,7779769,7779775,7779777,7779781							
Nitrate Nitrogen	N.D.	50.	ug/l	101	102	90-110	1	20
Sulfate	N.D.	300.	ug/l	100	100	90-110	0	20
Batch number: 15054011201A	Sample number(s): 7779769							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	99		90-110		
Batch number: 15054011202B	Sample number(s): 7779767							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 15054011203A	Sample number(s): 7779763,7779775,7779777,7779781							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	99		90-110		
Batch number: 15054023002A	Sample number(s): 7779763,7779767,7779769,7779775,7779777,7779781							
Sulfide	N.D.	54.	ug/l	107		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 150560013A	Sample number(s): 7779763,7779767,7779769,7779775,7779777,7779781 UNSPK: P782570								
Methane	85	76	46-129	8	20				
Batch number: 150541848003	Sample number(s): 7779764,7779768,7779770,7779776,7779778,7779782 UNSPK: P780249 BKG: P780249								
Iron	391 (2)	212 (2)	75-125	7	20	23,600	24,400	3	20
Manganese	113	104	75-125	6	20	175	179	2	20
Batch number: 150546050002A	Sample number(s): 7779780,7779782,7779784 UNSPK: P779577 BKG: P779577								
Lead	136*	119	75-125	13	20	0.10	0.12	13 (1)	20
Batch number: 150616050002A	Sample number(s): 7779764,7779766,7779768,7779770,7779772,7779774,7779776,7779778 UNSPK: 7779770 BKG: 7779770								
Lead	98	83	75-125	17	20	N.D.	N.D.	0 (1)	20
Batch number: 15051987151A	Sample number(s): 7779763,7779767,7779769,7779775,7779777,7779781 UNSPK: P779337 BKG: P779337								
Nitrate Nitrogen	98		90-110			96	98	2 (1)	20
Sulfate	99		90-110			6,200	6,100	2	20
Batch number: 15054011201A	Sample number(s): 7779769 UNSPK: P780784 BKG: P780784								
Total Alkalinity to pH 4.5	93		17-146			134,000	132,000	2	5
Batch number: 15054011202B	Sample number(s): 7779767 UNSPK: P781029 BKG: 7779767								

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1540073
Reported: 03/04/15 at 10:54 AM

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Total Alkalinity to pH 4.5	88	88	17-146	1	5	17,300	20,100	15*	5
Batch number: 15054011203A	Sample number(s): 7779763,7779775,7779777,7779781 UNSPK: P781047 BKG: P781047								
Total Alkalinity to pH 4.5	86	93	17-146	5	5	116,000	116,000	0	5
Batch number: 15054023002A	Sample number(s): 7779763,7779767,7779769,7779775,7779777,7779781 UNSPK: P777526 BKG: P777526								
Sulfide	91	101	42-131	10	16	N.D.	N.D.	0 (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: BTEX/MTBE
Batch number: F150553AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7779762	100	99	105	97
7779763	101	100	106	97
7779765	101	100	105	99
7779767	99	100	104	97
7779769	98	100	106	98
7779771	100	102	105	98
7779773	99	97	105	100
7779775	99	97	104	98
7779777	100	100	103	97
7779779	100	98	104	98
7779781	100	100	104	97
7779783	100	97	105	100
Blank	99	99	106	97
LCS	98	100	106	100
LCSD	97	98	106	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15056A53A

	Trifluorotoluene-F
7779762	124
7779763	112
7779765	116
7779767	115
7779769	105
7779771	111
7779773	104
7779775	112
Blank	115
LCS	105
LCSD	105

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1540073
Reported: 03/04/15 at 10:54 AM

Surrogate Quality Control

Limits: 63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15056B53A

	Trifluorotoluene-F
7779777	115
7779779	115
7779781	106
7779783	111
Blank	116
LCS	106
LCSD	104
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 150550012A

	Orthoterphenyl
7779763	88
7779765	87
7779767	82
7779769	86
7779771	89
7779773	86
7779775	89
Blank	87
LCS	92
LCSD	93
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 150550013A

	Orthoterphenyl
7779763	71
7779765	69
7779767	78
7779769	74
7779771	77
7779773	76
7779775	70
Blank	75
LCS	78
LCSD	73
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 150560001A

	Orthoterphenyl
7779777	82
7779779	89
7779781	94
7779783	85
Blank	80
LCS	88
LCSD	88
Limits:	50-150

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1540073
Reported: 03/04/15 at 10:54 AM

Surrogate Quality Control

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 150560002A

	Orthoterphenyl
7779777	86
7779779	97
7779781	85
7779783	91
Blank	91
LCS	86
LCSD	94
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 150560013A

	Propene
7779763	76
7779767	1*
7779769	1*
7779775	7*
7779777	0*
7779781	0*
Blank	86
LCS	89
MS	74
MSD	70
Limits:	47-116

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

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Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1531540073 Sample # 779762-84

Instructions on reverse side correspond with circled numbers.

JH 2/20/15

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

4 Matrix

Sediment	Ground Water	Surface Water	Potable	NPDES	Air	Soil	Oil
☐	☑	☐	☐	☐	☐	☐	☐

5 Analyses Requested

Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Total Number of Containers	BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA EPH	WA VPH	Lead Total	Lead Diss.	Method	NITRATE / SULFATE	DISSOLVED IRON / MANGANESE	SULFIDE / METHANE	ALKALINITY
QA	2.19		X		2	X			X											
MW-103	2.19	0945	X		16	X			X	X	X			X			X	X	X	X
MW-109	2.18	0920	X		9	X			X	X	X			X						
MW-112	2.19	1005	X		16	X			X	X	X			X			X	X	X	X
MW-113	2.19	1310	X		16	X			X	X	X			X			X	X	X	X
MW-114	2.18	0820	X		9	X			X	X	X			X						
MW-115	2.18	1300	X		9	X			X	X	X			X						
MW-116	2.19	0840	X		16	X			X	X	X			X			X	X	X	X
MW-117	2.19	0740	X		16	X			X	X	X			X			X	X	X	X
MW-118	2.18	1015	X		9	X			X	X	X			X						
MW-119	2.19	1017	X		16	X			X	X	X			X			X	X	X	X
MW-120	2.18	1130	X		9	X			X	X	X			X						

SCR #: _____

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding.

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | EDF/EDD | 72 hour | 48 hour | 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	2.19.15	1700			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by Commercial Carrier: UPS x FedEx _____ Other _____

Received by: Date 2.20.15 Time 1025

Temperature Upon Receipt 0.2 – 1.3 °C

Custody Seals Intact? Yes 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)
C	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, 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.

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

March 04, 2015

Project: 211556

Submittal Date: 02/21/2015
Group Number: 1540259
PO Number: 0015146917
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
B-3 Grab Water	7780821
B-3 Filtered Grab Water	7780822
B-4 Grab Water	7780823
B-4 Filtered Grab Water	7780824
MW-111 Grab Water	7780825
MW-111 Filtered Grab Water	7780826

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Leidos	Attn: Russ Shropshire

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: **B-3 Grab Water**
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780821
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 11:10 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	650	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	44	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	490	28	1
08271	Heavy Range Organics C24-C40	n.a.	180	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	150	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	14,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	29,600	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C457
Trip blank vials were not received by the laboratory for this sample group.

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

Sample Description: B-3 Grab Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780821
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 11:10 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D150551AA	02/24/2015 10:59	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150551AA	02/24/2015 10:59	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15057A53A	02/27/2015 08:55	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15057A53A	02/27/2015 08:55	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 18:20	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150560001A	02/27/2015 00:44	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150560002A	02/26/2015 21:47	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150560002A	02/25/2015 10:30	Denise L Trimby	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150560001A	02/25/2015 10:30	Denise L Trimby	1
00368	Nitrate Nitrogen	EPA 300.0	1	15052667601A	02/21/2015 13:25	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15052667601A	02/21/2015 13:25	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011203A	02/24/2015 00:06	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: B-3 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780822
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 11:10 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	86.7	33.4	1
07058	Manganese	7439-96-5	2,530	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	2.9	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:44	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:44	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:41	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: **B-4 Grab Water**
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780823
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 10:10 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received 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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	550	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	46	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	290	28	1
08271	Heavy Range Organics C24-C40	n.a.	470	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	95	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	240	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	4,000	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	101,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C457
Trip blank vials were not received by the laboratory for this sample group.

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

Sample Description: B-4 Grab Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780823
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 10:10 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTB4

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D150551AA	02/24/2015 12:08	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150551AA	02/24/2015 12:08	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15057A53A	02/27/2015 09:22	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15057A53A	02/27/2015 09:22	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150560013A	02/25/2015 18:38	Matthew S Listner	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150560001A	02/27/2015 01:05	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150560002A	02/26/2015 22:54	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150560002A	02/25/2015 10:30	Denise L Trimby	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150560001A	02/25/2015 10:30	Denise L Trimby	1
00368	Nitrate Nitrogen	EPA 300.0	1	15052667151A	02/21/2015 12:42	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15052667151A	02/21/2015 12:42	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011203B	02/23/2015 23:18	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15054023002A	02/23/2015 11:30	Susan E Hibner	1

Sample Description: B-4 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780824
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 10:10 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	1,170	33.4	1
07058	Manganese	7439-96-5	1,280	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.73	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:48	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:48	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:42	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Sample Description: MW-111 Grab Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780825
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 09:09 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR111

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	1	0.5	1
10945	Ethylbenzene	100-41-4	44	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	3	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	3,600	250	5
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	2,700	60	20
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	730	29	1
08271	Heavy Range Organics C24-C40	n.a.	180	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	230	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	1,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	206,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	1

General Sample Comments

State of Washington Lab Certification No. C457
Trip blank vials were not received by the laboratory for this sample group.

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

Sample Description: MW-111 Grab Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780825
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 09:09 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR111

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D150551AA	02/24/2015 12:32	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D150551AA	02/24/2015 12:32	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15057A53A	02/27/2015 10:46	Brett W Kenyon	5
01146	GC VOA Water Prep	SW-846 5030B	1	15057A53A	02/27/2015 10:46	Brett W Kenyon	5
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	150570002A	02/27/2015 12:54	Matthew S Listner	20
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	150560001A	02/27/2015 01:27	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	150560002A	02/26/2015 22:09	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	150560002A	02/25/2015 10:30	Denise L Trimby	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	150560001A	02/25/2015 10:30	Denise L Trimby	1
00368	Nitrate Nitrogen	EPA 300.0	1	15052667601A	02/21/2015 13:08	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15052667601A	02/21/2015 13:08	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15054011202A	02/23/2015 18:56	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15056023001A	02/25/2015 08:05	Susan E Hibner	1

Sample Description: MW-111 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7780826
LL Group # 1540259
Account # 11260

Project Name: 211556

Collected: 02/20/2015 09:09 by JP

Submitted: 02/21/2015 10:00
Reported: 03/04/2015 10:56

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	14,500	33.4	1
07058	Manganese	7439-96-5	6,370	0.83	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	14.3	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	150541848003	02/27/2015 08:52	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	150541848003	02/27/2015 08:52	Joanne M Gates	1
06035	Lead	SW-846 6020	1	150616050002A	03/04/2015 06:44	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150541848003	02/23/2015 12:51	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	150546050003	02/25/2015 10:10	Christopher M Klumpp	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	2	150616050002	03/03/2015 07:35	Christopher M Klumpp	1

Quality Control Summary

Client Name: Chevron Group Number: 1540259
Reported: 03/04/15 at 10:56 AM

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 Max
Batch number: D150551AA	Sample number(s): 7780821,7780823,7780825							
Benzene	N.D.	0.5	ug/l	93		78-120		
Ethylbenzene	N.D.	0.5	ug/l	93		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	89		75-120		
Toluene	N.D.	0.5	ug/l	93		80-120		
Xylene (Total)	N.D.	0.5	ug/l	94		80-120		
Batch number: 15057A53A	Sample number(s): 7780821,7780823,7780825							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	109	107	80-123	2	30
Batch number: 150560013A	Sample number(s): 7780821,7780823							
Methane	N.D.	3.0	ug/l	96		85-115		
Batch number: 150570002A	Sample number(s): 7780825							
Methane	N.D.	3.0	ug/l	98		85-115		
Batch number: 150560001A	Sample number(s): 7780821,7780823,7780825							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	68	64	50-113	6	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 150560002A	Sample number(s): 7780821,7780823,7780825							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	56	69	32-117	21*	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 150541848003	Sample number(s): 7780822,7780824,7780826							
Iron	N.D.	33.4	ug/l	105		80-120		
Manganese	N.D.	0.83	ug/l	102		80-120		
Batch number: 150616050002A	Sample number(s): 7780822,7780824,7780826							
Lead	N.D.	0.082	ug/l	104		80-120		
Batch number: 15052667151A	Sample number(s): 7780823							
Nitrate Nitrogen	N.D.	50.	ug/l	99	98	90-110	1	20
Sulfate	N.D.	300.	ug/l	98	97	90-110	2	20
Batch number: 15052667601A	Sample number(s): 7780821,7780825							
Nitrate Nitrogen	N.D.	50.	ug/l	99	98	90-110	0	20
Sulfate	N.D.	300.	ug/l	106	102	90-110	4	20
Batch number: 15054011202A	Sample number(s): 7780825							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	98		90-110		
Batch number: 15054011203A	Sample number(s): 7780821							

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1540259
Reported: 03/04/15 at 10:56 AM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	99		90-110		
Batch number: 15054011203B	Sample number(s): 7780823							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	99		90-110		
Batch number: 15054023002A	Sample number(s): 7780821,7780823							
Sulfide	N.D.	54.	ug/l	107		90-110		
Batch number: 15056023001A	Sample number(s): 7780825							
Sulfide	N.D.	54.	ug/l	109		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D150551AA	Sample number(s): 7780821,7780823,7780825 UNSPK: 7780821								
Benzene	106	94	72-134	12	30				
Ethylbenzene	107	94	71-134	12	30				
Methyl Tertiary Butyl Ether	102	90	72-126	13	30				
Toluene	104	94	80-125	11	30				
Xylene (Total)	106	93	79-125	13	30				
Batch number: 150560013A	Sample number(s): 7780821,7780823 UNSPK: P782570								
Methane	85	76	46-129	8	20				
Batch number: 150570002A	Sample number(s): 7780825 UNSPK: P781658								
Methane	83 (2)	62 (2)	46-129	3	20				
Batch number: 150541848003	Sample number(s): 7780822,7780824,7780826 UNSPK: P780249 BKG: P780249								
Iron	391 (2)	212 (2)	75-125	7	20	23,600	24,400	3	20
Manganese	113	104	75-125	6	20	175	179	2	20
Batch number: 150616050002A	Sample number(s): 7780822,7780824,7780826 UNSPK: P779770 BKG: P779770								
Lead	98	83	75-125	17	20	N.D.	N.D.	0 (1)	20
Batch number: 15052667151A	Sample number(s): 7780823 UNSPK: P780786 BKG: P780786								
Nitrate Nitrogen	99		90-110			N.D.	N.D.	0 (1)	20
Sulfate	97		90-110			10,100	10,000	1 (1)	20
Batch number: 15052667601A	Sample number(s): 7780821,7780825 UNSPK: P780784 BKG: P780784								
Nitrate Nitrogen	105		90-110			N.D.	N.D.	0 (1)	20
Sulfate	96		90-110			8,900	8,900	1 (1)	20
Batch number: 15054011202A	Sample number(s): 7780825 UNSPK: P781029 BKG: P781029								
Total Alkalinity to pH 4.5	88	88	17-146	1	5	76,800	77,100	0	5
Batch number: 15054011203A	Sample number(s): 7780821 UNSPK: P781047 BKG: P781047								
Total Alkalinity to pH 4.5	86	93	17-146	5	5	116,000	116,000	0	5

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1540259
Reported: 03/04/15 at 10:56 AM

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 15054011203B	Sample number(s): 7780823 UNSPK: P781047 BKG: 7780823								
Total Alkalinity to pH 4.5	86	93	17-146	5	5	101,000	101,000	1	5
Batch number: 15054023002A	Sample number(s): 7780821,7780823 UNSPK: P777526 BKG: P777526								
Sulfide	91	101	42-131	10	16	N.D.	N.D.	0 (1)	5
Batch number: 15056023001A	Sample number(s): 7780825 UNSPK: P781660 BKG: P781660								
Sulfide	106	97	42-131	8	16	91	84	8* (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: BTEX/MTBE
Batch number: D150551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7780821	95	95	96	99
7780823	95	99	96	98
7780825	94	96	97	102
Blank	98	101	96	98
LCS	93	97	95	100
MS	95	100	97	102
MSD	94	101	96	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15057A53A

	Trifluorotoluene-F
7780821	98
7780823	104
7780825	100
Blank	112
LCS	104
LCSD	104
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 150560001A

	Orthoterphenyl
7780821	94
7780823	81
7780825	95
Blank	80
LCS	88
LCSD	88
Limits:	50-150

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1540259
Reported: 03/04/15 at 10:56 AM

Surrogate Quality Control

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 150560002A

	Orthoterphenyl
7780821	95
7780823	83
7780825	92
Blank	91
LCS	86
LCSD	94
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 150560013A

	Propene
7780821	71
7780823	70
Blank	86
LCS	89
MS	74
MSD	70
Limits:	47-116

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 150570002A

	Propene
7780825	93
Blank	90
LCS	91
MS	66
MSD	67
Limits:	47-116

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1540259 Sample # 1780820-26
Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

2 Sample Identification

3 Grab / Composite

4 Matrix

Soil ☐ Sediment ☐ Potable Water ☐ Ground Water ☐ NPDES ☐ Surface Water ☐ Oil ☐ Air ☐

5 Analyses Requested

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Potable Water	Ground Water	NPDES	Surface Water	Oil	Air	Total Number of Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Total	Diss.	Method	NITRATE / SULFATE	DISSOLVED IRON / MANGANESE	SULFIDE / METHANE	ALKALINITY
QA	1-20		X				X						2	X						X												
B-3		1110	X				X						16	X						X	X	X			X				X	X	X	X
B-4		1010	X				X						16	X						X	X	X			X				X	X	X	X
MW-11	↓	0909	X				X						16	X						X	X	X			X				X	X	X	X

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | EDF/EDD 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	2-20-15	1700			
Relinquished by	Date	Time	Received by	Date	Time

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by Commercial Carrier: UPS _____ FedEx _____ Other _____

Temperature Upon Receipt _____ °C

Received by _____ Date 2/21 Time 10:00

Custody Seals Intact? Yes No

9

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)
C	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, 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.

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

May 22, 2015

Project: 211556

Submittal Date: 05/12/2015
Group Number: 1560347
PO Number: 0015146917
Release Number: HORNE

State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7883474
MW-103 Grab Water	7883475
MW-103 Filtered Grab Water	7883476
MW-103 Filtered Grab Water	7883477
MW-110 Grab Water	7883478
MW-110 Filtered Grab Water	7883479
MW-112 Grab Water	7883480
MW-112 Filtered Grab Water	7883481
MW-112 Filtered Grab Water	7883482
MW-119 Grab Water	7883483
MW-119 Filtered Grab Water	7883484
MW-119 Filtered Grab Water	7883485

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Leidos	Attn: Russ Shropshire
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883474
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL-QA

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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151412AA	05/21/2015 12:57	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151412AA	05/21/2015 12:57	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15133C20A	05/13/2015 22:48	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15133C20A	05/13/2015 22:48	Brett W Kenyon	1

Sample Description: MW-103 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883475
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 12:30 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL103

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	4,100	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	98,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151412AA	05/21/2015 14:43	Amanda K Richards	1

Sample Description: MW-103 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883475
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 12:30 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL103

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151412AA	05/21/2015 14:43	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15133C20A	05/14/2015 02:27	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15133C20A	05/14/2015 02:27	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151340025A	05/14/2015 18:48	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151330011A	05/14/2015 11:13	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151330010A	05/19/2015 13:25	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151330010A	05/13/2015 18:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151330011A	05/13/2015 18:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15132667601A	05/12/2015 13:16	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15132667601A	05/12/2015 13:16	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15133002201A	05/13/2015 12:00	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15135023001A	05/15/2015 09:40	Michele L Graham	1

Sample Description: MW-103 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883476
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 12:30 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	21.0	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151341848004	05/18/2015 01:36	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151341848004	05/18/2015 01:36	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151341848004	05/15/2015 13:29	Katlin N Cataldi	1

Sample Description: MW-103 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883477
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 12:30 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.12	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151336050001A	05/15/2015 16:25	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151336050001	05/14/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-110 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883478
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 10:00 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL110

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151412AA	05/21/2015 15:07	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151412AA	05/21/2015 15:07	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15133C20A	05/14/2015 02:55	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15133C20A	05/14/2015 02:55	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151330011A	05/14/2015 11:35	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151330010A	05/19/2015 13:47	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151330010A	05/13/2015 18:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151330011A	05/13/2015 18:00	Samantha L Bronder	1

Sample Description: MW-110 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883479
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 10:00 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.28	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151336050001A	05/15/2015 16:26	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151336050001	05/14/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-112 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883480
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 13:50 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL112

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	270	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	1,000	250	5
00228	Sulfate	14808-79-8	3,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	85,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151412AA	05/21/2015 14:19	Amanda K Richards	1

Sample Description: MW-112 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883480
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 13:50 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL112

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151412AA	05/21/2015 14:19	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15133C20A	05/14/2015 03:49	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15133C20A	05/14/2015 03:49	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151340025A	05/14/2015 19:24	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151330011A	05/14/2015 11:56	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151330010A	05/19/2015 14:09	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151330010A	05/13/2015 18:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151330011A	05/13/2015 18:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15132667601A	05/12/2015 13:32	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15132667601A	05/12/2015 13:32	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15133002201A	05/13/2015 13:58	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15135023001A	05/15/2015 09:40	Michele L Graham	1

Sample Description: MW-112 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883481
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 13:50 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	2,190	33.4	1
07058	Manganese	7439-96-5	1,680	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151341848004	05/18/2015 01:39	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151341848004	05/18/2015 01:39	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151341848004	05/15/2015 13:29	Katlin N Cataldi	1

Sample Description: MW-112 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883482
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 13:50 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.46	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151336050001A	05/15/2015 16:28	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151336050001	05/14/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-119 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883483
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 11:15 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL119

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	2,300	250	5
00228	Sulfate	14808-79-8	4,700	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	71,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151412AA	05/21/2015 15:31	Amanda K Richards	1

Sample Description: MW-119 Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883483
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 11:15 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL119

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151412AA	05/21/2015 15:31	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15133C20A	05/14/2015 04:17	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15133C20A	05/14/2015 04:17	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151340025A	05/14/2015 19:41	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151330011A	05/14/2015 12:18	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151330010A	05/19/2015 14:31	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151330010A	05/13/2015 18:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151330011A	05/13/2015 18:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15132667601A	05/12/2015 13:48	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15132667601A	05/12/2015 13:48	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15133002201A	05/13/2015 14:04	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15135023001A	05/15/2015 09:40	Michele L Graham	1

Sample Description: MW-119 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883484
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 11:15 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	6.6	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151341848004	05/18/2015 01:42	Tara L Snyder	1
07058	Manganese	SW-846 6010B	1	151341848004	05/18/2015 01:42	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151341848004	05/15/2015 13:29	Katlin N Cataldi	1

Sample Description: MW-119 Filtered Grab Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7883485
LL Group # 1560347
Account # 11260

Project Name: 211556

Collected: 05/11/2015 11:15 by JP

Submitted: 05/12/2015 09:45
Reported: 05/22/2015 17:35

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.24	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151336050001A	05/15/2015 16:30	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151336050001	05/14/2015 23:00	Annamaria Kuhns	1

Quality Control Summary

Client Name: Chevron Group Number: 1560347
Reported: 05/22/2015 17:35

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 Max
Batch number: Z151412AA	Sample number(s): 7883474-7883475,7883478,7883480,7883483							
Benzene	N.D.	0.5	ug/l	90	92	78-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	94	95	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	103	103	75-120	0	30
Toluene	N.D.	0.5	ug/l	94	94	80-120	0	30
Xylene (Total)	N.D.	0.5	ug/l	98	98	80-120	0	30
Batch number: 15133C20A	Sample number(s): 7883474-7883475,7883478,7883480,7883483							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	94	95	80-123	1	30
Batch number: 151340025A	Sample number(s): 7883475,7883480,7883483							
Methane	N.D.	3.0	ug/l	109		85-115		
Batch number: 151330011A	Sample number(s): 7883475,7883478,7883480,7883483							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	66	64	50-113	3	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 151330010A	Sample number(s): 7883475,7883478,7883480,7883483							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	61	56	32-117	10	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 151336050001A	Sample number(s): 7883477,7883479,7883482,7883485							
Lead	N.D.	0.082	ug/l	102		80-120		
Batch number: 151341848004	Sample number(s): 7883476,7883481,7883484							
Iron	N.D.	33.4	ug/l	102		80-120		
Manganese	N.D.	0.83	ug/l	102		80-120		
Batch number: 15132667601A	Sample number(s): 7883475,7883480,7883483							
Nitrate Nitrogen	N.D.	50.	ug/l	101		90-110		
Sulfate	N.D.	300.	ug/l	99		90-110		
Batch number: 15133002201A	Sample number(s): 7883475,7883480,7883483							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	99	99	90-110	0	5
Batch number: 15135023001A	Sample number(s): 7883475,7883480,7883483							
Sulfide	N.D.	54.	ug/l	106		90-110		

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.

Quality Control Summary

Client Name: Chevron Group Number: 1560347
Reported: 05/22/2015 17:35
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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 151340025A	Sample number(s): 7883475,7883480,7883483 UNSPK: P879550								
Methane	98	99	46-129	1	20				
Batch number: 151336050001A	Sample number(s): 7883477,7883479,7883482,7883485 UNSPK: P882627 BKG: P882627								
Lead	106	103	75-125	2	20	0.25	0.22	11 (1)	20
Batch number: 151341848004	Sample number(s): 7883476,7883481,7883484 UNSPK: P886892 BKG: P886892								
Iron	99	99	75-125	0	20	264	266	1 (1)	20
Manganese	101	102	75-125	1	20	32.3	31.8	1	20
Batch number: 15132667601A	Sample number(s): 7883475,7883480,7883483 UNSPK: P882933 BKG: P882933								
Nitrate Nitrogen	103		90-110			680	680	1 (1)	20
Sulfate	102		90-110			9,800	9,700	1 (1)	20
Batch number: 15133002201A	Sample number(s): 7883475,7883480,7883483 UNSPK: P882919 BKG: P882919								
Total Alkalinity to pH 4.5	96		90-110			35,300	35,700	1	5
Batch number: 15135023001A	Sample number(s): 7883475,7883480,7883483 UNSPK: P883184 BKG: P883184								
Sulfide	92	79*	90-110	15	16	N.D.	N.D.	0 (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: BTEX/MTBE
Batch number: Z151412AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7883474	104	101	100	98
7883475	105	99	100	96
7883478	104	101	101	98
7883480	104	99	102	100
7883483	105	102	100	97
Blank	105	98	100	96
LCS	104	100	100	104
LCSD	102	100	100	104
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15133C20A

	Trifluorotoluene-F
7883474	109
7883475	114
7883478	113
7883480	117
7883483	107
Blank	116
LCS	119
LCSD	127

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1560347
Reported: 05/22/2015 17:35

Surrogate Quality Control

Limits: 63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 151330010A

	Orthoterphenyl
7883475	68
7883478	89
7883480	97
7883483	82
Blank	77
LCS	86
LCSD	84
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 151330011A

	Orthoterphenyl
7883475	68
7883478	81
7883480	89
7883483	75
Blank	81
LCS	91
LCSD	93
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 151340025A

	Propene
7883475	84
7883480	87
7883483	92
Blank	105
LCS	107
MS	85
MSD	90
Limits:	47-116

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # 11260 Group # 1560347 Sample # 7883474-85
Instructions on reverse side correspond with circled numbers.

SCR #: ______

① Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO LEIDOSRS Lead Consultant Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. Payne

④ Matrix: Sediment ☐ Ground ☑ Surface ☐ | Soil ☐ | Water: Potable ☐ NPDES ☐ | Oil | Air ☐

⑤ Analyses Requested

② Sample Identification	Collected Date	Collected Time	③ Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☑ Naphth ☐	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020	Nitrate Sulfate	Dissolved Iron & Manganese	Sulfide SM20 4500 S20	Methane / Alkalinity
QA	5.11.15		X			X		2	X			X								
MW-103		1230	X			X		16	X			X	X	X		X	X	X	X	X
MW-110		1000	X			X		9	X			X	X	X		X				
MW-117		1350	X			X		16	X			X	X	X		X	X	X	X	X
MW-119		1115	X			X		16	X			X	X	X		X	X	X	X	X

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

⑥ Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

⑦ Turnaround Time Requested (TAT) (please circle)

(Standard) 5 day 4 day
72 hour 48 hour 24 hour
EDF/EDD

⑧ Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: ______

Relinquished by	Date	Time	Received by	Date	Time
[illegible]	5.11.15	1500			

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____

Received by: Brandy Bauck Date: 5.12.15 Time: 945 ⑨

Temperature Upon Receipt 1.6-2.2 °C

Custody Seals Intact? (Yes) 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)
C	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, 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.

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

May 26, 2015

Project: 211556

Submittal Date: 05/13/2015
Group Number: 1560744
PO Number: 0015146917
Release Number: HORNE
HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7885404
MW-109 Grab Groundwater	7885405
MW-109 Filtered Grab Groundwater	7885406
MW-114 Grab Groundwater	7885407
MW-114 Filtered Grab Groundwater	7885408
MW-115 Grab Groundwater	7885409
MW-115 Filtered Grab Groundwater	7885410
MW-116 Grab Groundwater	7885411
MW-116 Filtered Grab Groundwater	7885412
MW-116 Filtered Grab Groundwater	7885413
MW-117 Grab Groundwater	7885414
MW-117 Filtered Grab Groundwater	7885415
MW-117 Filtered Grab Groundwater	7885416
MW-118 Grab Groundwater	7885417
MW-118 Filtered Grab Groundwater	7885418
MW-120 Grab Groundwater	7885419
MW-120 Filtered Grab Groundwater	7885420

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO Leidos Attn: Russ Shropshire

ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885404
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

1556T

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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F151422AA	05/22/2015 08:12	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F151422AA	05/22/2015 08:12	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/14/2015 19:43	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/14/2015 19:43	Brett W Kenyon	1

Sample Description: **MW-109 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885405
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 15:25 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56109

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F151422AA	05/22/2015 08:34	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F151422AA	05/22/2015 08:34	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/14/2015 21:33	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/14/2015 21:33	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151340009A	05/15/2015 22:05	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151340010A	05/20/2015 15:17	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151340010A	05/14/2015 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151340009A	05/14/2015 18:30	Samantha L Bronder	1

Sample Description: MW-109 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885406
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 15:25 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.12	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151406050007A	05/26/2015 09:14	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151406050007	05/24/2015 08:25	Christopher M Klumpp	1

Sample Description: MW-114 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885407
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 16:30 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56114

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	F151422AA	05/22/2015 09:38	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F151422AA	05/22/2015 09:38	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/14/2015 22:00	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/14/2015 22:00	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151340009A	05/15/2015 22:27	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151340010A	05/20/2015 15:38	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151340010A	05/14/2015 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151340009A	05/14/2015 18:30	Samantha L Bronder	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885408
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 16:30 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.55	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151406050007A	05/26/2015 09:16	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151406050007	05/24/2015 08:25	Christopher M Klumpp	1

Sample Description: **MW-115 Grab Groundwater**
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885409
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 14:10 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56115

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151411AA	05/21/2015 15:43	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151411AA	05/21/2015 15:43	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/14/2015 22:28	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/14/2015 22:28	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151340009A	05/15/2015 22:49	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151340010A	05/20/2015 16:00	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151340010A	05/14/2015 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151340009A	05/14/2015 18:30	Samantha L Bronder	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885410
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 14:10 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.60	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151406050007A	05/26/2015 09:18	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151406050007	05/24/2015 08:25	Christopher M Klumpp	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885411
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 10:10 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56116

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	420	250	5
00228	Sulfate	14808-79-8	7,000	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	26,200	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151411AA	05/21/2015 16:07	Amanda K Richards	1

Sample Description: MW-116 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885411
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 10:10 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56116

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151411AA	05/21/2015 16:07	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/14/2015 23:22	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/14/2015 23:22	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151340025A	05/14/2015 19:59	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151340009A	05/15/2015 23:11	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151340010A	05/20/2015 16:22	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151340010A	05/14/2015 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151340009A	05/14/2015 18:30	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15133667152A	05/13/2015 15:23	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15133667152A	05/16/2015 11:06	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15134003105A	05/15/2015 03:11	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15135023002A	05/15/2015 11:40	Michele L Graham	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885412
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 10:10 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	1.4	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151351848003	05/19/2015 12:53	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	151351848003	05/19/2015 12:53	Joanne M Gates	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151351848003	05/18/2015 21:30	Annamaria Kuhns	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885413
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 10:10 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151406050007A	05/26/2015 09:20	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151406050007	05/24/2015 08:25	Christopher M Klumpp	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885414
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 08:50 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56117

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	450	250	5
00228	Sulfate	14808-79-8	7,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	26,300	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151411AA	05/21/2015 16:31	Amanda K Richards	1

Sample Description: MW-117 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885414
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 08:50 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56117

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151411AA	05/21/2015 16:31	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/14/2015 23:50	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/14/2015 23:50	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151340025A	05/14/2015 20:17	Nicholas R Rossi	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151340009A	05/15/2015 23:32	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151340010A	05/20/2015 16:44	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151340010A	05/14/2015 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151340009A	05/14/2015 18:30	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15133667152A	05/13/2015 16:09	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15133667152A	05/16/2015 11:52	Clinton M Wilson	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15134003104A	05/15/2015 02:28	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15135023002A	05/15/2015 11:40	Michele L Graham	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885415
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 08:50 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	N.D.	0.83	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151351848003	05/19/2015 13:26	Joanne M Gates	1
07058	Manganese	SW-846 6010B	1	151351848003	05/19/2015 13:26	Joanne M Gates	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151351848003	05/18/2015 21:30	Annamaria Kuhns	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885416
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 08:50 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151406050007A	05/26/2015 09:21	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151406050007	05/24/2015 08:25	Christopher M Klumpp	1

Sample Description: MW-118 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885417
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 11:50 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56118

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	69	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	75	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151411AA	05/21/2015 16:55	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151411AA	05/21/2015 16:55	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/15/2015 00:17	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/15/2015 00:17	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151340009A	05/15/2015 23:54	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151340010A	05/20/2015 17:06	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151340010A	05/14/2015 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151340009A	05/14/2015 18:30	Samantha L Bronder	1

Sample Description: MW-118 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885418
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 11:50 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.17	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151406050007A	05/26/2015 09:28	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151406050007	05/24/2015 08:25	Christopher M Klumpp	1

Sample Description: MW-120 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885419
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 13:05 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

56120

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	68	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151411AA	05/21/2015 17:19	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151411AA	05/21/2015 17:19	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15134A20A	05/15/2015 00:44	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15134A20A	05/15/2015 00:44	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151340009A	05/16/2015 00:16	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151340010A	05/20/2015 17:28	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151340010A	05/14/2015 18:30	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151340009A	05/14/2015 18:30	Samantha L Bronder	1

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Rd - Toledo, WA

LL Sample # WW 7885420
LL Group # 1560744
Account # 11260

Project Name: 211556

Collected: 05/12/2015 13:05 by JP

Submitted: 05/13/2015 09:50
Reported: 05/26/2015 14:24

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.10	0.082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was lab filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	151406050007A	05/26/2015 09:30	Choon Y Tian	1
06050	ICPMS-Water, 3020A - U3	SW-846 3010A modified	1	151406050007	05/24/2015 08:25	Christopher M Klumpp	1

Quality Control Summary

Client Name: Chevron Group Number: 1560744
Reported: 05/26/2015 14:24

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 Max
Batch number: F151422AA	Sample number(s): 7885404-7885405,7885407							
Benzene	N.D.	0.5	ug/l	98		78-120		
Ethylbenzene	N.D.	0.5	ug/l	95		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	93		75-120		
Toluene	N.D.	0.5	ug/l	97		80-120		
Xylene (Total)	N.D.	0.5	ug/l	97		80-120		
Batch number: Z151411AA	Sample number(s): 7885409,7885411,7885414,7885417,7885419							
Benzene	N.D.	0.5	ug/l	89	90	78-120	2	30
Ethylbenzene	N.D.	0.5	ug/l	93	94	80-120	1	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	100	101	75-120	2	30
Toluene	N.D.	0.5	ug/l	94	96	80-120	3	30
Xylene (Total)	N.D.	0.5	ug/l	96	97	80-120	1	30
Batch number: 15134A20A	Sample number(s): 7885404-7885405,7885407,7885409,7885411,7885414,7885417,7885419							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	94	94	80-123	1	30
Batch number: 151340025A	Sample number(s): 7885411,7885414							
Methane	N.D.	3.0	ug/l	109		85-115		
Batch number: 151340009A	Sample number(s): 7885405,7885407,7885409,7885411,7885414,7885417,7885419							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	68	60	50-113	13	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 151340010A	Sample number(s): 7885405,7885407,7885409,7885411,7885414,7885417,7885419							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	57	56	32-117	2	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 151351848003	Sample number(s): 7885412,7885415							
Iron	N.D.	33.4	ug/l	99		80-120		
Manganese	N.D.	0.83	ug/l	98		80-120		
Batch number: 151406050007A	Sample number(s): 7885406,7885408,7885410,7885413,7885416,7885418,7885420							
Lead	N.D.	0.082	ug/l	104		80-120		
Batch number: 15133667152A	Sample number(s): 7885411,7885414							
Nitrate Nitrogen	N.D.	50.	ug/l	100		90-110		
Sulfate	N.D.	300.	ug/l	98		90-110		
Batch number: 15134003104A	Sample number(s): 7885414							
Total Alkalinity to pH 4.5	930	700.	ug/l as CaCO3	97		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1560744
Reported: 05/26/2015 14:24

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 15134003105A	Sample number(s): 7885411							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	96		90-110		
Batch number: 15135023002A	Sample number(s): 7885411,7885414							
Sulfide	N.D.	54.	ug/l	106		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: F151422AA	Sample number(s): 7885404-7885405,7885407 UNSPK: 7885405								
Benzene	100	97	72-134	3	30				
Ethylbenzene	99	95	71-134	4	30				
Methyl Tertiary Butyl Ether	89	88	72-126	2	30				
Toluene	100	97	80-125	3	30				
Xylene (Total)	99	95	79-125	4	30				
Batch number: 151340025A	Sample number(s): 7885411,7885414 UNSPK: P879550								
Methane	98	99	46-129	1	20				
Batch number: 151351848003	Sample number(s): 7885412,7885415 UNSPK: 7885412 BKG: 7885412								
Iron	98	99	75-125	1	20	N.D.	N.D.	0 (1)	20
Manganese	98	99	75-125	1	20	1.4	1.5	6 (1)	20
Batch number: 151406050007A	Sample number(s): 7885406,7885408,7885410,7885413,7885416,7885418,7885420 UNSPK: P893283 BKG: P893283								
Lead	107	109	75-125	1	20	0.21	0.19	8 (1)	20
Batch number: 15133667152A	Sample number(s): 7885411,7885414 UNSPK: 7885411 BKG: 7885411								
Nitrate Nitrogen	105		90-110			420	420	1 (1)	20
Sulfate	98		90-110			7,000	7,100	1 (1)	20
Batch number: 15134003104A	Sample number(s): 7885414 UNSPK: P884709 BKG: P884709								
Total Alkalinity to pH 4.5	62*		90-110			106,000	107,000	1	5
Batch number: 15134003105A	Sample number(s): 7885411 UNSPK: 7885411 BKG: 7885411								
Total Alkalinity to pH 4.5	91		90-110			26,200	27,000	3	5
Batch number: 15135023002A	Sample number(s): 7885411,7885414 UNSPK: P884709 BKG: P884709								
Sulfide	93	93	90-110	0	16	300	320	6* (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.

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1560744
Reported: 05/26/2015 14:24

Surrogate Quality Control

Analysis Name: BTEX/MTBE
Batch number: F151422AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7885404	97	100	98	90
7885405	97	100	99	93
7885407	98	104	99	91
Blank	97	101	98	90
LCS	95	101	99	94
MS	96	106	98	94
MSD	97	104	98	93
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: Z151411AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7885409	105	99	101	98
7885411	105	100	101	98
7885414	105	100	102	97
7885417	106	98	99	96
7885419	105	99	101	98
Blank	103	98	101	98
LCS	102	97	101	104
LCSD	101	100	101	103
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15134A20A

	Trifluorotoluene-F
7885404	117
7885405	104
7885407	117
7885409	106
7885411	105
7885414	113
7885417	113
7885419	107
Blank	107
LCS	122
LCSD	126
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 151340009A

	Orthoterphenyl
7885405	77
7885407	98
7885409	89
7885411	92
7885414	99
7885417	92
7885419	94
Blank	94
LCS	98
LCSD	89
Limits:	50-150

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1560744
Reported: 05/26/2015 14:24

Surrogate Quality Control

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 151340010A

	Orthoterphenyl
7885405	68
7885407	76
7885409	86
7885411	81
7885414	79
7885417	81
7885419	86
Blank	82
LCS	83
LCSD	84
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 151340025A

	Propene
7885411	93
7885414	93
Blank	105
LCS	107
MS	85
MSD	90
Limits:	47-116

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1560744 Sample # 7885404-20
Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS
Site Address 101 Mulford Road, TOLEDO, WA
Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire
Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)
Consultant Phone # (925) 551-7444 x180
Sampler J. PAYNE

(4) Matrix

Soil ☐ Sediment ☐ Water ☑ Potable ☐ Groundwater ☑ NPDES ☐ Surface ☐ Oil ☐ Air ☐

(5) Analyses Requested

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Total Number of Containers	BTEX + MTBE ☐ 8021 ☐ 8260 ☑ Naphth	8260 full scan	Oxygenates ___	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup ☑	NWTPH-Dx without Silica Gel Cleanup ☑	WA VPH ☐ WA EPH ☐	Lead Total ☐ Diss. ☑ Method 6020	Nitrate / Sulfate	Dissolved Iron / Manganese	Sulfide / Methane	Alkalinity
QA	5.12.15		X		2	X			X								
MW-109		1525	X		9	X			X	X	X		X				
MW-114		1630	X		9	X			X	X	X		X				
MW-115		1410	X		9	X			X	X	X		X				
MW-116		1010	X		16	X			X	X	X		X	X	X	X	X
MW-117		0850	X		16	X			X	X	X		X	X	X	X	X
MW-118		1150	X		9	X			X	X	X		X				
MW-120		1305	X		9	X			X	X	X		X				

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

(7) Turnaround Time Requested (TAT) (please circle)

Standard 5 day 4 day
72 hour 48 hour EDF/EDD 24 hour

(8) Data Package (circle if required)

Type I - Full
Type VI (Raw Data)

EDD (circle if required)
CVX-RTBU-FI_05 (default)
Other: _____

Relinquished by	Date	Time	Received by	Date	Time
	5.12.15	1700			(9)

Relinquished by Commercial Carrier: UPS ✓ FedEx ____ Other ____
Received by: Date 5/13/15 Time 0950
Temperature Upon Receipt 0.4 - 3.4 °C
Custody Seals Intact? Yes 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)
C	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, 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.

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

May 27, 2015

Project: 211556

Submittal Date: 05/14/2015
Group Number: 1561253
PO Number: 0015146917
Release Number: HORNE

State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	7888167
B-1 Grab Groundwater	7888168
B-1 Filtered Grab Groundwater	7888169
B-2 Grab Groundwater	7888170
B-2 Filtered Grab Groundwater	7888171
B-3 Grab Groundwater	7888172
B-3 Filtered Grab Groundwater	7888173
B-4 Grab Groundwater	7888174
B-4 Filtered Grab Groundwater	7888175
MW-111 Grab Groundwater	7888176
MW-111 Filtered Grab Groundwater	7888177
MW-113 Grab Groundwater	7888178
MW-113 Filtered Grab Groundwater	7888179

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Leidos	Attn: Russ Shropshire
ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888167
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151421AA	05/22/2015 11:02	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151421AA	05/22/2015 11:02	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15141A53A	05/22/2015 11:35	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15141A53A	05/22/2015 11:35	Jeremy C Giffin	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888168
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 11:30 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT01

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	1,400	250	5
00228	Sulfate	14808-79-8	3,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	65,200	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151421AA	05/22/2015 11:50	Daniel H Heller	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888168
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 11:30 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151421AA	05/22/2015 11:50	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15141A53A	05/22/2015 13:54	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15141A53A	05/22/2015 13:54	Jeremy C Giffin	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151380026A	05/19/2015 04:35	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151360014A	05/18/2015 15:59	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151360015A	05/21/2015 19:40	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151360015A	05/17/2015 07:55	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151360014A	05/17/2015 07:55	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15134667601B	05/14/2015 20:46	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15134667601B	05/14/2015 20:46	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15138002102A	05/18/2015 18:14	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15139023001A	05/19/2015 12:05	Michele L Graham	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888169
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 11:30 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	9.7	0.83	1
		SW-846 6020	**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151351848004	05/19/2015 19:26	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	151351848004	05/19/2015 19:26	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	151396050003A	05/21/2015 20:30	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151351848004	05/19/2015 08:14	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	151396050003	05/20/2015 09:40	James L Mertz	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888170
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 08:45 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT02

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	1,400	250	5
00228	Sulfate	14808-79-8	3,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	66,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151421AA	05/22/2015 13:02	Daniel H Heller	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888170
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 08:45 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151421AA	05/22/2015 13:02	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15141A53A	05/22/2015 14:21	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15141A53A	05/22/2015 14:21	Jeremy C Giffin	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151380026A	05/19/2015 04:53	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151360014A	05/18/2015 16:21	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151360015A	05/21/2015 20:02	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151360015A	05/17/2015 07:55	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151360014A	05/17/2015 07:55	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15134667601B	05/14/2015 19:08	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15134667601B	05/14/2015 19:08	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15138002103A	05/18/2015 19:14	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15139023001A	05/19/2015 12:05	Michele L Graham	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888171
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 08:45 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	11.4	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151351848004	05/19/2015 19:09	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	151351848004	05/19/2015 19:09	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	151396050003A	05/21/2015 20:20	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151351848004	05/19/2015 08:14	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	151396050003	05/20/2015 09:40	James L Mertz	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888172
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 15:10 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

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	33	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	0.9	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	1,400	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	440	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	690	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	120	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	5,300	250	5
00228	Sulfate	14808-79-8	7,600	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	132,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151421AA	05/22/2015 13:26	Daniel H Heller	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888172
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 15:10 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151421AA	05/22/2015 13:26	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15141A53A	05/22/2015 15:17	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15141A53A	05/22/2015 15:17	Jeremy C Giffin	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151380026A	05/19/2015 05:10	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151360014A	05/18/2015 17:27	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151360015A	05/21/2015 20:24	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151360015A	05/17/2015 07:55	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151360014A	05/17/2015 07:55	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15134667601B	05/14/2015 21:35	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15134667601B	05/14/2015 21:35	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15138002103A	05/18/2015 19:08	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15139023001A	05/19/2015 12:05	Michele L Graham	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888173
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 15:10 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	6,750	33.4	1
07058	Manganese	7439-96-5	4,080	0.83	1
		SW-846 6020	**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.0081	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151351848004	05/19/2015 19:29	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	151351848004	05/19/2015 19:29	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	151396050003A	05/21/2015 20:32	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151351848004	05/19/2015 08:14	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	151396050003	05/20/2015 09:40	James L Mertz	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888174
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 12:50 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT04

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	1	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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	940	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	690	6.0	2
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	210	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	130	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,900	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	118,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151421AA	05/22/2015 13:50	Daniel H Heller	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888174
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 12:50 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRT04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151421AA	05/22/2015 13:50	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15141A53A	05/22/2015 15:45	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15141A53A	05/22/2015 15:45	Jeremy C Giffin	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151380026A	05/19/2015 14:39	Kristen N Brandt	2
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151360014A	05/18/2015 17:49	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151360015A	05/21/2015 20:45	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151360015A	05/17/2015 07:55	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151360014A	05/17/2015 07:55	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15134667601B	05/14/2015 21:02	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15134667601B	05/14/2015 21:02	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15138002103A	05/18/2015 20:59	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15139023001A	05/19/2015 12:05	Michele L Graham	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888175
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 12:50 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	10,000	33.4	1
07058	Manganese	7439-96-5	2,110	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.0016	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151351848004	05/19/2015 19:37	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	151351848004	05/19/2015 19:37	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	151396050003A	05/21/2015 20:37	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151351848004	05/19/2015 08:14	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	151396050003	05/20/2015 09:40	James L Mertz	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888176
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 14:00 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR111

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	1	0.5	1
10945	Ethylbenzene	100-41-4	71	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	5	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	4,400	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	5,600	60	20
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	1,000	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	320	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	N.D.	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	198,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151421AA	05/22/2015 14:14	Daniel H Heller	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888176
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 14:00 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR111

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151421AA	05/22/2015 14:14	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15141A53A	05/22/2015 16:13	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15141A53A	05/22/2015 16:13	Jeremy C Giffin	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151390013A	05/20/2015 18:01	Kristen N Brandt	20
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151360014A	05/18/2015 18:10	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151360015A	05/21/2015 21:07	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151360015A	05/17/2015 07:55	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151360014A	05/17/2015 07:55	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15134667601B	05/14/2015 21:18	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15134667601B	05/14/2015 21:18	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15138002103A	05/18/2015 19:01	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15139023001A	05/19/2015 12:05	Michele L Graham	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888177
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 14:00 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	12,100	33.4	1
07058	Manganese	7439-96-5	5,050	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	0.0202	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151391848005	05/20/2015 16:35	Suzanne M Will	1
07058	Manganese	SW-846 6010B	1	151391848005	05/20/2015 16:35	Suzanne M Will	1
06035	Lead	SW-846 6020	1	151396050003A	05/21/2015 20:38	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151391848005	05/20/2015 08:08	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	151396050003	05/20/2015 09:40	James L Mertz	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888178
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 10:10 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR113

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	75	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	1,200	250	5
00228	Sulfate	14808-79-8	3,400	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	66,400	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	Z151421AA	05/22/2015 14:38	Daniel H Heller	1

Sample Description: MW-113 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888178
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 10:10 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR113

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z151421AA	05/22/2015 14:38	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15141A53A	05/22/2015 16:40	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	15141A53A	05/22/2015 16:40	Jeremy C Giffin	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	151390013A	05/19/2015 22:40	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	151360014A	05/18/2015 16:43	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	151360015A	05/21/2015 21:29	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	151360015A	05/17/2015 07:55	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	151360014A	05/17/2015 07:55	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15134667601B	05/14/2015 20:29	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15134667601B	05/14/2015 20:29	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15138002103A	05/18/2015 21:39	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15139023001A	05/19/2015 12:05	Michele L Graham	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 7888179
LL Group # 1561253
Account # 11260

Project Name: 211556

Collected: 05/13/2015 10:10 by JP

Submitted: 05/14/2015 09:35
Reported: 05/27/2015 12:41

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	N.D.	33.4	1
07058	Manganese	7439-96-5	9.4	0.83	1
	SW-846 6020		**mg/l**	**mg/l**	
06035	Lead	7439-92-1	N.D.	0.000082	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	151391848005	05/20/2015 17:43	Suzanne M Will	1
07058	Manganese	SW-846 6010B	1	151391848005	05/20/2015 17:43	Suzanne M Will	1
06035	Lead	SW-846 6020	1	151396050003A	05/21/2015 20:40	Deborah A Krady	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	151391848005	05/20/2015 08:08	James L Mertz	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	151396050003	05/20/2015 09:40	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1561253
Reported: 05/27/2015 12:41

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 Max
Batch number: Z151421AA	Sample number(s): 7888167-7888168,7888170,7888172,7888174,7888176,7888178							
Benzene	N.D.	0.5	ug/l	89		78-120		
Ethylbenzene	N.D.	0.5	ug/l	93		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	98		75-120		
Toluene	N.D.	0.5	ug/l	95		80-120		
Xylene (Total)	N.D.	0.5	ug/l	96		80-120		
Batch number: 15141A53A	Sample number(s): 7888167-7888168,7888170,7888172,7888174,7888176,7888178							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	97	98	80-123	1	30
Batch number: 151380026A	Sample number(s): 7888168,7888170,7888172,7888174							
Methane	N.D.	3.0	ug/l	106		85-115		
Batch number: 151390013A	Sample number(s): 7888176,7888178							
Methane	N.D.	3.0	ug/l	106		85-115		
Batch number: 151360014A	Sample number(s): 7888168,7888170,7888172,7888174,7888176,7888178							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	64	62	50-113	3	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 151360015A	Sample number(s): 7888168,7888170,7888172,7888174,7888176,7888178							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	59	57	32-117	2	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 151351848004	Sample number(s): 7888169,7888171,7888173,7888175							
Iron	N.D.	33.4	ug/l	104		80-120		
Manganese	1.2	0.83	ug/l	104		80-120		
Batch number: 151391848005	Sample number(s): 7888177,7888179							
Iron	N.D.	33.4	ug/l	103		80-120		
Manganese	N.D.	0.83	ug/l	106		80-120		
Batch number: 151396050003A	Sample number(s): 7888169,7888171,7888173,7888175,7888177,7888179							
Lead	N.D.	0.00008 2	mg/l	108		80-120		
Batch number: 15134667601B	Sample number(s): 7888168,7888170,7888172,7888174,7888176,7888178							
Nitrate Nitrogen	N.D.	50.	ug/l	100		90-110		
Sulfate	N.D.	300.	ug/l	98		90-110		
Batch number: 15138002102A	Sample number(s): 7888168							
Total Alkalinity to pH 4.5	750	700.	ug/l as CaCO3	97		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1561253
Reported: 05/27/2015 12:41

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 15138002103A	Sample number(s): 7888170,7888172,7888174,7888176,7888178							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	96		90-110		
Batch number: 15139023001A	Sample number(s): 7888168,7888170,7888172,7888174,7888176,7888178							
Sulfide	N.D.	54.	ug/l	101		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: Z151421AA	Sample number(s): 7888167-7888168,7888170,7888172,7888174,7888176,7888178 UNSPK: 7888168								
Benzene	89	88	72-134	1	30				
Ethylbenzene	95	94	71-134	1	30				
Methyl Tertiary Butyl Ether	93	93	72-126	0	30				
Toluene	96	95	80-125	1	30				
Xylene (Total)	98	96	79-125	2	30				
Batch number: 151380026A	Sample number(s): 7888168,7888170,7888172,7888174 UNSPK: P888659								
Methane	101	108	46-129	6	20				
Batch number: 151390013A	Sample number(s): 7888176,7888178 UNSPK: P885296								
Methane	89	89	46-129	0	20				
Batch number: 151351848004	Sample number(s): 7888169,7888171,7888173,7888175 UNSPK: 7888171 BKG: 7888171								
Iron	103	101	75-125	2	20	N.D.	N.D.	0 (1)	20
Manganese	103	101	75-125	3	20	11.4	11.4	1 (1)	20
Batch number: 151391848005	Sample number(s): 7888177,7888179 UNSPK: 7888177 BKG: 7888177								
Iron	103 (2)	97 (2)	75-125	0	20	12,100	12,200	1	20
Manganese	92 (2)	91 (2)	75-125	0	20	5,050	5,110	1	20
Batch number: 151396050003A	Sample number(s): 7888169,7888171,7888173,7888175,7888177,7888179 UNSPK: 7888171 BKG: 7888171								
Lead	103	104	75-125	1	20	N.D.	N.D.	0 (1)	20
Batch number: 15134667601B	Sample number(s): 7888168,7888170,7888172,7888174,7888176,7888178 UNSPK: 7888170 BKG: 7888170								
Nitrate Nitrogen	102		90-110			1,400	1,400	0 (1)	20
Sulfate	99		90-110			3,800	3,700	1 (1)	20
Batch number: 15138002102A	Sample number(s): 7888168 UNSPK: P887472 BKG: P887472								
Total Alkalinity to pH 4.5	87*		90-110			85,300	85,200	0	5
Batch number: 15138002103A	Sample number(s): 7888170,7888172,7888174,7888176,7888178 UNSPK: P888659 BKG: P888659								
Total Alkalinity to pH 4.5	96	95	90-110	0	5	81,700	81,700	0	5
Batch number: 15139023001A	Sample number(s): 7888168,7888170,7888172,7888174,7888176,7888178 UNSPK: 7888178								

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1561253
Reported: 05/27/2015 12:41

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
	BKG: 7888178								
Sulfide	85*	80*	90-110	6	16	N.D.	N.D.	0 (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: BTEX/MTBE
Batch number: Z151421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7888167	104	100	101	98
7888168	106	99	101	98
7888170	104	99	100	96
7888172	102	95	102	103
7888174	102	96	102	103
7888176	101	96	100	102
7888178	105	98	99	97
Blank	104	99	100	98
LCS	101	98	100	103
MS	103	97	100	105
MSD	102	99	100	105
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15141A53A

	Trifluorotoluene-F
7888167	107
7888168	99
7888170	99
7888172	119
7888174	112
7888176	125
7888178	107
Blank	108
LCS	110
LCSD	108
Limits:	63-135

Analysis Name: NWTPH-Dx water
Batch number: 151360014A

	Orthoterphenyl
7888168	88
7888170	80
7888172	90
7888174	92
7888176	99
7888178	84

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1561253
Reported: 05/27/2015 12:41

Surrogate Quality Control

Blank	84
LCS	88
LCSD	89
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 151360015A

	Orthoterphenyl
7888168	90
7888170	83
7888172	85
7888174	88
7888176	92
7888178	80
Blank	84
LCS	83
LCSD	86
Limits:	50-150

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 151380026A

	Propene
7888168	78
7888170	85
7888172	83
7888174	93
Blank	103
LCS	97
MS	81
MSD	86
Limits:	47-116

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 151390013A

	Propene
7888176	92
7888178	85
Blank	100
LCS	103
MS	93
MSD	89
Limits:	47-116

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 — For Eurofins Lancaster Laboratories use only — Group # 1561253 Sample # 788167-79

Instructions on reverse side correspond with circled numbers.

(1) Client Information

Facility # SS#211556-OML G-R#386773 — WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO — Lead Consultant LEIDOSRS — Russell Shropshire

Consultant/Office Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler J. PAYNE

(2) Sample Identification | Collected Date | Collected Time | **(3)** Grab | Composite

(4) Matrix: Soil ☐ | Potable ☐ | NPDES ☐ | Air ☐ | Sediment ☐ | Water ☑ | Groundwater ☑ | Surface ☐ | Oil ☐

(5) Analyses Requested: Total Number of Containers | BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐ | 8260 full scan | Oxygenates | NWTPH-Gx | NWTPH-Dx with Silica Gel Cleanup ☑ | NWTPH-Dx without Silica Gel Cleanup ☑ | WA VPH ☐ WA EPH ☐ | Lead Total ☐ Diss. ☑ Method 6020 | NITRATE/SULFATE/METHANE | Dissolved Iron/Manganese 6010 | Sulfide SM4500 | Alkalinity 2320

SCR #: _____

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Oil	Total Containers	BTEX + MTBE 8021	Naphth 8260	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead Total	Diss. Method 6020	NITRATE/SULFATE/METHANE	Dissolved Iron/Manganese 6010	Sulfide SM4500	Alkalinity 2320
B-1 24	5-13-15	1130	X			X		12	X				X	X	X				X	X	X	X	X
B-2		0946	X			X		16	X				X	X	X				X	X	X	X	X
B-3		1310	X			X		16	X				X	X	X				X	X	X	X	X
B-4		1340	X			X		16	X				X	X	X				X	X	X	X	X
MW-111		1400	X			X		16	X				X	X	X				X	X	X	X	X
MW-113	↓	1010	X			X		16	X				X	X	X				X	X	X	X	X

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

AMEND COC:
PLEASE ADD BTEX & MTBE TO B-3, B-4 MW-111 & MW-113

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding.

05-14-15 MW

(7) Turnaround Time Requested (TAT) (please circle)

Standard — 5 day — 4 day — **EDF/EDD** — 72 hour — 48 hour — 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	5-13-15	1700			
Relinquished by	Date	Time	Received by	Date	Time

(8) Data Package (circle if required): Type I - Full; Type VI (Raw Data)

EDD (circle if required): CVX-RTBU-FI_05 (default); Other: _____

Relinquished by Commercial Carrier: UPS X — FedEx ____ — Other ____

Received by — Date 5/14/15 — Time 0935

Temperature Upon Receipt 0.3 - 2.1 °C

Custody Seals Intact? (Yes) No

(9)

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)
C	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, 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.

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

October 18, 2015

Project: 211556

Submittal Date: 08/11/2015
Group Number: 1583699
PO Number: 0015183585
Release Number: HORNE
State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	8000939
MW-103 Grab Groundwater	8000940
MW-103 Filtered Grab Groundwater	8000941
MW-112 Grab Groundwater	8000942
MW-112 Filtered Grab Groundwater	8000943
MW-113 Grab Groundwater	8000944
MW-113 Filtered Grab Groundwater	8000945
MW-115 Grab Groundwater	8000946
MW-115 Filtered Grab Groundwater	8000947
MW-116 Grab Groundwater	8000948
MW-116 Filtered Grab Groundwater	8000949
MW-117 Grab Groundwater	8000950
MW-117 Filtered Grab Groundwater	8000951
MW-118 Grab Groundwater	8000952
MW-118 Filtered Grab Groundwater	8000953
MW-119 Grab Groundwater	8000954
MW-119 Filtered Grab Groundwater	8000955
MW-120 Grab Groundwater	8000956
MW-120 Filtered Grab Groundwater	8000957

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC Leidos Attn: Russ Shropshire

COPY TO		
ELECTRONIC	Leidos	Attn: Jamalyn Agyei
COPY TO		
ELECTRONIC	Gettler-Ryan Inc.	Attn: Gettler Ryan
COPY TO		

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000939
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MRTQA

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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152251AA	08/13/2015 12:10	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152251AA	08/13/2015 12:10	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15224A94A	08/13/2015 19:38	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15224A94A	08/13/2015 19:38	Brett W Kenyon	1

Sample Description: MW-103 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000940
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 08:20 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR103

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,400	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	113,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152251AA	08/13/2015 17:01	Hu Yang	1

Sample Description: MW-103 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000940
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 08:20 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR103

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152251AA	08/13/2015 17:01	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15224A94A	08/13/2015 22:36	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15224A94A	08/13/2015 22:36	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152260019A	08/14/2015 10:50	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 14:02	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 21:16	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15223667121B	08/11/2015 18:01	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15223667121B	08/11/2015 18:01	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005202A	08/13/2015 19:13	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15225023002A	08/13/2015 12:55	Susan E Hibner	1

Sample Description: MW-103 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000941
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 08:20 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	34.8	33.3	1
07058	Manganese	7439-96-5	145	0.80	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152241848004	08/15/2015 00:07	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	152241848004	08/15/2015 00:07	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:30	Mallory L Clark	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152241848004	08/14/2015 09:06	Katlin N Cataldi	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-112 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000942
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 09:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR112

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	15	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	530	250	5
00228	Sulfate	14808-79-8	3,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	97,500	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152251AA	08/13/2015 17:28	Hu Yang	1

Sample Description: MW-112 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000942
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 09:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR112

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152251AA	08/13/2015 17:28	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15224A94A	08/13/2015 23:02	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15224A94A	08/13/2015 23:02	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152260019A	08/14/2015 11:07	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 14:24	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 21:38	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15223667121B	08/11/2015 18:46	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15223667121B	08/11/2015 18:46	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005202A	08/13/2015 18:18	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15225023002A	08/13/2015 12:55	Susan E Hibner	1

Sample Description: MW-112 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000943
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 09:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	2,720	33.3	1
07058	Manganese	7439-96-5	2,050	0.80	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.20	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152241848004	08/15/2015 00:16	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	152241848004	08/15/2015 00:16	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:35	Mallory L Clark	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152241848004	08/14/2015 09:06	Katlin N Cataldi	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-113 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000944
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 10:37 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR113

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,300	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	43,700	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152251AA	08/13/2015 17:54	Hu Yang	1

Sample Description: MW-113 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000944
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 10:37 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR113

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152251AA	08/13/2015 17:54	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15224A94A	08/13/2015 23:27	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15224A94A	08/13/2015 23:27	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152260019A	08/14/2015 11:26	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 14:46	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 21:59	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15223667121B	08/11/2015 19:01	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15223667121B	08/11/2015 19:01	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005202A	08/13/2015 18:00	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15225023002A	08/13/2015 12:55	Susan E Hibner	1

Sample Description: MW-113 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000945
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 10:37 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	61.5	33.3	1
07058	Manganese	7439-96-5	14.1	0.80	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152241848004	08/15/2015 00:19	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	152241848004	08/15/2015 00:19	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:37	Mallory L Clark	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152241848004	08/14/2015 09:06	Katlin N Cataldi	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-115 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000946
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 11:33 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR115

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	33	28	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152252AA	08/13/2015 17:14	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152252AA	08/13/2015 17:14	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15224A94A	08/14/2015 00:17	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15224A94A	08/14/2015 00:17	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 15:07	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 22:21	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1

Sample Description: MW-115 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000947
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 11:33 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.71	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:38	Mallory L Clark	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-116 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000948
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 09:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR116

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	70	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	890	250	5
00228	Sulfate	14808-79-8	5,000	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	50,100	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152252AA	08/13/2015 17:41	Hu Yang	1

Sample Description: MW-116 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000948
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 09:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR116

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152252AA	08/13/2015 17:41	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15224A94A	08/14/2015 00:42	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15224A94A	08/14/2015 00:42	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152260019A	08/14/2015 11:44	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 15:29	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 22:43	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15223667121B	08/11/2015 19:16	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15223667121B	08/11/2015 19:16	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005202A	08/13/2015 16:55	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15225023002A	08/13/2015 12:55	Susan E Hibner	1

Sample Description: MW-116 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000949
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 09:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	1,910	33.3	1
07058	Manganese	7439-96-5	120	0.80	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.42	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152241848004	08/15/2015 00:22	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	152241848004	08/15/2015 00:22	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:40	Mallory L Clark	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152241848004	08/14/2015 09:06	Katlin N Cataldi	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-117 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000950
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 12:30 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR117

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	7,900	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	59,600	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152252AA	08/13/2015 18:08	Hu Yang	1

Sample Description: MW-117 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000950
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 12:30 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR117

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152252AA	08/13/2015 18:08	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15224A94A	08/14/2015 01:07	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15224A94A	08/14/2015 01:07	Brett W Kenyon	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152260019A	08/14/2015 12:03	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 15:51	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 23:04	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15223667121B	08/11/2015 20:02	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15223667121B	08/11/2015 20:02	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005202A	08/13/2015 17:23	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15225023002A	08/13/2015 12:55	Susan E Hibner	1

Sample Description: MW-117 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000951
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 12:30 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	2,760	33.3	1
07058	Manganese	7439-96-5	98.1	0.80	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.1	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152241848004	08/15/2015 00:25	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	152241848004	08/15/2015 00:25	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:42	Mallory L Clark	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152241848004	08/14/2015 09:06	Katlin N Cataldi	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-118 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000952
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 10:20 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR118

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152252AA	08/13/2015 18:34	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152252AA	08/13/2015 18:34	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/14/2015 18:54	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/14/2015 18:54	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 16:13	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 23:26	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1

Sample Description: MW-118 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000953
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 10:20 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:43	Mallory L Clark	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-119 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000954
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 08:23 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR119

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	3,400	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	98,500	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152252AA	08/13/2015 19:01	Hu Yang	1

Sample Description: MW-119 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000954
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 08:23 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR119

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152252AA	08/13/2015 19:01	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/14/2015 19:20	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/14/2015 19:20	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152260019A	08/14/2015 12:21	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 16:34	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/22/2015 23:48	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1
00368	Nitrate Nitrogen	EPA 300.0	1	15223667121B	08/11/2015 20:17	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15223667121B	08/11/2015 20:17	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005202A	08/13/2015 19:03	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15225023002A	08/13/2015 12:55	Susan E Hibner	1

Sample Description: MW-119 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000955
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 08:23 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	66.3	33.3	1
07058	Manganese	7439-96-5	15.0	0.80	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152241848004	08/15/2015 00:28	Elaine F Stoltzfus	1
07058	Manganese	SW-846 6010B	1	152241848004	08/15/2015 00:28	Elaine F Stoltzfus	1
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:18	Mallory L Clark	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152241848004	08/14/2015 09:06	Katlin N Cataldi	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-120 Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000956
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 11:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

MR120

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152252AA	08/13/2015 19:27	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152252AA	08/13/2015 19:27	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/14/2015 19:45	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/14/2015 19:45	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152290012A	08/18/2015 16:56	Heather E Williams	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152290011A	08/23/2015 00:10	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152290011A	08/17/2015 20:00	Samantha L Bronder	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152290012A	08/17/2015 20:00	Samantha L Bronder	1

Sample Description: MW-120 Filtered Grab Groundwater
Facility# 211553 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8000957
LL Group # 1583699
Account # 11260

Project Name: 211556

Collected: 08/10/2015 11:25 by GM

Submitted: 08/11/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was filtered in the lab for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	152246050005A	08/17/2015 15:45	Mallory L Clark	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152246050005	08/13/2015 23:00	Annamaria Kuhns	1

Quality Control Summary

Client Name: Chevron Group Number: 1583699
Reported: 10/18/2015 16:55

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 Max
Batch number: P152251AA	Sample number(s): 8000939-8000940,8000942,8000944							
Benzene	N.D.	0.5	ug/l	100		78-120		
Ethylbenzene	N.D.	0.5	ug/l	100		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	107		75-120		
Toluene	N.D.	0.5	ug/l	98		80-120		
Xylene (Total)	N.D.	0.5	ug/l	101		80-120		
Batch number: P152252AA	Sample number(s): 8000946,8000948,8000950,8000952,8000954,8000956							
Benzene	N.D.	0.5	ug/l	103	101	78-120	2	30
Ethylbenzene	N.D.	0.5	ug/l	101	99	80-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	105	97	75-120	7	30
Toluene	N.D.	0.5	ug/l	103	100	80-120	2	30
Xylene (Total)	N.D.	0.5	ug/l	103	101	80-120	2	30
Batch number: 15224A94A	Sample number(s): 8000939-8000940,8000942,8000944,8000946,8000948,8000950							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	93		80-123		
Batch number: 15225A94A	Sample number(s): 8000952,8000954,8000956							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	88	91	80-123	4	30
Batch number: 152260019A	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954							
Methane	N.D.	3.0	ug/l	102		85-115		
Batch number: 152290012A	Sample number(s): 8000940,8000942,8000944,8000946,8000948,8000950,8000952,8000954,8000956							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	63	61	50-113	4	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 152290011A	Sample number(s): 8000940,8000942,8000944,8000946,8000948,8000950,8000952,8000954,8000956							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	53	65	32-117	21*	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 152241848004	Sample number(s): 8000941,8000943,8000945,8000949,8000951,8000955							
Iron	N.D.	33.3	ug/l	114		80-120		
Manganese	0.82	0.80	ug/l	101		80-120		
Batch number: 152246050005A	Sample number(s): 8000941,8000943,8000945,8000947,8000949,8000951,8000953,8000955,8000957							
Lead	N.D.	0.13	ug/l	101		80-120		
Batch number: 15223667121B	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954							
Nitrate Nitrogen	N.D.	50.	ug/l	94		90-111		
Sulfate	N.D.	300.	ug/l	97		90-110		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1583699
Reported: 10/18/2015 16:55

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 15225005202A	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	100		90-110		
Batch number: 15225023002A	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954							
Sulfide	N.D.	54.	ug/l	100		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: P152251AA	Sample number(s): 8000939-8000940,8000942,8000944 UNSPK: P001567								
Benzene	107	109	72-134	2	30				
Ethylbenzene	107	107	71-134	0	30				
Methyl Tertiary Butyl Ether	109	111	72-126	2	30				
Toluene	105	105	80-125	1	30				
Xylene (Total)	107	109	79-125	1	30				
Batch number: 15224A94A	Sample number(s): 8000939-8000940,8000942,8000944,8000946,8000948,8000950 UNSPK: P998826								
NWTPH-Gx water C7-C12	99	99	75-135	0	30				
Batch number: 152260019A	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954 UNSPK: P002318								
Methane	101	103	46-129	2	20				
Batch number: 152241848004	Sample number(s): 8000941,8000943,8000945,8000949,8000951,8000955 UNSPK: P998159 BKG: P998159								
Iron	88	87	75-125	1	20	110	36.7	100* (1)	20
Manganese	98	96	75-125	1	20	3.7	2.7	32* (1)	20
Batch number: 152246050005A	Sample number(s): 8000941,8000943,8000945,8000947,8000949,8000951,8000953,8000955,8000957 UNSPK: 8000955 BKG: 8000955								
Lead	102	103	75-125	1	20	N.D.	N.D.	0 (1)	20
Batch number: 15223667121B	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954 UNSPK: 8000940 BKG: 8000940								
Nitrate Nitrogen	97		90-110			N.D.	N.D.	0 (1)	15
Sulfate	99		90-110			3,400	3,600	7 (1)	15
Batch number: 15225005202A	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954 UNSPK: 8000948 BKG: 8000948								
Total Alkalinity to pH 4.5	96		90-110			50,100	51,500	3	5
Batch number: 15225023002A	Sample number(s): 8000940,8000942,8000944,8000948,8000950,8000954 UNSPK: P000516 BKG: P000516								
Sulfide	88*	62*	90-110	34*	16	N.D.	N.D.	0 (1)	5

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1583699
Reported: 10/18/2015 16:55

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: P152251AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8000939	99	96	99	100
8000940	100	97	99	99
8000942	100	95	99	99
8000944	101	95	98	99
Blank	98	97	98	99
LCS	100	99	100	101
MS	100	98	98	100
MSD	99	99	99	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: P152252AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8000946	100	97	99	98
8000948	100	97	100	99
8000950	100	96	99	99
8000952	100	97	100	100
8000954	99	97	99	99
8000956	99	97	100	99
Blank	100	97	100	100
LCS	101	101	100	99
LCSD	99	98	99	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15224A94A

	Trifluorotoluene-F
8000939	77
8000940	76
8000942	77
8000944	77
8000946	81
8000948	76
8000950	85
Blank	78
LCS	95
MS	104
MSD	104
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15225A94A

	Trifluorotoluene-F
8000952	75
8000954	75
8000956	76

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1583699
Reported: 10/18/2015 16:55

Surrogate Quality Control

Blank	91
LCS	92
LCSD	93
Limits:	63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 152260019A

	Propene
8000940	71
8000942	86
8000944	85
8000948	85
8000950	85
8000954	79
Blank	91
LCS	93
MS	86
MSD	89
Limits:	47-116

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 152290011A

	Orthoterphenyl
8000940	74
8000942	76
8000944	83
8000946	86
8000948	79
8000950	83
8000952	74
8000954	90
8000956	84
Blank	90
LCS	70
LCSD	90
Limits:	50-150

Analysis Name: NWTPH-Dx water
Batch number: 152290012A

	Orthoterphenyl
8000940	96
8000942	84
8000944	94
8000946	84
8000948	81
8000950	88
8000952	86
8000954	95
8000956	92
Blank	81
LCS	87
LCSD	88
Limits:	50-150

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1583699
Reported: 10/18/2015 16:55

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 For Eurofins Lancaster Laboratories use only Group # 1583699 Sample # FSS000939-57

Instructions on reverse side correspond with circled numbers. JH 8/11/15 (2)

(1) Client Information

Facility # SS#211556-OML G-R#386773 WBS

Site Address 101 Mulford Road, TOLEDO, WA

Chevron PM MHO Lead Consultant LEIDOSRS Russell Shropshire

Consultant/Office Gettler-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr. Deanna L. Harding, (deanna@grinc.com)

Consultant Phone # (925) 551-7444 x180

Sampler GM/AW

SCR #: _____

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	(3) Composite	(4) Matrix: Soil	Water	Sediment	Oil	Air	Potable	Ground	NPDES	Surface	Total Number of Containers	(5) Analyses Requested: BTEX + MTBE	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA VPH	WA EPH	Lead	Nitrate/Sulfate (EPA 300.0)	Methane (RSK SOP-175)	Dissolved Iron/Dissolved Manganese (6010B)	Sulfide (SM20 4500 S2D)	Alkalinity SM20 (2320B)
QA	8/10/15	—	X			W								2	X			X										
MW-103		0820												16					X	X			X	X	X	X	X	X
MW-112		0925																										
MW-113		1037																										
MW-115		1133												9														
MW-116		0925												16											X	X	X	X
MW-117		1230																										
MW-118		1020												9														
MW-119		0823												16											X	X	X	X
MW-120	↓	1125	↓			↓								9	↓			↓	↓	↓			↓					

- [ ] Results in Dry Weight
- [ ] J value reporting needed
- [ ] Must meet lowest detection limits possible for 8260 compounds
- [ ] 8021 MTBE Confirmation
- [ ] Confirm MTBE + Naphthalene
- [ ] Confirm highest hit by 8260
- [ ] Confirm all hits by 8260
- [ ] Run _____ oxy's on highest hit
- [ ] Run _____ oxy's on all hits

(6) Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

(7) Turnaround Time Requested (TAT) (please circle)

~~Standard~~ 5 day 4 day EDF/EDD 72 hour 48 hour 24 hour

Relinquished by	Date	Time	Received by	Date	Time
	8/10/15				
Relinquished by	Date	Time	Received by	Date	Time

(8) Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

Relinquished by Commercial Carrier: UPS X FedEx _____ Other _____

Received by: GLS Date: 8.11.15 Time: 950

Temperature Upon Receipt 2.3 - 4.7 °C

Custody Seals Intact? (Yes) 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)
C	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, 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.

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.

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

October 18, 2015

Project: 211556

Submittal Date: 08/12/2015
Group Number: 1584022
PO Number: 0015183585
Release Number: HORNE

State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA NA Water	8002757
MW-109 Grab Groundwater	8002758
MW-109 Filtered Grab Groundwater	8002759
MW-110 Grab Groundwater	8002760
MW-110 Filtered Grab Groundwater	8002761
MW-111 Grab Groundwater	8002762
MW-111 Filtered Grab Groundwater	8002763
MW-114 Grab Groundwater	8002764
MW-114 Filtered Grab Groundwater	8002765
B-1 Grab Groundwater	8002766
B-1 Filtered Grab Groundwater	8002767
B-2 Grab Groundwater	8002768
B-2 Filtered Grab Groundwater	8002769
B-3 Grab Groundwater	8002770
B-3 Filtered Grab Groundwater	8002771
B-4 Grab Groundwater	8002772
B-4 Filtered Grab Groundwater	8002773

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 http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO Leidos Attn: Russ Shropshire

ELECTRONIC COPY TO	Leidos	Attn: Jamalyn Agyei
ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA NA Water
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002757
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL-QA

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 Volatiles	**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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152252AA	08/13/2015 13:42	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152252AA	08/13/2015 13:42	Hu Yang	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/14/2015 18:03	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/14/2015 18:03	Marie D Beamenderfer	1

Sample Description: MW-109 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002758
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 07:45 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL109

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	130	29	1
08271	Heavy Range Organics C24-C40	n.a.	640	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	210	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 13:50	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 13:50	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/14/2015 22:18	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/14/2015 22:18	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 14:36	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 21:54	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1

Sample Description: MW-109 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002759
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 07:45 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	136	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	152256050001A	08/18/2015 01:55	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152256050001	08/16/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-110 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002760
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 10:18 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL110

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**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 Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.

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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 15:09	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 15:09	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/14/2015 22:44	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/14/2015 22:44	Marie D Beamenderfer	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 12:28	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 19:18	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1

Sample Description: MW-110 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002761
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 10:18 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.88	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	152256050001A	08/18/2015 01:57	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152256050001	08/16/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002762
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 10:00 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL111

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.	3	5
10945	Ethylbenzene	100-41-4	31	3	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	3	5
10945	Toluene	108-88-3	N.D.	3	5
10945	Xylene (Total)	1330-20-7	6	3	5
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	4,500	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	1,700	30	10
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	2,700	29	1
08271	Heavy Range Organics C24-C40	n.a.	93	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	470	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	1,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	169,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 18:42	Amanda K Richards	5

Sample Description: MW-111 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002762
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 10:00 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL111

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 18:42	Amanda K Richards	5
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/14/2015 23:09	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/14/2015 23:09	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152300001A	08/19/2015 09:16	Kristen N Brandt	10
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 12:49	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 19:40	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	15224667152B	08/13/2015 00:47	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15224667152B	08/13/2015 00:47	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005203A	08/13/2015 21:51	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15229023001A	08/17/2015 10:45	Susan E Hibner	1

Sample Description: MW-111 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002763
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 10:00 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	9,920	33.3	1
07058	Manganese	7439-96-5	3,740	0.80	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	12.5	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152291848001	08/18/2015 11:36	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	152291848001	08/18/2015 11:36	Eric L Eby	1
06035	Lead	SW-846 6020	1	152256050001A	08/18/2015 02:00	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152291848001	08/17/2015 23:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152256050001	08/16/2015 23:00	Annamaria Kuhns	1

Sample Description: MW-114 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002764
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 11:08 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TL114

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	130	29	1
08271	Heavy Range Organics C24-C40	n.a.	570	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	170	67	1

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 15:36	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 15:36	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15229D20A	08/18/2015 12:02	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15229D20A	08/18/2015 12:02	Brett W Kenyon	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 15:19	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 22:16	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1

Sample Description: MW-114 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002765
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 11:08 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6020**		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	39.2	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06035	Lead	SW-846 6020	1	152256050001A	08/18/2015 02:02	Tara L Snyder	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152256050001	08/16/2015 23:00	Annamaria Kuhns	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002766
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 07:45 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB01

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	89	28	1
08271	Heavy Range Organics C24-C40	n.a.	74	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**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%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	510	250	5
00228	Sulfate	14808-79-8	4,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	71,200	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 16:03	Amanda K Richards	1

Sample Description: B-1 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002766
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 07:45 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 16:03	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/15/2015 00:00	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/15/2015 00:00	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152300001A	08/18/2015 14:04	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 13:54	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 20:03	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	15224667152B	08/13/2015 01:02	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15224667152B	08/13/2015 01:02	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005203A	08/13/2015 20:26	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15229023001A	08/17/2015 10:45	Susan E Hibner	1

Sample Description: B-1 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002767
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 07:45 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	131	33.3	1
07058	Manganese	7439-96-5	138	0.80	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	N.D.	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152291848001	08/18/2015 11:40	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	152291848001	08/18/2015 11:40	Eric L Eby	1
06035	Lead	SW-846 6020	1	152296050003A	08/19/2015 04:25	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152291848001	08/17/2015 23:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152296050003	08/18/2015 07:58	Katlin N Cataldi	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002768
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 08:43 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB02

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 Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	N.D.	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	N.D.	29	1
08271	Heavy Range Organics C24-C40	n.a.	N.D.	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	610	250	5
00228	Sulfate	14808-79-8	4,000	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	90,100	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 16:29	Amanda K Richards	1

Sample Description: B-2 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002768
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 08:43 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 16:29	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/15/2015 00:26	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/15/2015 00:26	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152300001A	08/18/2015 14:22	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 13:10	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 20:25	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	15224667152B	08/13/2015 01:47	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15224667152B	08/13/2015 01:47	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005203A	08/13/2015 21:07	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15229023001A	08/17/2015 10:45	Susan E Hibner	1

Sample Description: B-2 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002769
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 08:43 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	1,770	33.3	1
07058	Manganese	7439-96-5	357	0.80	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	1.2	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152291848001	08/18/2015 11:49	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	152291848001	08/18/2015 11:49	Eric L Eby	1
06035	Lead	SW-846 6020	1	152296050003A	08/19/2015 04:27	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152291848001	08/17/2015 23:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152296050003	08/18/2015 07:58	Katlin N Cataldi	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002770
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 09:22 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB03

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	5	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	0.5	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	660	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	450	3.0	1
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	2,000	29	1
08271	Heavy Range Organics C24-C40	n.a.	550	67	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	130	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The reverse surrogate, capric acid, is present at <1%.					
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	9,800	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	161,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	N.D.	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 16:56	Amanda K Richards	1

Sample Description: B-3 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002770
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 09:22 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 16:56	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/15/2015 00:52	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/15/2015 00:52	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152300001A	08/18/2015 14:59	Kristen N Brandt	1
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 14:58	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 20:47	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	15224667152B	08/13/2015 02:03	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15224667152B	08/13/2015 02:03	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005203A	08/13/2015 21:45	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15229023001A	08/17/2015 10:45	Susan E Hibner	1

Sample Description: B-3 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002771
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 09:22 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved		**SW-846 6010B**	**ug/l**	**ug/l**	
01754	Iron	7439-89-6	12,800	33.3	1
07058	Manganese	7439-96-5	4,440	0.80	1
		SW-846 6020	**ug/l**	**ug/l**	
06035	Lead	7439-92-1	9.5	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152291848001	08/18/2015 11:52	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	152291848001	08/18/2015 11:52	Eric L Eby	1
06035	Lead	SW-846 6020	1	152296050003A	08/19/2015 04:32	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152291848001	08/17/2015 23:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152296050003	08/18/2015 07:58	Katlin N Cataldi	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002772
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 08:50 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB04

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	0.6	0.5	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**ug/l**	**ug/l**	
08273	NWTPH-Gx water C7-C12	n.a.	600	50	1
GC Miscellaneous	**RSKSOP-175 modified**		**ug/l**	**ug/l**	
07105	Methane	74-82-8	570	15	5
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
08271	Diesel Range Organics C12-C24	n.a.	500	28	1
08271	Heavy Range Organics C24-C40	n.a.	340	66	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**ug/l**	**ug/l**	
12005	DRO C12-C24 w/Si Gel	n.a.	66	28	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**EPA 300.0**		**ug/l**	**ug/l**	
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	2,500	1,500	5
	SM 2320 B-1997		**ug/l as CaCO3**	**ug/l as CaCO3**	
12150	Total Alkalinity to pH 4.5	n.a.	126,000	700	1
	SM 4500-S2 D-2000		**ug/l**	**ug/l**	
00230	Sulfide	18496-25-8	71	54	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.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	P152272AA	08/15/2015 17:22	Amanda K Richards	1

Sample Description: B-4 Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002772
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 08:50 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

TLB04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P152272AA	08/15/2015 17:22	Amanda K Richards	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	15225A94A	08/15/2015 01:17	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	15225A94A	08/15/2015 01:17	Marie D Beamenderfer	1
07105	Volatile Headspace Hydrocarbon	RSKSOP-175 modified	1	152300001A	08/19/2015 10:10	Kristen N Brandt	5
08271	NWTPH-Dx water	ECY 97-602 NWTPH-Dx modified	1	152360018A	08/26/2015 14:15	Christine E Dolman	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	152360019A	08/27/2015 21:09	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	152360019A	08/24/2015 21:00	David V Hershey Jr	1
11197	WA DRO NW DX Ext (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	152360018A	08/24/2015 21:00	David V Hershey Jr	1
00368	Nitrate Nitrogen	EPA 300.0	1	15224667152B	08/13/2015 02:18	Drew M Gerhart	5
00228	Sulfate	EPA 300.0	1	15224667152B	08/13/2015 02:18	Drew M Gerhart	5
12150	Total Alkalinity to pH 4.5	SM 2320 B-1997	1	15225005203A	08/13/2015 21:13	Michele L Graham	1
00230	Sulfide	SM 4500-S2 D-2000	1	15229023001A	08/17/2015 10:45	Susan E Hibner	1

Sample Description: B-4 Filtered Grab Groundwater
Facility# 211556 Job# 386773
101 Mulford Road - Toledo, WA

LL Sample # WW 8002773
LL Group # 1584022
Account # 11260

Project Name: 211556

Collected: 08/11/2015 08:50 by GM

Submitted: 08/12/2015 09:50
Reported: 10/18/2015 16:55

Chevron
6001 Bollinger Canyon Road
L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
Metals Dissolved	**SW-846 6010B**		**ug/l**	**ug/l**	
01754	Iron	7439-89-6	9,340	33.3	1
07058	Manganese	7439-96-5	2,050	0.80	1
	SW-846 6020		**ug/l**	**ug/l**	
06035	Lead	7439-92-1	0.89	0.13	1

General Sample Comments

State of Washington Lab Certification No. C457
This sample was field filtered for dissolved metals.

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 No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01754	Iron	SW-846 6010B	1	152291848001	08/18/2015 11:55	Eric L Eby	1
07058	Manganese	SW-846 6010B	1	152291848001	08/18/2015 11:55	Eric L Eby	1
06035	Lead	SW-846 6020	1	152296050003A	08/19/2015 04:15	Choon Y Tian	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	152291848001	08/17/2015 23:00	Annamaria Kuhns	1
06050	ICPMS-Water, 3020A - U3	SW-846 3020A	1	152296050003	08/18/2015 07:58	Katlin N Cataldi	1

Quality Control Summary

Client Name: Chevron Group Number: 1584022
Reported: 10/18/2015 16:55

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 Max
Batch number: P152252AA	Sample number(s): 8002757							
Benzene	N.D.	0.5	ug/l	103	101	78-120	2	30
Ethylbenzene	N.D.	0.5	ug/l	101	99	80-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	105	97	75-120	7	30
Toluene	N.D.	0.5	ug/l	103	100	80-120	2	30
Xylene (Total)	N.D.	0.5	ug/l	103	101	80-120	2	30
Batch number: P152272AA	Sample number(s): 8002758,8002760,8002762,8002764,8002766,8002768,8002770,8002772							
Benzene	N.D.	0.5	ug/l	100		78-120		
Ethylbenzene	N.D.	0.5	ug/l	98		80-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	101		75-120		
Toluene	N.D.	0.5	ug/l	99		80-120		
Xylene (Total)	N.D.	0.5	ug/l	100		80-120		
Batch number: 15225A94A	Sample number(s): 8002757-8002758,8002760,8002762,8002766,8002768,8002770,8002772							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	88	91	80-123	4	30
Batch number: 15229D20A	Sample number(s): 8002764							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	89		80-123		
Batch number: 152300001A	Sample number(s): 8002762,8002766,8002768,8002770,8002772							
Methane	N.D.	3.0	ug/l	102		85-115		
Batch number: 152360018A	Sample number(s): 8002758,8002760,8002762,8002764,8002766,8002768,8002770,8002772							
Diesel Range Organics C12-C24	N.D.	30.	ug/l	93	96	50-113	2	20
Heavy Range Organics C24-C40	N.D.	70.	ug/l					
Batch number: 152360019A	Sample number(s): 8002758,8002760,8002762,8002764,8002766,8002768,8002770,8002772							
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	62	41	32-117	42*	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 152256050001A	Sample number(s): 8002759,8002761,8002763,8002765							
Lead	N.D.	0.13	ug/l	103		80-120		
Batch number: 152291848001	Sample number(s): 8002763,8002767,8002769,8002771,8002773							
Iron	N.D.	33.3	ug/l	96		80-120		
Manganese	N.D.	0.80	ug/l	96		80-120		
Batch number: 152296050003A	Sample number(s): 8002767,8002769,8002771,8002773							
Lead	N.D.	0.13	ug/l	103		80-120		

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1584022
Reported: 10/18/2015 16:55

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 15224667152B	Sample number(s): 8002762,8002766,8002768,8002770,8002772							
Nitrate Nitrogen	N.D.	50.	ug/l	92		90-111		
Sulfate	N.D.	300.	ug/l	97		90-110		
Batch number: 15225005203A	Sample number(s): 8002762,8002766,8002768,8002770,8002772							
Total Alkalinity to pH 4.5	N.D.	700.	ug/l as CaCO3	100		90-110		
Batch number: 15229023001A	Sample number(s): 8002762,8002766,8002768,8002770,8002772							
Sulfide	N.D.	54.	ug/l	104		90-110		

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: P152272AA	Sample number(s): 8002758,8002760,8002762,8002764,8002766,8002768,8002770,8002772 UNSPK: 8002758								
Benzene	108	106	72-134	2	30				
Ethylbenzene	106	105	71-134	1	30				
Methyl Tertiary Butyl Ether	104	103	72-126	1	30				
Toluene	107	106	80-125	1	30				
Xylene (Total)	107	106	79-125	1	30				
Batch number: 15229D20A	Sample number(s): 8002764 UNSPK: P007981								
NWTPH-Gx water C7-C12	121	119	80-123	1	30				
Batch number: 152300001A	Sample number(s): 8002762,8002766,8002768,8002770,8002772 UNSPK: 8002762								
Methane	-283 (2)	-204 (2)	46-129	3	20				
Batch number: 152256050001A	Sample number(s): 8002759,8002761,8002763,8002765 UNSPK: P998753 BKG: P998753								
Lead	107	107	75-125	0	20	N.D.	N.D.	0 (1)	20
Batch number: 152291848001	Sample number(s): 8002763,8002767,8002769,8002771,8002773 UNSPK: P003784 BKG: P003784								
Iron	-768 (2)	-559 (2)	75-125	17	20	18,900	16,700	13	20
Manganese	53*	73*	75-125	14	20	432	412	5	20
Batch number: 152296050003A	Sample number(s): 8002767,8002769,8002771,8002773 UNSPK: 8002773 BKG: 8002773								
Lead	102	102	75-125	0	20	0.89	0.89	1 (1)	20
Batch number: 15224667152B	Sample number(s): 8002762,8002766,8002768,8002770,8002772 UNSPK: P001839 BKG: P001839								
Nitrate Nitrogen	100		90-110			N.D.	N.D.	0 (1)	15
Sulfate	92		90-110			12,800	12,100	5 (1)	15
Batch number: 15225005203A	Sample number(s): 8002762,8002766,8002768,8002770,8002772 UNSPK: P003874 BKG: P003874								

*- 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.

Quality Control Summary

Client Name: Chevron Group Number: 1584022
Reported: 10/18/2015 16:55

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 Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Total Alkalinity to pH 4.5	83*		90-110			65,600	66,100	1	5
Batch number: 15229023001A	Sample number(s): 8002762,8002766,8002768,8002770,8002772 UNSPK: P001566 BKG: P001566								
Sulfide	42*	45*	90-110	7	16	N.D.	N.D.	0 (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: BTEX/MTBE
Batch number: P152252AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8002757	100	94	98	98
Blank	100	97	100	100
LCS	101	101	100	99
LCSD	99	98	99	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: P152272AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8002758	100	95	99	98
8002760	100	97	99	98
8002762	100	97	98	98
8002764	100	97	99	100
8002766	100	95	99	99
8002768	99	96	99	99
8002770	100	95	99	103
8002772	99	95	99	101
Blank	100	97	99	100
LCS	100	98	100	100
MS	100	98	100	100
MSD	99	97	98	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15225A94A

	Trifluorotoluene-F
8002757	76
8002758	76
8002760	82
8002762	125
8002766	76
8002768	75
8002770	99
8002772	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.

Quality Control Summary

Client Name: Chevron
Group Number: 1584022
Reported: 10/18/2015 16:55

Surrogate Quality Control

Blank	91
LCS	92
LCSD	93
Limits:	63-135

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 15229D20A

	Trifluorotoluene-F
8002764	90
Blank	90
LCS	96
MS	103
MSD	105
Limits:	63-135

Analysis Name: Volatile Headspace Hydrocarbon
Batch number: 152300001A

	Propene
8002762	95
8002766	78
8002768	81
8002770	75
8002772	83
Blank	94
LCS	94
MS	77
MSD	72
Limits:	47-116

Analysis Name: NWTPH-Dx water
Batch number: 152360018A

	Orthoterphenyl
8002758	101
8002760	130
8002762	125
8002764	104
8002766	128
8002768	121
8002770	132
8002772	128
Blank	121
LCS	126
LCSD	122
Limits:	50-150

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 152360019A

	Orthoterphenyl
8002758	62
8002760	77
8002762	73
8002764	69
8002766	79
8002768	76
8002770	77

*- 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.

Quality Control Summary

Client Name: Chevron
Group Number: 1584022
Reported: 10/18/2015 16:55

Surrogate Quality Control

8002772	72
Blank	64
LCS	83
LCSD	63
Limits:	50-150

*- 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.

Chevron Northwest Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 11260 | For Eurofins Lancaster Laboratories use only: Group # 1584022 | Sample # 800757-73

Instructions on reverse side correspond with circled numbers.

SCR #: _____

1 Client Information

Facility # SS#211556-OML G-R#386773 | WBS

Site Address: 101 Mulford Road, TOLEDO, WA

Chevron PM: MHO | Lead Consultant: LEIDOSRS Russell Shropshire

Consultant/Office: Gettler-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, (deanna@grinc.com)

Consultant Phone #: (925) 551-7444 x180

Sampler: GM/AW

2 Sample Identification

3 Collected / Grab / Composite

4 Matrix

Soil | Sediment | Potable Water | Ground Water | NPDES | Surface Water | Air | Oil | Total Number of Containers

5 Analyses Requested

BTEX + MTBE | 8021 | 8260 | Naphth | 8260 full scan | Oxygenates | NWTPH-Gx | NWTPH-Dx with Silica Gel Cleanup | NWTPH-Dx without Silica Gel Cleanup | WA EPH | WA VPH | Lead | Total | Diss. | Method 6020 1ug/mL | DISSOLVED IRON/DISSOLVED MANGANESE (6010B) | SULFIDE (SM20 4500 S2D) | NITRATE/SULFATE E/A 300.0 METHANE (RSK-175) | ALKALINITY SM20 (2320B)

Sample Identification	Date	Time	Grab	Composite	Soil	Sediment	Potable Water	Ground Water	NPDES	Surface Water	Air	Oil	Total Containers	BTEX + MTBE	8021	8260	Naphth	8260 full scan	Oxygenates	NWTPH-Gx	NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel Cleanup	WA EPH	WA VPH	Lead	Total	Diss.	Method 6020 1ug/mL	DISSOLVED IRON/DISSOLVED MANGANESE (6010B)	SULFIDE (SM20 4500 S2D)	NITRATE/SULFATE E/A 300.0 METHANE (RSK-175)	ALKALINITY SM20 (2320B)
QA	8/11/15	—	X					W					2	X						X												
MW-109		0745											9								X	X										
MW-110		1018											↓																			
MW-111		1000											16																X	X	X	
MW-114		1108											9																			
B-1		0745											16																X	X	X	
B-2		0843											↓																			
B-3		0922																														
B-4	↓	0850	↓					↓					↓	↓						↓	↓	↓			↓	↓	↓		↓	↓	↓	↓	

6 Remarks

Please report results for Dx with & without sgc. Dissolved Iron, Lead, and Manganese, as well as Alkalinity samples have been field filtered.

Please forward lab results directly to the LC and cc: G-R. The TPW sample results should be forwarded directly to Deanna Harding

- ☐ Results in Dry Weight
- ☐ J value reporting needed
- ☐ Must meet lowest detection limits possible for 8260 compounds
- ☐ 8021 MTBE Confirmation
- ☐ Confirm MTBE + Naphthalene
- ☐ Confirm highest hit by 8260
- ☐ Confirm all hits by 8260
- ☐ Run _____ oxy's on highest hit
- ☐ Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)

Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

8 Data Package (circle if required)

Type I - Full

Type VI (Raw Data)

EDD (circle if required)

CVX-RTBU-FI_05 (default)

Other: _____

9

Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier: UPS X | FedEx _____ | Other _____

Received by: [signature] | Date: 8/12/15 | Time: 0950

Temperature Upon Receipt: 0.4-1.7 °C

Custody Seals Intact? Yes (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)
C	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, 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.

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.

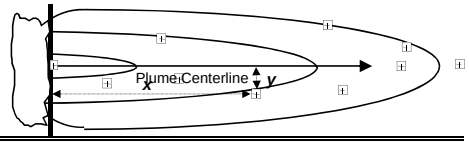
WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, 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.

Appendix C:
Input/Output of Natural Attenuation Analysis Tool Package – Module 2

leidos

Module 2: Inputs: Enter Historical Ground Water Data

Site Name:	*FORMER TEXACO SERVICE STATION NO. 211556*
Site Address:	*101 Mulford Road, Toledo, WA*
Additional Description:	*COWLITZ BP / COWLITZ FOOD AND FUEL*
Hazardous Substance	*TPH-GRO*



1. Monitoring Well information: Contaminant Concentration at a well: Note: relationship of "y/x ≤ 0.33" is preferred

Well Location:		Unit	B-4	B-3	MW-111													
Dist from source, x-direction		ft	0	0	50													
Off-centerline dist, y-direction		ft	34	30	12													
Sampling Event	Date sampled	day	Unit of concentration is ug/L															
#1	08/22/95	0	22,000	46,000	33,000													
#2	06/26/96	309	16,100	37,900	7,690													
#3	04/22/97	609	15,500	31,900	13,800													
#4	02/11/98	904	3,750	28,400	13,600													
#5	08/17/99	1456	2,700	29,600	17,600													
#6	06/13/00	1757	8,810	23,000	29,600													
#7	05/02/01	2080	12,300	17,200	17,700													
#8	01/27/05	3446	2,800	6,200	8,800													
#9	09/04/07	4396	3,200	10,000	6,800													
#10	05/06/09	5006	2,100	5,800	13,000													
#11	08/11/10	5468	170	5,900	9,200													
#12	08/24/11	5846	1,400	3,700	6,900													
#13	11/28/12	6308	1,200	500	5,200													
#14	09/13/13	6597	1,200	1,700	5,500													
#15	02/11/14	6748	1,800	480	4,800													
#16	08/21/14	6939	1,800	1,000	4,700													
#17	11/20/14	7030	1,300	900	6,000													
#18	02/20/15	7122	550	650	3,600													
#19	05/15/15	7206	940	1,400	4,400													
#20	08/11/15	7294	600	660	4,500													
Average Concentration			5011.0	12644.5	10819.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Concentration			22000	46000	33000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Minimum Concentration			170	480	3600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2. Groundwater Elevation:

Well Location:																		
Sampling Event	Date sampled	Day																
#1	8/22/95	0																
#2	6/26/96	309																
#3	4/22/97	609																
#4	2/11/98	904																
#5	8/17/99	1456																
#6	6/13/00	1757																
#7	5/2/01	2080																
#8	1/27/05	3446																
#9	9/4/07	4396																
#10	5/6/09	5006																
#11	8/11/10	5468																
#12	8/24/11	5846																
#13	11/28/12	6308																
#14	9/13/13	6597																
#15	2/11/14	6748																
#16	8/21/14	6939																
#17	11/20/14	7030																
#18	2/20/15	7122																
#19	5/15/15	7206																
#20	8/11/15	7294																

Module 2: Temporal Analysis: Concentration of contaminant vs. time (Regression Analysis at each well)

Site Name: *FORMER TEXACO SERVICE STATION NO. 211556*
Site Address: *101 Mulford Road, Toledo, WA*
Additional Description: *COWLITZ BP / COWLITZ FOOD AND FUEL*
Hazardous Substance *TPH-GRO*

1. Level of Confidence (Decision Criteria)? **85%**

2. Prediction: Calculation of Restoration Time and Predicted Concentration at Wells

Well Location		**B-4**	**B-3**	**MW-111**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
A. Cleanup Level (Criterion) to be achieved?	ug/L	800	800	800													
A.1 Average (@50% CL[1] best-fitting values)																	
Time to reach the criterion	yr	19.68	20.37	44.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Date when the Criterion to be achieved	date	4/21/15	12/29/15	2/18/40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A.2 Boundary (@85% CL)																	
Time to reach the criterion[2]	yr	23.67	22.21	53.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Date when the Criterion to be achieved	date	4/15/19	10/29/17	1/6/49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B Date of Prediction?	date																
B.1 Average conc predicted (@50% CL)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B.2 Boundary conc predicted (@85% CL)	ug/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

3. Log-Linear Regression Results

Coefficient of Determination	r^2	0.690	0.902	0.695	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Correlation Coefficient	r	-0.830	-0.950	-0.834	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of data points	n	20	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4. Statistical Inference on the Slope of the Log-Linear Regression Line with t-statistics

One-tailed Confidence Level calculated, %		99.999%	100.000%	99.999%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sufficient evidence to support that the slope of the regression line is significantly different from zero?		YES!	YES!	YES!	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Coefficient of Variation?		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Plume Stability?		Shrinking	Shrinking	Shrinking	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5. Calculation of Point Decay Rate Constant (k_{point})

Slope: Point decay rate constant (k_{point})	@50% CL	yr^{-1}	0.142	0.209	0.073	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	@85% CL	yr^{-1}	0.118	0.192	0.061	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Half Life for (k_{point})	@50% CL	yr	4.886	3.320	9.496	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	@85% CL	yr	5.876	3.619	11.392	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: 1. CL : Confidence Level; UD= Undetermined

2. The length of time that will actually be required is estimated to be no more than years calculated (@ 85% of confidence level.)