Quarterly Groundwater Monitoring Report – November 2018

Coleman Oil Company Facility
3 East Chehalis Street
Wenatchee, Washington

Prepared for:

Coleman Oil Company
335 Mill Road
Lewiston, Idaho 83501

January 8, 2019

Prepared by:

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HydroCon Project No: 2017-074

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Acronyms

amsl	above mean sea level
bgs	below ground surface
BNSF	Burlington Northern – Santa Fe Railroad
COC	Chemical of Concern
Coleman Oil	Coleman Oil Company
DRPH	diesel range petroleum hydrocarbons
Ecology	Washington Department of Ecology
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane
EEC	Environmental Engineering & Consulting, Inc.
EPA	Environmental Protection Agency
GRPH	gasoline range petroleum hydrocarbons
HydroCon	HydroCon Environmental LLC
µg/L	micrograms per liter
LCS/LCSD	Laboratory Control Sample/ Laboratory Control Sample Duplicates
LNAPL	light nonaqueous-phase liquid
MDL	method detection limit
MRL	method reporting limit
MTBE	Methyl tert-butyl ether
MTCA	Model Toxics Control Act
ORPH	oil range petroleum hydrocarbons
PAHs	polynuclear aromatic hydrocarbons
PID	photoionization detector

EXECUTIVE SUMMARY

This Quarterly Groundwater Monitoring Report provides the scope and findings of groundwater monitoring that was performed in November 2018. This monitoring event was performed to assess groundwater quality at the Site following the completion of the Supplemental Remedial Investigation (SRI) performed earlier in the year as well as to document the direction and gradient of groundwater flow.

Quarterly groundwater monitoring will continue for the foreseeable future until a reduced monitoring schedule is approved by the Washington State Department of Ecology (Ecology). Quarterly groundwater monitoring includes the following tasks and reporting:

- Collect depth to water and product thickness measurements at the Site monitoring wells while the pumping system is active.
- Turn off the pumps at monitoring wells MW09R, MW10R, BH-1, MW24, MW28, MW29, and MW30 where product recovery is being performed.
- Collect depth to water and product at each of the Site monitoring and recovery wells the day after the pumps have been turned off.
- Collect groundwater samples for chemical analysis at selected wells listed on Table 6.
- Review the laboratory results and perform a data validation review and summary.
- Place the depth to water, product level information, and analytical data into summary tables.
- Prepare a discussion on the laboratory results, groundwater flow direction and gradient, and recommendations for future work.
- Update the tentative schedule of future quarterly groundwater monitoring events.

1.0 INTRODUCTION

HydroCon Environmental, LLC (HydroCon), has prepared this Draft Quarterly Groundwater Monitoring Report on behalf of Coleman Oil Company (Coleman Oil) to assess groundwater quality following the release of renewable diesel (R99) fuel from leaking underground piping at the Coleman Oil fuel storage facility at 3 Chehalis Street in Wenatchee, Washington (herein referred to as the Property). This report has been prepared to meet the requirements of Exhibit B – Scope of Work and Schedule of Agreed Order No. DE 15389 entered into by Coleman Oil Company, LLC; Coleman, Services IV, LLC; and Ecology with an effective date of October 30, 2017 (Agreed Order).

The Site, as defined under the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC §173-340-200), comprises the portion of the Property and adjacent properties where hazardous substances have come to be located in soil, groundwater, and surface water at concentrations suspected to exceed applicable cleanup levels as a result of releases at the Property (herein referred to as the Site).

1.1 *Document Organization*

The Quarterly Groundwater Monitoring Report is organized as follows:

Section 2, Background Information, provides a description of the Site, Property ownership, and geologic and hydrogeologic setting.

Section 3, Field Work

Section 4, Quarterly Groundwater Monitoring Results

Section 5, Discussion

Section 6, Future Monitoring Schedule

Section 7, Qualifications

Section 8, References

2.0 BACKGROUND INFORMATION

The following section provides a summary of the Site location and description, geologic setting, historical land use, environmental history, and contaminants and media of concern at the Site. Most of the information provided below is summarized from the Supplemental Remedial Investigation (SRI) Work Plan (HydroCon 2018a) and the Draft SRI Report (HydroCon 2018b).

2.1 *Site Description*

The Site is located at 3 Chehalis Street in Wenatchee, Washington. The Site is located nearly adjacent to the west side of the Columbia River. Land use near the Site is primarily industrial (Figure 1).

2.2 *Site History*

This section provides a brief Site history, focusing on the discovery of a release of R99 in March 2017. Additional Site history is documented in the SRI Report.

The Site currently operated by Coleman Oil has been in operation as a bulk fuel facility since 1921. Coleman Oil has operated the bulk fuel facility since Coleman Services IV, LLC purchased the Property in January 2007.

A petroleum sheen was discovered on the west side of the Columbia River approximately 300 feet north of the Site on March 17, 2017. Subsequent line tightness testing revealed that two lines could not hold pressure and a review of Coleman Oil inventory records indicated that the release was most likely from the R99 renewable diesel fuel line. Oil storage, loading and unloading of trucks for oil distribution was terminated in 2017 except for a small underground storage tank that supplies fuels to the adjacent cardlock fueling facility.

Subsequent testing included the installation of groundwater monitoring wells, soil borings, and test pits in phases between March and September 2017 by Farallon (2017) and March and April 2018 by HydroCon (2018b) (Figure 2). This testing indicated soil and groundwater had been impacted at concentrations above MTCA Method A cleanup levels, including impacts to soil and groundwater near the location of the sheen.

2.3 *Remedial Measures*

Several remedial measures have taken place at the Site since the discovery of the release.

- Pads and booms have been placed in the Columbia River in the observed sheen discharge area to recover product since discovery of the release. This practice has continued along with daily reporting regarding Columbia River conditions.

- A remedial excavation was performed on the Coleman Oil facility near the point of release. Approximately 741 tons of petroleum contaminated soil was removed for offsite disposal.
- Sumps were placed in the remedial excavation backfill. Pumps were placed in the sumps to recover product and maintain a cone of depression to minimize product migration. Effluent from the sumps was routed to an oil/water separator and settling tanks prior to treatment using granular activated carbon (GAC). The treated water was disposed under permit into the City of Wenatchee's sanitary sewer system.
- Farallon Consulting and Ecology's consultant (Environmental Partners, Inc. [EPI] installed fifteen wells at the Site (MW-1 through MW-11, BH-1 through BH-3, and RW-1). Product recovery via skimming using a peristaltic pump and tubing and/or passive recovery using hydrophobic socks has occurred in some of the wells.
- In April 2018, HydroCon performed a supplemental remedial investigation (SRI) that included the addition of fourteen new 4-inch diameter monitoring wells (MW12 through MW23, MW01S, MW03S). Three wells with persistent LNAPL measurements (MW-9, MW-10, and BH-1) were fitted with pumps and connected with underground piping for pressurized air to operate the pumps, and conduit for electrical control and effluent piping to collect the recovered groundwater and product. The recovered groundwater and product from these wells are routed through three oil/water separators, into storage tanks and then through filtration and GAC and into storage tanks. The treated water is analyzed prior to discharge in batches under an agreement between Coleman Oil and the City of Wenatchee into the City's sanitary sewer system. Pumping of the three wells began on May 5, 2018.
- In August 2018 nine new 4-inch diameter monitoring wells (MW24 through MW32) were installed at the Site. Two of the wells used to recover product and contaminated groundwater (MW-9 and MW-10) were deepened, completed as 4-inch diameter wells, and renamed MW09R and MW10R, respectively.
- A surface release of diesel and gasoline that was stored in a 55-gallon drum at the Site occurred near the northeastern corner of Tank Farm A in early September 2018. A total of 16.83 tons of petroleum contaminated soil was removed by remedial excavation. Confirmation soil sampling results indicated that the lateral extent of contamination had been removed. However, the concentration of gasoline range petroleum hydrocarbons (GRPH) and diesel range petroleum hydrocarbons (DRPH) in the floor sample collected near the groundwater interface exceeded their respective MTCA Method A cleanup levels. No further excavation was attempted due to the presence of the Tank Farm A containment and a massive boulder that was too large to remove using the excavation equipment. Further remedial action in this area will be considered in the feasibility study that will be prepared for the Site.
- The remediation system was expanded in November 2018 to include six more recovery points (MW17, MW24, MW28, MW29, MW30, and MW32). The modified remediation system now consists of three separate zones that pump LNAPL and contaminated groundwater into an associated OWS. These zones include the MW09R zone (MW09R, MW17, and MW32) with only MW09R currently active; the MW10R zone (W10R, MW24, and MW28) with all 3 wells

active; and the BH-1 zone (BH-1, MW29, and MW30) with all 3 wells active. The expanded remediation system began pumping on November 2, 2018.

As of early June 2018, a total of 404.30 gallons of R99 had been recovered (HydroCon 2018b).

2.4 *Geologic & Hydrogeologic Setting*

The Site is located in the Wenatchee Valley approximately 150 feet west south-west of the Columbia River at an elevation of approximately 660 feet above mean sea level (Figure 1). The topography of the Site slopes very gently to the north north-west parallel to the Columbia River.

The soils beneath the Site are consistent with ice-age alluvial deposits underlain by the Chumstick Formation bedrock. The alluvium consists primarily of silt and silty sand, with layers of clay, sand, gravel and cobbles. The thickness of the alluvial deposits ranges from 6 to 31.5 feet. Boring logs and drilling observations indicate that a more massive, well cemented sandstone layer is beneath thin layers of mudstone, shale and sandstone and the sandstone appears to be acting as an aquitard in this area. The groundwater level is within a few feet of the top of the Chumstick Formation and always above the sandstone layer. An exception is at MW22 where the groundwater is approximately 15 feet above the top of the Chumstick formation. The MW22 area has been disturbed by previous excavation and has been backfilled with construction and other debris.

Contaminant transport and groundwater flow appears to follow the surface of the Chumstick formation and field observations paired with analytical data suggest that the petroleum contamination penetrates a few feet into the formation and travels laterally within the shaley sandstone and shale/siltstone/mudstone of the Chumstick formation. The groundwater flow direction and the dip of the sandstone surface are both to the north/ northeast except in the region between the Site and the Columbia River where both are more to the east. Aquifer testing performed in February 2018 demonstrated that none of the wells tested are hydraulically connected. However, over 200 gallons of R99 (based on product recovery totals) has been recovered from the Columbia River with the apparent discharge points being west of monitoring wells BH-2 (south) to MW-10 (north).

2.5 *Hydraulic Testing*

Hydraulic testing of the aquifer beneath the Site has been conducted on two occasions and are briefly summarized here.

Six wells were subjected to step-drawdown testing in February 2018 (HydroCon 2018c). Three wells (RW-1, BH-2, and BH-3) could not sustain the initial step pumping rate of 0.25 gallons per minute (gpm) and dewatered after pumping approximately the amount of water stored in the well screen and surrounding sand pack. Wells BH-1, MW-9, and MW-10 sustained step flow rates of between 2.0 and 2.5 gpm before water levels reached target elevations. Drawdown was not observed in any nearby monitoring wells during the six step-drawdown tests. Analysis of the drawdown data indicated that at a pumping rate of 1.75 gpm the three wells would produce approximately 3.5 feet of drawdown in the

aquifer adjacent to the pumping well and the cone of influence would extend out to approximately 100 feet as defined by a drawdown of 0.1 feet.

Slug testing or falling head testing was performed on May 21, 2018 to observe relative flow rates of select wells on the Coleman oil property in an attempt to better understand contaminant flow across the Site. Slug testing included MW-7, MW-8, MW-9, MW-11, MW13, MW14, MW16, MW17, MW19, MW20, MW22, and MW23.

A falling-head test is conducted by rapidly raising the water level in the control well and subsequently measuring the falling water level. The results of the slug tests show that MW-6, MW-11, MW-17 and MW-22 had high flow rates; MW-8, MW14, MW16, MW20 and MW23 had medium flow rates; and MW-7, MW13, MW19, and MW21 had low flow rates. The relative flow rates are highly variable across the Site; however, there is a good correlation between wells with high flow rates and high product recovery.

Based on the testing described above, pumps were installed at monitoring wells MW-9, MW-10, and BH-1. With the exception of minor equipment problems, the wells have been in operation since May 5, 2018, however, they only operate when water is at the level of the pump. When the pumps are activated, they pump at a rate of approximately 2 gpm as determined by the hydraulic testing. As such, the pumps achieve the goal of maintaining water levels at target depths and thereby reducing migration to the river.

2.6 *Previous Groundwater Monitoring*

Farallon collected reconnaissance groundwater samples from push-probe borings FB-9 and FB-10 on April 7, 2017. Results of these samples indicated that GRPH, DRPH, and benzene exceeded their respective MTCA Method A cleanup level. The concentration of oil range petroleum hydrocarbons (ORPH) exceeded the MTCA Method A cleanup level in the sample collected from FB-9. The lab reported that the sample collected from FB-10 had no detection of ORPH but the laboratory method reporting limit (MRL) used in the analysis exceeded the MTCA Method A cleanup level.

Monitoring wells MW-1, MW-2, MW-4, and MW-5 were sampled on March 23, 2017 prior to the installation of new monitoring wells at the Site in April 2017. The samples were analyzed for DRPH and ORPH only. There was no detection of DRPH or ORPH in the samples collected from MW-2, MW-4, or MW-5. The sample collected from MW-1 had a concentration of DRPH slightly above the MTCA Method A cleanup level and ORPH slightly below the MTCA Method A cleanup level.

A Site-wide groundwater monitoring and sampling event occurred on April 20 and 21, 2017 after the installation of wells MW-6 through MW-11, BH-1 through BH-3, and RW-1. Groundwater samples were not collected from monitoring wells MW-8 and MW-9 due to the presence of LNAPL at these locations. Monitoring well MW-2 was not sampled due to historic results of no detection of any contaminant above the respective MRLs.

Another Site-wide groundwater monitoring and sampling occurred on September 28 and 29, 2017. Groundwater samples were not collected from monitoring wells BH-1 and BH-2 due to lack of water in

these wells. DRPH, ORPH, GRPH, and/or benzene were detected at concentrations exceeding their respective MTCA Method A cleanup levels in monitoring wells BH-1 through BH-3, MW-1, and MW-6 through MW-11 and in recovery well RW-1 during the April and/or September groundwater sampling events.

HydroCon performed a quarterly groundwater monitoring and sampling event in April 2018 after additional wells (MW12 through MW23 and MW01S and MW03S) were installed during the SRI. Groundwater samples were collected from monitoring wells MW01S, MW-2, MW03S, MW-4 through MW14, MW16, MW17, MW19 through MW23, BH-1, BH-2, BH-3, and RW-1. Groundwater samples were not collected from MW15 and MW18 due to a lack of water. Groundwater samples were not collected from MW-1 and MW-3 due to improper well construction.

In August 2018, HydroCon installed monitoring wells MW24 through MW32 to facilitate interim remedial actions and to fill data gaps for the SRI (HydroCon 2018d). This report includes the second sampling results for these wells.

The construction details for all wells, including well depth, screened intervals, screen diameters, are summarized on Table 1.

2.7 *Monitoring Well Identification*

HydroCon utilizes a well and boring identification convention that differentiates wells and boring installed by HydroCon verses installations by others. Well and borings installed by others include a hyphen in the identification (e.g., MW-11, BH-1) whereas those installed by HydroCon do not include a hyphen (e.g., MW12, HC01).

3.0 FIELD WORK

This section describes the sampling procedures, analytical methods, groundwater conditions, and laboratory results. A data quality review is included.

3.1 *Groundwater Sampling Procedures*

Depth to water and product thickness were measured in all the Site wells on two dates. The first measurements were collected on November 26, 2018 prior to the start of groundwater sampling with the pumping wells still active. The pumps on monitoring wells MW09R, MW10R, BH-1, MW24, MW28, MW29, and MW30) were turned off on November 27, 2018 prior to the start of groundwater sampling. The second round of water level and product thickness measurements were collected on November 30, 2018 after completion of groundwater sampling (Table 2). Prior to collection of depth to water measurements, the well cap on each well was removed and the water level was allowed to equilibrate. The depth to water in each well was measured using a clean electronic water level indicator. Water levels were measured at the scribed reference mark (north side of the top of the polyvinyl chloride casing) at each well.

HydroCon collected groundwater samples on November 27 through December 1, 2018 from 33 monitoring and recovery wells (Tables 2 and 3). The following wells shown on Table 2 were not sampled for the following reasons:

- FB-9 and FB-10 are reconnaissance groundwater samples. Monitoring wells were not installed in these direct-push boreholes.
- HydroCon did not collect groundwater samples from MW-2, MW-4, MW-5, and MW22. HydroCon petitioned Ecology to cease sampling in these wells due to improper well construction (MW-2 and MW-4), no detection of chemicals of concern (COCs) in the well (MW-5), and MW22 being located outside of the plume that originates at the Coleman Oil Site. This request was approved by Ecology[1].
- MW15 and MW18 were not sampled due to insufficient water in the wells.
- Groundwater samples were collected using the pneumatic pump installed in the well at monitoring wells MW28 and BH-1. This was done due to water levels being below the top of the pumps at each of these wells preventing access to groundwater via sample tubing.

Three field duplicate samples (MW107, MW108, and MW109) were collected from MW-6, MW17, and BH-1, respectively for quality assurance/quality control (QA/QC) purposes.

Prior to groundwater sampling, monitoring wells were purged with a low-flow peristaltic pump equipped with a new length of low-density polyethylene tubing attached to a new length of silicone tubing in

[1] Washington State Department of Ecology. *email dated November 21, 2018 and November 26, 2018*.

accordance with U.S. Environmental Protection Agency (EPA) guidance for low-flow sampling[2]. The tubing intake was placed approximately 2 to 3 feet below the surface of the groundwater or mid-screen in each well. During purging, water quality was monitored using a Quanta multi-parameter water quality meter equipped with a flow-through cell. The water quality parameters monitored and recorded included temperature, pH, specific conductance, dissolved oxygen, turbidity, and oxidation-reduction potential. Each well was purged until all six water quality parameters stabilized or the minimum parameter subset of pH, specific conductance, temperature, and turbidity and/or dissolved oxygen stabilized. *Groundwater Sample Collection Forms* and *Daily Field Reports* are included as Appendix A.

Following purging, groundwater samples were collected from the pump outlet tubing located upstream of the flow-through cell and placed directly into clean, laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, placed on ice in a cooler, and transported under chain-of-custody to APEX laboratory of Tigard, Oregon, for laboratory analysis.

Purge water generated during the monitoring event was placed in an appropriately labeled 55-gallon steel drum and temporarily stored on the Property pending receipt of analytical data for proper disposal.

3.2 *Laboratory Analysis*

The analytical protocols for the samples collected at the Property include the required testing for petroleum releases for gasoline (Table 830-1 in the MTCA Cleanup Regulations Chapter 173-340 WAC). The analytical methods include:

- GRPH using Northwest Method NWTPH-Gx.
- DRPH and ORPH using Northwest Method NWTPH-Dx.
- BTEX using EPA Method 8260C.

[2] *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures (April 1996). EPA/540/S-95/504*

4.0 QUARTERLY GROUNDWATER MONITORING RESULTS

4.1 *Groundwater Conditions*

Groundwater levels in the Site monitoring wells were measured twice during the groundwater sampling event. The depth to water in the wells was measured on November 26, 2018 while the groundwater extraction system was still active. HydroCon turned the extraction system off on November 27, 2018. Water levels were measured again on November 30, 2018. Depth to water measurements and calculated groundwater elevations for each set of measurements are summarized on Table 2. It should be noted that monitoring wells MW15, MW18, and MW19 were dry on November 26th and monitoring wells MW15 and MW18 were dry on November 30, 2018. The depth to water in BH-1 could not be measured on either date due to the water level being below the top of the pump that has been installed in the well.

On November 26, 2018 the depth to water at the Site ranged from 7.78 feet bgs (MW-3) to 38.34 feet bgs (MW-5) and groundwater elevations ranged from 616.79 (MW10R) to 650.48 (MW-3) feet above mean sea level (AMSL). A groundwater elevation contour plot was prepared from this data set (Figure 3). Groundwater flow across the Site was generally to the northeast with a more easterly flow in the southern portion of the Site. The groundwater gradient between MW13, near the middle of the property, and MW22 was 0.050 ft/ft. The gradient in the southern portion of the Site between MW-2 and MW-5 is much steeper at 0.44 ft/ft.

On November 30, 2018 the depth to water at the Site ranged from 7.89 feet bgs (MW-3) to 38.44 feet bgs (MW-5) and groundwater elevations ranged from 617.11 (MW22) to 650.37 (MW-3) feet above mean sea level (AMSL). A groundwater elevation contour plot was prepared from this data set (Figure 4). Groundwater flow across the Site was generally to the northeast with a more easterly flow in the southern portion of the Site. The groundwater gradient between MW13, near the middle of the property, and MW22 was 0.052 ft/ft. The gradient in the southern portion of the Site between MW-2 and MW-5 is much steeper at 0.44 ft/ft.

Vertical gradients were calculated for well pairs MW-1/MW01S and MW-3/MW03S located in the southern portion of the Site. These well pairs are located within 10 horizontal feet of each other. The vertical hydraulic gradient within an aquifer (or between two aquifers separated by an aquitard) is calculated by dividing the difference in hydraulic head (or water level elevation) by the vertical (elevation) distance between the well screen midpoints. Table 5 provides the parameters and calculations for the vertical gradients of the well pairs.

The groundwater elevations for each well pair are very similar with slightly higher elevations for the deeper wells (MW-1 and MW-3) indicating a very slight upward vertical gradient. The calculated vertical gradient for MW-1/MW01S was 0.094 and 0.086 ft/ft for the November 26 and 30 measurements. The vertical gradients for MW-3/MW03S were 0.019 and 0.017 ft/ft for the November

26 and 30 measurements, respectively. These very small vertical gradients indicate that vertical gradients do not play a significant role in contaminant distribution or transport, at least in the southern portion of the Site. The vertical gradients for MW-1/MW01S were nearly identical to the August 2018 measurements. The gradients for MW-3/MW03S were about 60 percent less than the gradients measured in August 2018.

4.2 *Groundwater Sampling Results*

Laboratory analytical results are reported as micrograms per liter (µg/L) or parts per billion. The results are provided on Table 3 and laboratory reports are included as Appendix B. A summary of the results for each constituent sampled is provided below.

Gasoline Range Petroleum Hydrocarbons

GRPH was detected above the laboratory's method reporting limit (MRL) in 15 wells including MW-1, MW-6, MW-8, MW09R, MW10R, MW-11, MW13, MW14, MW17, MW20, MW21, MW24, MW28, BH-1, and BH-2. The concentration ranged up to 22,400 µg/L with the highest at MW13. The MTCA Method A cleanup level of 800 µg/L for GRPH was exceeded in the samples collected from MW-8, MW09R, MW10R, MW-11, MW13, MW14, MW17, and BH-1.

Diesel Range Petroleum Hydrocarbons

DRPH was detected above the MRL in 20 wells ranging up to 7,040 µg/L with the highest concentration at BH-2. The only wells that did not have a detection of DRPH above the MRL were MW01S, MW03S, MW-5, MW19, MW14, MW26, MW27, MW31, and MW32. The MTCA Method A cleanup level for DRPH of 500 µg/L was exceeded in the samples collected from MW-6, MW-8, MW09R, MW10R, MW-11, MW13, MW14, MW17, MW20, MW21, MW24, BH-1, BH-2, and BH-3.

Oil Range Petroleum Hydrocarbons

ORPH was detected above the MRL in MW29 at a concentration of 809 µg/L. This concentration exceeds the MTCA Method A cleanup level of 500 µg/L. It should be noted that the MRL in the MW10R sample had to be elevated due to matrix interference to a concentration of 755 µg/L. This concentration is above the MTCA Method A cleanup level. HydroCon placed an "ec" qualifier on this result indicating that the MRL exceeds the MTCA cleanup level.

Benzene

Benzene was detected in four wells above the MRL including MW-8, MW13, MW14, and MW17 at concentrations ranging up to 1,380 µg/L. The highest concentration was seen in MW13. The MTCA Method A cleanup level for benzene of 5 µg/L was exceeded in MW13 and MW14.

Toluene

Toluene was detected above the MRL in MW13 at a concentration of 271 µg/L. This concentration is below the MTCA Method A cleanup level.

Ethylbenzene

Ethylbenzene was detected in five wells above the MRL including MW-8, MW10R, MW13, MW14, and BH-1 at concentrations up to 458 µg/L. The concentration in MW13 exceeds the MTCA Method A cleanup level of 700 µg/L.

Total Xylenes

Total xylenes were detected above the MRL in 3 wells including MW-8, MW10R, and MW13 at a concentration up to 3,170 µg/L. The concentration in MW13 exceeds the MTCA Method A cleanup level of 1,000 µg/L.

Polynuclear Aromatic Hydrocarbons

Polynuclear Aromatic Hydrocarbons (PAHs) were not analyzed in any of the wells during this sampling event. Historical results are provided in Table 4.

4.3 *Data Quality Review*

Laboratory testing of groundwater are included in Appendix B as APEX Work Orders A8H0926. The *Data Quality Review Report* is included in Appendix C. The review of the analytical results included the following:

- Holding Times & Sample Receipt
- Surrogate Compounds
- Associated Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- Associated Laboratory Duplicate
- Laboratory Control Sample/ Laboratory Control Sample Duplicates (LCS/LCSD)
- Method Blank
- Field Duplicates
- Target Analyte List
- Reporting Limits (MDL and MRL)
- Reported Results

Data were qualified by the laboratory due to matrix interference, compound identification issues, limited sample volume and/or LCS/CCV recoveries. These qualifiers resulted in validation qualifiers of estimated quantity (J) and estimated and not detected (UJ). No data were rejected and completeness was 100 percent.

APEX flagged the samples as having exceeded the 6 degree Celsius temperature threshold for samples submitted to the laboratory. HydroCon placed the samples in a dedicated refrigerator at work on Saturday evening after returning from the quarterly groundwater sampling event. On Monday morning the samples were placed into a cooler and immediately transported to the lab. HydroCon did not place ice into the sample cooler. The lab took temperature measurements and the results exceeded the lab's threshold. HydroCon placed ice into the coolers and the temperature was quickly reduced to acceptable levels prior to sample check in. Mr. Kent Patton (Director of Technical Services) wrote an analytical narrative in the laboratory report indicating that it was his opinion that the limited temperature exceedances of the samples combined with the proper use of acid preservation in the field will not affect the analytical results of the samples.

All results are usable for their intended purpose. Data qualifications are identified in detail in full *Data Validation Report* included in Appendix C.

5.0 DISCUSSION

This section provides a discussion of the August 2018 quarterly groundwater monitoring event.

5.1 *Discussion of Laboratory Results*

Results of the November 2018 quarterly groundwater monitoring event indicated that fifteen wells at the Site (MW-6, MW-8, MW09R, MW10R, MW-11, MW13, MW14, MW17, MW20, MW21, MW24, MW29, BH-1, BH-2, and BH-3) have one or more COCs above their respective MTCA Method A cleanup level. Monitoring wells MW15 and MW18 lacked sufficient water so no samples could be obtained to assess water quality in these wells.

5.2 *Trends in Groundwater Chemistry*

HydroCon has prepared trend plots of GRPH and DRPH at selected wells that have at least four sampling results including MW-1, MW-6, MW-7, MW-8, MW-9/MW09R, MW-10/MW01R, MW-11, BH-1, BH-2, BH-3, and RW-1 (Figures 5a, 5b, 5c, and 5d). Trend plots were not prepared for two wells that have at least four sampling results (MW-4 and MW-5) because there has been no detection of any of those constituents in the wells. A discussion of groundwater trends of each these wells are provided below.

BH-1 – The concentration of dissolved phase DRPH generally decreased since it was first sampled in April 2017. Pumping began in this well in May 2018. A significant increase in DRPH has been observed compared to the previous quarter results. The concentration of GRPH fluctuates in this well with an overall increasing trend observed.

BH-2 – The concentration of DRPH appears to be fluctuating with no apparent trend. A decreasing trend in GRPH is observed in this well.

BH-3 – A consistent decreasing trend in DRPH is observed in this well. The concentration of DRPH increased compared to last quarter's results. The concentration of GRPH decreased significantly from its high in April 2017. A generally flat trend has been observed since.

RW-1 - A decreasing trend in DRPH was observed from its high in April 2017. However, a slight increasing trend is observed compared to the April 2018 sample results.

MW-1 – A consistent decreasing trend of DRPH is observed from the highest concentration recorded in April 2017. The concentration of GRPH fluctuates between 200 to 450 µg/L, well below the MTCA Method A cleanup level.

MW-6 - The concentration of DRPH and GRPH appear to be fluctuating but are both lower than their highs in April 2017.

MW-7 - The concentration of DRPH and GRPH decreased significantly from their respective highs in April 2017. The trend is now relatively flat.

MW-8 – A decreasing trend in DRPH is observed in this well. An overall decreasing trend in GRPH is also observed. However, a slight increasing trend in GRPH is seen in the last two samples.

MW-9/MW09R – The concentration of DRPH and GRPH fluctuates in this well with no apparent trend. Pumping began in this well in May 2018.

MW-10/MW10R – The concentration DRPH fluctuates in this well. The concentration has significantly decreased since its high in September 2017. The trend of GRPH is relatively flat with the concentration ranging from 1,080 to 2,290 µg/L. Pumping began in this well in May 2018.

MW-11 – The trend for DRPH in the well has decreased from its high in September 2017. A slight increase in DRPH is noted compared to the previous quarter results. The concentration of GRPH fluctuates between 944 to 1,400 µg/L. The trend is relatively flat.

5.3 *Extent of Groundwater Contamination*

The November 2018 groundwater results for GRPH and DRPH are plotted on Figures 6 and 7 and iso-concentration contours were prepared to illustrate the magnitude and extent of each contaminant at the Site. Red colored shading was used to graphically display the plume boundary. Areas of higher concentration of are shaded in darker red. The seep area (soil samples SL01 through SL04) are included on the figures since the seep water is in contact with impacted soil and shows the relationship of this area to areas of impacted groundwater.

The extent of DRPH contamination in groundwater is illustrated on Figure 6. A plume of DRPH impacted groundwater is present from the Coleman Oil facility near MW-13 and extends northwest towards monitoring well MW-21. There are four localized areas within the plume that have elevated DRPH concentrations:

- The area near monitoring wells MW-13 and MW-14. The highest concentration of DRPH (3,250 µg/L) is seen in MW-13 which is located within the footprint of former Tank Farm B and next to the Control Valve Building.
- The area in between monitoring wells MW-17 and BH-2. The highest concentration of DRPH (7,040 µg/L) is seen in BH-2. Pumping well MW09R is located between these wells.
- The area in between monitoring wells MW-20 and BH-1. The highest DRPH concentration (5,120 µg/L) is seen in BH-1, which is used as a groundwater and product extraction well.
- The area in between monitoring wells MW-21 and MW10R. The highest DRPH concentration (1,370 µg/L) is seen in MW-10R, which is used as a groundwater and product extraction well.

Areas with DRPH concentrations less than 500 µg/L (Method A cleanup level) include the area of the Coleman property south of Tank Farm A, most of the east half of the Coleman Property and adjacent Worthen Street, the northwest portion of the Coleman Property, and the line of wells on Worthen Street including and between MW25 and MW28. This latter area is in closest proximity to the observed seep areas and reinforces the role of preferential pathways in the distribution of subsurface contaminants.

The extent of GRPH contamination in groundwater is illustrated on Figure 7. A plume of GRPH impacted groundwater is present from the Coleman Oil facility near MW-13 and extends northwest towards monitoring well MW-21. There are five localized areas within the plume that have elevated GRPH concentrations:

- The area near monitoring wells MW-13 and MW-14. The highest concentration of GRPH (22,400 µg/L) is seen in MW-13 which is located within the footprint of former Tank Farm B and next to the Control Valve Building. Further assessment of GRPH in this area of the Site will be performed in January 2019.
- The area in between monitoring wells MW-11 and MW-8 have GRPH ranging from 921 to 1,350 µg/L. This area is located within the remedial excavation area where sump #5 was located. Sump #5 had one of the highest amounts of recovered product at the Site.
- The area in between monitoring wells MW-17 and MW09R have GRPH concentrations ranging from 1,300 to 1,390 µg/L. Monitoring well MW09R is currently being used to extract product and contaminated groundwater from the Site.
- The area near BH-1 has elevated GRPH concentrations. This well is currently being used to extract product and contaminated groundwater from the Site.
- The area in between monitoring wells MW-21 and MW10R have GRPH concentrations ranging from 789 to 2,160 µg/L. Monitoring well MW-10R is currently being used to extract product and groundwater from the Site.

The overall distribution of GRPH in groundwater is similar to the DRPH distribution and areas with concentrations less than 800 µg/L(Method A cleanup level) are very similar to areas below the DRPH cleanup level. An exception is the area bounded by MW25, MW20, MW19, and MW31, where, with the exception of BH-1, all wells had concentrations below the GRPH cleanup level.

6.0 FUTURE MONITORING SCHEDULE

6.1 *Daily Columbia River Level and Water Level Measurements*

EEC was hired by Coleman Oil to manage the booms within the Columbia River and product recovery at the Site. One of EEC's daily tasks includes monitoring the water level at a surveyed reference location along the along the Columbia River and water and product levels in the three product recovery wells at the Site (MW09R, MW10R, and BH-1) using a clean electronic oil/water interface probe. HydroCon has expanded product recovery at the Site by adding product recovery pumps in additional wells (MW24, MW28, MW29, and MW30) in November 2018. EEC will expand their daily water and product level monitoring to include these new wells. These measurements will be recorded on a field form and provided to Ecology, Coleman Oil, and HydroCon on a daily basis. HydroCon will include these measurements in the upcoming Annual Operations and Maintenance (O&M) Monitoring Report.

6.2 *Weekly to Monthly Water Level and Product Thickness Measurements*

EEC assists HydroCon with the collection of depth to water and product level measurements of all the Site wells on a weekly to monthly basis following the same protocol as the daily water and product level measurement task. EEC utilizes a *Water Level and Product Thickness Measurements Form* prepared by HydroCon to record the data (Appendix D). This form is provided to HydroCon so that the data can be entered into spreadsheets (i.e., Table 2) and to identify which wells require product recovery via pumping or placement of absorbent socks. This information also is used to assess seasonal groundwater flow direction patterns and if there is correlation between groundwater levels in the aquifer and the Columbia River stage.

6.3 *Future Quarterly Groundwater Sampling*

The next quarterly groundwater monitoring event is tentatively planned for February 2019. A list of wells that will be sampled and associated laboratory analysis is provided on Table 6.

As discussed above, Ecology agreed with HydroCon that collection of groundwater samples from monitoring wells MW-2, MW-3, MW-4, MW-5, and MW-22 were not necessary during the November 2018 sampling event. Ecology requested at least one more sampling event for MW-1 due to the historic detection of GRPH and DRPH[3]. This well was sampled during this monitoring event.

Ecology also requested vertical gradient data from MW-1/MW01S and MW-3/MW03S and asked that water levels be measured in these well clusters at least two times so that vertical gradient data can be verified. HydroCon has included the vertical gradient data from the last two quarterly groundwater monitoring events. This information is provided in Section 4.1 of this report.

Table 6 includes recommendations to discontinue monitoring and/or abandoning the following wells:

[3] Washington State Department of Ecology. *Ecology Comments on Supplemental Remedial Investigation Report*. August 16, 2018.

MW-1 through MW- 4. Improper well construction at monitoring wells MW-1 through MW-4 resulted in well screens placed too deep blinding off shallower water bearing zones in each respective well. This prevents the accurate monitoring of groundwater in each of these wells. At Ecology's request, three additional monitoring wells (MW01S, MW03S, and MW23) were added to the SRI to assess groundwater conditions on the southern portion of the Coleman property. It should be noted that, with the exceptions of MW-1, these wells have never had detections of GRPH, DRPH, or ORPH.

MW-5. This well has never had detections of GRPH, DRPH, or ORPH and given the now established groundwater flow directions, it's highly unlikely to be impacted by Site contaminants. As a long-term cost savings measure to Coleman Oil, HydroCon requests that Ecology consider abandonment of this well.

MW-7. Monitoring wells MW-7 and MW23 have similar construction but are located approximately 15 feet apart. As a long-term cost savings measure for Coleman Oil, HydroCon requests that Ecology consider abandoning MW-7.

MW22. The soil samples at MW22 differed from the typical sequence observed in all other borings. The upper 35 feet of this boring consisted of loose silt, sand, gravel, and clay with miscellaneous fill debris consisting of brick, glass, and burnt material and free product resembling black oil at 31.5 feet bgs. It is likely that this area has been disturbed by previous excavation and has been backfilled with construction and other debris. A sample of the product collected from MW22 was assessed by APEX's forensic chemist (Mr. Kurt Johnson) and a write up is included in Appendix K of the SRI Report (HydroCon 2018b). Results of the evaluation indicate that the product is derived from coal tar and it does not contain R99 Renewable DieselR99 Renewable Diesel. Therefore, it appears that the plume emanating from the Coleman Oil Site terminates south of MW22 and the product observed in MW22 is not from Coleman Oil.

7.0 QUALIFICATIONS

HydroCon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. HydroCon makes no warranties, either expressed or implied, regarding the findings, conclusions or recommendations. Please note that HydroCon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report.

Findings and conclusions resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this monitoring. Subsurface conditions may vary from those encountered at specific sampling locations or during other surveys, tests, assessments, investigations, or exploratory services; the data, interpretations and findings are based solely upon data obtained at the time and within the scope of these services.

This report is intended for the sole use of **Coleman Oil Company** to meet the requirements of Exhibit B – Scope of Work and Schedule of the Agreed Order. This report may not be used or relied upon by any other party without the written consent of HydroCon. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

The conclusions presented in this report are, in part, based upon subsurface sampling performed at selected locations and depths. There may be conditions between borings or samples that differ significantly from those presented in this report and which cannot be predicted by this study.

8.0 REFERENCES

Farallon, 2017. *Supplemental Data Summary Report*. Prepared for Coleman Oil Company. October 18.

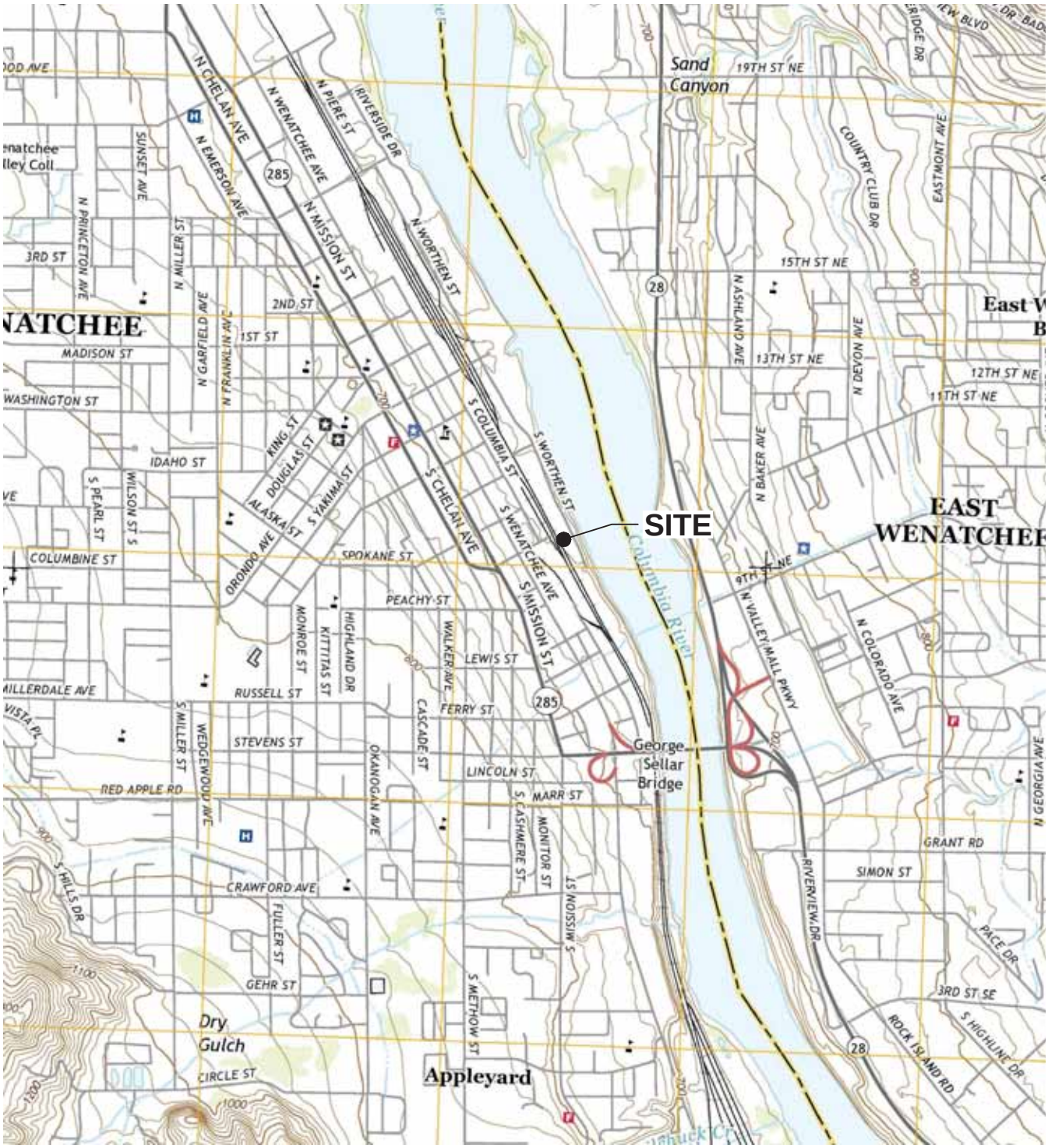
HydroCon, LLC. 2018a. *Supplemental Remedial Investigation Work Plan. Coleman Oil R99 Renewable Diesel Spill, Wenatchee, Washington*. Prepared for Coleman Oil Company, LLC. March 15.

———. 2018b. *Supplemental Remedial Investigation Report. Coleman Oil R99 Renewable Diesel Spill, Wenatchee, Washington*. Prepared for Coleman Oil Company, LLC. In Preparation.

———. 2018c. *Aquifer Testing at Coleman Oil Facility, Wenatchee, Washington*, March 16.

———. 2018d. *Additional Interim Actions Addendum #2*. In Preparation.

FIGURES



NOTE(S):
USGS, WENATCHEE QUADRANGLE
WASHINGTON
7.5 MINUTE SERIES (TOPOGRAPHIC)

0 2000 4000
SCALE IN FEET
1" = 2000'

N
W E
S

HydroCon
510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

DATE: 10-18-18
DWN: JJT
CHK: RH
APPROVED: RH
PRJ. MGR: CH
PROJECT NO: 2017-074

FIGURE 1
SITE LOCATION MAP

COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATHCEE, WA.

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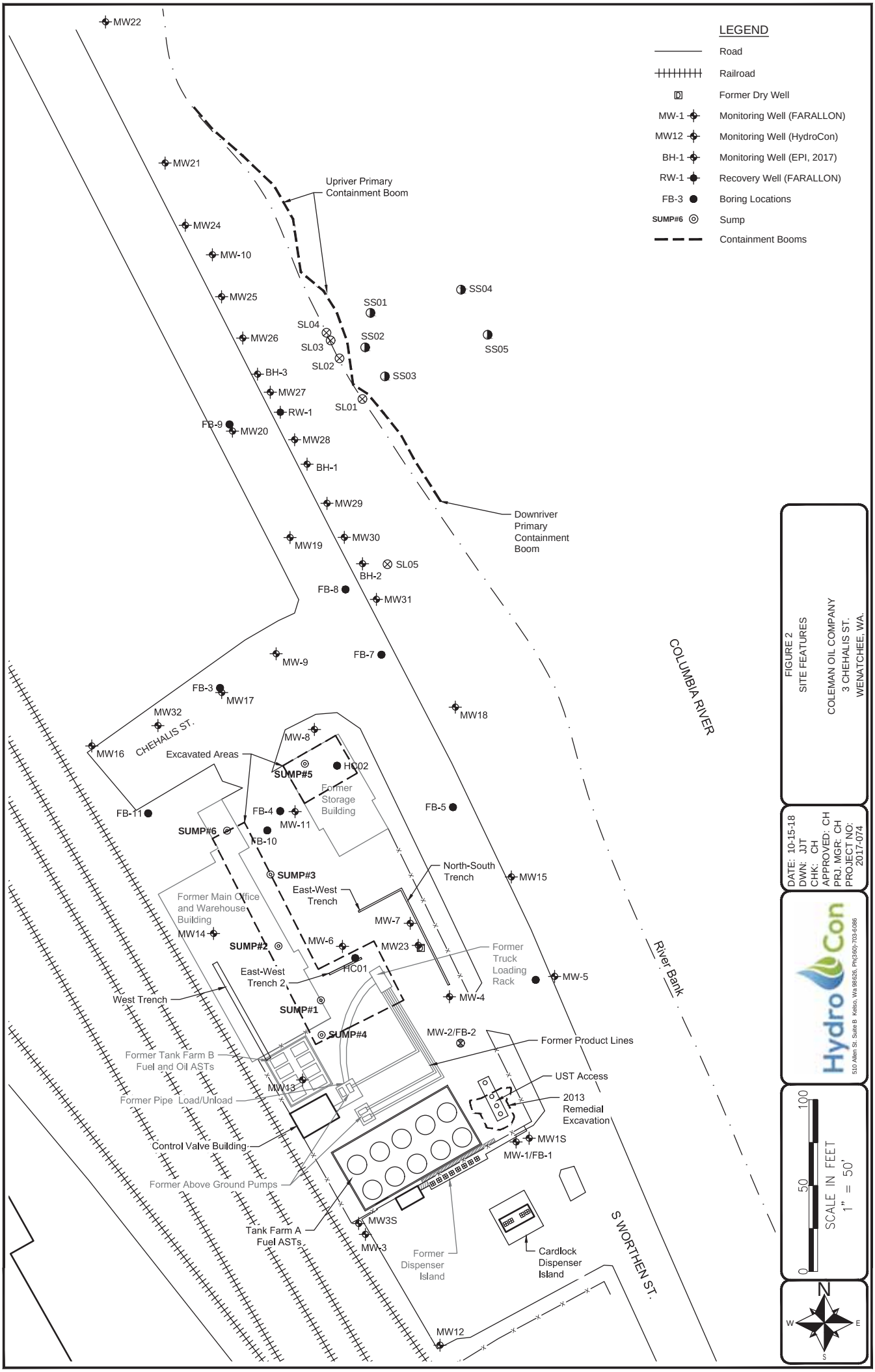

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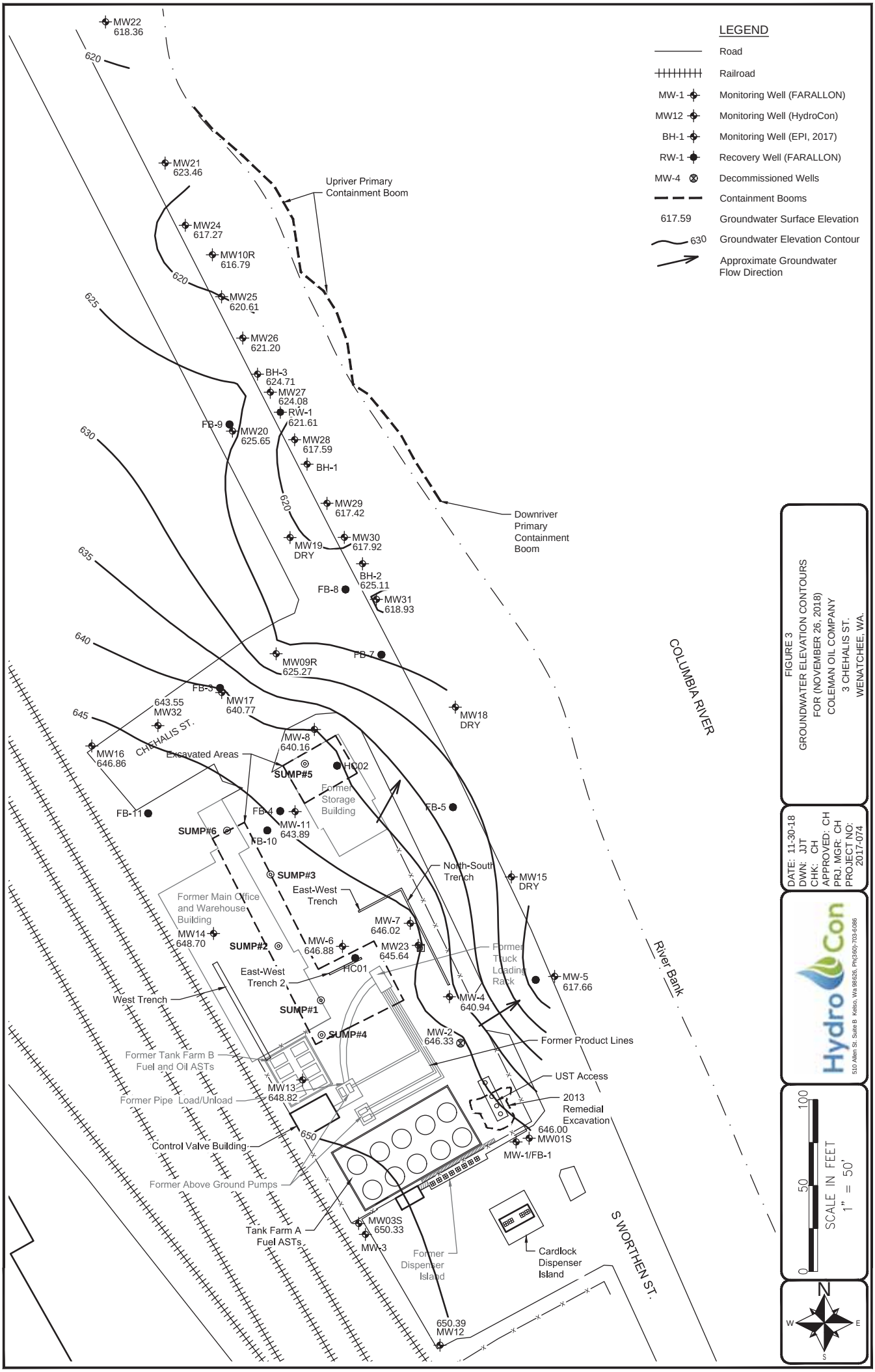

FIGURE 3
GROUNDWATER ELEVATION CONTOURS
FOR (NOVEMBER 26, 2018)
COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATCHEE, WA.

DATE: 11-30-18
DWN: JJT
CHK: CH
APPROVED: CH
PRJ. MGR: CH
PROJECT NO: 2017-074

HydroCon
510 Allen St. Suite B Kelso, Wa 98626, PH:(360)-703-6066

SCALE IN FEET
1" = 50'
0 50 100

N
W E
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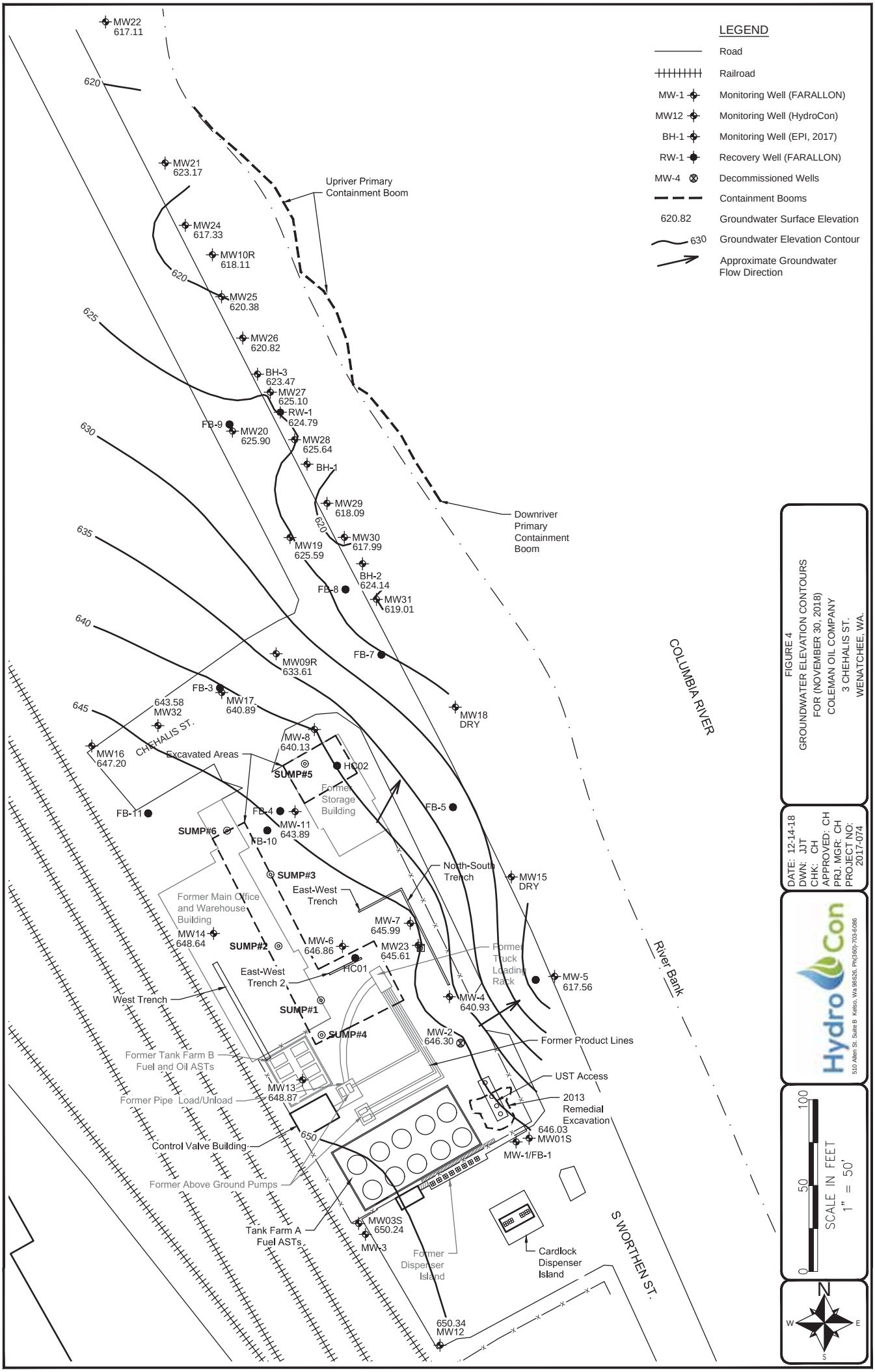

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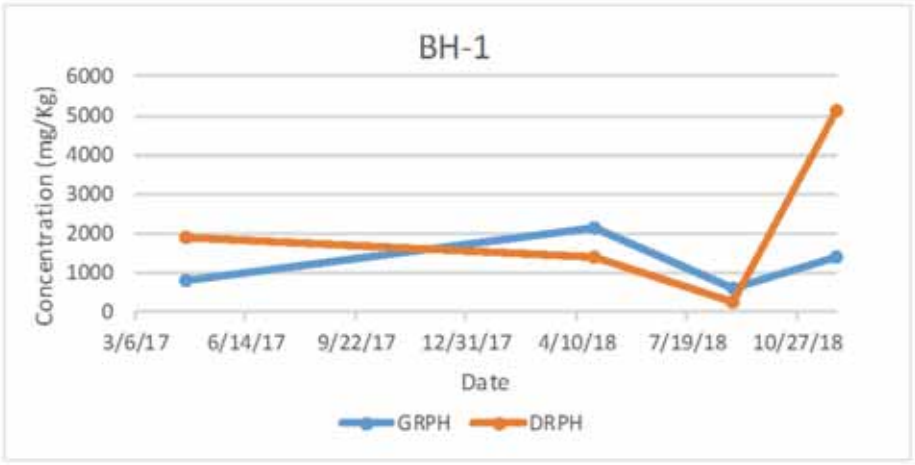

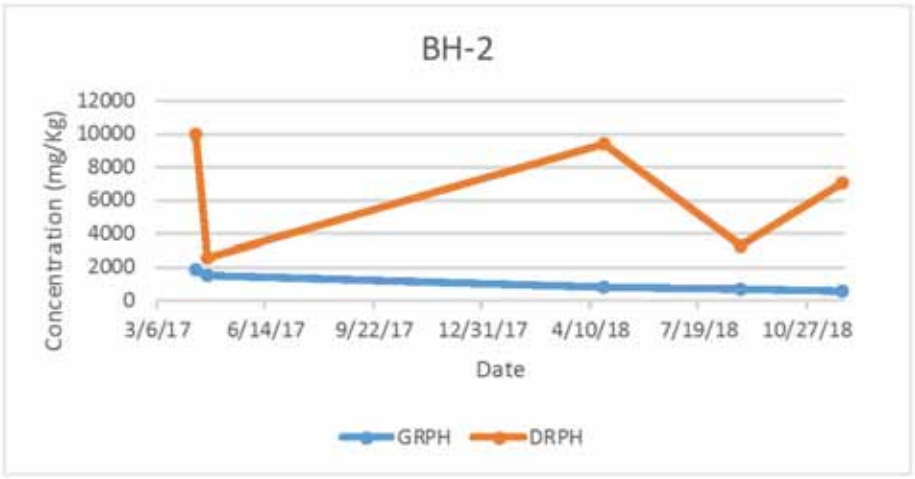

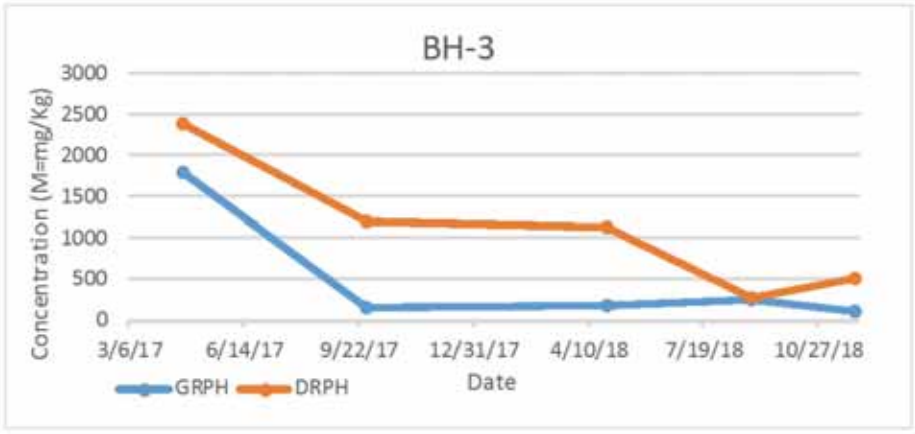

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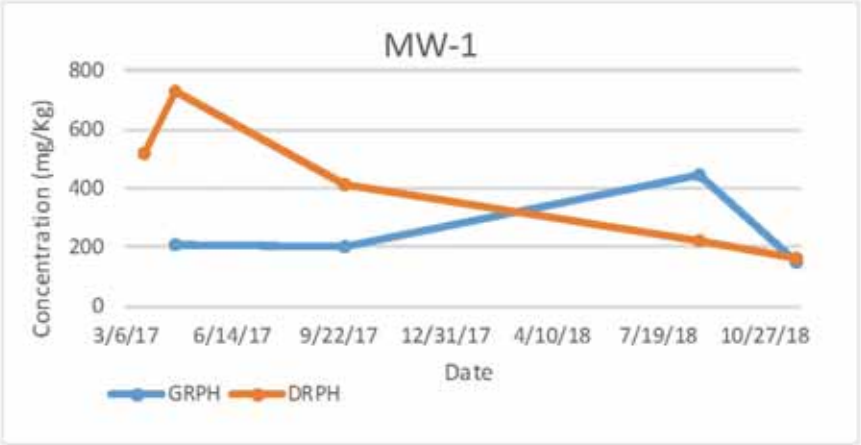
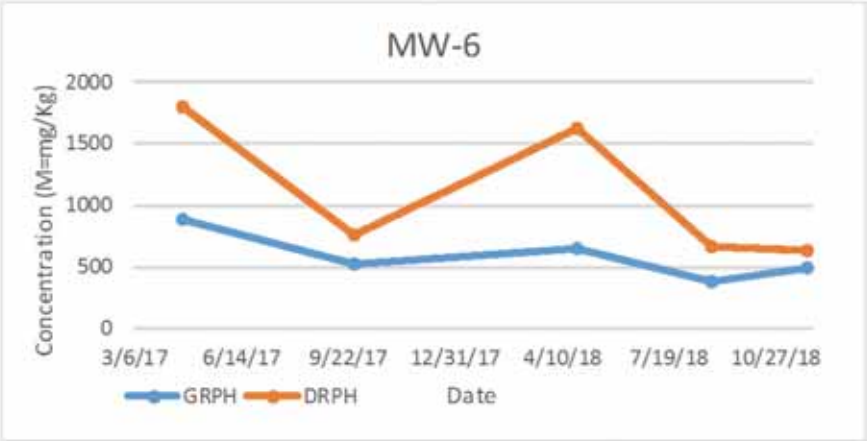
Hydro Con

DATE: 12-18-18
DWN: JJT
CHK: CH
APPROVED: CH
PRJ. MGR: CH
PROJECT NO: 2014-017

FIGURE 5A
TREND PLOTS

COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATHCEE, WA.





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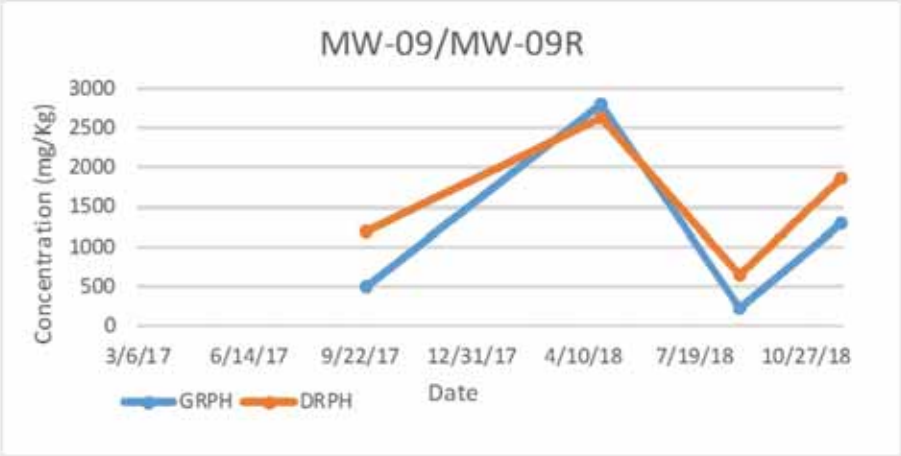
	Hydro Con	DATE: 12-18-18 DWN: JJT CHK: CH APPROVED: CH PRJ. MGR: CH PROJECT NO: 2014-017	FIGURE 5B TREND PLOTS COLEMAN OIL COMPANY 3 CHEHALIS ST. WENATHCEE, WA.



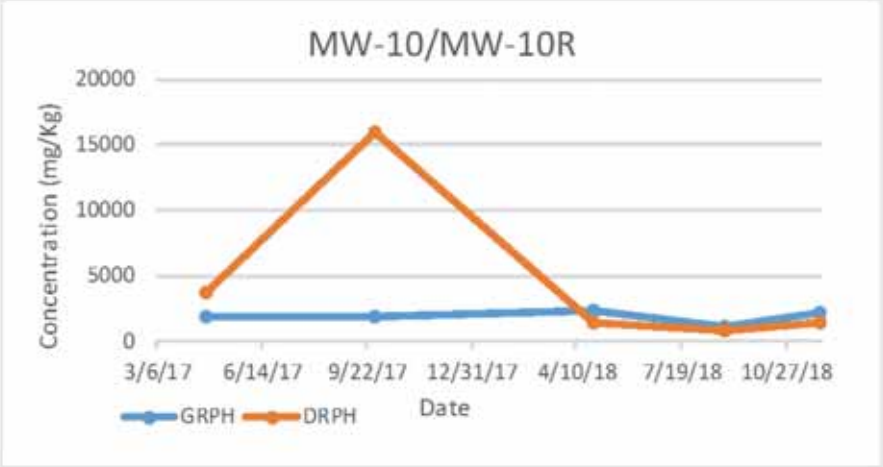
HydroCon

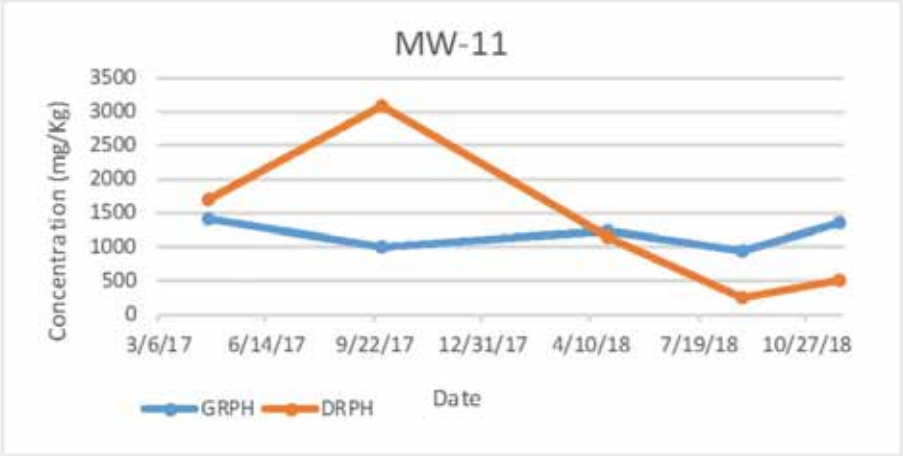
DATE: 12-18-18
DWN: JJT
CHK: CH
APPROVED: CH
PRJ. MGR: CH
PROJECT NO: 2014-017

FIGURE 5C
TREND PLOTS

COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATHCEE, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-074 Coleman Oil\2018\Dec 2018\2017-074_BM-121418.dwg





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DATE: 12-18-18
DWN: JJT
CHK: CH
APPROVED: CH
PRJ. MGR: CH
PROJECT NO: 2014-017

FIGURE 5D
TREND PLOTS

COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATHCEE, WA.

MW22
MW21
992
MW24
914
MW10R
1,370
MW25
121
MW26
<75.5
BH-3
502
MW27
<75.5
RW-1
152
FB-9
MW20
1,280
MW28
486
BH-1
5,120
MW29
238
MW19
<100
MW30
304
SL05
BH-2
7,040
FB-8
MW31
<75.5
MW09R
1,850
FB-7
FB-3
MW17
1,580
<75.5
MW32
MW18
MW16
337
CHEHALIS ST.
MW-8
505
SUMP#5
HC02
Excavated Areas
Former Storage Building
FB-11
FB-4
MW-11
503
FB-10
SUMP#6
FB-5
SUMP#3
East-West Trench
North-South Trench
MW15
Former Main Office and Warehouse Building
MW14
993
SUMP#2
MW-6
634
MW-7
283
MW23
380
HC01
Former Truck Loading Rack
MW-5
East-West Trench 2
MW-4
West Trench
SUMP#1
SUMP#4
MW-2
Former Product Lines
Former Tank Farm B Fuel and Oil ASTs
UST Access
MW13
3,250
Former Pipe Load/Unload
2013 Remedial Excavation
<75.5
MW01S
Control Valve Building
MW-1/FB-1
159
Former Above Ground Pumps
MW03S
<100
Tank Farm A Fuel ASTs
MW-3
<100
Former Dispenser Island
Cardlock Dispenser Island
92.8
MW12
Upriver Primary Containment Boom
Downriver Primary Containment Boom
COLUMBIA RIVER
River Bank
S WORTHEN ST.
?

LEGEND

- Road
- Railroad
- MW-1 — Monitoring Well (FARALLON)
- MW12 — Monitoring Well (HydroCon)
- BH-1 — Monitoring Well (EPI, 2017)
- RW-1 — Recovery Well (FARALLON)
- MW-4 — Decommissioned Wells
- SL04 — Shoreline Sample Locations
- Containment Booms
- 7,040 — DRPH Concentration ug/L
- >2,000 ug/L
- 1,000-2,000 ug/L
- 500-1,000 ug/L
- Area of seeps in contact with impacted soil
- MTCA Method A Cleanup Level for DRPH = 500 ug/L

FIGURE 6
DRPH IN GROUNDWATER
FOR (NOVEMBER 30, 2018)
COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATCHEE, WA.

DATE: 1-8-19
DWN: JJT
CHK: CH
APPROVED: CH
PRJ. MGR: CH
PROJECT NO: 2017-074

HydroCon
510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

SCALE IN FEET
1" = 50'
0 50 100

N W E S

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MW22
MW21
789
MW24
154
MW10R
2,160
MW25
<100
MW26
<100
BH-3
<100
MW27
<100
RW-1
<100
FB-9
MW20
674
MW28
385
BH-1
1,420
MW29
<100
MW19
<100
MW30
<100
SL05
BH-2
509
FB-8
MW31
<100
FB-7
MW09R
1,300
FB-3
MW17
1,390
<100
MW32
MW16
<100
CHEHALIS ST.
MW18
MW-8
921
Excavated Areas
SUMP#5
HC02
FB-11
FB-4
MW-11
1,350
SUMP#6
FB-10
FB-5
SUMP#3
Former Main Office and Warehouse Building
MW14
5,170
SUMP#2
MW-6
499
HC01
MW-7
<100
MW23
<100
MW15
MW-5
MW-4
West Trench
SUMP#1
SUMP#4
MW-2
MW13
22,400
Former Tank Farm B Fuel and Oil ASTs
Former Pipe Load/Unload
Control Valve Building
Former Above Ground Pumps
Tank Farm A Fuel ASTs
MW03S
<75.5
MW-3
<260
<100
MW12
Upriver Primary Containment Boom
Downriver Primary Containment Boom
East-West Trench
North-South Trench
East-West Trench 2
Former Storage Building
Former Truck Loading Rack
Former Product Lines
UST Access
2013 Remedial Excavation
<100
MW01S
MW-1/FB-1
152
Former Dispenser Island
Cardlock Dispenser Island
COLUMBIA RIVER
River Bank
S WORTHEN ST.
?
?
?

LEGEND

- Road
- Railroad
- MW-1 — Monitoring Well (FARALLON)
- MW12 — Monitoring Well (HydroCon)
- BH-1 — Monitoring Well (EPI, 2017)
- RW-1 — Recovery Well (FARALLON)
- MW-4 — Decommissioned Wells
- SL04 — Shoreline Sample Locations
- Containment Booms
- 2,180 — GRPH Concentration
- >5,000 ug/L
- 800-5,000 ug/L
- 100-799 ug/L
- Area of seeps in contact with impacted soil
- MTCA Method A Cleanup Level for GRPH = 800 ug/L

FIGURE 7
GRPH IN GROUNDWATER

COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATCHEE, WA.

DATE: 1-8-19
DWN: JJT
CHK: CH
APPROVED: CH
PRJ. MGR: CH
PROJECT NO: 2017-074

HydroCon
510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

SCALE IN FEET
1" = 50'
0 50 100

N W E S

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TABLES

Table 1
Well Construction Details
Coleman Oil
Wenatchee, Washington

Well ID	Date Installed	Installed By	Drilling Method	Total Boring Depth (feet bgs)	Total Well Depth (feet bgs)	Well Diameter (inch)	Well Construction Material	Screen Slot Size (inch)	Length of Screen (feet)	Length of Bottom Cap (feet)	Screened Interval (feet bgs)	Well Casing Elevation (feet[1])
MW-1	7/7/2010	Farallon	Air Rotary	35.50	35.00	2	PVC	0.01	15	-	20-35	658.01
MW01S	3/4/2018	HydroCon	Sonic	20.00	19.99	4	PVC	0.01	15	0.23	5.37 - 20.37	657.54
MW-2	7/8/2010	Farallon	Air Rotary	40.00	40.00	2	PVC	0.01	15	-	25-40	657.76
MW-3	9/7/2010	Farallon	Air Rotary	35.30	35.00	2	PVC	0.01	10	-	25-35	658.26
MW03S	4/3/2018	HydroCon	Sonic	20.00	19.30	4	PVC	0.01	15	0.23	4.43 - 19.43	658.17
MW-4	9/8/2010	Farallon	Air Rotary	40.10	37.00	2	PVC	0.01	10	-	27-37	657.48
MW-5	9/9/2010	Farallon	Air Rotary	45.40	45.00	2	PVC	0.01	15	-	30-45	656.00
MW-6	4/12/2017	Farallon	Air Rotary	18.40	18.00	4	PVC	0.02	10	-	8-18	657.70
MW-7	4/11/2017	Farallon	Air Rotary	20.10	20.00	4	PVC	0.02	10	-	10-20	657.52
MW-8	4/11/2017	Farallon	Air Rotary	25.20	25.00	4	PVC	0.02	10	-	15-25	656.20
MW-9	4/12/2017	Farallon	Air Rotary	24.50	24.00	4	PVC	0.02	10	-	14-24	655.29
MW09R	8/15/2018	HydroCon	Sonic	35.00	32.60	4	PVC	0.01	25	0.45	8.59-33.59	653.55
MW-10	4/14/2017	Farallon	Air Rotary	30.20	30.00	2	PVC	0.02	16	-	14-30	645.80
MW10R	8/16/2018	HydroCon	Sonic	35.00	33.59	4	PVC	0.01	20	0.45	14.64-34.64	644.30
MW-11	4/14/2017	Farallon	Air Rotary	22.30	22.00	4	PVC	0.02	10	-	12-22	658.00
MW12	4/2/2018	HydroCon	Sonic	20.00	19.52	4	PVC	0.01	15	0.23	4.63 - 19.63	658.27
MW13	3/29/2018	HydroCon	Sonic	50.00	19.80	4	PVC	0.01	15	0.23	4.91 - 19.91	657.04
MW14	3/30/2018	HydroCon	Sonic	35.00	20.02	4	PVC	0.01	15	0.23	5.23 - 20.23	657.15
MW15	4/12/2018	HydroCon	Sonic	35.10	35.10	4	PVC	0.01	25	0.23	10.33 - 35.33	654.99
MW16	4/5/2018	HydroCon	Sonic	30.00	29.15	4	PVC	0.01	20	0.23	9.28 - 29.28	656.93
MW17	4/4/2018	HydroCon	Sonic	35.00	29.41	4	PVC	0.01	20	0.23	9.52 - 29.52	655.55
MW18	4/11/2018	HydroCon	Sonic	35.00	34.65	4	PVC	0.01	20	0.23	15.86 - 35.86	654.51
MW19	4/5/2018	HydroCon	Sonic	35.00	31.48	4	PVC	0.01	20	0.23	11.66 - 31.66	653.31
MW20	4/10/2018	HydroCon	Sonic	30.00	29.50	4	PVC	0.01	20	0.23	9.79 - 29.79	650.85
MW21	4/9/2018	HydroCon	Sonic	35.00	32.10	4	PVC	0.01	20	0.23	12.30 - 32.30	643.88
MW22	4/13/2018	HydroCon	Sonic	40.00	39.10	4	PVC	0.01	25	0.23	9.19 - 34.19	641.85
MW23	3/29/2018	HydroCon	Sonic	25.00	22.04	4	PVC	0.01	15	0.23	7.13 - 22.13	656.91
MW24	8/6/2018	HydroCon	Sonic	35.00	34.25	4	PVC	0.01	20	0.45	14.17-34.17	644.38
MW25	8/7/2018	HydroCon	Sonic	35.00	32.96	4	PVC	0.01	20	0.45	12.81-32.81	645.57
MW26	8/8/2018	HydroCon	Sonic	35.00	32.52	4	PVC	0.01	20	0.45	13.54-33.54	646.65
MW27	8/9/2018	HydroCon	Sonic	40.00	38.74	4	PVC	0.01	25	0.45	13.56-38.56	649.00
MW28	8/10/2018	HydroCon	Sonic	40.00	38.74	4	PVC	0.01	25	0.45	13.62-38.62	650.64
MW29	8/13/2018	HydroCon	Sonic	40.00	39.11	4	PVC	0.01	25	0.45	14.05-39.05	652.34
MW30	8/14/2018	HydroCon	Sonic	40.00	39.79	4	PVC	0.01	25	0.45	14.67-39.67	652.83
MW31	8/15/2018	HydroCon	Sonic	40.00	39.28	4	PVC	0.01	25	0.45	14.11-39.11	653.97
MW32	8/17/2018	HydroCon	Sonic	35.00	34.02	4	PVC	0.01	25	0.45	8.95-33.95	655.83
BH-1	3/25/2017	EPI	Air Rotary	30.00	30.00	2	PVC	0.01	10	-	20-30	652.17
BH-2	3/25/2017	EPI	Air Rotary	35.00	35.00	2	PVC	0.01	15	-	20-35	653.77
BH-3	3/26/2017	EPI	Air Rotary	30.00	30.00	2	PVC	0.01	15	-	15-30	648.76
RW-1	4/10/2017	Farallon	Air Rotary	30.00	30.00	3	PVC	0.02	15	-	15-30	650.42

NOTES:

feet[1] = Elevation is relative to NGVD88

bgs = below ground surface

PVC = polyvinyl chloride

Table 2
Depth to Water/Groundwater Elevation
Coleman Oil
Wenatchee, Washington

Well Identification	Date	Monitoring Well Screened Interval (feet bgs)	Elevation Top of Casing [1] (feet)	Depth to Water (feet below top of casing)	Depth to NAPL (feet below top of casing)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-1	4/17/2017	20-35	658.01	9.47	- - -	- - -	648.54
	4/20/2017			9.63	- - -	- - -	648.38
	4/27/2017			10.14	- - -	- - -	647.87
	5/1/2017			10.31	- - -	- - -	647.70
	6/8/2017			11.20	- - -	- - -	646.81
	7/3/2017			NM	- - -	- - -	- - -
	9/28/2017			12.36	- - -	- - -	645.65
	8/27/2018			12.17	- - -	- - -	645.84
	8/31/2018			12.20	- - -	- - -	645.81
	11/26/2018			11.36	- - -	- - -	646.65
	11/30/2018			11.38	- - -	- - -	646.63
MW-1S	4/25/2018	5.37 - 20.37	657.54	10.49	- - -	- - -	647.05
	4/27/2018			10.62	- - -	- - -	646.92
	8/27/2018			12.30	- - -	- - -	645.24
	8/31/2018			12.33	- - -	- - -	645.21
	11/26/2018			11.54	- - -	- - -	646.00
	11/30/2018			11.51	- - -	- - -	646.03
MW-2	4/17/2017	25-40	657.76	9.58	- - -	- - -	648.18
	4/20/2017			9.61	- - -	- - -	648.15
	4/27/2017			10.19	- - -	- - -	647.57
	5/1/2017			10.36	- - -	- - -	647.40
	6/8/2017			11.33	- - -	- - -	646.43
	7/3/2017			11.96	- - -	- - -	645.80
	9/28/2017			12.65	- - -	- - -	645.11
	4/25/2018			10.5	- - -	- - -	647.26
	4/27/2018			10.54	- - -	- - -	647.22
	8/27/2018			12.20	- - -	- - -	645.56
	8/31/2018			12.22	- - -	- - -	645.54
	11/26/2018			11.43	- - -	- - -	646.33
	11/30/2018			11.46	- - -	- - -	646.30
MW-3	4/17/2017	25-35	658.26	7.12	- - -	- - -	651.14
	4/20/2017			7.15	- - -	- - -	651.11
	4/27/2017			11.44	- - -	- - -	646.82
	5/1/2017			7.90	- - -	- - -	650.36
	6/8/2017			7.33	- - -	- - -	650.93
	7/3/2017			7.46	- - -	- - -	650.80
	9/28/2017			7.74	- - -	- - -	650.52
	8/27/2018			7.75	- - -	- - -	650.51
	8/31/2018			7.8	- - -	- - -	650.46
	11/26/2018			7.78	- - -	- - -	650.48
	11/30/2018			7.89	- - -	- - -	650.37
MW-3S	4/25/2018	4.43 - 19.43	658.17	7.25	- - -	- - -	650.92
	4/27/2018			7.24	- - -	- - -	650.93
	8/27/2018			8.04	- - -	- - -	650.13
	8/31/2018			8.05	- - -	- - -	650.12
	11/26/2018			7.48	- - -	- - -	650.33
	11/30/2018			7.93	- - -	- - -	650.24

Table 2
Depth to Water/Groundwater Elevation
Coleman Oil
Wenatchee, Washington

Well Identification	Date	Monitoring Well Screened Interval (feet bgs)	Elevation Top of Casing [1] (feet)	Depth to Water (feet below top of casing)	Depth to NAPL (feet below top of casing)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-4	4/17/2017	27-37	657.48	15.29	- - -	- - -	642.19
	4/20/2017			15.40	- - -	- - -	642.08
	4/27/2017			15.74	- - -	- - -	641.74
	5/1/2017			15.71	- - -	- - -	641.77
	6/8/2017			16.23	- - -	- - -	641.25
	7/3/2017			16.93	- - -	- - -	640.55
	9/28/2017			18.18	- - -	- - -	639.30
	4/25/2018			16.22	- - -	- - -	641.26
	4/27/2018			17.59	- - -	- - -	639.89
	8/27/2018			17.25	- - -	- - -	640.23
	8/31/2018			17.28	- - -	- - -	640.20
	11/26/2018			16.54	- - -	- - -	640.94
	11/30/2018			16.55	- - -	- - -	640.93
MW-5	4/17/2017	30-45	656.00	33.98	- - -	- - -	622.02
	4/20/2017			35.67	- - -	- - -	620.33
	4/27/2017			34.98	- - -	- - -	621.02
	5/1/2017			35.92	- - -	- - -	620.08
	6/8/2017			32.06	- - -	- - -	623.94
	7/3/2017			36.75	- - -	- - -	619.25
	9/28/2017			38.67	- - -	- - -	617.33
	4/25/2018			NM	- - -	- - -	- - -
	4/27/2018			35.58	- - -	- - -	620.42
	8/27/2018			38.21	- - -	- - -	617.79
	8/31/2018			38.3	- - -	- - -	617.70
	11/26/2018			38.34	- - -	- - -	617.66
	11/30/2018			38.44	- - -	- - -	617.56
MW-6	4/17/2017	8-18	657.70	9.57	- - -	- - -	648.13
	4/20/2017			9.40	- - -	- - -	648.30
	4/27/2017			9.89	- - -	- - -	647.81
	5/1/2017			9.95	- - -	- - -	647.75
	6/8/2017			10.60	10.55	0.05	647.14
	7/3/2017			11.10	- - -	- - -	646.60
	9/28/2017			11.51	- - -	- - -	646.19
	4/25/2018			10.20	- - -	- - -	647.50
	4/27/2018			10.21	- - -	- - -	647.49
	8/27/2018			11.28	- - -	- - -	646.42
	8/31/2018			11.29	- - -	- - -	646.41
	11/26/2018			10.82	- - -	trace	646.88
	11/30/2018			10.84	- - -	trace	646.86
MW-7	4/17/2017	10-20	657.52	9.64	- - -	- - -	647.88
	4/20/2017			9.71	- - -	- - -	647.81
	4/27/2017			10.26	- - -	- - -	647.26
	5/1/2017			10.35	- - -	- - -	647.17
	6/8/2017			11.44	- - -	- - -	646.08
	7/3/2017			11.91	- - -	- - -	645.61
	9/28/2017			12.46	- - -	- - -	645.06
	4/25/2018			10.61	- - -	- - -	646.91
	4/27/2018			10.63	- - -	- - -	646.89
	8/27/2018			11.96	- - -	- - -	645.56
	8/31/2018			12.18	- - -	- - -	645.34
	11/26/2018			11.50	- - -	- - -	646.02
	11/30/2018			11.53	- - -	- - -	645.99

Table 2
Depth to Water/Groundwater Elevation
Coleman Oil
Wenatchee, Washington

Well Identification	Date	Monitoring Well Screened Interval (feet bgs)	Elevation Top of Casing [1] (feet)	Depth to Water (feet below top of casing)	Depth to NAPL (feet below top of casing)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-8	4/13/2017	15-25	656.20	16.71	14.50	2.21	641.21
	4/17/2017			13.47	- - -	- - -	642.73
	4/20/2017			13.96	13.95	0.01	642.25
	4/27/2017			17.25	14.91	2.34	640.78
	5/1/2017			17.47	14.94	2.53	640.70
	6/8/2017			18.02	- - -	- - -	638.18
	7/3/2017			17.97	17.91	0.07	638.28
	9/28/2017			18.10	- - -	- - -	638.10
	4/25/2018			15.14	- - -	- - -	641.06
	4/27/2018			15.12	- - -	- - -	641.08
	8/27/2018			16.71	- - -	- - -	639.49
	8/31/2018			16.77	- - -	- - -	639.43
	11/26/2018			16.04	- - -	- - -	640.16
	11/30/2018			16.07	- - -	- - -	640.13
MW-9	4/17/2017	14-24	655.29	13.56	- - -	- - -	641.73
	4/20/2017			14.31	- - -	- - -	640.98
	4/27/2017			17.45	16.75	0.70	638.39
	5/1/2017			18.60	17.33	1.27	637.68
	6/8/2017			22.14	- - -	- - -	633.15
	7/3/2017			22.16	- - -	- - -	633.13
	9/28/2017			22.69	- - -	- - -	632.60
	4/25/2018			17.22	- - -	- - -	638.07
	4/27/2018			17.22	- - -	- - -	638.07
MW09R	8/27/2018	8.59-33.59	653.55	19.90	- - -	- - -	635.39
	8/31/2018			19.91	- - -	- - -	635.38
	11/26/2018			28.28	- - -	- - -	625.27
	11/30/2018			19.94	- - -	- - -	633.61
MW-10	4/17/2017	14-30	645.80	16.72	- - -	- - -	629.08
	4/20/2017			17.31	- - -	- - -	628.49
	4/27/2017			18.11	- - -	- - -	627.69
	5/1/2017			18.99	- - -	- - -	626.81
	6/8/2017			19.88	- - -	- - -	625.92
	7/3/2017			25.06	23.62	1.44	621.86
	9/28/2017			25.70	- - -	- - -	620.10
	4/25/2018			21.18	- - -	- - -	624.62
	4/27/2018			20.96	- - -	- - -	624.84
MW10R	8/27/2018	14.66-34.64	644.30	24.64	- - -	- - -	619.66
	8/31/2018			25.71	- - -	- - -	618.59
	11/26/2018			27.51	- - -	- - -	616.79
	11/30/2018			26.19	25.95	0.24	618.30
MW-11	4/17/2017	12-22	658.00	13.45	- - -	- - -	644.55
	4/20/2017			13.45	- - -	- - -	644.55
	4/27/2017			13.76	- - -	- - -	644.24
	5/1/2017			13.77	- - -	- - -	644.23
	6/8/2017			14.32	14.05	0.27	643.89
	7/3/2017			14.30	- - -	- - -	643.70
	9/28/2017			14.65	- - -	- - -	643.35
	4/25/2018			13.82	- - -	- - -	644.18
	4/27/2018			13.82	- - -	- - -	644.18
	8/27/2018			14.20	- - -	- - -	643.80
	8/31/2018			14.21	- - -	- - -	643.79
	11/26/2018			14.11	- - -	- - -	643.89
	11/30/2018			14.11	- - -	- - -	643.89

Table 2
Depth to Water/Groundwater Elevation
Coleman Oil
Wenatchee, Washington

Well Identification	Date	Monitoring Well Screened Interval (feet bgs)	Elevation Top of Casing [1] (feet)	Depth to Water (feet below top of casing)	Depth to NAPL (feet below top of casing)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-12	4/25/2018	4.63 - 19.63	658.27	7.37	- - -	- - -	650.90
	4/27/2018			7.31	- - -	- - -	650.96
	8/27/2018			8.01	- - -	- - -	650.26
	8/31/2018			8.04	- - -	- - -	650.23
	11/26/2018			7.88	- - -	- - -	650.39
	11/30/2018			7.93	- - -	- - -	650.34
MW-13	4/25/2018	4.91 - 19.91	657.04	7.39	- - -	- - -	649.65
	4/27/2018			7.36	- - -	- - -	649.68
	8/27/2018			8.05	- - -	- - -	648.99
	8/31/2018			8.15	- - -	- - -	648.89
	11/26/2018			8.22	- - -	- - -	648.82
	11/30/2018			8.17	- - -	- - -	648.87
MW-14	4/25/2018	5.23 - 20.23	657.15	7.81	- - -	- - -	649.34
	4/27/2018			7.75	- - -	- - -	649.40
	8/27/2018			8.35	- - -	- - -	648.80
	8/31/2018			8.40	- - -	- - -	648.75
	11/26/2018			8.45	- - -	- - -	648.70
	11/30/2018			8.51	- - -	- - -	648.64
MW-15	4/25/2018	10.33 - 35.33	654.99	NM	- - -	- - -	- - -
	4/27/2018			34.80	- - -	- - -	620.19
	8/27/2018			34.76	- - -	- - -	620.23
	8/31/2018			34.82	- - -	- - -	620.17
	11/26/2018			dry	- - -	- - -	- - -
	11/30/2018			dry	- - -	- - -	- - -
MW-16	4/25/2018	9.28 - 29.28	656.93	9.72	- - -	- - -	647.21
	4/27/2018			9.70	- - -	- - -	647.23
	8/27/2018			10.05	- - -	- - -	646.88
	8/31/2018			10.18	- - -	- - -	646.75
	11/26/2018			10.07	- - -	- - -	646.86
	11/30/2018			9.73	- - -	- - -	647.20
MW-17	4/25/2018	9.52 - 29.52	655.55	14.25	- - -	- - -	641.30
	4/27/2018			14.22	- - -	- - -	641.33
	8/27/2018			15.07	- - -	- - -	640.48
	8/31/2018			15.14	- - -	- - -	640.41
	11/26/2018			14.78	- - -	- - -	640.77
	11/30/2018			14.66	- - -	- - -	640.89
MW-18	4/25/2018	15.86 - 35.86	654.51	NM	- - -	- - -	- - -
	4/27/2018			34.69	- - -	- - -	619.82
	8/27/2018			dry	- - -	- - -	- - -
	8/31/2018			dry	- - -	- - -	- - -
	11/26/2018			dry	- - -	- - -	- - -
	11/30/2018			dry	- - -	- - -	- - -

Table 2
Depth to Water/Groundwater Elevation
Coleman Oil
Wenatchee, Washington

Well Identification	Date	Monitoring Well Screened Interval (feet bgs)	Elevation Top of Casing [1] (feet)	Depth to Water (feet below top of casing)	Depth to NAPL (feet below top of casing)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-19	4/25/2018	11.66 - 31.66	653.31	23.05	- - -	- - -	630.26
	4/27/2018			23.15	- - -	- - -	630.16
	8/27/2018			28.63	- - -	- - -	624.68
	8/31/2018			28.83	- - -	- - -	624.48
	11/26/2018			dry	- - -	- - -	- - -
	11/30/2018			27.72	- - -	- - -	625.59
MW-20	4/25/2018	9.79 - 29.79	650.85	18.55	- - -	- - -	632.30
	4/27/2018			18.64	- - -	- - -	632.21
	8/27/2018			24.97	- - -	- - -	625.88
	8/31/2018			25.24	- - -	- - -	625.61
	11/26/2018			25.20	- - -	- - -	625.65
	11/30/2018			24.95	- - -	- - -	625.90
MW-21	4/25/2018	12.30 - 32.30	643.88	19.40	- - -	- - -	624.48
	4/27/2018			19.31	- - -	- - -	624.57
	8/27/2018			20.88	- - -	- - -	623.00
	8/31/2018			21.36	- - -	- - -	622.52
	11/26/2018			20.42	- - -	- - -	623.46
	11/30/2018			20.71	- - -	- - -	623.17
MW-22	4/25/2018	9.19 - 34.19	641.85	21.80	- - -	- - -	620.05
	4/27/2018			21.80	- - -	- - -	620.05
	8/27/2018			23.72	- - -	- - -	618.13
	8/31/2018			24.46	- - -	- - -	617.39
	11/26/2018			23.49	- - -	- - -	618.36
	11/30/2018			24.74	- - -	- - -	617.11
MW-23	4/25/2018	7.13 - 22.13	656.91	10.28	- - -	- - -	646.63
	4/27/2018			10.30	- - -	- - -	646.61
	8/27/2018			12.16	- - -	- - -	644.75
	8/31/2018			11.99	- - -	- - -	644.92
	11/26/2018			11.27	- - -	- - -	645.64
	11/30/2018			11.3	- - -	- - -	645.61
MW-24	8/27/2018	14.17 - 34.17	644.38	26.03	- - -	- - -	618.35
	8/31/2018			26.77	- - -	- - -	617.61
	11/26/2018			27.11	- - -	- - -	617.27
	11/30/2018			27.05	- - -	- - -	617.33
MW-25	8/27/2018	12.81 - 32.81	645.57	26.01	- - -	- - -	619.56
	8/31/2018			26.49	- - -	- - -	619.08
	11/26/2018			24.96	- - -	- - -	620.61
	11/30/2018			25.19	- - -	- - -	620.38
MW-26	8/27/2018	13.54 - 33.54	646.65	25.23	- - -	- - -	621.42
	8/31/2018			25.76	- - -	- - -	620.89
	11/26/2018			25.45	- - -	- - -	621.20
	11/30/2018			25.83	- - -	- - -	620.82
MW-27	8/27/2018	13.56 - 38.56	649.00	24.87	- - -	- - -	624.13
	8/31/2018			25.06	- - -	- - -	623.94
	11/26/2018			24.92	- - -	- - -	624.08
	11/30/2018			23.90	- - -	- - -	625.10
MW-28	8/27/2018	13.62 - 38.62	650.64	26.04	- - -	- - -	624.60
	8/31/2018			26.25	- - -	- - -	624.39
	11/26/2018			33.05	- - -	- - -	617.59
	11/30/2018			25.00	- - -	- - -	625.64

Table 2
Depth to Water/Groundwater Elevation
Coleman Oil
Wenatchee, Washington

Well Identification	Date	Monitoring Well Screened Interval (feet bgs)	Elevation Top of Casing [1] (feet)	Depth to Water (feet below top of casing)	Depth to NAPL (feet below top of casing)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-29	8/27/2018	14.05 - 39.05	652.34	34.43	- - -	- - -	617.91
	8/31/2018			34.84	- - -	- - -	617.50
	11/26/2018			34.92	- - -	- - -	617.42
	11/30/2018			34.25	- - -	- - -	618.09
MW-30	8/27/2018	14.67 - 39.67	652.83	34.73	- - -	- - -	618.10
	8/31/2018			35.01	- - -	- - -	617.82
	11/26/2018			34.91	- - -	- - -	617.92
	11/30/2018			34.84	- - -	- - -	617.99
MW-31	8/27/2018	14.11 - 39.11	653.97	34.55	- - -	- - -	619.42
	8/31/2018			35.16	- - -	- - -	618.81
	11/26/2018			35.04	- - -	- - -	618.93
	11/30/2018			34.96	- - -	- - -	619.01
MW-32	8/27/2018	8.95 - 33.95	655.83	12.41	- - -	- - -	643.42
	8/31/2018			12.43	- - -	- - -	643.40
	11/26/2018			12.28	- - -	- - -	643.55
	11/30/2018			12.25	- - -	- - -	643.58
BH-1	4/17/2017	20-30	652.17	19.71	- - -	- - -	632.46
	4/20/2017			20.13	- - -	- - -	632.04
	4/27/2017			22.88	- - -	- - -	629.29
	5/1/2017			23.16	- - -	- - -	629.01
	6/8/2017			25.64	- - -	- - -	626.53
	7/3/2017			28.46	27.91	0.55	624.14
	9/28/2017			28.73	- - -	- - -	623.44
	4/25/2018			23.03	- - -	- - -	629.14
	4/27/2018			20.03	- - -	- - -	632.14
	8/27/2018			26.21	- - -	- - -	625.96
	8/31/2018			26.27	- - -	- - -	625.90
	11/26/2018			NM	- - -	- - -	- - -
	11/30/2018			NM	- - -	- - -	- - -
BH-2	4/17/2017	20-35	653.77	26.16	- - -	- - -	627.61
	4/20/2017			26.30	- - -	- - -	627.47
	4/27/2017			26.56	26.48	0.08	627.27
	5/1/2017			26.68	26.58	0.10	627.17
	6/8/2017			26.73	- - -	- - -	627.04
	7/3/2017			28.86	- - -	- - -	624.91
	9/28/2017			31.25	- - -	- - -	622.52
	4/25/2018			27.68	- - -	- - -	626.09
	4/28/2017			27.53	- - -	- - -	626.24
	8/27/2018			28.50	- - -	- - -	625.27
	8/31/2018			28.91	- - -	- - -	624.86
	11/26/2018			28.66	- - -	trace	625.11
	11/30/2018			28.63	- - -	trace	625.14

Table 2
Depth to Water/Groundwater Elevation
Coleman Oil
Wenatchee, Washington

Well Identification	Date	Monitoring Well Screened Interval (feet bgs)	Elevation Top of Casing [1] (feet)	Depth to Water (feet below top of casing)	Depth to NAPL (feet below top of casing)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
BH-3	4/17/2017	15-30	648.76	17.47	- - -	- - -	631.29
	4/20/2017			17.88	- - -	- - -	630.88
	4/27/2017			18.70	- - -	- - -	630.06
	5/1/2017			19.06	- - -	- - -	629.70
	6/8/2017			21.19	- - -	- - -	627.57
	7/3/2017			21.70	- - -	- - -	627.06
	9/28/2017			23.04	- - -	- - -	625.72
	4/25/2018			20.06	- - -	- - -	628.70
	4/27/2018			22.36	- - -	- - -	626.40
	8/27/2018			22.20	- - -	- - -	626.56
	8/31/2018			23.68	- - -	- - -	625.08
	11/26/2018			24.05	- - -	- - -	624.71
	11/30/2018			25.29	- - -	- - -	623.47
RW-1	4/17/2017	15-30	650.42	16.15	- - -	- - -	634.27
	4/20/2017			16.34	- - -	- - -	634.08
	4/27/2017			17.35	- - -	- - -	633.07
	5/1/2017			18.55	- - -	- - -	631.87
	6/8/2017			22.67	- - -	- - -	627.75
	7/3/2017			24.19	- - -	- - -	626.23
	9/28/2017			26.74	- - -	- - -	623.68
	4/25/2018			21.19	- - -	- - -	629.23
	4/27/2018			21.21	- - -	- - -	629.21
	8/27/2018			25.09	- - -	- - -	625.33
	8/31/2018			25.69	- - -	- - -	624.73
	11/26/2018			28.81	- - -	- - -	621.61
	11/30/2018			25.63	- - -	- - -	624.79

NOTES:
- - - denotes no LNAPL present

[1]Elevation in feet above mean sea level. Elevations based on NAVD88 vertical datum. Well survey conducted by Munson Engineers, Inc. of Wenatchee, Washington in July 2010 and April 2017.

bgs = below ground surface
LNAPL = light nonaqueous-phase liquid
NAPL = nonaqueous-phase liquid

Groundwater elevations in wells with LNAPL corrected for water-level elevation using typical specific gravity of R99 LNAPL of 0.78.

Table 3
Groundwater Analytical Results - Fuels and VOCs
Coleman Oil Site
Wenatchee, Washington

		Fuels			Volatiles								Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	Naphthalene	MTBE	EDB	EDC	Total Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup for Groundwater		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**
Benzene (Non Detect)		**1,000**											
Benzene (Detect)		**800**											
Field ID	**Date**												
FB-9	4/7/2017	**1,200** F	**2,900**	**1,200**	2.4	< 1.0	3.7	1.7	--	--	--	--	--
FB-10	4/7/2017	**2,000** F	**57,000**	**< 4,100**	**71**	13	7.1	64	--	--	--	--	--
BH-1	4/21/2017	**820** F	**1,900**	**970** N1	**15**	2.8	8.3	18.5	--	--	--	--	--
	4/26/2018	**2,140**	**1,390**	<377	0.671	<1.00	5.55	12.5	--	--	--	--	--
	8/30/2018	591	243	<148	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	12/1/2018	**1,420**	**5,120** F13	<151	<0.200	<1.00	0.608	<1.50	--	--	--	--	--
BH-2	4/10/2017	**1,900** F	**100,000**	**10,000**	< 4.0	< 4.0	13	39	--	--	--	--	--
	4/21/2017	**1,500** F	**2,600**	**630** N1	4.2	3.3	12	39	--	--	--	--	--
	4/24/2018	**854**	**9,360**	<377	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/28/2018	639	**3,300**	<148	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/30/2018	509	**7,040**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
BH-3	4/21/2017	**1,800** F	**2,400**	**660**	1.8	<1.0	5.4	8.2	--	--	--	--	--
	9/29/2017	150 O	**1,200**	**550** N1	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	4/26/2018	172	**1,130**	<377	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/30/2018	250	276	<148	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/29/2018	<100	**502**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
RW-1	4/21/2017	<100	**840**	**540** N1	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	9/29/2017	<100	360	440	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	4/26/2018	<100	<189	<377	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/30/2018	<100	327	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/30/2018	<100	152	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--

Table 3
Groundwater Analytical Results - Fuels and VOCs
Coleman Oil Site
Wenatchee, Washington

		Fuels			Volatiles								Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	Naphthalene	MTBE	EDB	EDC	Total Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup for Groundwater		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**
Benzene (Non Detect)		**1,000**											
Benzene (Detect)		**800**											
Field ID	**Date**												
MW-1	3/23/2017	---	**520**	480	---	---	---	---	--	--	--	--	--
	4/21/2017	210 F	**730**	**510**	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	9/29/2017	200	410	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	8/28/2018	449	219	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	152	159	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW01S	4/24/2018	188	<187	<374	0.42	<1.00	5.8	9.48	--	--	--	--	<0.200
	8/28/2018	268	294	<151	1.49	<1.00	1.26	<1.50	--	--	--	--	--
	11/27/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW-2	3/23/2017	---	<260	<410	---	---	---	---	--	--	--	--	--
	4/20/2017	<100	<260	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	4/25/2018	<100	<187	<374	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW-3	4/20/2017	<100	<260	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	9/28/2017	<100	<260	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
MW03S	4/25/2018	<100	<187	<374	<0.200	<1.00	<0.500	<1.50	<2.00	<1.00	<0.500	<0.400	--
	8/29/2018	<100	139	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW-4	3/23/2017	---	<260	<410	---	---	---	---	--	--	--	--	--
	4/20/2017	<100	<260	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	9/28/2017	<100	<260	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	4/25/2018	<100	<187	<374	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--

Table 3
Groundwater Analytical Results - Fuels and VOCs
Coleman Oil Site
Wenatchee, Washington

		Fuels			Volatiles								Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	Naphthalene	MTBE	EDB	EDC	Total Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup for Groundwater		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**
Benzene (Non Detect)		**1,000**											
Benzene (Detect)		**800**											
Field ID	**Date**												
MW-5	3/23/2017	---	<260	<410	---	---	---	---	--	--	--	--	--
	4/20/2017	<100	<260	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	9/28/2017	<100	<260	<410	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	4/25/2018	<100	<189	<377	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/28/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW-6	4/20/2017	**880** F	**1,800**	480 N1	**5.0**	<4.0	6.2	37	--	--	--	--	--
	9/28/2017	530 O	**760**	430 N1	<1.0	<1.0	<1.0	4.3	--	--	--	--	--
	4/25/2018	643	**1,620**	<374	0.56	<1.00	<0.500	2.19	--	--	--	--	0.375
	8/29/2018	376	**668**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	499	**634**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW-7	4/20/2017	**1,100** F	**1,300**	420 N1	3.2	< 1.0	15	11.4	--	--	--	--	--
	9/28/2017	<100	**520**	<470 U1	<1.0	<1.0	<1.0	<2.0	--	--	--	--	--
	4/25/2018	<100	435	<374	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/29/2018	<100	448	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/28/2018	<100	283	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW-8	9/29/2017	**1,300** O	**2,100**	**690** N1	<1.0	<1.0	4.1	27.2	--	--	--	--	--
	4/26/2018	720	**1,300**	<374	0.641	<1.00	<0.500	4.67	--	--	--	--	--
	8/29/2018	774	**907**	<151	<0.200	<1.00	<0.500	3.42	--	--	--	--	--
	11/28/2018	**921**	**505**	<151	0.214	<1.00	1.06	6.23	--	--	--	--	--

Table 3
Groundwater Analytical Results - Fuels and VOCs
Coleman Oil Site
Wenatchee, Washington

		Fuels			Volatiles								Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	Naphthalene	MTBE	EDB	EDC	Total Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup for Groundwater		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**
Benzene (Non Detect)		**1,000**											
Benzene (Detect)		**800**											
Field ID	**Date**												
MW-9	9/29/2017	500 O	**1,200**	**670** N1	<1.0	<1.0	<1.0	1.5	--	--	--	--	--
	4/26/2018	**2,810**	**2,620**	<374	2.73	<1.00	9.95	20.4	--	--	--	--	--
MW-9R	8/29/2018	234	**654**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/28/2018	**1,300**	**1,850**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW-10	4/21/2017	**1,900** F	**3,800**	**730**	3.4	< 1.0	11	12.5	--	--	--	--	--
	9/29/2017	**1,900** O	**16,000**	**1,300** N1	<1.0	<1.0	13	26.7	--	--	--	--	--
	4/26/2018	**2,290**	**1,500**	<377	0.219	<1.00	3.52	5.95	--	--	--	--	--
MW-10R	8/30/2018	**1,080**	**838**	< 150	< 0.200	< 1.00	1.22	2.42	--	--	--	--	--
	11/29/2018	**2,160**	**1,370**	<755 **ec**	<0.200	<1.00	3.90	5.98	--	--	--	--	--
MW-11	4/21/2017	**1,400** F	**1,700**	**1,000** N1	**28**	4.1	8.2	26.1	--	--	--	--	--
	9/29/2017	**1,000** O	**3,100**	**720** N1	<1.0	<1.0	1.9	12.5	--	--	--	--	--
	4/26/2018	**1,240**	**1,140**	<374	<0.200	<1.00	0.56	2.27	--	--	--	--	--
	8/29/2018	**944**	251	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	**1,350**	**503**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW12	4/25/2018	<100	<189	<377	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/28/2018	<100	<74.8	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	<100	92.8	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW13	4/25/2018	**40,900**	**1,790**	<377	**1,500**	**4,710**	627	**3,780**	--	--	--	--	0.446
	8/29/2018	**39,300**	**2,500**	<150	**1,780**	**3,010**	**796**	**4,850**	**167**	**<50.0** ec	**<25.0** ec	**<25.0** ec	--
	11/27/2018	**22,400**	**3,250**	<151	**1,380**	271	458	**3,170**	--	--	--	--	--

Table 3
Groundwater Analytical Results - Fuels and VOCs
Coleman Oil Site
Wenatchee, Washington

		Fuels			Volatiles								Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	Naphthalene	MTBE	EDB	EDC	Total Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup for Groundwater		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**
Benzene (Non Detect)		**1,000**											
Benzene (Detect)		**800**											
Field ID	**Date**												
MW14	8/29/2018	**4,040**	487	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	4/25/2018	**4,620**	**900**	<374	**13.1**	<1.00	16.1	<1.50	3.21	<1.00	<0.500	<0.400	--
	11/27/2018	**5,170**	**933**	<151	**15.2**	<1.00	1.70	<1.50	--	--	--	--	--
MW15	4/25/2018 iw	--	--	--	--	--	--	--	--	--	--	--	--
	8/29/20018 iw	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/2018 iw	--	--	--	--	--	--	--	--	--	--	--	--
MW16	4/26/2018	<100	330	<374	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/29/2018	<100	298	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/28/2018	<100	337	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW17	4/26/2018	**2,800**	**1,630**	<377	1.23	<1.00	1.62	7.66	4.72	<1.00	<0.500	<0.400	--
	8/29/2018	**1,270**	**986**	<150	0.450	<1.00	<0.500	<1.50	5.61	<1.00	**<0.500** ec	<0.500	--
	11/28/2018	**1,390**	**1,580**	<151	0.305	<1.00	<0.500	<1.50	--	--	--	--	--
MW18	4/26/2018 iw	--	--	--	--	--	--	--	--	--	--	--	--
	8/2920018 iw	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/2018 iw	--	--	--	--	--	--	--	--	--	--	--	--
MW19	4/26/2018	280	**979**	<377	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	8/27/2018	<100	406	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/30/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW20	4/26/2018	**1,270**	**1,320**	<377	<0.200	<1.00	1.56	5.44	--	--	--	--	--
	8/30/2018	320	346	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/29/2018	674	**1,280**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--

Table 3
Groundwater Analytical Results - Fuels and VOCs
Coleman Oil Site
Wenatchee, Washington

		Fuels			Volatiles								Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	Naphthalene	MTBE	EDB	EDC	Total Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup for Groundwater		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**
Benzene (Non Detect)		**1,000**											
Benzene (Detect)		**800**											
Field ID	**Date**												
MW21	4/26/2018	**991**	**965**	<374	<0.200	<1.00	0.835	1.82	--	--	--	--	--
	8/30/2018	<100	234	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	789	**992**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW22	4/26/2018	**6,960**	**4,690**	<377	**118**	28.8	102	196	--	--	--	--	<0.200
	8/30/2018	**2,040**	**1,150**	**<748** ec	**30.4**	5.34	30.5	55.9	--	--	--	--	--
MW23	4/25/2018	<100	419	<381	<0.200	<1.00	<0.500	<1.50	--	--	--	--	<0.200
	8/29/2018	<100	266	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	<100	380	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW24	8/30/2018	<100	220	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/29/2018	154	**914**	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW25	8/30/2018	<100	<74.8	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/27/2018	<100	121	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW26	8/30/2018	<100	128	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/29/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW27	8/30/2018	<100	118	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/29/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW28	8/30/2018	<100	105	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	12/1/2018	385	486	<158	0.208	<1.00	<0.500	<1.50	--	--	--	--	--
MW29	8/28/2018	<100	459	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/29/2018	<100	238	**809**	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--

Table 3
Groundwater Analytical Results - Fuels and VOCs
Coleman Oil Site
Wenatchee, Washington

		Fuels			Volatiles								Metals
		GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	Naphthalene	MTBE	EDB	EDC	Total Lead
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup for Groundwater		**800/1000**	**500**	**500**	**5**	**1,000**	**700**	**1,000**	**160**	**20**	**0.01**	**5**	**15**
Benzene (Non Detect)		**1,000**											
Benzene (Detect)		**800**											
Field ID	**Date**												
MW30	8/28/2018	<100	193	<150	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	11/29/2018	<100	304	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW31	8/28/2018	<100	<74.1	<148	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
	12/1/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--
MW32	8/29/2018	139	161	<148	<0.200	<1.00	<0.500	<1.50	<2.00	<1.00	**<0.500** ec	<0.500	--
	11/28/2018	<100	<75.5	<151	<0.200	<1.00	<0.500	<1.50	--	--	--	--	--

Notes:

Red denotes concentration in excess of MTCA Method Cleanup Level for Groundwater.
MTCA Method A Cleanup Levels, WAC 173-340-720 through 173-340-760, revised Nov., 2007
GRPH (gasoline range petroleum hydrocarbons) analyzed by Method NWTPH-Gx.
DRPH (diesel range petroleum hydrocarbons) and ORPH (oil range petroleum hydrocarbons) analyzed by Method NWTPH-Dx.
VOCs = volatile organic compounds
VOCs analyzed by EPA Method 8260C
Total Lead by EPA Method 6020
< = less than method reporting limit shown
--- = not analyzed. MW15 and MW18 not sampled due to lack of water in the well.
ec = Method reporting limit exceeds Clean Up Level shown.
F and O = hydrocarbons indicative of heavier fuels are present in sample and impacting the gasoline result (Farallon 2017b)
N1 = hydrocarbons in the diesel-range are impacting the oil result (Farallon 2017b)

Table 4
Groundwater Analytical Results - PAHs
Coleman Oil Site
Wenatchee, Washington

	Acenaphthene	Acenaphthylene	Anthracene	Benz [a] anthracene	Benzo [a] pyrene	Benzo [b] fluoranthene	Benzo [k] fluoranthene	Benzo (g,h,i) perylene	Chrysene	Dibenz [a,h] anthracene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup Level for Groundwater					**0.1**					
Field ID	**Date**									
MW21	4/26/2018	0.193	<0.0935	0.145	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935	<0.0935
MW22	4/26/2018	113	<12.3	8.48	0.284	<0.0943	<0.0943	<0.0943	0.243	<0.0943
	8/30/2018	43.4	4.21	3.32	0.156	<0.0374	<0.0374	<0.0374	0.156	<0.0374
MW32	8/29/2018	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370	<0.0370

	Dibenzofuran	Fluoranthene	Fluorene	Indeno [1,2,3-cd] pyrene	1- Methyl-naphthalene	2-Methyl- naphthalene	Naphthalene	Phenanthrene	Pyrene	TEQ
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
WA MTCA Method A Cleanup Level for Groundwater							**160**			**0.1**
Field ID	**Date**									
MW21	4/26/2018	0.103	<0.0935	0.144	<0.0935	1.48	0.494	1.16	<0.0935	<0.0935	0.0706
MW22	4/26/2018	8.55	3.2	36.7	<0.0943	298	210	**692**	36.6	4.30	0.0968
	8/30/2018	3.34	1.49	14.0	<0.0374	94.2	92.2	**189**	13.7	2.43	0.0433
MW32	8/29/2018	<0.0370	<0.0370	0.0382	<0.0370	<0.0741	<0.0741	<0.0833	<0.0370	<0.0370	0.0279

Notes:
Red denotes concentration in excess of MTCA Method Cleanup Level for groundwater.
MTCA Method A Cleanup Levels, WAC 173-340-720 through 173-340-760, revised Nov., 2007
< = less than method reporting limit shown
ug/L = micrograms per liter (parts per billion)
PAHs by EPA Method 8270D SIM
TEQ = Toxic Equivalent Concentration per Ecology Focus Sheet. One-half the detection limit used for non-detected concentrations.

Table 5
Vertical Groundwater Gradients
Coleman Oil Site
Wenatchee, Washington

Location	Date	TOC	Total Depth	DTW	GWE	Mid-Point	Mid-Point Elevation	Mid-Point Elevation Difference	GWE Difference	Gradient (ft/ft)
MW-1	8/27/2018	658.01	35	12.17	645.84	23.59	634.43	-6.97	-0.60	0.086
MW-1	8/31/2018	658.01	35	12.20	645.81	23.60	634.41	-6.97	-0.60	0.086
MW-1	11/26/2018	658.01	35	11.36	646.65	23.18	634.83	-6.94	-0.65	0.094
MW-1	11/30/2018	658.01	35	11.38	646.63	23.19	634.82	-6.97	-0.60	0.086
MW01S	8/27/2018	657.54	19.99	12.30	645.24	16.15	641.40			
MW01S	8/31/2018	657.54	19.99	12.33	645.21	16.16	641.38			
MW01S	11/27/2018	657.54	19.99	11.54	646.00	15.77	641.78			
MW01S	11/30/2018	657.54	19.99	11.51	646.03	15.75	641.79			

Location	Date	TOC	Total Depth	DTW	GWE	Mid-Point	Mid-Point Elevation	Mid-Point Elevation Difference	GWE Difference	Gradient (ft/ft)
MW-3	8/27/2018	658.26	35	7.75	650.51	21.38	636.89	-7.62	-0.38	0.050
MW-3	8/31/2018	658.26	35	7.80	650.46	21.40	636.86	-7.63	-0.34	0.045
MW-3	11/26/2018	658.26	35	7.78	650.48	21.39	636.87	-7.73	-0.15	0.019
MW-3	11/30/2018	658.26	35	7.89	650.37	21.45	636.82	-7.74	-0.13	0.017
MW03S	8/27/2018	658.17	19.3	8.04	650.13	13.67	644.50			
MW03S	8/31/2018	658.17	19.3	8.05	650.12	13.68	644.50			
MW03S	11/26/2018	658.17	19.3	7.84	650.33	13.57	644.60			
MW03S	11/30/2018	658.17	19.3	7.93	650.24	13.62	644.56			

Notes:
All Units in feet

Table 6
List of Monitoring Wells and Required Laboratory Analysis
Coleman Oil Site
Wenatchee, Washington

Well ID	Location of Well	Total Depth (feet)	Required Laboratory Analyses
MW-1	Coleman Facility - South of USTs used for Cardlock	35.00	Discontinue Sampling per Ecology Approval[1]
MW01S	Coleman Facility - South of USTs used for Cardlock	19.99	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW-2	Coleman Facility - North of USTs used for Cardlock	40.00	Discontinue Sampling per Ecology Approval[1]
MW-3	Coleman Facility - Southwestern corner of Tank Farm A	35.00	Discontinue Sampling per Ecology Approval[1]
MW03S	Coleman Facility - Southwestern corner of Tank Farm A	19.30	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW-4	Coleman Facility ~ 30' North of MW-2	37.00	Discontinue Sampling per Ecology Approval[1]
MW-5	East of Worthen Street ~ 45' South and ~80' east of R99 release point	45.00	Discontinue Sampling per Ecology Approval[1]
MW-6	Coleman Facility ~ 20' North of R99 realese point	18.00	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW-7	Coleman Facility ~ 13' North of former dry well	20.00	Discontinue Sampling per Ecology Approval[1]
MW-8	Coleman Facility - Northeast corner of former Storage Building	25.00	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW09R	Chehalis Street ~ 15' east of railroad	32.60	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW10R	East of Worthen Street ~ 410' north of R99 release point	33.59	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW-11	Coleman Facility - North Central area	22.00	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW12	Coleman Facility - Southwestern corner of Site	19.52	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW13	Coleman Facility - in Footprint of Tank Farm B	19.80	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW14	Coleman Facility ~ 80' north of former Tank Farm B	20.02	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW15	East of Worthen Street ~ 20' north and 80' east of R99 release point	35.10	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW16	Chehalis Street ~ 18' east of railroad	29.15	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW17	Chehalis Street ~ 80' East of MW16	29.41	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW18	East of Worthen Street ~ 120' north North & ~ 80' east of R99 release p	34.65	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW19	In Worthen Street - ~40' North of Chehalis Street intersection	31.48	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW20	In Worthen Street - ~75' North of MW19 & ~ 30' west of RW-1	29.50	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW21	East of Worthen Street ~ 470' north of R99 release point	32.10	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW22	East of Worthen Street ~ 560' north of R99 release point	39.10	Discontinue Sampling per Ecology Approval[1]
MW23	Former Dry Well Location	22.04	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW24	East of Worthen Street ~ 435' north of R99 release point	34.25	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW25	East of Worthen Street ~ 390' north of R99 release point	32.96	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW26	East of Worthen Street ~ 360' north of R99 release point	32.52	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW27	East of Worthen Street ~ 330' north of R99 release point	38.74	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW28	East of Worthen Street ~ 300' north of R99 release point	38.74	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW29	East of Worthen Street ~ 255' north of R99 release point	39.11	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW30	East of Worthen Street ~ 235' north of R99 release point	39.79	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW31	East of Worthen Street ~ 195' north of R99 release point	39.28	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
MW32	Chehalis Street ~ 40' East of MW16	34.02	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
BH-1	East of Worthen Street ~ 280' north of R99 release point	30.00	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
BH-2	East of Worthen Street ~ 240' north of R99 release point	35.00	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
BH-3	East of Worthen Street ~ 340' north of R99 release point	30.00	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)
RW-1	East of Worthen Street ~ 315' north of R99 release point	30.00	NWTPH-Gx, NWTPH-Dx, 8260C (BTEX)

Notes:
[1]Washington State Department of Ecology. *Ecology Comments on Supplemental Remedial Investigation Report* . August 16, 2018.

APPENDIX A

GROUNDWATER SAMPLE COLLECTION FORMS

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW01

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/27/18

Sample I.D.: MW01-W Time: 1230
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 35.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 20 - 35'
Depth to product - ft
Depth to water 11.36 ft Intake Depth (BTOC) 16' Begin Purging Well: 1202
Casing volume 23.64 ft (H_2O) X 0.16 gal/ft = 3.78 gal. X 3 = 11.34 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: Faint-moderate petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1205	11.45		15.8	.191	5.50	7.68	138.4	33.1
1208	11.46		16.8	.155	5.91	7.56	89.4	32.5
1211	11.46	0.11	16.9	.155	5.86	7.28	85.4	33.1
1214	11.47		16.9	.318	4.72	6.96	67.8	23.3
1217	11.47		17.0	.382	3.66	6.94	59.3	23.3
1220	11.47		16.9	.409	3.10	6.94	54.3	24.0
1223	11.47		16.9	.418	2.82	6.94	50.0	23.5
1226	11.48		16.9	.423	2.52	6.95	46.6	22.9

Sample @ 1230

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW-15

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/27/18

Sample I.D.: MW-15-W Time: 1310
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 19.99 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 5-20
Depth to product - ft
Depth to water 11.54 ft Intake Depth (BTOC) 15' Begin Purging Well: 1250
Casing volume 8.54 ft (H_2O) X 0.65 gal/ft = 5.49 gal. X 3 = 16.47 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: V faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1252	11.53		15.9	.692	4.07	6.72	127.4	2.67
1255	11.53		17.1	.711	3.30	6.99	86.5	2.71
1258	11.53		17.3	.717	3.05	7.02	83.2	2.00
1301	11.53	0.145	17.5	.717	3.02	7.02	83.7	2.25
1304	11.54		17.5	.717	3.02	7.02	83.2	2.26
1307	11.54		17.4	.717	3.00	7.02	81.7	2.11
		Sample @			1310			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	GX, BTEX
1L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW03S

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/27/18

Sample I.D.: MW03S-W Time: 1140
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 19.30 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 5-20'
Depth to product - ft
Depth to water 7.84 ft Intake Depth (BTOC) 12' Begin Purging Well: 1118
Casing volume 11.46 ft (H_2O) X 0.65 gal/ft = 7.45 gal. X 3 = 22.35 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1121	7.95		15.3	.446	2.13	7.25	137.0	17.4
1124	8.00		16.3	.449	0.82	7.35	52.9	19.1
1127	8.06	0.160	16.4	.451	0.66	7.35	37.7	13.6
1130	8.13		16.6	.451	0.55	7.36	29.3	13.7
1133	8.20		16.7	.451	0.51	7.32	25.1	9.70
1136	8.25		16.7	.451	0.49	7.29	32.5	12.3
			Sample @ 1140					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: algae in initial purge water

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW06

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/27/18

Sample I.D. MW06-W Time: 1605
Field Duplicate I.D. MW107-W Time: 1610
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 18.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 8-18'
Depth to product tr ft
Depth to water 10.82 ft Intake Depth (BTOC) 14' Begin Purging Well: 1543
Casing volume 7.18 ft (H_2O) X 0.65 gal/ft = 4.67 gal. X 3 = 14.01 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: Strong petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1545	10.83		14.4	.582	1.47	6.75	-34.6	3.06
1548	10.82	0.155	15.5	.594	0.53	6.95	-28.4	2.63
1551	10.82		16.0	.595	0.35	6.93	-29.0	2.47
1554	10.82		16.2	.597	0.28	6.93	-32.9	2.43
1557	10.82		16.4	.597	0.24	6.91	-34.9	3.69
1600	10.82		16.4	.596	0.20	6.90	-36.0	2.75
					1605			
		Sample @			1610			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	No 0.45 0.10	Gx, BTEX
1 Lamber	1	HCl	No 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: x 2

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW07

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 11/28/18

Sample I.D. MW07-W Time: 0925
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 20.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 5-20'
Depth to product - ft
Depth to water 11.50 ft Intake Depth (BTOC) 15' Begin Purging Well: 0904
Casing volume 8.50 ft (H_2O) X 0.65 gal/ft = 5.525 gal. X 3 = 16.575 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: V faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
0907	11.55		13.2	.730	4.19	6.67	113.1	1.89
0910	11.56		15.4	.713	0.53	6.86	47.2	1.87
0913	11.56		16.1	.716	0.43	6.89	34.0	5.98
0916	11.56	0.150	16.4	.715	0.37	6.92	27.9	8.43
0919	11.57		16.5	.715	0.32	6.95	21.8	4.33
0922	11.58		16.6	.712	0.31	6.93	18.1	7.93
			Sample @ 0925					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	G-x, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW08

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/28/18

Sample I.D.: MW08-W Time: 1030
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: sock pulled from well 11/26

PURGING INFORMATION

Total well depth 25.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 15 - 25'
Depth to product - ft
Depth to water 16.04 ft Intake Depth (BTOC) 21' Begin Purging Well: 1011
Casing volume 8.96 ft (H_2O) X 0.65 gal/ft = 5.82 gal. X 3 = 17.46 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: moderate petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1014	16.10		14.4	.808	1.35	6.88	-47.6	1.90
1017	16.12		15.8	.804	0.96	6.98	-54.0	1.50
1020	16.13		16.3	.810	0.76	6.98	-57.1	1.74
1023	16.15	0.155	16.4	.810	0.46	6.96	-58.2	2.05
1026	16.16		16.5	.810	0.42	6.96	-58.7	2.00
1029	16.17		16.5	.810	0.43	6.95	-58.7	1.74

Sample @ 1030

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40-ml amber	3	HCl	(No) 0.45 0.10	GX, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Hydro Con

Well I.D. Number: MW09R

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/28/18

Sample I.D.: MW09R-W Time: 1410
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: Vaulted well w/ system pump

PURGING INFORMATION

Total well depth 32.60 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 8-33'
Depth to product - ft
Depth to water 20.03 ft Intake Depth (BTOC) 25' Begin Purging Well: 1347
Casing volume 12.57 ft (H_2O) X 0.65 gal/ft = 8.17 gal. X 3 = 24.51 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: Strong petro odor w/sheen

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1351	20.17		13.9	.889	1.28	6.72	-4.0	6.43
1354	20.18		14.8	.899	0.64	6.70	-7.0	5.87
1357	20.20		15.0	.914	0.36	6.95	0.0	6.22
1400	20.21	0.145	15.1	.916	0.32	6.94	1.4	6.71
1403	20.21		15.1	.919	0.26	6.95	1.1	6.58
1406	20.22		15.1	.920	0.24	6.94	0.7	5.99
		Sample @				1410		

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Well purged w/ tubing through top of pump

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	GX, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW10R

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/27/18

Sample I.D.: MW10R-W Time: 1145
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: Vaulted well w/ system pump

PURGING INFORMATION

Total well depth 33.59 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 13 - 33'
Depth to product 25.52 ft
Depth to water 25.61 ft Intake Depth (BTOC) 28' Begin Purging Well: 1124
Casing volume 7.98 ft (H_2O) X 0.65 gal/ft = 5.19 gal. X 3 = 15.57 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: mod odor; heavy sheen

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1127	25.80		13.3	.942	1.40	6.97	4.6	254
1130	25.82		13.8	.955	0.91	7.22	-3.6	2.20
1135	25.86	0.165	13.9	.962	0.59	7.17	-14.7	2.64
1136	25.90		14.1	.964	0.49	7.19	-19.0	2.56
1139	25.92		14.3	.965	0.44	7.17	-21.3	2.51
1142	25.93		14.3	.967	0.41	7.23	-23.3	2.62
			Sampled 1145					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Product removed w/ sock prior to sampling

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 Liter	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW11

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 11/27/18

Sample I.D. MW11-W Time: 1520
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 22.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 7-22
Depth to product - ft
Depth to water 14.11 ft Intake Depth (BTOC) 19' Begin Purging Well: 1501
Casing volume 7.89 ft (H_2O) X 0.65 gal/ft = 5.13 gal. X 3 = 15.39 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: Strong petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1503	14.10		15.7	.711	0.94	6.75	-44.9	1.98
1506	14.10	0.145	16.6	.719	0.40	6.96	-49.4	1.45
1509	14.10		16.9	.726	0.32	7.00	-52.4	1.35
1512	14.10		16.9	.728	0.24	6.97	-51.6	1.48
1515	14.10		16.9	.728	0.22	6.97	-51.1	1.40
1518	14.10		16.9	.728	0.20	6.96	-52.8	1.16
		Sample @ 1520						

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	GX, BTEX
1L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW12

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017 - 074
Date: 11/27/18

Sample I.D.: MW12-W Time: 1055
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 19.52 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 5 - 20'
Depth to product - ft
Depth to water 7.88 ft Intake Depth (BTOC) 12' Begin Purging Well: 1034
Casing volume 11.64 ft (H_2O) X 0.65 gal/ft = 7.57 gal. X 3 = 22.71 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1037	7.96		14.4	.406	4.22	6.88	156.8	1.64
1040	8.04		16.0	.349	3.11	7.09	114.0	1.37
1043	8.12		16.5	.340	2.97	7.17	103.1	1.41
1046	8.27		16.6	.335	2.91	7.18	97.6	1.46
1049	8.36	0.170	16.8	.333	2.84	7.19	95.5	1.33
1052	8.43		16.9	.332	2.86	7.19	93.0	1.64
			Sample @ 1055					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Hydro Con

Well I.D. Number: MW13

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 11/27/18

Sample I.D. MW13-W Time: 1355
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 19.80 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 5 - 20'
Depth to product - ft
Depth to water 8.22 ft Intake Depth (BTOC) 14' Begin Purging Well: 1335
Casing volume 11.58 ft (H_2O) X 0.65 gal/ft = 7.53 gal. X 3 = 22.59 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: V Strong petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1337	8.08		14.3	.777	3.40	7.03	-75.7	19.0
1340	8.17		15.1	.776	0.56	7.16	-74.5	18.1
1343	8.29		15.3	.789	0.33	7.18	-74.1	17.6
1346	8.38	0.155	15.2	.793	0.30	7.15	-76.4	16.5
1349	8.45		15.3	.793	0.26	7.20	-76.5	17.7
1352	8.52		15.3	.793	0.24	7.20	-76.6	17.9
		Sample @		1355				

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW14

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 11/27/18

Sample I.D. MW14-W Time: 1440
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 20.02 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 5-20'
Depth to product - ft
Depth to water 8.45 ft Intake Depth (BTOC) 13' Begin Purging Well: 1417
Casing volume 11.57 ft (H_2O) X 0.65 gal/ft = 7.52 gal. X 3 = 22.56 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: moderate petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1417	8.46		15.6	.851	1.46	7.11	-10.3	12.5
1422	8.49		16.2	.860	0.68	7.13	-16.6	6.37
1425	8.55		16.4	.871	0.42	7.12	-18.9	6.34
1428	8.59		16.4	.872	0.29	7.10	-22.1	6.81
1431	8.65	0.165	16.4	.871	0.24	7.07	-23.2	6.61
1434	8.65		16.5	.870	0.22	7.07	-25.1	8.03
		Sample @			1440			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Hydro Con

Well I.D. Number: MW16

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/28/18

Sample I.D.: MW16-W Time: 1120
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 29.15 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 9-29'
Depth to product - ft
Depth to water 10.07 ft Intake Depth (BTOC) 15' Begin Purging Well: 1100
Casing volume 19.12 ft (H_2O) X 0.65 gal/ft = 12.43 gal. X 3 = 37.29 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: V faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1103	9.93		13.4	.729	1.93	7.29	48.7	2.10
1106	9.98		15.0	.727	1.06	7.35	46.2	1.12
1109	10.03		15.4	.726	0.91	7.34	51.3	1.33
1112	10.07	0.150	15.5	.726	0.83	7.33	53.5	1.83
1115	10.11		15.6	.726	0.80	7.33	53.3	1.49
1118	10.15		15.6	.728	0.79	7.32	54.2	1.51
			Sample @		1120			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	No 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	No 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW17

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/28/18

Sample I.D. MW17-W Time: 1245
Field Duplicate I.D. MW108-W Time: 1250
Personnel: CJ

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: New vault installed around well; pump not installed yet

PURGING INFORMATION

Total well depth 29.41 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 9-29'
Depth to product - ft
Depth to water 14.76 ft Intake Depth (BTOC) 19' Begin Purging Well: 1224
Casing volume 14.63 ft (H_2O) X 0.65 gal/ft = 9.51 gal. X 3 = 28.53 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: light petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1226	14.76		15.7	.790	1.14	6.80	-63.0	1.69
1229	14.77		17.0	.816	0.25	6.95	-56.2	1.35
1232	14.78	0.145	17.1	.824	0.19	6.93	-55.6	1.50
1235	14.78		17.2	.826	0.16	6.92	-55.3	1.44
1238	14.78		17.3	.826	0.15	6.92	-55.1	1.53
1241	14.78		17.4	.827	0.14	6.93	-55.5	1.88
					1245			
		Sample @			1250			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW19

Project Name: Coleman Oil Wentzville
Hydrocon Project #: 2017-074
Date: 11/30/17

Sample I.D.: MW19-W Time: 1320
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: Dry when measured 11/26 w/ system on; well recharged w/ system off

PURGING INFORMATION

Total well depth 32.15 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 12 - 32'
Depth to product - ft
Depth to water 27.72 ft Intake Depth (BTOC) 31' Begin Purging Well: 1256
Casing volume 4.43 ft (H_2O) X 0.65 gal/ft = 2.88 gal. X 3 = 8.64 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☐ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☒ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1257	27.77		14.2	1.009	6.08	7.24	96.8	9.42
1300	27.85	0.140	14.7	1.054	0.87	7.04	63.3	7.32
1303	27.97		14.8	1.052	0.53	7.23	52.0	5.51
1306	28.02		15.0	1.049	0.46	7.23	47.5	8.91
1309	28.08		14.9	1.039	0.37	7.08	50	10.7
1312	28.14		15.0	1.026	0.34	7.18	46.3	9.83
1315	28.17		15.0	1.022	0.35	7.08	51.0	11.1
		Sample @			1320			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW20

Project Name:. Coleman Oil Winnatchee
Hydrocon Project #: 2017-074
Date 11/29/18

Sample I.D. MW20-W Time: 0840
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments Sock removed from well

PURGING INFORMATION

Total well depth 29.50 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 9-29'
Depth to product - ft
Depth to water 25.20 ft Intake Depth (BTOC) 28' Begin Purging Well: 0813
Casing volume 4.30 ft (H_2O) X 0.65 gal/ft = 2.80 gal. X 3 = 8.40 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
0819	25.13		12.9	1.015	1.44	6.60	49.4	2.78
0822	25.16		14.1	.990	0.92	6.95	23.4	2.72
0825	25.20	0.105	14.3	.991	0.60	7.02	6.2	2.84
0828	25.24		14.4	.991	0.47	6.97	-0.3	3.78
0831	25.27		14.4	.992	0.37	7.13	-4.4	3.92
0834	25.30		14.5	.990	0.35	7.02	-7.4	3.92
0837	25.33		14.4	.991	0.31	7.03	-9.0	3.78
		Sample @ 0840						

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW21

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017 - 074
Date 11/28/17

Sample I.D. MW21-W Time: 1535
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 32.10 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 12 - 32
Depth to product - ft
Depth to water 20.42 ft Intake Depth (BTOC) 25' Begin Purging Well: 1515
Casing volume 11.68 ft (H_2O) X 0.65 gal/ft = 7.59 gal. X 3 = 22.77 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: light petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1518	20.55		14.0	.953	1.49	7.07	-1.2	3.44
1521	20.56		14.3	.956	0.87	7.06	-0.6	2.76
1524	20.59	0.145	14.7	.970	0.61	7.04	0.2	2.91
1527	20.62		14.9	.977	0.41	7.03	7.0	2.06
1530	20.64		14.8	.977	0.32	7.03	6.1	2.80
1533	20.65		14.9	.977	0.28	7.03	6.4	3.01
			Sample @ 1535					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW23

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 11/27/18

Sample I.D. MW23-W Time: 1655
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 22.04 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 7-22'
Depth to product - ft
Depth to water 11.27 ft Intake Depth (BTOC) 14' Begin Purging Well: 1634
Casing volume 10.77 ft (H_2O) X 0.65 gal/ft = 7.00 gal. X 3 = 21.00 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1637	11.31		14.9	.687	0.74	6.90	8.0	2.22
1640	11.33		15.9	.696	0.43	6.92	21.8	6.57
1643	11.35		16.4	.702	0.31	6.91	25.9	4.33
1646	11.36	0.145	16.5	.705	0.28	6.91	25.8	3.75
1649	11.36		16.4	.706	0.26	6.90	26.8	3.77
1652	11.36		16.3	.707	0.27	6.89	27.9	2.75
			Sample @ 1655					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	6x, BTEX
1L amber	1	HCl	(No) 0.45 0.10	1x
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW24

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 11/29/17

Sample I.D. MW24-W Time: 1310
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured ____ ppm ☐ Odor
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Comments: Vaulted remediation system well

PURGING INFORMATION

Total well depth 34.25 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 14-34'
Depth to product - ft
Depth to water 26.60 ft Intake Depth (BTOC) 28.5' Begin Purging Well: 1236
Casing volume 7.65 ft (H_2O) X 0.65 gal/ft = 4.97 gal. X 3 = 14.91 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other
Bailer type: Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1248	26.61		14.0	.899	7.29	7.61	98.2	25.4
1251	26.61		13.9	.900	7.40	7.63	97.5	25.2
1254	26.61	0.125	14.0	.900	7.62	7.62	95.8	27.6
1257	26.62		13.9	.900	7.55	7.53	96.5	24.6
1300	26.62		14.0	.900	7.32	7.47	98.5	23.4
1303	26.62		14.0	.901	7.63	7.46	97.6	23.8
			Sample @ 1310					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Well purged w/ peristaltic tubing inserted into top of pump 1.0l

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	GX, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:

GROUNDWATER SAMPLE COLLECTION FORM

Hydro Con

Well I.D. Number: MW25

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/28/18

Sample I.D.: MW25-W Time: 1635
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☑ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 32.96 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 13-33'
Depth to product - ft
Depth to water 24.62 ft Intake Depth (BTOC) 27' Begin Purging Well: 1605
Casing volume 8.34 ft (H_2O) X 0.65 gal/ft = 5.42 gal. X 3 = 16.26 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1617	24.75		12.1	.341	3.66	7.49	79.4	13.2
1620	24.81		12.4	.338	2.43	7.32	70.6	11.2
1623	24.87		12.5	.335	2.08	7.28	68.5	11.6
1626	24.94	0.120	12.6	.328	2.11	7.25	67.0	10.7
1629	25.01		12.7	.328	1.86	7.26	61.7	9.93
1632	25.07		12.7	.328	1.51	7.23	56.0	10.19

Sample @ 1635

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Pumping slower due to peristaltic pump limits

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	GX, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW26

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 11/29/18

Sample I.D. MW26-W Time: 1405
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 32.52 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 12-32
Depth to product - ft
Depth to water 25.36 ft Intake Depth (BTOC) 27.5' Begin Purging Well: 1343
Casing volume 7.16 ft (H_2O) X 0.65 gal/ft = 4.65 gal. X 3 = 13.95 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1346	25.45		13.8	.708	2.72	7.33	105.8	9.75
1349	25.54		14.4	.713	1.73	7.31	74.0	6.60
1352	25.60	0.160	14.3	.720	2.82	7.14	62.6	7.33
1355	25.65		14.7	.716	1.78	7.17	58.0	6.93
1358	25.72		14.8	.718	1.48	7.24	53.6	6.73
1401	25.77		14.8	.720	1.28	7.26	50.5	6.03
		Sample @			1405			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW27

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/29/18

Sample I.D.: MW27-W Time: 1610
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 38.74 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 13-38'
Depth to product - ft
Depth to water 23.94 ft Intake Depth (BTOC) 26' Begin Purging Well: 1538
Casing volume 14.80 ft (H_2O) X 0.65 gal/ft = 9.62 gal. X 3 = 28.86 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1549	24.02		12.2	.858	4.01	7.68	-41.1	8.55
1552	24.05		13.4	.851	1.60	7.72	-30.2	7.76
1555	24.10	0.110	13.8	.853	1.37	7.68	-23.8	8.73
1558	24.16		14.1	.862	1.22	7.56	-15.9	7.84
1601	24.20		14.2	.861	1.18	7.61	-12.5	8.30
1604	24.23		14.2	.857	1.15	7.57	-9.9	7.89
			Sample @ 1610					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW28

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 12/1/18

Sample I.D.: MW28-W Time: 1100
Field Duplicate I.D.: - Time: -
Personnel: CO

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: Vaulted system well

PURGING INFORMATION

Total well depth 38.74 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 13 - 38'
Depth to product - ft
Depth to water 25.00 ft Intake Depth (BTOC) 33' Begin Purging Well: 1050
Casing volume 13.74 ft (H_2O) X 0.65 gal/ft = 8.93 gal. X 3 = 26.79 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☐ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder ☒ Other pneumatic
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: V faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1055	-	-	13.4	.908	5.26	6.89	-20.6	341

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Orange algae in purge water; Sampled from pneumatic system pump

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Hydro Con

Well I.D. Number: MW29

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/30/18

Sample I.D.: MW29-W Time: 1550
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: Vaulted well w/ System pump installed

PURGING INFORMATION

Total well depth 39.11 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 14 - 39'
Depth to product - ft
Depth to water 34.25 ft Intake Depth (BTOC) 38.5' Begin Purging Well: 1523
Casing volume 4.86 ft (H_2O) X 0.65 gal/ft = 3.16 gal. X 3 = 9.48 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☐ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☒ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: v faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1529	35.00		13.0	.689	8.71	7.93	-37.3	72.1
1532	35.01		14.2	.674	7.00	8.11	-25.1	53.9
1535	35.15		13.8	.666	6.44	8.12	-9.3	51.9
1538	35.18		14.4	.666	6.27	8.22	-6.4	43.0
1541	35.20	0.110	14.5	.669	6.13	8.26	-7.4	44.1
1544	35.18		14.6	.673	6.08	8.24	-5.9	35.7
			Sample		@	1550		

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW30

Project Name: Coleman OIT Weatherford
Hydrocon Project #: 2017-074
Date: 11/30/18

Sample I.D.: MW30-W Time: 1445
Field Duplicate I.D.: - Time: -
Personnel: CS

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: Vaulted w/ system pump; DTW below top of pump

PURGING INFORMATION

Total well depth 39.79 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 14-39'
Depth to product - ft
Depth to water 34.24 ft Intake Depth (BTOC) 39' Begin Purging Well: 1420
Casing volume 4.95 ft (H_2O) X 0.65 gal/ft = 3.22 gal. X 3 = 9.66 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☐ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☒ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1421	35.34		15.0	.964	4.71	6.99	-60.5	+
1424	35.38		14.7	.938	1.15	7.27	-72.7	+
1427	35.44	0.16	14.9	.928	0.84	7.29	-75.8	550
1430	35.51		14.4	.927	0.65	7.35	-74.4	493
1433	35.59		15.1	.916	0.61	7.35	-69.9	285
1436	35.63		15.0	.912	0.52	7.12	-68.9	512
1439	35.75		15.1	.907	0.68	7.13	-69.0	191
1442	35.80		15.0	.906	0.59	7.12	-69.3	
			Sample @ 1445					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: + = overrange; System pump removed to sample well

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW31

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 12/1/18

Sample I.D. MW31-W Time: 0940
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured ____ ppm ☐ Odor
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Comments

PURGING INFORMATION

Total well depth 39.28 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 14 - 39'
Depth to product - ft
Depth to water 36.02 ft Intake Depth (BTOC) 39' Begin Purging Well: 0917
Casing volume 4.26 ft (H_2O) X 0.65 gal/ft = 2.77 gal. X 3 = 8.31 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☐ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☒ Non-Dedicated Bladder Other
Bailer type: Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other

FIELD PARAMETERS

Odor and/or Sheen: light petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
0918	35.13		13.5	1.138	2.39	6.58	519	191
0921	35.23		13.6	1.124	1.01	6.94	-3.0	72.4
0924	35.35		13.7	1.122	0.64	7.00	-39.1	27.6
0927	35.54	0.170	13.7	1.121	0.50	7.04	-48.6	17.9
0930	35.64		13.6	1.121	0.41	7.05	-54.4	14.9
0933	35.74		13.8	1.121	0.39	7.06	-57.6	7.87
		Sample	@	0940				

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments:

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW32

Project Name: Colemun Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/28/18

Sample I.D.: MW32-W Time: 1200
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Comments: New vault installed on well

PURGING INFORMATION

Total well depth 34.02 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 9-34'
Depth to product - ft
Depth to water 12.28 ft Intake Depth (BTOC) 16' Begin Purging Well: 1139
Casing volume 21.74 ft (H_2O) X 0.65 gal/ft = 14.13 gal. X 3 = 42.39 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1141	12.35		15.1	.533	1.35	6.74	124.8	1.46
1144	12.40	0.145	15.5	.532	0.47	6.85	115.3	1.00
1147	12.96		15.6	.534	0.32	6.87	100.0	1.09
1150	12.50		15.7	.535	0.27	6.89	91.5	1.12
1153	12.55		15.6	.538	0.25	6.89	84.9	1.07
1156	12.57		15.7	.540	0.24	6.89	82.1	1.23
		Sample @			1200			

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: B1to1

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date 12/1/18

Sample I.D. B1to1-W Time: 1030
Field Duplicate I.D. MW107-W Time: 1036
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Comments Vaulted system well

PURGING INFORMATION

Total well depth 30.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 20-30'
Depth to product NM ft
Depth to water NM ft Intake Depth (BTOC) ~ Begin Purging Well: 1020
Casing volume ~ ft (H_2O) X 0.16 gal/ft = ~ gal. X 3 = ~ gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☐ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other pneumatic
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: light petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1025	NM	-	12.7	.901	3.27	6.94	-34.0	26.1

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Used installed system pump to collect water sample

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VOA	3	HCl	No 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	No 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

↓ x2

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: BH02

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/30/18

Sample I.D.: BH02-W Time: 1635
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 35.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 20 - 35'
Depth to product tr ft
Depth to water 25.63 ft Intake Depth (BTOC) 34' Begin Purging Well: 1616
Casing volume 6.37 ft (H_2O) X 0.16 gal/ft = 1.02 gal. X 3 = 3.06 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☐ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☒ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: Strong odor, light sheen

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1617	28.89		11.7	.685	2.49	7.76	-2.3	525
1620	29.05		14.0	.849	0.87	6.88	-38.9	178
1623	29.44		13.9	.850	0.49	6.91	-42.0	107
1626	29.75	0.145	13.8	.847	0.42	6.84	-45.1	81.5
1629	30.04		13.6	.848	0.40	6.88	-47.7	45.1
1632	30.33		13.7	.852	0.37	6.89	-49.1	32.3
		Sample	@	1635				

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	GX, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	DX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: BH03

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-047
Date: 12/29/18

Sample I.D. BH03-W Time: 1505
Field Duplicate I.D. - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Comments _____

PURGING INFORMATION

Total well depth 30.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 15'-30'
Depth to product - ft
Depth to water 24.04 ft Intake Depth (BTOC) 27' Begin Purging Well: 1439
Casing volume 5.96 ft (H_2O) X 0.16 gal/ft = .954 gal. X 3 = 2.86 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: V faint petro odor

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1448	24.28		12.6	1.116	1.86	7.41	-43.6	6.51
1451	24.35		13.1	1.133	1.92	7.41	-44.8	19.6
1454	24.42	0.045	13.2	1.138	1.87	7.41	-45.7	17.1
1457	24.50		13.3	1.138	1.30	7.25	-46.7	10.7
1500	24.60		13.4	1.139	0.88	7.34	-47.6	6.93
1503	24.68		13.6	1.143	0.74	7.26	-48.5	5.56

Sample @ 1505

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40ml VoA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: RW01

Project Name: Coleman Oil Wenatchee
Hydrocon Project #: 2017-074
Date: 11/30/17

Sample I.D.: RW01-W Time: 0940
Field Duplicate I.D.: - Time: -
Personnel: CD

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair _____ ☐ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs replacement ☐ Surface Water in Well
Headspace reading: ☒ Not measured _____ ppm ☐ Odor _____
Well diameter: ☐ 2-inch ☐ 4-inch ☐ 6-inch ☒ Other 3"
Comments _____

PURGING INFORMATION

Total well depth 30.00 ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): 15-30'
Depth to product - ft
Depth to water 25.63 ft Intake Depth (BTOC) 27.5 Begin Purging Well: 0910
Casing volume 4.37 ft (H_2O) X 0.325 gal/ft = 1.42 gal. X 3 = 4.26 gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other _____
Bailer type: _____ Water Disposal:: ☐ Drummed ☒ Remediation System ☐ Other _____

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
0918	25.85		11.6	1.102	8.54	6.25	108.0	8.39
0921	25.93		13.2	.971	1.35	7.27	30.3	4.54
0924	26.01		13.8	.951	0.79	7.45	26.8	4.72
0927	26.09	0.140	13.9	.947	0.64	7.46	30.4	4.19
0930	26.20		13.9	.945	0.48	7.47	32.3	5.68
0933	26.28		13.8	.938	0.40	7.47	28.2	5.24
		Sample @ 0940						

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: _____

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	Gx, BTEX
1 L amber	1	HCl	(No) 0.45 0.10	Dx
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: _____

APPENDIX B

LABORATORY REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION

Apex Laboratories, LLC
12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

Wednesday, December 12, 2018

Craig Hultgren
HydroCon LLC
314 W 15th Street Suite 300
Vancouver, WA 98660

RE: A8L0038 - Coleman Wenatchee - 2017-074

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A8L0038, which was received by the laboratory on 12/3/2018 at 11:37:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of final reporting, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	1.0 degC	Cooler #2	0.8 degC
Cooler #3	2.2 degC		

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW01-W	A8L0038-01	Water	11/27/18 12:30	12/03/18 11:37
MW01S-W	A8L0038-02	Water	11/27/18 13:10	12/03/18 11:37
MW03S-W	A8L0038-03	Water	11/27/18 11:40	12/03/18 11:37
MW06-W	A8L0038-04	Water	11/27/18 16:05	12/03/18 11:37
MW07-W	A8L0038-05	Water	11/28/18 09:25	12/03/18 11:37
MW08-W	A8L0038-06	Water	11/28/18 10:30	12/03/18 11:37
MW09R-W	A8L0038-07	Water	11/28/18 14:10	12/03/18 11:37
MW10R-W	A8L0038-08	Water	11/29/18 11:45	12/03/18 11:37
MW11-W	A8L0038-09	Water	11/27/18 15:20	12/03/18 11:37
MW12-W	A8L0038-10	Water	11/27/18 10:55	12/03/18 11:37
MW13-W	A8L0038-11	Water	11/27/18 13:55	12/03/18 11:37
MW14-W	A8L0038-12	Water	11/27/18 14:40	12/03/18 11:37
MW16-W	A8L0038-13	Water	11/28/18 11:20	12/03/18 11:37
MW17-W	A8L0038-14	Water	11/28/18 12:45	12/03/18 11:37
MW19-W	A8L0038-15	Water	11/30/18 13:20	12/03/18 11:37
MW20-W	A8L0038-16	Water	11/29/18 08:40	12/03/18 11:37
MW21-W	A8L0038-17	Water	11/28/18 15:35	12/03/18 11:37
MW23-W	A8L0038-18	Water	11/27/18 16:55	12/03/18 11:37
MW24-W	A8L0038-19	Water	11/29/18 13:10	12/03/18 11:37
MW25-W	A8L0038-20	Water	11/28/18 16:35	12/03/18 11:37
MW26-W	A8L0038-21	Water	11/29/18 14:05	12/03/18 11:37
MW27-W	A8L0038-22	Water	11/29/18 16:10	12/03/18 11:37
MW28-W	A8L0038-23	Water	12/01/18 11:00	12/03/18 11:37
MW29-W	A8L0038-24	Water	11/30/18 15:50	12/03/18 11:37
MW30-W	A8L0038-25	Water	11/30/18 14:45	12/03/18 11:37
MW31-W	A8L0038-26	Water	12/01/18 09:40	12/03/18 11:37
MW32-W	A8L0038-27	Water	11/28/18 12:00	12/03/18 11:37
BH01-W	A8L0038-28	Water	12/01/18 10:30	12/03/18 11:37
BH02-W	A8L0038-29	Water	11/30/18 16:35	12/03/18 11:37
BH03-W	A8L0038-30	Water	11/29/18 15:05	12/03/18 11:37
RW01-W	A8L0038-31	Water	11/30/18 09:40	12/03/18 11:37
MW107-W	A8L0038-32	Water	11/27/18 16:10	12/03/18 11:37

Apex Laboratories

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW108-W	A8L0038-33	Water	11/28/18 12:50	12/03/18 11:37
MW109-W	A8L0038-34	Water	12/01/18 10:36	12/03/18 11:37
BLANK 181130	A8L0038-35	Water	11/30/18 11:45	12/03/18 11:37

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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Apex Laboratories, LLC

12232 S.W. Garden Place
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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL CASE NARRATIVE

Work Order: A8L0038

Temperature Preservation:

Upon receipt of samples, a cooler was screened for temperature compliance and was determined to be 7 degrees Celsius (limit: not frozen, 0-6 degrees C). Ice was not present in the coolers used to transfer samples from the sampler's refrigerated storage to the laboratory. Ice was added to the coolers to reduce the temperature to within regulatory conditions until sample login was completed and samples were transferred to laboratory refrigeration. The limited temperature exceedance that occurred during transit is not anticipated to affect analytical sample results since samples were quickly brought back into temperature compliance and acid preservation was properly applied in the field to inhibit biodegradation of target analytes.

Kent Patton
Director of Technical Services
12/06/2018

Apex Laboratories, LLC

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW01-W (A8L0038-01)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**159**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-11**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 88 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW01S-W (A8L0038-02)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	ND	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW03S-W (A8L0038-03)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	ND	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 90 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW06-W (A8L0038-04)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**634**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 90 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW07-W (A8L0038-05)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**283**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-11**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW08-W (A8L0038-06)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**505**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 94 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW09R-W (A8L0038-07)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**1850**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 80 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW10R-W (A8L0038-08)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**1370**	---	377	ug/L	5	12/05/18	NWTPH-Dx	**F-13, F-20**

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC
12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW10R-W (A8L0038-08)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Oil	ND	---	755	ug/L	5	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 82 %*		*Limits: 50-150 %*	*5*	*12/05/18*	*NWTPH-Dx*	
MW11-W (A8L0038-09)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**503**	---	75.5	ug/L	1	12/04/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/04/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 83 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Dx*	
MW12-W (A8L0038-10)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**92.8**	---	75.5	ug/L	1	12/04/18	NWTPH-Dx	**F-11**
Oil	ND	---	151	ug/L	1	12/04/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 87 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Dx*	
MW13-W (A8L0038-11)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**3250**	---	75.5	ug/L	1	12/04/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/04/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 69 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Dx*	
MW14-W (A8L0038-12)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**933**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-11, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 83 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW16-W (A8L0038-13)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**337**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-11**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 85 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW17-W (A8L0038-14)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**1580**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 83 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW19-W (A8L0038-15)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	ND	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	

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Lisa Domenighini, Client Services Manager

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW19-W (A8L0038-15)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Surrogate: o-Terphenyl (Surr)		*Recovery: 88 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW20-W (A8L0038-16)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**1280**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 88 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW21-W (A8L0038-17)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**992**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 86 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW23-W (A8L0038-18)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**380**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-11**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 85 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW24-W (A8L0038-19)				**Matrix: Water**			**Batch: 8120396**	**TEMP**
Diesel	**914**	---	75.5	ug/L	1	12/05/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/05/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 91 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Dx*	
MW25-W (A8L0038-20RE1)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	**121**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 75 %*		*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW26-W (A8L0038-21)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	ND	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 86 %*		*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW27-W (A8L0038-22)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	ND	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	

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Lisa Domenighini, Client Services Manager

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EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW27-W (A8L0038-22)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW28-W (A8L0038-23)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	**486**	---	79.2	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	158	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 97 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW29-W (A8L0038-24)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	**238**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	**809**	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW30-W (A8L0038-25)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	**304**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 97 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW31-W (A8L0038-26)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	ND	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW32-W (A8L0038-27)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	ND	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
BH01-W (A8L0038-28)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	**5120**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
BH02-W (A8L0038-29)				**Matrix: Water**			**Batch: 8120422**	**TEMP**
Diesel	**7040**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: 74 %*	*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BH03-W (A8L0038-30)				**Matrix: Water**		**Batch: 8120422**		**TEMP**
Diesel	**502**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 94 %*		*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
RW01-W (A8L0038-31)				**Matrix: Water**		**Batch: 8120422**		**TEMP**
Diesel	**152**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW107-W (A8L0038-32)				**Matrix: Water**		**Batch: 8120422**		**TEMP**
Diesel	**894**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 91 %*		*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW108-W (A8L0038-33)				**Matrix: Water**		**Batch: 8120422**		**TEMP**
Diesel	**969**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-13, F-20**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 83 %*		*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	
MW109-W (A8L0038-34RE1)				**Matrix: Water**		**Batch: 8120422**		**TEMP**
Diesel	**59600**	---	755	ug/L	10	12/07/18	NWTPH-Dx	**F-13**
Oil	ND	---	1510	ug/L	10	12/07/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 113 %*		*Limits: 50-150 %*	*10*	*12/07/18*	*NWTPH-Dx*	*S-05*
BLANK 181130 (A8L0038-35)				**Matrix: Water**		**Batch: 8120422**		**TEMP**
Diesel	**105**	---	75.5	ug/L	1	12/06/18	NWTPH-Dx	**F-17**
Oil	ND	---	151	ug/L	1	12/06/18	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 85 %*		*Limits: 50-150 %*	*1*	*12/06/18*	*NWTPH-Dx*	

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW01-W (A8L0038-01)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	**152**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*113 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW01S-W (A8L0038-02)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 99 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW03S-W (A8L0038-03)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 99 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW06-W (A8L0038-04RE1)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Gasoline Range Organics	**499**	---	100	ug/L	1	12/05/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 101 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*102 %*	*50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
MW07-W (A8L0038-05)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW08-W (A8L0038-06RE1)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Gasoline Range Organics	**921**	---	100	ug/L	1	12/05/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 95 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*99 %*	*50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
MW09R-W (A8L0038-07)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	**1300**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 105 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW10R-W (A8L0038-08)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	**2160**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW10R-W (A8L0038-08)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*103 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW11-W (A8L0038-09)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Gasoline Range Organics	**1350**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*104 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW12-W (A8L0038-10)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*96 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW13-W (A8L0038-11)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Gasoline Range Organics	**22400**	---	5000	ug/L	50	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*97 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*102 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW14-W (A8L0038-12)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Gasoline Range Organics	**5170**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*103 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW16-W (A8L0038-13)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*97 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*103 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW17-W (A8L0038-14)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Gasoline Range Organics	**1390**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*104 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW19-W (A8L0038-15)				**Matrix: Water**		**Batch: 8120353**		**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	

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ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW19-W (A8L0038-15)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW20-W (A8L0038-16)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	**674**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*103 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW21-W (A8L0038-17)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	**789**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*112 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW23-W (A8L0038-18)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW24-W (A8L0038-19)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Gasoline Range Organics	**154**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 111 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW25-W (A8L0038-20)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 108 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW26-W (A8L0038-21)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 107 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW27-W (A8L0038-22)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 107 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	

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ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW27-W (A8L0038-22)				**Matrix: Water**		**Batch: 8120320**		**TEMP**
Surrogate: 1,4-Difluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW28-W (A8L0038-23)				**Matrix: Water**		**Batch: 8120320**		**TEMP**
Gasoline Range Organics	**385**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 112 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW29-W (A8L0038-24)				**Matrix: Water**		**Batch: 8120320**		**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 108 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW30-W (A8L0038-25)				**Matrix: Water**		**Batch: 8120320**		**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 111 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW31-W (A8L0038-26)				**Matrix: Water**		**Batch: 8120320**		**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 108 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*107 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
MW32-W (A8L0038-27)				**Matrix: Water**		**Batch: 8120320**		**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 108 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
BH01-W (A8L0038-28)				**Matrix: Water**		**Batch: 8120320**		**TEMP**
Gasoline Range Organics	**1420**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 109 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
BH02-W (A8L0038-29)				**Matrix: Water**		**Batch: 8120360**		**TEMP**
Gasoline Range Organics	**509**	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 115 %*	*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*109 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	

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Lisa Domenighini, Client Services Manager

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EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BH03-W (A8L0038-30RE1)				**Matrix: Water**			**Batch: 8120417**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/05/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 110 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*106 %*	*50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
RW01-W (A8L0038-31)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/05/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 94 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*99 %*	*50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
MW107-W (A8L0038-32)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Gasoline Range Organics	**503**	---	100	ug/L	1	12/05/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 103 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
MW108-W (A8L0038-33)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Gasoline Range Organics	**1390**	---	100	ug/L	1	12/05/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 102 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
MW109-W (A8L0038-34RE1)				**Matrix: Water**			**Batch: 8120411**	**TEMP**
Gasoline Range Organics	**1460**	---	100	ug/L	1	12/05/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 110 %*		*Limits: 50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/05/18*	*NWTPH-Gx (MS)*	
BLANK 181130 (A8L0038-35)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Gasoline Range Organics	ND	---	100	ug/L	1	12/04/18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery: 111 %*		*Limits: 50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*	*1*	*12/04/18*	*NWTPH-Gx (MS)*	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW01-W (A8L0038-01)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*101 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW01S-W (A8L0038-02)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW03S-W (A8L0038-03)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW06-W (A8L0038-04RE1)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/05/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/05/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/05/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/05/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
MW07-W (A8L0038-05)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW07-W (A8L0038-05)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW08-W (A8L0038-06RE1)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Benzene	**0.214**	---	0.200	ug/L	1	12/05/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/05/18	EPA 8260C	
Ethylbenzene	**1.06**	---	0.500	ug/L	1	12/05/18	EPA 8260C	
Xylenes, total	**6.23**	---	1.50	ug/L	1	12/05/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits: 80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
MW09R-W (A8L0038-07)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*108 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW10R-W (A8L0038-08)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	**3.90**	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	**5.98**	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW11-W (A8L0038-09)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW11-W (A8L0038-09)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW12-W (A8L0038-10)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW13-W (A8L0038-11)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	**1380**	---	10.0	ug/L	50	12/04/18	EPA 8260C	
Toluene	**271**	---	50.0	ug/L	50	12/04/18	EPA 8260C	
Ethylbenzene	**458**	---	25.0	ug/L	50	12/04/18	EPA 8260C	
Xylenes, total	**3170**	---	75.0	ug/L	50	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW14-W (A8L0038-12)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	**15.2**	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	**1.70**	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*102 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*120 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*102 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW16-W (A8L0038-13)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW16-W (A8L0038-13)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*107 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW17-W (A8L0038-14)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	**0.305**	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW19-W (A8L0038-15)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW20-W (A8L0038-16)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*97 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW21-W (A8L0038-17)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	

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Lisa Domenighini, Client Services Manager

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW21-W (A8L0038-17)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*105 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW23-W (A8L0038-18)				**Matrix: Water**			**Batch: 8120353**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW24-W (A8L0038-19)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*94 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW25-W (A8L0038-20)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW26-W (A8L0038-21)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW26-W (A8L0038-21)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*98 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*94 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW27-W (A8L0038-22)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*96 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW28-W (A8L0038-23)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	**0.208**	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*94 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW29-W (A8L0038-24)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*95 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW30-W (A8L0038-25)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*97 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW30-W (A8L0038-25)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Surrogate: 4-Bromofluorobenzene (Surr)			*Recovery: 96 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW31-W (A8L0038-26)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 108 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*93 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
MW32-W (A8L0038-27)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*94 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
BH01-W (A8L0038-28)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	**0.608**	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*92 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
BH02-W (A8L0038-29)				**Matrix: Water**			**Batch: 8120360**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 109 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*94 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BH03-W (A8L0038-30RE1)				**Matrix: Water**			**Batch: 8120417**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/05/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/05/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/05/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/05/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
RW01-W (A8L0038-31)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/05/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/05/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/05/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/05/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits: 80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
MW107-W (A8L0038-32)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/05/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/05/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/05/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/05/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*104 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
MW108-W (A8L0038-33)				**Matrix: Water**			**Batch: 8120408**	**TEMP**
Benzene	**0.257**	---	0.200	ug/L	1	12/05/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/05/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/05/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/05/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits: 80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*106 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*99 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
MW109-W (A8L0038-34RE1)				**Matrix: Water**			**Batch: 8120411**	**TEMP**

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
MW109-W (A8L0038-34RE1)				**Matrix: Water**			**Batch: 8120411**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/05/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/05/18	EPA 8260C	
Ethylbenzene	**0.649**	---	0.500	ug/L	1	12/05/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/05/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*107 %*	*Limits: 80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*96 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*94 %*	*80-120 %*	*1*	*12/05/18*	*EPA 8260C*	
BLANK 181130 (A8L0038-35)				**Matrix: Water**			**Batch: 8120320**	**TEMP**
Benzene	ND	---	0.200	ug/L	1	12/04/18	EPA 8260C	
Toluene	ND	---	1.00	ug/L	1	12/04/18	EPA 8260C	
Ethylbenzene	ND	---	0.500	ug/L	1	12/04/18	EPA 8260C	
Xylenes, total	ND	---	1.50	ug/L	1	12/04/18	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits: 80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	
4-Bromofluorobenzene (Surr)			*100 %*	*80-120 %*	*1*	*12/04/18*	*EPA 8260C*	

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120396 - EPA 3510C (Fuels/Acid Ext.)									**Water**			
Blank (8120396-BLK1)		Prepared: 12/04/18 17:30 Analyzed: 12/04/18 23:11										
NWTPH-Dx												
Diesel	ND	---	72.7	ug/L	1	---	---	---	---	---	---	
Oil	ND	---	145	ug/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 92 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS (8120396-BS1)		Prepared: 12/04/18 17:30 Analyzed: 12/04/18 23:33										
NWTPH-Dx												
Diesel	405	---	80.0	ug/L	1	500	---	81	52-120%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 94 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS Dup (8120396-BSD1)		Prepared: 12/04/18 17:30 Analyzed: 12/04/18 23:54										**Q-19**
NWTPH-Dx												
Diesel	411	---	80.0	ug/L	1	500	---	82	52-120%	1	20%	
Surr: o-Terphenyl (Surr)		*Recovery: 91 %*	*Limits: 50-150 %*		*Dilution: 1x*							
Batch 8120422 - EPA 3510C (Fuels/Acid Ext.)									**Water**			
Blank (8120422-BLK1)		Prepared: 12/05/18 12:03 Analyzed: 12/06/18 03:24										
NWTPH-Dx												
Diesel	ND	---	72.7	ug/L	1	---	---	---	---	---	---	
Oil	ND	---	145	ug/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 100 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS (8120422-BS1)		Prepared: 12/05/18 12:03 Analyzed: 12/06/18 03:46										
NWTPH-Dx												
Diesel	496	---	80.0	ug/L	1	500	---	99	52-120%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 106 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS Dup (8120422-BSD1)		Prepared: 12/05/18 12:03 Analyzed: 12/06/18 04:08										**Q-19**
NWTPH-Dx												
Diesel	552	---	80.0	ug/L	1	500	---	110	52-120%	11	20%	
Surr: o-Terphenyl (Surr)		*Recovery: 112 %*	*Limits: 50-150 %*		*Dilution: 1x*							

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120320 - EPA 5030B									**Water**			
Blank (8120320-BLK1)		Prepared: 12/04/18 07:00		Analyzed: 12/04/18 09:14								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 108 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*106 %*		*50-150 %*		*"*					
LCS (8120320-BS2)		Prepared: 12/04/18 07:00		Analyzed: 12/04/18 08:47								
NWTPH-Gx (MS)												
Gasoline Range Organics	489	---	100	ug/L	1	500	---	98	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 110 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*103 %*		*50-150 %*		*"*					
Duplicate (8120320-DUP1)		Prepared: 12/04/18 08:23		Analyzed: 12/04/18 18:21								**TEMP**
QC Source Sample: BH01-W (A8L0038-28)												
NWTPH-Gx (MS)												
Gasoline Range Organics	**1400**	---	100	ug/L	1	---	1420	---	---	1	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 112 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*105 %*		*50-150 %*		*"*					
Duplicate (8120320-DUP2)		Prepared: 12/04/18 08:23		Analyzed: 12/04/18 19:17								**TEMP**
QC Source Sample: MW109-W (A8L0038-34)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	1000	ug/L	10	---	1040	---	---	***	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 107 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*104 %*		*50-150 %*		*"*					

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120353 - EPA 5030B												**Water**
Blank (8120353-BLK1)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 09:11										
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 98 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*104 %*	*50-150 %*		*"*							
LCS (8120353-BS2)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 08:43										
NWTPH-Gx (MS)												
Gasoline Range Organics	500	---	100	ug/L	1	500	---	100	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 98 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*104 %*	*50-150 %*		*"*							
Duplicate (8120353-DUP1)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 10:36										**TEMP**
QC Source Sample: MW01S-W (A8L0038-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 100 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*105 %*	*50-150 %*		*"*							
Duplicate (8120353-DUP2)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 15:21										**TEMP**
QC Source Sample: MW13-W (A8L0038-11)												
NWTPH-Gx (MS)												
Gasoline Range Organics	**21900**	---	5000	ug/L	50	---	22400	---	---	2	30%	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 95 %*	*Limits: 50-150 %*		*Dilution: 1x*							
1,4-Difluorobenzene (Sur)		*101 %*	*50-150 %*		*"*							

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120360 - EPA 5030B												**Water**
Blank (8120360-BLK1)		Prepared: 12/04/18 08:00 Analyzed: 12/04/18 10:31										
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 107 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*109 %*		*50-150 %*			*"*					
LCS (8120360-BS2)		Prepared: 12/04/18 08:00 Analyzed: 12/04/18 10:05										
NWTPH-Gx (MS)												
Gasoline Range Organics	487	---	100	ug/L	1	500	---	97	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 104 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*105 %*		*50-150 %*			*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120408 - EPA 5030B									Water			
Blank (8120408-BLK1)		Prepared: 12/05/18 09:30 Analyzed: 12/05/18 11:45										
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 94 %*		*Limits: 50-150 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Sur)			*100 %*		*50-150 %*			*"*				
LCS (8120408-BS2)		Prepared: 12/05/18 09:30 Analyzed: 12/05/18 11:17										
NWTPH-Gx (MS)												
Gasoline Range Organics	489	---	100	ug/L	1	500	---	98	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 92 %*		*Limits: 50-150 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Sur)			*100 %*		*50-150 %*			*"*				

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120411 - EPA 5030B									Water			
Blank (8120411-BLK1)		Prepared: 12/05/18 10:33		Analyzed: 12/05/18 11:55								
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 109 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*107 %*		*50-150 %*		*"*					
LCS (8120411-BS2)		Prepared: 12/05/18 10:33		Analyzed: 12/05/18 11:28								
NWTPH-Gx (MS)												
Gasoline Range Organics	474	---	100	ug/L	1	500	---	95	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 110 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*104 %*		*50-150 %*		*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120417 - EPA 5030B												**Water**
Blank (8120417-BLK1)		Prepared: 12/05/18 10:56 Analyzed: 12/05/18 12:17										
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 108 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*105 %*		*50-150 %*			*"*					
LCS (8120417-BS2)		Prepared: 12/05/18 10:56 Analyzed: 12/05/18 11:50										
NWTPH-Gx (MS)												
Gasoline Range Organics	507	---	100	ug/L	1	500	---	101	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		*Recovery: 108 %*		*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)		*104 %*		*50-150 %*			*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120320 - EPA 5030B												**Water**
Blank (8120320-BLK1)		Prepared: 12/04/18 07:00		Analyzed: 12/04/18 09:14								
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 106 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*98 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*95 %*		*80-120 %*			*"*					
LCS (8120320-BS1)		Prepared: 12/04/18 07:00		Analyzed: 12/04/18 08:20								
EPA 8260C												
Benzene	20.3	---	0.200	ug/L	1	20.0	---	101	80-120%	---	---	
Toluene	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Ethylbenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Xylenes, total	55.3	---	1.50	ug/L	1	60.0	---	92	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*97 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*95 %*		*80-120 %*			*"*					
Duplicate (8120320-DUP1)		Prepared: 12/04/18 08:23		Analyzed: 12/04/18 18:21								**TEMP**
QC Source Sample: BH01-W (A8L0038-28)												
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	**0.688**	---	0.500	ug/L	1	---	0.608	---	---	12	30%	
Xylenes, total	**1.54**	---	1.50	ug/L	1	---	1.44	---	---	7	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 105 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*96 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*96 %*		*80-120 %*			*"*					
Duplicate (8120320-DUP2)		Prepared: 12/04/18 08:23		Analyzed: 12/04/18 19:17								**TEMP**
QC Source Sample: MW109-W (A8L0038-34)												
EPA 8260C												

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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120320 - EPA 5030B							**Water**					
Duplicate (8120320-DUP2)		Prepared: 12/04/18 08:23		Analyzed: 12/04/18 19:17								**TEMP**
QC Source Sample: MW109-W (A8L0038-34)												
Benzene	ND	---	2.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	ND	---	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	5.00	ug/L	10	---	ND	---	---	---	30%	
Xylenes, total	ND	---	15.0	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Matrix Spike (8120320-MS1)		Prepared: 12/04/18 08:23		Analyzed: 12/04/18 10:37								**TEMP**
QC Source Sample: MW24-W (A8L0038-19)												
EPA 8260C												
Benzene	21.6	---	0.200	ug/L	1	20.0	ND	108	79-120%	---	---	
Toluene	20.1	---	1.00	ug/L	1	20.0	ND	100	80-121%	---	---	
Ethylbenzene	19.8	---	0.500	ug/L	1	20.0	ND	99	79-121%	---	---	
Xylenes, total	59.0	---	1.50	ug/L	1	60.0	ND	98	79-121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*104 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*98 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*			*"*				

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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120353 - EPA 5030B												**Water**
Blank (8120353-BLK1)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 09:11										
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 107 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*106 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*101 %*		*80-120 %*			*"*					
LCS (8120353-BS1)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 08:14										
EPA 8260C												
Benzene	20.7	---	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Toluene	19.9	---	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Ethylbenzene	19.8	---	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Xylenes, total	58.6	---	1.50	ug/L	1	60.0	---	98	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*105 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*97 %*		*80-120 %*			*"*					
Duplicate (8120353-DUP1)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 10:36										**TEMP**
QC Source Sample: MW01S-W (A8L0038-02)												
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 108 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*107 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*99 %*		*80-120 %*			*"*					
Duplicate (8120353-DUP2)		Prepared: 12/04/18 07:45 Analyzed: 12/04/18 15:21										**TEMP**
QC Source Sample: MW13-W (A8L0038-11)												
EPA 8260C												

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EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120353 - EPA 5030B								**Water**				
Duplicate (8120353-DUP2)		Prepared: 12/04/18 07:45		Analyzed: 12/04/18 15:21								**TEMP**
QC Source Sample: MW13-W (A8L0038-11)												
Benzene	**1370**	---	10.0	ug/L	50	---	1380	---	---	0.7	30%	
Toluene	**273**	---	50.0	ug/L	50	---	271	---	---	0.6	30%	
Ethylbenzene	**452**	---	25.0	ug/L	50	---	458	---	---	1	30%	
Xylenes, total	**3100**	---	75.0	ug/L	50	---	3170	---	---	2	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*105 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*107 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*			*"*				
Matrix Spike (8120353-MS1)		Prepared: 12/04/18 07:45		Analyzed: 12/04/18 19:37								**TEMP**
QC Source Sample: MW23-W (A8L0038-18)												
EPA 8260C												
Benzene	21.8	---	0.200	ug/L	1	20.0	ND	109	79-120%	---	---	
Toluene	20.7	---	1.00	ug/L	1	20.0	ND	104	80-121%	---	---	
Ethylbenzene	21.0	---	0.500	ug/L	1	20.0	ND	105	79-121%	---	---	
Xylenes, total	62.6	---	1.50	ug/L	1	60.0	ND	104	79-121%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*103 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*			*"*				

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120360 - EPA 5030B												**Water**
Blank (8120360-BLK1)		Prepared: 12/04/18 08:00		Analyzed: 12/04/18 10:31								
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 109 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*98 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*		*"*					
LCS (8120360-BS1)		Prepared: 12/04/18 08:00		Analyzed: 12/04/18 09:38								
EPA 8260C												
Benzene	18.8	---	0.200	ug/L	1	20.0	---	94	80-120%	---	---	
Toluene	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Ethylbenzene	18.4	---	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Xylenes, total	53.4	---	1.50	ug/L	1	60.0	---	89	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*96 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*		*"*					

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120408 - EPA 5030B												**Water**
Blank (8120408-BLK1)		Prepared: 12/05/18 09:30		Analyzed: 12/05/18 11:45								
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 106 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*106 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*101 %*		*80-120 %*			*"*					
LCS (8120408-BS1)		Prepared: 12/05/18 09:30		Analyzed: 12/05/18 10:48								
EPA 8260C												
Benzene	20.3	---	0.200	ug/L	1	20.0	---	102	80-120%	---	---	
Toluene	20.2	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Ethylbenzene	20.1	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Xylenes, total	59.0	---	1.50	ug/L	1	60.0	---	98	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*105 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*			*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120411 - EPA 5030B												**Water**
Blank (8120411-BLK1)		Prepared: 12/05/18 10:33		Analyzed: 12/05/18 11:55								
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 108 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*97 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*		*"*					
LCS (8120411-BS1)		Prepared: 12/05/18 10:33		Analyzed: 12/05/18 11:01								
EPA 8260C												
Benzene	20.5	---	0.200	ug/L	1	20.0	---	102	80-120%	---	---	
Toluene	19.0	---	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Ethylbenzene	18.9	---	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Xylenes, total	55.3	---	1.50	ug/L	1	60.0	---	92	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 105 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*98 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*94 %*		*80-120 %*		*"*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 8120417 - EPA 5030B							**Water**					
Blank (8120417-BLK1)		Prepared: 12/05/18 10:56		Analyzed: 12/05/18 12:17								
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 105 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*96 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*100 %*		*80-120 %*			*"*					
LCS (8120417-BS1)		Prepared: 12/05/18 10:56		Analyzed: 12/05/18 11:23								
EPA 8260C												
Benzene	17.8	---	0.200	ug/L	1	20.0	---	89	80-120%	---	---	
Toluene	16.9	---	1.00	ug/L	1	20.0	---	85	80-120%	---	---	
Ethylbenzene	17.7	---	0.500	ug/L	1	20.0	---	89	80-120%	---	---	
Xylenes, total	51.8	---	1.50	ug/L	1	60.0	---	86	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 102 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*95 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*98 %*		*80-120 %*			*"*					

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8120396							
A8L0038-01	Water	NWTPH-Dx	11/27/18 12:30	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-02	Water	NWTPH-Dx	11/27/18 13:10	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-03	Water	NWTPH-Dx	11/27/18 11:40	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-04	Water	NWTPH-Dx	11/27/18 16:05	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-05	Water	NWTPH-Dx	11/28/18 09:25	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-06	Water	NWTPH-Dx	11/28/18 10:30	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-07	Water	NWTPH-Dx	11/28/18 14:10	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-08	Water	NWTPH-Dx	11/29/18 11:45	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-09	Water	NWTPH-Dx	11/27/18 15:20	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-10	Water	NWTPH-Dx	11/27/18 10:55	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-11	Water	NWTPH-Dx	11/27/18 13:55	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-12	Water	NWTPH-Dx	11/27/18 14:40	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-13	Water	NWTPH-Dx	11/28/18 11:20	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-14	Water	NWTPH-Dx	11/28/18 12:45	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-15	Water	NWTPH-Dx	11/30/18 13:20	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-16	Water	NWTPH-Dx	11/29/18 08:40	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-17	Water	NWTPH-Dx	11/28/18 15:35	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-18	Water	NWTPH-Dx	11/27/18 16:55	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
A8L0038-19	Water	NWTPH-Dx	11/29/18 13:10	12/04/18 17:30	1060mL/2mL	1000mL/2mL	0.94
Batch: 8120422							
A8L0038-20RE1	Water	NWTPH-Dx	11/28/18 16:35	12/05/18 12:03	1060mL/2mL	1000mL/2mL	0.94
A8L0038-21	Water	NWTPH-Dx	11/29/18 14:05	12/05/18 12:03	1060mL/2mL	1000mL/2mL	0.94
A8L0038-22	Water	NWTPH-Dx	11/29/18 16:10	12/05/18 12:03	1060mL/2mL	1000mL/2mL	0.94
A8L0038-23	Water	NWTPH-Dx	12/01/18 11:00	12/05/18 12:03	1010mL/2mL	1000mL/2mL	0.99
A8L0038-24	Water	NWTPH-Dx	11/30/18 15:50	12/05/18 12:03	1060mL/2mL	1000mL/2mL	0.94
A8L0038-25	Water	NWTPH-Dx	11/30/18 14:45	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-26	Water	NWTPH-Dx	12/01/18 09:40	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-27	Water	NWTPH-Dx	11/28/18 12:00	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-28	Water	NWTPH-Dx	12/01/18 10:30	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-29	Water	NWTPH-Dx	11/30/18 16:35	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-30	Water	NWTPH-Dx	11/29/18 15:05	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-31	Water	NWTPH-Dx	11/30/18 09:40	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-32	Water	NWTPH-Dx	11/27/18 16:10	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-33	Water	NWTPH-Dx	11/28/18 12:50	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-34RE1	Water	NWTPH-Dx	12/01/18 10:36	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94
A8L0038-35	Water	NWTPH-Dx	11/30/18 11:45	12/05/18 14:28	1060mL/2mL	1000mL/2mL	0.94

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Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8120320							
A8L0038-19	Water	NWTPH-Gx (MS)	11/29/18 13:10	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-20	Water	NWTPH-Gx (MS)	11/28/18 16:35	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-21	Water	NWTPH-Gx (MS)	11/29/18 14:05	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-22	Water	NWTPH-Gx (MS)	11/29/18 16:10	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-23	Water	NWTPH-Gx (MS)	12/01/18 11:00	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-24	Water	NWTPH-Gx (MS)	11/30/18 15:50	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-25	Water	NWTPH-Gx (MS)	11/30/18 14:45	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-26	Water	NWTPH-Gx (MS)	12/01/18 09:40	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-27	Water	NWTPH-Gx (MS)	11/28/18 12:00	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-28	Water	NWTPH-Gx (MS)	12/01/18 10:30	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-35	Water	NWTPH-Gx (MS)	11/30/18 11:45	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
Batch: 8120353							
A8L0038-01	Water	NWTPH-Gx (MS)	11/27/18 12:30	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-02	Water	NWTPH-Gx (MS)	11/27/18 13:10	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-03	Water	NWTPH-Gx (MS)	11/27/18 11:40	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-05	Water	NWTPH-Gx (MS)	11/28/18 09:25	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-07	Water	NWTPH-Gx (MS)	11/28/18 14:10	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-08	Water	NWTPH-Gx (MS)	11/29/18 11:45	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-09	Water	NWTPH-Gx (MS)	11/27/18 15:20	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-10	Water	NWTPH-Gx (MS)	11/27/18 10:55	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-11	Water	NWTPH-Gx (MS)	11/27/18 13:55	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-12	Water	NWTPH-Gx (MS)	11/27/18 14:40	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-13	Water	NWTPH-Gx (MS)	11/28/18 11:20	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-14	Water	NWTPH-Gx (MS)	11/28/18 12:45	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-15	Water	NWTPH-Gx (MS)	11/30/18 13:20	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-16	Water	NWTPH-Gx (MS)	11/29/18 08:40	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-17	Water	NWTPH-Gx (MS)	11/28/18 15:35	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-18	Water	NWTPH-Gx (MS)	11/27/18 16:55	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
Batch: 8120360							
A8L0038-29	Water	NWTPH-Gx (MS)	11/30/18 16:35	12/04/18 10:27	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC
12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

SAMPLE PREPARATION INFORMATION

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8120408							
A8L0038-04RE1	Water	NWTPH-Gx (MS)	11/27/18 16:05	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-06RE1	Water	NWTPH-Gx (MS)	11/28/18 10:30	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-31	Water	NWTPH-Gx (MS)	11/30/18 09:40	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-32	Water	NWTPH-Gx (MS)	11/27/18 16:10	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-33	Water	NWTPH-Gx (MS)	11/28/18 12:50	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
Batch: 8120411							
A8L0038-34RE1	Water	NWTPH-Gx (MS)	12/01/18 10:36	12/05/18 11:36	5mL/5mL	5mL/5mL	1.00
Batch: 8120417							
A8L0038-30RE1	Water	NWTPH-Gx (MS)	11/29/18 15:05	12/05/18 11:35	5mL/5mL	5mL/5mL	1.00

BTEX Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 8120320							
A8L0038-19	Water	EPA 8260C	11/29/18 13:10	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-20	Water	EPA 8260C	11/28/18 16:35	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-21	Water	EPA 8260C	11/29/18 14:05	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-22	Water	EPA 8260C	11/29/18 16:10	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-23	Water	EPA 8260C	12/01/18 11:00	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-24	Water	EPA 8260C	11/30/18 15:50	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-25	Water	EPA 8260C	11/30/18 14:45	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-26	Water	EPA 8260C	12/01/18 09:40	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-27	Water	EPA 8260C	11/28/18 12:00	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-28	Water	EPA 8260C	12/01/18 10:30	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
A8L0038-35	Water	EPA 8260C	11/30/18 11:45	12/04/18 08:23	5mL/5mL	5mL/5mL	1.00
Batch: 8120353							
A8L0038-01	Water	EPA 8260C	11/27/18 12:30	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-02	Water	EPA 8260C	11/27/18 13:10	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-03	Water	EPA 8260C	11/27/18 11:40	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-05	Water	EPA 8260C	11/28/18 09:25	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-07	Water	EPA 8260C	11/28/18 14:10	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-08	Water	EPA 8260C	11/29/18 11:45	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-09	Water	EPA 8260C	11/27/18 15:20	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-10	Water	EPA 8260C	11/27/18 10:55	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00

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Apex Laboratories, LLC
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503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

SAMPLE PREPARATION INFORMATION

BTEX Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A8L0038-11	Water	EPA 8260C	11/27/18 13:55	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-12	Water	EPA 8260C	11/27/18 14:40	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-13	Water	EPA 8260C	11/28/18 11:20	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-14	Water	EPA 8260C	11/28/18 12:45	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-15	Water	EPA 8260C	11/30/18 13:20	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-16	Water	EPA 8260C	11/29/18 08:40	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-17	Water	EPA 8260C	11/28/18 15:35	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
A8L0038-18	Water	EPA 8260C	11/27/18 16:55	12/04/18 07:45	5mL/5mL	5mL/5mL	1.00
Batch: 8120360							
A8L0038-29	Water	EPA 8260C	11/30/18 16:35	12/04/18 10:27	5mL/5mL	5mL/5mL	1.00
Batch: 8120408							
A8L0038-04RE1	Water	EPA 8260C	11/27/18 16:05	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-06RE1	Water	EPA 8260C	11/28/18 10:30	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-31	Water	EPA 8260C	11/30/18 09:40	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-32	Water	EPA 8260C	11/27/18 16:10	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
A8L0038-33	Water	EPA 8260C	11/28/18 12:50	12/05/18 10:26	5mL/5mL	5mL/5mL	1.00
Batch: 8120411							
A8L0038-34RE1	Water	EPA 8260C	12/01/18 10:36	12/05/18 11:36	5mL/5mL	5mL/5mL	1.00
Batch: 8120417							
A8L0038-30RE1	Water	EPA 8260C	11/29/18 15:05	12/05/18 11:35	5mL/5mL	5mL/5mL	1.00

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EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

F-11	The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
F-17	No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
F-20	Result for Diesel is Estimated due to overlap from Gasoline Range Organics or other VOCs.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
TEMP	Sample(s) received outside of recommended temperature. See Case Narrative.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the blank results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories, LLC
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Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

LABORATORY ACCREDITATION INFORMATION

TNI Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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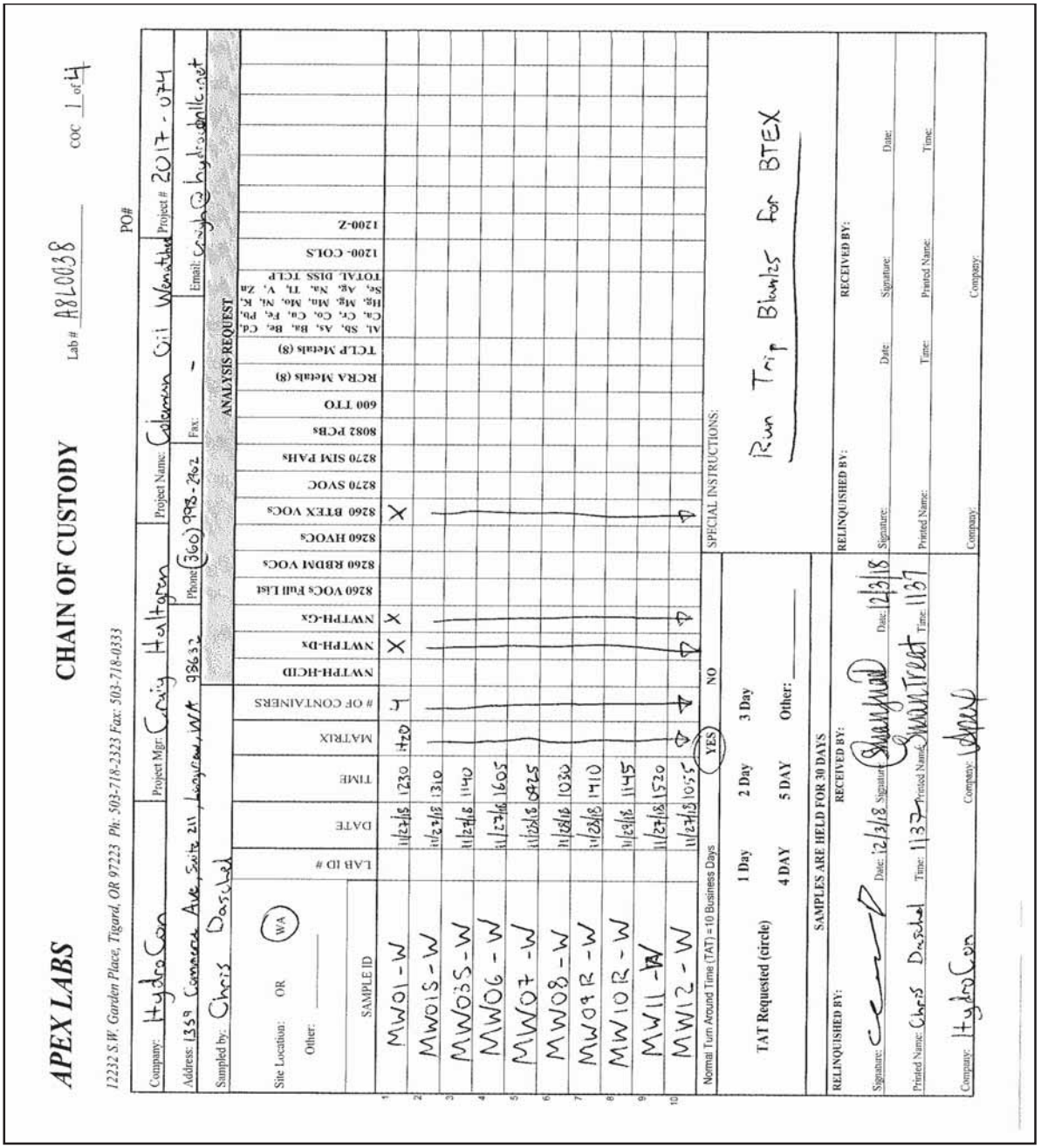
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**



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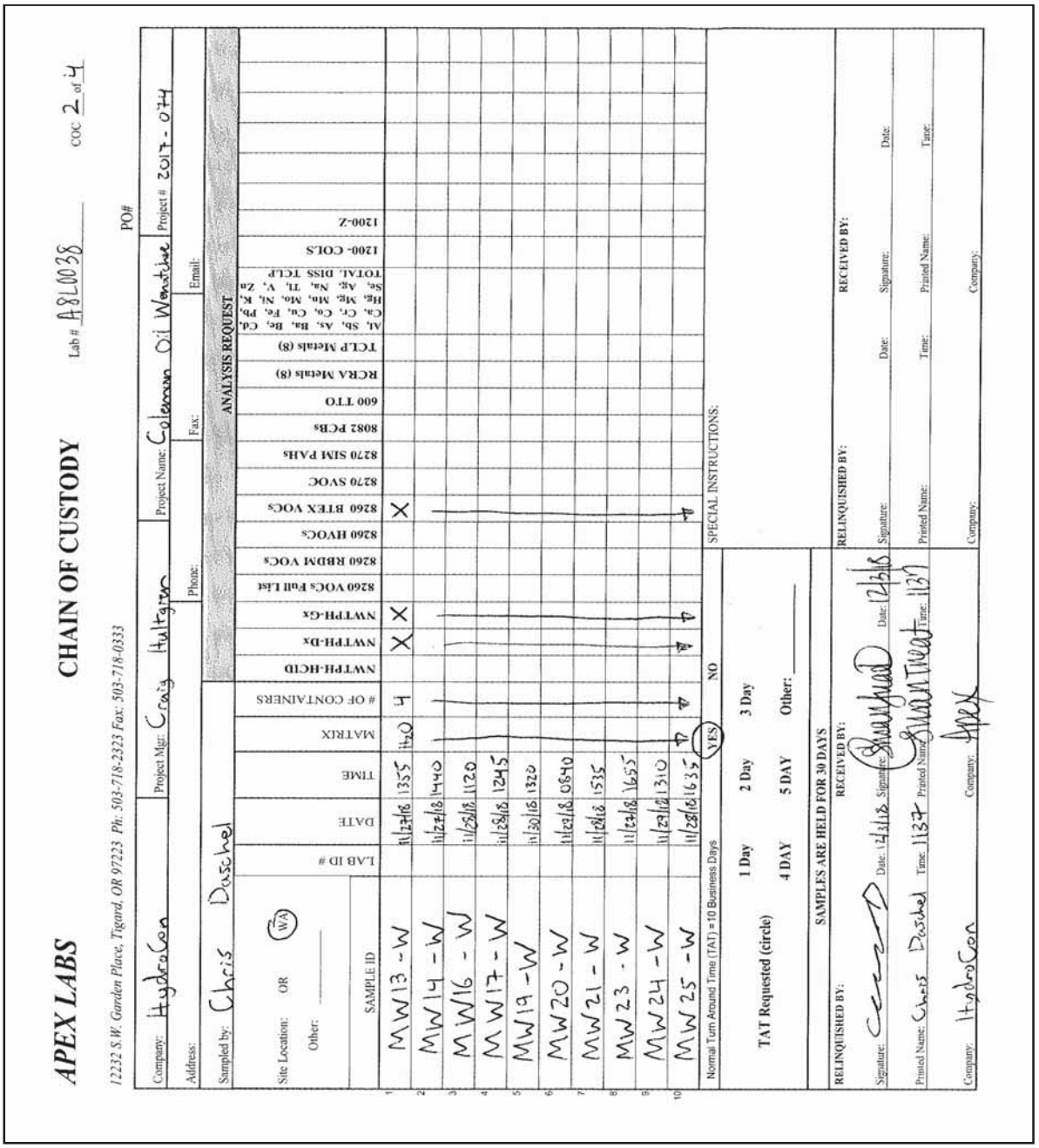

APEX LABS — **CHAIN OF CUSTODY** — Lab # A8L0038 — COC 2 of 4 — PO#

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: HydroCon | Project Mgr: Craig Hultgren | Project Name: Coleman Oil Wenatchee | Project #: 2017-074
Address: | Phone: | Fax: | Email:
Sampled by: Chris Doschel

Site Location: OR (WA) Other: _____

ANALYSIS REQUEST

#	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDMI VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1	MW13-W		11/27/18	1355	H2O	4		X	X				X									
2	MW14-W		11/27/18	1640																		
3	MW16-W		11/28/18	1120																		
4	MW17-W		11/28/18	1245																		
5	MW19-W		11/30/18	1320																		
6	MW20-W		11/27/18	0840																		
7	MW21-W		11/28/18	1535																		
8	MW23-W		11/27/18	1625																		
9	MW24-W		11/27/18	1310																		
10	MW25-W		11/28/18	1635																		

Normal Turn Around Time (TAT) = 10 Business Days — (YES) NO

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 4 DAY | 5 DAY | Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: _____ Printed Name: Chris Doschel Company: HydroCon
RECEIVED BY: Date: 12/4/18 Signature: [signature] Printed Name: [signature] Time: 1137 Company: Apex

RELINQUISHED BY: Signature: [signature] Date: 12/5/18 Printed Name: [signature] Time: 1137 Company: _____
RECEIVED BY: Signature: _____ Date: _____ Printed Name: _____ Time: _____ Company: _____

Apex Laboratories

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Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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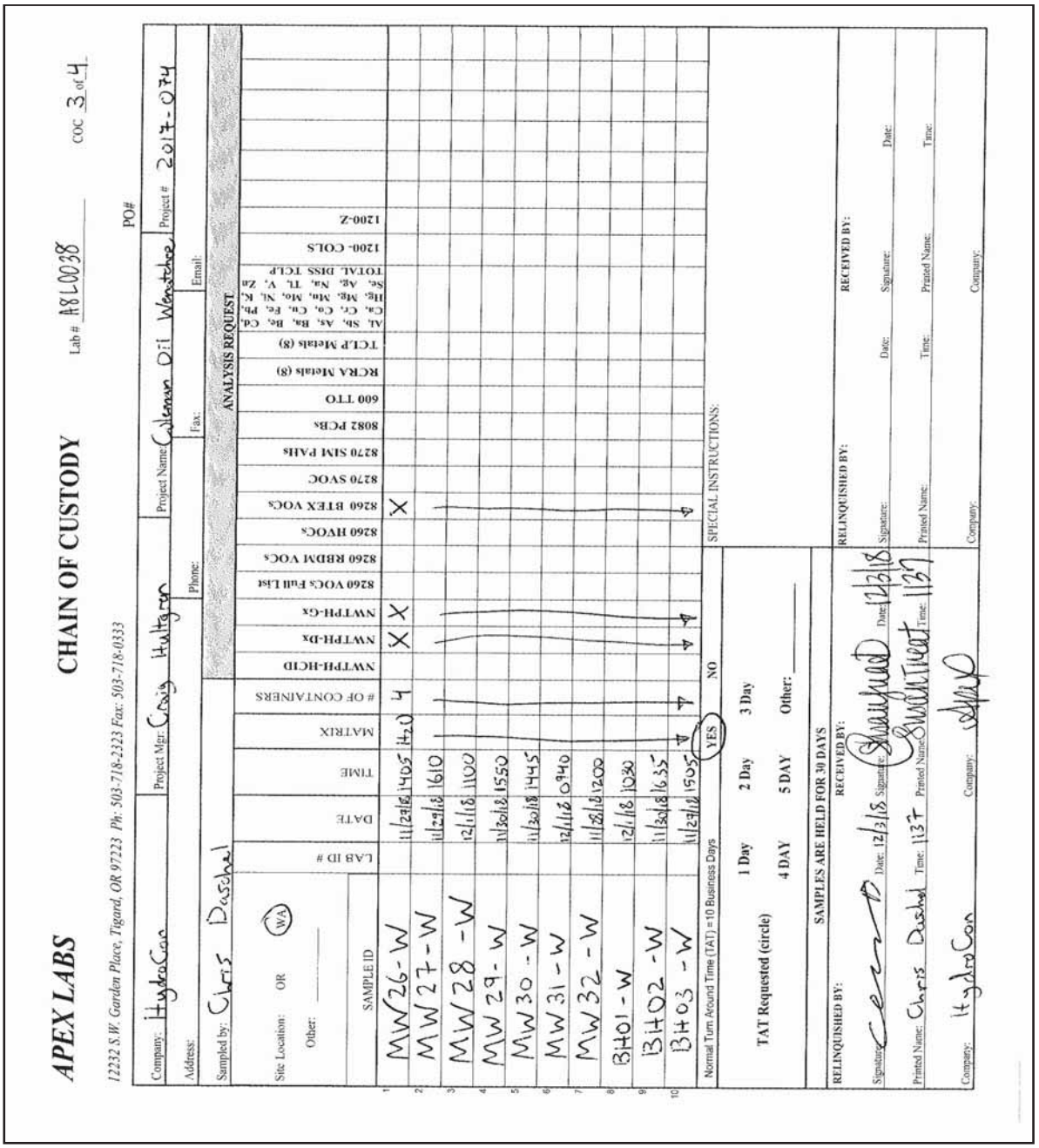
12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**



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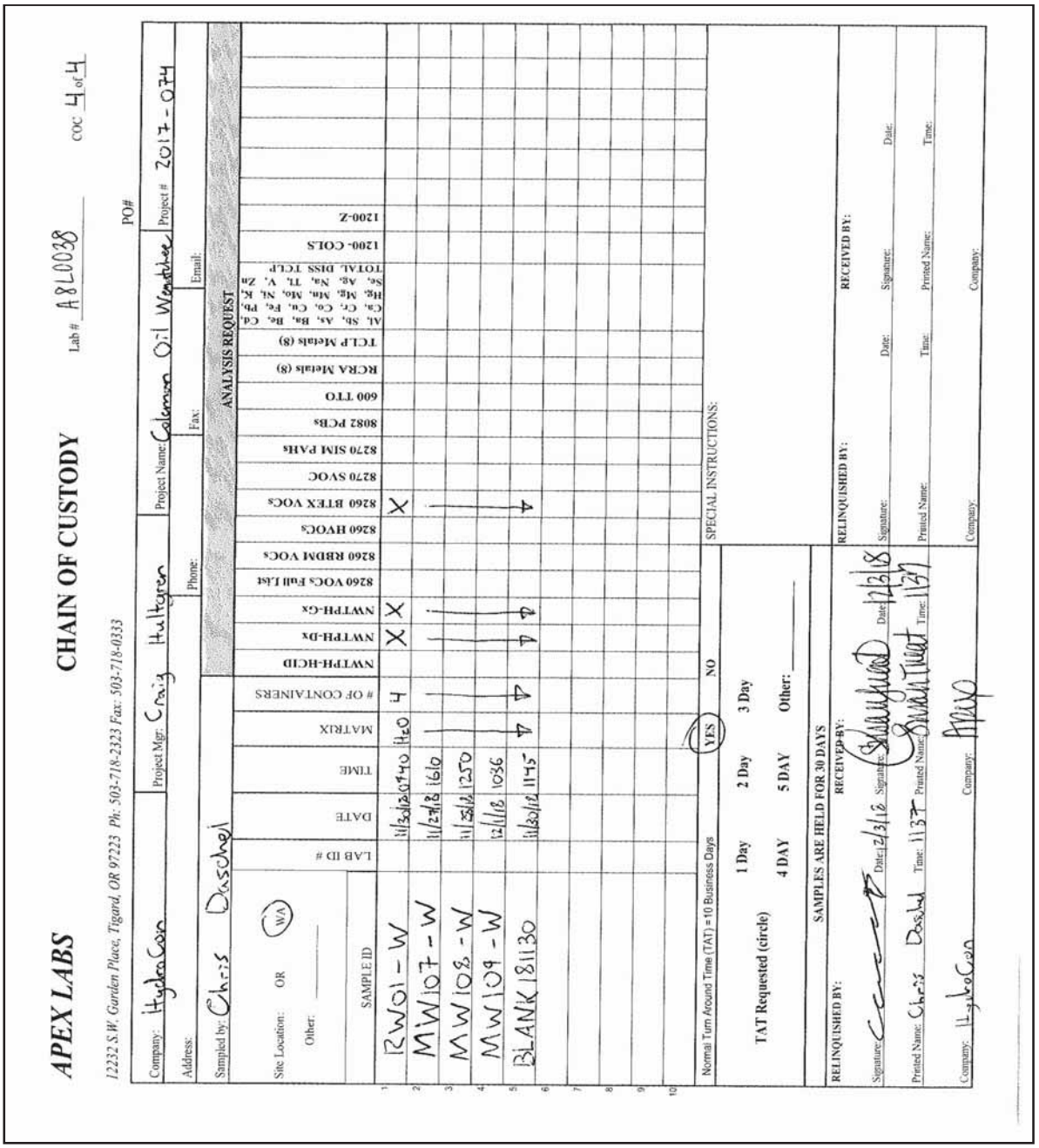
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**



APEX LABS

CHAIN OF CUSTODY

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Lab # A8L0038 COC 4 of 4 PO#

Company: HydroCon Project Mgr: Craig Hultgren Project Name: Coleman Oil Wenatchee Project # 2017-074

Address: Phone: Fax: Email:

Sampled by: Chris Daschel

Site Location: OR WA Other:

ANALYSIS REQUEST

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1	RW01-W		11/30/18	0940	H2O	4		X	X				X									
2	MW107-W		11/29/18	1610																		
3	MW108-W		11/28/18	1250																		
4	MW109-W		12/1/18	1036		4			4				4									
5	BLANK181130		11/30/18	1145		4			4				4									
6																						
7																						
8																						
9																						
10																						

Normal Turn Around Time (TAT) = 10 Business Days (YES) NO

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: 12/3/18 Printed Name: Chris Daschel Time: 1137 Company: HydroCon

RECEIVED BY: Signature: Date: 12/3/18 Printed Name: Time: 1137 Company:

RELINQUISHED BY: Signature: Date: Printed Name: Time: Company:

RECEIVED BY: Signature: Date: Printed Name: Time: Company:

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC
12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323
EPA ID: OR01039

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

APEX LABS COOLER RECEIPT FORM

1/2 1/3 @ 1616/18

Client: Hydrocon Element WO#: A8L0038

Project/Project #: Coleman Oil Wenatchee

Delivery Info:

Date/time received: 12/3/18 @ 1137 By: (8)

Delivered by: Apex___ Client X ESS___ FedEx___ UPS___ Swift___ Senvoy___ SDS___ Other___

Cooler Inspection Date/time inspected: 12/3/18 @ 1137 By: (8)

Chain of Custody included? Yes X No ___ Custody seals? Yes___ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.0	0.8	2.2				
Received on ice? (Y/N)	Y	→	→				
Temp. blanks? (Y/N)	N	→	→				
Ice type: (Gel/Real/Other)	real	→	→				
Condition:	⊗12/5/18 sad	→	→				

Cooler out of temp? (Y/N) Possible reason why: Coolers not out of temp (8)

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: 17:08 @ 12/3/18 By: (8)

All samples intact? Yes X No ___ Comments:

Bottle labels/COCs agree? Yes ___ No X Comments: 2/3 VOAs D read 11/26/18 on MW26-W, COC D reads 11/29/18. D on MW10R-W VOAs read 11/29/18, COC*

COC/container discrepancies form initiated? Yes ___ No ___ NA X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: *reads 11/29/18

Do VOA vials have visible headspace? Yes X No ___ NA ___

Comments Sed 3/3 on MW29-W

Water samples: pH checked: Yes X No___NA___ pH appropriate? Yes X No___NA___

Comments:

Additional information: MW28-W only received 2/3 VOAs. Only 1 was labeled, but were bagged together.

Labeled by: (8) Witness: (W) Cooler Inspected by: (W) See Project Contact Form: Y

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HydroCon LLC	Project: **Coleman Wenatchee**	
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Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

~~2/2~~ 2/3 @ 1146/18

APEX LABS COOLER RECEIPT FORM

Client: Hydrocon Element WO#: A8L0038

Project/Project #: Coleman Old Wenatchee

Delivery Info:

Date/time received: 12/3/18 @ 930 By: JS

Delivered by: Apex___ Client X ESS___ FedEx___ UPS___ Swift___ Senvoy___ SDS___ Other_____

Cooler Inspection Date/time inspected: 12/3/18 @ 930 By: JS

Chain of Custody included? Yes___ No X Custody seals? Yes_____ No X

Signed/dated by client? Yes___ No X

Signed/dated by Apex? Yes___ No X

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	1.0						
Received on ice? (Y/N)	N						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	n/A						
Condition:	out						

Cooler out of temp? (Y/N) Possible reason why: no ice 12/5/18 8

If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No/NA

Out of temperature samples form initiated? Yes/No/NA

Samples Inspection: Date/time inspected: _____ @ _____ By: _____

All samples intact? Yes___ No___ Comments: _____

Bottle labels/COCs agree? Yes___ No___ Comments: _____

COC/container discrepancies form initiated? Yes___ No___ NA___

Containers/volumes received appropriate for analysis? Yes___ No___ Comments: _____

Do VOA vials have visible headspace? Yes___ No___ NA___

Comments _____

Water samples: pH checked: Yes___No___NA___ pH appropriate? Yes___No___NA___

Comments: _____

Additional information: _____

Labeled by: Witness: Cooler Inspected by: See Project Contact Form: Y

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A8L0038 - 12 12 18 1137**

A8L0038
3/3

Hydrocon – Coleman Oil Wenatchee

WO A8L0038

12/03/18 9:30 AM

Sample Cooler one of three was screened for temperature at time coolers entered laboratory. Cooler was found to be without ice and temperature of cooler was determined to be 7 degrees Celsius. Client was surprised at temperature since bottles had been pulled from refrigeration just prior to cross town trip from office to lab. Staff reminded client that ice is required to ensure samples are continuously chilled during transport. Client then added ice to coolers to drop and maintain temperature of coolers.

Iced coolers were processed for laboratory receipt and complete inspection at 11:37 on the same day, 12/3/18. At that time all samples were within compliance temperature limits. Analytical report will include narrative that the temperature limit of 6 degrees may have been exceeded for water samples during transit to the laboratory due to insufficient ice in coolers. Since waters were preserved with acid and there is evidence of refrigeration no adverse effect on analyses is anticipated.

APPENDIX C

DATA QUALITY REVIEW REPORT

TO: Craig Hultgren, HydroCon

FROM: Manon Tanner-Dave

DATE: December 19, 2018

SUBJECT: Laboratory Validation Report

HydroCon TOC Site No. 2017-074

Sampling Event Type: Water Sampling

Number of Samples: 35

Laboratory Work Order: A8L0038

Final Report Date & Time: December 12, 2018

Analysis & Method

- ☒ Gasoline Range Hydrocarbon (NWTPH-Gx)
- ☒ Diesel Range Hydrocarbon without Silica Gel (NWTPH-Dx) ☐
- ☐ Diesel Range Organics with Silica Gel (NWTPH-DxSG)
- ☐ Volatile Organic Compounds (EPA 8260C)
- ☒ BETX (8021B)
- ☐ Total Lead (200.8)
- ☐ Sulfate (300.0)
- ☐ Other

Data Package Completeness:

Data package was complete.

EDD to Hardcopy Verification:

An EDD was not provided.

Technical Data Validation:

- ☒ Holding Times & Sample Receipt
- ☒ Surrogate Compounds
- ☒ Associated Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ☒ Associated Laboratory Duplicate
- ☒ Laboratory Control Sample/ Laboratory Control Sample Duplicates (LCS/LCSD)
- ☒ Method Blank
- ☒ Field Duplicates
- ☒ Target Analyte List
- ☒ Reporting Limits (MDL and MRL)
- ☒ Reported Results

Holding Times & Sample Receipt:

All holding times and sample receipt were acceptable, with the exceptions noted below:

The laboratory noted upon arrival that the date collected on bottles for samples MW26-W and MW10R-W were different than the dates recorded on the chain of custody forms. No qualifiers were applied to the results.

Upon receipt of samples, a cooler was screened for temperature compliance and was determined to be 7°C (Control limit = not frozen, 0-6°C). Ice was not present in the cooler used to transfer samples from the sampler's refrigerated storage to the laboratory. Ice was added to the cooler to reduce the temperature to within regulatory conditions until sample login was completed and samples were transferred to laboratory refrigeration. The limited temperature exceedance that occurred during transit is not anticipated to affect analytical sample results since samples were quickly brought back into temperature compliance and acid preservation was properly applied in the field to inhibit biodegradation of target analytes. Therefore, no qualifiers were applied to the results.

Headspace was detected in all VOA vials for sample MW29-W; results for GRO and BTEX were qualified J/UJ-HT.

Surrogate Compounds:

All surrogate percent recoveries (%R) were within laboratory limits, with the exceptions noted below:

Associated Matrix Spike/Matrix Spike Duplicate (MS/MSD):

Matrix spikes were analyzed at the appropriate frequency and all %R were within the acceptance criteria.

Associated Laboratory Duplicate:

Laboratory duplicates were analyzed at the appropriate frequency and all relative percent difference (RPD) were within the acceptance criteria.

Laboratory Control Sample/Laboratory Control Sample Duplicates:

LCS were analyzed at the appropriate frequency and all %R were within the acceptance criteria.

Method Blank:

Method blanks were analyzed at the appropriate frequency and were non-detect (ND) for all target analytes, with the exceptions noted below:

Blank ID	Analyte	Units	Result	MRL	Associated Samples	Qualifier/Comments
Blank 181130 (A8L0038-35)	**Diesel**	ug/L	105	75.5	MW19-W (A8L0038-15) **MW29-W (A8L0038-24)** **MW30-W (A8L0038-25)** BH02-W (A8L0038-29) **RW01-W (A8L0038-31)**	Samples collected on 11/30/18 qualified if < 5x field blank concentration (U-FB).

Note:
Samples and analytes to which qualifiers are assigned are in **bold**.

Field Duplicate(s):

Relative percent differences (RPDs) between parent and field duplicate samples were acceptable, with the exceptions noted below:

Analyte	Parent Sample MW06-W	Duplicate Sample MW107-W	RPD (CL = 35%)	Comments/Qualifiers
Diesel	634	894	34.0	
Oil	ND	ND	Not calculated	
GRO	499	503	0.8	
Benzene	ND	ND	Not calculated	
Toluene	ND	ND	Not calculated	
Ethylbenzene	ND	ND	Not calculated	
Xylenes, total	ND	ND	Not calculated	

Analyte	Parent Sample MW17-W	Duplicate Sample MW108-W	RPD	Comments/Qualifiers
Diesel	1580	969	47.9	J-REP qualify results.
Oil	ND	ND	Not calculated	
GRO	1390	1390	0.0	
Benzene	0.305	0.257	17.1	
Toluene	ND	ND	Not calculated	
Ethylbenzene	ND	ND	Not calculated	
Xylenes, total	ND	ND	Not calculated	

Analyte	Parent Sample BH01-W	Duplicate Sample MW109-W	RPD	Comments/Qualifiers
Diesel	5120	59600	168.4	J-REP qualify results.
Oil	ND	ND	Not calculated	
GRO	1420	1460	2.8	
Benzene	ND	ND	Not calculated	
Toluene	ND	ND	Not calculated	
Ethylbenzene	0.608	0.649	6.5	
Xylenes, total	ND	ND	Not calculated	

Target Analyte List:

All requested analytes were present.

Reporting Limits (MDL and MRL):

Reporting limits were within the acceptance criteria, with the following exceptions noted below:

Select samples had elevated MRLs due to sample dilution as a result of high analyte concentrations or matrix interference issues. Results were reported from the dilution analyses, as applicable.

Reported Results:

All reported results are acceptable.

Laboratory qualifiers for NWTPH-Dx:

- (F-11) The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
    - J/UJ-Other qualify affected results.
- (F-13) The chromatographic pattern does not resemble the fuel standard used for quantitation.
    - J/UJ-Chrom qualify affected results.
- (F-17) No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
    - J/UJ-Other qualify affected results.
- (F-20) Result for Diesel is estimated due to overlap from Gasoline Range Organics or other VOCs.
    - J/UJ-Mi qualify affected results.

Lab Validation Assessment

Analytical results are usable to meet the project objectives.

Data Quality Review Statement for Report

Aside from the data quality issues discussed above, the data quality review identified no concerns with respect to the quality or usability of the data presented herein.

The data meet the criteria outlined above, with the noted exceptions. No data were rejected and completeness was 100 percent. All results are usable for their intended purpose.

Appendix A. Data Validation Qualifiers and Definitions

The following lists the data validation qualifier codes and their definitions that were assigned to analytical results in this data validation review process.

Data Validation Qualifiers and Definitions:	☐ (R) The sample result is reject due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified. ☐ (DNR) Do not report. A more appropriate result is reported from another analysis or dilution.

Appendix B. Data Validation Qualified Summary Table

Laboratory qualifiers:

- (F-11) The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
- (F-13) The chromatographic pattern does not resemble the fuel standard used for quantitation.
- (F-17) No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- (F-20) Result for Diesel is estimated due to overlap from Gasoline Range Organics or other VOCs.

Validation qualifiers:

- (J) The result is an estimated quantity.
- (UJ) Estimated and not detected. The analyte is considered not detected at the reported value, and the associated numerical value is an estimated value.

Reason codes:

- Chrom = Chromatographic pattern doesn't match the pattern of the calibration standard.
- FB = Field, equipment, rinsate blank contamination.
- HT = Holding time/sample preservation.
- Mi = Matrix interference.
- Other = Other, described in data validation report.
- REP = Replication (MS/MSD or laboratory duplicate RPD; laboratory triplicate RSD), field replicate. Precision (all replicates).

Appendix B. Validator Qualified Data Summary Table

Sample ID	Laboratory ID	Method	Parameter Name	Result	Result Units	Laboratory Qualifier	Validator Qualifier	Reason Code
MW01-W	A8L0038-01	NWTPH-Dx	Diesel	159	µg/L	F-11	J	Other
MW06-W	A8L0038-04	NWTPH-Dx	Diesel	634	µg/L	F-13, F-20	J	Chrom, Mi
MW07-W	A8L0038-05	NWTPH-Dx	Diesel	283	µg/L	F-11	J	Other
MW08-W	A8L0038-06	NWTPH-Dx	Diesel	505	µg/L	F-13, F-20	J	Chrom, Mi
MW09R-W	A8L0038-07	NWTPH-Dx	Diesel	1850	µg/L	F-13, F-20	J	Chrom, Mi
MW10R-W	A8L0038-08	NWTPH-Dx	Diesel	1370	µg/L	F-13, F-20	J	Chrom, Mi
MW11-W	A8L0038-09	NWTPH-Dx	Diesel	503	µg/L	F-13, F-20	J	Chrom, Mi
MW12-W	A8L0038-10	NWTPH-Dx	Diesel	92.8	µg/L	F-11	J	Other
MW13-W	A8L0038-11	NWTPH-Dx	Diesel	3250	µg/L	F-13, F-20	J	Chrom, Mi
MW14-W	A8L0038-12	NWTPH-Dx	Diesel	933	µg/L	F-11, F-20	J	Other, Mi
MW16-W	A8L0038-13	NWTPH-Dx	Diesel	337	µg/L	F-11	J	Other
MW17-W	A8L0038-14	NWTPH-Dx	Diesel	1580	µg/L	F-13, F-20	J	Chrom, Mi, REP
MW20-W	A8L0038-16	NWTPH-Dx	Diesel	1280	µg/L	F-13, F-20	J	Chrom, Mi
MW21-W	A8L0038-17	NWTPH-Dx	Diesel	992	µg/L	F-13, F-20	J	Chrom, Mi
MW23-W	A8L0038-18	NWTPH-Dx	Diesel	380	µg/L	F-11	J	Other
MW24-W	A8L0038-19	NWTPH-Dx	Diesel	914	µg/L	F-13, F-20	J	Chrom, Mi
MW25-W	A8L0038-20RE1	NWTPH-Dx	Diesel	121	µg/L	F-13	J	Chrom
MW28-W	A8L0038-23	NWTPH-Dx	Diesel	486	µg/L	F-13	J	Chrom
MW29-W	A8L0038-24	NWTPH-Dx	Diesel	238	µg/L	F-13	UJ	Chrom, FB
MW30-W	A8L0038-25	NWTPH-Dx	Diesel	304	µg/L	F-13	UJ	Chrom, FB

BH01-W	A8L0038-28	NWTPH-Dx	Diesel	5120	µg/L	F-13	J	Chrom, REP
BH02-W	A8L0038-29	NWTPH-Dx	Diesel	7040	µg/L	F-13	J	Chrom
BH03-W	A8L0038-30	NWTPH-Dx	Diesel	502	µg/L	F-13	J	Chrom
RW01-W	A8L0038-31	NWTPH-Dx	Diesel	152	µg/L	F-13	UJ	Chrom, FB
MW107-W	A8L0038-32	NWTPH-Dx	Diesel	894	µg/L	F-13	J	Chrom
MW108-W	A8L0038-33	NWTPH-Dx	Diesel	969	µg/L	F-13, F-20	J	Chrom, Mi, REP
MW109-W	A8L0038-34RE1	NWTPH-Dx	Diesel	59600	µg/L	F-13	J	Chrom, REP
Blank 181130	A8L0038-35	NWTPH-Dx	Diesel	105	µg/L	F-17	J	Other
MW29-W	A8L0038-24	NWTPH-Gx	GRO	< 100	µg/L		UJ	HT
MW29-W	A8L0038-24	Benzene	BTEX	< 0.200	µg/L		UJ	HT
MW29-W	A8L0038-24	Toluene	BTEX	< 1.00	µg/L		UJ	HT
MW29-W	A8L0038-24	Ethylbenzene	BTEX	< 0.500	µg/L		UJ	HT
MW29-W	A8L0038-24	Xylenes, total	BTEX	< 1.50	µg/L		UJ	HT

APPENDIX D

WATER LEVEL AND PRODUCT THICKNESS MEASUREMENTS FORM

Depth to Water/Depth to Product Measurements
Coleman Oil
Wenatchee, Washington

Date:

Well ID	Total Well Depth (feet bgs)	Well Diameter (inch)	Screened Interval (feet bgs)	Well Casing Elevation (feet[1])	Depth to Water (feet BTOC)	Depth to Product (feet BTOC)	Sheen Detected (Y/N)
MW-1	35.00	2	20-35	658.01			
MW01S	19.99	4	5.37 - 20.37	657.54			
MW-2	40.00	2	25-40	657.76			
MW-3	35.00	2	25-35	658.26			
MW03S	19.30	4	4.43 - 19.43	658.17			
MW-4	37.00	2	27-37	657.48			
MW-5	45.00	2	30-45	656.00			
MW-6	18.00	4	8-18	657.70			
MW-7	20.00	4	10-20	657.52			
MW-8	25.00	4	15-25	656.20			
MW-9R	24.00	4	14-24	655.29			
MW-10R	30.00	2	14-30	645.80			
MW-11	22.00	4	12-22	658.00			
MW12	19.52	4	4.63 - 19.63	658.27			
MW13	19.80	4	4.91 - 19.91	657.04			
MW14	20.02	4	5.23 - 20.23	657.15			
MW15	35.10	4	10.33 - 35.33	654.99			
MW16	29.15	4	9.28 - 29.28	656.93			
MW17	29.41	4	9.52 - 29.52	655.55			
MW18	34.65	4	15.86 - 35.86	654.51			
MW19	31.48	4	11.66 - 31.66	653.31			
MW20	29.50	4	9.79 - 29.79	650.85			
MW21	32.10	4	12.30 - 32.30	643.88			
MW22	39.10	4	9.19 - 34.19	641.85			
MW23	22.04	4	7.13 - 22.13	656.91			
MW24	30.00	4	14.17-34.17	644.38			
MW25	35.00	4	12.81-32.81	645.57			
MW26	30.00	4	13.54-33.54	646.65			
MW27	30.00	4	13.56-38.56	649.00			
MW28	38.74	4	13.62-38.62	650.64			
MW29	39.11	4	14.05-39.05	652.34			
MW30	39.79	4	14.67-39.67	652.83			
MW31	39.28	4	14.11-39.11	653.97			
MW32	34.02	4	8.95-33.95	655.83			
BH-1	30.00	2	20-30	652.17			
BH-2	35.00	2	20-35	653.77			
BH-3	30.00	2	15-30	648.76			
RW-1	30.00	3	15-30	650.42			

Notes:

bgs = below ground surface

BTOC = below top of casing

Sheen = audible sound at the surface of the water table that is less than 0.01' thick