SRI Addendum - Sediment Characterization Report

Coleman Oil Company Facility
3 East Chehalis Street
Wenatchee, Washington

Prepared for:
Coleman Oil Company
335 Mill Road
Lewiston, Idaho 83501

May 22, 2019
Revised July 17, 2019

Prepared by:

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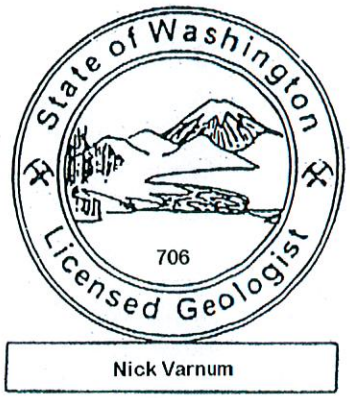
HydroCon Project No: 2017-074

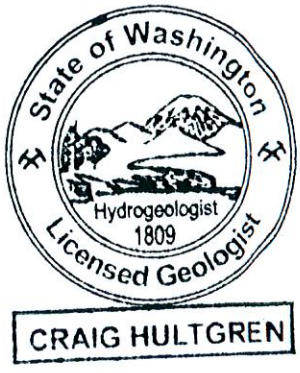
Prepared by:

Nick Varnum. LHG
Senior Geologist



Reviewed by:

Craig Hultgren, LHG
Principal Geologist



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Acronyms

BTEX	benzene, toluene, ethylbenzene, and total xylenes
Coleman Oil	Coleman Oil Company
DRPH	diesel range petroleum hydrocarbons
Ecology	Washington Department of Ecology
EPA	Environmental Protection Agency
gpm	gallons per minute
GRPH	gasoline range petroleum hydrocarbons
HydroCon	HydroCon Environmental LLC
mg/Kg	milligrams per Kilogram
MTCA	Model Toxics Control Act
ORPH	oil range petroleum hydrocarbons
PID	photoionization detector
ppmv	parts per million by volume
R99	R99 Renewable Diesel
SCO	Sediment Cleanup Objective

1.0 INTRODUCTION

HydroCon Environmental, LLC (HydroCon), has prepared this report on behalf of Coleman Oil Company (Coleman Oil) to characterize the nature and extent of sediment contamination in the area of observed hydrocarbon seeps in the Columbia River.

This addendum has been prepared to supplement 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 the Washington State Department of Ecology (Ecology) with an effective date of September 18, 2017 (Agreed Order). The Agreed Order is a continuation of previous and ongoing significant oil spill response activities and removal actions conducted under the Administrative Order on Consent for Removal Activities issued by the U. S. Environmental Protection Agency (EPA) on May 5, 2017 (EPA Docket No. CWA-10-2017-0114).

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 Coleman Oil Property and adjacent properties where hazardous substances have come to be located in soil, groundwater, and surface water at concentrations exceeding applicable cleanup levels (herein referred to as the Site) as a result of releases at the Coleman Oil Property.

HydroCon prepared an SRI Addendum - Additional Upland Soil and River Sediment Characterization Work Plan dated December 12, 2018 (HydroCon 2018c) to assess the source and the nature and extent of soil contamination near monitoring well MW13 and further assess the extent of diesel contamination in Columbia River sediment in the area of historically observed sheens. Supporting documentation is found in the attachments to the SRI Work Plan (HydroCon 2018a) and includes Standard Operating Procedures (SOPs) and field forms that were used during the investigation.

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 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 diesel in March 2017. Additional site history is documented in the SRI Report.

The Site was used as a bulk fuel facility from 1921 until 2017. Coleman Services IV, LLC purchased the property in January 2007, and Coleman Oil operated it from 2007 until bulk fuel storage operations ceased in 2017.

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 pipeline tightness testing revealed that two underground pipelines could not hold pressure and review of Coleman Oil inventory records indicated that the release was most likely from the R99 fuel line.

Subsequent testing included the installation of groundwater monitoring wells, soil borings, and test pits in different 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 and sediment 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 on the Columbia River in the area of historically observed sheens to recover product since discovery of the release. This practice continues today.
- From April 12, 2017 to June 19, 2017 a remedial excavation was performed on the Coleman Oil facility near the point of the R99 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 agreement into the City of Wenatchee's sanitary sewer system.
- Prior to this investigation a total of 38 monitoring and recovery wells (MW-1 through MW32, MW01S, MW03S, BH-1 through BH-3, and RW-1) have been installed at the site. Product recovery via skimming using a peristaltic pump and new tubing and/or passive recovery using hydrophobic socks has taken place.
- Product recovery pumps were first installed at the site in May 2018 at three wells with persistent measurable LNAPL or high concentrations of DRPH in soil and/or groundwater (MW-9, MW-10, and BH-1).
- The remediation system has been expanded to include 9 wells (MW09R, MW10R, MW17, MW24, MW28, MW29, MW30, MW32, and BH1). These wells are connected with underground piping for pressurized air to operate the pumps, conduit for electrical control and effluent piping to collect the recovered groundwater and product. 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); the MW10R zone (MW10R, MW24, and MW28); and the BH-1 zone (BH-1, MW29, and MW30). The expanded remediation system began pumping on November 2, 2018.
- The presence of sheen and product on the Columbia River has decreased significantly in the last year (HydroCon 2019). Sheen monitoring occurs at three locations on the river (Figure 2) and include Location 1, down river, adjacent to recovery well BH1R, Location 2, up river south, adjacent to monitoring well MW26 and the shoreline seeps, and Location 3, up river north, the furthest north and is adjacent to recovery well MW10R. Daily sheen monitoring began July 10, 2018, resulting in 175 days of observation in 2018. The last documented recovery of product on the Columbia River was on August 29, 2018.

As of December 31, 2018, a total of 449.34 gallons of R99 had been recovered (HydroCon 2019a).

2.4 Geologic & Hydrogeologic Setting

The Site is located in the Wenatchee Valley approximately 100 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. This area has been disturbed by previous excavation and has been backfilled with construction and other debris; it is not considered part of the Coleman Oil site.

Groundwater flow is generally parallel with the top 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. The location of the observed seeps 300 feet north of the site is consistent with the observed groundwater flow direction and gradient.

3.0 PURPOSE AND SCOPE

Five sediment samples were collected on April 23, 2018 as part of the SRI in the observed Sheen Discharge Area. The analytical results of the sediment samples were compared to the Sediment Cleanup Objectives (SCO, WAC 173-204) for TPH-diesel (DRPH, 340 mg/Kg) and TPH-residual (ORPH, 3,600 mg/kg). Two samples, (SS01 and SS02) had DRPH concentrations that exceed the DRPH SCO of 340 mg/kg (Table 1). Ecology requested that the lateral and vertical extent of the DRPH be defined near these sampling locations.

3.1 Objectives and Approach

The purpose of this Addendum is to report on the collection and analysis of additional sediment samples near SS01 and SS02 to determine the horizontal and vertical extent of the contamination above the SCO. Deeper samples were collected at SS01 and SS02; additional samples SS06 through SS08 were collected north and east of SS01 and SS02 to define the extent of DRPH contamination as shown on Figure 3.

3.2 Planning and Permitting

This section describes the coordination and implementation of the fieldwork performed during the SRI Addendum Uplands Soil Characterization portion of the Investigation. Work was performed in general accordance to the approved SRI Addendum - Additional Upland Soil and River Sediment Characterization Work Plan (HydroCon 2018c) and SRI SAP and QAPP (HydroCon 2018a).

3.2.1 Permits

No permits were necessary for the collection of sediment samples near the Site.

3.2.2 Health and Safety Plan

HydroCon updated the site-specific health and safety plan (HASP) to govern health and safety protocols used during this investigation. Work was performed using Occupational Safety and Health Administration (OSHA) Level D work attire consisting of hard hats, safety glasses, hearing protection, protective gloves, and protective boots.

3.2.3 Underground Utility Locates

No underground utility notifications were necessary for the collection of the sediment samples.

4.0 FIELDWORK

This describes the sample collection procedures.

4.1 River Sediment Sampling

Sediment sampling was conducted consistent with the Ecology-approved SAP and QAPP (HydroCon 2018a) and with Ecology's Sediment Cleanup User's Manual II (SCUM II), revised December 2017 (Ecology 2017).

Northern Resources Consulting (NRC) performed the sediment sampling using a 27-foot jet sled equipped with vibra-core sampling equipment

Sediment samples were collected with a vibra-core sampler. At each location, a new 3-inch diameter aluminum tube was advanced into the sediment by vibrating the tube. The contents in the sample tubes were placed on new visqueen sheeting for inspection and sampling purposes and HydroCon's field representative logged the sediment using the USCS and screened for the presence of volatile organic vapors using a PID. Sample logs are provided in Appendix A. There was no evidence of hydrocarbons in these samples (see Section 5.1) so samples were collected at a minimum of 0.5-foot intervals.

The Work Plan described a step out procedure to collect samples at additional locations in the event that hydrocarbons were present in the initial locations. Because no there was no evidence of hydrocarbons in the initial samples, no step out samples were collected. It should be noted that multiple attempts were made to collect sediment sample SS06. The first location (western-most) encountered bedrock with no sediment present. The sampler was moved into deeper water (east) and another attempt was made. Large concrete fragments were encountered at this location with no apparent sediment present. The sampler was again moved into deeper water (east) and another attempt was made. Large cobbles were present in this location preventing the collection of sediment samples. The boat was moved into deeper water, approximately 20 feet from the initial location and the fourth attempt at collecting a sediment sample was successful. Figure 2 shows the location of all sampling locations including the unsuccessful ones.

Field forms were used to document sample collection and inspection. The field forms include the sample identification number, date, time of sample collection, field screening information (odor, stain, PID measurements, and presence/absence of sheen in samples and sheen in the river caused by sampling activities), depth of sample below the water surface, depth of the

sample below the top of the sediment, river level elevation (feet above MSL), and lithologic and organic component descriptions. The completed forms are included in Appendix A.

4.2 Surveying

Elandsen Inc. performed the surveying of the sediment sample locations. The surveyor was on the boat and directed the boat to the sample locations. The horizontal coordinates are relative to the North American Datum, 1983 (NAD83) and the vertical coordinates are relative to the North American Vertical Datum, 1988 (NAVD88). Sediment sample locations are shown on Figure 2 and 3.

5.0 INVESTIGATION RESULTS

Field observations and analytical results are provided in this section.

5.1 Field Observations

Observations of the soil type, presence of sheen and odor, and PID readings are summarized from the field data sheets in the table below. There were no observations of sheen or odor in the samples and PID readings were all equal to or less than 1.5 ppmv. Soils consisted of sand, silty sand, and silt.

Sample Location	Sample ID	Water Depth (ft)	Core Interval (ft)[1]	Sample Depth (ft)[1]	Soil Type[2]	Sheen/Odor	PID (ppmv)
SS01	SS01-0.5	1.1	0-3	0.5	SP/SM	None	0.7
	SS01-1.5			1.5	SP	None	0.7
	SS01-2			2.0	ML	None	0.7
SS02	SS02-0.5	3.0	0-3	0.5	SM	None	1.0
	SS02-1.5			1.5	SP	None	1.0
	SS02-2			2.0	SP	None	1.0
SS06	SS06-0.5	5.6	0-2	0.5	SP/SM	None	0.9
	SS06-1.5			1.5	SP	None	0.9
SS07	SS07-0.5	4.6	0-2	0.5	SP/SM	None	1.1
	SS07-1.5			1.5	SP	None	1.5
SS08	SS08-0.5	8.6	0-2	0.5	SP/SM	None	0.8
	SS08-1.5			1.5	SP	None	1.1

Notes

[1] Depth below sediment surface.

[2] Soil Types: SP - Poorly sorted sands
SM - Silty sand
ML - Inorganic silts and very fine sand

As was the case in 2018, a sheen was present on the river surface at sampling location SS01, apparently due to the sample collection, but hydrocarbons were not observed in the samples.

5.2 Sediment Analysis

Sediment samples were analyzed for the following:

- DRPH and ORPH by Northwest Method NWTPH-Dx with and without silica-gel cleanup.

5.3 Sediment Analytical Results

Sediment analytical results are reported in milligrams per kilogram (mg/kg) which is equal to parts per million. The results are summarized on Table 1 and are compared to the SCOs of 340 mg/Kg for DRPH and 3,600 mg/Kg for ORPH. The laboratory analytical report is provided in Appendix B. A discussion of each sample result is provided below.

SS01 - Three samples (SS01-0.5, SS01-1.5, and SS01-2) were submitted for analysis. DRPH was not detected above the laboratory method reporting limit (MRL) in the SS01-0.5 or SS01-2 samples. DRPH was detected at a concentration of 39.8 mg/kg in the SS01-1.5 sample. ORPH up to 1,730 mg/kg was detected in the three samples. None of the detected fuel products are at concentrations that exceed their respective SCO.

SS02 - Three samples (SS02-0.5, SS02-1.5, and SS02-2) were submitted for analysis. DRPH was not detected above the MRL in any of the samples. ORPH was detected in the SS02-0.5 sample (66.3 mg/kg) and the SS02-2 sample (76.5 mg/kg). None of the detected fuel products are at concentrations that exceed their respective SCO.

SS06 - Two samples (SS06-0.5 and SS06-1.5) were submitted for analysis. DRPH was not detected above the MRL in any of the samples. ORPH (up to 87.5 mg/kg) was detected in the samples. None of the detected fuel products are at concentrations that exceed their respective SCO.

SS07 - Two samples (SS07-0.5 and SS07-1.5) were submitted for analysis. DRPH was not detected above the MRL in any of the samples. ORPH (up to 151 mg/kg) was detected in the samples. None of the detected fuel products are at concentrations that exceed their respective SCO.

SS08 - Two samples (SS08-0.5 and SS08-1.5) were submitted for analysis. DRPH was not detected above the MRL in any of the samples. ORPH (84.7 mg/kg) was detected in the SS08-0.5 sample. None of the detected fuel products are at concentrations that exceed their respective SCO.

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Silica Gel Cleanup Results – A portion of each sediment sample extract was passed through a silica gel column prior to laboratory analysis. As shown on Table 1, very little difference is seen between the two analytical results. This is consistent with the analytical results in April 2018.

5.4 Data Quality Review

Laboratory testing of sediment resulted in one laboratory report including Apex Labs Work Order A9C1037. The data review reports are included in Appendix C. The review of the analytical results included the following:

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

Data were qualified due to matrix interference, compound identification issues, and/or LCS/CCV recoveries. No data were rejected and completeness was 100 percent. All results are usable as intended. The data review report identifies all data qualifiers and the reasons for qualification. Aside from the data quality issues identified above, the data quality review identified no concerns with respect of the quality of usability of the data presented herein.

6.0 DISCUSSION

This section provides a discussion of the results of the 2018 and 2019 sediment investigations.

6.1 Extent of Sediment Contamination

Based on the results of the sediment investigation, the extent of sediment contamination exceeding the SCO as determined by sample analytical results is limited to the shallow samples at and near locations SS01 and SS02. Several attempts were made to advance the sediment sample core in shallower water at the SS06 location, but no sediment was encountered. This was also seen in April 2018 when several unsuccessful attempts were made to collect sediment samples in shallower water. In both cases either bedrock or large diameter rocks or concrete were encountered.

As described in Section 5.3.7 of the SRI, an exploratory exercise was conducted to assess if a hydrocarbon sheen could be produced in the surface sediment along the river by agitating it with a steel rod. The rod was approximately 6 feet in length. This exercise began downstream of the boat launch at Wenatchee Riverfront Park and ended at the at the Senator George Sellar bridge. The field technician agitated the sediment as the boat slowly floated downstream (controlled by motor) and watched for a sheen to be produced. No sheen was observed in any of the estimated 300 near-shore (in water less than 6 feet deep) probe locations.

As noted in Section 2.3, the last documented recovery of product on the Columbia River was on August 28, 2018, indicating the area of impacted sediment is not extensive.

The limits of the area of sediment concentrations exceeding the SCO in 2018 was determined by establishing points midway between impacted and non-impacted sediment samples. The resulting area is 500 square feet. Using a depth of the 0.4 feet, the resulting volume was approximately 7 cubic yards.

The samples collected in April 2018 at SS01 and SS02 were collected at a depth of 0.38 feet. Both of the samples had DRPH that exceeded the SCO. In March 2019 sediment samples were collected at the same locations at roughly the same depth (0.5 feet). It should be noted that the samples were collected from a soil core over a depth interval that was centered on the reported depth. Thus, the samples collected in 2018 and 2019 likely had considerable overlap in the actual sampling depth intervals.

It appears unlikely that the difference in concentrations of DRPH observed between 2018 and 2019 would be attributable to a 0.12 feet (1.4 inches) difference in samples depth. Rather, a more likely reason for the difference would appear to be due to natural attenuation taking

place between 2018 and 2019. The data collected in 2019 indicates concentrations of DRPH in sediment are no longer at concentrations that exceed the SCO.

6.2 Conceptual Site Model Update

Figure 4 presents an update for Cross Section B-B' (Figure 11 of the SRI). The cross section shows the spatial relationship of the seep samples (SL01), the sediment samples (SS03, SS04, and SS08), and groundwater and river elevations.

Based on the elevation data presented in Cross Section B-B', it appears evident that the sediment impacts are the result of shoreline seepage that has settled beneath the water column as opposed to upward migration of contaminated groundwater. The data supporting this conclusion include:

- Elevations of groundwater in monitoring wells and elevations of the seeps and the river would not suggest any groundwater coming into the river from below, only laterally. Although some seepage discharge below river level evidently occurs when some shoreline seeps are submerged (typically during the spring thaw), such seepage appears to be only in close proximity to the shoreline bank.

- Concentrations of DRPH in sediment samples generally decrease with depth, and higher concentrations were only exhibited in the shallowest samples collected at SS01 and SS02.

Natural attenuation of DRPH in sediments would be expected to include mechanisms such as biodegradation, sediment bioturbation and sediment transport (and hence dilution), and dissolution (transfer of DRPH to the aqueous phase).

Any transfer of DRPH from sediments to the aqueous phase would not be expected to be of significant concern due to:

- The relatively small amount of sediment that was impacted by DRPH (approximately 7 cubic yards) in 2018.

- The tremendous dilution that takes place from the volume of water flowing within the Columbia River.

- The lack of persistent of DRPH in the aqueous environment (mechanisms such as photolysis would be expected to result in destruction of dissolved phase DRPH).

- The lack of DRPH concentrations above SCOs in 2019.

The extent of petroleum in river sediments has been defined and it appears that the sediments no longer have exceedances of sediment management standards in 2019. No additional characterization of petroleum in sediments appears to be warranted.

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, non-detectable 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

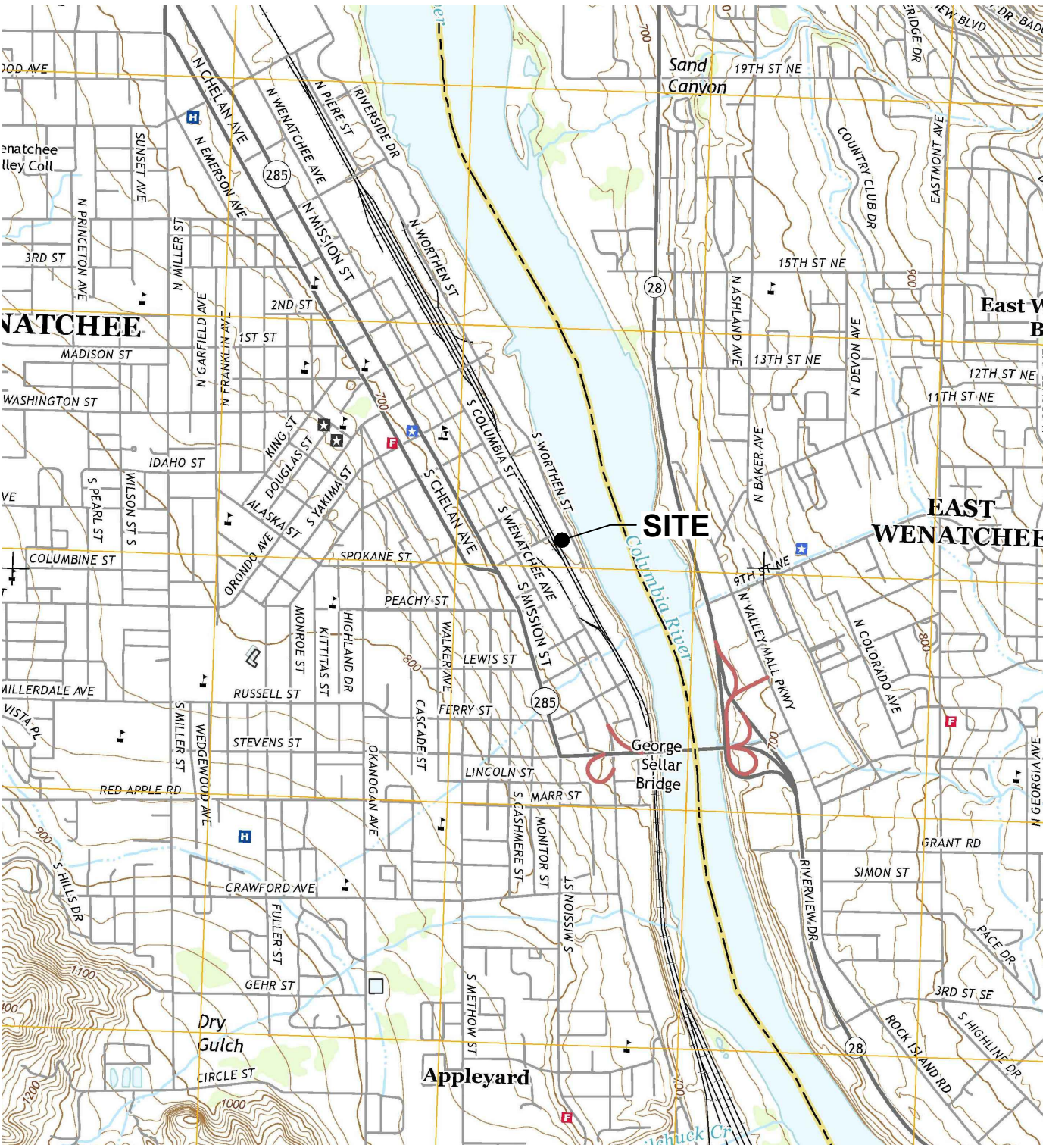
HydroCon, LLC. 2018a. Supplemental Remedial Investigation Work Plan. Coleman Oil R99 Renewable Diesel Spill, Wenatchee, Washington. Prepared for Coleman Oil Company, LLC. March 15.

———. 2018b. Supplemental Remedial Investigation Report. Coleman Oil R99 Renewable Diesel Spill, Wenatchee, Washington. Prepared for Coleman Oil Company, LLC. August 8, Revised October 9.

———. 2018c. SRI Addendum - Additional Upland Soil and River Sediment Characterization Work Plan, Wenatchee, Washington, December 12.

———. 2019a. Annual Operations and Maintenance Report - 2018, Wenatchee, Washington, April 26.

FIGURES



NOTE(S):

USGS, WENATCHEE QUADRANGLE
WASHINGTON
7.5 MINUTE SERIES (TOPOGRAPHIC)

0 2000 4000

SCALE IN FEET
1" = 2000'

N
W E
S

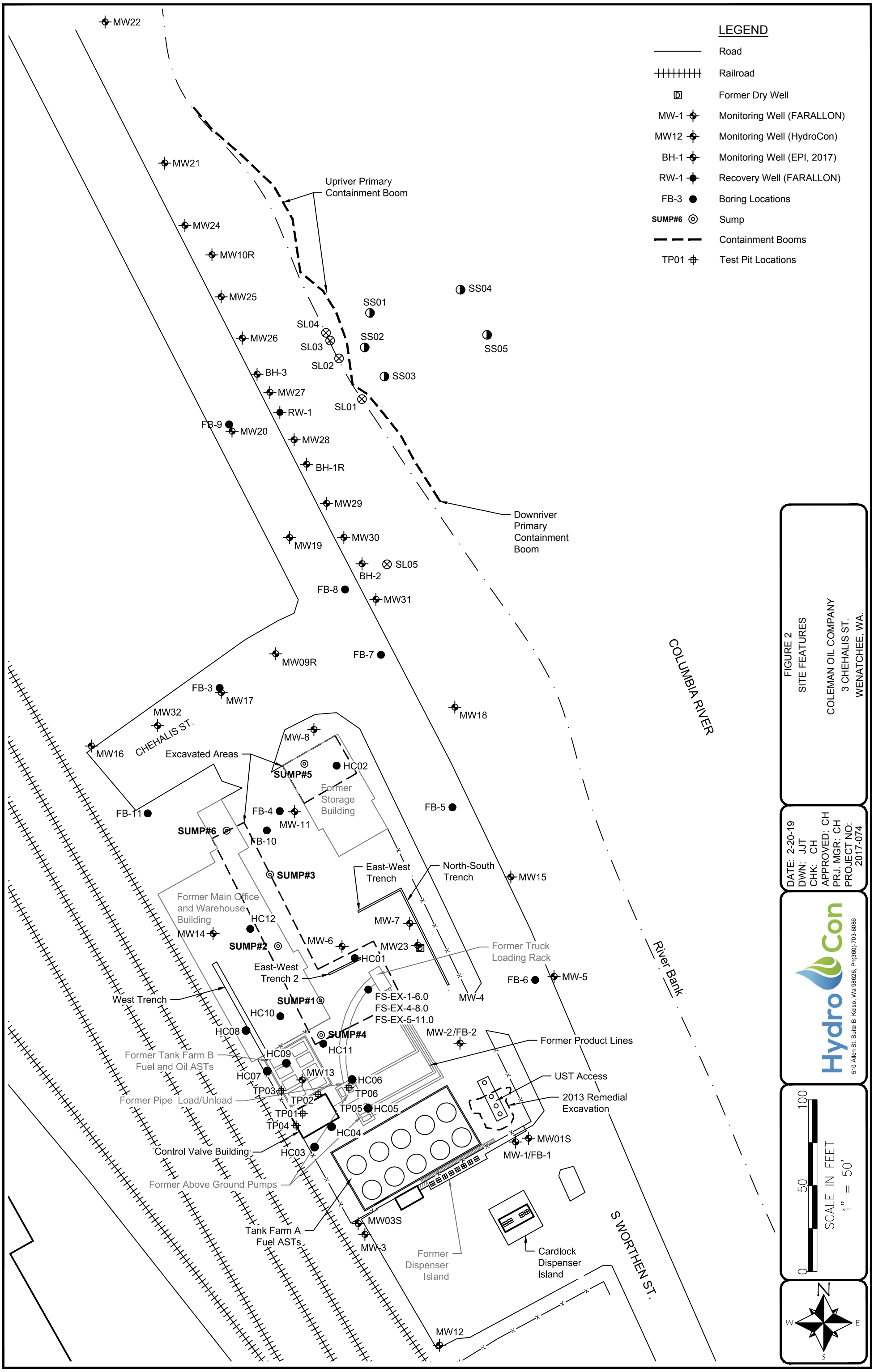
HydroCon
510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

DATE: 2-20-19
DWN: JJT
CHK: RH
APPROVED: RH
PRJ. MGR: CH
PROJECT NO: 2017-074

FIGURE 1
SITE LOCATION MAP

COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATCHEE, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-074 Coleman Oil\2019\Jan 2019\2017-074_BM-010819.dwg



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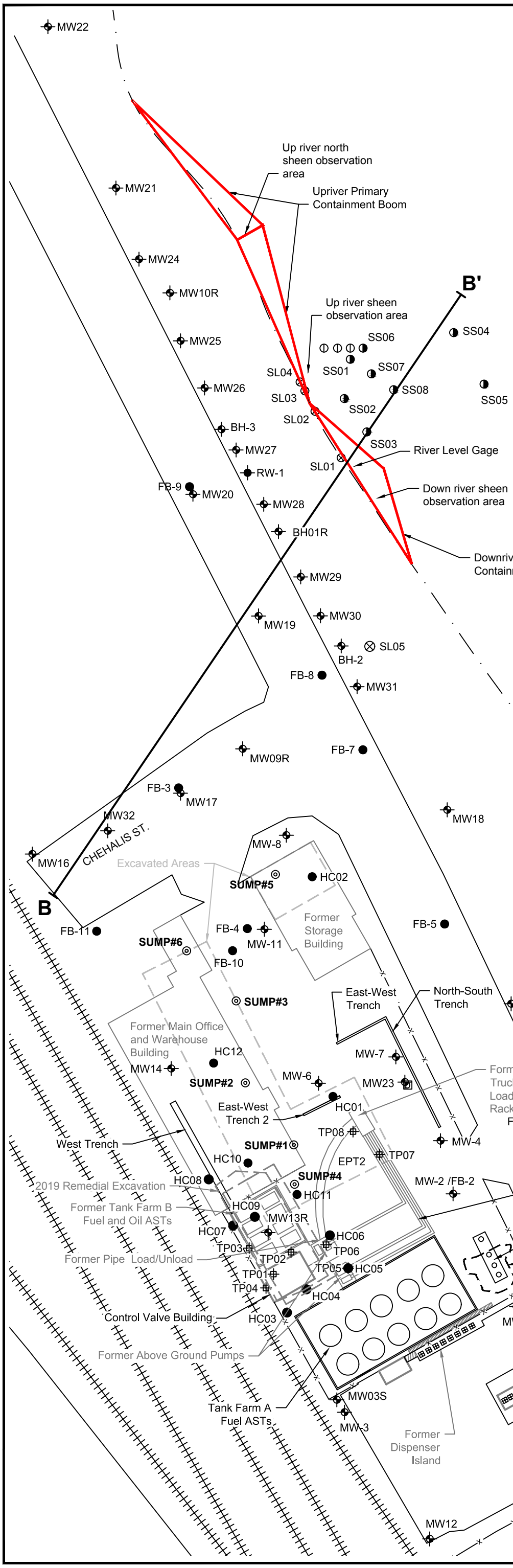
Field ID	Sample Depth (feet)	Date	Sediment Anaytical Results (mg/kg) GRPH	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Total Xylenes
SCUM II Sediment Management Standards (SMS) for Freshwater Sediments[1]				**340**	**3,600**				
SS01-13.97cm	0.46	4/23/2018	<25.2	**842**	**392**	<0.0503	**0.395**	<0.126	<0.378
SS01-0.5	0.5	3/26/2019	--	<262	**1,730**	--	--	--	--
SS01-1.5	1.5	3/26/2019	--	**39.8**	**168**	--	--	--	--
SS01-2	2	3/26/2019	--	<26.3	**83.7**	--	--	--	--
SS02-11.75cm	0.38	4/23/2018	<13.7	**473**	**175**	<0.0274	**0.182**	<0.0684	<0.205
SS02-0.5	0.5	3/26/2019	--	<33.1	**66.3**	--	--	--	--
SS02-1.5	1.5	3/26/2019	--	<25.8	<51.6	--	--	--	--
SS02-2	2	3/26/2019	--	<31	**76.5**	--	--	--	--
SS03-13.97cm	0.46	4/23/2018	<16.2	**207**	**147**	<0.325	<0.0162	<0.0811	<0.243
SS04-11.82 cm	0.39	4/23/2018	<16.6	<45.1	**90.6**	<0.0333	<0.166	<0.0832	<0.0250
SS05-13.97	0.46	4/23/2018	<13.8	<38.1	**87.2**	<0.0276	<0.138	<0.0690	<0.207
SS06-0.5	0.5	3/26/2019	--	<32.2	**87.5**	--	--	--	--
SS06-1.5	1.5	3/26/2019	--	<32.6	**68.3**	--	--	--	--
SS07-0.5	0.5	3/26/2019	--	<30.8	**95.6**	--	--	--	--
SS07-1.5	1.5	3/26/2019	--	<31.9	**151**	--	--	--	--
SS08-0.5	0.5	3/26/2019	--	<41.5	**84.7**	--	--	--	--
SS02-1.5	1.5	3/26/2009	--	<30.8	<61.5	--	--	--	--
Sediment Samples with Acid/Silica Gel Cleanup									
SS01-13.97cm	0.46	4/23/2018	--	**947**	<105	--	--	--	--
SS01-0.5	0.5	3/26/2019	--	<26.2	**1,510**	--	--	--	--
SS01-1.5	1.5	3/26/2019	--	**35.4**	**169**	--	--	--	--
SS01-2	2	3/26/2019	--	<26.3	**87.3**	--	--	--	--
SS02-11.75cm	0.38	4/23/2018	--	**526**	<73.4	--	--	--	--
SS02-0.5	0.5	3/26/2019	--	<33.1	**66.8**	--	--	--	--
SS02-2	2	3/26/2019	--	<31	**79.3**	--	--	--	--
SS03-13.97cm	0.46	4/23/2018	--	**238**	<78.4	--	--	--	--
SS04-11.82 cm	0.39	4/23/2018	--	<45.1	<90.3	--	--	--	--
SS05-13.97	0.46	4/23/2018	--	<38.1	<76.1	--	--	--	--
SS06-0.5	0.5	3/26/2019	--	<32.2	**91.2**	--	--	--	--
SS06-1.5	1.5	3/26/2019	--	<32.6	**87.5**	--	--	--	--
SS07-0.5	0.5	3/26/2019	--	<30.8	**95.9**	--	--	--	--
SS07-1.5	1.5	3/26/2019	--	<31.9	**134**	--	--	--	--
SS08-0.5	0.5	3/26/2019	--	<41.5	**148**	--	--	--	--

Notes
Red denotes concentration in excess of Sediment Management Standard (SMS) for Freshwater Sediment.
Blue denotes concentration that exceeds the MRL but is below the SMS



LEGEND

- Road
- Railroad
- Former Dry Well
- MW-1 — Monitoring Well (FARALLON)
- MW12 — Monitoring Well (HydroCon)
- BH-1 — Monitoring Well (EPI, 2017)
- RW-1 — Recovery Well (FARALLON)
- FB-3 — Boring Locations
- SUMP#6 — Sump
- Containment Booms
- TP01 — Test Pit Locations
- Sediment Sample Locations
- Attempted Sediment Sample Location

FIGURE 3
SEDIMENT ANALYTICAL RESULTS AND LOCATION OF CROSS SECTION B-B'
COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATCHEE, WA.

DATE: 7-17-19
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

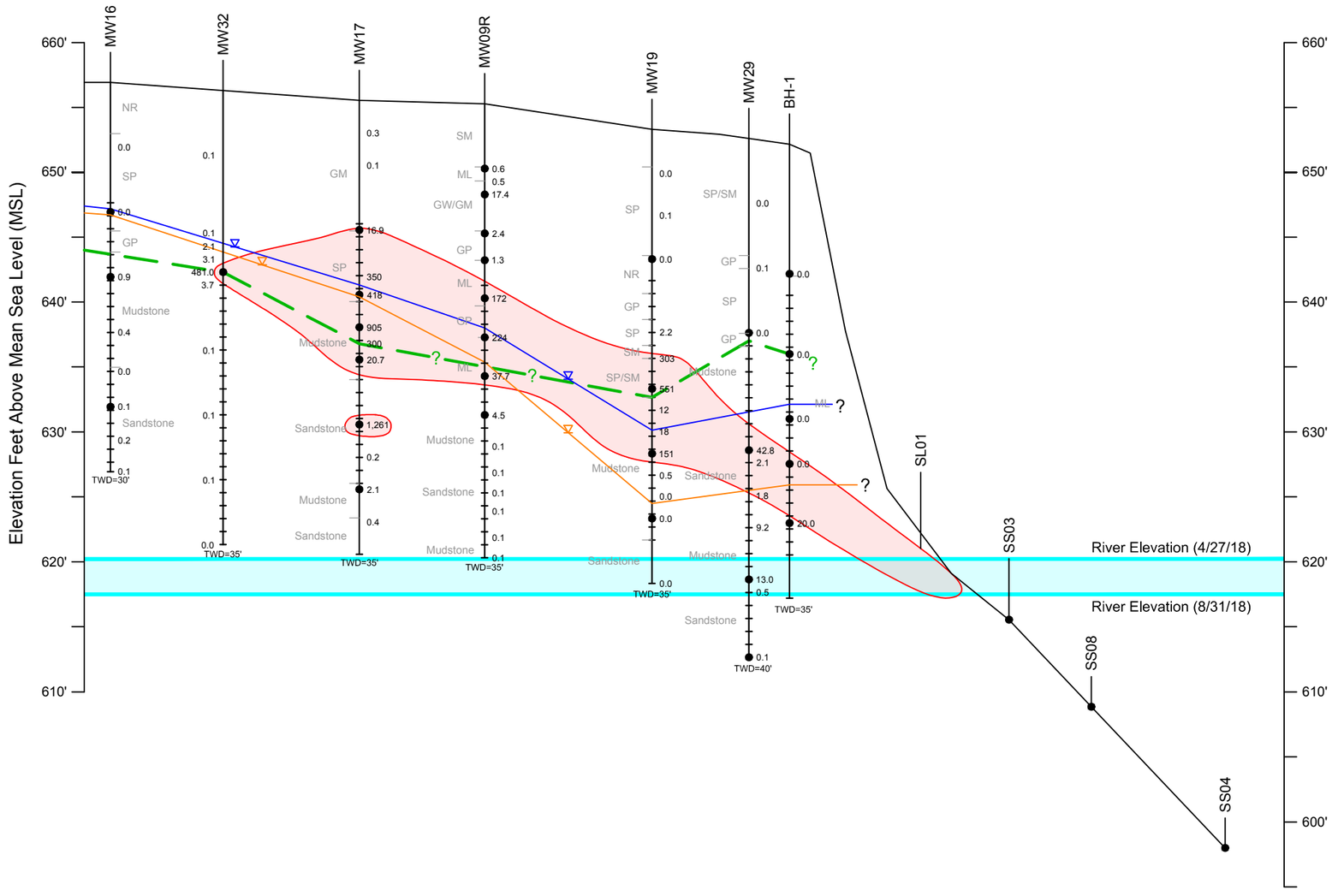
SCALE IN FEET
1" = 50'
0 50 100

N W E S

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-074 Coleman Oil\2019\June 2019\2017-074_BM-061019.dwg

B
WEST

B'
EAST



Legend

- Water Level at time of Drilling
- Well Screen Interval
- Water Level (4/27/18)
- Water Level (8/31/18)
- Top of Chumstick Formation
- 300 PID Reading
- Sample Location
- Area of Contamination as Defined by Analytical Results and PID Readings

0 40 80

SCALE IN FEET
1" = 40'

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

DATE: 7-17-19
DWN: JJT
CHK: NV
APPROVED: CH
PRJ. MGR: CH
PROJECT NO: 2017-074

FIGURE 4
CROSS SECTION B-B'

COLEMAN OIL COMPANY
3 CHEHALIS ST.
WENATCHEE, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-074 Coleman Oil\2019\June 2019\2017-074_BM-061019.dwg

TABLES

Table 1
Sediment Sample Results - Fuels and BTEX
Coleman Oil Site
Wenatchee, Washington

			Fuels			BTEX			
Field ID	Sample Depth (feet)	Date	GRPH mg/kg	DRPH mg/kg	ORPH mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylenes mg/kg
SCUM II Sediment Management Standards (SMS) for Freshwater Sediments[1]				340	3,600				
SEDIMENT SAMPLES									
SS01-13.97cm	0.46	4/23/2018	<25.2	842	392	<0.0503	0.395	<0.126	<0.378
SS01-0.5	0.5	3/26/2019	--	<262	1,730	--	--	--	--
SS01-1.5	1.5	3/26/2019	--	39.8	168	--	--	--	--
SS01-2	2	3/26/2019	--	<26.3	83.7	--	--	--	--
SS02-11.75cm	0.38	4/23/2018	<13.7	473	175	<0.0274	0.182	<0.0684	<0.205
SS02-0.5	0.5	3/26/2019	--	<33.1	66.3	--	--	--	--
SS02-1.5	1.5	3/26/2019	--	<25.8	<51.6	--	--	--	--
SS02-2	2	3/26/2019	--	<31	76.5	--	--	--	--
SS03-13.97cm	0.46	4/23/2018	<16.2	207	147	<0.325	<0.0162	<0.0811	<0.243
SS04-11.82 cm	0.39	4/23/2018	<16.6	<45.1	90.6	<0.0333	<0.166	<0.0832	<0.0250
SS05-13.97	0.46	4/23/2018	<13.8	<38.1	87.2	<0.0276	<0.138	<0.0690	<0.207
SS06-0.5	0.5	3/26/2019	--	<32.2	87.5	--	--	--	--
SS06-1.5	1.5	3/26/2019	--	<32.6	68.3	--	--	--	--
SS07-0.5	0.5	3/26/2019	--	<30.8	95.6	--	--	--	--
SS07-1.5	1.5	3/26/2019	--	<31.9	151	--	--	--	--
SS08-0.5	0.5	3/26/2019	--	<41.5	84.7	--	--	--	--
SS02-1.5	1.5	3/26/2009	--	<30.8	<61.5	--	--	--	--
SEDIMENT SAMPLES WITH ACID/SILICA GEL CLEANUP									
SS01-13.97cm	0.46	4/23/2018	--	947	<105	--	--	--	--
SS01-0.5	0.5	3/26/2019	--	<26.2	1,510	--	--	--	--
SS01-1.5	1.5	3/26/2019	--	35.4	169	--	--	--	--
SS01-2	2	3/26/2019	--	<26.3	87.3	--	--	--	--
SS02-11.75cm	0.38	4/23/2018	--	526	<73.4	--	--	--	--
SS02-0.5	0.5	3/26/2019	--	<33.1	66.8	--	--	--	--
SS02-2	2	3/26/2019	--	<31	79.3	--	--	--	--
SS03-13.97cm	0.46	4/23/2018	--	238	<78.4	--	--	--	--
SS04-11.82 cm	0.39	4/23/2018	--	<45.1	<90.3	--	--	--	--
SS05-13.97	0.46	4/23/2018	--	<38.1	<76.1	--	--	--	--
SS06-0.5	0.5	3/26/2019	--	<32.2	91.2	--	--	--	--
SS06-1.5	1.5	3/26/2019	--	<32.6	87.5	--	--	--	--
SS07-0.5	0.5	3/26/2019	--	<30.8	95.9	--	--	--	--
SS07-1.5	1.5	3/26/2019	--	<31.9	134	--	--	--	--
SS08-0.5	0.5	3/26/2019	--	<41.5	148	--	--	--	--

Notes
Red denotes concentration in excess of Sediment Management Standard (SMS) for Freshwater Sediment.
Blue denotes concentration that exceeds the MRL but is below the SMS
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.
BTEX analyzed by EPA Method 8260C.
[1]SCUMII 173-204 WAC - Sediment Management Standards for Freshwater Sediments
SCO = Sediment Cleanup Objective
< = less than method reporting limit shown
--- = not analyzed

APPENDIX A

SEDIMENT SAMPLE LOGS

Hydro Con

Sediment Sampling Log

360.703.6079/Fax 360.703.6086	Project Number: 2017-074	Date: 05/26/2019
314 W 15th St Suite 300 Vancouver WA 98660	Site: Coleman Oil	Arrival: 10:00
Prepaired by: B. Perlebers	Sample Location: 5501	Departure: 10:50
Purpose: Core Sampling	Vessel Type: NRC Research	Page: 1

Station Coordinates: N ~~Lat~~ 193185.4
~~Long~~ E 1771815.9
GPS Unit Used: ~~[illegible]~~ Total Station
Top Notch Datum: WSG 84-91
Analysis: TPH

River Level (feet above MSL) 12-inch depth off Pole Gage
Sample Method: Core Sample
Weather: Clear & Sunny
53° F

Sample Number: 5501 Water Depth: 13" ft Sample Recovery: ? cm
Time: 10:42 Sample Depth 3'6" ft Sample Interval: 0-40" cm
Bioassy/Chemistry (below sediment surface) PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number: Water Depth: ft Sample Recovery: cm
Time: Sample Depth ft Sample Interval: cm
Bioassy/Chemistry (below sediment surface) PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number: Water Depth: ft Sample Recovery: cm
Time: Sample Depth ft Sample Interval: cm
Bioassy/Chemistry (below sediment surface) PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Hydro Con — Sediment Sampling Log

360.703.6079/Fax 360.703.6086	Project Number: 2017-079	Date: 03/26/2019
314 W 15th St Suite 300 Vancouver WA 98660	Site: Coleman Oil	Arrival: 10:00
Prepaired by: B. Perlebery	Sample Location: SS02	Departure: 12:00
Purpose: Profile TPH through Sediment	Vessel Type: NRC Research	Page: 2

Station Coordinates: N ~~Lat~~ 153171.7
~~W Long~~ E 1771830.8
GPS Unit Used: Top ~~Notch~~ Total Station
Datum: WGS 84-91
Analysis: TPH

River Level (feet above MSL):
Sample Method: Vibra Core
Weather: Clear & Sunny
53°F

Sample Number: SS02 | Water Depth: 30" ft | Sample Recovery: ~80% cm
Time: 10:25 | Sample Depth 3'6" ft | Sample Interval: cm
Bioassy/Chemistry | (below sediment surface) | PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number: | Water Depth: ft | Sample Recovery: cm
Time: | Sample Depth ft | Sample Interval: cm
Bioassy/Chemistry | (below sediment surface) | PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number: | Water Depth: ft | Sample Recovery: cm
Time: | Sample Depth ft | Sample Interval: cm
Bioassy/Chemistry | (below sediment surface) | PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Hydro Con — Sediment Sampling Log

360.703.6079/Fax 360.703.6086	Project Number: 2017-074	Date: 03/26/2019
314 W 15th St Suite 300 Vancouver WA 98660	Site: Coleman 01	Arrival: 12:00
Prepaired by: B. Perleberg	Sample Location: SS08	Departure: 12:45
Purpose: Core Sampling	Vessel Type: NRC Research	Page: 3

Station Coordinates: N 153190.6
W Long 1771842.4
GPS Unit Used: Top Notch GPS
Datum: NGS 84-91
Analysis: N/A TPH

River Level (feet above MSL) 12-inch Metal Stage Pole
Sample Method: TPH
Weather: Clear & Sunny

Sample Number: SS08 Relocate
Time: 1236
Bioassy/Chemistry

Water Depth: 8'6" ft
Sample Depth 8'6" to ft/10'6" (below sediment surface)

Sample Recovery: 50% ~~cm~~
Sample Interval: cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Had to Relocate Closer to Shore the Sample was Not Penentrating 2 Attempts - Rock Cobble Bottom Called Rob Said Ok to Move Closer to Shoreline

Sample Number:
Time:
Bioassy/Chemistry

Water Depth: ft
Sample Depth ft (below sediment surface)

Sample Recovery: cm
Sample Interval: cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number:
Time:
Bioassy/Chemistry

Water Depth: ft
Sample Depth ft (below sediment surface)

Sample Recovery: cm
Sample Interval: cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Hydro Con

Sediment Sampling Log

360.703.6079/Fax 360.703.6086	Project Number: 2017-074	Date: 03/26/2019
314 W 15th St Suite 300 Vancouver WA 98660	Site: Coleman Oil	Arrival: 1250
Prepaired by: B. Poriebera	Sample Location: 5507	Departure: 1320
Purpose: Core SAMPLING	Vessel Type: NRC Research	Page: 4

Station Coordinates: N 153198.7
W 1771831.1
GPS Unit Used: Top Notch GPS
Datum: WGS 84-91
Analysis: N/A TPH

River Level (feet above MSL) 12 Inch Metal Stage Rod
Sample Method: TPH
Water Depth Weather: Clear & Sunny
4'6"

Sample Number: 5507
Time: 1315
Bioassy/Chemistry

Water Depth: 4'6" ft
Sample Depth 4'6" to ft 7'6"
(below sediment surface)

Sample Recovery: 3' cm
Sample Interval: 4'6" to 7'6" cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number:
Time:
Bioassy/Chemistry

Water Depth: ft
Sample Depth ft
(below sediment surface)

Sample Recovery: cm
Sample Interval: cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number:
Time:
Bioassy/Chemistry

Water Depth: ft
Sample Depth ft
(below sediment surface)

Sample Recovery: cm
Sample Interval: cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sediment Sampling Log

Hydro Con

360.703.6079/Fax 360.703.6086	Project Number: 2017-074	Date: 03/26/2015
314 W 15th St Suite 300 Vancouver WA 98660	Site: Coleman 0.1	Arrival: 1325
Prepaired by: B. Perlebers	Sample Location: 5506	Departure: 1436
Purpose: Core Sampling	Vessel Type: NEC Research	Page: 5

Station Coordinates: N Lat 153211.9
W Long 1771826.9
GPS Unit Used: Top Notch GP
Datum: WGS 84-91
Analysis: TPH

River Level (feet above MSL) 12-inch on Nets / Rod
Sample Method: TPH
Weather: Clear & Sunny
53°F
Depart after remove anchors & load Boat on trailer 3:00 P.M.

Sample Number: 5506
Time: 1343
Bioassy/Chemistry

Water Depth: 5'6" ft
Sample Depth 5'-8' ft
(below sediment surface)

Sample Recovery: 3.0 Ft, cm
Sample Interval: 5'-8' ~~cm~~ (2),
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number: _____
Time: _____
Bioassy/Chemistry

Water Depth: _____ ft
Sample Depth _____ ft
(below sediment surface)

Sample Recovery: _____ cm
Sample Interval: _____ cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

Sample Number: _____
Time: _____
Bioassy/Chemistry

Water Depth: _____ ft
Sample Depth _____ ft
(below sediment surface)

Sample Recovery: _____ cm
Sample Interval: _____ cm
PID reading (ppmv):

Sediment Type	Sediment Color	Density	Sediment Odor		Sheen	Moisture
cobble	D.O.	very soft/loose	none	H2S	none	dry
gravel	gray	soft/loose	slight	Petroleum	trace	damp
sand C M F	black	mod dense/stiff	moderate	Other:	slight	moist
silt clay	brown	dense/stiff	strong		moderate	wet
organic matter	brown surface	very dense/stiff	very strong		heavy	

Sample Description: (USCS identificaton, percent of each soil type and organic material, odor, staining, etc.)

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

AMENDED REPORT

Wednesday, April 10, 2019

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

RE: A9C1037 - 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 A9C1037, which was received by the laboratory on 3/29/2019 at 2:22:00PM.

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	4.1 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

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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.

Apex Laboratories, LLC

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

AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01-0.5	A9C1037-01	Soil	03/26/19 11:30	03/29/19 14:22
SS01-01.5	A9C1037-02	Soil	03/26/19 11:35	03/29/19 14:22
SS01-02	A9C1037-03	Soil	03/26/19 11:40	03/29/19 14:22
SS02-0.5	A9C1037-04	Soil	03/26/19 12:00	03/29/19 14:22
SS02-01.5	A9C1037-05	Soil	03/26/19 12:05	03/29/19 14:22
SS02-02	A9C1037-06	Soil	03/26/19 12:10	03/29/19 14:22
SS06-0.5	A9C1037-07	Soil	03/26/19 13:43	03/29/19 14:22
SS06-01.5	A9C1037-08	Soil	03/26/19 13:45	03/29/19 14:22
SS07-0.5	A9C1037-09	Soil	03/26/19 13:20	03/29/19 14:22
SS07-01.5	A9C1037-10	Soil	03/26/19 13:25	03/29/19 14:22
SS08-0.5	A9C1037-11	Soil	03/26/19 12:00	03/29/19 14:22
SS08-01.5	A9C1037-12	Soil	03/26/19 12:05	03/29/19 14:22
Trip Blank #2014	A9C1037-13	Water	03/26/19 00:00	03/29/19 14:22

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Lisa Domenighini, Client Services Manager

Apex Laboratories, LLC

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503-718-2323
EPA ID: OR01039

AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

ANALYTICAL CASE NARRATIVE

Work Order: A9C1037

Amended Report Revision 1:

This report supersedes all previous reports.

Analysis of NWTPH Dx SGT were added to several samples included in this work orde after the previous report version had been completed.

Lisa Domenighini
Client Services Manager
4-10-19

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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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
SS01-0.5 (A9C1037-01)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	262	mg/kg dry	10	04/02/19	NWTPH-Dx	
Oil	**1730**	---	524	mg/kg dry	10	04/02/19	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 98 %*	*Limits: 50-150 %*		*10*	*04/02/19*	*NWTPH-Dx*	*S-05*
SS01-01.5 (A9C1037-02)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	**39.8**	---	25.0	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-11, F-15**
Oil	**168**	---	50.0	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-16**
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*	*Limits: 50-150 %*		*1*	*04/02/19*	*NWTPH-Dx*	
SS01-02 (A9C1037-03)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	26.3	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	**83.7**	---	52.5	mg/kg dry	1	04/02/19	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 93 %*	*Limits: 50-150 %*		*1*	*04/02/19*	*NWTPH-Dx*	
SS02-0.5 (A9C1037-04)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	33.1	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	**66.3**	---	66.3	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 88 %*	*Limits: 50-150 %*		*1*	*04/02/19*	*NWTPH-Dx*	
SS02-01.5 (A9C1037-05)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	25.8	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	ND	---	51.6	mg/kg dry	1	04/02/19	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 94 %*	*Limits: 50-150 %*		*1*	*04/02/19*	*NWTPH-Dx*	
SS02-02 (A9C1037-06)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	31.0	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	**76.5**	---	61.9	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 90 %*	*Limits: 50-150 %*		*1*	*04/02/19*	*NWTPH-Dx*	
SS06-0.5 (A9C1037-07)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	32.2	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	**87.5**	---	64.4	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 103 %*	*Limits: 50-150 %*		*1*	*04/02/19*	*NWTPH-Dx*	
SS06-01.5 (A9C1037-08)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	32.6	mg/kg dry	1	04/02/19	NWTPH-Dx	

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AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

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
SS06-01.5 (A9C1037-08)				**Matrix: Soil**		**Batch: 9040398**		
Oil	**68.3**	---	65.2	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 93 %*		*Limits: 50-150 %*	*1*	*04/02/19*	*NWTPH-Dx*	
SS07-0.5 (A9C1037-09)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	30.8	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	**95.6**	---	61.7	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 93 %*		*Limits: 50-150 %*	*1*	*04/02/19*	*NWTPH-Dx*	
SS07-01.5 (A9C1037-10)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	31.9	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	**151**	---	63.9	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*	*1*	*04/02/19*	*NWTPH-Dx*	
SS08-0.5 (A9C1037-11)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	41.5	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	**84.7**	---	83.0	mg/kg dry	1	04/02/19	NWTPH-Dx	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 101 %*		*Limits: 50-150 %*	*1*	*04/02/19*	*NWTPH-Dx*	
SS08-01.5 (A9C1037-12)				**Matrix: Soil**		**Batch: 9040398**		
Diesel	ND	---	30.8	mg/kg dry	1	04/02/19	NWTPH-Dx	
Oil	ND	---	61.5	mg/kg dry	1	04/02/19	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 111 %*		*Limits: 50-150 %*	*1*	*04/02/19*	*NWTPH-Dx*	

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AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Silica Gel Column Cleanup

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SS01-0.5 (A9C1037-01)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	26.2	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**1510**	---	52.4	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Surrogate: o-Terphenyl (Surr)		*Recovery: 103 %*	*Limits: 50-150 %*		*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS01-01.5 (A9C1037-02)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	**35.4**	---	25.0	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-11, F-15**
Oil	**169**	---	50.0	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-16**
Surrogate: o-Terphenyl (Surr)		*Recovery: 101 %*	*Limits: 50-150 %*		*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS01-02 (A9C1037-03)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	26.3	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**87.3**	---	52.5	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*	*Limits: 50-150 %*		*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS02-0.5 (A9C1037-04)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	33.1	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**66.8**	---	66.3	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*	*Limits: 50-150 %*		*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS02-02 (A9C1037-06)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	31.0	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**79.3**	---	61.9	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*	*Limits: 50-150 %*		*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS06-0.5 (A9C1037-07)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	32.2	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**91.2**	---	64.4	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 99 %*	*Limits: 50-150 %*		*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS06-01.5 (A9C1037-08)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	32.6	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**87.5**	---	65.2	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 96 %*	*Limits: 50-150 %*		*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS07-0.5 (A9C1037-09)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	30.8	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	

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AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Silica Gel Column Cleanup

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SS07-0.5 (A9C1037-09)				**Matrix: Soil**		**Batch: 9040698**		
Oil	**95.9**	---	61.7	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 102 %*		*Limits: 50-150 %*	*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS07-01.5 (A9C1037-10)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	31.9	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**134**	---	63.9	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 95 %*		*Limits: 50-150 %*	*1*	*04/10/19*	*NWTPH-Dx/SGC*	
SS08-0.5 (A9C1037-11)				**Matrix: Soil**		**Batch: 9040698**		
Diesel	ND	---	41.5	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	
Oil	**148**	---	83.0	mg/kg dry	1	04/10/19	NWTPH-Dx/SGC	**F-03**
Surrogate: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*	*1*	*04/10/19*	*NWTPH-Dx/SGC*	

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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SS01-0.5 (A9C1037-01)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**68.1**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS01-01.5 (A9C1037-02)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**87.4**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS01-02 (A9C1037-03)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**71.2**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS02-0.5 (A9C1037-04)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**56.1**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS02-01.5 (A9C1037-05)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**70.9**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS02-02 (A9C1037-06)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**62.4**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS06-0.5 (A9C1037-07)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**56.8**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS06-01.5 (A9C1037-08)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**60.4**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS07-0.5 (A9C1037-09)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**57.2**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS07-01.5 (A9C1037-10)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**58.3**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS08-0.5 (A9C1037-11)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**45.7**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	
SS08-01.5 (A9C1037-12)				**Matrix: Soil**			**Batch: 9040379**	
% Solids	**60.6**	---	1.00	% by Weight	1	04/02/19	EPA 8000C	

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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 9040398 - EPA 3546 (Fuels)							Soil					
Blank (9040398-BLK1)		Prepared: 04/01/19 13:28		Analyzed: 04/02/19 05:36								
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (9040398-BS1)		Prepared: 04/01/19 13:28		Analyzed: 04/02/19 05:56								
NWTPH-Dx												
Diesel	122	---	25.0	mg/kg wet	1	125	---	98	76-115%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 106 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Silica Gel Column Cleanup

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9040698 - EPA 3546 (Fuels) w/Silica Gel (EPA 3630C)												**Soil**
Blank (9040698-BLK1)			Prepared: 04/01/19 13:28		Analyzed: 04/10/19 01:02							
NWTPH-Dx/SGC												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 93 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (9040698-BS1)			Prepared: 04/01/19 13:28		Analyzed: 04/10/19 01:24							
NWTPH-Dx/SGC												
Diesel	119	---	25.0	mg/kg wet	1	125	---	95	76-115%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 101 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 9040379 - Total Solids (Dry Weight)									Soil			
Duplicate (9040379-DUP2)		Prepared: 04/01/19 09:20		Analyzed: 04/02/19 08:55								
QC Source Sample: SS01-0.5 (A9C1037-01)												
EPA 8000C												
% Solids	**71.8**	---	1.00	% by Weight	1	---	68.1	---	---	5	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9040398							
A9C1037-01	Soil	NWTPH-Dx	03/26/19 11:30	04/01/19 13:28	11.21g/5mL	10g/5mL	0.89
A9C1037-02	Soil	NWTPH-Dx	03/26/19 11:35	04/01/19 13:28	10.28g/5mL	10g/5mL	0.97
A9C1037-03	Soil	NWTPH-Dx	03/26/19 11:40	04/01/19 13:28	10.7g/5mL	10g/5mL	0.94
A9C1037-04	Soil	NWTPH-Dx	03/26/19 12:00	04/01/19 13:28	10.76g/5mL	10g/5mL	0.93
A9C1037-05	Soil	NWTPH-Dx	03/26/19 12:05	04/01/19 13:28	10.93g/5mL	10g/5mL	0.92
A9C1037-06	Soil	NWTPH-Dx	03/26/19 12:10	04/01/19 13:28	10.35g/5mL	10g/5mL	0.97
A9C1037-07	Soil	NWTPH-Dx	03/26/19 13:43	04/01/19 13:28	10.93g/5mL	10g/5mL	0.92
A9C1037-08	Soil	NWTPH-Dx	03/26/19 13:45	04/01/19 13:28	10.15g/5mL	10g/5mL	0.99
A9C1037-09	Soil	NWTPH-Dx	03/26/19 13:20	04/01/19 13:28	11.34g/5mL	10g/5mL	0.88
A9C1037-10	Soil	NWTPH-Dx	03/26/19 13:25	04/01/19 13:28	10.75g/5mL	10g/5mL	0.93
A9C1037-11	Soil	NWTPH-Dx	03/26/19 12:00	04/01/19 13:28	10.55g/5mL	10g/5mL	0.95
A9C1037-12	Soil	NWTPH-Dx	03/26/19 12:05	04/01/19 13:28	10.73g/5mL	10g/5mL	0.93

Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Silica Gel Column Cleanup

Prep: EPA 3546 (Fuels) w/Silica Gel (EPA 3630C)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9040698							
A9C1037-01	Soil	NWTPH-Dx/SGC	03/26/19 11:30	04/01/19 13:28	11.21g/5mL	10g/5mL	0.89
A9C1037-02	Soil	NWTPH-Dx/SGC	03/26/19 11:35	04/01/19 13:28	10.28g/5mL	10g/5mL	0.97
A9C1037-03	Soil	NWTPH-Dx/SGC	03/26/19 11:40	04/01/19 13:28	10.7g/5mL	10g/5mL	0.94
A9C1037-04	Soil	NWTPH-Dx/SGC	03/26/19 12:00	04/01/19 13:28	10.76g/5mL	10g/5mL	0.93
A9C1037-06	Soil	NWTPH-Dx/SGC	03/26/19 12:10	04/01/19 13:28	10.35g/5mL	10g/5mL	0.97
A9C1037-07	Soil	NWTPH-Dx/SGC	03/26/19 13:43	04/01/19 13:28	10.93g/5mL	10g/5mL	0.92
A9C1037-08	Soil	NWTPH-Dx/SGC	03/26/19 13:45	04/01/19 13:28	10.15g/5mL	10g/5mL	0.99
A9C1037-09	Soil	NWTPH-Dx/SGC	03/26/19 13:20	04/01/19 13:28	11.34g/5mL	10g/5mL	0.88
A9C1037-10	Soil	NWTPH-Dx/SGC	03/26/19 13:25	04/01/19 13:28	10.75g/5mL	10g/5mL	0.93
A9C1037-11	Soil	NWTPH-Dx/SGC	03/26/19 12:00	04/01/19 13:28	10.55g/5mL	10g/5mL	0.95

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 9040379							
A9C1037-01	Soil	EPA 8000C	03/26/19 11:30	04/01/19 09:20			NA
A9C1037-02	Soil	EPA 8000C	03/26/19 11:35	04/01/19 09:20			NA

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Lisa Domenighini, Client Services Manager

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

AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A9C1037-03	Soil	EPA 8000C	03/26/19 11:40	04/01/19 09:20			NA
A9C1037-04	Soil	EPA 8000C	03/26/19 12:00	04/01/19 09:20			NA
A9C1037-05	Soil	EPA 8000C	03/26/19 12:05	04/01/19 09:20			NA
A9C1037-06	Soil	EPA 8000C	03/26/19 12:10	04/01/19 09:20			NA
A9C1037-07	Soil	EPA 8000C	03/26/19 13:43	04/01/19 09:20			NA
A9C1037-08	Soil	EPA 8000C	03/26/19 13:45	04/01/19 09:20			NA
A9C1037-09	Soil	EPA 8000C	03/26/19 13:20	04/01/19 09:20			NA
A9C1037-10	Soil	EPA 8000C	03/26/19 13:25	04/01/19 09:20			NA
A9C1037-11	Soil	EPA 8000C	03/26/19 12:00	04/01/19 09:20			NA
A9C1037-12	Soil	EPA 8000C	03/26/19 12:05	04/01/19 09:20			NA

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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AMENDED REPORT

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Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

QUALIFIER DEFINITIONS

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

Apex Laboratories

F-03	The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
F-11	The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
F-15	Results for diesel are estimated due to overlap from the reported oil result.
F-16	Results for oil are estimated due to overlap from the reported diesel result.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

Apex Laboratories

Lisa Domenighini, Client Services Manager

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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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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample 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

Lisa Domenighini, Client Services Manager

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AMENDED REPORT

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314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

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.

Apex Laboratories

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**	A9C1037 - 04 10 19 1222

APEX LABS — CHAIN OF CUSTODY

Lab # A9C1037 COC 1 of 2

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

PO#

Company: Hydrocon | Project Mgr: Craig Hultgren | Project Name: Coleman oil | Project # 2017-074

Address: 314 W 15th St Suite 300 Vancouver WA 98660 | Phone: | Fax: | Email:

Sampled by: RAH

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	SS01-0.5		3-26-19	1130	S	2		X														
2	SS01-01.5		"	1135	S	2		X														
3	SS01-02		"	1140	S	2		X														
4	SS02-0.5		"	1200	S	2		X														
5	SS02-01.5		"	1205	S	2		X														
6	SS02-02		"	1210	S	2		X														
7	SS06-0.5		"	1343	S	1		X														
8	SS06-01.5		"	1345	S	1		X														
9	SS07-0.5		"	1320	S	1		X														
10	SS07-01.5		"	1325	S	1		X														

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

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

SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature] Date: 3-29-19	Signature: [signature] Date: 3/29/19	Signature: [signature] Date: 3/29/19	Signature: [signature] Date: 3/29/19
Printed Name: Robert A. Hyde Time: 0820	Printed Name: Chris Dashel Time: 0820	Printed Name: Chris Dashel Time: 1422	Printed Name: Tanna Bell Time: 14:22
Company: HCE	Company: HydroCon	Company: HydroCon	Company: Apex

Apex Laboratories, LLC

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AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

APEX LABS — CHAIN OF CUSTODY

Lab # A9C1037 COC 2 of 2

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

PO#

Company: Sefor | Project Mgr: | Project Name: | Project #

Address: | Phone: | Fax: | Email:

Sampled by:

Site Location: OR (WA circled)

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	SS08-0.5		3-26-19	1200	S	1		X														
2	SS08-01.5		3-26-19	1205	S	1		X														
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

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

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

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature] Date: 3-29-19	Signature: [signature] Date: 3/29/19	Signature: [signature] Date: 3/29/19	Signature: [signature] Date: 3/29/19
Printed Name: Robert A. Hyn Time: 0820	Printed Name: Chris Dashiel Time: 0820	Printed Name: Chris Dashiel Time: 1422	Printed Name: Tanna Golf Time: 14:22
Company: HCE	Company: HydroCon	Company: HydroCon	Company: Apex

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

AMENDED REPORT

HydroCon LLC	Project: **Coleman Wenatchee**	
314 W 15th Street Suite 300	Project Number: **2017-074**	**Report ID:**
Vancouver, WA 98660	Project Manager: **Craig Hultgren**	**A9C1037 - 04 10 19 1222**

APEX LABS COOLER RECEIPT FORM

Client: HydroCon Element WO#: A9 C1037

Project/Project #: Coleman oil

Delivery Info:

Date/time received: 3/29/19 @ 14:22 By: TAG

Delivered by: Apex____Client X ESS____FedEx____UPS____Swift___Senvoy ___SDS___Other_____

Cooler Inspection Date/time inspected: 3/29/19 @ 14:22 By: TAG

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)	4.1						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why:_____

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: 3/29/19 @ 1540 By: SP

All samples intact? Yes X No ___ Comments:_____

Bottle labels/COCs agree? Yes ___ No X Comments: TB # 2014 received but not listed on CoC

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

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

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

Comments_____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X

Comments: _____

Additional information: _____

Labeled by: JS Witness: TAM Cooler Inspected by: SP See Project Contact Form: Y

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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APPENDIX C

DATA QUALITY REVIEW REPORT

TO:	Craig Hultgren, HydroCon
FROM:	Manon Tanner-Dave
DATE:	May 9, 2019
SUBJECT:	Laboratory Validation Report (Revised)

HydroCon TOC Site No.	Coleman Wenatchee – 2017-074		
Sampling Event Type:	Soil Sampling	**Number of Samples:**	12
Laboratory Work Order:	A9C1037 (Amended)	**Final Report Date & Time:**	April 10, 2019

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)
- ☐ BTEX (EPA 8260C)
- ☐ Total Lead (EPA 6020A), Organic Lead and Manganese Speciation (GC/ECD)
- ☐ 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 following exceptions:

NWTPH-DxSG: All samples were analyzed outside of the recommended 14 day hold time; results were estimated (J/UJ-HT).

Surrogate Compounds:

All surrogate percent recoveries (%R) were within laboratory limits.

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

Not applicable; matrix spikes were not analyzed with this analytical batch.

Associated Laboratory Duplicate:

Not applicable; laboratory duplicates were not analyzed with this analytical batch.

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.

Field Duplicate(s):

Not applicable; field duplicates were not collected with this analytical batch.

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; except for the rejected Oxygenates results.

Laboratory qualifiers for NWTPH-Dx:

- (F-03) The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
    - J/UJ-Other qualify affected results.
- (F-11) The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
    - J/UJ-Other qualify affected results.
- (F-15) Results for diesel are estimated due to overlap from the reported oil result.
    - J/UJ-Mi qualify affected results.
- (F-16) Results for oil are estimated due to overlap from the reported diesel result.
    - 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.

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-03) The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
- (F-11) The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
- (F-15) Results for diesel are estimated due to overlap from the reported oil result.
- (F-16) Results for oil are estimated due to overlap from the reported diesel result.

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:

- HT = Holding time/sample preservation.
- Mi = Matrix interference.
- Other = Other, described in data validation report.

Appendix B. Validator Qualified Data Summary Table

Sample	Laboratory ID	Method	Parameter Name	Result	Result Units	Laboratory Qualifier	Validator Qualifier	Reason Code
SS01-01.5	A9C1037-02	NWTPH-Dx	Diesel	39.8	mg/kg dry	F-11, F-15	J	Other, Mi
SS01-01.5	A9C1037-02	NWTPH-Dx	Oil	168	mg/kg dry	F-16	J	Mi
SS02-0.5	A9C1037-04	NWTPH-Dx	Oil	66.3	mg/kg dry	F-03	J	Other
SS02-02	A9C1037-06	NWTPH-Dx	Oil	76.5	mg/kg dry	F-03	J	Other
SS06-0.5	A9C1037-07	NWTPH-Dx	Oil	87.5	mg/kg dry	F-03	J	Other
SS06-01.5	A9C1037-08	NWTPH-Dx	Oil	68.3	mg/kg dry	F-03	J	Other
SS07-0.5	A9C1037-09	NWTPH-Dx	Oil	95.6	mg/kg dry	F-03	J	Other
SS07-01.5	A9C1037-10	NWTPH-Dx	Oil	151	mg/kg dry	F-03	J	Other
SS08-0.5	A9C1037-11	NWTPH-Dx	Oil	84.7	mg/kg dry	F-03	J	Other
SS01-0.5	A9C1037-01	NWTPH-DxSG	Diesel	< 26.2	mg/kg dry		UJ	HT
SS01-0.5	A9C1037-01	NWTPH-DxSG	Oil	1510	mg/kg dry		J	HT
SS01-01.5	A9C1037-02	NWTPH-DxSG	Diesel	35.4	mg/kg dry	F-11, F-15	J	HT, Other, Mi
SS01-01.5	A9C1037-02	NWTPH-DxSG	Oil	169	mg/kg dry	F-16	J	HT, Mi
SS01-02	A9C1037-03	NWTPH-DxSG	Diesel	< 26.3	mg/kg dry		UJ	HT
SS01-02	A9C1037-03	NWTPH-DxSG	Oil	87.3	mg/kg dry		J	HT
SS02-0.5	A9C1037-04	NWTPH-DxSG	Diesel	< 33.1	mg/kg dry		UJ	HT
SS02-0.5	A9C1037-04	NWTPH-DxSG	Oil	66.8	mg/kg dry	F-03	J	HT, Other
SS02-02	A9C1037-06	NWTPH-DxSG	Diesel	< 31.0	mg/kg dry		UJ	HT
SS02-02	A9C1037-06	NWTPH-DxSG	Oil	79.3	mg/kg dry	F-03	J	HT, Other
SS06-0.5	A9C1037-07	NWTPH-DxSG	Diesel	< 32.2	mg/kg dry		UJ	HT

SS06-0.5	A9C1037-07	NWTPH-DxSG	Oil	91.2	mg/kg dry	F-03	J	HT, Other
SS06-01.5	A9C1037-08	NWTPH-DxSG	Diesel	< 32.6	mg/kg dry		UJ	HT
SS06-01.5	A9C1037-08	NWTPH-DxSG	Oil	87.5	mg/kg dry	F-03	J	HT, Other
SS07-0.5	A9C1037-09	NWTPH-DxSG	Diesel	< 30.8	mg/kg dry		UJ	HT
SS07-0.5	A9C1037-09	NWTPH-DxSG	Oil	95.9	mg/kg dry	F-03	J	HT, Other
SS07-01.5	A9C1037-10	NWTPH-DxSG	Diesel	< 31.9	mg/kg dry		UJ	HT
SS07-01.5	A9C1037-10	NWTPH-DxSG	Oil	134	mg/kg dry	F-03	J	HT, Other
SS08-0.5	A9C1037-11	NWTPH-DxSG	Diesel	< 41.5	mg/kg dry		UJ	HT
SS08-0.5	A9C1037-11	NWTPH-DxSG	Oil	148	mg/kg dry	F-03	J	HT, Other