December 3, 2014

Mr. Rod Schmall
Washington State Department of Ecology
2108 Grand Blvd., MS: S-70
Vancouver, WA 98661-4622

Subject: **Additional Soil Investigation Report**
Former Chevron Bulk Terminal No. 207407
612 SE Union Street
Camas, Washington

Dear: Mr. Schmall:

Leidos Engineering, LLC (Leidos) on behalf of Chevron Environmental Management Company (Chevron), is submitting this report to the Washington State Department of Ecology (Ecology) to document the activities and findings of an additional soil investigation completed at Former Chevron Bulk Terminal No. 207407 located at 612 SE Union Street, Camas, Washington (Site).

The objective of this investigation was to determine the magnitude of petroleum-impacted soil remaining in the vadose zone from areas previously identified as having the highest contaminant concentrations on site and to assess the extent of natural attenuation in these areas over time. In addition, Model Toxics Control Act (MTCA) Method B site-specific total petroleum hydrocarbon (TPH) cleanup levels (CULs) were recalculated using analytical results from soil samples collected during this investigation.

The results of this investigation, including new MTCA Method B CULs, support the previously selected remedial alternative of monitored natural attenuation (MNA) proposed in the July 2012 SAIC Energy, Environment & Infrastructure (SAIC) remedial investigation/feasibility study (RI/FS) report[1].

BACKGROUND

Former Chevron Bulk Terminal No. 207407 is a decommissioned bulk fuel facility located on a 1.5-acre irregularly shaped lot at the southeast corner of the intersection of SE Sixth Avenue and SE Union Street in Camas, Washington.

The former facility operated as a bulk fuel storage plant from the 1920s to 1983. The Site was decommissioned in 1983 and all aboveground storage tanks (ASTs) and associated

1. SAIC, 2012. *Draft Final. Remedial Investigation/Feasibility Study Report. Chevron Site No. 207407, Former Chevron Bulk Plant, 612 Union Street, Camas, Washington.* July 25.

piping were removed. All Site buildings and warehouses were removed in 1984 except for the office building located on the west side of the Site. Chevron sold the property in November 1994 to Triangle Resources, who currently operate a wood recycling facility.

Several environmental investigations were completed at the Site between 1987 and 2008. In July 2012, SAIC (now Leidos) submitted an RI/FS report to Ecology proposing MNA as the preferred remedial alternative for the Site.

Ecology provided initial comments on the RI/FS report in June 2013[2] with additional comments provided in April 2014[3]. Ecology determined that additional investigation of the Site was necessary and requested that additional soil borings be completed in areas previously identified as having the highest concentrations of contaminants of concern. In addition, Ecology requested that site-specific soil MTCA Method B CULs be recalculated from the soil sample exhibiting the highest concentrations of contaminants of concern.

A scope of work including proposed soil boring locations, depths, and sample analysis was prepared by Leidos and subsequently approved by Ecology via email on June, 17, 2014. A site map including soil boring locations is provided on Figure 1.

INVESTIGATION ACTIVITIES

Between August 17, 2014 and September 21, 2014, three soil borings (SB-4, SB-5, and SB-6) were advanced at the Site. These boring were advanced in order to determine the magnitude of petroleum-impacted soil remaining in the vadose zone in areas previously identified as having the highest contaminant concentrations and to assess the extent of natural attenuation of contaminants in these areas over time. Soil boring locations are shown on Figure 1 and justification for each location is provided below:

- Boring location and sample depths for SB-4 were selected to correspond with the locations and sample depths of historic soil borings SB-1 and ES-5 (15 feet below ground surface [bgs]).
- Boring location and sample depths for SB-5 were selected to correspond with the location and sample depths of historic soil boring ES-3 (16 feet bgs).
- Boring location and sample depths for SB-6 were selected to correspond with the locations and sample depths of historic soil borings SB-2 and ES-7 (19 feet bgs).

Soil boring logs are included as Attachment A.

On August 17, 2014, a private utility locator and the public utility notification center were used to identify subsurface utilities and assets. To prevent damage to any unmarked underground utilities, each of the three locations was manually cleared to depths ranging from 5 to 7 feet bgs with an air-knife and vacuum truck prior to using any powered drilling equipment. No samples were collected during this phase of the investigation.

2. Ecology, 2013. *Agency Comments on Chevron's 7/26/12 Draft Final Remedial Investigation/Feasibility Study Report.* June 24.
3. Ecology, 2014. *Chevron Bulk Plant Camas – WA Site/ISIS No. 1043. Ecology reply to Leidos 2/20/14 letter responding to Ecology's 6/24/13 Agency Comments on Chevron's 7/26/12 Draft Final Remedial Investigation /Feasibility Study Report.* April 11.

Following completion of manual clearance, each boring was backfilled and temporarily patched at the surface.

On September 21, 2014 each of the three borings were advanced using a limited-access sonic drill rig. Sonic drilling was selected as the appropriate method for reaching depths necessary to collect reliable soil samples through cobbles and boulder that are known to be present in the subsurface at the Site.

During drilling activities, a Leidos geologist logged soils in accordance with the Unified Soil Classification System and collected soil samples for field screening and laboratory analysis.

Two soil samples were collected from each soil boring and submitted for laboratory analysis. One sample from each boring was collected from a discrete depth that was selected to correspond with the location and sample depth of historic soil borings (as noted above). One additional sample was collected from each boring location from the bottom-most interval attained in the boring. The bottom-most sample was collected to demonstrate that the boring had been advanced to a sufficient depth to define the vertical extent of petroleum-hydrocarbon impacts. Selected soil samples were submitted to Eurofins Lancaster Laboratories, Inc. for the following analyses:

- Gasoline-range hydrocarbons(TPH-GRO) using Northwest Method NWTPH-Gx;
- Diesel- (TPH-DRO) and oil-range hydrocarbons (TPH-HRO) using Northwest Method NWTPH-Dx with and without silica gel cleanup;
- Benzene, toluene, ethylbenzene, and total xylenes using United States Environmental Protection Agency (USEPA) Method 8260B; and
- Moisture.

In addition, one sample from each boring was also analyzed for the following:

- n-Hexane, ethylene dibromide, ethylene dichloride and methyl tertiary butyl ether by USEPA Method 8260B;
- Polycyclic aromatic hydrocarbons by USEPA 8270C with selective-ion monitoring;
- Extractable petroleum hydrocarbons (EPH) by ECY 97-602 WA EPH method; and
- Volatile petroleum hydrocarbons (VPH) by ECY 97-602 WA VPH method.

One sample (SB-4-20) was also analyzed for fractional organic carbon by SM-5310B.

Soil sample analytical results are summarized in Tables 1 and 2. The laboratory report is included as Attachment B.

No contaminants of concern were detected at concentrations above the newly recalculated site-specific MTCA Method B CULs in any of the soil samples as discussed below.

MTCA METHOD B CALCULATIONS

The site-specific MTCA Method B CUL for TPH in soil was recalculated for the Site using data collected during this investigation. Method B CULs were calculated individually from soil data collected from borings SB-4-15, SB-5-16, and SB-6-19. Calculated results for the direct contact pathway from each sample location are listed below.

- SB-4-15: 2,453 milligrams per kilogram (mg/kg)
- SB-5-16: 2,603 mg/kg
- SB-6-19: 2,840 mg/kg

As recommended in the Ecology *Guidance for Remediation of Petroleum Contaminated Sites* September 2001, the median value of these results, 2,603 mg/kg, will be used as the site-specific MTCA Method B CUL for direct contact with TPH in soil.

The site-specific Method B CUL for TPH for protection of groundwater quality (leaching) pathway was also calculated from the same sample data and are listed below.

- SB-4-15: 72,000 mg/kg (100% NAPL])
- SB-5-16: 72,000 mg/kg (100% NAPL)
- SB-6-19: 2,006 mg/kg

While the median value for this pathway is 72,000, or 100% NAPL, the calculated value of 2,006 mg/kg from sample SB-6-19 will be utilized as a conservative site-specific CUL for protection of groundwater.

MTCA Method B calculation sheets are included as Attachment C.

CONCLUSIONS

During this additional soil investigation, three soil borings were advanced to total depths ranging between 22 and 36 feet bgs in areas previously identified on the Site as having the highest concentrations of contaminants of concern. Soil analytical data was collected in each of these borings from discrete depths associated with historic sample locations to determine the extent of natural attenuation occurring on site and from the total depth of each boring to vertically define the extent of impacts in the vadose zone. In addition, soil analytical data from each boring was used to recalculate site-specific MTCA Method B CULs.

The site-specific Method B CUL for TPH for the direct contact pathway is 2,603 mg/kg and the site-specific Method B CUL for the protection of groundwater quality leaching pathway is conservatively estimated to be 2,006 mg/kg.

Results of soil analytical data collected during this investigation indicate that natural attenuation is occurring at the Site. A comparison of current soil data with historic concentrations show that petroleum-hydrocarbon impacts have significantly decreased over time. Based on this comparison, current site data supersedes historic data collected approximately 10 to 20 years ago and therefore, current data will be used to characterize existing conditions at the site.

A comparison of soil analytical data collected from the total depths of each of these borings with data collected from shallower depth intervals indicates a downward trend in contaminant concentrations vertically within the vadose zone.

Concentrations in soil samples collected during this investigation are all below the site-specific MTCA Method B CUL for protection of groundwater.

Empirical data from current groundwater conditions (which are below Method A cleanup levels) demonstrate that the site-specific MTCA Method B cleanup level for the protection of groundwater is protective of groundwater**.**

Based on the results of the data collected during this additional soil investigation, the remedial alternative of MNA proposed for the Site in the RI/FS report is further supported and validated.

Following Ecology's approval of this conclusion, the Draft RI/FS will be updated and resubmitted for review.

Please contact me at (503) 220-1646 or alex.d.shook@leidos.com if you have any questions regarding the contents of this letter.

Sincerely,

Leidos Engineering, LLC

Alex Shook
Project Manager

Enclosures:

Figure 1 – Site Map

Table 1 – Soil Analytical Results

Table 2 – Soil Analytical Results – Lead, MTBE, and PAHs

Attachment A – Soil Boring Logs

Attachment B – Laboratory Analytical Report

Attachment C – MTCA Method B Calculations

cc: Mr. Eric Roehl, Chevron Environmental Management Company
145 S State College Blvd, Brea, California 92821

Mr. Kent Zeigler – Triangle Resources
P.O. Box 1101, Camas, WA 98607

Project File

REPORT LIMITATIONS

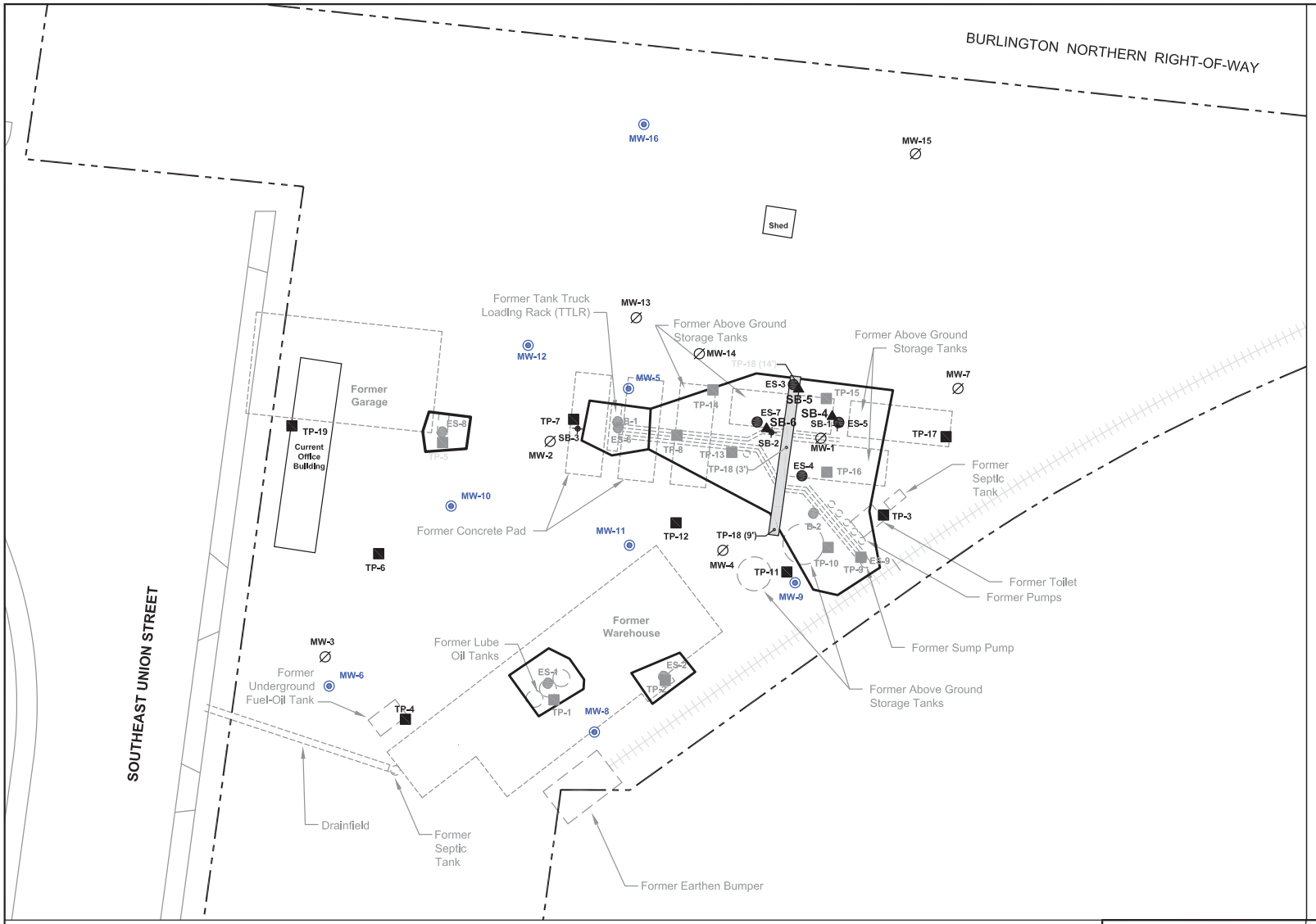
This technical document was prepared on behalf of CEMC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges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

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

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

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

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



N

0 15' 30'

LEGEND

- MW-5 ◉ Existing Monitoring Well Location
- MW-1 ∅ Abandoned or Destroyed Monitoring Well
- SB-1 ✦ Remedial Investigation Soil Boring Location
- TP-1 ■ Test Pit Location (Gray Indicates Location Removed During the 1994 Excavation)
- B-1/ES-1 ● Historic Soil Boring / Excavation Sampling Location (Gray Indicates Location Removed During the 1994 Excavation)
- SB-4 ▲ Soil Boring Location
- Approximate Remedial Excavation Extents
- Property Boundary
- Former Railroad Line
- Former Buildings, Equipment and Piping

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207407 Site Map 2014.dwg

Site Map

Former Chevron Bulk Terminal No. 207407
612 SE Union Street
Camas, Washington

Date: 11/24/2014 Revised By: JA

FIGURE 1

TABLE 1
SOIL ANALYTICAL RESULTS
FORMER CHEVRON BULK TERMINAL NO. 207407
612 SE Union Street, Camas, Washington
Concentrations reported in mg/kg

Sample ID	Sample Depth (feet)	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-GRO	TPH-DRO	TPH-HRO	Total TPH
B-1 (0-5)*	0-5	10/12/87	0.007	3.045	--	21.365	--	--	--	7,870
B-1 (5-10)*	5-10	10/12/87	0.010	0.743	--	12.995	--	--	--	6,870
B-1 (10-15)*	10-15	10/12/87	U	0.009	--	0.133	--	--	--	2,240
B-1 (15-20)*	15-20	10/12/87	U	0.005	--	0.164	--	--	--	429
B-2 (0-5)	0-5	10/13/87	U	U	--	U	--	--	--	549
B-2 (5-10)	5-10	10/13/87	U	0.007	--	3.92	--	--	--	1,420
B-2 (10-15)	10-15	10/13/87	U	0.080	--	7.135	--	--	--	881
B-2 (15-20)	15-20	10/13/87	0.151	4.960	--	21.945	--	--	--	1,200
MW-1 (8.5-9.5)*	8.5-9.5	09/01/88	U	U	U	U	--	--	--	552
MW-1 (22-23)	22-23	09/01/88	U	U	U	U	--	--	--	552
MW-2 (3.5-4.0	3.5-4.0	09/02/88	U	U	U	U	--	--	--	<5.0
MW-2 (22.5-23.5)	22.5-23.5	09/02/88	U	U	U	U	--	--	--	<5.0
MW-3 (8.5-9.5)	8.5-9.5	09/06/88	U	U	U	U	--	--	--	111
MW-3 (22.5-24.0)	22.5-24	09/06/88	U	U	U	U	--	--	--	<5.0
MW-4 (3.5-4.0)	3.5-4.0	09/07/88	U	U	U	U	--	--	--	24
MW-4 (16-17)	16-17	09/07/88	U	U	U	U	--	--	--	8.6
MW-4A (16-17) (D)	16-17	09/07/88	U	U	U	U	--	--	--	11.0
MW-5 (20)	20	02/08/90	<0.05	<0.05	<0.05	<0.05	--	--	--	7.0
MW-5 (25.5)	25.5	02/08/90	<0.05	<0.05	<0.05	<0.05	--	--	--	<5.0
MW-5 (39.5)	39.5	02/08/90	<0.05	<0.05	<0.05	<0.05	--	--	--	10
MW-6 (21)	21	02/09/90	<0.05	<0.05	<0.05	<0.05	--	--	--	13
MW-6 (25.5)	25.5	02/09/90	<0.05	<0.05	<0.05	<0.05	--	--	--	<5.0
MW-6 (35)	35	02/09/90	<0.05	<0.05	<0.05	<0.05	--	--	--	10
MW-7 (20.5)	20.5	02/23/90	<0.05	<0.05	<0.05	<0.05	--	--	--	11
MW-7 (25)	25	02/23/90	<0.05	<0.05	<0.05	<0.05	--	--	--	<5.0
MW-7 (34.5)	34.5	02/23/90	<0.05	<0.05	<0.05	<0.05	--	--	--	5.4
TP-1 (1.5-2.0)*	1.5-2.0	09/08/94	--	--	--	--	--	380	820	1,200
TP-1 (5.5-6.0)*	5.5-6.0	09/08/94	--	--	--	--	--	92	168	260
TP-2 (1.5-2.0)*	1.5-2.0	09/08/94	--	--	--	--	--	130	310	440
TP-3 (1.5-2.0)	1.5-2.0	09/08/94	--	--	--	--	--	45	115	160
TP-3 (8.0-8.5)	8.0-8.5	09/08/94	--	--	--	--	--	--	--	--
TP-4 (1.5-2.0)	1.5-2.0	09/08/94	--	--	--	--	--	--	--	--
TP-4 (5.0-5.5)	5.0-5.5	09/08/94	--	--	--	--	--	--	--	--

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612 SE Union Street, Camas, Washington
Concentrations reported in mg/kg

Sample ID	Sample Depth (feet)	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-GRO	TPH-DRO	TPH-HRO	Total TPH
TP-5 (1.5-2.0)*	1.5-2.0	09/08/94	<0.031	<0.031	0.30	1.3	590	13,000	14,000	27,590
TP-5 (9.0-9.5)*	9.0-9.5	09/08/94	<0.030	<0.030	0.37	1.3	720	4,900	11,100	16,720
TP-6 (1.5-2.0)	1.5-2.0	09/08/94	--	--	--	--	--	--	--	--
TP-7 (1.5-2.0)	1.5-2.0	09/08/94	<0.027	<0.027	<0.027	<0.027	<5.5	220	1,080	1,300
TP-7 (5.5-6.0)	5.5-6.0	09/08/94	--	--	--	--	--	120	370	490
TP-8 (1.5-2.0)*	1.5-2.0	09/08/94	--	--	--	--	--	70	400	470
TP-8 (5.5-6.0)*	5.5-6.0	09/08/94	--	--	--	--	--	27	103	130
TP-9 (1.5-2.0)*	1.5-2.0	09/09/94	<0.027	<0.027	<0.027	<0.027	25	2,500	1,200	3,725
TP-10 (1.5-2.0)*	1.5-2.0	09/09/94	--	--	--	--	--	400	180	580
TP-10 (6.5-7.0)*	6.5-7.0	09/09/94	--	--	--	--	--	<22	79	79
TP-11 (2.5-3.0)*	2.5-3.0	09/09/94	--	--	--	--	--	--	--	--
TP-11 (6.0-6.5)*	6.0-6.5	09/09/94	--	--	--	--	--	24	54	78
TP-12 (2.0-2.5)	2.0-2.5	09/09/94	--	--	--	--	--	--	--	--
TP-13 (1.5-2.0)	1.5-2.0	09/09/94	<0.029	<0.029	5.7	24.0	87	530	60	677
TP-13 (10.0-10.5)	10.0-10.5	09/09/94	<0.030	<0.030	0.095	0.46	300	--	--	300
TP-14 (2.0-2.5)	2.0-2.5	09/09/94	--	--	--	--	--	67	233	300
TP-14 (7.5-8.0)	7.5-8.0	09/09/94	--	--	--	--	--	27	113	140
TP-15 (1.5-2.0)*	1.5-2.0	09/09/94	<0.027	<0.027	<0.027	0.37	300	1,500	500	2,300
TP-15 (7.0-7.5)*	7.0-7.5	09/09/94	<0.028	<0.028	<0.028	1.5	350	2,000	300	2,650
TP-16 (2.0-2.5)*	2.0-2.5	09/09/94	--	--	--	--	--	130	80	210
TP-16 (7.0-7.5)*	7.0-7.5	09/09/94	--	--	--	--	--	260	80	340
TP-17 (1.5-2.0)	1.5-2.0	09/09/94	--	--	--	--	--	--	--	--
TP-17 (5.5-6.0)	5.5-6.0	09/09/94	--	--	--	--	--	110	180	290
TP-18 (3.0-3.5)*	3.0-3.5	09/09/94	<0.030	<0.030	0.75	2.3	1,200	7,500	600	9,300
TP-18 (9.0-9.5)	9.0-9.5	09/09/94	<0.029	<0.029	<0.029	0.075	57	420	80	557
TP-18 (14.0-14.5)*	14.0-14.5	09/09/94	<0.030	<0.030	0.80	1.9	1,100	7,100	900	9,100
TP-19 (2.0-2.5)	2.0-2.5	09/09/94	--	--	--	--	--	--	--	--
ES-1 (6)*	6	11/07/94	<0.031	<0.031	<0.031	<0.031	<6.2	<25	<120	0
ES-2 (4)*	4	11/07/94	<0.030	<0.030	<0.030	<0.030	<6.0	<24	<120	0
ES-3 (16)**	16	11/07/94	<0.034	<0.034	0.51	1.6	400	3,600	<140	4,000
ES-4 (15)**	15	11/07/94	<0.029	<0.029	1.8	8.3	510	2,600	<120	3,110
ES-5 (15)**	15	11/08/94	<0.035	<0.035	5.9	47	1,800	2,000	<140	3,800
ES-6 (11)*	11	11/08/94	<0.030	<0.030	<0.030	<0.035	10	1,000	200	1,210

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ES-7 (15)**	15	11/08/94	<0.030	<0.030	1.9	7.9	1,700	2,900	<120	4,600
ES-8 (11)*	11	11/08/94	<0.029	<0.029	<0.029	<0.029	<5.9	28	<120	28
ES-9 (5.5)*	5.5	11/08/94	<0.029	<0.029	<0.029	<0.029	<5.7	74	<110	74
SB-1-6**	6	07/16/04	<0.05	<0.05	<0.2	<1.5	1,600	960	<100	2,560
SB-1-14**	14	07/16/04	<0.005	<0.005	<0.02	<0.2	400	880	<100	1,280
SB-1-19**	19	07/16/04	<0.005	<0.005	<0.02	<0.2	69	110	12	191
SB-1-24**	24	07/16/04	<0.005	<0.005	<0.02	<0.2	<1.0	110	19	129
SB-2-19**	19	08/22/04	<0.2	<0.2	<0.4	4.9	3,300	3,700	<200	7,000
SB-2-24**	24	08/22/04	<0.005	<0.005	<0.005	0.03	110	390	37	537
SB-3-14	14	08/22/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
SB-3-19	19	08/22/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-8-24	24	08/20/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-8-29	29	08/20/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-9-19	19	07/16/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-10-29	29	08/22/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-11-19	19	08/21/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-12-19	19	07/18/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-13-24	24	07/17/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-13-44	44	07/17/04	<0.005	<0.005	<0.005	<0.02	<1.0	4.8	<10	4.8
MW-14-24	24	07/19/04	<0.005	<0.005	<0.005	<0.02	<1.0	<3.0	<10	0
MW-15-30	30	07/30/08	<0.0006	<0.001	<0.001	<0.001	<1	<3.4	<11	0
MW-15-35	35	07/30/08	<0.0004	<0.0008	<0.0008	<0.0008	<0.9	<3.2	<11	0
MW-15-40	40	07/30/08	<0.0005	<0.0009	<0.0009	<0.0009	<1.2	<3.4	<11	0
MW-15-45	45	07/30/08	<0.0005	<0.001	<0.001	<0.001	<1.1	<3.3	<11	0
MW-15-50	50	07/30/08	<0.0005	<0.001	<0.001	<0.001	<1.4	<3.5	<12	0
MW-16-25	25	07/31/08	<0.0004	<0.0009	<0.0009	<0.0009	<1	<3.3	<11	0
MW-16-30	30	07/31/08	<0.0005	<0.001	<0.001	<0.001	<1	4.1	<12	4.1
MW-16-35	35	07/31/08	<0.0005	<0.0009	<0.0009	<0.0009	<1.2	<3.2	<11	0
MW-16-40	40	07/31/08	<0.0005	<0.0009	<0.0009	<0.0009	<1.2	<3.4	<11	0
MW-16-45	45	07/31/08	<0.0005	<0.0009	<0.0009	<0.0009	<1.2	<3.2	<11	0
MW-16-50	50	07/31/08	<0.0006	<0.001	<0.001	<0.001	<0.9	<3.4	<11	0
SB-4-15	15	09/21/14	<0.030	<0.0610	<0.0610	<0.122	150	360/460[1]	<11/<11[1]	610
SB-4-20	20	09/21/14	<0.0005	<0.001	<0.001	<0.001	<1.5	38/46[1]	<11<11[1]	46

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TABLE 1
SOIL ANALYTICAL RESULTS
FORMER CHEVRON BULK TERMINAL NO. 207407
612 SE Union Street, Camas, Washington
Concentrations reported in mg/kg

Sample ID	Sample Depth (feet)	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-GRO	TPH-DRO	TPH-HRO	Total TPH
SB-5-16	16	09/21/14	<0.028	<0.0598	0.061	2.10	540	480/570[1]	<11<23[1]	1,110
SB-5-36	36	09/21/14	<0.0005	<0.001	<0.001	<0.001	<1.1	83/120[1]	<11/19[1]	139
SB-6-19	19	09/21/14	<0.026	<0.052	<0.053	<0.052	310	210/230[1]	56/88[1]	318
SB-6-25	25	09/21/14	<0.0005	<0.001	<0.001	<0.001	<1.1	6.1/4.1[1]	<11<11[1]	6.1
MTCA Method A CULs			0.03	7	6	9	30/100	2,000	2,000	-
MTCA Method B CULs			18	6,400	8,000	16,000	-	-	-	2,603

EXPLANATIONS:

MTCA Method B cleanup levels for Direct Contact, Unrestricted Land Uses.
TPH prior to 1994 measured by Method 418.1; recent values are the sum of Gasoline, Diesel, and Lube oil-range Hydrocarbons.

1 Results for TPH-DRO and TPH-HRO analyzed by Northwest Method NWTPH-Dx with silica-gel cleanup / Northwest Method NWTPH-Dx without silica-gel cleanup.
CULs = Cleanup levels
(D) = Duplicate
mg/kg = Milligrams per kilogram
MTCA = Model Toxics Control Act
TPH = Total Petroleum Hydrocarbons
TPH-DRO = TPH as Diesel-Range Organics
TPH-GRO = TPH as Gasoline-Range Organics
TPH-HRO = TPH as Heavy Oil-Range Organics
U = The analyte was not detected at or above the laboratory detection limit
* = locations removed during the 1994 soil excavation.
** = Data not used for characterizing existing conditions. More recent data supercedes these values.
-- = Not Measured/Not Analyzed
- = Not Established

TABLE 2
SOIL ANALYTICAL RESULTS - Lead, MTBE, and PAHs
FORMER CHEVRON BULK TERMINAL NO. 207407
612 SE Union Street, Camas, Washington
Concentrations reported in mg/kg

Sample ID	Sample Depth (feet)	Sample Date	Lead	MTBE	Benzo(a) anthracene	Chrysene	Benzo(b) fluoranthene	Benze(k) fluoranthene	Benzo(a) pyrene	Indeno (1,2,3-cd) pyrene	Dibenz(a,h) anthracene	Naphthalene	n-hexane	EDB	EDC
SB-1-6	6	07/16/04	54.2	<0.5	0.003	0.008	0.005	<0.003	<0.003	<0.003	<0.003	0.12	--	<0.13	<0.13
SB-1-14	14	07/16/04	4.34	<0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.024	--	<0.12	<0.12
SB-1-19	19	07/16/04	3.10	<0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.010	--	<0.12	<0.12
SB-1-24	24	07/16/04	--	<0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.010	--	--	--
SB-2-19	19	08/22/04	4.88	<2.0	0.004	0.009	<0.003	<0.003	<0.003	<0.003	<0.003	0.19	<0.13	<0.13	<0.13
SB-2-24	24	08/22/04	4.43	<0.05	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	--	--	<0.001	<0.001
SB-3-19	19	08/22/04	--	<0.05	--	--	--	--	--	--	--	<0.001	<0.001	--	--
MW-13-44	44	07/17/04	--	-	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.001	--	--	--
SB-4-15	15	09/21/14	--	<0.030	<0.00076	0.0020	<0.00076	<0.00076	<0.00076	<0.00076	<0.00076	0.0018	<0.061	<0.061	<0.061
SB-5-16	16	09/21/14	--	<0.028	0.0057	0.012	0.0023	<0.00076	0.0016	<0.00076	<0.00076	0.12	<0.056	<0.056	<0.056
SB-6-19	19	09/21/14	--	<0.026	0.0035	0.0090	0.0051	0.0017	0.0033	0.0017	<0.00072	0.043	<0.052	<0.052	<0.052
MTCA Method A CULs			250	0.1	-	-	-	-	0.1	-	-	5	-	0.005	-
MTCA Method B CULs			-	556	1.37	-	1.37	13.7	0.137	1.37	0.137	1,600	-	0.5	-

EXPLANATIONS:

MTCA Method B cleanup levels for Direct Contact, Unrestricted Land Uses.

PAHs = Polycyclic aromatic hydrocarbons
CULs = Cleanup levels
EDB = Ethylene dibromide (1,2-dibromoethane)
EDC = Ethylene dichloride (1,2-dichloroethane)
mg/kg = Milligrams per kilogram
MTBE = Methyl Tertiary Butyl Ether
MTCA = Model Toxics Control Act
-- = Not Measured/Not Analyzed
- = Not Established

Attachment A:
Soil Boring Logs

Soil Boring: SB-4

Project: Former Chevron Bulk Terminal #207407
Client: Chevron EMC
Location: 612 SE Union St., Camas, WA

Logged By: A. Lembrick
Date Started: 8/17/2014
Date Completed: 9/14/2014

Driller: Cascade Drilling
Drill Method: Air Knife/Sonic
Total Boring Depth: 22 ft

MOISTURE CONTENT	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION
						0	Asphalt top 6 inches.
				FILL		1	(FILL) Brown cobbles with 10% silt and 15% gravel.
						2	
						3	
						4	Same as above.
						5	Boulder at 5 feet.
						6	(SP) Brown fine to medium, loose SAND with gravel and boulders.
				SP		7	Refusal at 7 feet.
				ML		8	(ML) Dark brown, stiff SILT with 40-50% cobbles and gravel.
						9	Same as above.
				SM		10	(SM) Loose silty SAND with gravel.
						11	Boulder encountered.
				GP		12	(GP) Loose, sandy GRAVEL. Boulder encountered.
						13	

Soil Boring: SB-4

Project: Former Chevron Bulk Terminal #207407
Client: Chevron EMC
Location: 612 SE Union St., Camas, WA

Logged By: A. Lembrick
Date Started: 8/17/2014
Date Completed: 9/14/2014

Driller: Cascade Drilling
Drill Method: Air Knife/Sonic
Total Boring Depth: 22 ft

MOISTURE CONTENT	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION
				GP			(GP) Loose, sandy GRAVEL. *(continued)*
				ML		14	(ML) Brown, sandy SILT with 10% gravel.
			SB-4-15			15	Same as above with cobbles.
				ML		16	(ML) Dark brown/gray SILT with 10% sand and 5% cobbles.
						17	Brown same as above.
				SP		18	(SP) Gray SAND with 10% cobbles.
				SM		19	(SM) Gray, silty SAND with cobbles and gravel.
			SB-4-20			20	Same as above.
						21	Same as above.
						22	Bottom of borehole at 22.0 feet.
						23	
						24	
						25	
						26	

Soil Boring: SB-5

Project: Former Chevron Bulk Terminal #207407
Client: Chevron EMC
Location: 612 SE Union St., Camas, WA

Logged By: A. Lembrick
Date Started: 8/17/2014
Date Completed: 9/21/2014

Driller: Cascade Drilling
Drill Method: Air Knife/Sonic
Total Boring Depth: 36 ft

MOISTURE CONTENT	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION
						0	Asphalt top 6 inches.
				GP		1	(GP) Brown, subrounded GRAVEL with 10% fine to medium sand.
						2	
						3	
						4	(SP) Brown, fine to medium SAND with 15% cobbles.
				SP		5	Same as above. Refusal at 5 feet.
						6	
						7	
						8	(SM) Brown, silty SAND with 40% cobbles and gravel.
				SM		9	Same as above.
						10	Brown, loose, silty SAND with 20% cobbles.
						11	Boulder encountered.
						12	(ML) Brown, sandy SILT with 15% gravel and 10% cobbles.
				ML		13	

Soil Boring: SB-5

Project: Former Chevron Bulk Terminal #207407
Client: Chevron EMC
Location: 612 SE Union St., Camas, WA

Logged By: A. Lembrick
Date Started: 8/17/2014
Date Completed: 9/21/2014

Driller: Cascade Drilling
Drill Method: Air Knife/Sonic
Total Boring Depth: 36 ft

MOISTURE CONTENT	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION
							Brown, stiff SILT with 20% cobbles and 5% sand.
						14	(SM) Dark brown, coarse, silty SAND with cobbles.
				SM		15	Same as above.
			SB-5-16			16	Same as above.
						17	(ML) Dark gray SILT with 40% gravel.
				ML		18	Same as above.
							Same as above.
						19	Large cobble encountered.
						20	(ML) Dark brown, stiff SILT with gravel.
				ML		21	Dark gray, stiff, gravelly SILT.
						22	Same as above.
						23	(ML) Dark gray, stiff, gravelly SILT with 10% sand.
				ML		24	Same as above.
						25	Same as above.
						26	

Soil Boring: SB-5

Project: Former Chevron Bulk Terminal #207407
Client: Chevron EMC
Location: 612 SE Union St., Camas, WA

Logged By: A. Lembrick
Date Started: 8/17/2014
Date Completed: 9/21/2014

Driller: Cascade Drilling
Drill Method: Air Knife/Sonic
Total Boring Depth: 36 ft

MOISTURE CONTENT	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION
				GM		26	(GM) Dark gray, silty GRAVEL with coarse sand.
						27	Same as above.
						28	Brown, silty GRAVEL with coarse sand.
						29	(GM) Same as above.
				GM		30	Cobble encountered.
				ML		31	(ML) Brown, sandy SILT with gravel.
						32	(GM) Brown, silty GRAVEL.
				GM		33	Same as above.
						34	Same as above.
						35	(GM) Same as above. Boulder encountered.
			SB-5-36	GM		36	
							Bottom of borehole at 36.0 feet.
						37	
						38	
						39	

Soil Boring: SB-6

Project: Former Chevron Bulk Terminal #207407
Client: Chevron EMC
Location: 612 SE Union St., Camas, WA

Logged By: A. Lembrick
Date Started: 8/17/2014
Date Completed: 9/21/2014

Driller: Cascade Drilling
Drill Method: Air Knife/Sonic
Total Boring Depth: 25 ft

MOISTURE CONTENT	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION
						0	Asphalt top 6 inches.
				GP		1	(GP) Brown GRAVEL with 10% fine to medium SAND.
						2	
						3	
						4	Same as above with 5% sand and boulders.
						5	Refusal at 5 feet due to boulders.
						6	
						7	(ML) Brown, stiff SILT with cobbles and 5% sand.
				ML		8	
						9	Same as above.
						10	
						11	(SP) Brown SAND with 10% silt and 5% gravel.
							Boulder encountered.
				SP		12	
						13	

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Soil Boring: SB-6

Project: Former Chevron Bulk Terminal #207407
Client: Chevron EMC
Location: 612 SE Union St., Camas, WA

Logged By: A. Lembrick
Date Started: 8/17/2014
Date Completed: 9/21/2014

Driller: Cascade Drilling
Drill Method: Air Knife/Sonic
Total Boring Depth: 25 ft

MOISTURE CONTENT	ORGANIC VAPOR (ppm)	SAMP. INTERVAL	ANALYTICAL SAMPLE	U.S.C.S. SYMBOL	GRAPHIC LOG	DEPTH (ft)	LITHOLOGY/DESCRIPTION
				ML		13	(ML) Brown, stiff SILT with cobbles.
						14	Dark brown, stiff, gravelly SILT.
						15	Dark brown, stiff SILT with 10% gravel.
						16	(ML) Dark brown, stiff, gravelly SILT with coarse sand.
				ML		17	
						18	Same as above.
			SB-6-19			19	
						20	
						21	
						22	(ML) Same as above with 10% cobbles.
				ML		23	Brown, stiff, gravelly SILT.
						24	(GM) Silty GRAVEL.
				GM		25	Bottom of borehole at 25.0 feet.
						26	

Attachment B:
Laboratory Analytical Report

eurofins | Lancaster Laboratories Environmental

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

Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

October 03, 2014

Project: 207407

Submittal Date: 09/23/2014
Group Number: 1505510
PO Number: 0015143985
Release Number: ROEHL

State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
SB-4-15 Grab Soil	7610669
SB-4-20 Grab Soil	7610670
SB-5-16 Grab Soil	7610671
SB-5-36 Grab Soil	7610672
SB-6-19 Grab Soil	7610673
SB-6-25 Grab Soil	7610674
TB-092114 Water	7610675

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

ELECTRONIC COPY TO Leidos Attn: Alex Shook

Respectfully Submitted,

Lynn M. Frederiksen
Principal Specialist Group Leader

(717) 556-7255

Sample Description: SB-4-15 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610669
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 11:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

41507

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.030	53.05
10237	1,2-Dibromoethane	106-93-4	N.D.	0.061	53.05
10237	1,2-Dichloroethane	107-06-2	N.D.	0.061	53.05
10237	Ethylbenzene	100-41-4	N.D.	0.061	53.05
10237	n-Hexane	110-54-3	N.D.	0.061	53.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.030	53.05
10237	Toluene	108-88-3	N.D.	0.061	53.05
10237	Xylene (Total)	1330-20-7	N.D.	0.061	53.05
	Reporting limits were raised due to interference from the sample matrix.				
GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10725	Benzo(a)anthracene	56-55-3	N.D.	0.00076	1
10725	Benzo(a)pyrene	50-32-8	N.D.	0.00076	1
10725	Benzo(b)fluoranthene	205-99-2	N.D.	0.00076	1
10725	Benzo(k)fluoranthene	207-08-9	N.D.	0.00076	1
10725	Chrysene	218-01-9	0.0020	0.00038	1
10725	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00076	1
10725	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00076	1
10725	1-Methylnaphthalene	90-12-0	0.0036	0.00076	1
10725	2-Methylnaphthalene	91-57-6	0.0053	0.00076	1
10725	Naphthalene	91-20-3	0.0018	0.00076	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	150	10	220.96
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	460	3.4	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
GC Petroleum Hydrocarbons	**ECY 97-602 WA EPH**		**mg/kg**	**mg/kg**	
05970	>C10-C12 Aliphatic	n.a.	35	1.1	1
05970	>C10-C12 Aromatic	n.a.	1.5	1.1	1
05970	>C12-C16 Aliphatic	n.a.	260	1.1	1
05970	>C12-C16 Aromatic	n.a.	22	1.1	1
05970	>C16-C21 Aliphatic	n.a.	150	3.3	1
05970	>C16-C21 Aromatic	n.a.	83	2.2	1
05970	>C21-C34 Aliphatic	n.a.	12	6.6	1
05970	>C21-C34 Aromatic	n.a.	10	2.2	1
GC Petroleum Hydrocarbons	**ECY 97-602 WA VPH**		**mg/kg**	**mg/kg**	
05666	Benzene	71-43-2	N.D.	0.0610	53.34
05666	C5-C6 Aliphatic Hydrocarbons	n.a.	N.D.	3.05	53.34
05666	C6-C8 Aliphatic Hydrocarbons	n.a.	N.D.	3.05	53.34
05666	C8-C10 Aliphatic Hydrocarbons	n.a.	8.56	3.05	53.34
05666	C8-C10 Aromatic Hydrocarbons	n.a.	8.88	3.05	53.34

Sample Description: SB-4-15 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610669
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 11:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

41507

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**ECY 97-602 WA VPH**		**mg/kg**	**mg/kg**	
05666	Ethylbenzene	100-41-4	N.D.	0.0610	53.34
05666	Methyl t-butyl ether	1634-04-4	N.D.	0.0610	53.34
05666	Toluene	108-88-3	N.D.	0.0610	53.34
05666	o-Xylene	95-47-6	N.D.	0.0610	53.34
05666	m,p-Xylenes	179601-23-1	N.D.	0.122	53.34
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
12006	DRO C12-C24 w/Si Gel	n.a.	360	3.4	1
12006	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	
00111	Moisture	n.a.	12.6	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

General Sample Comments

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

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q142691AA	09/26/2014 23:51	Andrea E Lando	53.05
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201426735702	09/21/2014 11:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201426735702	09/21/2014 11:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201426835706	09/21/2014 11:00	Client Supplied	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14273SLC026	10/02/2014 04:09	Mark A Clark	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	14273SLC026	09/30/2014 18:40	Sally L Appleyard	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14267A31A	09/25/2014 22:29	Marie D Beamenderfer	220.96
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201426735702	09/21/2014 11:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	142720027A	09/30/2014 19:37	Glorines Suarez-Rivera	1

Sample Description: SB-4-15 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610669
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 11:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

41507

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	142720020A	10/02/2014 00:02	Heather E Williams	1
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	142720020A	10/02/2014 00:42	Heather E Williams	1
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14274A54A	10/01/2014 14:08	Nicholas R Rossi	53.34
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142690015A	09/29/2014 14:33	Glorines Suarez-Rivera	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142690015A	09/27/2014 11:15	Olivia Arosemena	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142720027A	09/30/2014 10:20	Denise L Trimby	1
11213	WA EPH Soils Extraction	ECY 97-602 WA EPH	1	142720020A	09/30/2014 05:10	Roman Kuropatkin	1
00388	GC - Field Preserved (MA-VPH)	MA DEP VPH modified	1	201426735702	09/21/2014 11:00	Client Supplied	1
00497	Silica Gel Fractionation	SW-846 3630C modified	1	142720020A	09/30/2014 09:45	Roman Kuropatkin	1
00111	Moisture	SM 2540 G-1997	1	14269820003A	09/26/2014 17:41	Scott W Freisher	1

Sample Description: SB-4-20 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610670
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 11:50 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

42007

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.98
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	1.5	32.52
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	46	3.3	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
12006	DRO C12-C24 w/Si Gel	n.a.	38	3.3	1
12006	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**SM 5310 B modified-2000**		**% by wt.**	**% by wt.**	
02079	TOC Solids/Sludges Combustion	n.a.	N.D.	0.0112	1
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	
00111	Moisture	n.a.	10.5	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C457

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	X142681AA	09/25/2014 16:44	Chelsea B Stong	0.98
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201426735702	09/21/2014 11:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201426735702	09/21/2014 11:50	Client Supplied	1

Sample Description: SB-4-20 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610670
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 11:50 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

42007

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201426735702	09/21/2014 11:50	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14267A31A	09/25/2014 18:36	Marie D Beamenderfer	32.52
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201426735702	09/21/2014 11:50	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	142720027A	09/30/2014 18:07	Christine E Dolman	1
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142690015A	09/29/2014 16:08	Glorines Suarez-Rivera	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142690015A	09/27/2014 11:15	Olivia Arosemena	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142720027A	09/30/2014 10:20	Denise L Trimby	1
02079	TOC Solids/Sludges Combustion	SM 5310 B modified-2000	1	14273049531A	10/01/2014 00:39	James S Mathiot	1
00111	Moisture	SM 2540 G-1997	1	14269820003A	09/26/2014 17:41	Scott W Freisher	1

Sample Description: SB-5-16 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610671
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 13:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

51607

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.028	49.33
10237	1,2-Dibromoethane	106-93-4	N.D.	0.056	49.33
10237	1,2-Dichloroethane	107-06-2	N.D.	0.056	49.33
10237	Ethylbenzene	100-41-4	0.061	0.056	49.33
10237	n-Hexane	110-54-3	N.D.	0.056	49.33
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.028	49.33
10237	Toluene	108-88-3	N.D.	0.056	49.33
10237	Xylene (Total)	1330-20-7	2.1	0.056	49.33
GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10725	Benzo(a)anthracene	56-55-3	0.0057	0.00076	1
10725	Benzo(a)pyrene	50-32-8	0.0016	0.00076	1
10725	Benzo(b)fluoranthene	205-99-2	0.0023	0.00076	1
10725	Benzo(k)fluoranthene	207-08-9	N.D.	0.00076	1
10725	Chrysene	218-01-9	0.012	0.00038	1
10725	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00076	1
10725	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00076	1
10725	1-Methylnaphthalene	90-12-0	2.7	0.038	50
10725	2-Methylnaphthalene	91-57-6	3.8	0.038	50
10725	Naphthalene	91-20-3	0.12	0.00076	1
	The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.				
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	540	22	493.35
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	570	6.8	2
08272	Heavy Range Organics C24-C40	n.a.	N.D.	23	2
GC Petroleum Hydrocarbons	**ECY 97-602 WA EPH**		**mg/kg**	**mg/kg**	
05970	>C10-C12 Aliphatic	n.a.	110	2.2	2
05970	>C10-C12 Aromatic	n.a.	40	1.1	1
05970	>C12-C16 Aliphatic	n.a.	540	2.2	2
05970	>C12-C16 Aromatic	n.a.	120	1.1	1
05970	>C16-C21 Aliphatic	n.a.	440	6.7	2
05970	>C16-C21 Aromatic	n.a.	260	2.2	1
05970	>C21-C34 Aliphatic	n.a.	41	13	2
05970	>C21-C34 Aromatic	n.a.	27	2.2	1
GC Petroleum Hydrocarbons	**ECY 97-602 WA VPH**		**mg/kg**	**mg/kg**	
05666	Benzene	71-43-2	N.D.	0.0598	52.72
05666	C5-C6 Aliphatic Hydrocarbons	n.a.	N.D.	2.99	52.72
05666	C6-C8 Aliphatic Hydrocarbons	n.a.	6.63	2.99	52.72
05666	C8-C10 Aliphatic Hydrocarbons	n.a.	106	15.0	263.6

Sample Description: SB-5-16 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610671
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 13:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

51607

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**ECY 97-602 WA VPH**		**mg/kg**	**mg/kg**	
05666	C8-C10 Aromatic Hydrocarbons	n.a.	105	15.0	263.6
05666	Ethylbenzene	100-41-4	N.D.	0.0598	52.72
05666	Methyl t-butyl ether	1634-04-4	N.D.	0.0598	52.72
05666	Toluene	108-88-3	N.D.	0.0598	52.72
05666	o-Xylene	95-47-6	N.D.	0.0598	52.72
05666	m,p-Xylenes	179601-23-1	2.30	0.120	52.72
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
12006	DRO C12-C24 w/Si Gel	n.a.	480	3.3	1
12006	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	
00111	Moisture	n.a.	11.9	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

General Sample Comments

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

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q142691AA	09/27/2014 00:15	Andrea E Lando	49.33
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201426735702	09/21/2014 13:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201426735702	09/21/2014 13:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201426735702	09/21/2014 13:00	Client Supplied	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14273SLC026	10/02/2014 05:49	Mark A Clark	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14273SLC026	10/02/2014 06:55	Mark A Clark	50
10811	BNA Soil Microwave SIM	SW-846 3546	1	14273SLC026	09/30/2014 18:40	Sally L Appleyard	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14267A31A	09/25/2014 23:05	Marie D Beamenderfer	493.35
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201426735702	09/21/2014 13:00	Client Supplied	n.a.

Sample Description: SB-5-16 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610671
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 13:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

51607

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	142720027A	10/02/2014 19:58	Christine E Dolman	2
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	142720020A	10/02/2014 05:21	Heather E Williams	1
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	142720020A	10/02/2014 13:16	Heather E Williams	2
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14274A54A	10/01/2014 14:48	Nicholas R Rossi	52.72
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14274A54A	10/01/2014 16:08	Nicholas R Rossi	263.6
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142690015A	09/29/2014 16:30	Glorines Suarez-Rivera	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142690015A	09/27/2014 11:15	Olivia Arosemena	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142720027A	09/30/2014 10:20	Denise L Trimby	1
11213	WA EPH Soils Extraction	ECY 97-602 WA EPH	1	142720020A	09/30/2014 05:10	Roman Kuropatkin	1
00388	GC - Field Preserved (MA-VPH)	MA DEP VPH modified	1	201426735702	09/21/2014 13:00	Client Supplied	1
00497	Silica Gel Fractionation	SW-846 3630C modified	1	142720020A	09/30/2014 09:45	Roman Kuropatkin	1
00111	Moisture	SM 2540 G-1997	1	14269820003A	09/26/2014 17:41	Scott W Freisher	1

Sample Description: SB-5-36 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610672
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 15:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

53607

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.96
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	1.1	23.95
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	120	3.4	1
08272	Heavy Range Organics C24-C40	n.a.	19	11	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
12006	DRO C12-C24 w/Si Gel	n.a.	83	3.3	1
12006	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	
00111	Moisture	n.a.	11.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C457

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	X142681AA	09/25/2014 17:30	Chelsea B Stong	0.96
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201426735702	09/21/2014 15:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201426735702	09/21/2014 15:00	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201426735702	09/21/2014 15:00	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14267A31A	09/25/2014 19:13	Marie D Beamenderfer	23.95

Sample Description: SB-5-36 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610672
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 15:00 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

53607

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201426735702	09/21/2014 15:00	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	142720027A	09/30/2014 19:59	Christine E Dolman	1
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142690015A	09/29/2014 16:52	Glorines Suarez-Rivera	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142690015A	09/27/2014 11:15	Olivia Arosemena	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142720027A	09/30/2014 10:20	Denise L Trimby	1
00111	Moisture	SM 2540 G-1997	1	14269820003A	09/26/2014 17:41	Scott W Freisher	1

Sample Description: SB-6-19 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610673
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 16:15 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

61907

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.026	48.34
10237	1,2-Dibromoethane	106-93-4	N.D.	0.052	48.34
10237	1,2-Dichloroethane	107-06-2	N.D.	0.052	48.34
10237	Ethylbenzene	100-41-4	0.053	0.052	48.34
10237	n-Hexane	110-54-3	N.D.	0.052	48.34
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.026	48.34
10237	Toluene	108-88-3	N.D.	0.052	48.34
10237	Xylene (Total)	1330-20-7	N.D.	0.052	48.34
	Reporting limits were raised due to interference from the sample matrix.				
GC/MS Semivolatiles	**SW-846 8270C SIM**		**mg/kg**	**mg/kg**	
10725	Benzo(a)anthracene	56-55-3	0.0035	0.00072	1
10725	Benzo(a)pyrene	50-32-8	0.0033	0.00072	1
10725	Benzo(b)fluoranthene	205-99-2	0.0051	0.00072	1
10725	Benzo(k)fluoranthene	207-08-9	0.0017	0.00072	1
10725	Chrysene	218-01-9	0.0090	0.00036	1
10725	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00072	1
10725	Indeno(1,2,3-cd)pyrene	193-39-5	0.0017	0.00072	1
10725	1-Methylnaphthalene	90-12-0	0.51	0.0072	10
10725	2-Methylnaphthalene	91-57-6	0.76	0.0072	10
10725	Naphthalene	91-20-3	0.043	0.00072	1
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	310	25	565.93
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	230	3.2	1
08272	Heavy Range Organics C24-C40	n.a.	88	11	1
GC Petroleum Hydrocarbons	**ECY 97-602 WA EPH**		**mg/kg**	**mg/kg**	
05970	>C10-C12 Aliphatic	n.a.	72	1.1	1
05970	>C10-C12 Aromatic	n.a.	7.0	1.1	1
05970	>C12-C16 Aliphatic	n.a.	81	1.1	1
05970	>C12-C16 Aromatic	n.a.	18	1.1	1
05970	>C16-C21 Aliphatic	n.a.	68	3.2	1
05970	>C16-C21 Aromatic	n.a.	46	2.1	1
05970	>C21-C34 Aliphatic	n.a.	39	6.3	1
05970	>C21-C34 Aromatic	n.a.	26	2.1	1
GC Petroleum Hydrocarbons	**ECY 97-602 WA VPH**		**mg/kg**	**mg/kg**	
05666	Benzene	71-43-2	N.D.	0.0562	51.83
05666	C5-C6 Aliphatic Hydrocarbons	n.a.	N.D.	2.81	51.83
05666	C6-C8 Aliphatic Hydrocarbons	n.a.	8.52	2.81	51.83
05666	C8-C10 Aliphatic Hydrocarbons	n.a.	127	14.0	259.17
05666	C8-C10 Aromatic Hydrocarbons	n.a.	86.1	2.81	51.83

Sample Description: SB-6-19 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610673
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 16:15 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

61907

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons	**ECY 97-602 WA VPH**		**mg/kg**	**mg/kg**	
05666	Ethylbenzene	100-41-4	N.D.	0.0562	51.83
05666	Methyl t-butyl ether	1634-04-4	N.D.	0.0562	51.83
05666	Toluene	108-88-3	N.D.	0.0562	51.83
05666	o-Xylene	95-47-6	N.D.	0.0562	51.83
05666	m,p-Xylenes	179601-23-1	N.D.	0.112	51.83
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
12006	DRO C12-C24 w/Si Gel	n.a.	210	3.2	1
12006	HRO C24-C40 w/Si Gel	n.a.	56	11	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	
00111	Moisture	n.a.	7.7	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

General Sample Comments

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

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	Q142691AA	09/27/2014 00:38	Andrea E Lando	48.34
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201426735702	09/21/2014 16:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201426735702	09/21/2014 16:15	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201426735702	09/21/2014 16:15	Client Supplied	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14273SLC026	10/02/2014 06:22	Mark A Clark	1
10725	SIM SVOA (microwave)	SW-846 8270C SIM	1	14273SLC026	10/03/2014 03:45	Mark A Clark	10
10811	BNA Soil Microwave SIM	SW-846 3546	1	14273SLC026	09/30/2014 18:40	Sally L Appleyard	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14267A31A	09/26/2014 16:02	Marie D Beamenderfer	565.93
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201426735702	09/21/2014 16:15	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	142720027A	09/30/2014 20:43	Christine E Dolman	1

Sample Description: SB-6-19 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610673
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 16:15 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

61907

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	142720020A	10/02/2014 06:41	Heather E Williams	1
05970	WA EPH in Soil	ECY 97-602 WA EPH	1	142720020A	10/02/2014 07:20	Heather E Williams	1
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14274A54A	10/01/2014 15:28	Nicholas R Rossi	51.83
05666	WA- VPH soils	ECY 97-602 WA VPH	1	14274A54A	10/02/2014 08:49	Nicholas R Rossi	259.17
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142690015A	09/29/2014 18:07	Glorines Suarez-Rivera	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142690015A	09/27/2014 11:15	Olivia Arosemena	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142720027A	09/30/2014 10:20	Denise L Trimby	1
11213	WA EPH Soils Extraction	ECY 97-602 WA EPH	1	142720020A	09/30/2014 05:10	Roman Kuropatkin	1
00388	GC - Field Preserved (MA-VPH)	MA DEP VPH modified	1	201426735702	09/21/2014 16:15	Client Supplied	1
00497	Silica Gel Fractionation	SW-846 3630C modified	1	142720020A	09/30/2014 09:45	Roman Kuropatkin	1
00111	Moisture	SM 2540 G-1997	1	14269820003A	09/26/2014 17:41	Scott W Freisher	1

Sample Description: SB-6-25 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610674
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 16:30 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

62507

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.9
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.9
10237	Toluene	108-88-3	N.D.	0.001	0.9
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.9
GC Volatiles	**ECY 97-602 NWTPH-Gx**		**mg/kg**	**mg/kg**	
02005	NWTPH-GX Soil C7-C12	n.a.	N.D.	1.1	23.93
GC Petroleum Hydrocarbons	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
08272	Diesel Range Organics C12-C24	n.a.	4.8	3.3	1
08272	Heavy Range Organics C24-C40	n.a.	N.D.	11	1
GC Petroleum Hydrocarbons w/Si	**ECY 97-602 NWTPH-Dx modified**		**mg/kg**	**mg/kg**	
12006	DRO C12-C24 w/Si Gel	n.a.	6.1	3.3	1
12006	HRO C24-C40 w/Si Gel	n.a.	N.D.	11	1
	The reverse surrogate, capric acid, is present at <1%.				
Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	
00111	Moisture	n.a.	10.2	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.				

General Sample Comments

State of Washington Lab Certification No. C457

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	X142681AA	09/25/2014 17:07	Chelsea B Stong	0.9
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	201426735702	09/21/2014 16:30	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	201426735702	09/21/2014 16:30	Client Supplied	1
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201426735702	09/21/2014 16:30	Client Supplied	1
02005	NWTPH-GX Soil C7-C12	ECY 97-602 NWTPH-Gx	1	14267A31A	09/25/2014 19:49	Marie D Beamenderfer	23.93

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Analysis Report

Sample Description: SB-6-25 Grab Soil
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # SW 7610674
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 16:30 by JW

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

62507

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06647	GC-5g Field Preserved MeOH	SW-846 5035A	1	201426735702	09/21/2014 16:30	Client Supplied	n.a.
08272	NWTPH-Dx soil	ECY 97-602 NWTPH-Dx modified	1	142720027A	09/30/2014 18:52	Christine E Dolman	1
12006	NWTPH-Dx soil w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	142690015A	09/29/2014 17:15	Glorines Suarez-Rivera	1
12008	NW Dx soil w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	142690015A	09/27/2014 11:15	Olivia Arosemena	1
11234	WA DRO NW DX Soils (Non SG)	ECY 97-602 NWTPH-Dx 06/97	1	142720027A	09/30/2014 10:20	Denise L Trimby	1
00111	Moisture	SM 2540 G-1997	1	14269820003A	09/26/2014 17:41	Scott W Freisher	1

Sample Description: TB-092114 Water
Facility# 207407
612 SE Union St-Camas, WA

LL Sample # WW 7610675
LL Group # 1505510
Account # 11255

Project Name: 207407

Collected: 09/21/2014 17:50

Submitted: 09/23/2014 09:20
Reported: 10/03/2014 14:10

Chevron
L4310
6001 Bollinger Canyon Road
San Ramon CA 94583

TBL07

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

General Sample Comments

State of Washington Lab Certification No. C457

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX 8260B Water	SW-846 8260B	1	Z142672AA	09/24/2014 13:51	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z142672AA	09/24/2014 13:51	Daniel H Heller	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	14268B53A	09/26/2014 12:49	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14268B53A	09/26/2014 12:49	Miranda P Tillinghast	1

Quality Control Summary

Client Name: Chevron Group Number: 1505510
Reported: 10/03/14 at 02:10 PM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Q142691AA	Sample number(s): 7610669,7610671,7610673							
Benzene	N.D.	0.025	mg/kg	109	100	80-120	9	30
1,2-Dibromoethane	N.D.	0.050	mg/kg	111	99	80-120	11	30
1,2-Dichloroethane	N.D.	0.050	mg/kg	110	100	77-130	10	30
Ethylbenzene	N.D.	0.050	mg/kg	109	98	80-120	10	30
n-Hexane	N.D.	0.050	mg/kg	94	88	42-134	6	30
Methyl Tertiary Butyl Ether	N.D.	0.025	mg/kg	110	99	76-122	10	30
Toluene	N.D.	0.050	mg/kg	110	100	80-120	10	30
Xylene (Total)	N.D.	0.050	mg/kg	110	99	80-120	11	30
Batch number: X142681AA	Sample number(s): 7610670,7610672,7610674							
Benzene	N.D.	0.0005	mg/kg	100	98	80-120	3	30
Ethylbenzene	N.D.	0.001	mg/kg	95	91	80-120	4	30
Toluene	N.D.	0.001	mg/kg	96	93	80-120	4	30
Xylene (Total)	N.D.	0.001	mg/kg	92	88	80-120	4	30
Batch number: Z142672AA	Sample number(s): 7610675							
Benzene	N.D.	0.5	ug/l	89		78-120		
Ethylbenzene	N.D.	0.5	ug/l	94		79-120		
Toluene	N.D.	0.5	ug/l	93		80-120		
Xylene (Total)	N.D.	0.5	ug/l	98		80-120		
Batch number: 14273SLC026	Sample number(s): 7610669,7610671,7610673							
Benzo(a)anthracene	N.D.	0.00067	mg/kg	103		84-126		
Benzo(a)pyrene	N.D.	0.00067	mg/kg	101		80-117		
Benzo(b)fluoranthene	N.D.	0.00067	mg/kg	113		87-135		
Benzo(k)fluoranthene	N.D.	0.00067	mg/kg	100		79-123		
Chrysene	N.D.	0.00033	mg/kg	102		82-122		
Dibenz(a,h)anthracene	N.D.	0.00067	mg/kg	101		83-123		
Indeno(1,2,3-cd)pyrene	N.D.	0.00067	mg/kg	98		82-123		
1-Methylnaphthalene	N.D.	0.00067	mg/kg	102		78-119		
2-Methylnaphthalene	N.D.	0.00067	mg/kg	101		78-121		
Naphthalene	N.D.	0.00067	mg/kg	101		79-113		
Batch number: 14267A31A	Sample number(s): 7610669-7610674							
NWTPH-GX Soil C7-C12	N.D.	1.0	mg/kg	87	76	65-120	13	30
Batch number: 14268B53A	Sample number(s): 7610675							
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	102	103	75-135	1	30
Batch number: 142720020A	Sample number(s): 7610669,7610671,7610673							
>C10-C12 Aliphatic	N.D.	1.0	mg/kg	82		31-137		
>C10-C12 Aromatic	N.D.	1.0	mg/kg	96		22-119		
>C12-C16 Aliphatic	N.D.	1.0	mg/kg	88		42-146		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1505510
Reported: 10/03/14 at 02:10 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
>C12-C16 Aromatic	N.D.	1.0	mg/kg	95		24-136		
>C16-C21 Aliphatic	N.D.	3.0	mg/kg	86		57-111		
>C16-C21 Aromatic	N.D.	2.0	mg/kg	103		34-143		
>C21-C34 Aliphatic	N.D.	6.0	mg/kg	92		50-124		
>C21-C34 Aromatic	N.D.	2.0	mg/kg	98		44-134		
Batch number: 142720027A	Sample number(s): 7610669-7610674							
Diesel Range Organics C12-C24	N.D.	3.0	mg/kg	77		71-115		
Heavy Range Organics C24-C40	N.D.	10.	mg/kg					
Batch number: 14274A54A	Sample number(s): 7610669,7610671,7610673							
Benzene	N.D.	0.0500	mg/kg	99	94	70-130	5	50
C5-C6 Aliphatic Hydrocarbons	N.D.	2.50	mg/kg	103	100	70-130	3	50
C6-C8 Aliphatic Hydrocarbons	N.D.	2.50	mg/kg	100	97	70-130	3	50
C8-C10 Aliphatic Hydrocarbons	N.D.	2.50	mg/kg	87	89	70-130	3	50
C8-C10 Aromatic Hydrocarbons	N.D.	2.50	mg/kg	97	94	70-130	3	50
Ethylbenzene	N.D.	0.0500	mg/kg	96	92	70-130	4	50
Methyl t-butyl ether	N.D.	0.0500	mg/kg	98	93	70-130	6	50
Toluene	N.D.	0.0500	mg/kg	96	92	70-130	4	50
o-Xylene	N.D.	0.0500	mg/kg	100	97	70-130	3	50
m,p-Xylenes	N.D.	0.100	mg/kg	100	97	70-130	3	50
Batch number: 142690015A	Sample number(s): 7610669-7610674							
DRO C12-C24 w/Si Gel	N.D.	3.0	mg/kg	65		50-133		
HRO C24-C40 w/Si Gel	N.D.	10.	mg/kg					
Batch number: 14273049531A	Sample number(s): 7610670							
TOC Solids/Sludges Combustion	N.D.	0.0100	% by wt.	114		47-143		
Batch number: 14269820003A	Sample number(s): 7610669-7610674							
Moisture				100		99-101		

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: Z142672AA	Sample number(s): 7610675 UNSPK: P607919								
Benzene	100	99	72-134	1	30				
Ethylbenzene	104	106	71-134	2	30				
Toluene	105	106	80-125	1	30				
Xylene (Total)	106	108	79-125	2	30				
Batch number: 14273SLC026	Sample number(s): 7610669,7610671,7610673 UNSPK: 7610669								
Benzo(a)anthracene	96	101	54-149	4	30				
Benzo(a)pyrene	99	102	40-154	3	30				
Benzo(b)fluoranthene	116	118	26-142	2	30				
Benzo(k)fluoranthene	108	110	49-144	2	30				
Chrysene	93	100	43-141	7	30				
Dibenz(a,h)anthracene	67	69	24-138	4	30				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1505510
Reported: 10/03/14 at 02:10 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Indeno(1,2,3-cd)pyrene	63	66	26-139	5	30				
1-Methylnaphthalene	74	68*	69-121	8	30				
2-Methylnaphthalene	93	93	63-130	0	30				
Naphthalene	107	104	44-148	2	30				
Batch number: 142720020A	Sample number(s): 7610669,7610671,7610673 UNSPK: 7610669 BKG: 7610669								
>C10-C12 Aliphatic	108 (2)		31-137			31	44	36*	25
>C10-C12 Aromatic	88		22-119			1.3	1.2	5 (1)	25
>C12-C16 Aliphatic	237 (2)		42-146			230	300	27*	25
>C12-C16 Aromatic	104		42-122			19	19	0 (1)	25
>C16-C21 Aliphatic	50 (2)		57-111			130	160	17	25
>C16-C21 Aromatic	121		53-132			73	82	12	25
>C21-C34 Aliphatic	88		38-120			11	14	25 (1)	25
>C21-C34 Aromatic	96		55-126			9.1	9.6	6 (1)	25
Batch number: 142720027A	Sample number(s): 7610669-7610674 BKG: 7610669								
Diesel Range Organics C12-C24						400	310	25*	20
Heavy Range Organics C24-C40						N.D.	N.D.	0 (1)	20
Batch number: 142690015A	Sample number(s): 7610669-7610674 BKG: 7610669								
DRO C12-C24 w/Si Gel						320	450	35*	20
HRO C24-C40 w/Si Gel						N.D.	N.D.	0 (1)	20
Batch number: 14273049531A	Sample number(s): 7610670 UNSPK: 7610670 BKG: 7610670								
TOC Solids/Sludges Combustion	104		22-155			N.D.	N.D.	0 (1)	13
Batch number: 14269820003A	Sample number(s): 7610669-7610674 BKG: P610686								
Moisture						12.4	12.5	1	5

Surrogate Quality Control

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

Analysis Name: VOCs- Solid by 8260B
Batch number: Q142691AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7610669	86	94	93	93
7610671	82	88	86	91
7610673	96	101	100	101
Blank	95	99	99	98
LCS	110	109	110	111
LCSD	97	98	100	101
Limits:	50-141	54-135	52-141	50-131

Analysis Name: VOCs- Solid by 8260B
Batch number: X142681AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7610670	101	101	103	98

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1505510
Reported: 10/03/14 at 02:10 PM

Surrogate Quality Control

7610672	99	101	103	97
7610674	100	101	102	99
Blank	100	101	102	99
LCS	99	97	102	103
LCSD	99	98	102	104
Limits:	50-141	54-135	52-141	50-131

Analysis Name: UST VOCs + GRO by 8260B-Water
Batch number: Z142672AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7610675	99	98	99	97
Blank	99	96	98	97
LCS	96	97	98	102
MS	97	99	99	103
MSD	97	96	100	104
Limits:	80-116	77-113	80-113	78-113

Analysis Name: SIM SVOA (microwave)
Batch number: 14273SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7610669	132*	109	98
7610671	158*	110	121
7610673	117	114	111
Blank	97	105	96
LCS	100	110	100
MS	134*	108	111
MSD	120	111	105
Limits:	58-128	55-144	62-121

Analysis Name: NWTPH-GX Soil C7-C12
Batch number: 14267A31A

	Trifluorotoluene-F
7610669	88
7610670	74
7610671	95
7610672	72
7610673	101
7610674	70
Blank	84
LCS	93
LCSD	79
Limits:	50-142

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 14268B53A

	Trifluorotoluene-F
7610675	65
Blank	65
LCS	72
LCSD	72
Limits:	63-135

Analysis Name: NWTPH-Dx soil w/ 10g Si Gel
Batch number: 142690015A

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1505510
Reported: 10/03/14 at 02:10 PM

Surrogate Quality Control

	Orthoterphenyl
7610669	64
7610670	79
7610671	76
7610672	74
7610673	93
7610674	77
Blank	73
DUP	63
LCS	80
Limits:	50-150

Analysis Name: WA EPH in Soil
Batch number: 142720020A

	Orthoterphenyl	1-chlorooctadecane
7610669	101	70
7610671	107	112
7610673	93	46
Blank	84	57
DUP	91	76
LCS	90	56
MS	86	64
Limits:	50-142	33-122

Analysis Name: NWTPH-Dx soil
Batch number: 142720027A

	Orthoterphenyl
7610669	70
7610670	83
7610671	96
7610672	86
7610673	97
7610674	88
Blank	81
DUP	70
LCS	88
Limits:	50-150

Analysis Name: WA- VPH soils
Batch number: 14274A54A

	Trifluorotoluene-P	Trifluorotoluene-F
7610669	67	84
7610671	64	83
7610673	67	96
Blank	82	97
LCS	94	97
LCSD	91	96
Limits:	60-140	60-140

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron Northwest Region Analysis Request/Chain of Custody

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For Lancaster Laboratories use only
Acct. # 11255 Group # 505570 Sample # 7210669-75
Instructions on reverse side correspond with circled numbers.

1 Client Information

Facility # 207407
Site Address: 612 SE Union Street Camas, WA
Chevron PM: Eric Brent
Lead Consultant: Leidos
Consultant/Office: Portland OR
Consultant Project Mgr.: Alex Shock
Consultant Phone #: 503 220 1646
Sampler: J. Waters / A. Lembrick

SCR #:

2 Sample Identification	Collected Date	Collected Time	3 Grab	3 Composite	4 Matrix: Soil	Water	Oil	Total Number of Containers	5 Analyses Requested: BTEX + MTBE 8021	8260	Naphth	8260 full scan	N Hexane, EDB, EDC, MTBE 8260	Oxygenates	NWTPH GX	NWTPH DX	Silica Gel Cleanup	Lead	Total	Diss.	Method	WAVPH	NWTPH-Dx without silica gel cleanup	moisture	cPAHs / Naphthalene 8270	FOC
SB-4-15	9/21/14	1100	X		X			8	X	X					X	X	X					X	X	X	X	
SB-4-20	9/21/14	1150	X		X			7	X						X	X							X	X		X
SB-5-16	9/21/14	1300	X		X			8	X	X					X	X						X	X	X	X	
SB-5-36	9/21/14	1500	X		X			7	X						X	X							X	X		
SB-6-19	9/21/14	1615	X		X			8	X	X					X	X						X	X	X	X	
SB-6-25	9/21/14	1630	X		X			7	X						X	X							X	X		
TB-92114	9/21/14	1750	X			X		2	X						X											

SCR #:

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

6 Remarks

Run and report TPH Dx with and without silica gel cleanup.

-Include analysis for methyl naphthalene 1 and 2 ~~methylnaphthalene~~ JZ by 8270 analysis. 9/24/14

7 Turnaround Time Requested (TAT) (please circle)

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

8 Data Package Options (please circle if required)

Type I - Full | Type VI (Raw Data)

Relinquished by	Date	Time	Received by	Date	Time
[signature]	9/22/14	1340			

Relinquished by Commerical Carrier: UPS ✓ FedEx ____ Other ____

Received by: [signature] Date: 9/23/14 Time: 0920

Temperature Upon Receipt 0.7 °C

Custody Seals Intact? Yes No

9

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Explanation of Symbols and Abbreviations

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

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

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

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

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

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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

Attachment C:
MTCA Method B Calculations

A1 Soil Cleanup Levels: Worksheet for Soil Data Entry: Refer to WAC 173-340-720, 740,745, 747, 750

1. Enter Site Information

Date: 10/03/14
Site Name: 207407 Camas, WA
Sample Name: SB-4-15

2. Enter Soil Concentration Measured

Chemical of Concern or Equivalent Carbon Group	Measured Soil Conc dry basis mg/kg	Composition Ratio %
Petroleum EC Fraction		
AL_EC >5-6	0	0.00%
AL_EC >6-8	1.525	0.26%
AL_EC >8-10	8.56	1.44%
AL_EC >10-12	35	5.91%
AL_EC >12-16	260	43.88%
AL_EC >16-21	150	25.32%
AL_EC >21-34	12	2.03%
AR_EC >8-10	8.819	1.49%
AR_EC >10-12	1.4982	0.25%
AR_EC >12-16	21.9911	3.71%
AR_EC >16-21	83	14.01%
AR_EC >21-34	9.9961	1.69%
Benzene	0	0.00%
Toluene	0	0.00%
Ethylbenzene	0.0305	0.01%
Total Xylenes	0.0305	0.01%
Naphthalene	0.0018	0.00%
1-Methyl Naphthalene	0.0036	0.00%
2-Methyl Naphthalene	0.0053	0.00%
n-Hexane	0	0.00%
MTBE	0	0.00%
Ethylene Dibromide (EDB)	0	0.00%
1,2 Dichloroethane (EDC)	0	0.00%
Benzo(a)anthracene	0.00038	0.00%
Benzo(b)fluoranthene	0.00038	0.00%
Benzo(k)fluoranthene	0.00038	0.00%
Benzo(a)pyrene	0.00038	0.00%
Chrysene	0.002	0.00%
Dibenz(a,h)anthracene	0	0.00%
Indeno(1,2,3-cd)pyrene	0.00038	0.00%
Sum	592.465	100.00%

Notes for Data Entry | Set Default Hydrogeology

Clear All Soil Concentration Data Entry Cells

Restore All Soil Concentration Data cleared previously

REMARK:

1) Half detection limits used for AL_EC>6-8, total xylenes, ethylbenzene, benzo(a)antrhacene, benzo(b)fluoranthene, benzo(k)fluroanthene, and benzo(a)pyrene.

2) The following parameters have never been detected on the site so a value of zero was entered: benzene, MTBE, toluene, n-hexane, EDB, EDC, AL_EC>5-6, and dibenz(a,h)anthracene.

3) double counting was avoided for E-C fractions

4) default value were used for total porosity and soil bulk density.

5) A dilution factor of 20 was entered for unsaturated soil zones.

3. Enter Site-Specific Hydrogeological Data

Total soil porosity:	0.43	Unitless
Volumetric water content:	0.3	Unitless
Volumetric air content:	0.13	Unitless
Soil bulk density measured:	1.5	kg/L
Fraction Organic Carbon:	0.00112	Unitless
Dilution Factor:	20	Unitless

4. Target TPH Ground Water Concentration (if adjusted)

If you adjusted the target TPH ground water concentration, enter adjusted value here: ug/L

A2 Soil Cleanup Levels: Calculation and Summary of Results. Refer to WAC 173-340-720, 740, 745, 747, 750

Site Information

Date: 10/3/2014
Site Name: 207407 Camas, WA
Sample Name: SB-4-15
Measured Soil TPH Concentration, mg/kg: **592.465**

1. Summary of Calculation Results

Exposure Pathway	Method/Goal	Protective Soil TPH Conc, mg/kg	With Measured Soil Conc		Does Measured Soil Conc Pass or Fail?
			RISK @	HI @	
Protection of Soil Direct Contact: Human Health	Method B	2,453	5.32E-09	2.42E-01	Pass
	Method C	30,511	1.32E-09	1.94E-02	Pass
Protection of Method B Ground Water Quality (Leaching)	Potable GW: Human Health Protection	100% NAPL	6.61E-12	1.33E-01	Pass
	NA	NA	NA	NA	NA

Warning! Check to determine if a simplified or site-specific Terrestrial Ecological Evaluation may be required (Refer to WAC 173-340-7490 through ~7494).

2. Results for Protection of Soil Direct Contact Pathway: Human Health

	Method B: Unrestricted Land Use	Method C: Industrial Land Use
Protective Soil Concentration, TPH mg/kg	**2,452.61**	**30,510.68**
Most Stringent Criterion	**HI =1**	**HI =1**

Soil Criteria	Protective Soil Concentration @Method B				Protective Soil Concentration @Method C			
	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @
HI =1	YES	2.45E+03	2.20E-08	1.00E+00	YES	3.05E+04	6.81E-08	1.00E+00
Total Risk=1E-5	*NO*	1.11E+06	1.00E-05	4.54E+02	*NO*	4.48E+06	1.00E-05	1.47E+02
Risk of Benzene= 1E-6	NA	NA	NA	NA	NA			
Risk of cPAHs mixture= 1E-6	*NO*	1.11E+05	1.00E-06	4.54E+01				
EDB	NA	NA	NA	NA				
EDC	NA	NA	NA	NA				

3. Results for Protection of Ground Water Quality (Leaching Pathway)

3.1. Protection of Potable Ground Water Quality (Method B): Human Health Protection

Most Stringent Criterion	**NA**
Protective Ground Water Concentration, ug/L	**NA**
Protective Soil Concentration, mg/kg	**Soil-to-Ground Water is not a critical pathway!**

Ground Water Criteria	Protective Potable Ground Water Concentration @Method B				Protective Soil Conc, mg/kg
	Most Stringent?	TPH Conc, ug/L	RISK @	HI @	
HI=1	YES	1.10E+02	6.48E-12	1.65E-01	100% NAPL
Total Risk = 1E-5	YES	1.10E+02	6.48E-12	1.65E-01	100% NAPL
Total Risk = 1E-6	YES	1.10E+02	6.48E-12	1.65E-01	100% NAPL
Risk of cPAHs mixture= 1E-5	YES	1.10E+02	6.48E-12	1.65E-01	100% NAPL
Benzene MCL = 5 ug/L	NA	NA	NA	NA	NA
MTBE = 20 ug/L	NA	NA	NA	NA	NA

Note: 100% NAPL is 71000 mg/kg TPH.

3.2 Protection of Ground Water Quality for TPH Ground Water Concentration previously adjusted and entered

Ground Water Criteria	Protective Ground Water Concentration			Protective Soil Conc, mg/kg
	TPH Conc, ug/L	Risk @	HI @	
NA	NA	NA	NA	**NA**

A1 Soil Cleanup Levels: Worksheet for Soil Data Entry: Refer to WAC 173-340-720, 740,745, 747, 750

1. Enter Site Information

Date: 10/06/14
Site Name: 207407 Camas, WA
Sample Name: SB-5-16

2. Enter Soil Concentration Measured

Chemical of Concern or Equivalent Carbon Group	Measured Soil Conc dry basis mg/kg	Composition Ratio %
Petroleum EC Fraction		
AL_EC >5-6	0	0.00%
AL_EC >6-8	6.63	0.37%
AL_EC >8-10	106	5.85%
AL_EC >10-12	110	6.08%
AL_EC >12-16	540	29.82%
AL_EC >16-21	440	24.30%
AL_EC >21-34	41	2.26%
AR_EC >8-10	103.839	5.73%
AR_EC >10-12	39.88	2.20%
AR_EC >12-16	113.5	6.27%
AR_EC >16-21	260	14.36%
AR_EC >21-34	40.97764	2.26%
Benzene	0	0.00%
Toluene	0	0.00%
Ethylbenzene	0.061	0.00%
Total Xylenes	2.1	0.12%
Naphthalene	0.12	0.01%
1-Methyl Naphthalene	2.7	0.15%
2-Methyl Naphthalene	3.8	0.21%
n-Hexane	0	0.00%
MTBE	0	0.00%
Ethylene Dibromide (EDB)	0	0.00%
1,2 Dichloroethane (EDC)	0	0.00%
Benzo(a)anthracene	0.0057	0.00%
Benzo(b)fluoranthene	0.0023	0.00%
Benzo(k)fluoranthene	0.00038	0.00%
Benzo(a)pyrene	0.0016	0.00%
Chrysene	0.012	0.00%
Dibenz(a,h)anthracene	0	0.00%
Indeno(1,2,3-cd)pyrene	0.00038	0.00%
Sum	1810.63	100.00%

Notes for Data Entry | Set Default Hydrogeology

Clear All Soil Concentration Data Entry Cells

Restore All Soil Concentration Data cleared previously

REMARK:
1) half detection limits used for Benzo(k)fluoranthene and Indeno(1,2,3-cd)pyrene.

2) The following parameters have never been detected on the site so a value of zero was entered: benzene, MTBE, toluene, n-hexane, EDB, EDC, AL_EC>5-6, and dibenz(a,h)anthracene.

3) double counting was avoided for E-C fractions

4) default value were used for total porosity and soil bulk density.

5) A dilution factor of 20 was entered for unsaturated soil zones.

3. Enter Site-Specific Hydrogeological Data

Total soil porosity:	0.43	Unitless
Volumetric water content:	0.3	Unitless
Volumetric air content:	0.13	Unitless
Soil bulk density measured:	1.5	kg/L
Fraction Organic Carbon:	0.00112	Unitless
Dilution Factor:	20	Unitless

4. Target TPH Ground Water Concentration (if adjusted)

If you adjusted the target TPH ground water concentration, enter adjusted value here: ug/L

A2 Soil Cleanup Levels: Calculation and Summary of Results. Refer to WAC 173-340-720, 740, 745, 747, 750

Site Information

Date: 10/6/2014
Site Name: 207407 Camas, WA
Sample Name: SB-5-16
Measured Soil TPH Concentration, mg/kg: **1,810.630**

1. Summary of Calculation Results

Exposure Pathway	Method/Goal	Protective Soil TPH Conc, mg/kg	With Measured Soil Conc		Does Measured Soil Conc Pass or Fail?
			RISK @	HI @	
Protection of Soil Direct Contact: Human Health	Method B	2,603	2.50E-08	6.95E-01	Pass
	Method C	34,200	6.22E-09	5.29E-02	Pass
Protection of Method B Ground Water Quality (Leaching)	Potable GW: Human Health Protection	100% NAPL	1.60E-11	7.43E-01	Pass
	NA	NA	NA	NA	NA

Warning! Check to determine if a simplified or site-specific Terrestrial Ecological Evaluation may be required (Refer to WAC 173-340-7490 through ~7494).

Warning! Check Residual Saturation (WAC340-747(10)).

2. Results for Protection of Soil Direct Contact Pathway: Human Health

	Method B: Unrestricted Land Use	Method C: Industrial Land Use
Protective Soil Concentration, TPH mg/kg	**2,603.23**	**34,200.41**
Most Stringent Criterion	**HI =1**	**HI =1**

Soil Criteria	Protective Soil Concentration @Method B				Protective Soil Concentration @Method C			
	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @
HI =1	YES	2.60E+03	3.60E-08	1.00E+00	YES	3.42E+04	1.17E-07	1.00E+00
Total Risk=1E-5	*NO*	7.23E+05	1.00E-05	2.78E+02	*NO*	2.91E+06	1.00E-05	8.51E+01
Risk of Benzene= 1E-6	NA	NA	NA	NA	NA			
Risk of cPAHs mixture= 1E-6	*NO*	7.23E+04	1.00E-06	2.78E+01				
EDB	NA	NA	NA	NA				
EDC	NA	NA	NA	NA				

3. Results for Protection of Ground Water Quality (Leaching Pathway)

3.1. Protection of Potable Ground Water Quality (Method B): Human Health Protection

Most Stringent Criterion	**NA**
Protective Ground Water Concentration, ug/L	**NA**
Protective Soil Concentration, mg/kg	**Soil-to-Ground Water is not a critical pathway!**

Ground Water Criteria	Protective Potable Ground Water Concentration @Method B				Protective Soil Conc, mg/kg
	Most Stringent?	TPH Conc, ug/L	RISK @	HI @	
HI=1	YES	3.89E+02	1.58E-11	7.90E-01	100% NAPL
Total Risk = 1E-5	YES	3.89E+02	1.58E-11	7.90E-01	100% NAPL
Total Risk = 1E-6	YES	3.89E+02	1.58E-11	7.90E-01	100% NAPL
Risk of cPAHs mixture= 1E-5	YES	3.89E+02	1.58E-11	7.90E-01	100% NAPL
Benzene MCL = 5 ug/L	NA	NA	NA	NA	NA
MTBE = 20 ug/L	NA	NA	NA	NA	NA

Note: 100% NAPL is 72000 mg/kg TPH.

3.2 Protection of Ground Water Quality for TPH Ground Water Concentration previously adjusted and entered

Ground Water Criteria	Protective Ground Water Concentration			Protective Soil Conc, mg/kg
	TPH Conc, ug/L	Risk @	HI @	
NA	NA	NA	NA	**NA**

A1 Soil Cleanup Levels: Worksheet for Soil Data Entry: Refer to WAC 173-340-720, 740,745, 747, 750

1. Enter Site Information

Date: 10/06/14
Site Name: 207407 Camas, WA
Sample Name: SB-6-19

2. Enter Soil Concentration Measured

Chemical of Concern or Equivalent Carbon Group	Measured Soil Conc dry basis mg/kg	Composition Ratio %
Petroleum EC Fraction		
AL_EC >5-6	0	0.00%
AL_EC >6-8	8.52	1.47%
AL_EC >8-10	127	21.95%
AL_EC >10-12	72	12.44%
AL_EC >12-16	81	14.00%
AL_EC >16-21	68	11.75%
AL_EC >21-34	39	6.74%
AR_EC >8-10	86.021	14.87%
AR_EC >10-12	6.957	1.20%
AR_EC >12-16	16.73	2.89%
AR_EC >16-21	46	7.95%
AR_EC >21-34	25.9757	4.49%
Benzene	0	0.00%
Toluene	0	0.00%
Ethylbenzene	0.053	0.01%
Total Xylenes	0.026	0.00%
Naphthalene	0.043	0.01%
1-Methyl Naphthalene	0.51	0.09%
2-Methyl Naphthalene	0.76	0.13%
n-Hexane	0	0.00%
MTBE	0	0.00%
Ethylene Dibromide (EDB)	0	0.00%
1,2 Dichloroethane (EDC)	0	0.00%
Benzo(a)anthracene	0.0035	0.00%
Benzo(b)fluoranthene	0.0051	0.00%
Benzo(k)fluoranthene	0.0017	0.00%
Benzo(a)pyrene	0.0033	0.00%
Chrysene	0.009	0.00%
Dibenz(a,h)anthracene	0	0.00%
Indeno(1,2,3-cd)pyrene	0.0017	0.00%
Sum	578.62	100.00%

Notes for Data Entry | Set Default Hydrogeology

Clear All Soil Concentration Data Entry Cells

Restore All Soil Concentration Data cleared previously

REMARK:
1) Half detection limits used for Total Xylenes.

2) The following parameters have never been detected on the site so a value of zero was entered: benzene, MTBE, toluene, n-hexane, EDB, EDC, AL_EC>5-6, and dibenz(a,h)anthracene.

3) double counting was avoided for E-C fractions

4) default value were used for total porosity and soil bulk density.

5) A dilution factor of 20 was entered for unsaturated soil zones.

3. Enter Site-Specific Hydrogeological Data

Total soil porosity:	0.43	Unitless
Volumetric water content:	0.3	Unitless
Volumetric air content:	0.13	Unitless
Soil bulk density measured:	1.5	kg/L
Fraction Organic Carbon:	0.00112	Unitless
Dilution Factor:	20	Unitless

4. Target TPH Ground Water Concentation (if adjusted)

If you adjusted the target TPH ground water concentration, enter adjusted value here: ug/L

A2 Soil Cleanup Levels: Calculation and Summary of Results. Refer to WAC 173-340-720, 740, 745, 747, 750

Site Information

Date: 10/6/2014
Site Name: 207407 Camas, WA
Sample Name: SB-6-19
Measured Soil TPH Concentration, mg/kg: **578.620**

1. Summary of Calculation Results

Exposure Pathway	Method/Goal	Protective Soil TPH Conc, mg/kg	With Measured Soil Conc		Does Measured Soil Conc Pass or Fail?
			RISK @	HI @	
Protection of Soil Direct Contact: Human Health	Method B	2,840	4.43E-08	2.04E-01	Pass
	Method C	43,128	1.10E-08	1.34E-02	Pass
Protection of Method B Ground Water Quality (Leaching)	Potable GW: Human Health Protection	2,006	5.10E-11	8.83E-01	Pass
	NA	NA	NA	NA	NA

Warning! Check to determine if a simplified or site-specific Terrestrial Ecological Evaluation may be required (Refer to WAC 173-340-7490 through ~7494).

2. Results for Protection of Soil Direct Contact Pathway: Human Health

	Method B: Unrestricted Land Use	Method C: Industrial Land Use
Protective Soil Concentration, TPH mg/kg	**2,839.86**	**43,128.01**
Most Stringent Criterion	**HI =1**	**HI =1**

Soil Criteria	Protective Soil Concentration @Method B				Protective Soil Concentration @Method C			
	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @	Most Stringent?	TPH Conc, mg/kg	RISK @	HI @
HI =1	YES	2.84E+03	2.17E-07	1.00E+00	YES	4.31E+04	8.19E-07	1.00E+00
Total Risk=1E-5	*NO*	1.31E+05	1.00E-05	4.60E+01	*NO*	5.26E+05	1.00E-05	1.22E+01
Risk of Benzene= 1E-6	NA	NA	NA	NA	NA			
Risk of cPAHs mixture= 1E-6	*NO*	1.31E+04	1.00E-06	4.60E+00				
EDB	NA	NA	NA	NA				
EDC	NA	NA	NA	NA				

3. Results for Protection of Ground Water Quality (Leaching Pathway)

3.1. Protection of Potable Ground Water Quality (Method B): Human Health Protection

Most Stringent Criterion	**HI=1**
Protective Ground Water Concentration, ug/L	**670.40**
Protective Soil Concentration, mg/kg	**2005.63**

Ground Water Criteria	Protective Potable Ground Water Concentration @Method B				Protective Soil Conc, mg/kg
	Most Stringent?	TPH Conc, ug/L	RISK @	HI @	
HI=1	YES	6.70E+02	4.84E-11	1.00E+00	2.01E+03
Total Risk = 1E-5	*NO*	7.11E+02	4.74E-11	1.05E+00	100% NAPL
Total Risk = 1E-6	*NO*	7.11E+02	4.74E-11	1.05E+00	100% NAPL
Risk of cPAHs mixture= 1E-5	*NO*	7.11E+02	4.74E-11	1.05E+00	100% NAPL
Benzene MCL = 5 ug/L	NA	NA	NA	NA	NA
MTBE = 20 ug/L	NA	NA	NA	NA	NA

Note: 100% NAPL is 70000 mg/kg TPH.

3.2 Protection of Ground Water Quality for TPH Ground Water Concentration previously adjusted and entered

Ground Water Criteria	Protective Ground Water Concentration			Protective Soil Conc, mg/kg
	TPH Conc, ug/L	Risk @	HI @	
NA	NA	NA	NA	**NA**