



Infrastructure Water Environment Buildings

**2013 ANNUAL GROUNDWATER MONITORING REPORT
CHEVRON SITE NO. 9-7348
WENATCHEE, WASHINGTON**

Site Information

Site:	Chevron Site No. 9-7348
Address:	502 North Wenatchee Avenue, Wenatchee, Washington
Primary Agency:	Washington State Department of Ecology, Northwest Regional Office
Ecology ID No.:	N/A
Site Status:	Former Chevron Station. Currently a commercial building and a car wash are located onsite.

Contact Information

CEMC Contact:	Jean Wong / 925.790.6677
Env. Consultant:	ARCADIS / Allen Just, P.E. / 714.508.2677
ARCADIS Project No.:	B0048019.0000

Groundwater Monitoring Activities on March 21 and April 12, 2013

GW Monitoring Contractor:	Blaine Tech
Total # of Wells On-site:	5
Total # of Wells Off-site:	0
Wells Gauged:	MW-2, MW-4, MW-5, MW-6, and MW-7
Wells Sampled:	MW-2, MW-4, MW-5, and MW-6
Sampling Method:	Low Flow - Peristaltic Pump
Requested Analyses:	MW-2: TPH-GRO, TPH-DRO, TPH-HRO, cPAHs, and total lead MW-4: cPAHs and total lead MW-5: TPH-DRO, TPH-HRO, cPAHs, and total lead MW-6: total lead

Groundwater Monitoring Results

Depth to Water Range:	15.09 to 22.91 feet below the top of the well casings
MTCA Exceedances:	cPAHs in wells MW-2 and MW-5

Site Strategy and Additional Comments

Continue annual sampling until cPAHs concentrations fall below MTCA Method A Cleanup Levels.

Attachments:

- Table 1 – Groundwater Monitoring Data and Analytical Results
- Figure 1 – Site Location Map
- Figure 2 – Groundwater Contour Map – March 21, 2013
- Figure 3 – Groundwater Concentration Map – March 21, 2013
- Attachment A – Groundwater Monitoring and Sampling Data Package
- Attachment B – Chain-of-Custody Form and Laboratory Report

ARCADIS

Attachments

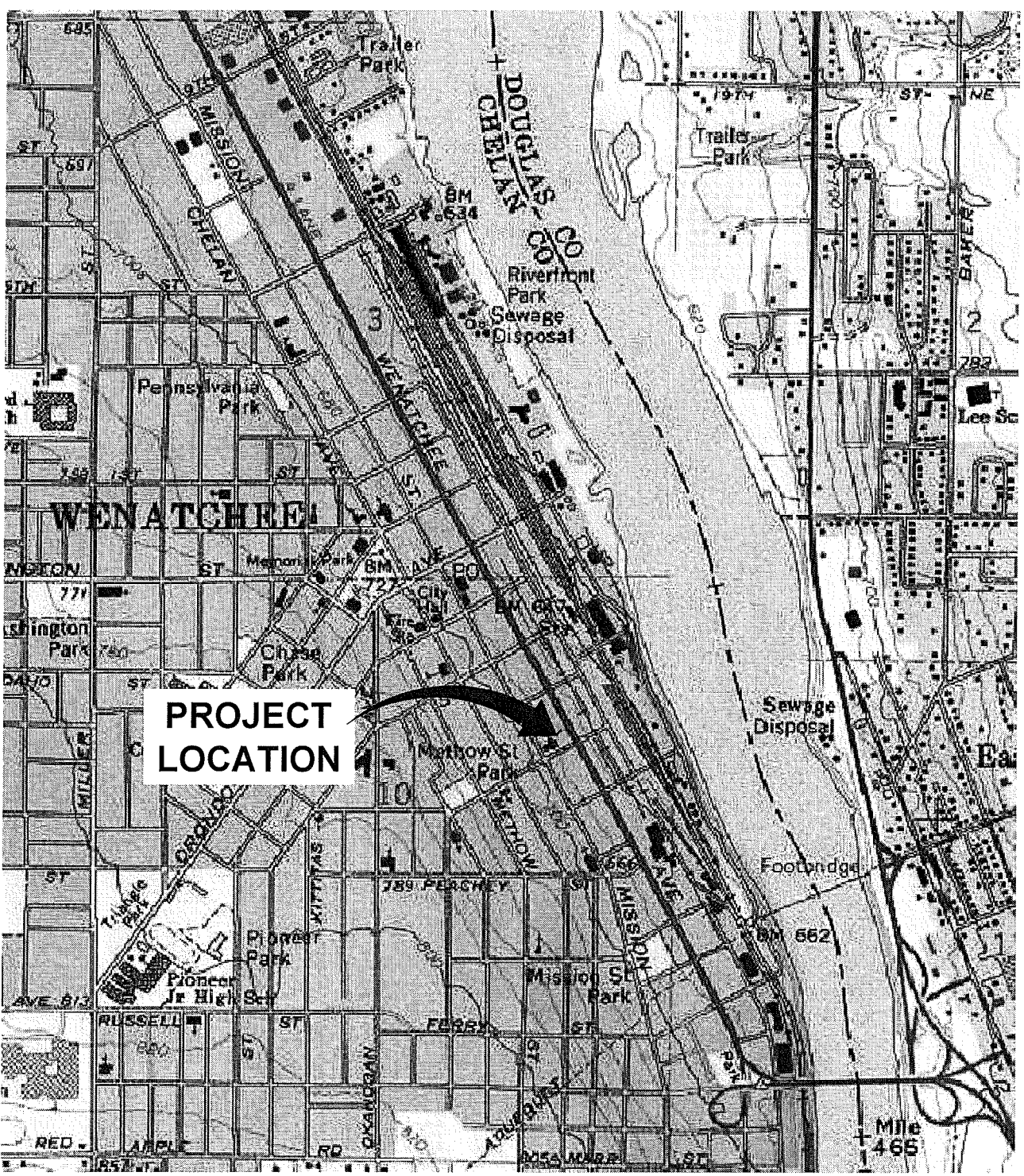
ARCADIS

Table

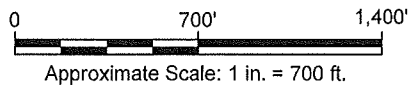
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Figures

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 C:\Cada Misc\ENVCAD\ACT\B004755\0000000000\ALTM_Site_9-7348_Wenatchee-WA_407.dwg LAYOUT: 1 SAVED: 11/12/03 3:24 PM ACADVER: 18.15 (LMS TECH) PAGES: 10 PLOTSETUP: --- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 11/12/03 3:24 PM BY: MURESAN, ELENA



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., WENATCHEE, WASHINGTON, 1987

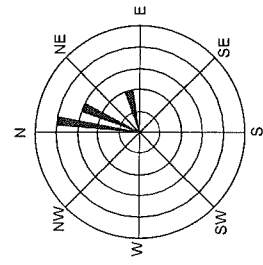


CHEVRON SITE NO. 9-7348 WENATCHEE, WASHINGTON	
SITE LOCATION MAP	
	FIGURE 1

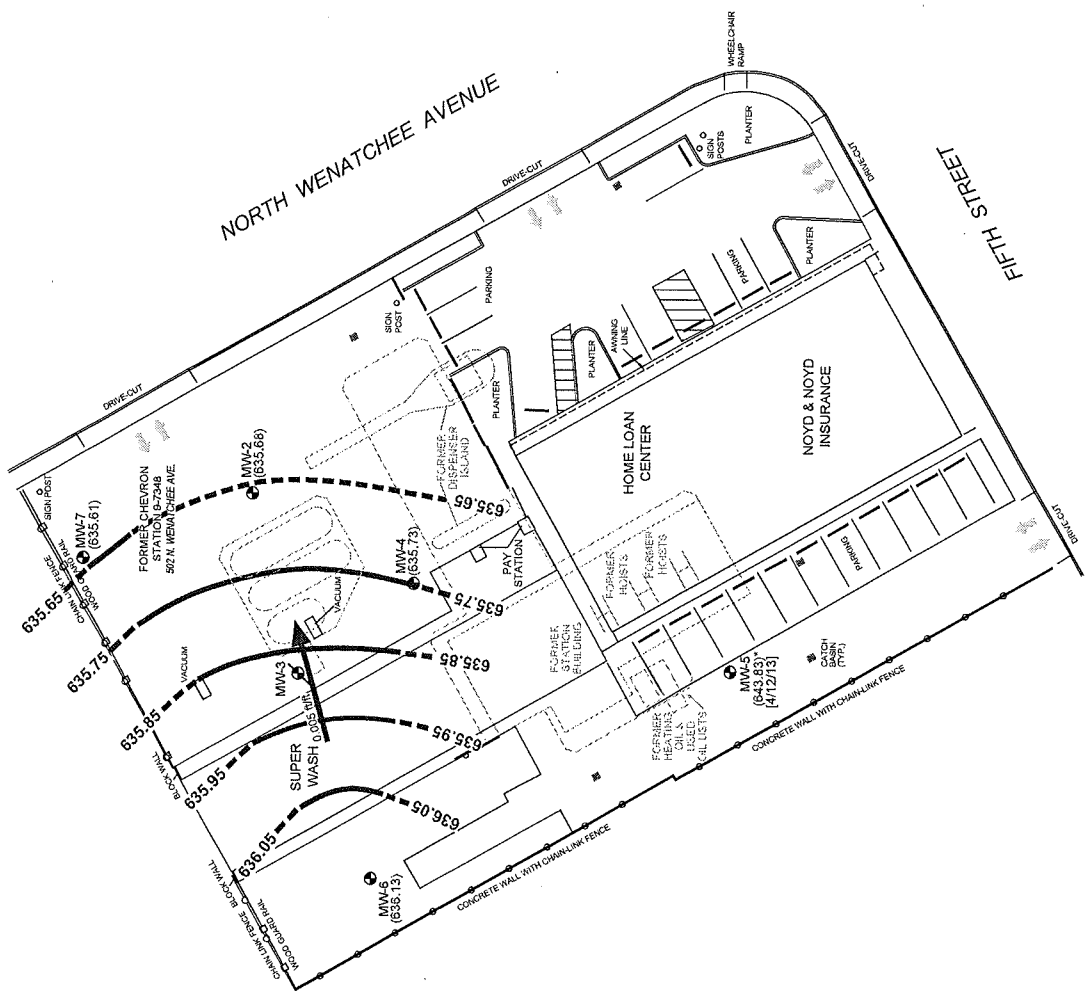


LEGEND:

- MW-1 MONITORING WELL LOCATION AND IDENTIFICATION
- MM-1 ABANDONED MONITORING WELL LOCATION
- (635.61) GROUNDWATER ELEVATIONS (FT AMSL)
- DATA NOT USED IN CONTOURING
- 636.05 GROUNDWATER ELEVATION CONTOURS (FT AMSL)
- GROUNDWATER FLOW DIRECTION AND GRADIENT (ft/ft)



HISTORICAL GROUNDWATER FLOW DIRECTION
2007 TO 2013



CHEVRON SITE NO. 9-7348
WENATCHEE, WASHINGTON

GROUNDWATER CONTOUR MAP
MARCH 21, 2013

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FIGURE **2**

BASEMAP MODIFIED FROM DRAWING PROVIDED BY STATEWIDE LAND SURVEYING

ARCADIS

Attachment A

Groundwater Monitoring and
Sampling Data Package

WELL GAUGING DATA

Project # 130321-LB1 Date 3/21/13 Client CHEVRON

Site 502 N. WENTACHEE AVE, WENTACHEE, WA.

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-2	0920	4					20.35	26.44	↓	
MW-4	0908	4				22.91	27.13			
MW-5	0924	2				22.91	24.19			
MW-6	0930	4				15.09	49.93			
MW-7	0915	2				20.73	24.17			

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130321-LR	Client: CHEVRON
Sampler: LB	Gauging Date: 3/21/13
Well I.D.: MW-2	Well Diameter (in.): 2 3 <input checked="" type="radio"/> 6 8
Total Well Depth (ft.): 26.44	Depth to Water (ft.): 20.35
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 530

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1016 Flow Rate: 200 mL/MIN Pump Depth: 23.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Depth to Water (ft.)
1019	14.26	6.34	1098	18	1.78	94.9	600	20.41
1022	14.29	6.38	1094	17	1.67	81.1	1200	20.44
1025	14.27	6.36	1095	15	1.62	78.2	1800	20.45
1028	14.28	6.35	1095	15	1.60	76.9	2400	20.47
1031	14.29	6.36	1094	15	1.59	75.6	3000	20.48

Did well dewater? Yes <input checked="" type="checkbox"/> No	Amount actually evacuated: 3 L
Sampling Time: 1032	Sampling Date: 3/21/13
Sample I.D.: MW-2	Laboratory: LANCASTER
Analyzed for: TPH-G RTEX MTBE TPPE-D	Other: SEE COL
Equipment Blank I.D.: @	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130321-LB1	Client: CHEVRON
Sampler: LB	Gauging Date: 3/21/13
Well I.D.: MW-4	Well Diameter (in.): 2 3 <u>4</u> 6 8
Total Well Depth (ft.): 27.13	Depth to Water (ft.): 22.91
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PGO</u> Grade	Flow Cell Type: <u>YSI 55C</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0941 Flow Rate: 200 mL / MIN Pump Depth: 25.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ppts)	Depth to Water (ft.)
0945	13.16	6.45	941	13	2.08	100.7	600	22.96
0948	13.23	6.53	960	11	1.82	81.1	1100	22.99
0951	13.24	6.53	964	10	1.77	80.4	1800	23.02
0954	13.23	6.54	965	10	1.76	79.3	2400	23.05
0957	13.22	6.54	966	11	1.75	78.6	3000	23.06

Did well dewater? Yes <input type="checkbox"/> <u>NO</u>	Amount actually evacuated: <u>3 L</u>
Sampling Time: <u>0958</u>	Sampling Date: <u>3/21/13</u>
Sample I.D.: <u>MW-4</u>	Laboratory: <u>LACASTER</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>SEE COL</u>
Equipment Blank I.D.: @ _____	Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130321-LBI	Client: CHEVRON
Sampler: LB	Gauging Date: 3/21/13
Well I.D.: MW-5	Well Diameter (in.): <u>6</u> 3 4 6 8
Total Well Depth (ft.): 24.76	Depth to Water (ft.): 22.91
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSE 536

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1117 Flow Rate: 200 mL / MIN Pump Depth: 24'

Time	Temp. (C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1120	14.75	6.74	1205	18	2.04	136.4	600	22.95
1123	14.58	6.76	1206	15	2.01	135.6	1200	22.98
1126	14.46	6.78	1208	15	1.99	134.5	1600	23.02
1129	14.45	6.74	1210	16	1.98	133.2	2400	23.04
1132	14.42	6.80	1211	17	1.97	131.9	3000	23.06

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 3 L
Sampling Time: 1133	Sampling Date: 3/21/13
Sample I.D.: MW-5	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COX
Equipment Blank I.D.: @	Duplicate I.D.: DUP

LOW FLOW WELL MONITORING DATA SHEET

Project #: 130412-LB	Client: CHEVRON
Sampler: LB	Gauging Date: 4/12/13
Well I.D.: MW-5	Well Diameter (in.): 2 3 ④ 6 8
Total Well Depth (ft.): 50.05	Depth to Water (ft.): 15.46
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: YSI 556

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 0659 Flow Rate: 200 mL/MIN Pump Depth: 33'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
0702	12.91	6.33	644	10	1.99	75.5	600	15.51
0705	12.95	6.39	650	9	1.88	73.3	1200	15.52
0708	12.96	6.42	652	8	1.84	70.9	1800	15.54
0711	12.98	6.44	653	7	1.83	69.4	2400	15.56
0714	12.98	6.45	655	6	1.82	68.3	3000	15.56

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Amount actually evacuated: 31
Sampling Time: 0715	Sampling Date: 4/12/13
Sample I.D.: MW-5	Laboratory: LANCASTER
Analyzed for: TPH-G BTEX MTBE <u>PH-D</u>	Other: SEE COI
Equipment Blank I.D.: @	Duplicate I.D.: DUP

ARCADIS

Attachment B

Chain-of-Custody and Laboratory
Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron Environmental Mgmt Co
6101 Bollinger Canyon Road
San Ramon CA 94583

April 04, 2013

Project: 97348

Submittal Date: 03/26/2013

Group Number: 1378049

PO Number: 0015119783

Release Number: WONG

WONG

State of Sample Origin: WA

Client Sample Description

MW-2 NA Groundwater
MW-4 NA Groundwater
MW-6 NA Groundwater
EB NA Water
QA NA Water

Lancaster Labs (LLI) #

6996676
6996677
6996678
6996681
6996682

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

ELECTRONIC ARCADIS
COPY TO
ELECTRONIC ARCADIS
COPY TO

Attn: Janet Newman

Attn: Robin Simon

Respectfully Submitted,

Jill M. Parker

Jill M. Parker
Senior Specialist

(717) 556-7262

Sample Description: MW-2 NA Groundwater
Facility# 97348
502 N Wenatchee Ave - Wenatchee, WA

LLI Sample # WW 6996676
LLI Group # 1378049
Account # 13036

Project Name: 97348

Collected: 03/21/2013 10:32 by LB

Chevron Environmental Mgmt Co
 6101 Bollinger Canyon Road
 San Ramon CA 94583

Submitted: 03/26/2013 09:30

Reported: 04/04/2013 13:50

WTM02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
08357	Benzo(a)anthracene	56-55-3	0.059	0.0095	0.047	1
08357	Benzo(a)pyrene	50-32-8	0.079	0.0095	0.047	1
08357	Benzo(b)fluoranthene	205-99-2	0.17	0.0095	0.047	1
08357	Benzo(k)fluoranthene	207-08-9	0.053	0.0095	0.047	1
08357	Chrysene	218-01-9	0.12	0.0095	0.047	1
08357	Dibenz(a,h)anthracene	53-70-3	0.022	0.0095	0.047	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.085	0.0095	0.047	1
GC Volatiles ECY 97-602 NWTPH-Gx						
3	NWTPH-Gx water C7-C12	n.a.	N.D.	50	250	1
GC Petroleum ECY 97-602 WA EPH						
Hydrocarbons						
05979	>C10-C12 Aliphatic	n.a.	N.D.	9.5	47	1
05979	>C10-C12 Aromatic	n.a.	N.D.	9.5	47	1
05979	>C12-C16 Aliphatic	n.a.	N.D.	9.5	47	1
05979	>C12-C16 Aromatic	n.a.	N.D.	9.5	47	1
05979	>C16-C21 Aliphatic	n.a.	14	10	47	1
05979	>C16-C21 Aromatic	n.a.	N.D.	12	47	1
05979	>C21-C34 Aliphatic	n.a.	320	19	47	1
05979	>C21-C34 Aromatic	n.a.	55	20	47	1
GC Petroleum ECY 97-602 WA VPH						
Hydrocarbons						
05665	Benzene	71-43-2	N.D.	1.0	5.0	1
05665	C5-C6 Aliphatic Hydrocarbons	n.a.	N.D.	25.0	50.0	1
05665	C6-C8 Aliphatic Hydrocarbons	n.a.	N.D.	25.0	50.0	1
05665	C8-C10 Aliphatic Hydrocarbons	n.a.	N.D.	25.0	50.0	1
05665	C8-C10 Aromatic Hydrocarbons	n.a.	N.D.	25.0	50.0	1
05665	Ethylbenzene	100-41-4	2.6	1.0	5.0	1
05665	Methyl t-butyl ether	1634-04-4	N.D.	1.0	5.0	1
05665	Toluene	108-88-3	N.D.	1.0	5.0	1
05665	o-Xylene	95-47-6	N.D.	1.0	5.0	1
05665	m,p-Xylenes	179601-23-1	N.D.	2.0	10.0	1
GC Petroleum ECY 97-602 NWTPH-Dx						
Hydrocarbons w/Si modified						
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	95	1
12005	HRO C24-C40 w/Si Gel	n.a.	97	67	240	1
The reverse surrogate, capric acid, is present at <1%.						
Metals SW-846 6020						
06035	Lead	7439-92-1	7.7	0.073	1.0	1

*=This limit was used in the evaluation of the final result

Sample Description: MW-2 NA Groundwater
Facility# 97348
502 N Wenatchee Ave - Wenatchee, WA

LLI Sample # WW 6996676
LLI Group # 1378049
Account # 13036

Project Name: 97348

Collected: 03/21/2013 10:32 by LB

Chevron Environmental Mgmt Co
6101 Bollinger Canyon Road
San Ramon CA 94583

Submitted: 03/26/2013 09:30

Reported: 04/04/2013 13:50

WTM02

General Sample Comments

State of Washington Lab Certification No. C259
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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13086WAA026	04/04/2013 04:50	Brian K Graham	1
1	BNA Water Extraction (SIM)	SW-846 3510C	1	13086WAA026	03/27/2013 16:45	JoElla L Rice	1
08357	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13087A20A	03/28/2013 18:02	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13087A20A	03/28/2013 18:02	Catherine J Schwarz	1
05979	WA EPH in Water	ECY 97-602 WA EPH	1	130890026A	04/04/2013 01:45	Heather E Williams	1
05979	WA EPH in Water	ECY 97-602 WA EPH	1	130890026A	04/04/2013 02:25	Heather E Williams	1
05665	WA - VPH waters	ECY 97-602 WA VPH	1	13087A54A	03/29/2013 04:17	Nicholas R Rossi	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	130870032A	04/02/2013 08:36	Elizabeth J Marin	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	130870032A	03/30/2013 08:50	Catherine R Wiker	1
11175	WA EPH Waters Extraction	ECY 97-602 WA EPH	1	130890026A	04/02/2013 07:30	Joseph S Feister	1
00497	Silica Gel Fractionation	SW-846 3630C modified	1	130890026A	04/03/2013 03:00	David V Hershey Jr	1
06035	Lead	SW-846 6020	1	130876050003A	03/31/2013 08:10	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	130876050003	03/28/2013 23:45	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result

Sample Description: MW-4 NA Groundwater
Facility# 97348
502 N Wenatchee Ave - Wenatchee, WA

LLI Sample # WW 6996677
LLI Group # 1378049
Account # 13036

Project Name: 97348

Collected: 03/21/2013 09:58 by LB

Chevron Environmental Mgmt Co
6101 Bollinger Canyon Road
San Ramon CA 94583

Submitted: 03/26/2013 09:30

Reported: 04/04/2013 13:50

WTM04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0096	0.048	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0096	0.048	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0096	0.048	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0096	0.048	1
08357	Chrysene	218-01-9	N.D.	0.0096	0.048	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0096	0.048	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0096	0.048	1
Metals SW-846 6020						
5	Lead	7439-92-1	N.D.	0.073	1.0	1

General Sample Comments

State of Washington Lab Certification No. C259
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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13086WAA026	04/04/2013 05:21	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13086WAA026	03/27/2013 16:45	JoElla L Rice	1
06035	Lead	SW-846 6020	1	130876050003A	03/31/2013 08:12	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	130876050003	03/28/2013 23:45	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result



Lancaster
Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-6 NA Groundwater
Facility# 97348
502 N Wenatchee Ave - Wenatchee, WA

LLI Sample # WW 6996678
LLI Group # 1378049
Account # 13036

Project Name: 97348

Collected: 03/21/2013 11:33 by LB

Chevron Environmental Mgmt Co
6101 Bollinger Canyon Road
San Ramon CA 94583

Submitted: 03/26/2013 09:30

Reported: 04/04/2013 13:50

WTM05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Metals		SW-846 6020	ug/l	ug/l	ug/l	
06035	Lead	7439-92-1	0.49	0.073	1.0	1

General Sample Comments

State of Washington Lab Certification No. C259
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
06035	Lead	SW-846 6020	1	130876050003A	03/31/2013 08:13	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	130876050003	03/28/2013 23:45	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result

Sample Description: EB NA Water
Facility# 97348
502 N Wenatchee Ave - Wenatchee, WA

LLI Sample # WW 6996681
LLI Group # 1378049
Account # 13036

Project Name: 97348

Collected: 03/21/2013 11:45 by LB

Chevron Environmental Mgmt Co
 6101 Bollinger Canyon Road
 San Ramon CA 94583

Submitted: 03/26/2013 09:30

Reported: 04/04/2013 13:50

WTMEB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles SW-846 8270C SIM						
08357	Benzo(a)anthracene	56-55-3	N.D.	0.0095	0.047	1
08357	Benzo(a)pyrene	50-32-8	N.D.	0.0095	0.047	1
08357	Benzo(b)fluoranthene	205-99-2	N.D.	0.0095	0.047	1
08357	Benzo(k)fluoranthene	207-08-9	N.D.	0.0095	0.047	1
08357	Chrysene	218-01-9	N.D.	0.0095	0.047	1
08357	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0095	0.047	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0095	0.047	1
GC Petroleum ECY 97-602 NWTPH-Dx						
Hydrocarbons w/Si modified						
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	95	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	240	1
The reverse surrogate, capric acid, is present at <1%.						
Metals SW-846 6020						
06035	Lead	7439-92-1	N.D.	0.073	1.0	1

General Sample Comments

State of Washington Lab Certification No. C259
 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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13086WAA026	04/04/2013 05:51	Brian K Graham	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13086WAA026	03/27/2013 16:45	JoElla L Rice	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	130870032A	04/02/2013 05:13	Elizabeth J Marin	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	130870032A	03/30/2013 08:50	Catherine R Wiker	1
06035	Lead	SW-846 6020	1	130876050003A	03/31/2013 07:59	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	130876050003	03/28/2013 23:45	Annamaria Stipkovits	1

*=This limit was used in the evaluation of the final result



Lancaster
Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: QA NA Water
Facility# 97348
502 N Wenatchee Ave - Wenatchee, WA

LLI Sample # WW 6996682
LLI Group # 1378049
Account # 13036

Project Name: 97348

Collected: 03/21/2013 09:30

Chevron Environmental Mgmt Co
6101 Bollinger Canyon Road
San Ramon CA 94583

Submitted: 03/26/2013 09:30

Reported: 04/04/2013 13:50

WTMTB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatiles	ECY 97-602 NWTPH-Gx		ug/l	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n.a.	N.D.	50	250	1

General Sample Comments

State of Washington Lab Certification No. C259

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	13087A20A	03/28/2013 12:32	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	13087A20A	03/28/2013 12:32	Laura M Krieger	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

 Client Name: Chevron Environmental Mgmt Co
 Reported: 04/04/13 at 01:50 PM

Group Number: 1378049

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**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13086WAA026									
Sample number(s): 6996676-6996677, 6996681									
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	93	95	75-115	3	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	95	96	72-120	2	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	98	100	74-130	2	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	91	92	74-118	1	30
Chrysene	N.D.	0.010	0.050	ug/l	86	89	75-112	3	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	92	93	66-122	1	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	91	92	66-122	2	30
Batch number: 13087A20A									
Sample number(s): 6996676, 6996682									
NWTPH-Gx water C7-C12	N.D.	50.	250	ug/l	88		75-135		
Batch number: 13087A54A									
Sample number(s): 6996676									
Benzene	N.D.	1.0	5.0	ug/l	104	100	70-130	4	50
C5-C6 Aliphatic Hydrocarbons	N.D.	25.0	50.0	ug/l	102	99	70-130	3	50
C6-C8 Aliphatic Hydrocarbons	N.D.	25.0	50.0	ug/l	98	96	70-130	2	50
C8-C10 Aliphatic Hydrocarbons	N.D.	25.0	50.0	ug/l	85	87	70-130	2	50
C8-C10 Aromatic Hydrocarbons	N.D.	25.0	50.0	ug/l	108	106	70-130	3	50
Ethylbenzene	N.D.	1.0	5.0	ug/l	103	100	70-130	3	50
Methyl t-butyl ether	N.D.	1.0	5.0	ug/l	108	100	70-130	8	50
Toluene	N.D.	1.0	5.0	ug/l	104	101	70-130	3	50
o-Xylene	N.D.	1.0	5.0	ug/l	109	106	70-130	2	50
m,p-Xylenes	N.D.	2.0	10.0	ug/l	111	108	70-130	2	50
Batch number: 130890026A									
Sample number(s): 6996676									
>C10-C12 Aliphatic	N.D.	10.	50	ug/l	89	99	30-137	11	30
>C10-C12 Aromatic	N.D.	10.	50	ug/l	82	84	30-140	2	30
>C12-C16 Aliphatic	N.D.	10.	50	ug/l	88	99	68-116	11	30
>C12-C16 Aromatic	N.D.	10.	50	ug/l	84	89	30-149	5	30
>C16-C21 Aliphatic	N.D.	11.	50	ug/l	88	94	81-116	7	30
>C16-C21 Aromatic	N.D.	13.	50	ug/l	89	97	30-148	9	30
>C21-C34 Aliphatic	N.D.	20.	50	ug/l	84	91	44-133	9	30
>C21-C34 Aromatic	N.D.	21.	50	ug/l	96	102	57-127	6	30
Batch number: 130870032A									
Sample number(s): 6996676, 6996681									
DRO C12-C24 w/Si Gel	N.D.	30.	100	ug/l	58	58	32-117	0	20
HRO C24-C40 w/Si Gel	N.D.	70.	250	ug/l					
Batch number: 130876050003A									
Sample number(s): 6996676-6996678, 6996681									
Lead	N.D.	0.073	1.0	ug/l	104		90-115		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(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 Environmental Mgmt Co
Reported: 04/04/13 at 01:50 PM

Group Number: 1378049

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: 13087A20A NWTPH-Gx water C7-C12	80	86	75-135	6	30				
Sample number(s): 6996676,6996682 UNSPK: P996635									
Batch number: 130876050003A Lead	104	104	83-120	1	20	0.087	0.12	29* (1)	20
Sample number(s): 6996676-6996678,6996681 UNSPK: P999001 BKG: P999001									

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: PAHs in waters by SIM
Batch number: 13086WAA026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
6996676	83	89	85
6996677	94	101	93
6996681	93	101	89
Blank	96	102	94
LCS	94	101	92
LCSD	95	102	94
Limits:	64-120	62-141	58-134

Analysis Name: NWTPH-Gx water C7-C12
Batch number: 13087A20A
Trifluorotoluene-F

6996676	72
6996682	73
Blank	75
LCS	91
MS	84
MSD	83
Limits:	63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 130870032A
Orthoterphenyl

6996676	70
6996681	83
Blank	77
LCS	79
LCSD	78

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(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 Environmental Mgmt Co
 Reported: 04/04/13 at 01:50 PM

Group Number: 1378049

Surrogate Quality Control

Limits: 50-150

Analysis Name: WA - VPH waters

Batch number: 13087A54A

	Trifluorotoluene-P	Trifluorotoluene-F
6996676	103	109
Blank	94	111
LCS	111	109
LCSD	109	107

Limits: 60-140

60-140

Analysis Name: WA EPH in Water

Batch number: 130890026A

	Orthoterphenyl	1-chlorooctadecane
6996676	108	76
Blank	92	74
LCS	95	84
LCSD	97	84

Limits: 36-118

32-132

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(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.

13030 1378049 6996676-82

AMENDED CHAIN OF CUSTODY FORM

Chevron Environmental Management Company ■ 6001 Bollinger Canyon Road ■ San Ramon, CA 94583-2324

COC 1 of 1

Chevron Site Number: 27348
 Program Designation: GMP
 Site Address (street, city, state / county): 502 N Wenatchee Ave, Wenatchee, WA
 Chevron PM:
 Chevron PM Phone No.:
 Retail and Terminal Business Unit (RTBU) Job
 Construction/Retail Job

Chevron Consultant: ARCADIS
 Address: 3240 El Camino Real, Irvine, CA
 Consultant Contact: Janet Newman
 Consultant Phone No. (849)293-2445
 Consultant Project No. 130321-19
 Sampling Company: Blaine Tech Services
 Sampled By (Print): LAE BORDS
 Sampler Signatures:

Special Instructions
 Run EDS samples by 8011, not 8260.

Charge Code: NWRTB 00SITE NUMBER-0-OML
 WBS ELEMENTS:
 SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: RSL
 SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L

Lancaster Laboratories
 2425 New Holland Pike, Lancaster, PA 17601
 Phone No: (717)655-2300

Preservation Codes
 H = HCL T = Thiocyanate
 N = HNO3 B = NaOH
 S = H2SO4 O = Other

Field Point Name	Matrix	Top Depth	Date (yyymmdd)	Sample Time	# of Containers	Container Type	ANALYSES REQUIRED										Notes/Comments		
							TPH-D W/SILICA GEL CLEANUP (97-602M) (NWTPH-DX W/SEC)	TPH-D W/SILICA GEL CLEANUP (97-602M) (NWTPH-DX W/SEC)	TPH-G (NWTPH-GX)	8260B FULL LISTD EDCD TBAO TAMEO ETBEO	ETHANOLD BTEXD MTBEO	PAH'SD CPAH'SD 8270 SIM	DISSOLVED LEAD (6020)	TOTAL LEAD (6020)	EOB (8071) □	ECY 97-602 W/ VPH		ECY 97-602 W/ BPH	
MW-2	GW	NA	130321	1232	14	Yea, Poly, Amber	X	X	X	X	X	X	X	X	X	X	X	X	
MW-4	GW	NA	130321	0458	3	Poly, Amber	X	X	X	X	X	X	X	X	X	X	X	X	
MW-6	GW	NA	130321	1133	4	Poly, Amber	X	X	X	X	X	X	X	X	X	X	X	X	
MW-5	GW	NA	130321	1226	1	Poly	X	X	X	X	X	X	X	X	X	X	X	X	
DOP	GW	NA	130321		1	Poly, Amber	X	X	X	X	X	X	X	X	X	X	X	X	
EB	GW	NA	130321	1145	4	Poly, Amber	X	X	X	X	X	X	X	X	X	X	X	X	
GA	GW	NA	130321	0930	3	Yea	X	X	X	X	X	X	X	X	X	X	X	X	
		NA																	
		NA																	

Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time
		3/22/13	Shipped Via FedEx		
Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time
Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time

Turnaround Time:
 Standard 24 Hours 48 hours 72 Hours
 Other
 Sample Integrity: (Check by lab on arrival)
 Intact: On Ice: Temp:
 COC #

13036 1378049 6990676-82

C. 4 OF CUSTODY FORM

Chevron Environmental Management Company ■ 6001 Bollinger Canyon Road ■ San Ramon, CA 94583-2324 COC 1 of 1

<p>Chevron Site Number: <u>97348</u> Program Designation: <u>CMP</u> Site Address (street, city, state / county): <u>502 N Wenatchee Ave, Wenatchee, WA</u> Chevron PM: Chevron PM Phone No.: <input type="checkbox"/> Retail and Terminal Business Unit (RTBU) Job <input type="checkbox"/> Construction/Retail Job</p>		<p>Chevron Consultant: <u>ARCADIS</u> Address: <u>3240 El Camino Real, Irvine, CA</u> Consultant Contact: <u>Janet Newman</u> Consultant Phone No. <u>(949)293-2445</u> Consultant Project No. <u>130321-141</u> Sampling Company: <u>Blaine Tech Services</u> Sampled By (Print): <u>LAE BORDS</u> Sampler Signature: <u>[Signature]</u></p>		<p>Lancaster Laboratories <input checked="" type="checkbox"/> Lancaster, PA Lab Contact: <u>Megan Moeller</u> 2425 New Holland Pike, Lancaster, PA 17601 Phone No: <u>(717)658-2300</u></p>		<p>Temp. Blank Check Time Temp.</p>		<p>Other Lab</p>		<p>Temp. Blank Check Time Temp.</p>													
<p>Charge Code: <u>NWRTB 00SITE NUMBER-0-OML</u> WBS ELEMENTS: SITE ASSESSMENT: <u>A1L</u> REMEDIATION IMPLEMENTATION: <u>RSI</u> SITE MONITORING: <u>OML</u> OPERATION MAINTENANCE & MONITORING: <u>MIL</u></p>		<p>Lancaster Laboratories <input checked="" type="checkbox"/> Lancaster, PA Lab Contact: <u>Megan Moeller</u> 2425 New Holland Pike, Lancaster, PA 17601 Phone No: <u>(717)658-2300</u></p>		<p>Temp. Blank Check Time Temp.</p>		<p>Other Lab</p>		<p>Temp. Blank Check Time Temp.</p>															
<p>SAMPLE ID</p>		Field Point Name	Matrix	Top Depth	Date (yymmdd)	Sample Time	# of Containers	Container Type	TPH-D w/ SILICA GEL CLEANUP (97-602M) (NWTPH-DX w/ sgc)	TPH-G (NWTPH-GX)	8260B FULL LISTD EDCD TRAD TAMED ETBED	ETHANOL BTEXD MTBED	PAH'S CPAH'S 8270 SIM	DISSOLVED LEAD (6020)	TOTAL LEAD (6020)	EDB (8011) □	ECY 97-602 WA VPH	ECY 97-602 WA VPH	Special Instructions Run EDB samples by 8011, not 8260.	Notes/Comments			
Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time
[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13
Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time
[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13
Relinquished By	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time	Relinquished To	Company	Date/Time
[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13	[Signature]	[Signature]	3/22/13

Explanation of Symbols and Abbreviations

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 <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
J	estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).		
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 of gas 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.		

3. 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.

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

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Chevron Environmental Mgmt Co
6101 Bollinger Canyon Road
San Ramon CA 94583

April 24, 2013

Project: 97348

Submission Date: 04/13/2013
Group Number: 1382729
PO Number: 0015119783
Release Number: WONG
State of Sample Origin: WAClient Sample Description

MW-5 Groundwater

Lancaster Labs (LLI) #

7021668

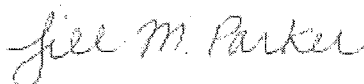
The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC ARCADIS
COPY TO
ELECTRONIC ARCADIS
COPY TO

Attn: Janet Newman

Attn: Robin Simon

Respectfully Submitted,

Jill M. Parker
Senior Specialist

(717) 556-7262



Lancaster
Laboratories

Analysis Report

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

Sample Description: MW-5 Groundwater
Facility# 97348
502 N Wenatchee Ave - Wenatchee, WA

LLI Sample # WW 7021668
LLI Group # 1382729
Account # 13036

Project Name: 97348

Collected: 04/12/2013 07:15 by LB

Chevron Environmental Mgmt Co
6101 Bollinger Canyon Road
San Ramon CA 94583

Submitted: 04/13/2013 09:30

Reported: 04/24/2013 19:35

NWW05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 8270C SIM	ug/l	ug/l	ug/l	
08357	Benzo(a)anthracene	56-55-3	0.045	0.0095	0.048	1
08357	Benzo(a)pyrene	50-32-8	0.089	0.0095	0.048	1
08357	Benzo(b)fluoranthene	205-99-2	0.27	0.0095	0.048	1
08357	Benzo(k)fluoranthene	207-08-9	0.078	0.0095	0.048	1
08357	Chrysene	218-01-9	0.15	0.0095	0.048	1
08357	Dibenz(a,h)anthracene	53-70-3	0.029	0.0095	0.048	1
08357	Indeno(1,2,3-cd)pyrene	193-39-5	0.14	0.0095	0.048	1
GC Petroleum	ECY 97-602 NWTPH-Dx		ug/l	ug/l	ug/l	
F	ocarbons w/Si	modified				
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	97	1
12005	HRO C24-C40 w/Si Gel	n.a.	83	68	240	1
The reverse surrogate, capric acid, is present at <1%.						
Metals	SW-846 6020		ug/l	ug/l	ug/l	
06035	Lead	7439-92-1	2.7	0.047	1.0	1

General Sample Comments

State of Washington Lab Certification No. C259
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
08357	PAHs in waters by SIM	SW-846 8270C SIM	1	13107WAE026	04/23/2013 10:03	Joseph M Gambler	1
10470	BNA Water Extraction (SIM)	SW-846 3510C	1	13107WAE026	04/17/2013 16:30	Seth A Farrier	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH-Dx modified	1	131070021A	04/23/2013 08:29	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH-Dx 06/97	1	131070021A	04/18/2013 10:45	Elizabeth A Sholder	1
06035	Lead	SW-846 6020	1	131096050004A	04/23/2013 14:18	David K Beck	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	131096050004	04/22/2013 11:00	James L Mertz	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

 Client Name: Chevron Environmental Mgmt Co
 Reported: 04/24/13 at 07:35 PM

Group Number: 1382729

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**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13107WAE026									
Sample number(s): 7021668									
Benzo(a)anthracene	N.D.	0.010	0.050	ug/l	103	106	75-115	2	30
Benzo(a)pyrene	N.D.	0.010	0.050	ug/l	108	109	72-120	1	30
Benzo(b)fluoranthene	N.D.	0.010	0.050	ug/l	113	115	74-130	2	30
Benzo(k)fluoranthene	N.D.	0.010	0.050	ug/l	111	111	74-118	0	30
Chrysene	N.D.	0.010	0.050	ug/l	106	107	75-112	1	30
Dibenz(a,h)anthracene	N.D.	0.010	0.050	ug/l	96	97	66-122	1	30
Indeno(1,2,3-cd)pyrene	N.D.	0.010	0.050	ug/l	98	100	66-122	1	30
Batch number: 131070021A									
Sample number(s): 7021668									
DRO C12-C24 w/Si Gel	N.D.	30.	100	ug/l	57	37	32-117	45*	20
RO C24-C40 w/Si Gel	N.D.	70.	250	ug/l					
Batch number: 131096050004A									
Sample number(s): 7021668									
Lead	N.D.	0.047	1.0	ug/l	104		90-115		

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: 131096050004A									
Sample number(s): 7021668 UNSPK: P022691 BKG: P022691									
Lead	101	104	83-120	3	20	N.D.	N.D.	0 (1)	20

Surrogate Quality Control

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

Analysis Name: PAHs in waters by SIM
 Batch number: 13107WAE026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
7021668	92	106	97
Blank	89	104	95

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

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

(2) The unspiked result was more than four times the spike added.

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Surrogate Quality Control

LCS	88	102	94
LCSD	87	105	97

Limits:	64-120	62-141	58-134
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Analysis Name: NWTPH-Dx water w/ 10g Si Gel
Batch number: 131070021A
Orthoterphenyl

7021668	77
Blank	80
LCS	81
LCSD	51

Limits:	50-150
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*- Outside of specification


**-This limit was used in the evaluation of the final result for the blank

(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.

acc # 13036 Cp # 1382729 sample # 702166
CHEMICAL CUSTODY FORM
 Chevron Environmental Management Company # 6001 Bollinger Canyon Road # San Ramon, CA 94583-2324 COC / of /

Chevron Site Number: 9-7348
 Program Designation: CMP
 Site Address (street, city, state / county): 502 N Venatchee Ave, Wenatchee, WA
 Chevron PM: _____
 Chevron PM Phone No.: _____
 Retail and Terminal Business Unit (RTBU) Job
 Construction/Retail Job

Chevron Consultant: ARCADIS
 Address: 3240 El Camino Real, Irvine, CA
 Consultant Contact: Janet Newman
 Consultant Phone No. (949)293-2445
 Consultant Project No. 130412-LB1
 Sampling Company: Blaine Tech Services
 Sampled By (Print): LEE BORES
 Sampler Signature: 

Charge Code: NWRTB 00SITE NUMBER-0-OML
 WBS ELEMENTS:
 SITE ASSESSMENT: A1L REMEDIATION IMPLEMENTATION: R5L
 SITE MONITORING: OML OPERATION MAINTENANCE & MONITORING: M1L

Field Point Name	SAMPLE ID			Date (yy/mm/dd)	Sample Time	# of Containers	Container Type
	Matrix	Top Depth	Date				
MW-5	GW	NA	130412	0715	5	AMBLE, PLY	
		NA					
		NA					
		NA					
		NA					
		NA					
		NA					
		NA					
		NA					
		NA					

Relinquished By: _____ Date/Time: 4/12/15
 Relinquished To: SHIPPED VIA FEDEX Company: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Relinquished To: _____ Company: _____ Date/Time: _____

H	H	TPH-D/W/SILICA GEL CLEANUP (97-602M) (NWTPH-DX/W/SGC)	TPH-O/W/SILICA GEL CLEANUP (97-602M) (NWTPH-DX/W/SGC)	TPH-G (NWTPH-GX)	8260B FULL LISTD EDCD TBAO TAMED ETBED ETHANOLD BTEXD MTRBD	PAH'S 8270 SIM	DISSOLVED LEAD (6020)	TOTAL LEAD (6020)	EDB (8011) <input type="checkbox"/>	ANALYSES REQUIRED		Preservation Codes
		X	X			X		X		N		H = HCL, T = Thioculfate N = HNO3, B = NaOH S = H2SO4, O = Other
												Special Instructions Run EDB samples by 8011, not 8260.

Turnaround Time:
 Standard 24 Hours 48 hours 72 Hours
 Other
 Sample Integrity: (Check by lab on arrival)
 Intact: On Ice: Temp: 1.5-2.2
 COC #

Relinquished To:  Company: _____ Date/Time: 4.13.13
 930

Explanation of Symbols and Abbreviations

2. 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

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

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 of gas 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.

3. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but \geq 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.

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

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

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