February 24, 2014



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Mr. Brian Waite Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, California 94583-5186

Subject: Fourth Quarter 2013 Groundwater Monitoring and Sampling Report

Former Standard Oil Service Station, Chevron Site No. 209335

1225 North 45th Street Seattle, Washington

Dear Mr. Waite:

Leidos Engineering, LLC (Leidos; formerly SAIC Energy, Environment & Infrastructure, LLC), on behalf of Chevron Environmental Management Company (CEMC), prepared this letter summarizing the fourth quarter 2013 groundwater monitoring and sampling event at former Standard Oil Service Station, Chevron Site No. 209335 (the site) located in Seattle, Washington (Figure 1).

FIELD ACTIVITIES

Gettler-Ryan Inc. (Gettler-Ryan) conducted the groundwater monitoring and sampling field event on October 17, 2013. Gettler-Ryan collected depth-to-groundwater measurements and checked for the presence of separate-phase hydrocarbons (SPH) in monitoring wells MW-6, MW-7, MW-8, MW-9, and MW-10. SPH were observed in monitoring well MW-7. Groundwater flow is to the southwest at a gradient of approximately 0.006 to 0.02 feet per foot. A potentiometric map is provided on Figure 2.

Groundwater samples were collected from four monitoring wells and submitted under chain of custody (COC) procedures to Eurofins Lancaster Laboratories, Inc. in Lancaster, Pennsylvania for the following analyses:

- Total petroleum hydrocarbons (TPH) as gasoline-range organics by Northwest Method NWTPH-Gx;
- TPH as diesel-range organics and TPH as heavy oil-range organics by Northwest Method NWTPH-Dx extended with silica-gel cleanup;
- Benzene, toluene, ethylbenzene, and total xylenes by United States Environmental Protection Agency (USEPA) Method 8021B; and
- Total lead by USEPA Method 6020.

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 that 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 upon by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.







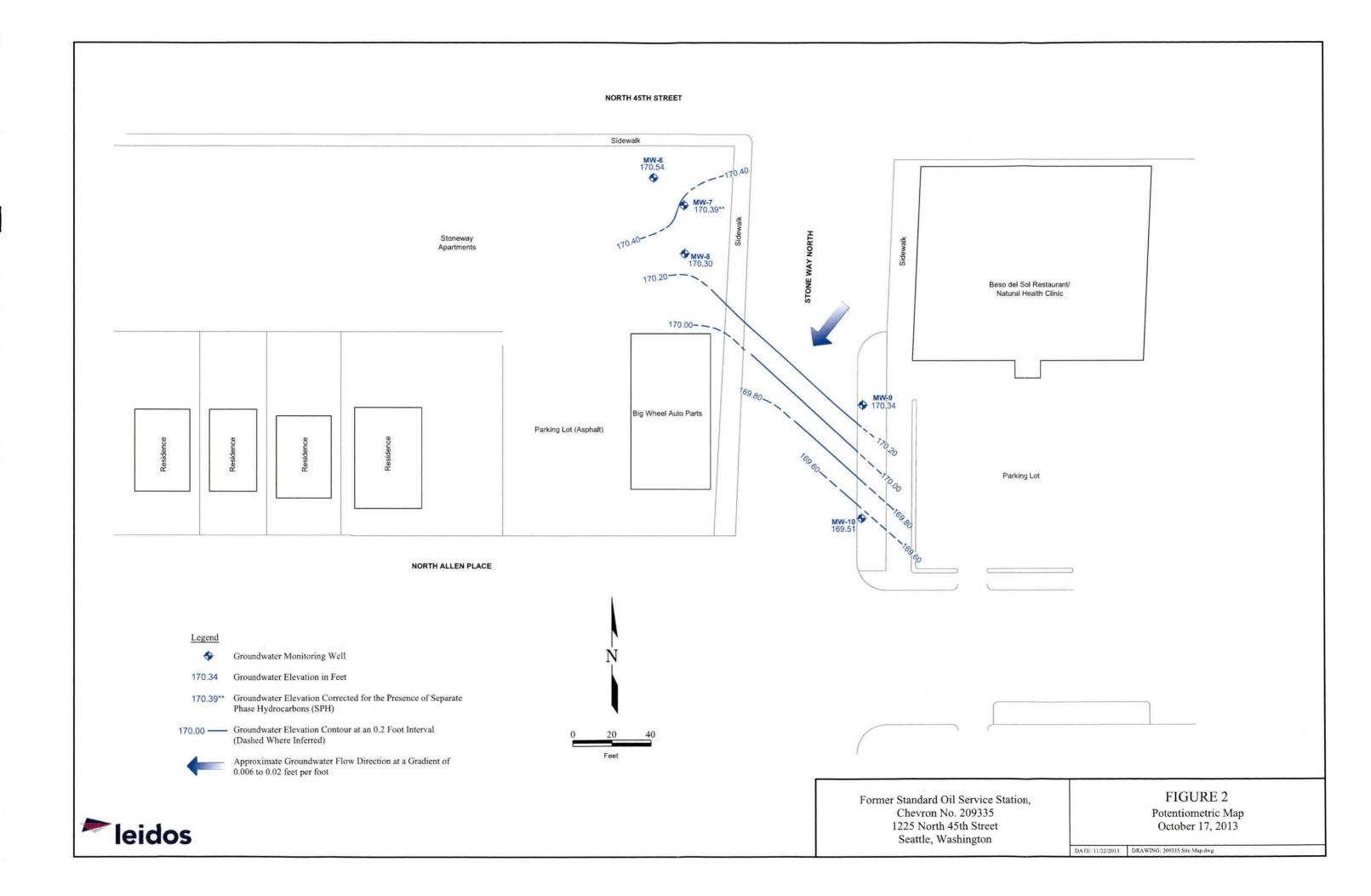
Maps Provided by Seattle.gov



Former Standard Oil Service Station, Chevron No. 209335 1225 North 45th Street Seattle, Washington FIGURE 1 Vicinity Map

209335 Vicinity Map.dwg

2/24/2014



GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Well ID/ Date Metho MW-3 (cont.) 09/29/04 NP 01/04/05 ABANDONED MW-4 10/11/00 12/16/00 03/26/01		DTP (ft.)	DTW (ft.) 38.01	SPHT (ft.)	GWE ³ (ft.)	TPH-DRO					Ethyl-	Total	1 1	
MW-3 (cont.) 09/29/04 NP 01/04/05 ABANDONED MW-4 10/11/00 12/16/00 03/26/01	98.76			(II.)	(11.)			TOU COO		TO 1		87 1	MEDE	m r
09/29/04 NP 01/04/05 ABANDONED MW-4 10/11/00 12/16/00 03/26/01			38.01			III-DRO	трн-нко	TPH-GRO	Benzene	Toluene	benzene	Xylenes	MTBE	T. Lead
01/04/05 ABANDONED MW-4 10/11/00 12/16/00 03/26/01			38.01	0.00	60.75	250	-250	-50	-0.5	-0.5	-0.5	.1.5		
ABANDONED MW-4 10/11/00 12/16/00 03/26/01	98.76		20.10	0.00	60.75	<250	<250	<50	<0.5	<0.5	<0.5	<1.5		
MW-4 10/11/00 12/16/00 03/26/01			38.19	0.00	60.57	SAMPLED	SEMIANNU	ALLY		-				
10/11/00 12/16/00 03/26/01														
12/16/00 03/26/01	00.50		2.00		40.00									
03/26/01	98.52		35.00		63.52						-		-	-
	98.52		36.35	0.00	62.17	ND	ND	58,200	326	5,520	1,430	8,520	ND	0.0123
	98.52		37.00	0.00	61.52	266	ND	27,200	178	2,160	785	4,160	ND	
06/25/01	98.52		37.25	0.00	61.27	<250	<750	12,300	69.0	654	416	1,910		-
09/24/01	98.52		37.60	0.00	60.92	<250	<500	4,130	30.1	154	197	684		
12/13/01	98.52		37.72	0.00	60.80	<250	<500	5,490	30.3	175	177	679	-	
03/08/02 NP	98.52		38.36	0.00	60.16	<250	<750	9,000	<50	150	170	710	/	
05/29/02 NP	98.52		36.86	0.00	61.66	<250	<750	6,700	22	150	190	780		
08/07/02	98.52		36.92	0.00	61.60		-	- 1	-	- 2				
09/16/02 NP	98.52	190	37.16	0.00	61.36	<250	<250	7,500	46	230	240	630		
12/05/02 NP	98.52		37.53	0.00	60.99	<250	<250	14,000	73	400	540	1,500		
03/04/03	98.52	36.68	36.71	0.03	61.83	NOT SAMP	LED DUE TO	THE PRESE	NCE OF SPH					
06/03/03	98.52	36.59	36.63	0.04	61.92	NOT SAMP	LED DUE TO	THE PRESE	NCE OF SPH					
07/06/03	98.52	36.90	36.93	0.03	61.61									
08/18/03	98.52	36.76	36.80	0.04	61.75		-							
10/27/03 NP	98.52		37.96	0.00	60.56	<400	<500	2,200	16	55	76	170	-	
MW-4 (cont.)														
11/17/03	98.52	36.34	36.37	0.03	62.17			1						
12/31/03	98.52		36.88	0.00	61.64									
02/09/04	98.52	36.14	36.17	0.03	62.37									
03/04/04	98.52	-	36.74	0.00	61.78		-			-			-	
03/31/04 NP	98.52		37.59	0.00	60.93	<250	<250	3,900	14	96	110	340		
06/28/04 NP	98.52		37.54	0.00	60.98	<250	<250	1,600	8.5	15	59	110		
09/11/04	98.52	37.78	37.81	0.03	60.73			1,000						
09/29/04 NP	98.52	37.76	37.86	0.00	60.66	<250	<250	1,500	18	40	76	170		
11/22/04	98.52		36.81	0.00	61.71	~230		1,300						
01/04/05 NP	98.52		38.11	0.00	60.41	1,600	<250	1 600	10	12		110		
01/04/05 NP	98.52		37.58	0.00	60.41	1		1,600		13	60	110		
ABANDONED	98.32		37.38	0.00	00.94									



GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Well ID/	Purge	TOC ²	DTP	DTW	SPHT	GWE ³						Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	benzene	Xvlenes	MTBE	T. Lead
MW-5							•								
10/11/00		99.42		34.50		64.92									
12/16/00		99.42		37.18	0.00	62.24	5,080	ND	146,000	ND	15,100	4,160	24,100	ND	0.0200
03/26/01		99.42		37.91	0.00	61.51	77,900	ND	149,000	256	10,600	4,000	24,200	ND	
06/25/01		99.42		38.14	0.00	61.28	109,000	<18,100	127,000	210	9,580	3,730	21,500		
09/24/01		99.42	38.40	38.44	0.04	61.01	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH	i i				
12/13/01		99.42	38.55	38.59	0.04	60.86	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
03/08/02		99.42	37.96	38.46	0.50	61.36	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
05/29/02		99.42	37.60	38.05	0.45	61.73	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
08/07/02		99.42	37.73	38.12	0.39	61.61									
09/16/02	1	99.42	38.00	38.39	0.39	61.34	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
10/15/02		99.42	38.09	38.47	0.38	61.25				-					
11/22/02		99.42	37.84	38.26	0.42	61.50	-	-		-					
12/05/02		99.42	38.42	38.78	0.36	60.93	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
01/28/03		99.42	37.88	38.24	0.36	61.47									
02/13/03		99.42	38.33	38.68	0.35	61.02									
03/04/03		99.42	37.54	37.89	0.35	61.81	NOT SAMP	LED DUE TO	THE PRESE	ENCE OF SPH		-			():
04/21/03		99.42	37.96	38.29	0.33	61.39		-	-	-					
05/08/03		99.42	38.50	38.82	0.32	60.86		1-4		-		_			(44)
06/03/03		99.42	37.42	37.76	0.34	61.93	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH		-			
07/06/03		99.42	37.77	38.11	0.34	61.58		'	-	-					
08/18/03		99.42	38.54	38.86	0.32	60.82									
10/27/03		99.42	WELL DE	RY/OBSTR	RUCTED	-				-		- 4			
11/17/03		99.42	37.87	38.17	0.30	61.49					-				(==)
12/31/03		99.42	WELL DE	RY/OBSTR	RUCTED					-	-				
02/09/04		99.42	WELL DE	RY/OBSTR	RUCTED						-				
03/04/04		99.42	WELL DE	RY/OBSTR	RUCTED										
03/31/04		99.42	WELL DE	RY/OBSTR	RUCTED					-	-	-			
06/28/04		99.42	WELL DE	RY/OBSTR	RUCTED					-	-			-	
09/11/04		99.42	WELL DE	RY/OBSTR	RUCTED						-				
09/29/04		99.42	WELL DE	RY/OBSTR	RUCTED					-	-				
11/22/04		99.42	WELL DE	RY/OBSTR	RUCTED										
01/04/05		99.42	WELL DE	RY/OBSTR	RUCTED) 	-				



GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS $^{\rm 1}$ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Well ID/	Purge	TOC ²	DTP	DTW	SPHT	GWE ³	L. A					Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	benzene	Xylenes	MTBE	T. Lead
MW-5 (cor	nt.)														
01/14/05		99.42	WELL DE	RY/OBSTR	RUCTED		-								
ABANDON	NED														
MW-6															
02/09/06		197.18		36.74	0.00	160.44	680	98	1,500	< 0.5	0.7	1.2	37		
05/03/07		197.18		36.74	0.00	160.44	1,000	130	380	29	1	4	30		
06/16/09		197.18	INACCES	SIBLE											
07/01/09	NP	197.18		27.46	0.00	169.72	270	< 70	<50	< 0.5	< 0.5	< 0.5	<1.5		22.9
12/11/09	NP	197.18		27.55	0.00	169.63	35	<69	<50	< 0.5	< 0.5	< 0.5	<1.5		0.76
06/09/10	NP	197.18		26.84	0.00	170.34	360	<340	5,900	< 0.5	< 0.5	< 0.5	350		13.2
11/19/10	NP	197.18		26.97	0.00	170.21	240	81	750	< 0.5	< 0.5	< 0.5	11		3.7
06/21/11	NP	197.18		25.77	0.00	171.41	270	88	2,400	< 0.5	< 0.5	0.6	9.2		3.2
09/22/11	NP	197.18	-	25.90	0.00	171.28	<29	<69	660	< 0.5	< 0.5	< 0.5	4.1		3.3
12/09/11	NP	197.18		27.34	0.00	169.84	<29	<69	64	140	0.5	< 0.5	<1.5		0.44
03/30/12	NP	197.18		26.80	0.00	170.38	<30	<69	90	< 0.5	< 0.5	< 0.5	<1.5		2.5
06/20/12	NP	197.18		26.56	0.00	170.62	<30	<70	<50	< 0.5	< 0.5	< 0.5	<1.5		< 0.034
10/05/12	NP	197.18		27.08	0.00	170.10	<32	<74	<50	< 0.5	< 0.5	< 0.5	<1.5		1.2
12/27/12	NP	197.18		27.13	0.00	170.05	<29	<67	<50	< 0.5	< 0.5	< 0.5	<1.5		2.0
03/18/13 ⁸		197.18		26.63	0.00	170.55	<30	<71	120	<0.5	<0.5	< 0.5	<1.5		
03/22/139		197.18		26.71	0.00	170.47	<31	<72	100	< 0.5	< 0.5	< 0.5	<1.5		
03/28/13	NP	197.18		26.61	0.00	170.57	<29	<67	79	<0.5	<0.5	<0.5	<1.5		3.7
06/27/13	NP	197.18		26.42	0.00	170.76	<29	<68	120	< 0.5	<0.5	<0.5	<1.5		1.3
10/17/13	NP	197.18		26.64	0.00	170.54	<29	<68	<50	< 0.5	<0.5	<0.5	<1.5		0.3
1W-7															
02/09/06		197.42	37.87	38.17	0.30	159.49		*	-						
05/03/07		197.42	26.55	27.80	0.00	169.62									
06/16/09		197.42	INACCES	SIBLE	_	1/2									
07/01/096		197.42	27.39	7	7	7	NOT SAMP	LED DUE TO	THE PRESE	NCE OF SPH		_			
2/11/096		197.42	27.50	7	_7	_7			THE PRESE				1900	-	
6/09/10 ⁶		197.42	27.03	28.20	1.17	170.16			THE PRESE			-			
11/19/10		197.42	27.08	28.34	1.26	170.09			THE PRESE						
06/21/11		197.42		26.12	0.00	171.30	11,000	<1,800	150,000	45	4,800	2,600	18,000		310
09/22/11		197.42		26.25	0.00	171.17	2,000	<340	100,000	29	4,300	1,900	17,000		94.4
12/09/11		197.42	27.45	27.80	0.35	169.90	-,		THE PRESE						



GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS $^{\rm 1}$ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Well ID/	Purge	TOC ²	DTP	DTW	SPHT	GWE ³						Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	benzene	Xvlenes	MTBE	T. Lead
MW-7 (co	nt.)	-													
03/30/12		197.42	27.15	27.35	0.20	170.23	NOT SAMP	LED DUE TO	THE PRESE	ENCE OF SPH					
06/20/12		197.42	26.90	27.05	0.15	170.49	NOT SAMP	LED DUE TO	O THE PRESE	ENCE OF SPH					
10/05/12		197.42	27.38	27.76	0.38	169.96	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
12/27/12		197.42	27.46	27.65	0.19	169.92	NOT SAMP	LED DUE TO	THE PRESE	ENCE OF SPH					
03/18/138		197.42	27.01	27.18	0.17	170.38	NOT SAMP	LED DUE TO	THE PRESE	ENCE OF SPH					
03/22/139		197.42		27.03	0.00	170.39	5,200	<69	99,000	12	1,600	1,700	17,000		
03/28/13		197.42	26.91	27.00	0.09	170.49		LED DUE TO	THE PRESE	ENCE OF SPH					
06/27/13		197.42	26.77	26.79	0.02	170.65	NOT SAMP	LED DUE TO	THE PRESE	ENCE OF SPH					
10/17/13		197.42	27.03	27.05	0.02	170.39	NOT SAMP	LED DUE TO	THE PRESE	ENCE OF SPH					
MW-8															
02/09/06		197.35	-	36.74	0.00	160.61	280	<96	440	< 0.5	1.1	3.3	28		
05/03/07		197.35		36.74	0.00	160.61	940	<200	2,600	< 0.5	< 0.5	< 0.5	< 0.5		
06/16/09		197.35	INACCES	SIBLE											
07/01/09	NP	197.35		27.84	0.00	169.51	390	< 700	430	< 0.5	< 0.5	< 0.5	2.2		3.5
12/11/09	NP	197.35		27.91	0.00	169.44	300	<69	<50	< 0.5	< 0.5	< 0.5	<1.5		7.3
06/09/10	NP	197.35		27.21	0.00	170.14	280	180	350	< 0.5	< 0.5	< 0.5	<1.5		16.5
11/19/10	NP	197.35		27.34	0.00	170.01	320	120	94	< 0.5	< 0.5	< 0.5	<1.5		3.4
06/21/11	NP	197.35		26.18	0.00	171.17	94	150	54	< 0.5	< 0.5	1.0	<1.5		3.6
09/22/11	NP	197.35		26.30	0.00	171.05	<29	<68	140	< 0.5	< 0.5	2.9	1.70		1.8
12/09/11	NP	197.35		27.70	0.00	169.65	70	<69	320	<2.0	<2.0	< 0.5	3.0		0.30
03/30/12	NP	197.35		27.20	0.00	170.15	<30	<70	2,000	3.0	3.9	45	120		2.9
06/20/12	NP	197.35		27.00	0.00	170.35	<30	<70	170	0.7	0.7	1.3	2.2		1.8
10/05/12	NP	197.35		27.49	0.00	169.86	<31	<71	490	1.0	1.7	19	32		1.3
12/27/12	NP	197.35		27.49	0.00	169.86	<29	<68	280	0.6	0.7	4.7	6.8		1.1
03/18/138		197.35		27.06	0.00	170.29	<30	<70	320	< 0.5	< 0.5	29	22		
03/22/139		197.35		27.13	0.00	170.22	<29	<68	360	< 0.5	< 0.5	29	22		
03/28/13	NP	197.35	-	27.09	0.00	170.26	<29	<67	80	< 0.5	< 0.5	< 0.5	<1.5		1.9
06/27/13	NP	197.35		26.86	0.00	170.49	<30	<69	<50	< 0.5	< 0.5	< 0.5	<1.5		2.0
10/17/13	NP	197.35	-	27.05	0.00	170.30	<29	<68	<50	< 0.5	< 0.5	< 0.5	<1.5		0.4
MW-9															
05/03/07	CA .	208.11		36.74	0.00	171.37	<400	<500	<50	< 0.5	< 0.5	4	18		
06/16/09		208.11		38.72	0.00	169.39			<50	< 0.5	< 0.5	< 0.5	<1.5		19.3
07/01/09	NP	208.11		38.03	0.00	170.08	<31	<71							

TABLE 1
GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹
FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335
1225 North 45th Street

							Concen	Seattle, Washington	ington arted in us/L						
Well ID/	Purge	TOC ²	DTP	MTG	SPHT	GWE ³						Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-DRO TPH-HRO TPH-GRO	TPH-GRO	Benzene	Toluene	benzene	Xylenes	MTBE	T. Lead
MW-9 (cont.	int.)														
12/11/09	NP	208.11	1	38.86	0.00	169.25	76	<69	<50	<0.5	<0.5	<0.5	<1.5	1	14.5
06/09/10	NP	208.11	1	38.17	0.00	169.94	42	110	<50	< 0.5	< 0.5	< 0.5	<1.5	1	21.2
11/19/10	NP	208.11	1	38.23	0.00	169.88	<29	130	<50	< 0.5	< 0.5	< 0.5	<1.5	1	18.7
06/21/11	NP	208.11	1	37.15	0.00	170.96	<30	<70	<50	< 0.5	< 0.5	<0.5	<1.5	1	4.7
09/22/11	NP	208.11	1	37.25	0.00	170.86	<300	<700	<50	<0.5	< 0.5	< 0.5	<1.5	1	12.4
12/09/11	NP	208.11	-	38.66	0.00	169.45	<29	<68	<50	< 0.5	< 0.5	< 0.5	<1.5		2.8
03/30/12	NP	208.11	1	29.60	0.00	178.51	<29	<68	<50	< 0.5	< 0.5	< 0.5	<1.5	-	114
06/20/12	NP	208.11	1	38.00	0.00	170.11	<30	<70	<50	< 0.5	< 0.5	< 0.5	<1.5	1	3.8
10/05/12	NP	208.11	1	38.44	0.00	169.67	<30	<70	<50	< 0.5	< 0.5	< 0.5	<1.5	1	10.6
12/27/12	NP	208.11	-	38.50	0.00	169.61	<31	<73	<50	< 0.5	< 0.5	< 0.5	<1.5	1	5.3
03/28/13	NP	208.11	1	29.73	0.00	178.38	<28	<66	<50	< 0.5	<0.5	< 0.5	<1.5	1	< 0.073
06/27/13	NP	208.11		37.81	0.00	170.30	<29	<67	<50	<0.5	< 0.5	<0.5	<1.5	1	5.4
10/17/13	NP	208.11	1	37.77	0.00	170.34	<29	<67	<50	< 0.5	< 0.5	< 0.5	<1.5	1	0.34
MW-10								1							
05/03/07		207.29	1	36.74	0.00	170.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	1
06/16/09		207.29	207.29 INACCESSIBLE	SIBLE	1	1	1	ı	ı	ı		-	7	1	ı
07/01/09	NP	207.29	1	38.72	0.00	168.57	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	1	10.9
12/11/09	NP	207.29	1	35.91	0.00	171.38	49	<69	<50	<0.5	<0.5	<0.5	<1.5	1	13.4
06/09/10	NP	207.29	ŀ	37.48	0.00	169.81	50	88	<50	<0.5	<0.5	<0.5	<1.5	1	7.2
11/19/10	NP	207.29	1	37.53	0.00	169.76	<29	74	<50	<0.5	<0.5	<0.5	<1.5	1	18.8
06/21/11	NP	207.29	1	36.46	0.00	170.83	S 31	180	<50	<0.5	<0.5	<0.5	<1.5	ſ	5.7
09/22/11	NP	207.29	1	36.60	0.00	170.69	<300	<700	<50	<0.5	<0.5	<0.5	<1.5	1	6.6
12/09/11	NP	207.29	1	35.71	0.00	171.58	<29	<69	<50	<0.5	<0.5	<0.5	<1.5	1	2.1
03/30/12	NP	207.29	1	29.80	0.00	177.49	<30	<69	<50	<0.5	<0.5	<0.5	<1.5	1	110
06/20/12	NP	207.29	1	37.35	0.00	169.94	<31	<71	<50	<0.5	<0.5	<0.5	<1.5	1	0.23
10/05/12	NP	207.29	1	37.79	0.00	169.50	45	<70	<50	<0.5	<0.5	<0.5	<1.5	1	3.7
12/27/12	NP	207.29	1	37.84	0.00	169.45	<29	<67	<50	<0.5	<0.5	<0.5	<1.5	1	2.2
03/28/13		207.29	1	27.36	0.00	179.93	<29	<67	<50	<0.5	< 0.5	< 0.5	<1.5	1	< 0.073
06/27/13	NP	207.29	ŀ	37.16	0.00	170.13	<29	<67	<50	<0.5	< 0.5	<0.5	<1.5	1	1.8
10/17/13	NP	207.29	1	37.78	0.00	169.51	<28	<66	<50	<0.5	<0.5	<0.5	<1.5	-	0.34



GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Well ID/	Purge	TOC ²	DTP	DTW	SPHT	GWE ³						Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	benzene	Xylenes	MTBE	T. Lead
TRIP BLA	ANK						-								
12/16/00									ND	ND	ND	ND	ND	ND	
03/26/01									ND	ND	ND	ND	ND	ND	-
06/25/01									<50.0	< 0.500	< 0.500	< 0.500	<1.00		
09/24/01									<50.0	< 0.500	< 0.500	< 0.500	<1.00		
12/13/01				-					<80.0	< 0.500	< 0.500	< 0.500	<1.00		
03/08/02				-	-			-	<50	< 0.50	< 0.50	< 0.50	<1.5		
05/29/02								-	<50	< 0.50	< 0.50	< 0.50	<1.5		
09/16/02		-		1				-	<50	< 0.50	< 0.50	< 0.50	<1.5		
12/05/02				1					<50	< 0.50	< 0.50	< 0.50	<1.5		
03/04/03				-					<50	< 0.50	< 0.50	< 0.50	<1.5		
10/27/03									<50	< 0.5	< 0.5	< 0.5	<1.5	'	
QA															
03/31/04									<50	< 0.5	< 0.5	< 0.5	<1.5		
06/28/04								-	<50	< 0.5	< 0.5	< 0.5	<1.5		
09/29/04									<50	< 0.5	< 0.5	< 0.5	<1.5		_
01/04/05								1	<50	< 0.5	< 0.5	< 0.5	<1.5		().
06/16/09								-	<50	< 0.5	< 0.5	< 0.5	<1.5		
07/01/09									<50	< 0.5	< 0.5	< 0.5	<1.5		
12/11/09								-	<50	< 0.5	< 0.5	< 0.5	<1.5		
06/09/10									<50	< 0.5	< 0.5	< 0.5	<1.5		
11/19/10						-			<50	< 0.5	< 0.5	< 0.5	<1.5		
06/21/11									<50	< 0.5	< 0.5	< 0.5	<1.5		
09/22/11		(<50	< 0.5	< 0.5	< 0.5	<1.5		
12/09/11									<50	< 0.5	< 0.5	< 0.5	<1.5	,	
03/30/12									<50	< 0.5	< 0.5	< 0.5	<1.5		
06/20/12		QA Vials	s Not Rece	ived by the	Laborator	у									
10/05/12									<50	< 0.5	< 0.5	< 0.5	<1.5		
12/27/12									<50	< 0.5	< 0.5	< 0.5	<1.5		

GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Concentrations reported in µg/L

		- 2				2	1	l distribution of the	1						
Well ID/	Purge	TOC ²	DTP	DTW	SPHT	GWE ³						Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	benzene	Xylenes	MTBE	T. Lead
QA (cont.))·														
03/28/13									<50	< 0.5	< 0.5	< 0.5	<1.5		
06/27/13							144		<50	< 0.5	< 0.5	<0.5	<1.5		
10/17/13									<50	< 0.5	< 0.5	< 0.5	<1.5		
			Stand	lard Labora	atory Repor	ting Limits:			50	0.5	0.5	0.5	1.5		0.00100
			N	ATCA Met	hod A Clea	nup Levels:	500	500	800/1,000	5	1,000	700	1,000	20	15
					Curre	nt Method ⁵ :	NWTPH-Dx	+ Extended ⁴	NWTPH-Gx		US	EPA 8021B			USEPA 6020

Abbreviations:

DTP = Depth to Product

ND = Not Detected

TPH = Total Petroleum Hydrocarbons

DTW = Depth to Water

NP = No Purge

TPH-DRO = TPH as Diesel-Range Organics

(ft.) = Feet

QA = Quality Assurance/Trip Blank

TPH-GRO = TPH as Gasoline-Range Organics

GWE = Groundwater Elevation

SPH = Separate Phase Hydrocarbon

TPH-HRO = TPH as Heavy Oil-Range Organics

SPH = Separate Phase Hydrocarbons

SPHT = Separate Phase Hydrocarbon Thickness

USEPA = United States Environmental Protection Agency

MTBE = Methyl Tertiary Butyl Ether

T. Lead = Total Lead

 $\mu g/L = Micrograms per liter$

MTCA = Model Toxics Control Act Cleanup Regulations

TOC = Top of Casing

-- = Not Measured/Not Analyzed

Notes:

- 1 Analytical results in bold font indicate concentrations exceed MTCA Method A Cleanup Levels.
- 2 TOC elevations have been surveyed in feet relative to the 1988 North American Vertical Datum. MW-1 through MW-5 TOC Elevation are reference to an arbitrary benchmark of 100 feet.
- 3 When SPH is present, GWE has been corrected using the following formula: GWE = [(TOC DTW) + (SPHT x 0.80)].
- 4 Analyzed with silica-gel cleanup.
- 5 Laboratory analytical methods for historical data may not be consistent with list of current analytical methods. When necessary, consult original laboratory reports to verify methods used.
- 6 Skimmer in well.
- 7 Interface probe could not detect LNAPL/Groundwater Interface, unable to gauge hydrocarbon thickness and calculate corrected GWE.
- 8 Pre-surfactant injection groundwater sample.
- 9 Post-surfactant extraction groundwater sample.



GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Well ID/	Purge	TOC ²	DTP	DTW	SPHT	GWE ³						Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	benzene	Xylenes	MTBE	T. Lead
MW-1												-			
10/11/00		97.95		34.50		63.45									
12/16/00		97.95		35.91	0.00	62.04	ND	ND	74.4	ND	ND	ND	ND	ND	ND
03/26/01		97.95		36.54	0.00	61.41	ND	ND	ND	ND	ND	ND	ND	ND	
06/25/01		97.95		36.78	0.00	61.17	<281	<842	<50.0	< 0.500	< 0.500	< 0.500	<1.00		
09/24/01		97.95		37.14	0.00	60.81	<250	<500	<50.0	< 0.500	< 0.500	< 0.500	<1.00		
12/13/01		97.95		37.25	0.00	60.70	<250	<500	<80.0	< 0.500	< 0.500	< 0.500	<1.00		
03/08/02	NP	97.95		36.79	0.00	61.16	<250	<750	<50	< 0.50	< 0.50	< 0.50	<1.5		(***)
05/29/02		97.95		36.44	0.00	61.51	SAMPLED	SEMIANNUA	ALLY						
09/16/02	NP	97.95		36.71	0.00	61.24	<250	<250	<50	< 0.50	< 0.50	< 0.50	<1.5		
12/05/02		97.95		37.09	0.00	60.86	SAMPLED	SEMIANNUA	ALLY						
03/04/03	NP	97.95	-	37.26	0.00	60.69	<250	<250	100	< 0.50	< 0.50	< 0.50	<3.0		
06/03/03		97.95		37.09	0.00	60.86	SAMPLED	SEMI-ANNU	ALLY						
10/27/03		97.95		37.42	0.00	60.53	NOT SAMP	LED DUE TO	INSUFFICIE	ENT WATER					
03/31/04	NP	97.95		37.12	0.00	60.83	<800	<1,000	<50	< 0.5	< 0.5	< 0.5	<1.5		
06/28/04		97.95	-	37.14	0.00	60.81	SAMPLED	SEMIANNUA	ALLY					1	
09/29/04		97.95		37.50	0.00	60.45	NOT SAMP	LED DUE TO	INSUFFICIE	NT WATER					
01/04/05		97.95		37.61	0.00	60.34		SEMIANNUA		_		-			
ABANDO	NED					1									
MW-2															
10/11/00		98.70	-	34.50		64.20					×				
12/16/00		98.70		36.46	0.00	62.24	1,000	ND -	28,100	283	2,560	693	4,020	ND	0.00194
03/26/01		98.70		37.12	0.00	61.58	1,180	ND	17,000	143	1,450	378	2,180	ND	
06/25/01		98.70	-	37.37	0.00	61.33	418	<750	11,700	92.3	547	181	1,010		
09/24/01		98.70		37.72	0.00	60.98	4,840	<557	22,100	120	1,380	658	4,100		
12/13/01		98.70		37.89	0.00	60.81	5,540	<500	84,000	185	3,960	1,590	9,950		
03/08/02		98.70	37.24	38.00	0.76	61.31	NOT SAMP	LED DUE TO	THE PRESE	NCE OF SPH					
05/29/02		98.70	36.81	37.54	0.73	61.74	NOT SAMP	LED DUE TO	THE PRESE	NCE OF SPH					
09/16/02		98.70	37.19	37.61	0.42	61.43			THE PRESE						
10/15/02		98.70	37.24	37.68	0.44	61.37									
11/22/02		98.70	37.12	37.63	0.51	61.48							-		
12/05/02		98.70	37.51	38.10	0.59	61.07	NOT SAMP	LED DUE TO	THE PRESE	NCE OF SPH					
01/28/03		98.70	36.77	37.33	0.56	61.82			1						
02/13/03		98.70	37.44	38.02	0.58	61.14									
03/04/03						ARKED OV	/ED W/EI I				-			-	



GROUNDWATER MONITORING DATA AND ANALYTICAL RESULTS¹ FORMER STANDARD OIL SERVICE STATION, CHEVRON SITE NO. 209335

1225 North 45th Street

Seattle, Washington

Well ID/	Purge	TOC ²	DTP	DTW	SPHT	GWE ³						Ethyl-	Total		
Date	Method	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	TPH-DRO	TPH-HRO	TPH-GRO	Benzene	Toluene	benzene	Xylenes	MTBE	T. Lead
MW-2 (co	nt.)														
04/21/03		98.70	37.21	37.78	0.57	61.38	-								_
05/08/03		98.70	37.43	37.94	0.51	61.17									
06/03/03		98.70	37.37	37.91	0.54	61.22	NOT SAMP	LED DUE TO	O THE PRESI	ENCE OF SPH					
07/06/03		98.70	36.96	37.51	0.55	61.63	-			-					
08/18/03		98.70	37.49	38.02	0.53	61.10									
10/27/03		98.70	37.54	39.98	2.44	60.67	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
11/17/03		98.70	37.10	37.58	0.48	61.50									
12/31/03		98.70	36.18	38.19	2.01	62.12		-		-					
02/09/04		98.70	37.00	37.49	0.49	61.60									
03/04/04		98.70	35.85	37.06	1.21	62.61									
03/31/04		98.70	37.32	39.05	1.73	61.03	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
06/28/04		98.70	37.32	39.05	1.73	61.03	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH					
09/11/04		98.70	37.65	39.10	1.45	60.76		-							
09/29/04		98.70	37.71	39.39	1.68	60.65	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH			_		
11/22/04		98.70	36.89	38.16	1.27	61.56								1	
01/04/05		98.70	37.88	39.80	1.92	60.44	NOT SAMP	LED DUE TO	THE PRESI	ENCE OF SPH				-	
01/14/05		98.70	37.49	-39.02	1.53	60.90									
ABANDO	NED														
MW-3															
10/11/00		98.76		34.00		64.76									
12/16/00		98.76		36.39	0.00	62.37	ND	ND	ND	ND	0.612	ND	1.95	ND	ND
03/26/01		98.76		37.05	0.00	61.71	ND	ND	ND	ND	ND	ND	ND	ND	
06/25/01		98.76		37.29	0.00	61.47	<250	<750	<50.0	< 0.500	< 0.500	< 0.500	<1.00	-	
09/24/01		98.76		37.64	0.00	61.12	<250	<500	<50.0	< 0.500	< 0.500	< 0.500	<1.00		
12/13/01		98.76		37.78	0.00	60.98	<250	< 500	<80.0	< 0.500	< 0.500	< 0.500	<1.00		
03/08/02	NP	98.76		37.28	0.00	61.48	<250	<750	320	< 0.50	0.64	2.1	15		
05/29/02		98.76		36.92	0.00	61.84	SAMPLED	SEMIANNUA	ALLY						
09/16/02	NP	98.76		37.21	0.00	61.55	<250	<250	<50 -	< 0.50	< 0.50	< 0.50	<1.5		
12/05/02		98.76		37.58	0.00	61.18	SAMPLED	SEMIANNU	ALLY		-				
03/04/03	NP	98.76		37.79	0.00	60.97	<250	<250	<50	< 0.50	< 0.50	< 0.50	<1.5		-
06/03/03		98.76		37.68	0.00	61.08	SAMPLED	SEMIANNUA	ALLY		-				
10/27/03	NP	98.76		38.00	0.00	60.76	<250	<250	<50	< 0.5	< 0.5	< 0.5	<1.5		
03/31/04	NP	98.76		37.65	0.00	61.11	<800	<1,000	<50	< 0.5	< 0.5	< 0.5	<1.5		
06/28/04		98.76		37.68	0.00	61.08	SAMPLED	SEMIANNUA	ALLY						

Attachment A: Groundwater Monitoring and Sampling Data Package

TRANSMITTAL

October 30, 2013 G-R #386750

TO:

Ms. Ruth A. Otteman

Leidos, Inc.

18912 North Creek Parkway, Suite 101

Bothell, WA 98011

FROM:

Deanna L. Harding

Project Coordinator Gettler-Rvan Inc.

6805 Sierra Court, Suite G Dublin, California 94568 RE:

Former Chevron Service Station

#209335

1225 North 45th Street Seattle, Washington

WE HAVE ENCLOSED THE FOLLOWING:

COPIES.

DESCRIPTION

VIA PDF

Groundwater Monitoring and Sampling Data Package Third Quarter Event of October 17, 2013

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

trans/209335



GETTLER-RYAN INC.

		CHEVR	ON - SIT	E CHEC	K LIST	
Facility#:	Chevron	#209335		Date: 10	6.17.12	•••
Address:	1225 N. 45	Th Street				
City/St	Seattle, W	Α,	. 0			$\overline{}$
Status of S	ite: 6,05	WWW 6	11)416	00016	4 Aggarages	1 341.14
Please list be of drum:	elow ALL DR	UMS @ site	i.e., drum de	escription, co	ndition, labeling, co	ontents, location
#	Descr	iption	Condition	Labeling	Contents/Capacity	Location
	No	Into				
<u> </u>	<u>'</u>			· · · · · · · · · · · · · · · · · · ·		, , ,
					1	· · · · ·
Please check plug, well loc	k the conditio	n of ALL WE	LLS @ site:	i.e., well box	condition, gaskets	, bolts, well
Gaskets (M) Missing (R) Replaced	Boits (M) Missing (R) Replaced	Replaced Plug Y/N	Replaced Lock			Other
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	Address: City/St Status of S Please list b of drum: # Please chec plug, well loc Gaskets (M) Missing	Address: 1225 N. 45 City/St.: Seattle, W. Status of Site: Some Please list below ALL DR of drum: # Descr Please check the condition plug, well lock, etc.: Gaskets (M) Missing (R) Replaced (R) Replaced (R) Replaced (R) Replaced	Facility#: Chevron #209335 Address: 1225 N. 45Th Street City/St.: Seattle, WA Status of Site: Seattle, WA Please list below ALL DRUMS @ site of drum: # Description Please check the condition of ALL WE plug, well lock, etc.: Gaskets (M) Missing (R) Replaced (R) R) Replaced (R) Replaced (R) R) Replaced (R) Replaced (R) R) R	Facility#: Chevron #209335 Address: 1225 N. 45Th Street City/St.: Seattle, WA Status of Site: Spelland (a) Land (b) Please list below ALL DRUMS (a) site: i.e., drum do of drum: # Description Condition Please check the condition of ALL WELLS (a) site: plug, well lock, etc.: Gaskets (M) Missing (R) Replaced Plug Lock (R) Replaced (R) Replaced Y/N Y/N (A) COO COO COO COO COO COO COO COO COO CO	Facility#: Chevron #209335 Date: Address: 1225 N. 45Th Street City/St.: Seattle, WA Status of Site: Seattle, WA Please list below ALL DRUMS @ site: i.e., drum description, co of drum: # Description Condition Labeling Please check the condition of ALL WELLS @ site: i.e., well box plug, well lock, etc.: Gaskets (M) Missing (M) Missing (R) Replaced (Address: 1225 N. 45Th Street City/St.: Seattle, WA Status of Site: Some Way (a) Laurent (b) Laurent (c) Labeling, co of drum: # Description Condition Labeling Contents/Capacity Please check the condition of ALL WELLS @ site: i.e., well box condition, gaskets plug, well lock, etc.: Gaskets (M) Missing (R) Replaced (R) Replaced Lock Y/N Well Box Manufacturer/Size/# of Bolts (A) Well Box Manufacturer/Size/# of Bolts COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R) Plug Y/N Missing (R) Replaced C) COOD CONTENT (C) Plug Y/N Missing (R)

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize. Purge water is treated by filtering the water through granular activated carbon and is subsequently discharged to the ground surface at the site.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.



Client/Facility#:	Chevron #20	9335	·	Job N	Number:	386750		
Site Address:	1225 N. 45TH	Street		Even	t Date:			 (inclusive)
City:	Seattle, WA						17.13	(inclusive)
	ocatile, WA	· · · · · · ·		Samp	 X61:		4.6	
Well ID	MW-6			Date Mo	nitored:			
Well Diameter	2		: -	Date Inc	illorea.	<u></u>	4.17.13	
Total Depth	34.17 ft			olume	3/4"= 0.0		2"= 0.17 3"= 0	
Depth to Water	16.104 ft.	•		actor (VF)	4"= 0.66		6"= 1.50 12"= 5	.80
	7 6%	. 닏I이 xVF ~	heck if water co				, .	
Depth to Water	w/ 80% Recharge			XJ Case	volume =	Estimated Pur	ge Volume:	gal.
	:	(fo resident of AA	ater Column X 0.2	20) + DTVV]			started:	(2400 hr
Purge Equipment:		Sa	mpling Equipme	ent:			completed:	(2400 hi
Disposable Bailer			sposable Bailer		,		to Product:	f
Stainless Steel Baile	r	•	essure Bailer	· 			to Water:	ft
Stack Pump			etal Filters		 .,		arbon Thickness:	ft
Suction Pump			ristaltic Pump			Visual	Confirmation/Descrip	otion:
Grundfos			D Bladder Pump			Skimm	er / Absorbant Sock	/eledo
Peristaltic Pump	· 		ner:	•		Amit Re	en / Absorbant Sock emoved from Skimme	(circle one)
QED Bladder Pump/					;	Amt Re	moved from Well:	ga
OtherNO	30186				•	Water	Removed:	gal
	<u> </u>			•			t Transferred to:	
Did well de-water Time (2400 hr.)	Volume (gal.)	yes, Time: _ pH	Considerivity	Temper	rature	D.O.	Sampling:	10.60
		6.72	das		F) . 9	(mg/L)	(mV)	•
					•= ·	· · · · · · · · · · · · · · · · · ·		-
							-	_ ,
·		<u> </u>		· · · · · · · · · · · · · · · · · · ·				-
 			480847084					
SAMPLE ID	(#) CONTAINER	REFRIG.	ABORATORY PRESERV. TYP	INFURMA E LABOR	RATORY I	 _	ANALYSES	
MW- 🕖	x voa vial	YES	HCL			NWTPH-Gx/B1		
	2 x 1 liter ambers	YES	HCL			NWTPH-Dx w/		
	x 250ml poly	YES	HNO3			TOTAL LEAD (
						-;		
· · ·								
COMMENTS:	,							
COMMEN 12:		- ,						
	···			<u> </u>	· · ·	-		
Add/Da-la-adt		* * * * * *			: .			
Add/Replaced L	UCK:	Add/R	eplaced Plug:			Add/Replace	ed Bolt:	



				Job Number	386750		
Site Address:	1225 N. 45TI	n Street		Event Date:	ه د امون	7.13	(inclusive)
City:	Seattle, WA			Sampler:		0	(III OIG 51 FC)
						1	-
Well ID	MW- 7		,	Date Monitored		7.13	
Well Diameter	2	-	· ·		Υ		= :_'·
Total Depth	33.68 ft	.	Volur Facto	ne 3/4"=0. or(VF) 4"=0.	02 1"= 0.04 (2" 66 5"= 1.02 6"=	0.17 3"= 0.3 1.50 12"= 5.8	
Depth to Water	27.06 ft.		Check if water colum			1.50 12 = 5.8	
	20.53			•	= Estimated Purge Vo		
Depth to Water	w/ 80% Recharge		Water Column v 0 20)	AS Case volume	- Esumated Purge Vo	lume:	gal.
		th long.it of t	, valor Column X 0.20)	* D144].	Time Starte		(2400 hrs
Purge Equipment:	:	S	ampling Equipment		Time Comp.		(2400 hrs
Disposable Bailer	· · · · · ·		isposable Bailer		Depth to Pro		
Stainless Steel Baile	ır		ressure Bailer	,	Depth to Wa		<i>09</i> 11
Stack Pump	\		letal Filters			Thickness:	-02 ft
Suction Pump			eristaltic Pump			mation/Descripti	on:
Grundfos			ED Bladder Pump			bserbent Suck (c	hrdrida
Peristaltic Pump			ther:		Amt Remove	ed from Skimmer	gal
QED Bladder Pump		•			Amt Remove	ed from Well:	gat
Other:		<u> </u>	•		. Water Remo	ved:	gal
	· · · · · · · · · · · · · · · · · · ·				Product Tran	sferred to:	
Start Time (purge	e):	,	Weather Co	nditions:		es er pries sirend	
	te: /	,	•	_	Odor V I N	1.71	
Sample Time/Da		anm	Water Color	:	Odor: Y / N		
Sample Time/Da Approx. Flow Rai	te:	gpm.	Water Color Sediment De	: escription:			
Sample Time/Da Approx. Flow Rai Did well de-water	te:	gpm. yes, Time:	Water Color Sediment De	: escription:	Odor: Y / N	mpling:	
Sample Time/Da Approx. Flow Rat Did well de-water Time	te:	yes, Time:	Water Color Sediment De Volu	escription: me:	gal. DTW @ Sal		
Sample Time/Da Approx. Flow Rai Did well de-water	te:		Water Color Sediment De	: escription:		ORP	
Sample Time/Da Approx. Flow Rat Did well de-water Time	te: // If Volume	yes, Time:	Water Color Sediment De Volu	escription: me: Temperature	gal. DTW @ Sal		
Sample Time/Da Approx. Flow Rat Did well de-water Time	te: // If Volume	yes, Time:	Water Color Sediment De Volu	escription: me: Temperature	gal. DTW @ Sal	ORP	
Sample Time/Da Approx. Flow Rat Did well de-water Time	te: // If Volume	yes, Time:	Water Color Sediment De Volu	escription: me: Temperature	gal. DTW @ Sal	ORP	
Sample Time/Da Approx. Flow Rat Did well de-water Time	te: // If Volume	yes, Time:	Water Color Sediment De Volu	escription: me: Temperature	gal. DTW @ Sal	ORP	
Sample Time/Da Approx. Flow Rat Did well de-water Time	te: // If Volume	pH	Water Color Sediment De Volu Conductivity (µmhos/cm - µS)	escription: me: Temperature (C / P	gal. DTW @ Sal	ORP	
Sample Time/Da Approx. Flow Rat Did well de-water Time (2400 hr.)	te: // If Volume (gal.)	pH	Water Color Sediment De Volun Conductivity (µmhos/cm - µS)	escription: me: Temperature (C / P)	gal. DTW @ Sal	ORP (mV)	
Sample Time/Da Approx. Flow Rat Did well de-water Time	te: // If Volume (gal.) (#) CONTAINER	pH REFRIG.	Water Color Sediment De Volus Conductivity (µmhos/cm - µS)	escription: me: Temperature (C / P) FORMATION LABORATORY	gal. DTW @ Sal	ORP (mV)	
Sample Time/Da Approx. Flow Rai Did well de-water Time (2400 hr.)	te: // If Volume (gal.)	pH	Water Color Sediment De Volun Conductivity (µmhos/cm - µS) ABORATORY IN PRESERV. TYPE HCL	escription: me: Temperature (C / P) IFORMATION LABORATORY LANCASTER	gal. DTW @ Sal	ORP (mV)	
Sample Time/Da Approx. Flow Rai Did well de-water Time (2400 hr.)	te: // If Volume (gal.) (#) CONTAINER x voa vial	pH REFRIG. YES	Water Color Sediment De Volus Conductivity (µmhos/cm - µS)	ESCRIPTION: Temperature (C / P) FORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L) NWTPH-Gx/BTEX(8	ORP (mV)	
Sample Time/Da Approx. Flow Rai Did well de-water Time (2400 hr.)	te: Volume (gal.) (#) CONTAINER x voa vial x 1 liter ambers	pH REFRIG. YES YES	Water Color Sediment De Volu Conductivity (µmhos/cm - µS) ABORATORY IN PRESERV. TYPE HCL HCL	escription: me: Temperature (C / P) IFORMATION LABORATORY LANCASTER	gal. DTW @ Sal	ORP (mV)	
Sample Time/Da Approx. Flow Rat Did well de-water Time (2400 hr.)	te: Volume (gal.) (#) CONTAINER x voa vial x 1 liter ambers x 250ml poly	pH REFRIG. YES YES	Water Color Sediment De Volu Conductivity (µmhos/cm - µS) ABORATORY IN PRESERV. TYPE HCL HCL	ESCRIPTION: Temperature (C / P) FORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L) NWTPH-Gx/BTEX(8	ORP (mV)	
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Sample Time/Da Approx. Flow Rai Did well de-water Time (2400 hr.) SAMPLE ID MW-	te: Volume (gal.) (#) CONTAINER x voa vial x 1 liter ambers x 250ml poly	pH REFRIG. YES YES	Water Color Sediment De Volu Conductivity (µmhos/cm - µS) ABORATORY IN PRESERV. TYPE HCL HCL	ESCRIPTION: Temperature (C / P) FORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L) NWTPH-Gx/BTEX(8	ORP (mV)	
Sample Time/Da Approx. Flow Rai Did well de-water Time (2400 hr.) SAMPLE ID MW-	te: Volume (gal.) (#) CONTAINER x voa vial x 1 liter ambers x 250ml poly	pH REFRIG. YES YES	Water Color Sediment De Volu Conductivity (µmhos/cm - µS) ABORATORY IN PRESERV. TYPE HCL HCL	ESCRIPTION: Temperature (C / P) FORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L) NWTPH-Gx/BTEX(8	ORP (mV)	
Sample Time/Da Approx. Flow Rai Did well de-water Time (2400 hr.) SAMPLE ID MW-	te: Volume (gal.) (#) CONTAINER x voa vial x 1 liter ambers x 250ml poly	pH REFRIG. YES YES	Water Color Sediment De Volu Conductivity (µmhos/cm - µS) ABORATORY IN PRESERV. TYPE HCL HCL	ESCRIPTION: Temperature (C / P) FORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L) NWTPH-Gx/BTEX(8	ORP (mV)	
Sample Time/Da Approx. Flow Rat Did well de-water Time (2400 hr.)	te: Volume (gal.) (#) CONTAINER x voa vial x 1 liter ambers x 250ml poly	pH REFRIG. YES YES	Water Color Sediment De Volu Conductivity (µmhos/cm - µS) ABORATORY IN PRESERV. TYPE HCL HCL	ESCRIPTION: Temperature (C / P) FORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L) NWTPH-Gx/BTEX(8	ORP (mV)	



Site Address: City: Well ID Well Diameter Total Depth Depth to Water Depth to Water v Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump/	v/ 80% Recharge	xVF	Volum Factor Check if water colum	r(VF) 4"= 0.6 nn is less then 0.5 x3 case volume =	02 1"= 0.04 = 0.17 3" 56 5"= 1.02 6"= 1.50 12" 0 ft. = Estimated Purge Volume: Time Started: Time Completed:	= 0.38 = 5.80
Well ID Well Diameter Total Depth Depth to Water Depth to Water v Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	MW-90 2 36. \$3 ft. 77. \$6 ft. 7. 9 80 v/ 80% Recharge	xVF [(Height of V s	Volum Factor Check if water column Vater Column x 0.20) ampling Equipment: isposable Bailer	Date Monitored: ie 3/4"= 0.0 r(VF) 4"= 0.0 nn is less then 0.5 x3 case volume =	02 1"= 0.04 (0.17) 3" 66 5"= 1.02 6"= 1.50 12" 60 ft. Estimated Purge Volume: Time Started: Time Completed:	= 0.38 = 5.80 — gal. (2400 hrs)
Well Diameter Total Depth Depth to Water Depth to Water v Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	MW-90 2 36. \$3 ft. 77. \$6 ft. 7. 9 80 v/ 80% Recharge	xVF [(Height of V s	Volum Factor Check if water column Vater Column x 0.20) ampling Equipment: isposable Bailer	Date Monitored: ie 3/4"= 0.0 r(VF) 4"= 0.0 nn is less then 0.5 x3 case volume =	02 1"= 0.04 = 0.17 3" 66 5"= 1.02 6"= 1.50 12" 0 ft. = Estimated Purge Volume: Time Started: Time Completed:	= 0.38 = 5.80 gal. (2400 hrs)
Well Diameter Total Depth Depth to Water Depth to Water v Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	2 36. \$3 ft. 27. \$6 ft. 7. 9 80 v/ 80% Recharge	xVF [(Height of V s	Volum Factor Check if water column Vater Column x 0.20) ampling Equipment: isposable Bailer	ine 3/4"= 0.0 r(VF) 4"= 0.0 nn is less then 0.5 x3 case volume =	02 1"= 0.04 = 0.17 3" 66 5"= 1.02 6"= 1.50 12" 0 ft. = Estimated Purge Volume: Time Started: Time Completed:	= 0.38 = 5.80 gal. (2400 hrs)
Total Depth Depth to Water Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	2 36. \$3 ft. 27. \$6 ft. 7. 9 80 v/ 80% Recharge	xVF [(Height of V s	Volum Factor Check if water column Vater Column x 0.20) ampling Equipment: isposable Bailer	ine 3/4"= 0.0 r(VF) 4"= 0.0 nn is less then 0.5 x3 case volume =	02 1"= 0.04 = 0.17 3" 66 5"= 1.02 6"= 1.50 12" 0 ft. = Estimated Purge Volume: Time Started: Time Completed:	= 0.38 = 5.80 gal. (2400 hrs)
Depth to Water v Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	7.98 7.98 v/80% Recharge	xVF [(Height of V s	Factor Check if water column	r(VF) 4"= 0.6 nn is less then 0.5 x3 case volume =	66 5"= 1.02 6"= 1.50 12" Oft. = Estimated Purge Volume: Time Started: Time Completed:	= 5.80 —gal. (2400 hrs)
Depth to Water v Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	7.98 7.98 v/80% Recharge	xVF [(Height of V s	Check if water column Vater Column x 0.20) ampling Equipment: isposable Bailer	nn is less then 0.5 x3 case volume =	Oft. = Estimated Purge Volume: Time Started: Time Completed:	gal(2400 hrs)
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	7. 9 80 v/ 80% Recharge	xVF [(Height of V S D P	Nater Column x 0.20) ampling Equipment: isposable Bailer	x3 case volume : + DTW]:	Time Started: Time Completed:	(2400 hrs)
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	v/ 80% Recharge	[(Height of V S D	Vater Column x 0.20) ampling Equipment: isposable Bailer	+ DTW]:	Time Started: Time Completed:	(2400 hrs)
Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump	· · · · · · · · · · · · · · · · · · ·	s D P	ampling Equipment: isposable Bailer	•	Time Completed:	
Disposable Bailer Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump		D	isposable Bailer	• •		(2400 hrs
Stainless Steel Bailer Stack Pump Suction Pump Grundfos Peristaltic Pump		. P	•			
Stack Pump Suction Pump Grundfos Peristaltic Pump			ressure Bailer	X	Depth to Product: Depth to Water:	ft
Suction Pump Grundfos Peristaltic Pump		M	LC93GIE DBIICI		Hydrocarbon Thickness:	<u> </u>
Grundfos Peristaltic Pump			etal Filters		Visual Confirmation/Des	
Peristaltic Pump		. P	eristaltic Pump			on puon.
			ED Bladder Pump		Skimmer / Absorbant So	ck (circle one)
CIED Bisager Samb	· 	0	ther:		Amt Removed from Skin	nmer:gal
Other: NO 1	LIFE				Amt Removed from Well	
Other: NO K	vere		•	-	Water Removed: Product Transferred to:	gal
Time (2400 hr.)	Volume (gal.)	рН (6.7Ц	Conditionly (printed-circ ps)	Temperature F)	D.O. ORP (mg/L) (mV)	
						 .
SAMPLE ID	(4) CONTAINED T	Į.	ABORATORY IN			
MW- (2)	(#) CONTAINER 27 × voa viai	REFRIG. YES	PRESERV. TYPE	LABORATORY	ANALYSES	
	2 x 1 liter ambers	YES	HCL HCL	LANCASTER LANCASTER	NWTPH-Gx/BTEX(8021)	
	x 250ml poly	YES	HNO3	LANCASTER	NWTPH-Dx w/sgc TOTAL LEAD (6020)	
		· · · · ·	711100	DINOROTER	TOTAL LEAD (8020)	
						
				. ن		
COMMENTS:						
COMMENTS:					,	
COMMENTS: _	 	-		· ·		



Site Address: 1225 N. 45Th Street Event Date: City: Seattle, WA Sampler: 1.1. Well ID MW-4 Date Monitored: 1.1. Well ID MW-4 Date Monitored: 1.1. Well Diameter 2 Volume 3/4"= 0.02 1"= 0.04 (2"= 0.17) Total Depth 1.1.1 Eactor (VF) 4"= 0.66 5"= 1.02 6"= 1.51 Depth to Water 1.1.1 Check if water column is less the 0.50 ft. (3.35 xVF) = x3 case volume = Estimated Purge Volume Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): Time Started: Time Completed Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): Time Started: Time Completed Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): Time Started: Time Completed Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): Time Started: Time Completed Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): Time Started: Time Completed Depth to Water w/ 80% Recharge ((Height of Water Colorinate Column x 0.20) + DTW]: Time Started: Time Completed Depth to Water w/ 80% Recharge ((Height of Water Colorinate Column x 0.20) + DTW]: Time Started: Time Completed Depth to Water w/ 80% Recharge ((Height of Water Colorinate Column x 0.20) + DTW]: Time Started: Time Completed Depth to Water Colorinate Column x 0.20) + DTW]: Time Started: Time Completed Depth to Water Colorinate Column x 0.20) + DTW]: Time Started: Time Completed Colorinate Colorina	3'= 0.38
Well ID MW-4 Date Monitored: Well Diameter Z Total Depth Depth to Water Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): Sampling Equipment: Disposable Bailer Disposable Bailer Disposable Bailer Stack Pump Metal Filters Wetl Bailer Depth to Water Disposable Bailer Depth to Water. Hydrocarbon This Visual Confirmation Suction Pump Grundfos QED Bladder Pump Other: Start Time (purge): Sample Time/Date: Approx. Flow Rate: gpm. Date Monitored: Volume Saff=0.02 Factor (VF) 4*=0.06 5*=1.02 Factor (VF) 4*=0.06 5*=1.02 Factor (VF) 4*=0.06 Factor (gal. gal. (2400 hr. (2400 hr. (2400 hr. ft. ft. kness: ft. cn/Description: cant Sock (circle one) m Skimmer: ga m Well: gal
Volume 3/4"= 0.02 1"= 0.04 2"= 0.15 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04	3'= 0.38 12"= 5.80 gal. (2400 hm (2400 hm (2400 hm fit fit kness: fit pn/Description: pant Sock (circle one) m Skimmer: ga m Well: gal
Volume 3/4"= 0.02 1"= 0.04 2"= 0.15 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04 1"= 0.04 1"= 0.04 1"= 0.04 1"= 0.05 1"= 0.04	3'= 0.38 12"= 5.80 gal. (2400 hm (2400 hm (2400 hm fit fit kness: fit pn/Description: pant Sock (circle one) m Skimmer: ga m Well: gal
Total Depth Volume Factor (VF) 4"= 0.02 1"= 0.04 2"= 0.15 Depth to Water 27.77 ft. Check if water column is less then 0.50 ft. C. 36 xVF = x3 case volume = Estimated Purge Volume Completed Check if water with the column is less than 0.50 ft. C. 36 xVF = x3 case volume = Estimated Purge Volume Check if water with the column x 0.20) + DTW]: Time Started: Time Completed Check if water with the column x 0.20) + DTW]: Time Started: Time Completed Check if water with the column x 0.20) + DTW]: Time Started: Time Completed Check if water water with the column x 0.20) + DTW]: Time Started: Time Completed Check if water water water with the column x 0.20) + DTW]: Time Started: Time Completed Check if water wate	gal. (2400 hr. (2400 hr. (2400 hr. fither series fron/Description: ant Sock (circle one) m Skimmer: ga m Well: ga
Depth to Water 6.36 xVF = x3 case volume = Estimated Purge Volume Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: Time Started: Time Completed	gal. (2400 hr (2400 hr (2400 hr fit kness: fit pn/Description: pant Sock (circle one) m Skimmer: ga m Well: ga
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: Time Started: Time Completed Depth to Product Depth to Water: Disposable Bailer	(2400 hr (2400 hr (2400 hr (2400 hr file kness: fr pr/Description: pant Sock (circle one) m Skimmer: ga m Well: ga
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: Time Started: Time Completed Depth to Product Depth to Product Depth to Water: Hydrocarbon This Visual Confirmation Peristaltic Pump Peristaltic Pump Stundfos QED Bladder Pump Other: Amt Removed frow Product Transfer Product Transfer	(2400 hr (2400 hr (2400 hr (2400 hr file kness: fr pr/Description: pant Sock (circle one) m Skimmer: ga m Well: ga
Purge Equipment: Disposable Bailer Depth to Product Tonfirmation Disposable Bailer Depth to Product Confirmation Disposable Bailer Disposable Bailer Disposable Bailer Depth to Product Confirmation Disposable Bailer Disposable Bailer Disposable Bailer Disposable Bailer Disposable Bailer Depth to Product Confirmation Disposable Bailer D	(2400 h f kness: fi kness: fi cn/Description: ant Sock (circle one) m Skimmer: ga m Well: gal
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Disposable Bailer Depth to Water: Hydrocarbon Thiv Visual Confirmation Disposable Bailer Disposable Ba	kness:fi kness:fi pn/Description: ant Sock (circle one) m Skimmer: ga m Well: gal
Stainless Steel Bailer Stack Pump Metal Filters Suction Pump Brundfos Peristaltic Pump Other: DED Bladder Pump Other: DET Blad	kness:fl pn/Description: ant Sock (circle one) m Skimmer: ga m Well: ga
Stack Pump Suction Pump Peristaltic Pump Grundfos Peristaltic Pump Other: Start Time (purge): Cample Time/Date: Start Time (purge): Sepport And Sepport Seppor	on/Description: ant Sock (circle one) m Skimmer: ga m Well: ga
Suction Pump Peristaltic Pump Grundfos QED Bladder Pump Other: Amt Removed fro Water Removed: Product Transfer Start Time (purge): Cample Time/Date: Approx. Flow Rate: Sediment Description: Visual Confirmation Visual Confirmation Skimmer / Absorb Amt Removed fro Water Removed: Product Transfer Water Color: Sediment Description: Visual Confirmation Skimmer / Absorb Amt Removed fro Water Removed: Product Transfer Water Color: Sediment Description: Visual Confirmation Skimmer / Absorb Amt Removed fro Water Removed: Product Transfer Sediment Description: Visual Confirmation Skimmer / Absorb Amt Removed fro Water Removed: Product Transfer Sediment Description: Visual Confirmation Skimmer / Absorb Amt Removed fro Water Removed: Product Transfer	nant Sock (circle one) m Skimmer: ga m Well: ga
Skimmer / Absordance	m Skimmer: ga m Well: ga gal
Ceristaltic Pump Other: Amt Removed fro Amt Removed fro Water Removed: Product Transfer Start Time (purge): Cample Time/Date: Approx. Flow Rate: Start Time (purge): Start	m Skimmer: ga m Well: ga gal
Amt Removed from Water Removed: Product Transfer Water Conditions: Description: Amt Removed from Water Removed: Product Transfer Water Color: Description: Note: Sediment Description: Note:	m Well:ga
Water Removed: Product Transfer Start Time (purge): Sample Time/Date: Approx. Flow Rate: Sediment Description: Water Removed: Product Transfer Water Conditions: Water Color: Sediment Description: Water Removed: Product Transfer Water Conditions: Sediment Description:	gal
Start Time (purge):	
Start Time (purge): 4918 Weather Conditions: Description Water Color: 4918 Water Color: 4918 Odor: Y IN Sediment Description: Nove	ed to:
Time Volume pH Conductivity Temperature D.O. (2400 hr.) (gal.) pH (pmhos/cm pS) (C F) (mg/L)	ORP (mV)
689 422 15.6	<u>. </u>
	· · ·
LABORATORY INFORMATION	<u> </u>
	YSES
MW-0 2 x voa vial YES HCL LANCASTER NWTPH-Gx/BTEX(8021)	
2x 1 liter ambers YES HCL LANCASTER NWTPH-Dx w/sgc	
x 250ml poly YES HNO3 LANCASTER TOTAL LEAD (6020)	
	: :
OMMENTS:	
	
Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:	,



Client/Facility#:	Chevron #209	335	Job Number	386750	•
Site Address:	1225 N. 45Th S	treet	Event Date:	16.17.1	(inclusive)
City:	Seattle, WA		Sampler:	- 4,77	(inclusive)
			campion.	1`1	· · · · · · · · · · · · · · · · · · ·
Well ID	MW-10		Date Monitored		
Well Diameter	2		Date Worldored	LO 17.	
Total Depth	44.49 ft.	·	Volume 3/4"= 0.		
Depth to Water	37.78 ft	Choose success	Factor (VF) 4"= 0.		0 : 12"= 5.80
pebril to AASTEL		- .	column is less then 0.5		
Donth to Motor	7.71 x\	/F==	x3 case volume	= Estimated Purge Volume	: gal.
Depth to water	w/ ou% Recharge ((F	leight of Water Column x	0.20) + DTWJ:	Time Started:	(2400 hrs
Purge Equipment:		Sampling Equip	mont	Time Completed	(2400 hrs
Disposable Bailer		Disposable Baile		Depth to Product	
Stainless Steel Baile	r ———	Pressure Bailer		Depth to Water:	
Stack Pump	 ,	Metal Filters		Hydrocarbon Thi	
Suction Pump	 .	Peristaltic Pump	 	Visual Confirmat	on/Description:
Grundfos		QED Bladder Pur	TIO	Skimmor/ About	pant Sock (circle one)
Peristaltic Pump		Other:_		Amt Removed for	
QED Bladder Pump	Λ 			Amt Removed fro	om Skimmer: gal om Well: gal
Other:	SUDE	•	•	Water Removed:	gal
• • • • • • • • • • • • • • • • • • • •				Product Transfer	red to:
Did well de-water Time (2400 hr.)	Volume (gal.)	pH Conduction (µmhos/cm-)		gal. DTW @ Sampli D.O. (mg/L)	ng: <u>37.79</u> ORP (mV)
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	·	· · ·			
SAMPLE ID /	(#) CONTAINER R		RYINFORMATION		
MW- IO	2 x voa viai	YES HCL			LYSES
- · · · · · · · · · · · · · · · · · · ·	x 1 liter ambers	YES HCL	LANCASTER	NWTPH-Gx/BTEX(8021)	
 	x 250ml poly	YES HNO3	LANCASTER	TOTAL LEAD (6020)	
		11100	DATOASTER	TOTAL LEAD (6020)	 ,
				 	
					
COMMENTS:					· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·		<u> </u>	
					
				· · · · · · · · · · · · · · · · · · ·	
Add/Replaced L	ock:	Add/Replaced Plu	ıg:	Add/Replaced Bolt:	

Chevron Northwest Region Analysis Request/Chain of Custody

eurotins	Lancaster Laboratories		A	cct.#	•	· · ·	· · ·	Group	p#	urofin: ons on i			Sa	imple	#			·	<u></u>				- '.''			
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Facility # SS#209335-ON	IL G-R#386750	WBS							1			Ī	1	Ī.		Ī	T	:			}	S	CR #:			 -
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	SAICRO		ultan Ruth			liment	Ground Surface			Naphth				Z	e e		Method				 	_	Must med	et lowest	detection	-
Consultant/Office Gettler-Ryan, In	с., 6747 Sierra Сс	ourt, Suite	J; Dublir	i, CĄ	945	9	ਲ ਲ		iner	8260			:	eanu	<u>ខ</u> ្លី :			'.'				ļ. 	compoun	ds .		
Consultant Project Mgr. Deanna L. Hard	ling, (deanna@gri	nc.com); (925) 551	-744	4 x1	SO			Containers	Ø		ates		a Gel Cleanup	without Silica Gel Cleanup	EPH [Diss.				:		8021 MŢI Confirm N	ATBE + N	laphthale	
Consultant Phone # (425) 482-3328							Potable NPDES	\ <u>\</u>	er of	8021		Oxygenates	-	with Silica	thout S	WA	otal		•				Confirm a	III hits by	•	··
Sampler			ME	<u> </u>	Composite				Number	į	8260 full scan				H-Dx w	T.	Tot						Run		on all hits	
Sample Identification	, :	Coll	ected Time	Grab	mo	Soil	Water	Ī≅	Total	BTEX	260 ft		NWTPH-GX	NWTPH-Dx	NWTPH-Dx	WA VPH	ead		:-			(6)	· · ·	Remar	ko	
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Attachment B: Laboratory Analysis Report 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Chevron 6001 Bollinger Canyon Road L4310 San Ramon CA 94583

October 31, 2013

Project: 209335

Submittal Date: 10/19/2013 Group Number: 1427715 PO Number: 0015119898 Release Number: SHRILL HOPKINS State of Sample Origin: WA

Client Sample Description	Lancaster Labs (LL) #
QA Water	7244131
MW-6 Grab Groundwater	7244132
MW-8 Grab Groundwater	7244133
MW-9 Grab Groundwater	7244134
MW-10 Grab Groundwater	7244135

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

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC	SAIC	Attn: Jamalyn Green
COPY TO ELECTRONIC	SAIC	Attn: Ruth Otteman

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

Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



Lancaster Laboratories Environmental

Analysis Report

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

Sample Description: QA Water

Facility# 209335 Job# 386750

1225 N. 45th Street - Seattle, WA

LL Sample # WW 7244131

LL Group # 1427715 Account # 11260

Project Name: 209335

Collected: 10/17/2013

Chevron

6001 Bollinger Canyon Road

Reported: 10/31/2013 15:21

Submitted: 10/19/2013 11:20

San Ramon CA 94583

45SQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor	
GC Vo	latiles ECY	97-602 NWTPH-Gx	ug/l	ug/l		
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1	
GC Vo	latiles SW-8	46 8021B	ug/l	ug/l		
02102	Benzene	71-43-2	N.D.	0.5	1	
02102	Ethylbenzene	100-41-4	N.D.	0.5	1	
02102	Toluene	108-88-3	N.D.	0.5	1	
02102	Total Xylenes	1330-20-7	N.D.	1.5	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH- Gx	1	13297A53A	10/24/2013	23:59	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13297A53A	10/24/2013	23:59	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13297A53A	10/24/2013	23:59	Catherine J Schwarz	1



Analysis Report

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

Sample Description: MW-6 Grab Groundwater

 LL Group # 1427715 Account # 11260

LL Sample # WW 7244132

Project Name: 209335

Collected: 10/17/2013 10:00

by JP

Chevron

6001 Bollinger Canyon Road

L4310

Submitted: 10/19/2013 11:20 Reported: 10/31/2013 15:21

San Ramon CA 94583

45S06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Vo	latiles ECY 97-6	02 NWTPH-Gx	ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Vo	latiles SW-846 8	3021B	ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Pe	troleum ECY 97-6	02 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si modified	i			
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The	reverse surrogate, capric acid,	is present at <	1%.		
Metal	s SW-846	5020	ug/l	ug/l	
06035	Lead	7439-92-1	0.33	0.085	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH- Gx	1	13297A53A	10/25/2013	01:19	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13297A53A	10/25/2013	01:19	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13297A53A	10/25/2013	01:19	Catherine J Schwarz	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH- Dx modified	1	133010034A	10/31/2013	11:53	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH- Dx 06/97	1	133010034A	10/29/2013	11:40	Kelli M Barto	1
06035	Lead	SW-846 6020	1	132986050006A	10/27/2013	19:38	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132986050006	10/27/2013	10:00	James L Mertz	1



Lancaster Laboratories Environmental

Analysis Report

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

Sample Description: MW-8 Grab Groundwater

 LL Sample # WW 7244133 LL Group # 1427715

Account # 11260

Project Name: 209335

Collected: 10/17/2013 10:30

Submitted: 10/19/2013 11:20

Reported: 10/31/2013 15:21

by JP

Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

45S08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Vo	latiles ECY 97-	602 NWTPH-Gx	ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Vo	latiles SW-846	8021B	ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Pe	troleum ECY 97-	602 NWTPH-Dx	ug/l	ug/l	
Hydro	carbons w/Si modifie	d			
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
12005	HRO C24-C40 w/Si Gel	n.a.	N.D.	68	1
The	reverse surrogate, capric acid	, is present at <	:1%.		
Metal	SW-846	6020	ug/l	ug/l	
06035	Lead	7439-92-1	0.36	0.085	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH- Gx	1	13297A53A	10/25/2013	01:46	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13297A53A	10/25/2013	01:46	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13297A53A	10/25/2013	01:46	Catherine J Schwarz	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH- Dx modified	1	133010034A	10/31/2013	12:15	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH- Dx 06/97	1	133010034A	10/29/2013	11:40	Kelli M Barto	1
06035	Lead	SW-846 6020	1	132986050006A	10/27/2013	18:52	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132986050006	10/27/2013	10:00	James L Mertz	1



Analysis Report

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

Sample Description: MW-9 Grab Groundwater

 LL Sample # WW 7244134

LL Group # 1427715 Account # 11260

Project Name: 209335

Collected: 10/17/2013 09:46

Submitted: 10/19/2013 11:20

Reported: 10/31/2013 15:21

by JP

Chevron

6001 Bollinger Canyon Road

L4310

San Ramon CA 94583

45S09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Vol	atiles ECY 97-60	2 NWTPH-Gx	ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
GC Vol	atiles SW-846 80	21B	ug/l	ug/l	
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
GC Pet	roleum ECY 97-60	2 NWTPH-Dx	ug/l	ug/l	
Hydroc	arbons w/Si modified				
12005	DRO C12-C24 w/Si Gel	n.a.	N.D.	29	1
	HRO C24-C40 w/Si Gel	n.a.	N.D.	67	1
The r	reverse surrogate, capric acid, i	s present at <	1%.		
Metals	SW-846 60	20	ug/l	ug/l	
06035	Lead	7439-92-1	0.34	0.085	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.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
08274	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH- Gx	1	13297A53A	10/25/2013	02:13	Catherine J Schwarz	1
02102	Method 8021 Water Master	SW-846 8021B	1	13297A53A	10/25/2013	02:13	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	13297A53A	10/25/2013	02:13	Catherine J Schwarz	1
12005	NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH- Dx modified	1	133010034A	10/31/2013	12:38	Christine E Dolman	1
12007	NW Dx water w/ 10g column	ECY 97-602 NWTPH- Dx 06/97	1	133010034A	10/29/2013	11:40	Kelli M Barto	1
06035	Lead	SW-846 6020	1	132986050006A	10/27/2013	19:40	Choon Y Tian	1
06050	ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132986050006	10/27/2013	10:00	James L Mertz	1



Lancaster Laboratories Environmental

Analysis Report

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

Sample Description: MW-10 Grab Groundwater

 LL Group # 1427715 Account # 11260

LL Sample # WW 7244135

Project Name: 209335

Collected: 10/17/2013 09:10

by JP

Chevron

6001 Bollinger Canyon Road

Submitted: 10/19/2013 11:20

L4310

San Ramon CA 94583

Reported: 10/31/2013 15:21

45S10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
C Vola	atiles ECY 97-6	02 NWTPH-Gx	ug/l	ug/l	
08274	NWTPH-Gx water C7-C12	n.a.	N.D.	50	1
C Vola	atiles SW-846 8	021B	ug/l	ug/l	
02102 H	Benzene	71-43-2	N.D.	0.5	1
02102 H	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
C Petr	roleum ECY 97-6	02 NWTPH-Dx	ug/l	ug/l	
ydroca	arbons w/Si modified				
12005 I	DRO C12-C24 w/Si Gel	n.a.	N.D.	28	1
12005 H	HRO C24-C40 w/Si Gel	n.a.	N.D.	66	1
The re	everse surrogate, capric acid,	is present at <	1%.		
letals	SW-846 6	020	ug/l	ug/l	
06035 1	Lead	7439-92-1	0.34	0.085	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	

Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution
NWTPH-Gx water C7-C12	ECY 97-602 NWTPH- Gx	1	13297A53A	10/25/2013	02:39	Catherine J Schwarz	1
Method 8021 Water Master	SW-846 8021B	1	13297A53A	10/25/2013	02:39	Catherine J Schwarz	1
GC VOA Water Prep	SW-846 5030B	1	13297A53A	10/25/2013	02:39	Catherine J Schwarz	1
NWTPH-Dx water w/ 10g Si Gel	ECY 97-602 NWTPH- Dx modified	1	133010034A	10/31/2013	13:00	Christine E Dolman	1
NW Dx water w/ 10g column	ECY 97-602 NWTPH- Dx 06/97	1	133010034A	10/29/2013	11:40	Kelli M Barto	1
Lead	SW-846 6020	1	132986050006A	10/27/2013	19:42	Choon Y Tian	1
ICP/MS SW-846 Water Digest	SW-846 3010A modified	1	132986050006	10/27/2013	10:00	James L Mertz	1
	NWTPH-Gx water C7-C12 Method 8021 Water Master GC VOA Water Prep NWTPH-Dx water w/ 10g Si Gel NW Dx water w/ 10g column Lead ICP/MS SW-846 Water	### NWTPH-Gx water C7-C12	NWTPH-Gx water C7-C12	NWTPH-Gx water C7-C12	Analysis Name NWTPH-Gx water C7-C12 ECY 97-602 NWTPH- 1 13297A53A 10/25/2013 Gx Method 8021 Water Master SW-846 8021B 1 13297A53A 10/25/2013 GC VOA Water Prep SW-846 5030B 1 13297A53A 10/25/2013 NWTPH-Dx water w/ 10g Si ECY 97-602 NWTPH- 1 133010034A 10/31/2013 Gel Dx modified NW Dx water w/ 10g column ECY 97-602 NWTPH- 1 133010034A 10/29/2013 Lead SW-846 6020 1 132986050006A 10/27/2013 ICP/MS SW-846 Water SW-846 3010A 1 132986050006A 10/27/2013	Analysis Name NWTPH-Gx water C7-C12 ECY 97-602 NWTPH- Gx Method 8021 Water Master SW-846 8021B 1 13297A53A 10/25/2013 02:39 GC VOA Water Prep SW-846 5030B 1 13297A53A 10/25/2013 02:39 NWTPH-Dx water w/ 10g Si Gel NW Dx water w/ 10g column Dx modified NW Dx water w/ 10g column ECY 97-602 NWTPH- Dx 06/97 Lead SW-846 6020 1 132986050006A 10/27/2013 19:42 ICP/MS SW-846 Water SW-846 3010A 1 132986050006 1 10/27/2013 19:42	Analysis Name NWTPH-Gx water C7-C12 ECY 97-602 NWTPH- 1 13297A53A 10/25/2013 02:39 Catherine J Schwarz Method 8021 Water Master SW-846 8021B 1 13297A53A 10/25/2013 02:39 Catherine J Schwarz GC VOA Water Prep SW-846 5030B 1 13297A53A 10/25/2013 02:39 Catherine J Schwarz NWTPH-Dx water w/ 10g Si ECY 97-602 NWTPH- 1 133010034A 10/25/2013 13:00 Christine E Dolman Gel NW Dx water w/ 10g column ECY 97-602 NWTPH- 1 133010034A 10/29/2013 11:40 Kelli M Barto Dx 06/97 Lead SW-846 6020 1 132986050006A 10/27/2013 19:42 Choon Y Tian ICP/MS SW-846 Water SW-846 3010A 1 1329860500066 10/27/2013 10:00 James L Mertz

Analysis Report

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Quality Control Summary

Client Name: Chevron

Group Number: 1427715

Reported: 10/31/13 at 03:21 PM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank MDL	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 13297A53A	Sample num	ber(s): 72	44131-7244	135				
Benzene	N.D.	0.2	ug/l	97	93	80-120	4	30
Ethylbenzene	N.D.	0.2	ug/l	98	95	80-120	4	30
NWTPH-Gx water C7-C12	N.D.	50.	ug/l	99	103	75-135	5	30
Toluene	N.D.	0.2	ug/l	98	95	80-120	3	30
Total Xylenes	N.D.	0.6	ug/l	102	99	80-120	4	30
Batch number: 133010034A	Sample num	ber(s): 72	44132-7244	135				
DRO C12-C24 w/Si Gel	N.D.	30.	ug/l	63	61	32-117	3	20
HRO C24-C40 w/Si Gel	N.D.	70.	ug/l					
Batch number: 132986050006A	Sample num	ber(s): 72	44132-7244	135				
Lead	N.D.	0.085	ug/l	104		90-110		

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	MAX	BKG Conc	Conc	RPD	Dup RPD
Batch number: 132986050006A Lead	Sample	number(s): 7244132 89-120	-72441 1	35 UNSI 20	PK: 7244133 0.36	0.35	3 5 (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: Method 8021 Water Master

Batch number: 13297A53A Trifluorotoluene-P

7244131	79	72
7244132	79	72
7244133	79	79
7244134	80	74
7244135	79	69

*- Outside of specification

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

Trifluorotoluene-F

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

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Analysis Report

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Quality Control Summary

Client Name: Chevron

Group Number: 1427715

Reported: 10/31/13 at 03:21 PM

Surrogate Quality Control

Blank 75 LCS LCSD 79 79

Limits: 51-120 63-135

Analysis Name: NWTPH-Dx water w/ 10g Si Gel Batch number: 133010034A $\,$

Orthoterphenyl

Limits:

^{*-} 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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Consultant Project Mgr. Deanna L. Hardir	ng, (deanna@g	rinc.	com), (925) 5 51	-744	4 x1	ю		┚	ı liğ	Ø	1	ates		NWTPH-Dx with Silica Gel Cleanup	NWTPH-Dx without Silica Gel	표	Dise					Сог	nfirm MTBE nfirm highes	+ Napl	hthalene
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Lancaster Laboratories Environmental

Explanation of Symbols and Abbreviations

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

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TŅŢĊ	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	· ib.	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
- 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
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	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
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
, P.	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
Y,Z	Defined in case narrative		

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.

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