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First Semi-Annual 2017 Groundwater Monitoring Report

Former Chevron-branded Service Station 92029 890 West MacArthur Boulevard Oakland, California Case #: RO0002438



Prepared for: Chevron Environmental Management Company 6001 Bollinger Canyon Road San Ramon, CA 94583

Prepared by: Stantec Consulting Services Inc. 15575 Los Gatos Blvd., Building C Los Gatos, CA 95032

August 4, 2017



August 4, 2017

Mr. Mark Detterman Alameda County Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Dear Mr. Detterman:

Attached for your review is the *First Semi-Annual 2017 Groundwater Monitoring Report* for former Chevronbranded service station 92029, located at 890 West MacArthur Boulevard in Oakland, California (**Case #:** RO0002438). This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I have read and acknowledge the content, recommendations, and/or conclusions contained in the attached report submitted on my behalf to Alameda County Department of Environmental Health's FTP server and the State Water Resources Control Board's GeoTracker[™] Website.

If you should have any further questions, please do not hesitate to contact me or the Stantec project manager, Travis Flora, at (408) 356-6124 ext. 238, or travis.flora@stantec.com.

Sincerely,

acheoc

Carryl MacLeod Project Manager

Chevron Environmental Management Company 6001 Bollinger Canyon Road, San Ramon, CA 94583 Tel 925 842 3201 CarrylMacLeod@chevron.com



August 4, 2017

Attention:Mr. Mark Detterman
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502Reference:First Semi-Annual 2017 Groundwater Monitoring Report
Former Chevron-branded Service Station 92029
890 West MacArthur Boulevard, Oakland, California

Case #: RO0002438

Dear Mr. Detterman:

On behalf of Chevron Environmental Management Company (CEMC), Stantec Consulting Services Inc. (Stantec) is pleased to submit the *First Semi-Annual 2017 Groundwater Monitoring Report* for former Chevron-branded service station 92029, located at 890 West MacArthur Boulevard, Oakland, Alameda County, California (Site - shown on **Figure 1**). This report is presented in three sections: Site Background, First Semi-Annual 2017 Groundwater Monitoring and Sampling Program, and Conclusions and Recommendations.

SITE BACKGROUND

The Site is a former Chevron-branded service station located on the northeast corner at the intersection of West MacArthur Boulevard and Market Street in Oakland, California. The Site is currently a fenced vacant lot. A former Chevron-branded service station operated at the Site from approximately 1956 to 2004. Prior to 1970, Site features consisted of two 5,000-gallon and one 3,000-gallon gasoline underground storage tanks (USTs) located in the eastern portion of the Site, three fuel dispenser islands (one located in the northwestern portion of the Site and two located in the central portion of the Site), associated product piping, a station building with two hydraulic hoists, and a waste oil UST (unknown size) located in the northern portion of the Site. The product piping was replaced in 1970, and the 3,000-gallon UST was replaced with a 10,000-gallon UST sometime before 1978. In 1982, the two 5,000-gallon and one 10,000-gallon USTs were replaced with three 10,000-gallon fiberglass USTs.

In 1984, the service station building was demolished, the hydraulic hoists were removed, and a kiosk was installed near the center of the Site. In addition, the three fuel dispenser islands were removed from the Site and replaced with five fuel dispenser islands (two located in the north-central portion of the Site and three located in the south-central portion of the Site). The fuel dispenser islands were replaced and the USTs were upgraded in 1997. The waste oil UST was removed from the Site sometime between 1984 and 1997. In 2005, the service station was closed and all Site structures, including the three 10,000-gallon fiberglass USTs and fuel dispenser islands, were removed. According to the *Well Installation Report*, prepared by Conestoga-Rovers & Associates (CRA) and dated November 18, 2008, extensive over-excavation was performed at this time and approximately 5,135 tons of impacted soil and 25,500 gallons of groundwater were removed and disposed off-site.

Land use near the Site consists of a mixture of commercial and residential properties. The Site is bounded to the north by a residential area, on the west by Market Street followed by a small

Former Chevron-branded Service Station 92029 August 4, 2017 Page 2 of 5

grocery store and associated parking, on the south by West MacArthur Boulevard followed by a tire sales and service shop, and to the east by a motel.

FIRST SEMI-ANNUAL 2017 GROUNDWATER MONITORING AND SAMPLING PROGRAM

Gettler-Ryan Inc. (G-R) performed the First Semi-Annual 2017 groundwater monitoring and sampling event during Second Quarter 2017 on June 29, 2017. G-R's standard operating procedures (SOPs) and field data sheets are included in **Attachment A**. G-R gauged depth-to-groundwater (DTW) in four Site wells (MW-5 through MW-8) prior to collecting groundwater samples for laboratory analysis. All four wells, which are located down-gradient of the Site, were sampled.

Investigation-derived waste (IDW) generated during the Second Quarter 2017 groundwater monitoring and sampling event was transported by Clean Harbors Environmental Services to Seaport Environmental in Redwood City, California.

Groundwater Elevation and Gradient

Well construction details and a screen interval assessment for each Site well are presented in **Table 1**. All Site wells are currently screened across the prevailing groundwater table. Current and historical groundwater elevation data are presented in **Table 2**. A groundwater elevation contour map (based on Second Quarter 2017 data) is shown on **Figure 2**. The direction of groundwater flow at the time of sampling was generally toward the southwest at an average hydraulic gradient of approximately 0.029 feet per foot (ft/ft). This is generally consistent with the historical direction of groundwater flow, as shown by the groundwater flow direction rose diagram on **Figure 3** illustrating the direction of groundwater flow from First Quarter 2002 to present.

Schedule of Laboratory Analysis

Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline range organics (TPH-GRO) using United States Environmental Protection Agency (US EPA) Method 8015B (SW-846) and benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) and methyl *tertiary*-butyl ether (MtBE) using US EPA Method 8260B (SW-846).

Groundwater Analytical Results

During Second Quarter 2017, groundwater samples were collected from four Site wells (MW-5 through MW-8). Current and historical groundwater analytical results are included in **Table 2** and **Table 3**. A figure showing the latest groundwater analytical data plotted on a Site map is included as **Figure 4**. A TPH-GRO isoconcentration map is shown on **Figure 5**. A benzene isoconcentration map is shown on **Figure 6**. A MtBE isoconcentration map is shown on **Figure 7**.

Certified laboratory analysis reports and chain-of-custody documents are presented as **Attachment B**. Hydrographs based on current and historical groundwater elevations and analytical results are included in **Attachment C**. A summary of Second Quarter 2017 groundwater analytical results are presented in the following table.

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Well ID	TPH-GRO (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L)
WQO	100	1	40	13	20	5
MW-5	1,300	0.5	<0.5	<0.5	<0.5	<0.5
MW-6	880	37	0.8	2	<0.5	13
MW-7	3,800	<3	<3	3	<3	3
MW-8	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Table Notes:

 μ g/L = micrograms per liter

WQO = water quality objective – San Francisco Bay Regional Water Quality Control Board Environmental Screening Level

< = constituent was not detected at or above the noted laboratory reporting limit

CONCLUSIONS AND RECOMMENDATIONS

Maximum petroleum hydrocarbon concentrations are currently observed in well MW-6, located down-gradient of the former service station features (fuel dispenser islands and gasoline USTs) situated in the southern and eastern portions of the Site, and in well MW-7, located approximately 95 feet down-gradient of well MW-6. TPH-GRO and benzene were also detected in well MW-5, which is located down-gradient of the former service station features (fuel dispenser islands, hydraulic hoists, and waste oil UST) situated in the northern portion of the Site. The dissolved-phase petroleum hydrocarbon plume does not extend to furthest down-gradient well MW-8, which is approximately 190 feet southwest of the Site.

Groundwater elevations in Site wells decreased by an average of approximately 3.4 feet from the historical high groundwater elevations observed during Fourth Quarter 2016, returning to levels consistent with those previously observed.

A review of the Site under the Low-Threat UST Case Closure Policy (LTCP) was conducted by the California State Water Resources Control Board (SWRCB) in March 2017. Per this review, the Site meets LTCP groundwater-specific criteria; therefore, no further groundwater monitoring and sampling activities will be conducted.

The SWRCB review concurred with the Alameda County Department of Environmental Health (ACDEH) that the Site does not meet vapor intrusion to indoor air criteria, and recommended appropriate building design requirements and engineering controls to meet these criteria be implemented and evaluation of vapor intrusion risk at off-site properties be considered, as necessary. The SWRCB indicated the case may be re-reviewed for closure once these issues are resolved. Concentrations of TPH-GRO and BTEX compounds in well MW-6 and BTEX compounds in well MW-7 decreased by one order of magnitude compared to concentrations detected in Fourth Quarter 2016. The concentrations and extent of the dissolved plume are decreasing and do not indicate the need for additional off-site groundwater or vapor sampling.

If you have any questions, please contact the Stantec Project Manager, Travis Flora, at (408) 356-6124 or <u>Travis.Flora@stantec.com.</u>

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LIMITATIONS

This document entitled First Semi-Annual 2017 Groundwater Monitoring Report was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Chevron Environmental Management Company (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by (signature)

Erin O'Malley Project Engineer

Reviewed by 🧾

Marisa Kaffenberger Senior Engineer

Reviewed by

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Travis L. Flora Senior Project Manager

Reviewed by (signature)



Dorota Runyan, P.E. Senior Engineer

Former Chevron-branded Service Station 92029 August 4, 2017 Page 5 of 5

Attachments:

Table 1 – Well Details / Screen Interval Assessment – Second Quarter 2017

Table 2 – Groundwater Monitoring Data and Analytical Results

Table 3 – Additional Groundwater Analytical Results

Figure 1 – Site Location Map

Figure 2 – Groundwater Elevation Contour Map – Second Quarter 2017

- Figure 3 Groundwater Flow Direction Rose Diagram Second Quarter 2017
- Figure 4 Site Plan Showing Groundwater Concentrations Second Quarter 2017
- Figure 5 TPH-GRO Isoconcentration Map Second Quarter 2017
- Figure 6 Benzene Isoconcentration Map Second Quarter 2017
- Figure 7 MtBE Isoconcentration Map Second Quarter 2017

Attachment A – Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – Second Quarter 2017

Attachment B – Certified Laboratory Analysis Reports and Chain-of-Custody Documents Attachment C – Hydrographs

cc:

Ms. Carryl MacLeod, Chevron Environmental Management Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583 – Electronic Copy

Mr. Itgel Buyandalai, 787 Marlesta Road, Pinole, CA 94564 – Electronic Copy

TABLES

Table 1 Well Details / Screen Interval Assessment Second Quarter 2017

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard, Oakland, California

Well ID	Date Installed	Well Type	Casing Diameter (inches)	Top of Casing (feet above msl)	Construction Well Depth (feet bgs)	Current Well Depth ¹ (feet below TOC)	Current Depth to Groundwater ¹ (feet below TOC)	Screen Interval (feet bgs)	Screen Interval Assessment
MW-5	07/24/08	Monitoring	2	49.39	25.00	24.98	8.40	5-25	Depth-to-groundwater within screen interval.
MW-6	07/24/08	Monitoring	2	49.07	25.00	24.86	8.03	5-25	Depth-to-groundwater within screen interval.
MW-7	07/24/08	Monitoring	2	48.74	25.00	24.96	9.70	5-25	Depth-to-groundwater within screen interval.
MW-8	07/24/08	Monitoring	2	47.61	25.00	25.00	12.13	5-25	Depth-to-groundwater within screen interval.
Notes:									

bgs = below ground surface

msl = mean sea level

TOC = top of casing

 1 = As measured on June 29, 2017.

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	T	E	X	MtBE
DATE	(ft.)	(ft.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5									
08/22/08 ¹	49.39	9.97	39.42						
08/27/08 ³	49.39	10.03	39.36	54	0.5	0.8	<0.5	0.7	10
11/21/08 ³	49.39	8.42	40.97	6,000	93	6	37	6	8
02/13/09 ³	49.39	7.11	42.28	5,100	31	5	20	3	6
05/08/09 ³	49.39	7.21	42.18	3,600	18	4	14	2	2
08/07/09 ³	49.39	9.60	39.79	520	0.7	<0.5	<0.5	<0.5	2
11/05/09 ³	49.39	7.08	42.31	7,400	16	5	18	4	0.9
05/06/10 ³	49.39	6.08	43.31	3,500	4	2	3	0.9	0.9
11/03/10 ⁵	49.39	9.05	40.34	5,000	13	4	8	3	0.9
05/10/11 ⁵	49.39	7.26	42.13	3,200	6	4	7	0.9	<0.5
11/10/11 ⁵	49.39	7.60	41.79	2,600	6	3	10	2	<0.5
05/11/12 ⁵	49.39	6.48	42.91	3,300	<3	<3	<3	<3	<3
11/14/12 ³	49.39	8.89	40.50	2,100	3	2	3	0.6	<0.5
05/08/13 ³	49.39	8.41	40.98	2,100	2	0.9	2	<0.5	<0.5
11/06/13 ³	49.39	9.81	39.58	160	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 ³	49.39	6.74	42.65	3,500	1	2	4	<0.5	<0.5
11/19/14	49.39	INACCESSIBL	E; FLOODED W	/ITH SURFACE WATE	R				
05/07/15 ³	49.39	7.08	42.31	2,800	1	1	2	<0.5	<0.5
12/29/15 ³	49.39	7.13	42.26	4,500	3	2	3	2	<0.5
05/18/16 ³	49.39	7.48	41.91	1,600	<0.5	<0.5	<0.5	<0.5	<0.5
12/21/16 ³	49.39	5.08	44.31	4,000	1	1	2	0.8	<0.5
06/29/17 ³	49.39	8.40	40.99	1,300	0.5	<0.5	<0.5	<0.5	<0.5
MW-6									
08/22/08 ¹	49.07	8.98	40.09						
08/27/08 ³	49.07	8.98	40.09	6,000	990	4	350	530	440
11/21/08 ³	49.07	8.12	40.95	14,000	1,000	15	1,300	550	300
02/13/09 ³	49.07	5.84	43.23	9,700	630	4	510	36	180
05/08/09 ³	49.07	5.77	43.30	7,600	240	4	470	67	38
08/07/09 ³	49.07	8.49	40.58	14,000	1,500	12	1,400	180	330
1/05/09 ³	49.07	6.72	42.35	22,000	870	8	1,300	130	160
D5/06/10 ³	49.07	4.89	44.18	5,200	110	2	160	23	9
11/03/10 ⁵	49.07	8.05	41.02	13,000	1,100	8	670	58	160
05/10/11 ^{4,5}	49.07	8.56	40.51	<50	0.6	<0.5	<0.5	<0.5	< 0.5
11/10/11 ⁵	49.07	7.59	41.48	5,700	260	7	180	13	37
	49.07	5.68	43.39	1,200	36	0.6	0.8	<0.5	1
05/11/12 ⁵	49.07	5.68	43.39	1,200	36	0.6	0.8	<0.5	

Table 2Groundwater Monitoring Data and Analytical ResultsFormer Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	T	E	X	MtBE
DATE	(ff.)	(ff.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-6 (cont)									
11/14/12 ³	49.07	9.83	39.24	6,400	290	9	180	6	36
05/08/13 ³	49.07	7.21	41.86	2,000	77	1	9	<0.5	6
11/06/13 ³	49.07	9.27	39.80	5,300	330 ⁶	3 ⁶	8 ⁶	16	78 ⁶
05/14/14 ³	49.07	6.29	42.78	5,000	140	6	46	2	10
11/19/14	49.07	INACCESSIBL	e; flooded w	ITH SURFACE WATE	R				
05/07/15 ³	49.07	7.20	41.87	3,600	19	2	7	<0.5	2
12/29/15 ³	49.07	6.21	42.86	7,700	170	4	22	1	15
05/18/16 ³	49.07	6.78	42.29	4,500	150	4	23	1	12
12/21/16 ³	49.07	4.63	44.44	7,400	410	5	57	<3	49
06/29/17 ³	49.07	8.03	41.04	880	37	0.8	2	<0.5	13
MW 7									
MW-7	48.74	10.20	38.54						
08/22/08 ¹				 <50	 <0.5	 0.6	 <0.5	 0.7	
08/27/08 ³	48.74	10.19	38.55 39.23			0.8 <0.5		0.7	6
11/21/08 ³	48.74	9.51	39.23 40.79	1,100 630	80	<0.5 <0.5	65 38		6
02/13/09 ³	48.74 48.74	7.95	40.79 40.70	630 1,200	30 83	<0.5 <0.5	38 190	0.9	7 8
05/08/09 ³		8.04		8,900				2	8 5
08/07/09 ³	48.74	9.88	38.86		240	0.7 <1	770	5	
11/05/09 ³	48.74	9.03	39.71	12,000	630		1,300	420	5
05/06/10 ³	48.74	7.88	40.86	4,000	190	<0.5	270	7	6
11/03/10 ⁵	48.74	9.48	39.26	5,700	150	0.7	45	2	4
05/10/11 ⁵	48.74	8.82	39.92	3,500	180	<0.5	150	2	5
11/10/11 ⁵	48.74	9.68	39.06	1,500	2	<0.5	2	<0.5	5
05/11/12 ⁵	48.74	8.37	40.37	9,200	440	<5	1,000	33	<5
11/14/12 ³	48.74	9.79	38.95	5,000	<3	<3	6	<3	4
05/08/13 ³	48.74	9.54	39.20	2,200 790	10	<0.5	2	<0.5	5 4
11/06/13 ³	48.74	10.60	38.14		<0.5	<0.5	< 0.5	<0.5	
05/14/14 ³	48.74	8.73	40.01	8,200	380 ⁶	<16	460 ⁶	34 ⁶	4 ⁶
11/19/14 ³	48.74	10.33	38.41	1,200	0.6	<0.5	1	<0.5	5
05/07/15 ³	48.74	9.33	39.41	5,000	24	0.8	19	1	3
12/29/15 ³	48.74	7.68	41.06	6,000	88	0.5	120	2	3
05/18/16 ³	48.74	9.00	39.74	8,000	85	<3	190	3	3
12/21/16 ³	48.74	6.83	41.91	5,800	72	0.6	160	2	2
06/29/17 ³	48.74	9.70	39.04	3,800	<3	<3	3	<3	3

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard, Oakland, California

WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	T	E	Х	MtBE
DATE	(ft.)	(ft.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-8									
08/22/08 ¹	47.61	12.41	35.20						
08/27/08 ³	47.61	12.42	35.19	<50	<0.5	0.7	<0.5	0.6	<0.5
11/21/08 ³	47.61	11.42	36.19	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
02/13/09 ³	47.61	8.87	38.74	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
05/08/09 ³	47.61	10.79	36.82	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
08/07/09 ³	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
11/05/09 ³	47.61	11.23	36.38	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
05/06/10 ³	47.61	10.28	37.33	<50	<0.5	< 0.5	<0.5	< 0.5	<0.5
11/03/10 ⁵	47.61	11.37	36.24	<50	<0.5	< 0.5	<0.5	< 0.5	< 0.5
05/10/11 ⁵	47.61	11.55	36.06	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
11/10/11 ⁵	47.61	11.49	36.12	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
05/11/12 ⁵	47.61	10.89	36.72	<50	<0.5	<0.5	<0.5	< 0.5	<0.5
11/14/12 ³	47.61	11.73	35.88	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
05/08/13 ³	47.61	12.03	35.58	<50	<0.5	<0.5	<0.5	< 0.5	<0.5
11/06/13 ³	47.61	12.63	34.98	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
05/14/14 ³	47.61	11.69	35.92	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
11/19/14 ³	47.61	12.33	35.28	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
05/07/15 ³	47.61	11.79	35.82	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/15 ³	47.61	9.58	38.03	<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/18/16 ³	47.61	11.72	35.89	<50	<0.5	< 0.5	<0.5	< 0.5	<0.5
12/21/16 ³	47.61	8.31	39.30	<50	<0.5	< 0.5	<0.5	< 0.5	< 0.5
06/29/17 ³	47.61	12.13	35.48	<50	<0.5	<0.5	<0.5	<0.5	<0.5
MW-1 03/12/02 ¹	50.71	6.50	44.21	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
06/07/02	50.71	8.69	42.02	<50	<0.50	< 0.50	<0.50	<1.5	<2.5/<2 ²
09/13/02	50.71	9.28	41.43	<50	<0.50	< 0.50	<0.50	<1.5	<2.5/<2 ²
12/13/02	50.71	8.48	42.23	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
03/01/03	50.71	7.34	43.37	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5
06/27/03 ³	50.71	9.29	41.42	<50	<0.5	0.6	<0.5	<0.5	<0.5
09/30/03 ³	50.71	10.17	40.54	<50	<0.5	0.6	<0.5	< 0.5	<0.5
12/03/03 ³	50.71	7.82	42.89	<50	<0.5	<0.5	<0.5	< 0.5	<0.5
03/10/04 ³	50.71	6.57	44.14	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 ³	50.71	9.78	40.93	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 ³	50.71	9.91	40.80	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 ³	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 ³	50.71	2.90	47.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 ³	50.71	8.59	42.12	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	т	E	Х	MtBE
DATE	(ft.)	(ff.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1 (cont)									
09/02/05 ³	50.71	9.38	41.33	<50	<0.5	<0.5	<0.5	< 0.5	<0.5
12/02/05	50.71	8.44	42.27						
03/20/06	50.71	3.05	47.66						
06/01/06	50.71	6.77	43.94						
09/11/06	50.71	9.18	41.53						
DESTROYED									
MW-2									_
03/12/02 ¹	52.57	6.09	46.48	<50	<0.50	<0.50	<0.50	<1.5	<2.5/3 ²
06/07/02	52.57	8.65	43.92	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
09/13/02	52.57	9.58	42.99	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
12/13/02	52.57	8.50	44.07	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ²
03/01/03	52.57	7.00	45.57	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<0.5 ²
06/27/03 ³	52.57	9.59	42.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03 ³	52.57	10.64	41.93	<50	<0.5	<0.5	<0.5	<0.5	0.7
12/03/03 ³	52.57	7.54	45.03	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
03/10/04 ³	52.57	6.05	46.52	<50	<0.5	<0.5	<0.5	< 0.5	< 0.5
06/30/04 ³	52.57	10.15	42.42	<50	<0.5	<0.5	<0.5	< 0.5	<0.5
09/30/04 ³	52.57	10.14	42.43	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/04 ³	52.57	2.29	50.28	<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 ³	52.57	2.44	50.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 ³	52.57	8.99	43.58	<50	<0.5	<0.5	<0.5	<0.5	< 0.5
09/02/05 ³	52.57	10.17	42.40	<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/02/05	52.57	8.99	43.58						
03/20/06	52.57	2.70	49.87						
06/01/06	51.57	6.51	45.06						
09/11/06	51.57	10.06	41.51						
DESTROYED									
MW-3									
03/12/02 ¹	50.31	6.50	43.81	12,000	600	8.5	1,100	370	700/650 ²
03/12/02	50.31	6.50 7.74	43.81 42.57	12,000	630	8.8	1,200	160	7007650 ⁻ 5207490 ²
				3,000		8.8 3.2	200		
09/13/02	50.31	9.73	40.58		270			11	600/640 ²
12/13/02	50.31	8.60	41.71	24,000	1,100	14	2,400	220	$650/540^2$
03/01/03	50.31	6.75	43.56	16,000	500	9.0	1,200	130	460/330 ²
06/27/03 ³	50.31	9.25	41.06	9,500	390	6	450	30	470
09/30/03 ³	50.31	10.31	40.00	2,000	110	1	100	3	710

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard, Oakland, California

WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	T	E	х	MtBE
DATE	(ft.)	(ft.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-3 (cont)									
12/03/03 ³	50.31	8.18	42.13	19,000	970	8	2,100	85	420
03/10/04 ³	50.31	6.10	44.21	15,000	550	6	960	95	220
06/30/04 ³	50.31	9.80	40.51	3,200	150	1	100	3	660
09/30/04 ³	50.31	10.18	40.13	1,900	66	0.8	84	4	690
12/29/04 ³	50.31	4.58	45.73	16,000	470	7	820	47	170
03/23/05 ³	50.31	5.07	45.24	18,000	380	6	960	58	140
06/22/05 ³	50.31	8.12	42.19	16,000	700	6	950	62	300
09/02/05 ³	50.31	9.41	40.90	8,400	380	4	510	41	440
12/02/05 ³	50.31	7.97	42.34	16,000	490	6	1,200	32	170
03/20/06 ³	50.31	5.32	44.99	4,200	79	0.8	2	10	34
06/01/06 ³	50.31	7.07	43.24	5,400	67	1	26	3	28
09/11/06 ³	50.31	9.07	41.24	14,000	270	5	240	38	97
DESTROYED									
MW-4									
03/12/02 ¹	49.93	5.34	44.59	9,700	360	5.3	1,100	150	170/170 ²
06/07/02	49.93	8.52	41.41	7,300	170	2.7	280	21	200/120 ²
09/13/02	49.93	9.86	40.07	5,800	92	4.5	80	14	190/160 ²
12/13/02	49.93	9.42	40.51	10,000	250	2.2	330	19	$170/200^2$
03/01/03	49.93	7.33	42.60	12,000	300	4.6	900	110	$160/100^2$
06/27/03 ³	49.93	9.62	40.31	7,500	110	2	200	58	130
09/30/03 ³	49.93	11.13	38.80	3,600	18	<]	16	7	520
12/03/03 ³	49.93	7.80	42.13	16,000	1,000	6	720	52	73
03/10/04 ³	49.93	6.69	43.24	2,200	230	3	610	71	55
06/30/04 ³	49.93	10.33	39.60	7,700	59	<]	78	17	110
09/30/04 ³	49.93	10.75	39.18	4,800	100	1	33	10	400
12/29/04 ³	49.93	3.34	46.59	13,000	250	3	480	27	42
03/23/05 ³	49.93	4.24	45.69	12,000	130	2	280	16	24
06/22/05 ³	49.93	7.95	41.98	6,400	290	2	11	11	18
09/02/05 ³	49.93	9.46	40.47	3,700	180	1	13	7	18
12/02/05 ³	49.93	7.60	42.33	11,000	840	5	480	24	34
03/20/06 ³	49.93	4.50	45.43	790	14	<0.5	1	0.6	2
06/01/06 ³	49.93	7.30	42.63	5,100	48	0.8	42	4	2
09/11/06 ³	49.93	9.38	40.55	6,700	64	3	44	3	4
DESTROYED				-,		-		-	

Table 2Groundwater Monitoring Data and Analytical ResultsFormer Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	TOC*	DTW	GWE	TPH-GRO	В	Т	E	Х	MtBE
DATE	(ft.)	(ft.)	(msl)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
RIP BLANK									
QA									
03/12/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/07/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
09/13/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
12/13/02				<50	<0.50	<0.50	<0.50	<1.5	<2.5
03/01/03				<50	<0.50	<0.50	<0.50	<1.5	<2.5
06/27/03 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/30/03 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/03/03 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/10/04 ³				<50	< 0.5	<0.5	<0.5	<0.5	<0.5
06/30/04 ³				<50	< 0.5	<0.5	<0.5	<0.5	<0.5
09/30/04 ³				<50	< 0.5	<0.7	<0.8	<0.8	<0.5
12/29/04 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/23/05 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/22/05 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/02/05 ³				<50	<0.5	14	<0.5	14	<0.5
12/02/05 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
03/20/06 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/01/06 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
09/11/06 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/27/08 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/21/085				<50	<0.5	<0.5	<0.5	<0.5	
02/13/09 ⁵				<50	<0.5	<0.5	<0.5	<0.5	
05/08/09 ⁵				<50	<0.5	<0.5	<0.5	<0.5	
08/07/09 ⁵				<50	<0.5	<0.5	<0.5	<0.5	
11/14/12 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/08/13 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/06/13 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/14/14 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/19/14 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/07/15 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/29/15 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
05/18/16 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
12/21/16 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5
06/29/17 ³				<50	<0.5	<0.5	<0.5	<0.5	<0.5

Oakland, California

EXPLANATIONS:

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories.

TOC = Top of CasingTPH-GRO = Total Petroleum Hydro(ft.) = FeetB = BenzeneDTW = Depth to WaterT = TolueneGWE = Groundwater ElevationE = Ethylbenzene(msl) = Mean sea levelX = Xylenes(µg/L) = Micrograms per literMtBE = Methyl tertiary-butyl ether

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics B = Benzene T = Toluene E = Ethylbenzene X = Xylenes MHPE = Mathud tertigny, butd other -- = Not Measured/Not Analyzed QA = Quality Assurance/Trip Blank EPA = Environmental Protection Agency

- * Current TOC elevations were surveyed on October 1, 2008, by CRA. The benchmark for this survey was a USGS bronze disk located near the north end of the curb return at the Northwest corner of 38th Street and Broadway, (Benchmark Elevation = 85.41 feet, NGVD29).
- ¹ Well development performed.
- ² MtBE by EPA Method 8260.
- ³ BTEX and MtBE by EPA Method 8260.
- ⁴ Laboratory confirmed analytical result.
- ⁵ BTEX by EPA Method 8260.
- ⁶ Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	ETHANOL	TBA	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-5								
08/27/08		2	<0.5	<0.5	<0.5			
11/21/08		4	<0.5	<0.5	<0.5			
02/13/09		3	<0.5	<0.5	<0.5			
05/08/09		7	<0.5	<0.5	<0.5			
08/07/09		<2	<0.5	<0.5	<0.5			
11/05/09		2	<0.5	<0.5	<0.5			
05/06/10		<2	<0.5	<0.5	<0.5			
11/03/10		<2	<0.5	<0.5	<0.5			
05/10/11		<2	<0.5	<0.5	<0.5			
11/10/11		<2	<0.5	<0.5	<0.5			
05/11/12		<10	<3	<3	<3			
11/14/12		<2	<0.5	<0.5	<0.5			
05/08/13		<2	<0.5	<0.5	<0.5			
11/06/13		<2	<0.5	<0.5	<0.5			
05/14/14		<5	<0.5	<0.5	<0.5			<0.5
05/07/15		<2	<0.5	<0.5	<0.5			
MW-6								
08/27/08		390	<0.5	<0.5	6			
11/21/08		320	<13	<13	<13			
02/13/09		100	<1	<1	4			
05/08/09		16	<0.5	<0.5	0.9			
08/07/09		190	<3	<3	5			
11/05/09		86	<]	<]	4			
05/06/10		2	<0.5	<0.5	<0.5			
11/03/10		98	<3	<3	3			
05/10/11		<2	<0.5	<0.5	<0.5			
11/10/11		19	<1	<1	<1			
05/11/12		<2	<0.5	<0.5	<0.5			
11/14/12		16	<0.5	<0.5	0.7			
05/08/13		5	<0.5	<0.5	<0.5			
11/06/13 ²		60	<]	<]	2			
05/14/14		8	<0.5	<0.5	<0.5			<0.5
05/07/15		3	<0.5	<0.5	<0.5			

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/	ETHANOL	TBA	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-7								
08/27/08		<2	<0.5	<0.5	<0.5			
11/21/08		5	<0.5	<0.5	<0.5			
02/13/09		<2	<0.5	<0.5	<0.5			
05/08/09		<2	<0.5	<0.5	<0.5			
08/07/09		4	<0.5	<0.5	<0.5			
11/05/09		9	<]	<1	<1			
05/06/10		3	<0.5	<0.5	<0.5			
11/03/10		6	<0.5	<0.5	<0.5			
05/10/11		3	<0.5	<0.5	<0.5			
11/10/11		4	<0.5	<0.5	<0.5			
05/11/12		<20	<5	<5	<5			
11/14/12		<10	<3	<3	<3			
05/08/13		<2	<0.5	<0.5	<0.5			
11/06/13		<2	<0.5	<0.5	<0.5			
05/14/14 ²		<10	<1	<]	<1			<1
11/19/14		<2	<0.5	<0.5	<0.5			
05/07/15		2	<0.5	<0.5	<0.5			
MW-8								
08/27/08		<2	<0.5	<0.5	<0.5			
11/21/08		<2	<0.5	<0.5	<0.5			
02/13/09		<2	<0.5	<0.5	<0.5			
05/08/09		<2	<0.5	<0.5	<0.5			
08/07/09		<2	<0.5	<0.5	<0.5			
11/05/09		<2	<0.5	<0.5	<0.5			
05/06/10		<2	<0.5	<0.5	<0.5			
11/03/10		<2	<0.5	<0.5	<0.5			
05/10/11		<2	<0.5	<0.5	<0.5			
11/10/11		<2	<0.5	<0.5	<0.5			
05/11/12		<2	<0.5	<0.5	<0.5			
11/14/12		<2	<0.5	<0.5	<0.5			
05/08/13		<2	<0.5	<0.5	<0.5			
11/06/13		<2	<0.5	<0.5	<0.5			
05/14/14		<5	<0.5	<0.5	<0.5			<0.5
11/19/14		<2	<0.5	<0.5	<0.5			
05/07/15		<2	<0.5	<0.5	<0.5			

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890 West MacArthur Boulevard,

WELL ID/ DATE	ETHANOL (µg/L)	TBA (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (μg/L)	PCE (µg/L)
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1								
03/12/02		<100	<2	<2	<2	<2	<2	
06/07/02		<100	<2	<2	<2	<2	<2	
09/13/02		<100	<2	<2	<2	<2	<2	
12/13/02		<100	<2	<2	<2	<2	<2	
03/01/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/27/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/22/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/02/05	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
DESTROYED								
MW-2								
03/12/02		<100	<2	<2	<2	<2	<2	
06/07/02		<100	<2	<2	<2	<2	<2	
09/13/02		<100	<2	<2	<2	<2	<2	
12/13/02		<100	<2	<2	<2	<2	<2	
03/01/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/27/03		<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/03/03	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/10/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
06/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/30/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
12/31/04	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	<0.5	< 0.5	<0.5	
06/22/05	<50	<5	<0.5	<0.5	<0.5	< 0.5	<0.5	
09/02/05	<50	<5	<0.5	<0.5	<0.5	< 0.5	<0.5	
DESTROYED								

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890 West MacArthur Boulevard,

WELL ID/	ETHANOL	TBA	DIPE	EtBE	TAME	1,2-DCA	1,2-DBA	PCE
DATE	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-3								
03/12/02		<100	<2	<2	18	<2	<2	
06/07/02		230	<5.0	<5.0	11	<5.0	<5.0	
09/13/02		170	<2	<2	8	<2	<2	
12/13/02		240	<2	<2	29	31	<2	
03/01/03		160	<0.5	<0.5	10	<0.5	<0.5	
06/27/03		200	<0.5	<0.5	11	<0.5	<0.5	
09/30/03	<50	120	<0.5	<0.5	6	0.7	<0.5	
12/03/03	<250	200	<3	<3	14	<3	<3	
03/10/04	<50	140	<0.5	<0.5	5	<0.5	<0.5	
06/30/04	<50	100	<0.5	<0.5	5	<0.5	<0.5	
09/30/04	<50	72	<0.5	<0.5	4	0.5	<0.5	
12/31/04	<50	77	<0.5	<0.5	5	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	4	<0.5	3	
06/22/05	<250	150	<3	<3	6	<3	<3	
09/02/05	<100	99	<]	<]	<1	<]	<]	
12/02/05	<100	66	<]	<]	5	<]	<]	
03/20/06	<50	14	<0.5	<0.5	<0.5	< 0.5	<0.5	
06/01/06	<50	12	<0.5	<0.5	0.8	<0.5	<0.5	
09/11/06	<50	47	<0.5	<0.5	2	<0.5	<0.5	
DESTROYED								
MW-4								
03/12/02		<100	<2	<2	13	<2	<2	
06/07/02		<100	<2	<2	14	<2	<2	
09/13/02		<100	<2	<2	14	<2	<2	
12/13/02		<100	<2	<2	17	<2	<2	
03/01/03		19	<0.5	<0.5	8	< 0.5	<0.5	
06/27/03		22	<0.5	<0.5	11	<0.5	<0.5	
09/30/03	<100	<10	<1	<1	9	<1	<1	
12/03/03	<50	18	<0.5	<0.5	5	<0.5	<0.5	
03/10/04	<50	11	<0.5	<0.5	4	<0.5	<0.5	
06/30/04	<100	<10	<1	<1	6	<1	<1	
09/30/04	<50	17	<0.5	<0.5	7	<0.5	<0.5	
12/31/04	<50	11	<0.5	<0.5	2	<0.5	<0.5	
03/23/05	<50	<5	<0.5	<0.5	1	<0.5	0.9	
06/22/05	<50	15	<0.5	<0.5	1	<0.5	<0.5	
09/02/05	<50	6	<0.5	<0.5	<0.5	<0.5	<0.5	
12/02/05	<50	11	<0.5	<0.5	1	<0.5	<0.5	

Former Chevron-Branded Service Station 92029

890 West MacArthur Boulevard,

WELL ID/ DATE	ETHANOL (µg/L)	TBA (μg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	1,2-DBA (μg/L)	PCE (µg/L)
	(P9/5)	(P9/5)	(P9/1)	(#9/1)	(P9/1)	(P9/1)	(P9/1)	(P9/5)
MW-4 (cont)								
03/20/06	<50	<5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	
06/01/06	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5	
09/11/06	<50	<5	<0.5	<0.5	< 0.5	<0.5	<0.5	
DESTROYED								

Table 3Additional Groundwater Analytical ResultsFormer Chevron-Branded Service Station 92029890 West MacArthur Boulevard,
Oakland, California

EXPLANATIONS:

Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories

TBA = Tertiary-Butyl Alcohol DIPE = Di-Isopropyl Ether EtBE = Ethyl Tertiary-Butyl Ether TAME = Tertiary-Amyl Methyl Ether 1,2-DCA = 1,2-Dichloroethane 1,2-DBA = 1,2-Dibromoethane PCE = Tetrachloroethene (µg/L) = Micrograms per liter -- = Not Analyzed EPA = Environmental Protection Agency

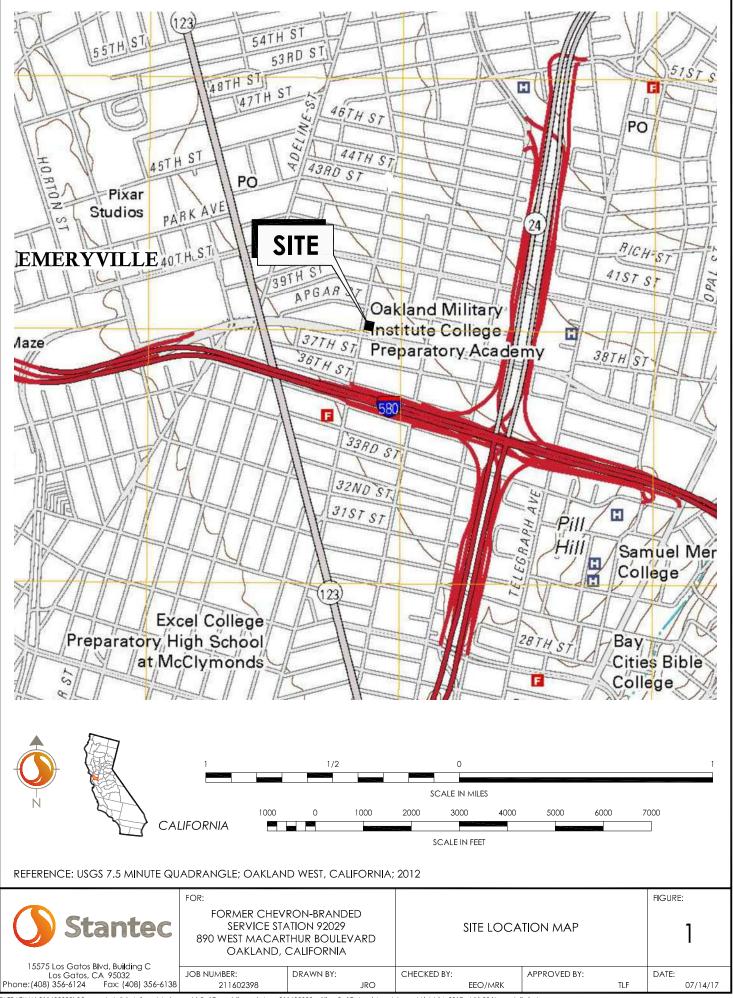
ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

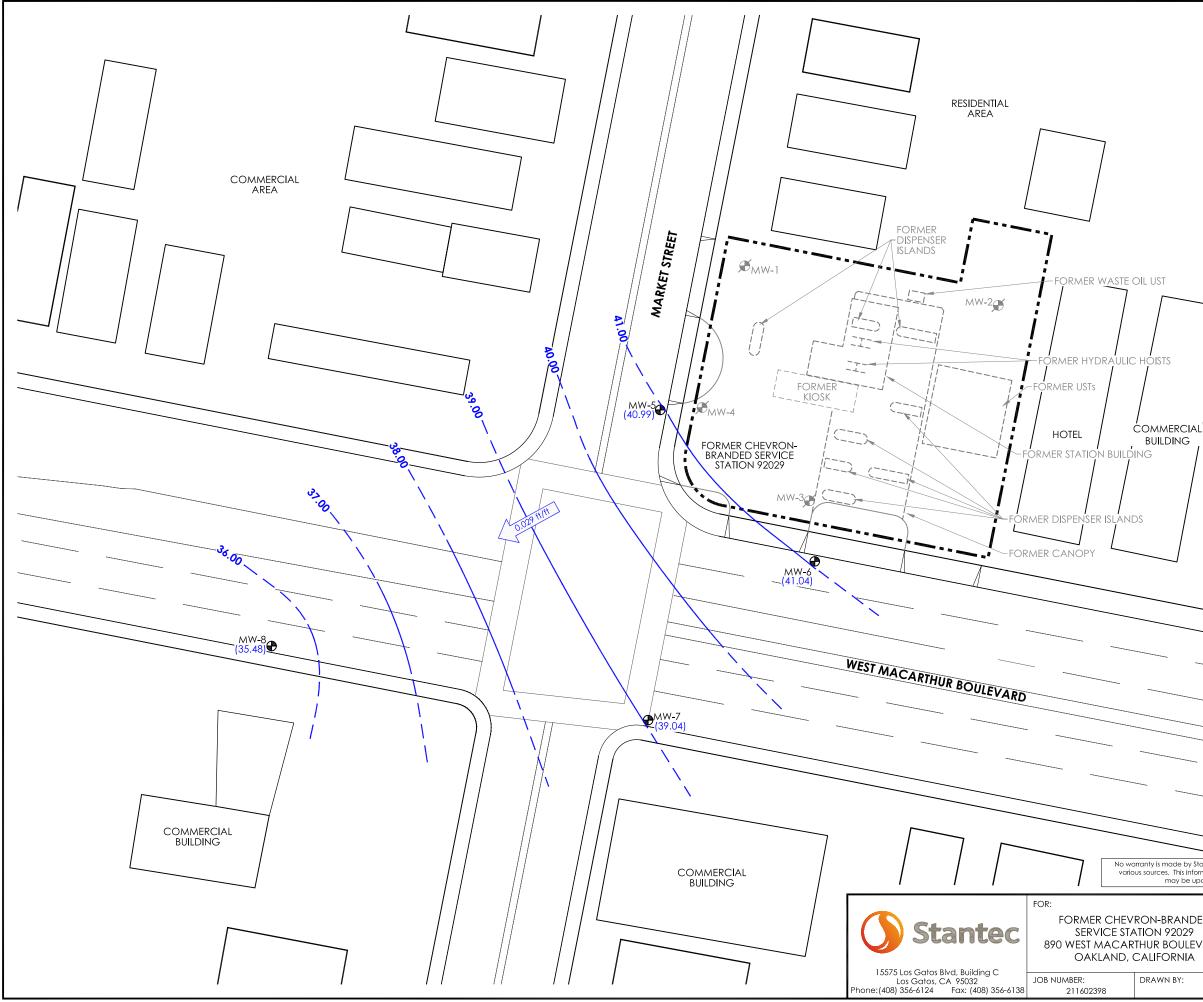
¹ Laboratory confirmed analytical result.

² Laboratory report indicates reporting limits were raised due to interference from the sample matrix.

FIGURES

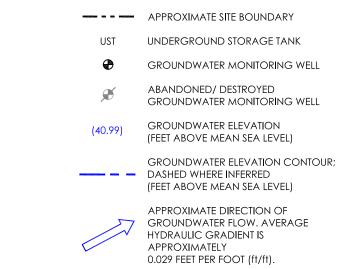


FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q17_gwr\figures\dwg_211602398_allfigs_2q17.dwg | Jopalekopsahl | Jul 14, 2017 at 11:09 | Layout: fig1_slm



FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q17_gwr\figures\dwg_211602398_allfigs_2q17.dwg|Jopalekopsahl|Jul 17, 2017 at 11:57|Layout: fig2_gwe

LEGEND



NOTES

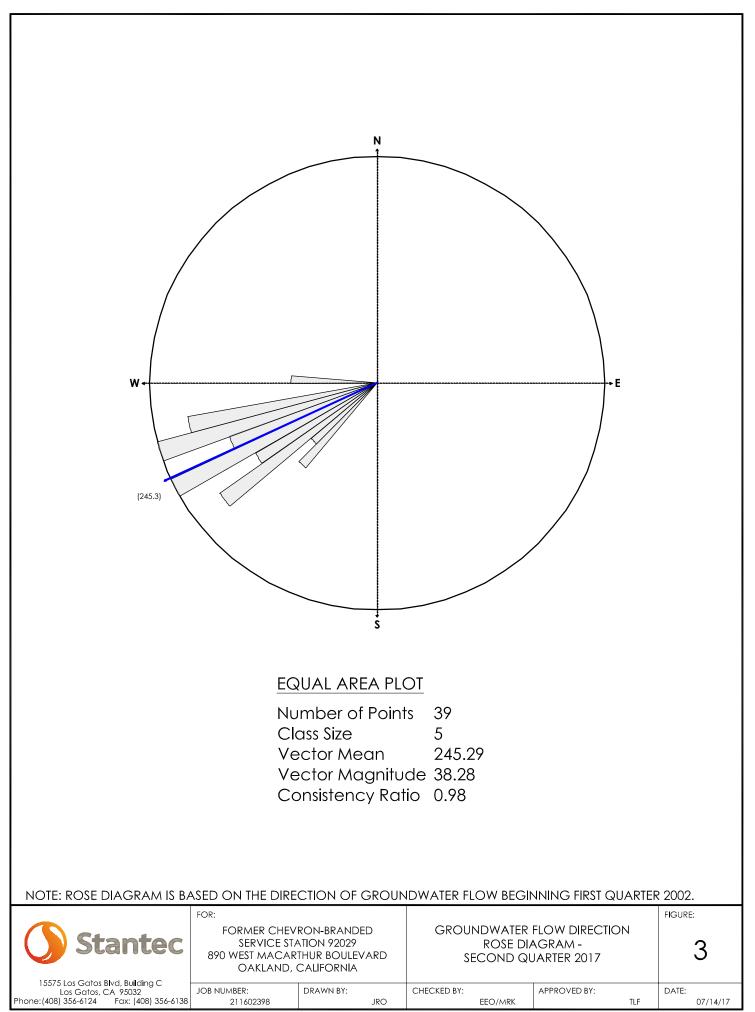
FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS GROUNDWATER ELEVATION DATA WERE COLLECTED ON JUNE 29, 2017 GROUNDWATER CONTOURS WERE CREATED USING SURFER VERSION 11.6

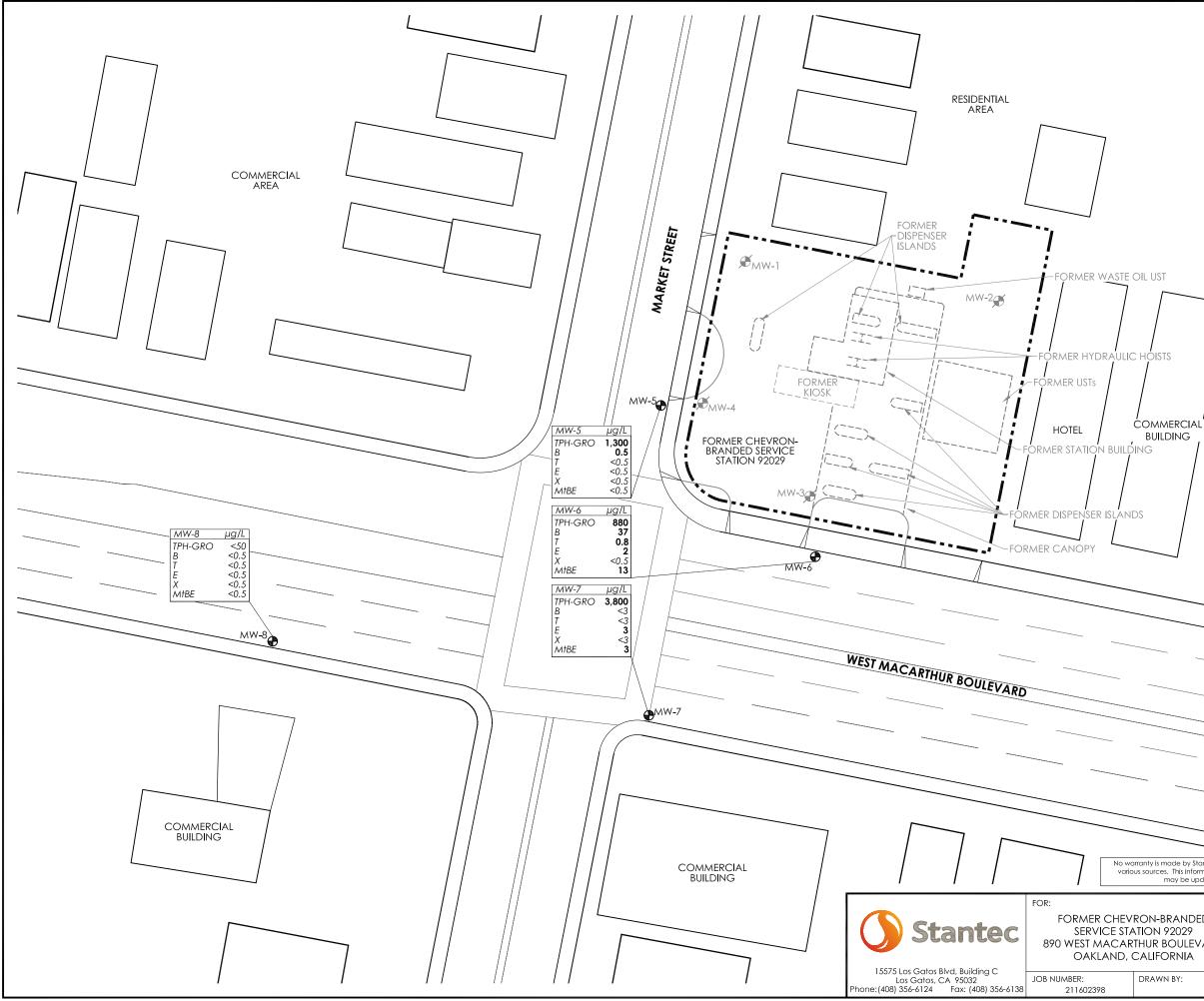
-		N	
		-=	
	0	40	80
		APPROXIMATE SCALE I	N FEET
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ANDED 029 ULEVARD	GROUNDWATE CONTOU SECOND QU/	R MAP -	FIGURE:

JRO CHECKED BY: EEO/MRK APPROVED BY:

TLF

DATE: 07/14/07



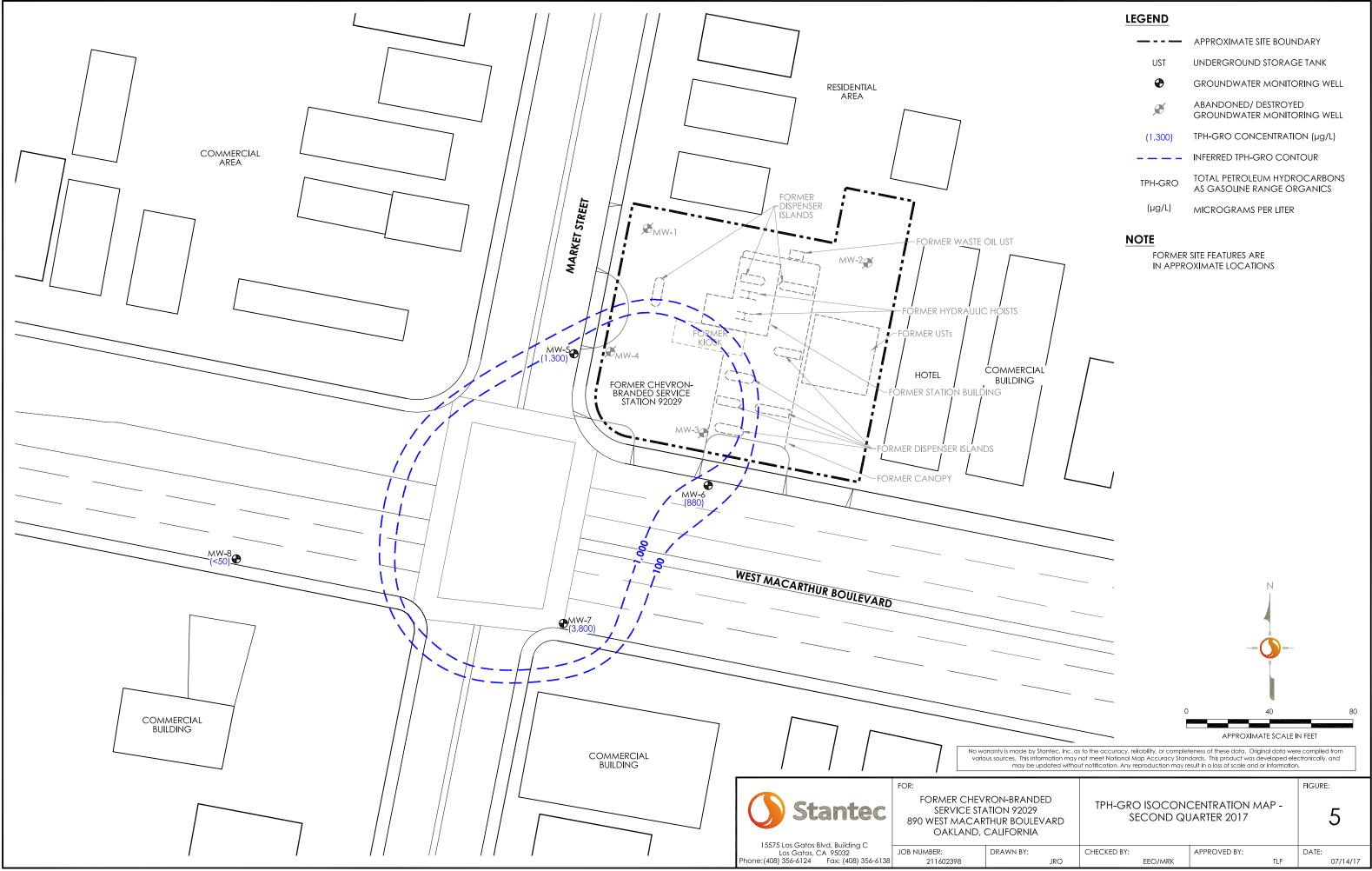


FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q17_gwr\figures\dwg_211602398_allfigs_2q17.dwg|Jopalekopsahl|Jul 14, 2017 at 11:27|Layout: fig4_gwc

LEGEND APPROXIMATE SITE BOUNDARY UST UNDERGROUND STORAGE TANK Ð GROUNDWATER MONITORING WELL ABANDONED/ DESTROYED X GROUNDWATER MONITORING WELL ANALYTES TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS TPH-GRO -B — BENZENE T — TOLUENE E — ETHYLBENZENE X — TOTAL XYLENES MTBE ------ METHYL TERTIARY-BUTYL ETHER $\mu g/L = MICROGRAMS PER LITER$ NOTE FORMER SITE FEATURES ARE IN APPROXIMATE LOCATIONS

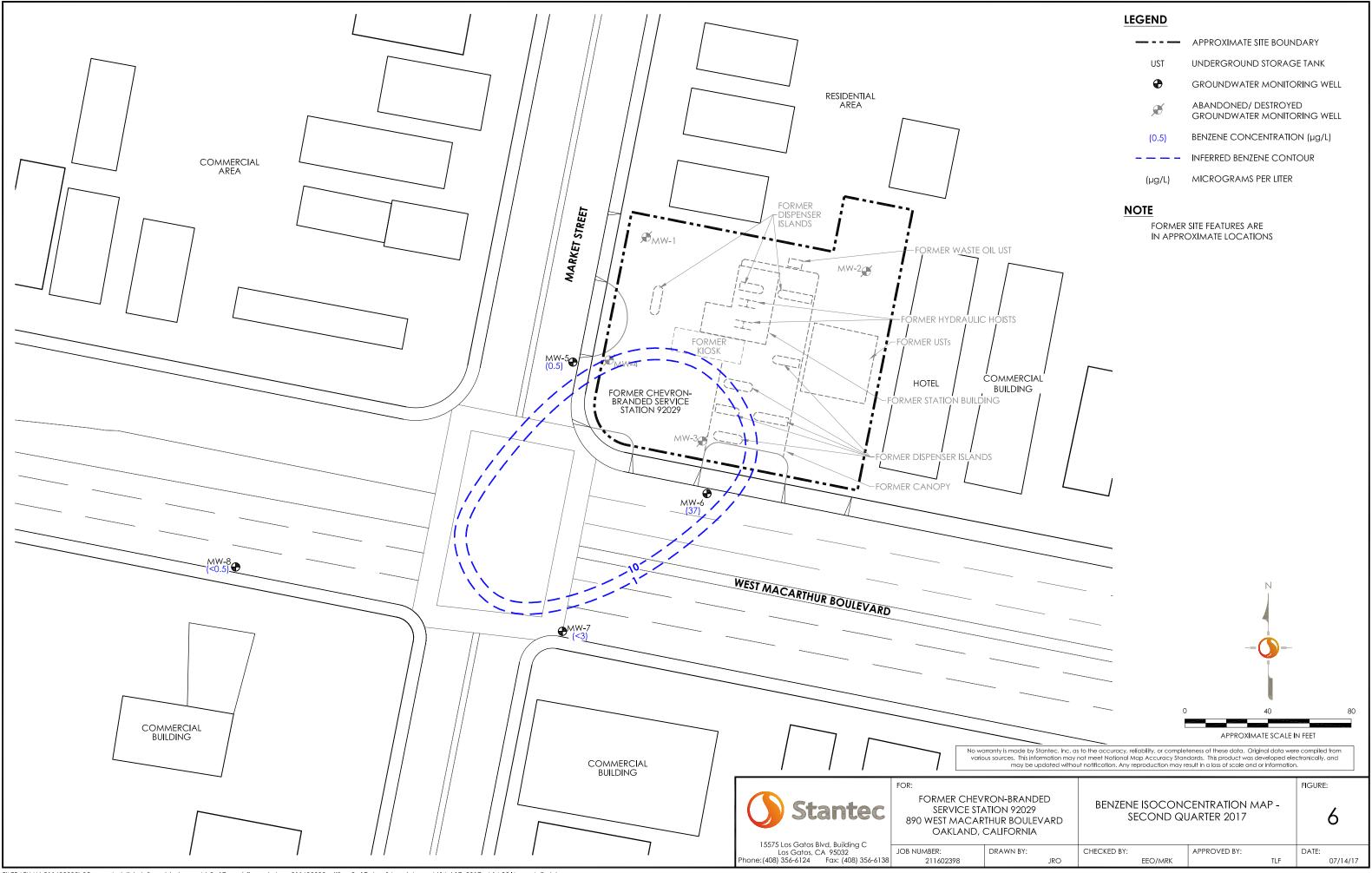
			1		
	0		40		80
		APPROX	MATE SCALE I	N FEET	
This information may i	to the accuracy, reliability, or complet not meet National Map Accuracy Stand ut notification. Any reproduction may re	dards. This product wo	as developed ele	ctronically, and	
ANDED 2029 DULEVARD RNIA	SITE PLAN GROUNDWATER C SECOND QU	ONCENTRAT	ions -	FIGURE:	
BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY:	TLF	DATE: 07,	/14/17

Ν



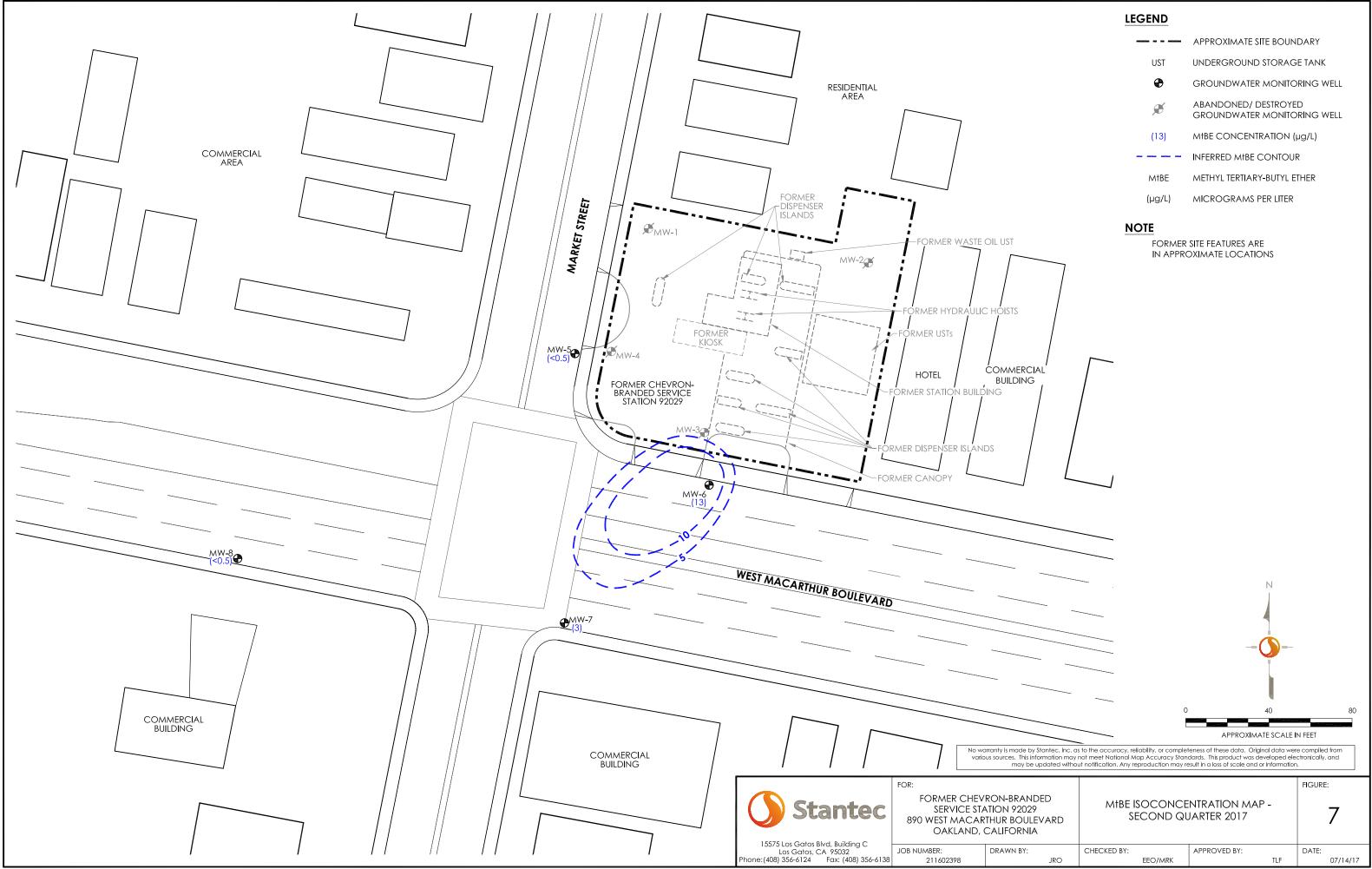
FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q17_gwr\figures\dwg_211602398_allfigs_qq17.dwg|Jopalekopsahl|Jul 14, 2017 at 11:41|Layout: fig5_tphg

	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
•	GROUNDWATER MONITORING WELL
Æ	ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
(1,300)	TPH-GRO CONCENTRATION (µg/L)
	INFERRED TPH-GRO CONTOUR
TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS
(µg/L)	MICROGRAMS PER LITER



FILEPATH:U:\211602398\05_report_deliv\deliverables\reports\2q17_gwr\figures\dwg_211602398_allfigs_2q17.dwg|Jopalekopsahl|Jul 17, 2017 at 14:35 | Layout: fig6_bnz

	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
\bullet	GROUNDWATER MONITORING WELL
ø	ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
(0.5)	BENZENE CONCENTRATION (μ g/L)
	INFERRED BENZENE CONTOUR
(µg/L)	MICROGRAMS PER LITER



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	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
\bullet	GROUNDWATER MONITORING WELL
ø	ABANDONED/ DESTROYED GROUNDWATER MONITORING WELL
(13)	MtBE CONCENTRATION (µg/L)
	INFERRED MTBE CONTOUR
MtBE	METHYL TERTIARY-BUTYL ETHER
(µg/L)	MICROGRAMS PER LITER

ATTACHMENT A Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – Second Quarter 2017



TRANSMITTAL

July 10, 2017 G-R #17156911

- TO: Mr. Travis Flora Stantec 15575 Los Gatos Blvd., Building C Los Gatos, California 95032
- FROM: Deanna L. Harding Project Manager Gettler-Ryan Inc. 6805 Sierra Court, Suite G Dublin, California 94568

RE: Former Chevron Service Station #9-2029 890 West MacArthur Blvd. Oakland, California RO 0002438

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Special Event of June 29, 2017

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/9-2029

WELL CONDITION STATUS SHEET

Client/ Facility #:	Chevror	n #9-2029					Job #:	1715691	11		
Site Address:		st Macarth	ur Blvd.			-	Event Date:		6.29		
City:	Oakland	I, CA				-	Sampler:	<u></u>	Fr	-	
WELL ID	Vault Frame Condition	Gasket/ O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retaped	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y	REPLACE CAP Y	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y
Muss	Ox							1	1	Monuson 6"h	
Mush	ac					10	\rightarrow				+
MUD-7	or						\rightarrow				-
Mur 8	ar						\rightarrow	1	\mathbf{I}		1
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395											
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DRUMS PRE	SENT ONS	ITE? Y IN	#: , / / A			IS PROPE	RLY LABELE	D? Y/N	NA		

lofi

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. Total well depths are measured annually.

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.

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.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.



WELL MONITORING/SAMPLING **FIELD DATA SHEET**

Client/Facility#:	Chevron #9-20)29	Job N	umber: 1	17156911			
Site Address:	890 West Mad	arthur Blvd.	Event	Event Date:		6.29.7 (inclu		
City:	Oakland, CA		Sampl	er:		Fr		·
Well ID	MW-5		Date Mor	nitored:	6.2	9.0		
Well Diameter	2 in.		Volume	3/4"= 0.02		2"= 0.17	3"= 0.38	7
Total Depth	24.98 ft.		Factor (VF)	4"= 0.66		6"= 1.50	12"= 5.80	
Depth to Water	8.40 ft.	Check if water				6	7 ~	
Dopth to Water		• • • •	X3 case		stimated Purge	Volume: Z	gal.	
Depth to water v	w ou% Recharge ((Height of Water Column x	0.20) + DTWJ:	<u>. (</u>	Time Sta	rted:		(2400 hrs)
Purge Equipment:	/	Sampling Equip	ment:	/		npleted:		(2400 hrs)
Disposable Bailer		Disposable Bailer				Depth to Product:ft		
Stainless Steel Baile	г	Pressure Bailer	42.5		a .	Water:		ft
Stack Pump		Metal Filters			Hydrocarbon Thickness:ft Visual Confirmation#Description:			ft
Peristaltic Pump		Peristaltic Pump			Visual Cu	mimalion	escription.	
QED Bladder Pump		QED Bladder Pur			Skimmer	/ Absorbant S	Sock (circle one	e)
Other:		Other:			Amt Rep	oved from SI	kimmer:	ltr
							ell:	
					vvater Re	moved:		itr
Stort Time /	1015							
Start Time (purge			er Conditions:	—	SLO		·	
	te: 1045 /6 ·		Color: <u>C2</u>		Ddor: 🖉 / N		stronl	
Approx. Flow Rat		•	ent Description		<u>N0</u>		11.4-	
Did well de-water	? _ <u>No</u>	f yes, Time:	Volume:		gal. DTW @	Sampling	g: <u> </u>	7
Time (2400 hr.)	Volume (gal.)	pH Conductivit pH µmhos/cm			D.O. (mg/L)	OF (m		
1020	25 7	7.47 58L						
1025	5.0 7	.50 593	(8.					
1031	8.0 7	.54 601	18.	<u> </u>	\sim			

<u></u>	LABORATORY INFORMATION										
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES						
MW- 5	💪 x voa vial	YES	HCL	EUROFINS	TPH-GRO(8015)/BTEX+MTBE(8260)						
<u>,</u>											
<u> </u>											
	L			L	L						

COMMENTS:



WELL MONITORING/SAMPLING **FIELD DATA SHEET**

Client/Facility#:	Chevron #9	-202 9		Job Nu	ımber: 1	7156911				
Site Address:	890 West N	lacarthur B	lvd.	Event	Event Date:		6.29.11		– (inclusive)	
City:	Dity: Oakland, CA				er:		FT		-	
Well ID	MW- (Date Mon	itored:	6.	29.17		_	
Well Diameter		<u>n.</u>		Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.3		
Total Depth		<u>'t.</u>	L	Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.8	30	
Depth to Water			ck if water col					2		
	16.83	_xvf17_		x3 case		timated Purg	e Volume:	1.0	gal.	
Depth to Water w	W 80% Recharg	e [(Height of Wate	er Column x 0.2	20) + DTW]: <u>1</u>	1. 37	Time St	arted:		(2400 hrs)	
Purge Equipment:		Sam	pling Equipme	ent:	/	Time Co	mpleted:		(2400 hrs)	
Disposable Bailer			osable Bailer						ft	
Stainless Steel Baile	r	Pres	sure Bailer				Water:		ft	
Stack Pump		Meta	l Filters				rbon Thickne		ft	
Peristaltic Pump	<u></u>		taltic Pump			Visual C		enptio		
QED Bladder Pump			Bladder Pump				r / Absorbant			
Other:		Othe	r:				noved from S			
							noved from V			
						vvaler R	emoved:		nr	
Start Time (purge): 1100		Weather (Conditions:		Sy	272			
Sample Time/Da		6.29.17	Water Co	lor: CLE	ian 0	dor: 0/ I		STIC		
Approx. Flow Rat		gpm.		Description			ONE	<u></u>		
Did well de-water	? ND	_ If yes, Time:		Volume:		gal. DTW		ng: 1	1.08	
Time (2400 hr.)	Volume (gal.)	рН	Conductivity	Temper (🙆 /		D.O. (mg/L)	-)RP mV)		
1106	3.0	7.51	644	19.6						
1112	6.0	7.54	652	19.9			\sim			
1115	9.0	757	661	20,7	<u> </u>				•	
		<u> </u>				<u> </u>			,	

	LABORATORY INFORMATION								
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES				
MW- 🖌	🖌 x voa vial	YES	HCL	EUROFINS	TPH-GRO(8015)/BTEX+MTBE(8260)				
				······					

COMMENTS:



WELL MONITORING/SAMPLING **FIELD DATA SHEET**

Client/Facility#:	Chevron #9-	2029	Job N	lumber: 1	7156911			
Site Address:	890 West M	acarthur Blvd.	Even	t Date:	6.20	້ຳ.		(inclusive)
City:	Oakland, CA	· · · · · · · · · · · · · · · · · · ·	Samp	oler:	Fτ			. ,
Well ID	MW- 7		Date Mo	nitored:	6.2	9.17		
Well Diameter	2 in		Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38	
Total Depth	24.96 ft		Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80	
Depth to Water	<u>9.70 ft</u>		r column is less				a .	
	15.26		. <u>.5</u> ¶ x3 cas		timated Purge	Volume:	0.0	gal.
Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Peristaltic Pump QED Bladder Pump Other:		e [(Height of Water Column : Sampling Equi Disposable Bail Pressure Bailer Metal Filters Peristaltic Pum QED Bladder P Other:	lpment: ler		Time Con Depth to Depth to Hydrocar Visual Co Skimmer Amt Rem Amt Rem	Inted: Product: Water: bon Thickne onfirmation/ Absorbant loved from S hoved from V emoved:	ess: escription: Sock (circle Skimmer: Vell:	(2400 hrs) ft ft ft ft tt itr ltr
Start Time (purge			ner Conditions		Sim	2. Ly		
Sample Time/Da	te: 1210 /6	.29.n Water	Color:	EAN O	dor: 🖉 / N	<u>ن</u> ا	stroy	v
Approx. Flow Rat			ent Descriptio			OVE		
Did well de-water	? <u>ND</u>	_ If yes, Time:	Volume: _	9	gal. DTW @	② Samplin	ng: <u>l'</u>	2.73
Time (2400 hr.)	Volume (gal.)	pH Conductiv μmhos/ci	S lempe	erature / F)	D.O. (mg/L)	-)RP mV)	
1150	2.5	7.70 840	20.			/		
1155	<u></u>	7.73 851	<u> </u>				\checkmark	
THOI	8.0	7.76 862	<u></u>		/			

		L	ABORATORY IN	FORMATION							
SAMPLE ID	SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES										
MW- 7	💪 x voa vial	YES	HCL	EUROFINS	TPH-GRO(8015)/BTEX+MTBE(8260)						
ļ											

COMMENTS:



WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #9	-2029		Job Numb	ber: 1	7156911			
Site Address:	890 West M	lacarthur Bl	vd.	Event Dat	te:	6.29			(inclusive)
City:	Oakland, C	4		Sampler:		FT			
Well ID	MW- 8			Date Monitor	red:	6.2	۹.၇		
Well Diameter Total Depth		<u>n.</u> t.			4"= 0.02 4"= 0.66	1"= 0.04 5"= 1.02	2"= 0.17 6"= 1.50	3"= 0.38 12"= 5.80	
Depth to Water			ck if water colur	nn is less then	0.50 ft.				
Depth to Water v	/ 80% Recharg	xVF		_ x3 case volu + DTWI: \4 .		imated Purge	e Volume:	(,0	_ gal.
Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Peristattic Pump QED Bladder Pump Other:		Sam Dispo Press Metal Peris QED	oling Equipment osable Bailer sure Bailer Filters taltic Pump Bladder Pump			Time Co Depth to Depth to Hydroca Visual C Skimme Amt Ren Amt Ren	arted: product: Water: rbon Thickne onfirmation/I r / Mosorband hoved from S noved from S noved from S	ess: Description t Sock (circ Skimmer: Vell:	(2400 hrs) ft
Start Time (purge		<u></u>	Weather Co	-		Shr			
Sample Time/Da				r: Bar.	0	dor: Y			
Approx. Flow Rat Did well de-water		_gpm.	Sediment D	-		511			2
Did well de-water	r? <u>No</u>	_ ir yes, rime:	V		Ç	al. DTW	@ Sampiii	ng:	3.21
Time (2400 hr.)	Volume (gal.)	рН	Conductivity	Temperatur (🕜 / F		D.O. (mg/L)	-	DRP mV)	
1230	2.5	<u>7.81</u> 7.84	<u>587</u> 594	20.5					
12-39	7.0	7-86	601	21.0		\neq		\geq	
and the second s				-		-	· ·		

		L	ABORATORY IN	FORMATION	
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW- S	🕼 x voa vial	YES	HCL	EUROFINS	TPH-GRO(8015)/BTEX+MTBE(8260)
				· · · · · · · · · · · · · · · · · · ·	
		<u> </u>	· · · · · · · · · · · · · · · · · · ·		

COMMENTS:

Add/Replaced Gasket: _____ Add/Replaced Bolt: _____ Add/Replaced Lock: _____ Add/Replaced Plug: _____

Chevron California Region Analysis Request/Chain of Custody

🔅 eurofins								I				incast	ter La	borat		Envir		ental u	use oi	niy					یں اور اور میں
	Lancaster Labor Environmental	atories		ACCL	#				_Gr	tnst		s on rev	verse si	de corr		mple # d with ci		umbers	i.					م با بالاستان الي	20 S
•	Client Inf	ormatio	n			T		Mat	rix						An	alys	es F	Sequ	ieste	ed				10-	C far i s
Facility # SS#9-2029-OML	G-R#171569*	11 Glob		600173	887	Ť																		SCR #:	
Site Address 890 WEST MAC	ARTHUR BLVC	., OAKI	AND, C	A				X																Results in Dry W	0
Chevron PM	ANTECTF		Lead Consu FIORA				Sediment	Ground	Surface			8260大		Gel Cleanup	Cleanup									J value reporting Must meet lowes limits possible fo	t detection
Consultant/Office Getter-Ryan Inc.				ublin, C	A 945	68	Sec	ບັ	Su		Containers	826	8260		Gel Cle									compounds	firmation
Consultant Project Mgr. Deanna L. Hardi	ng, deanna@g	rinc.cor	n								Conta	1	8015 🗶	out Sili	Silica (-	s	Method	Method					Confirm highest	hit by 8260
Consultant Phone # (925) 551-7444 x	:180				Г			Potable	NPDES	Air	er of	8021	801	5 with	5 with		Oxygenates							Run oxy	's on highest hit
Sampler FUA	NT.				<u> </u>	OSITE					Total Number	- MTBE	ő	TPH-DRO 8015 without Silica	TPH-DRO 8015 with Silica	8260 Full Scan	ixo O	ead	ed Lead						
Sample Iden		Soil Depth	Colle Date	ected Time	Grab	Composite	Soil	Water		Oil	rotal I	BTEX +	TPH-GRO	PH-DF	PH-DF	1260 Fi		Total Lead	Dissolved					Rema	rks
	QA		78.20			Ť	<u> </u>	10)			5	$\overline{\mathbf{V}}$	\overline{X}		-		-1								
	MW-5		,	1045	X			1			6	$\mathbf{\hat{X}}$	X												
	MW-6			1130	ΙX						6	\mathbf{X}	X												
	MW.7			1210			\square				6	X	X												
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	me Requested (TAT) (plea	ase circle)		Relinqui	shed	by)				Date	6. 6	20	Time			Receiv	ved by				1	Date	Time
Standard	> 5 day	*	4 day	1	Relinqui	1/	by	P	9	7	÷	Date			Time			Receiv	/ed by	\sim	\geq		5_	6/30/17 Date	1/3D
72 hour	48 hour	الي يا ٢٠٠ الي	24 hour																-C-						
Data Package	(circle if required)		EDI	F/EDD	Relinqui	shed	by					Date			Time			Receiv	ved by					Date	Time
Type I - Full	Type VI (F	Raw Data)			Relinq	uishe	ed by	Com	merc	cial C	arrier							Receiv	/ed by					Date	Time
EDD (circle if req	uired)				1			_					Oth	ner_											
EDFFLAT (defaul	t) Other:											eipt						Cu	stod	ly Se	als	Intac	ct?	Yes	No

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white early should accompany complex to Eurofine Langester Laboratorias Environmental. The yellow conversally be retained by the client

ATTACHMENT B Certified Laboratory Analysis Report and Chain-of-Custody Documents



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 Rd L4310 San Ramon CA 94583

Report Date: July 12, 2017

Project: 92029

Submittal Date: 07/01/2017 Group Number: 1820659 PO Number: 0015235605 Release Number: CMACLEOD State of Sample Origin: CA

	Lancaster Labs
Client Sample Description	<u>(LL) #</u>
QA-T-170629 NA Water	9083334
MW-5-W-170629 Grab Groundwater	9083335
MW-6-W-170629 Grab Groundwater	9083336
MW-7-W-170629 Grab Groundwater	9083337
MW-8-W-170629 Grab Groundwater	9083338

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <u>http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</u>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy ToStantecElectronic Copy ToStantecElectronic Copy ToStantecElectronic Copy ToStantecElectronic Copy ToGettler-Ryan Inc.

Attn: Erin O'Malley Attn: Marisa Kaffenberger Attn: Travis Flora Attn: Laura Viesselman Attn: Gettler Ryan





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Respectfully Submitted,

amek Carts

Amek Carter Specialist

(717) 556-7252



Analysis Report

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

Sample Description: QA-T-170629 NA Water Facility# 92029 Job# 17156911 GRD 890 W Macarthur-Oakland T0600173887 LL Sample # WW 9083334 LL Group # 1820659 Account # 10906

Project Name: 92029

Collected: 06/29/2017

Submitted: 07/01/2017 09:50 Reported: 07/12/2017 11:23

MBOQA

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	Latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D171911AA	07/10/2017 12:35	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171911AA	07/10/2017 12:35	Anthony H Downey	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17186A20A	07/06/2017 12:04	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17186A20A	07/06/2017 12:04	Brett W Kenyon	1



Analysis Report

Account

LL Sample # WW 9083335 LL Group # 1820659

10906

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

Sample Description: MW-5-W-170629 Grab Groundwater Facility# 92029 Job# 17156911 GRD 890 W Macarthur-Oakland T0600173887

Project Name: 92029

Collected: 06/29/2017 10:45 by FT

Submitted: 07/01/2017 09:50 Reported: 07/12/2017 11:23

MBOM5

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	0.5	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	Latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	1,300	250	5

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D171911AA	07/10/2017 11:24	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171911AA	07/10/2017 11:24	Anthony H Downey	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17186A20A	07/06/2017 20:48	Brett W Kenyon	5
01146	GC VOA Water Prep	SW-846 5030B	1	17186A20A	07/06/2017 20:48	Brett W Kenyon	5

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6001 Bollinger Canyon Rd L4310 San Ramon CA 94583



Analysis Report

Account

LL Sample # WW 9083336

10906

LL Group # 1820659

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

Sample Description: MW-6-W-170629 Grab Groundwater Facility# 92029 Job# 17156911 GRD 890 W Macarthur-Oakland T0600173887

Project Name: 92029

Collected:	06/29	/2017	11:30	by FT
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Submitted: 07/01/2017 09:50 Reported: 07/12/2017 11:23

MBOM6

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	37	0.5	1
10945	Ethylbenzene	100-41-4	2	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	13	0.5	1
10945	Toluene	108-88-3	0.8	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Vol	latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	880	50	1

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San Ramon CA 94583

CA ELAP Lab Certification No. 2792

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

Sample Comments

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D171911AA	07/10/2017 13:23	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171911AA	07/10/2017 13:23	Anthony H Downey	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17187A20A	07/06/2017 13:41	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17187A20A	07/06/2017 13:41	Brett W Kenyon	1



Analysis Report

Account

LL Sample # WW 9083337

10906

LL Group # 1820659

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

Sample Description: MW-7-W-170629 Grab Groundwater Facility# 92029 Job# 17156911 GRD 890 W Macarthur-Oakland T0600173887

Project Name: 92029

Collected:	06/29	/2017	12:10	by FT
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Submitted: 07/01/2017 09:50 Reported: 07/12/2017 11:23

MBOM7

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	3	5
10945	Ethylbenzene	100-41-4	3	3	5
10945	Methyl Tertiary Butyl Ether	1634-04-4	3	3	5
10945	Toluene	108-88-3	N.D.	3	5
10945	Xylene (Total)	1330-20-7	N.D.	3	5
C Vol	latiles SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	3,800	500	10

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D171911AA	07/10/2017 13:47	Anthony H Downey	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171911AA	07/10/2017 13:47	Anthony H Downey	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17187A20A	07/06/2017 20:07	Brett W Kenyon	10
01146	GC VOA Water Prep	SW-846 5030B	1	17187A20A	07/06/2017 20:07	Brett W Kenyon	10



Analysis Report

Account

LL Sample # WW 9083338

10906

LL Group # 1820659

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

Sample Description: MW-8-W-170629 Grab Groundwater Facility# 92029 Job# 17156911 GRD 890 W Macarthur-Oakland T0600173887

Project Name: 92029

COTTECCEU: OO/29/201/ 12:50 Dy F.	Collected:	06/29/	2017 12:50	by Fl
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Submitted: 07/01/2017 09:50 Reported: 07/12/2017 11:23

MBOM8						
CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1
10945	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.5	1
10945	Toluene		108-88-3	N.D.	0.5	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vo	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1

Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Sample Comments

CA ELAP Lab Certification No. 2792

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D171911AA	07/10/2017 14:11	Anthony H Downey	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D171911AA	07/10/2017 14:11	Anthony H Downey	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17187A20A	07/06/2017 14:08	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	17187A20A	07/06/2017 14:08	Brett W Kenyon	1



Analysis Report

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Quality Control Summary

Client Name: Chevron Reported: 07/12/2017 11:23 Group Number: 1820659

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.

Method Blank

Analysis Name	Result	MDL
	ug/l	ug/l
Batch number: D171911AA Benzene Ethylbenzene Methyl Tertiary Butyl Ether Toluene Xylene (Total)	Sample number N.D. N.D. N.D. N.D. N.D. N.D.	(s): 9083334-9083338 0.5 0.5 0.5 0.5 0.5 0.5
Batch number: 17186A20A TPH-GRO N. CA water C6-C12	Sample number N.D.	(s): 9083334-9083335 50
Batch number: 17187A20A TPH-GRO N. CA water C6-C12	Sample number N.D.	(s): 9083336-9083338 50

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D171911AA	Sample numbe	r(s): 90833	34-9083338						
Benzene	20	17.4			87		78-120		
Ethylbenzene	20	17.47			87		78-120		
Methyl Tertiary Butyl Ether	20	19.35			97		75-120		
Toluene	20	17.94			90		80-120		
Xylene (Total)	60	55.12			92		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 17186A20A	Sample numbe	r(s): 90833	34-9083335						
TPH-GRO N. CA water C6-C12	1100	1014.12	1100	1002.09	92	91	80-120	1	30
Batch number: 17187A20A	Sample numbe	r(s): 90833	36-9083338						
TPH-GRO N. CA water C6-C12	1100	991.96	1100	989.13	90	90	80-120	0	30

MS/MSD

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

*- 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.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.



Analysis Report

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Quality Control Summary

Client Name: Chevron Reported: 07/12/2017 11:23 Group Number: 1820659

MS/MSD

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

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: D171911AA	Sample numb	er(s): 9083	334-9083	338 UNSPK:	9083335					
Benzene	0.524	20	21.3	20	20.93	104	102	78-120	2	30
Ethylbenzene	N.D.	20	21.92	20	21.49	110	107	78-120	2	30
Methyl Tertiary Butyl Ether	N.D.	20	21.7	20	21.61	109	108	75-120	0	30
Toluene	N.D.	20	20.66	20	20.89	103	104	80-120	1	30
Xylene (Total)	N.D.	60	64.52	60	64.27	108	107	80-120	0	30

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: BTEX/MTBE Batch number: D171911AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9083334	103	98	98	97
9083335	100	99	99	104
9083336	101	94	98	100
9083337	101	95	99	101
9083338	103	97	97	96
Blank	105	102	97	96
LCS	102	97	98	100
MS	102	99	98	107
MSD	101	98	100	110
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12 Batch number: 17186A20A

Trifluorotoluene-F

	I rifluorotoluene-F
9083334	88
9083335	91
Blank	87
LCS	96
LCSD	96
Limits:	63-135

Analysis Name: TPH-GRO N. CA water C6-C12 Batch number: 17187A20A Trifluorotoluene-F

9083336	102
9083337	93

*- 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.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.





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Quality Control Summary

Client Name: Chevron Reported: 07/12/2017 11:23 Group Number: 1820659

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 17187A20A

	I rifluorotoluene-F	
9083338	88	-
Blank	86	
LCS	97	
LCSD	97	_
Limits:	63-135	

*- 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.

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Chevron California Region Analysis Request/Chain of Custody

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Facility # SS#9-2029-OML	G-R#171569	11 Glob	wвs a l ID#T0	600173	887						2 -														
Site Address 890 WEST MACA	RTHUR BLVD	., OAKL	AND, C	A				X						□ ⊈				5					:	☐ Results in Dry W ☐ J value reporting	-
	Chevron PM Lead Consultant CM STANTECTF Flora				Sediment	Ground	Surface		6	8260 🛃	8260 🔲	Gel Cleanup	sanup							Must meet lowest detection limits possible for 8260					
Consultant/Office Getter-Ryan Inc.,	6805 Sierra C	Court, Su	ite G, D	ublin, C	A 94	568	Sec	ษั			Containers	82(82		Gel Cl			J	Method					compounds	irmation
Consultant Project Mgr. Deanna L. Hardii	ng, deanna@g	rinc.con	n										15 X	out Sili	Silica		s	Method							Confirm highest hit by 8260
Consultant Phone # (925) 551-7444 X	nsultant Phone # 925) 551-7444 x180					Potable	NPDES	Air	ę	8021	801	5 withc	5 with :		Oxygenates							Run oxy's Run oxy's	s on highest hit		
Sampler FUA	N.T.					osite					Total Number	+ MTBE	ß	TPH-DRO 8015 without Silica	TPH-DRO 8015 with Silica Gel Cleanup	8260 Full Scan	0XV	ead	ed Lead						
Sample Iden	tification	Soil Depth	Colle Date	ected Time	Grab	Composite	Soil	Water		Oil	Total	BTEX 4	TPH-GRO	IPH-DI	ID-H-DI	3260 F		Total Lead	Dissolved			-	æ	Rema	·ks
	QA		17.8.29			Ī		N			2	$\bar{\mathcal{X}}$	X				1	<u> </u>				\neg			
	MW-5			1045	X						6	X	X												
	MW-6			1130	X						4	\mathbf{X}	X												
	MW-7			1210	K						6	X	X												
	MW-8		¥	1250	X			4			6	\times	X										_		
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Turnaround Tir	ne Requested (TAT) (plea	ise circle)		Relinq	elinquished by Date Time Received by							Date	Time											
Standard	> 5 day		4 day	(L	./	P	2	57		17 -	6.3		Time			Paceiv		<u> </u>	\ge		<	6/30/17	113D
72 hour	48 hour		24 hour		Reinquished				l							W		Received by						Date Tin	Time
Data Package (circle if required)		EDF	F/EDD	Relinq	iished	by			and the street light		Date			Time			Receiv	ed by					Date	Time
Type I - Full Type VI (Raw Data)			elinquished by Commercial Carrier:)	Date	Time ,													
EDD (circle if requ					1	PS_		_		dEx		\leq	Oth	ner _					Ť	λ	<u>/x</u>	Ĺ		7/1/17	9:50
EDFFLAT (default) Other:					Te	mpe	ratu	re U	pon	Rec	eipt(3.8	5	<u>.4</u>	°C		Cu	stody	/ Sea	ils In	ntact	?	Yes	No

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The vellow copy should be retained by the client.

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Sample Administration Receipt Documentation Log

Doc Log ID: 187906

Group Number(s): 1820659

Client: CALIFORNIA OFFICE

	Delive	ery and F	Receipt Information		
Delivery Method:	BASC		Arrival Timestamp:	07/01/2017	9:50
Number of Packages:	<u>4</u>		Number of Projects:	<u>5</u>	
State/Province of Origin:	<u>CA</u>				
	Arr	ival Con	dition Summary		
Shipping Container Sealed:		Yes	Sample IDs on COC m	atch Containers:	Yes
Custody Seal Present:		Yes	Sample Date/Times ma	atch COC:	Yes
Custody Seal Intact:		Yes	VOA Vial Headspace ≥	6mm:	No
Samples Chilled:		Yes	Total Trip Blank Qty:		2
Paperwork Enclosed:		Yes	Trip Blank Type:		HCL
Samples Intact:		Yes	Air Quality Samples Pro	esent:	No
Missing Samples:		No			
Extra Samples:		No			
Discrepancy in Container Q	ty on COC:	No			

The	ermometer Type	s: DT = Digi	tal (Temp. Botti	le) IR =	Infrared (Sur	face Temp)	All Temperatures in °C.
Cooler #	Thermometer ID	Corrected Temp	Therm. Type	<u>lce Type</u>	Ice Present?	Ice Container	Elevated Temp?
1	DT146	5.4	DT	Wet	Y	Bagged	N
2	DT146	2.4	DT	Wet	Y	Bagged	Ν
3	DT146	4.3	DT	Wet	Y	Bagged	N
4	DT146	0.8	DT	Wet	Y	Bagged	Ν

Samples Chilled Details

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Explanation of Symbols and Abbreviations

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

BMQL C Cfu CP Units F g	Below Minimum Quantitation Level degrees Celsius colony forming units cobalt-chloroplatinate units degrees Fahrenheit gram(s)	mg mL MPN N.D. ng NTU	milligram(s) milliliter(s) Most Probable Number none detected nanogram(s) nephelometric turbidity units						
IU	International Units	pg/L	picogram/liter						
kg	kilogram(s)	RL	Reporting Limit						
L	liter(s)	TNTC	Too Numerous To Count						
lb. m3	pound(s) cubic meter(s)	μg	microgram(s)						
	milliequivalents	μL umhos/cm	microliter(s) micromhos/cm						
meq	minequivalents	unnos/cm	Thicroninos/cm						
<	less than								
>	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								
Drv weight	Results printed under this heading have be	een adiusted for mo	pisture content. This increases the analyte weight						

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.

Laboratory Data Qualifiers:

- C Result confirmed by reanalysis
- E Concentration exceeds the calibration range
- J (or G, I, X) estimated value \geq the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
- P Concentration difference between the primary and confirmation column >40%. The lower result is reported.
- U Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) 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.

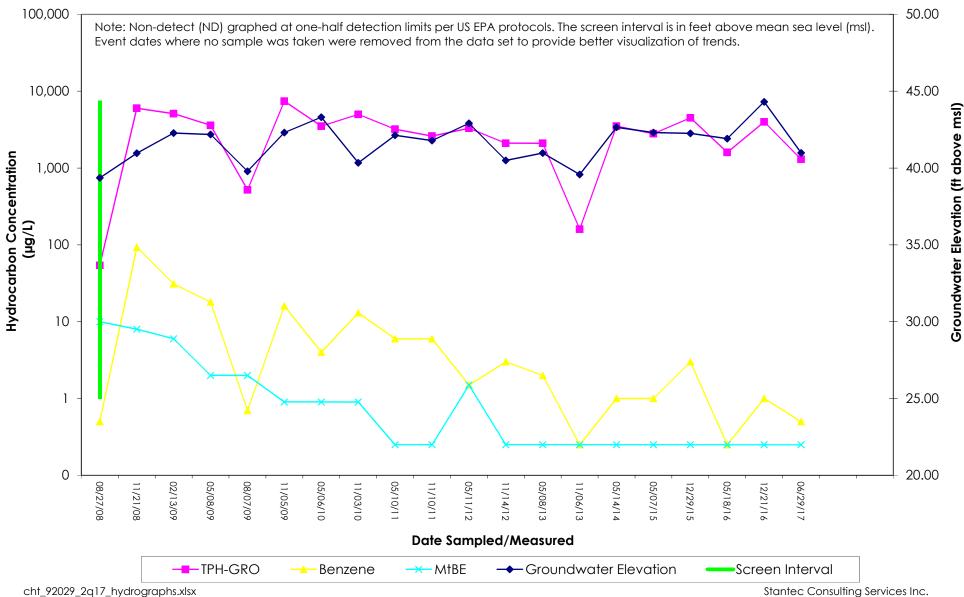
This report shall not be reproduced except in full, without the written approval of the laboratory.

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 EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC 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 EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL 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 Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client. ATTACHMENT C Hydrographs

MW-5 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

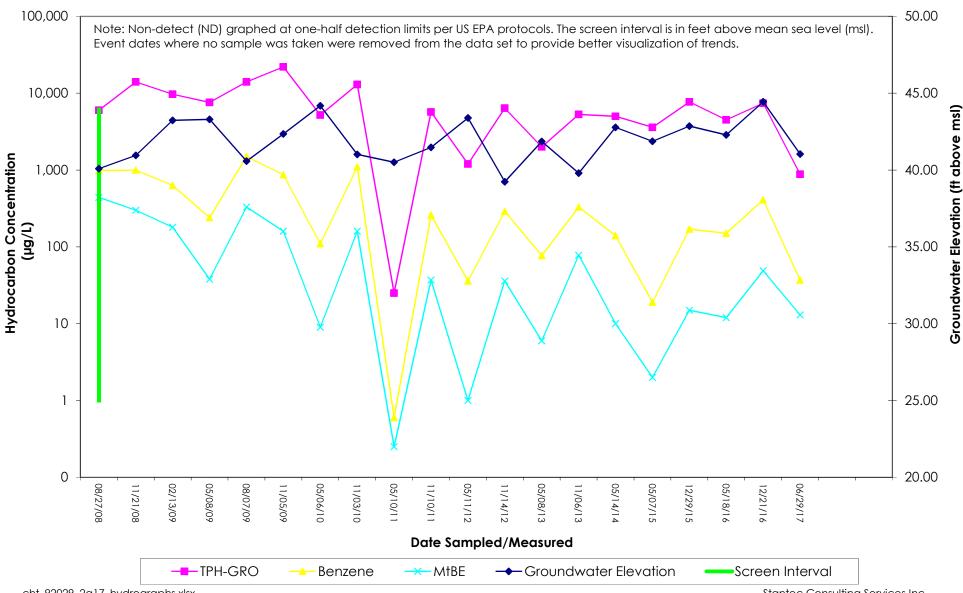
Former Chevron-branded Service Station 92029 890 West MacArthur Boulevard Oakland, California



cht_92029_2q17_hydrographs.xlsx

MW-6 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

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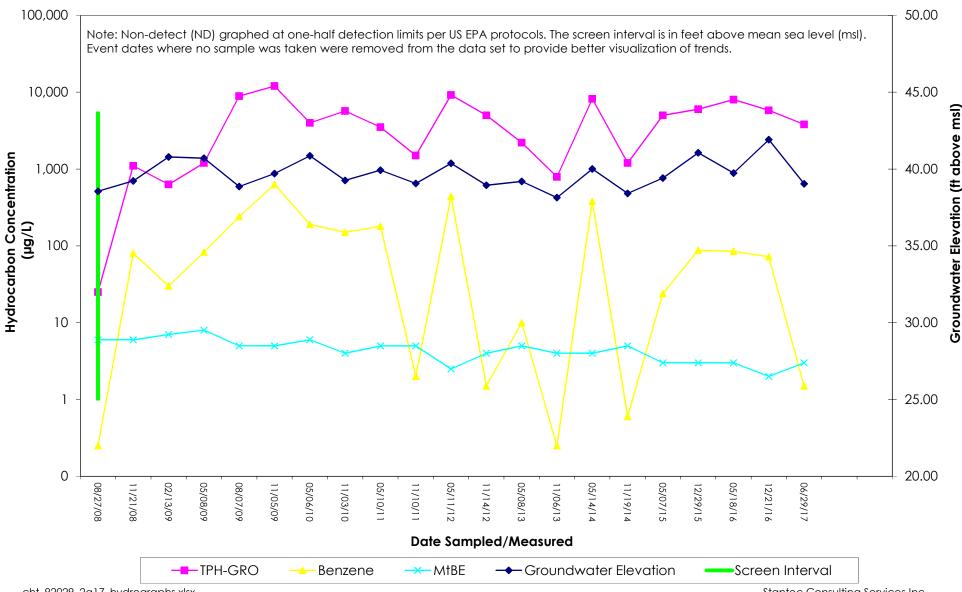


cht_92029_2q17_hydrographs.xlsx

Stantec Consulting Services Inc.

MW-7 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

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cht_92029_2q17_hydrographs.xlsx

Stantec Consulting Services Inc.

MW-8 TPH-GRO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

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